

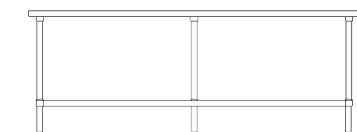
# DIMENSIONS and SPECIFICATIONS

ALL DIMENSIONS ARE TYPICAL TOL  $\pm .500"$ 

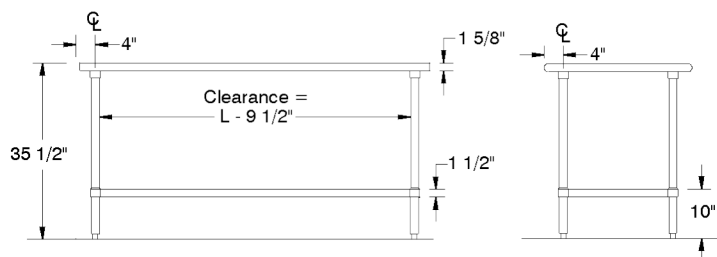
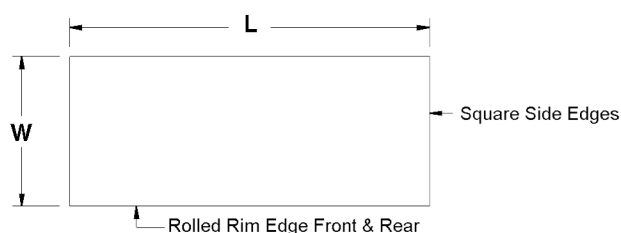
All Units Shipped Unassembled (KD) for Reduced Shipping Costs.

## SS & GLG Series Undershelf Style FLAT TOP

Finished size of undershelf = Length minus 5 3/4"  
Width minus 5 3/4"



Units 8 ft. and larger are furnished with six (6) legs



### SS-Series: Stainless Steel Legs & Undershelf

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	SS-240	49 lbs.	SS-300	65 lbs.		
24"	SS-242	31 lbs.	SS-302	55 lbs.		
36"	SS-243	64 lbs.	SS-303	72 lbs.	SS-363	88 lbs.
48"	SS-244	79 lbs.	SS-304	89 lbs.	SS-364	98 lbs.
60"	SS-245	92 lbs.	SS-305	107 lbs.	SS-365	118 lbs.
72"	SS-246	109 lbs.	SS-306	125 lbs.	SS-366	138 lbs.
84"	SS-247	130 lbs.	SS-307	148 lbs.	SS-367	164 lbs.
96"	SS-248	145 lbs.	SS-308	166 lbs.	SS-368	184 lbs.
108"	SS-249	161 lbs.	SS-309	176 lbs.	SS-369	190 lbs.
120"	SS-2410	261 lbs.	SS-3010	287 lbs.	SS-3610	308 lbs.
132"	SS-2411	293 lbs.	SS-3011	324 lbs.	SS-3611	358 lbs.
144"	SS-2412	308 lbs.	SS-3012	339 lbs.	SS-3612	373 lbs.

### GLG-Series: Galvanized Steel Legs & Undershelf

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	GLG-240	49 lbs.	GLG-300	65 lbs.		
24"	GLG-242	31 lbs.	GLG-302	55 lbs.		
36"	GLG-243	64 lbs.	GLG-303	72 lbs.	GLG-363	88 lbs.
48"	GLG-244	79 lbs.	GLG-304	89 lbs.	GLG-364	98 lbs.
60"	GLG-245	92 lbs.	GLG-305	107 lbs.	GLG-365	118 lbs.
72"	GLG-246	109 lbs.	GLG-306	125 lbs.	GLG-366	138 lbs.
84"	GLG-247	130 lbs.	GLG-307	148 lbs.	GLG-367	164 lbs.
96"	GLG-248	145 lbs.	GLG-308	166 lbs.	GLG-368	184 lbs.
108"	GLG-249	161 lbs.	GLG-309	176 lbs.	GLG-369	190 lbs.
120"	GLG-2410	261 lbs.	GLG-3010	287 lbs.	GLG-3610	308 lbs.
132"	GLG-2411	293 lbs.	GLG-3011	324 lbs.	GLG-3611	358 lbs.
144"	GLG-2412	308 lbs.	GLG-3012	339 lbs.	GLG-3612	373 lbs.



Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Project #: \_\_\_\_\_



Shown With  
3 Tier Drawer Set Up

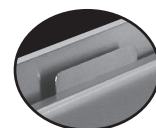


## Revolutionary New SHD Series Drawer with Integral Drawer Slides

- Stainless Steel Front & Sides
- Self Closing Drawer with Noise Control
- Drawer "Safety Stop" Tab
- Removable Stainless Steel Insert
- Units Can Be Stacked to Create Multiple Tier Drawers
- Hardware Included
- NSF Approved

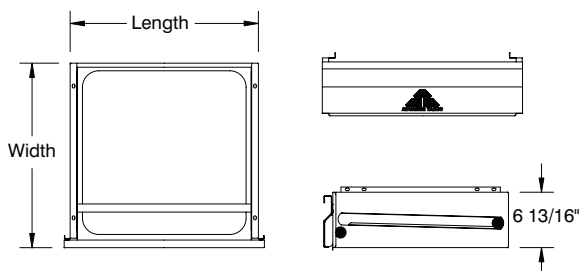


**Drawers Stack with Ease  
to Create Tier Drawers!**  
*Easily installs in field*

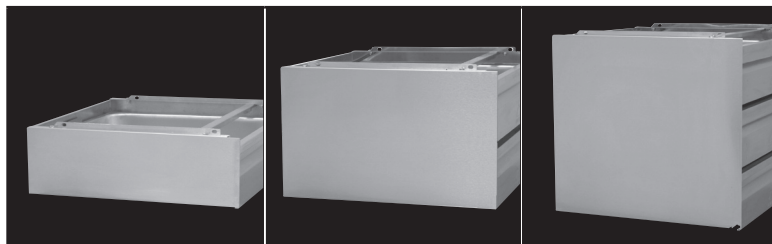


Features a  
"Safety Stop" Tab

MODEL #	Length	Width	Insert
SHD-2015	23 1/8"	17 1/2"	20" x 15" x 5"
SHD-2020	23 1/8"	23 1/8"	20" x 20" x 5"
SHD-1520	17 1/2"	23 1/8"	15" x 20" x 5"



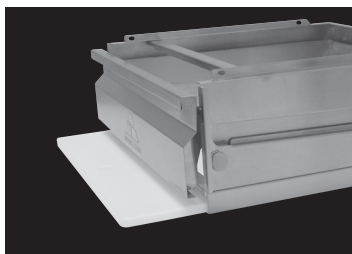
### OPTIONAL CONCEALED SIDE PANELS For 20"x20" Drawers (1 for needed each side)



1 Tier Drawer:  
TA-SHD-1 each side

2 Tier Drawers:  
TA-SHD-2 each side

3 Tier Drawers:  
TA-SHD-3 each side



TA-97SHD Polyboard Storage Bracket  
(Installs in field. Hardware Included)



Rear View of Multiple Stacked Drawers  
Drawer Seam Exposed

### SHD SERIES MODIFICATIONS & ACCESSORIES

Concealed Side Panel for 20"x15" Drawer ..... TA-2 ea.

Drawer Lock ..... TA-14SHD

Pad Lock Hasp ..... TA-13

Poly Board Storage Brackets  
For SHD Drawers ..... TA-97SHD

5/8" Thick Poly Board Cutting Boards

For SHD Drawers ..... TA-41SHD ea.



# TABLE MOUNTED ALL WELDED STAINLESS STEEL SHELVING



Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

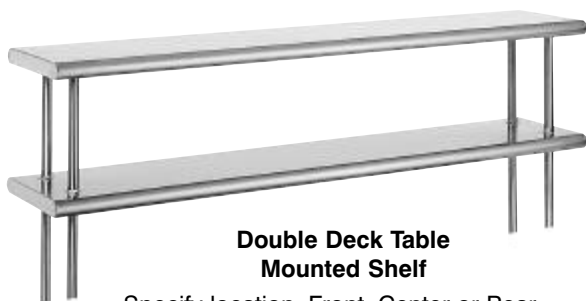


(Table Not Included)



Single Deck Table  
Mounted Shelf

Specify location. Front, Center or Rear.



Double Deck Table  
Mounted Shelf

Specify location. Front, Center or Rear.

For 18" Wide Shelves, See PT Shelving

## SINGLE DECK

L	10" Wide	Wt	12" Wide	Wt	15" Wide	Wt
36"	OTS-10-36	17 lbs	OTS-12-36	20 lbs.	OTS-15-36	24 lbs.
48"	OTS-10-48	20 lbs	OTS-12-48	25 lbs.	OTS-15-48	25 lbs.
60"	OTS-10-60	24 lbs	OTS-12-60	31 lbs.	OTS-15-60	31 lbs.
72"	OTS-10-72	29 lbs	OTS-12-72	37 lbs.	OTS-15-72	37 lbs.
84"	OTS-10-84	35 lbs	OTS-12-84	43 lbs.	OTS-15-84	43 lbs.
96"	OTS-10-96	41 lbs	OTS-12-96	50 lbs.	OTS-15-96	50 lbs.
108"	OTS-10-108	49 lbs	OTS-12-108	59 lbs.	OTS-15-108	59 lbs.
120"	OTS-10-120	57 lbs	OTS-12-120	68 lbs.	OTS-15-120	68 lbs.
132"	OTS-10-132	68 lbs	OTS-12-132	82 lbs.	OTS-15-132	82 lbs.
144"	OTS-10-144	79 lbs	OTS-12-144	98 lbs.	OTS-15-144	98 lbs.

Units 8 ft. and larger are furnished with three (3) sets of tubing supports.

For 1" Rear Turn Up, add "R" after model # (Example: OTS-12-60R)

## DOUBLE DECK

L	10" Wide	Wt	12" Wide	Wt	15" Wide	Wt
36"	ODS-10-36	28 lbs.	ODS-12-36	32 lbs.	ODS-15-36	37 lbs.
48"	ODS-10-48	36 lbs.	ODS-12-48	40 lbs.	ODS-15-48	44 lbs.
60"	ODS-10-60	45 lbs.	ODS-12-60	50 lbs.	ODS-15-60	55 lbs.
72"	ODS-10-72	54 lbs.	ODS-12-72	60 lbs.	ODS-15-72	66 lbs.
84"	ODS-10-84	63 lbs.	ODS-12-84	70 lbs.	ODS-15-84	77 lbs.
96"	ODS-10-96	72 lbs.	ODS-12-96	80 lbs.	ODS-15-96	88 lbs.
108"	ODS-10-108	81 lbs.	ODS-12-108	90 lbs.	ODS-15-108	99 lbs.
120"	ODS-10-120	90 lbs.	ODS-12-120	101 lbs.	ODS-15-120	110 lbs.
132"	ODS-10-132	102 lbs.	ODS-12-132	112 lbs.	ODS-15-132	121 lbs.
144"	ODS-10-144	114 lbs.	ODS-12-144	121 lbs.	ODS-15-144	132 lbs.

Units 8 ft. and larger are furnished with three (3) sets of tubing supports.

For 1" Rear Turn Up, add "R" after model # (Example: ODS-12-60R)

### FEATURES:

All welded stainless steel shelving.  
Stainless steel legs: 10" & 12" wide - 1" tubing.  
15" wide - 1-5/8" tubing.

Shelves have front & rear rolled edges and sides have square edges.

### CONSTRUCTION:

All TIG welded.  
Exposed surfaces polished to a satin finish.

### MATERIAL:

All Shelves are 18 gauge type "430" stainless steel.  
Holes are required in Table Top.

### MODIFICATIONS:

Use **TA-47** for special mounting hardware to easily add to existing tables. (for special modifications, consult factory)

Use **TA-99** for 16 Gauge, 304 Stainless Steel Upgrade.



# DETAILS and SPECIFICATIONS

TOL  $\pm .500"$

ALL DIMENSIONS ARE TYPICAL

## SINGLE DECK TABLE MOUNTED

Specify location. Front, Center or Rear.



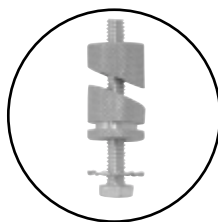
**For 18" Wide Shelves,  
See PT Shelving**

## DOUBLE DECK TABLE MOUNTED

Specify location. Front, Center or Rear.



**For 18" Wide Shelves,  
See PT Shelving**



Brass Expander Table  
Mounting Hardware Included  
with OTS & ODS Shelving





## STAINLESS STEEL WORK TABLES

### PREMIUM Series - 5" Backsplash - Undershelf Style

**Item #:** \_\_\_\_\_ **Qty #:** \_\_\_\_\_

**Model #:** \_\_\_\_\_

**Project #:** \_\_\_\_\_

#### FEATURES:

Top is furnished with a 1 5/8" sanitary rolled rim edge on front, 1 5/8" square side edges, and a 5" splash with a 1" return on the rear side.

24" wide tables supplied with TWO hat channels stud welded to reinforce and maintain a level working surface. 30" and 36" wide tables supplied with THREE hat channels.

Pre-engineered welded angle adapters insure ease of future drawer installation.

Aluminum die cast "leg-to-shelf" clamp secures shelf to leg eliminating unsightly nuts and bolts. Undershelf is adjustable.

#### CONSTRUCTION:

All TIG welded. Exposed weld areas polished to match adjacent surfaces.

Entire top mechanically polished to a satin finish.

Top is sound deadened.

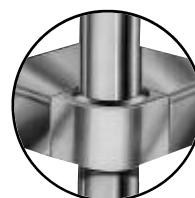
Roll formed embossed galvanized hat channels are secured to top by means of structural adhesive and weld studs.

Gussets welded to support hat sections.



#### NEW

**Rolled Rim Edges on Front & Splash on Back and Square Side Edges**



*Featuring as Standard:*  
**"THE PROVEN"**

**ORIGINAL ADVANCE TABCO  
Adjustable Undershelf  
with Die Cast Leg Clamp**

#### MATERIAL:

**KSS-SERIES: Stainless Steel Legs & Undershelf**

**TOP:** 14 gauge stainless steel type "304" series.

**SHELF:** 18 gauge stainless steel.

**LEGS:** 1 5/8" diameter tubular stainless steel.  
1" adjustable stainless steel bullet feet.  
Stainless steel gussets.

**KLK-SERIES: Galvanized Legs & Undershelf**

**TOP:** 14 gauge stainless steel type "304" series.

**SHELF:** 18 gauge galvanized steel.

**LEGS:** 1 5/8" diameter tubular galvanized steel.  
1" adjustable plastic bullet feet.  
Galvanized steel gussets.

#### KSS-Series: Stainless Steel Legs & Undershelf

L	24" Wide	30" Wide	36" Wide
30"	KSS-240	KSS-300	
24"	KSS-242	KSS-302	
36"	KSS-243	KSS-303	KSS-363
48"	KSS-244	KSS-304	KSS-364
60"	KSS-245	KSS-305	KSS-365
72"	KSS-246	KSS-306	KSS-366
84"	KSS-247	KSS-307	KSS-367
96"	KSS-248	KSS-308	KSS-368
108"	KSS-249	KSS-309	KSS-369
120"	KSS-2410	KSS-3010	KSS-3610
132"	KSS-2411	KSS-3011	KSS-3611
144"	KSS-2412	KSS-3012	KSS-3612



#### KLK-Series: Galvanized Steel Legs & Undershelf

L	24" Wide	30" Wide	36" Wide
30"	KLK-240	KLK-300	
24"	KLK-242	KLK-302	
36"	KLK-243	KLK-303	KLK-363
48"	KLK-244	KLK-304	KLK-364
60"	KLK-245	KLK-305	KLK-365
72"	KLK-246	KLK-306	KLK-366
84"	KLK-247	KLK-307	KLK-367
96"	KLK-248	KLK-308	KLK-368
108"	KLK-249	KLK-309	KLK-369
120"	KLK-2410	KLK-3010	KLK-3610
132"	KLK-2411	KLK-3011	KLK-3611
144"	KLK-2412	KLK-3012	KLK-3612

Create Your Own Efficient Workstation with the Available Standard Accessories (Visit Section K)



**Customer Service Available To Assist You 1-800-645-3166 8:30 am - 8:00 pm E.S.T.**

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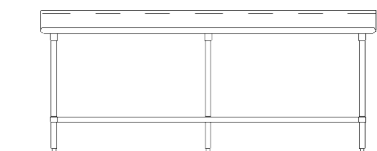
# DETAILS and SPECIFICATIONS

ALL DIMENSIONS ARE TYPICAL TOL  $\pm .500"$ 

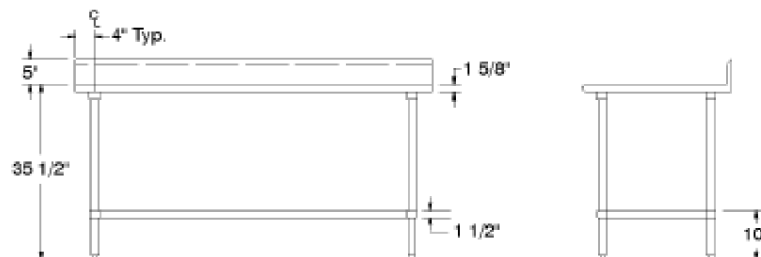
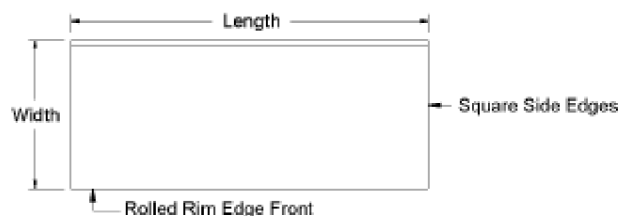
All Units Shipped Unassembled (KD) for Reduced Shipping Costs.

## KSS & KLG Series Undershelf Style 5" Backsplash

Finished size of undershelf = Length minus 5 3/4"  
Width minus 5 3/4"



Units 8ft. and larger are furnished with six (6) legs



### KSS-Series: Stainless Steel Legs & Undershelf

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	KSS-240	55 lbs.	KSS-300	70 lbs.		
24"	KSS-242	50 lbs.	KSS-302	56 lbs.		
36"	KSS-243	66 lbs.	KSS-303	77 lbs.	KSS-363	92 lbs.
48"	KSS-244	81 lbs.	KSS-304	92 lbs.	KSS-364	101 lbs.
60"	KSS-245	95 lbs.	KSS-305	111 lbs.	KSS-365	121 lbs.
72"	KSS-246	113 lbs.	KSS-306	129 lbs.	KSS-366	142 lbs.
84"	KSS-247	135 lbs.	KSS-307	153 lbs.	KSS-367	169 lbs.
96"	KSS-248	150 lbs.	KSS-308	171 lbs.	KSS-368	189 lbs.
108"	KSS-249	165 lbs.	KSS-309	195 lbs.	KSS-369	260 lbs.
120"	KSS-2410	268 lbs.	KSS-3010	294 lbs.	KSS-3610	315 lbs.
132"	KSS-2411	301 lbs.	KSS-3011	331 lbs.	KSS-3611	358 lbs.
144"	KSS-2412	316 lbs.	KSS-3012	346 lbs.	KSS-3612	373 lbs.

### KLG-Series: Galvanized Steel Legs & Undershelf

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	KLG-240	55 lbs.	KLG-300	70 lbs.		
24"	KLG-242	50 lbs.	KLG-302	56 lbs.		
36"	KLG-243	66 lbs.	KLG-303	77 lbs.	KLG-363	92 lbs.
48"	KLG-244	81 lbs.	KLG-304	92 lbs.	KLG-364	101 lbs.
60"	KLG-245	95 lbs.	KLG-305	111 lbs.	KLG-365	121 lbs.
72"	KLG-246	113 lbs.	KLG-306	129 lbs.	KLG-366	142 lbs.
84"	KLG-247	135 lbs.	KLG-307	153 lbs.	KLG-367	169 lbs.
96"	KLG-248	150 lbs.	KLG-308	171 lbs.	KLG-368	189 lbs.
108"	KLG-249	165 lbs.	KLG-309	195 lbs.	KLG-369	260 lbs.
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132"	KLG-2411	301 lbs.	KLG-3011	331 lbs.	KLG-3611	358 lbs.
144"	KLG-2412	316 lbs.	KLG-3012	346 lbs.	KLG-3612	373 lbs.





# STAINLESS STEEL MICROWAVE SHELVES



**Wall Mounted**

Width	Model #	W x L	Weight
18"	MS-18-24	18" x 24"	15 lbs.
24"	MS-24-24	24" x 24"	20 lbs.
24"	MS-24-36	24" x 36"	38 lbs.

## CONSTRUCTION:

All TIG welded.

Exposed surfaces polished to a satin finish.

## MATERIAL:

18 gauge stainless steel.

## OPTIONAL TABLE MOUNTED UNITS:

Mounted on tubular supports and fastened to the top with expanding tubular connectors.

Please use OTS Series Shelving and add TA-102 for 24" x 24" extension for table mounted version.

Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

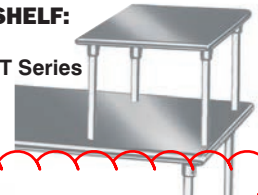
Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

## FOR TABLE MOUNTED MICROWAVE SHELF:

Model #	
MST-24-24	
MST-24-36	

**MST Series**



**TA-102**

## TABLE MOUNTED SHELF WITH MICROWAVE EXTENSION

Use **OTS Shelving** and add **TA-102** for Microwave 24" x 24" extension. Specify Right or Left.

## OPTIONAL:

2" Hole with Grommet  
For Appliance Cord  
**TA-108**

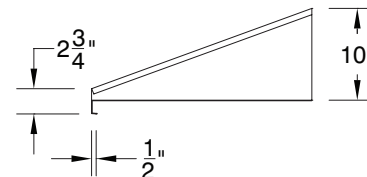
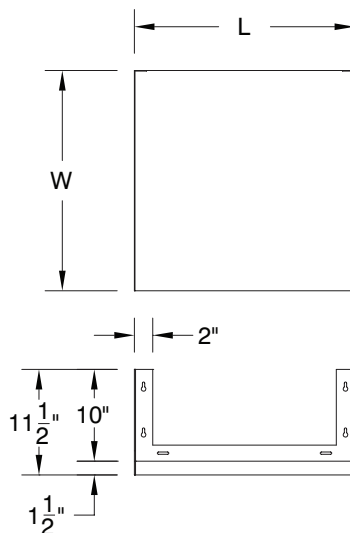


# DETAILS and SPECIFICATIONS

TOL  $\pm .500"$

ALL DIMENSIONS ARE TYPICAL

## WALL MOUNTED



Customer Service Available To Assist You **1-800-645-3166** 8:30 am - 8:00 pm E.S.T.

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Email: [smartfab@advancetabco.com](mailto:smartfab@advancetabco.com) or Fax: 631-586-2933



Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Project #: \_\_\_\_\_



Shown With  
3 Tier Drawer Set Up

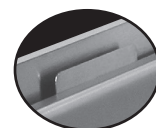


## Revolutionary New SHD Series Drawer with Integral Drawer Slides

- Stainless Steel Front & Sides
- Self Closing Drawer with Noise Control
- Drawer "Safety Stop" Tab
- Removable Stainless Steel Insert
- Units Can Be Stacked to Create Multiple Tier Drawers
- Hardware Included
- NSF Approved

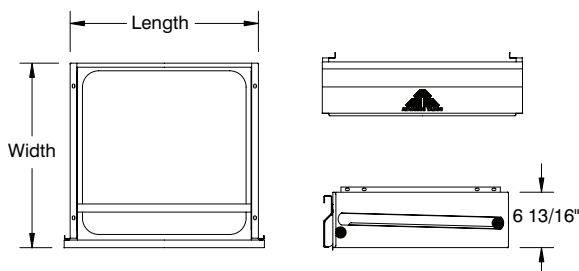


**Drawers Stack with Ease  
to Create Tier Drawers!**  
*Easily installs in field*

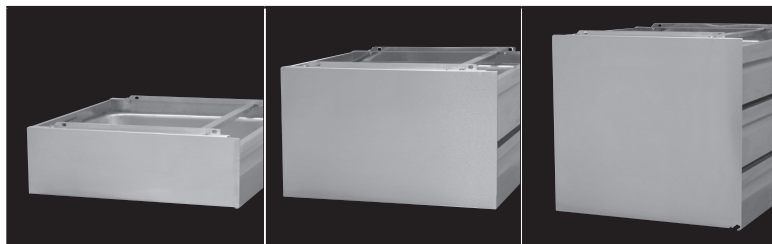


Features a  
"Safety Stop" Tab

MODEL #	Length	Width	Insert
SHD-2015	23 1/8"	17 1/2"	20" x 15" x 5"
SHD-2020	23 1/8"	23 1/8"	20" x 20" x 5"
SHD-1520	17 1/2"	23 1/8"	15" x 20" x 5"



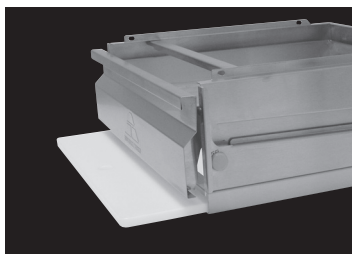
### OPTIONAL CONCEALED SIDE PANELS For 20"x20" Drawers (1 for needed each side)



1 Tier Drawer:  
TA-SHD-1 each side

2 Tier Drawers:  
TA-SHD-2 each side

3 Tier Drawers:  
TA-SHD-3 each side



TA-97SHD Polyboard Storage Bracket  
(Installs in field. Hardware Included)



Rear View of Multiple Stacked Drawers  
Drawer Seam Exposed

### SHD SERIES MODIFICATIONS & ACCESSORIES

Concealed Side Panel for 20"x15" Drawer ..... TA-2 ea.

Drawer Lock ..... TA-14SHD

Pad Lock Hasp ..... TA-13

Poly Board Storage Brackets  
For SHD Drawers ..... TA-97SHD

5/8" Thick Poly Board Cutting Boards

For SHD Drawers ..... TA-41SHD ea.





# Amana®

## Commercial

Project #: \_\_\_\_\_

Item #: \_\_\_\_\_



Model RCS10TS shown

### Medium Volume

This category of microwave is ideal for...

#### Applications:

- Pizza restaurants
- Casual dining
- Clubs
- Deli

#### Defrost:

- Defrosts most frozen food products

All ACP, Inc. commercial ovens are backed by our Culinary Center. Call us with any question regarding food preparation, menu development and cooking times. 866-426-2621.



## Medium Volume

### Amana Commercial Microwave Model RCS10TS

#### Power Output

- 1000 watts of power.
- Five power levels for consistent, delicious results for frozen, refrigerated and fresh foods - from the freezer to table in minutes.

#### Easy to Use

- Up to 100 programmable menu items simplifies cooking and ensures consistent results.
- Four stage cooking option for easy one-touch cooking.
- Multiple quantity pad calculates the proper cooking times for multiple portions.
- User friendly touch controls are easy to use.
- Time entry option for added flexibility.
- Digital display with countdown timer for simple operation and "at-a-glance" monitoring.
- Braille touch pads are ADA compliant.
- See-through door and lighted interior for monitoring without opening the door.
- 1.2 cubic ft. (34 liter) capacity accommodates a 14" (356 mm) platter, prepackaged foods and single servings.
- Stackable to save valuable counter space.

#### Easy to Maintain

- Stainless steel exterior and interior for easy cleaning and a professional look.
- Non-removable air filter protects oven components.
- Constructed to withstand the foodservice environment.
- Backed by the ACP, Inc. 24/7 ComServ Support Center, 866-426-2621.
- ETL Listed.



Part No. 20154732  
Updated 6/17/2016  
Original Instructions



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Cedar Rapids, Iowa 52404

225 49th Ave. Dr. SW Cedar Rapids, IA 52404 U.S.A.  
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800-233-2366

319-368-8120

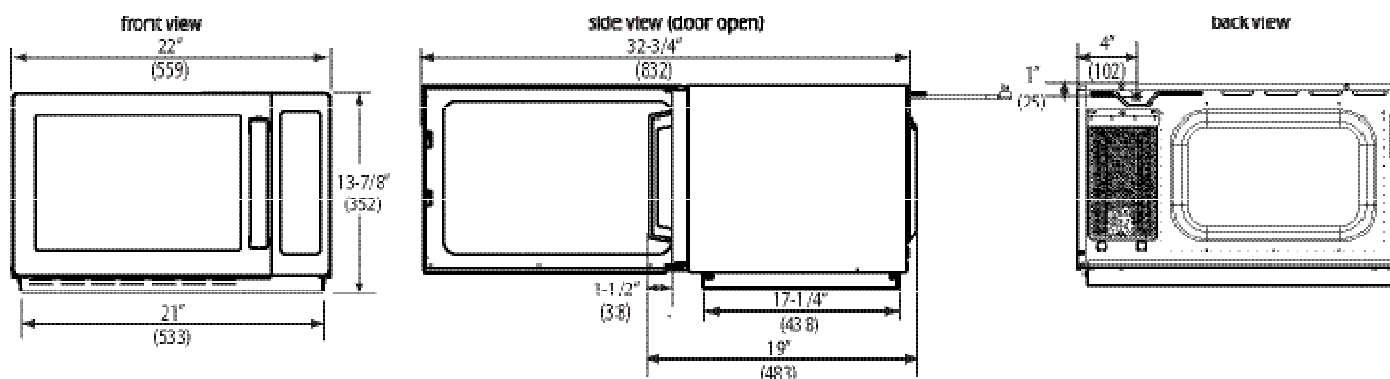
Fax: 319-368-8198

www.acpsolutions.com

AIA File #:


Specification #:

# Amana Commercial Microwave Model RCS10TS | Medium Volume



**Installation Clearances** - Top: 2" (51), Sides: 1" (25), Back: None

Drawings available from KCL CADlog - techs@kclcad.com

Specifications			
Model	RCS10TS	UPC Code 728028020724	
Configuration	Countertop		
Control System	Touch		
Programmable Control	10		
Settings Programmable	100		
Braille			
Max. Cooking Time	60:00		
Power Levels	5		
Defrost	Yes		
Time Entry Option	Yes		
Microwave Distribution	Rotating antenna, top		
Magnetron(s)	1		
Display	VFD		
Stackable	Yes		
Stage Cooking	Yes, 4		
Interior Light	Yes		
Door Handle	Grab & Go		
Signal	End of cycle, adjustable		
Air Filter	Non-removable with cleaning reminder		
Multiple Portion Setting	Yes, X2		
Exterior Dimensions	H 13 7⁄8" (352)	W 22" (559)	D*19" (483)
Cavity Dimensions	H 8 1⁄2" (216)	W 14 1⁄2" (368)	D 15" (381)
Door Depth	32 3⁄4" (832), 90°+ door open		
Usable Cavity Space	1.2 cubic ft. (34 liter)		
Exterior Finish	Stainless steel		
Interior Finish	Stainless steel		
Power Consumption	1550 W, 13 A		
Power Output**	1000 W** Microwave		
Power Source	120V, 60 Hz, 15 A single phase		
Plug Configuration / Cord	NEMA 5-15	5 ft. (1.5m)	
Frequency	2450 MHz		
Product Weight	41 lbs. (19 kg.)		
Ship weight (approx.)	47 lbs. (21 kg.)		
Shipping Carton Size	H 16 5⁄8" (422)	W 25 3⁄16" (640)	D 19 3⁄4" (502)
UPS Shippable	Yes		

## Specifications

Commercial microwave 10 touch pad control panel shall be programmable with the ability to program up to 100 menu items with two multiple portions. Touch pad shall include Braille for ADA compliance. Cooking timer shall be 60 minute, countdown style with a time entry option and an adjustable end of cycle audible signal. There shall be 5 power levels, including defrost and 4 cooking stages. Microwave output shall be 1000 watts distributed by one magnetron with a rotating top antenna to provide superior even heating throughout the cavity. Durable door shall have a tempered glass window and a grab and go handle with a 90°+ opening for easy access. An interior light shall facilitate monitoring without opening the door. The large 1.2 cubic ft. (34 liter) cavity shall accommodate a 14" (356 mm) platter. Interior ceramic shelf shall be sealed and recessed on oven bottom to reduce plate-to-shelf edge impact. Oven shall have a stainless steel interior and exterior and be stackable to save counter and shelf space. Front air filter shall be permanently affixed to the front of the oven and have a clean filter reminder. Microwave oven shall comply with standards set by the U.S Department of Health and Human Services, UL923 for safety and NSF4 for sanitation.



## Warranty

Warranty Certificate for this product can be found on the ACP, Inc. website at:

[www.acpsolutions.com/warranty](http://www.acpsolutions.com/warranty)



## Service

All products are backed by the ACP, Inc. 24/7 ComServ Support Center.

Measurements in ( ) are millimeters

\* Includes handle

\*\* IEC 60705 Tested

Part No. 20154732  
Updated 6/17/2016  
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**CAMBRO®****Ingredient Bins****Standard**

Models IBSF27 – 27 gallon (102 L)

IB32 – 32 gallon (121 L)

IB36 – 34 gallon (129 L)

IB44 – 43 gallon (161 L)

**Features & Benefits**

- Stores and transports a wide variety of dry ingredients such as flour, sugar, rice or grains. Perfect for restaurants, food manufacturers or commissaries.
- Available in 27, 32, 34, and 43 gallon (102, 121, 129, 161 L) capacity to meet standard industry requirements for storage and transportation of bulk foods.
- One-piece, seamless single-wall polyethylene bin construction is extremely durable. Won't rust or corrode. Liquids and dry foods will not stick or seep between seams.
- FDA accepted material. Meets all food contact requirements and eliminates need for liners.
- Smooth interior and exterior are easy to clean.
- Injection molded Camwear® polycarbonate lids are transparent, break resistant and offer quick and easy identification of contents. Slide-back feature for easy access.
- Working height permits storage under standard work tables.
- Heavy-duty 3" (7,6 cm) casters, 2 front swivel, 2 fixed, are bolted into molded-in steel plates and will not pull out or fall off.
- No assembly required.
- Available in White (148) only with Clear (135) cover.

**Item No.** \_\_\_\_\_**Specifier Identification No.** \_\_\_\_\_**Model No.** \_\_\_\_\_**Quantity** \_\_\_\_\_**IBSF27****IB32****IB36****IB44****Approvals****CAMBRO®**

© Cambro Manufacturing Company 5801 Skylab Road, Huntington Beach, CA 92647-2056, U.S.A.

Telephone 714 848 1555

Toll Free 800 854 7631

Customer Service Department 800 833 3003

# Ingredient Bins

## Standard

Models IBSF27 – 27 gallon (102 L)

IB32 – 32 gallon (121 L)

IB36 – 34 gallon (129 L)

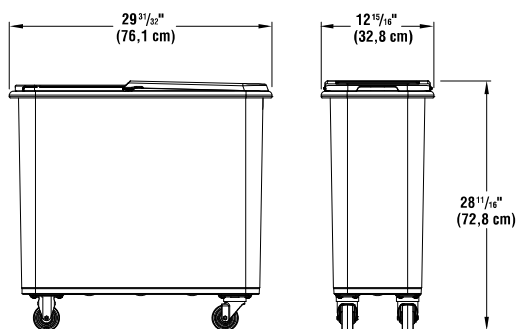
IB44 – 43 gallon (161 L)

Item No. \_\_\_\_\_

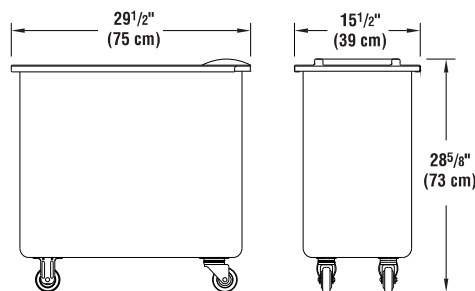
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Model No. \_\_\_\_\_

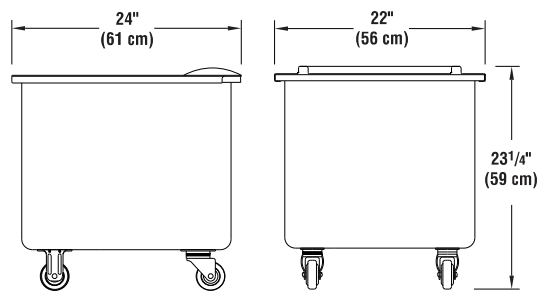
Quantity \_\_\_\_\_



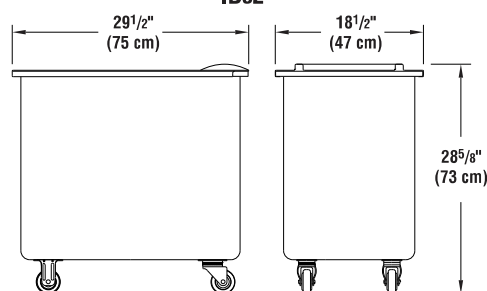
IBSF27



IB36



IB32



IB44

## Specifications

Dimension Tolerance: +/- 1/4" (0,64 cm)

Code	Description	Volume Capacity	Load Capacity		Exterior Dimensions W x D x H	Case lbs./cube Kg/m <sup>3</sup>
			Sugar	Flour		
IBSF27	27 gal. Ingredient Bin (102 L)	3.56 Cubic feet (0,100) Cubic meters	216 lbs. (98 kg.)	150 lbs. (68 kg.)	12 <sup>15</sup> / <sub>16</sub> " x 29 <sup>31</sup> / <sub>32</sub> " x 28 <sup>11</sup> / <sub>16</sub> " (32,8 x 76,1 x 72,8 cm)	28.5 (6.91)
IB32	32 gal. Ingredient Bin (121 L)	4.28 Cubic feet (0,121) Cubic meters	215 lbs. (97,5 kg.)	160 lbs. (73 kg.)	22" x 24" x 23 <sup>1</sup> / <sub>4</sub> " (56 x 61 x 59 cm)	11,2 (0,196)
IB36	34 gal. Ingredient Bin (129 L)	4.54 Cubic feet (0,128) Cubic meters	252 lbs. (114 kg.)	180 lbs. (82 kg.)	15 <sup>1</sup> / <sub>2</sub> " x 29 <sup>1</sup> / <sub>2</sub> " x 28 <sup>5</sup> / <sub>8</sub> " (39 x 75 x 73 cm)	13 (0,21)
IB44	43 gal. Ingredient Bin (161 L)	5.69 Cubic feet (0,161) Cubic meters	320 lbs. (145 kg.)	230 lbs. (104 kg.)	18 <sup>1</sup> / <sub>2</sub> " x 29 <sup>1</sup> / <sub>2</sub> " x 28 <sup>5</sup> / <sub>8</sub> " (47 x 75 x 73 cm)	30 (8,51)
						14 (0,26)

## Architect Specs

The Ingredient Bins shall be Cambro Model..., manufactured by Cambro Mfg. Co., Huntington Beach, CA 92648 U.S.A. Each unit shall be one piece, seamless, single-wall molded construction made of FDA Approved white polyethylene. Unit capacity shall range from 27 - 43 gallons (102 - 161 L) and/or 3.56 - 5.69 cu. ft. (0,100 - 0,161 cubic meters).

It shall have four each 3" (7,6 cm) casters with 1 1/4" (3,2 cm) wide tread, 2 front swivel and 2 fixed, mounted on molded-in steel plates. It shall have an injection molded, transparent, slide-back polycarbonate lid. It shall not exceed 29" (73,6 cm) in height so that it can store under standard work tables. It shall be available in white only with a clear cover.

## Approvals



**CAMBRO**

© Cambro Manufacturing Company 5801 Skylab Road, Huntington Beach, CA 92647-2056, U.S.A.

Telephone 714 848 1555

Toll Free 800 854 7631

Customer Service Department 800 833 3003

Item # \_\_\_\_\_

Quantity \_\_\_\_\_

C.S.I. Section 11400



701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartcorp.com

## LEGACY® HL200 MIXER



### STANDARD FEATURES

- Heavy-Duty ½ H.P. Motor
- Gear Transmission
- Three Fixed Speeds Plus Stir Speed
- Shift-on-the-Fly™ Controls
- Patented soft start Agitation Technology
- 15-Minute SmartTimer™
- Automatic Time Recall
- Large, Easy-To-Reach Controls
- Single Point Bowl Installation
- Ergonomic Swing-Out Bowl
- #12 Taper Attachment Hub
- Open Base
- Stainless Steel Bowl Guard
- Metallic Gray Hybrid Powder Coat Finish

### MODELS

- ☐ HL200 – 20-Quart All Purpose Mixer
- ☐ HL200C – 20-Quart All Purpose Mixer with Maximum Security Correctional Package

Specifications, Details and Dimensions on Inside and Back.



### ACCESSORY PACKAGE - featuring Hobart Quick Release™ Agitators

- ☐ **Standard Accessory Package Includes:**
  - 20 Quart Stainless Steel Bowl
  - 20 Quart "B" Beater
  - 20 Quart "D" Wire Whip



LEGACY® HL200 MIXER

# LEGACY® HL200 MIXER



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## SOLUTIONS/BENEFITS

### ½ H.P. Motor

#### Durability

- Heavy-duty to meet the most demanding operations

### Gear Transmission

#### Durability, Reliability

- Ensures consistent performance and minimum downtime under heavy loads

### Three Fixed Speeds plus Stir Speed

#### Flexibility, Reliability, Consistency

- For incorporating, blending, mixing ingredients
- Supports consistent results and thorough mixing

### Shift-on-the-Fly™ Controls

#### Flexibility

- Allows operator to change speeds while mixer is running

### Patented soft start Agitation Technology

#### Sanitation

- Each speed has a soft transition into a higher speed to reduce the chances of product splash-out

### 15-Minute SmartTimer™

#### Convenience, Ease of Use, Consistency

- Supports recipe mixing times
- Provides accurate results and eliminates overmixing

### Automatic Time Recall

#### Productivity, Consistency

- Remembers the last time set for each speed
- Great for multiple batches

### Ergonomic Swing-Out Bowl

#### Ease of Use, Convenience

- Easy loading and unloading of products
- Single Point Bowl Installation allows for simple mounting and removal of bowl
- Bowl Interlock ensures mixer bowl is properly in place for mixer to operate

### Stainless Steel Bowl Guard

#### Protection

- Safety interlock prevents operation when front portion of guard is out of position

### Hobart Accessories

#### Durability, Flexibility, Simplicity

- Hobart Quick Release™ agitators allow for simple installation and removal from agitator shaft
- Hobart accessories are designed for long-term usage under heavy-duty conditions
- Large array of accessories provide multiple uses for recipe and product processing

## HL200 MIXER CAPACITY CHART

Recommended Maximum Capacities - dough capacities based on 70°F. water and 12% flour moisture.

PRODUCT	AGITATORS SUITABLE FOR OPERATION	HL200
CAPACITY OF BOWL (QTS. LIQUID)		20
Egg Whites	D	1 qt.
Mashed Potatoes	B & C	15 lbs.
Mayonnaise (Qts. of Oil)	B or C or D	10 qts.
Meringue (Qts. of Water)	D	1½ pts.
Waffle or Hot Cake Batter	B	8 qts.
Whipped Cream	D or C	4 qts.
Cake, Angel Food (8-10 oz. cake)	C or I	15
Cake, Box or Slab	B or C	20 lbs.
Cake, Cup	B or C	20 lbs.
Cake, Layer	B or C	20 lbs.
Cake, Pound	B	21 lbs.
Cake, Short (Sponge)	C or I	15 lbs.
Cake, Sponge	C or I	12 lbs.
Cookies, Sugar	B	15 lbs.
Dough, Bread or Roll (Lt.-Med.) 60% AR	§	ED 25 lbs.□
Dough, Heavy Bread 55% AR	§	ED 15 lbs.□
Dough Pie	B & P	18 lbs.
Dough, Thin Pizza 40% AR (max. mix time 5 min.)	§‡	ED 9 lbs.□
Dough, Med. Pizza 50% AR	§‡	ED 10 lbs.□
Dough, Thick Pizza 60% AR	§‡	ED 20 lbs.□
Dough, Raised Donut 65% AR	ED	9 lbs.*
Dough, Whole Wheat 70% AR	ED	20 lbs.□
Eggs & Sugar for Sponge Cake	B & C or I	8 lbs.
Icing, Fondant	B	12 lbs.
Icing, Marshmallow	C or I	2 lbs.
Shortening & Sugar, Creamed	B	16 lbs.
Pasta, Basic Egg Noodle (max. mix time 5 min.)	ED	5 lbs.

NOTE: % AR (% Absorption Ratio) - Water weight divided by flour weight. Capacity depends on moisture content of dough. Above capacities based on 12% flour moisture at 70°F water temperature.

□ 1st Speed

\* 2nd Speed

† 3rd Speed

§ If high gluten flour is used, reduce above dough batch size by 10%.

‡ 2nd Speed should never be used on 50% AR or lower products.

**USE OF ICE REQUIRES A 10% REDUCTION IN BATCH SIZE.**

**1 gallon of water weighs 8.33 lbs.**

NOTE: Attachment hub should not be used while mixing.





701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartcorp.com

## LEGACY® HL200 MIXER

### SPECIFICATIONS

#### MOTOR:

½ H.P. high torque motor.

100-120/50/60/1 8.0 Amps

200-240/50/60/1 5.0 Amps

#### ELECTRICAL:

100-120/50/60/1, 200-240/50/60/1 – UL Listed.

#### CONTROLS:

Magnetic contactor with thermal overload protection. Internally sealed “Start-Stop” push buttons. A 15-minute SmartTimer™ is standard. SmartTimer™ includes **Automatic Time Recall**, which remembers the last time set for each speed.

#### TRANSMISSION:

Gear-driven. Gears are constant mesh heat-treated hardened alloy steel along with anti-friction ball bearings. Grease lubricants furnished to all gears and shafts.

#### SPEEDS:

	Agitator (RPM)	Attachment (RPM)
Stir	59	33
First (Low)	107	61
Second (Intermediate)	198	113
Third (High)	365	207

#### BOWL GUARD:

Heavy-duty stainless steel wire front and solid rear portion. Front portion of guard rotates easily to add ingredients and install or remove agitator. It detaches in seconds for cleaning in dishwasher or sink. Rear portion of guard can be quickly cleaned in position. Guard must be in closed position before mixer will operate. Bowl support interlock provides further protection.

#### BOWL LIFT:

Ergonomic style, hand crank operated, self-locking in top and bottom position.

#### FINISH:

Metallic Gray Hybrid Powder Coat finish.

#### ATTACHMENT HUB:

Comes with front-mounted Hobart standard #12 taper attachment hub for use with Hobart #12 size attachments.

#### ATTACHMENTS AND ACCESSORIES:

The following are available at extra cost:

Stainless Steel Bowl  
“B” Flat Beater  
“C” Wing Whip  
“D” Wire Whip  
“E” Dough Hook  
“ED” Dough Hook  
“P” Pastry Knife  
Bowl Splash Cover  
Bowl Scraper  
Ingredient Chute  
12 Quart Accessories  
9" Vegetable Slicer  
Meat Chopper Attachment  
Rubber Foot Pads  
Attachment Tray Support



Hobart Bowl Scraper

Hobart Ingredient Chute



Listed by Underwriters Laboratories Inc. and certified by NSF International.



# LEGACY® HL200 MIXER

## HOBART

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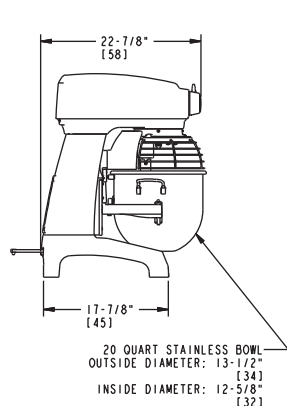
### SPECIFICATIONS

**ELECTRICAL SPECIFICATIONS:** 100-120/50/60/1,  
200-240/50/60/1 – UL Listed.

**WEIGHT:** 189 lbs. net; 204 lbs. domestic shipping.

**WARRANTY:** Unit has full one-year warranty on parts, labor and mileage against manufacturer's defects. Service contracts are available.

### DETAILS AND DIMENSIONS

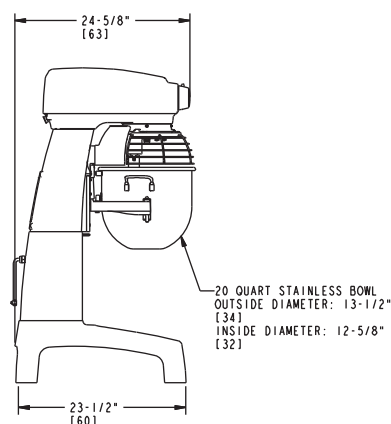
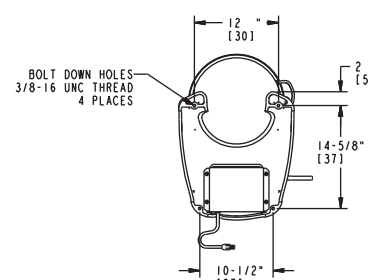
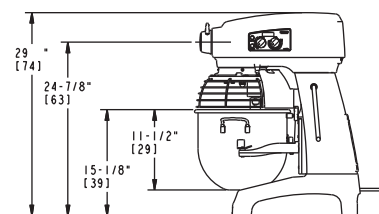
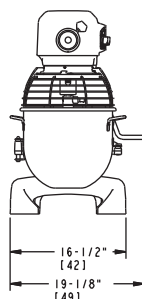
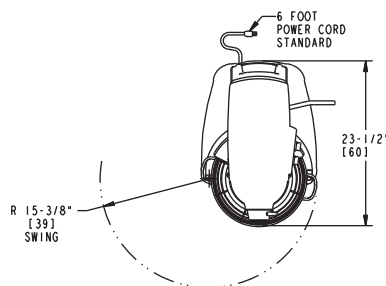


#### WARNING

ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER CODES IN FORCE

#### NOTE

MACHINE WEIGHT (LESS BOWL)----- 189 LBS  
SHIPPING WEIGHT----- 204 LBS  
BOWL WEIGHT----- 9 LBS

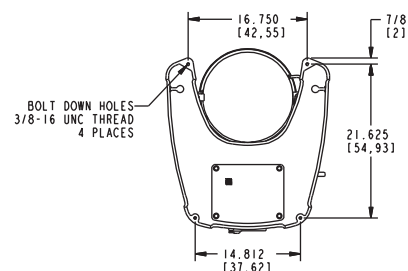
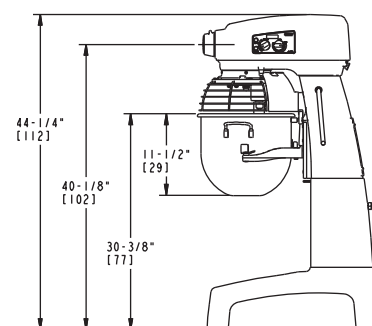
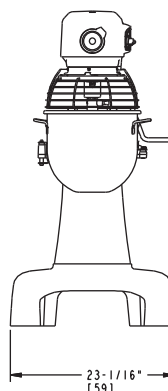
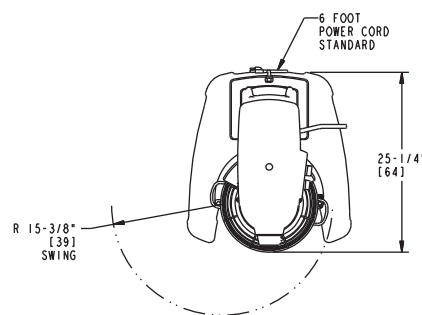


#### WARNING

ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER CODES IN FORCE

#### NOTE

MACHINE WEIGHT (LESS BOWL)----- 265 LBS  
SHIPPING WEIGHT----- 280 LBS  
BOWL WEIGHT----- 9 LBS



As continued product improvement is a policy of Hobart, specifications are subject to change without notice.

# Edlund #1 and #2 Manual Can Openers

Edlund invented these original can openers 75 years ago, and they have set the standard in foodservice ever since. Now we've improved them to meet the even tougher requirements of today's foodservice operations. With a new smoother action base design, long wearing spool and rust resistant arbor, you just can't copy our quality.



- ① Delrin plastic spool reduces friction against handle to improve wear
- ② Base design for more rigidity

- ③ Melonite arbor provides greater rust resistance to make gear changing easier

- ④ Replaceable plastic base insert provides smooth glide action and reduces wear on opener shaft

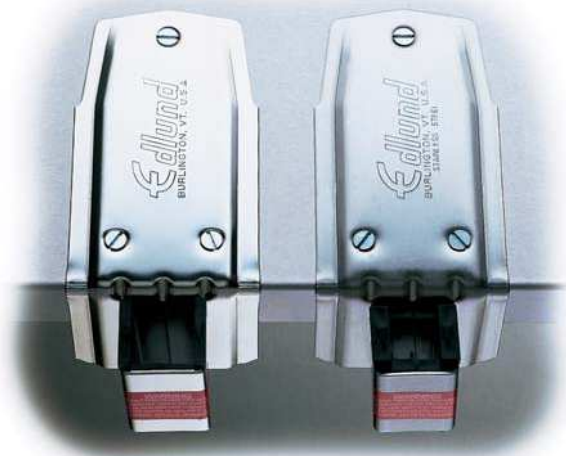
# “Old Reliable” just got more dependable.



#1 with long bar  
and optional cast  
iron base

## FEATURES:

- Rust resistant arbor
- Made in U.S.A.
- New base with plastic insert



#1 and #2 models available  
with plated or stainless steel bases

## SPECIFICATIONS:

MODEL #	DESCRIPTION	PRODUCT CODE	CASE CUBE FT <sup>3</sup> /M <sup>3</sup>	CASE WEIGHT LBS./KGS
#1	Can opener with new plated steel base (for cans up to 11" tall)	11100	1.6/.05	27/12.3
#1 S	With stainless steel base	11300	1.6/.05	28/12.6
#1 WB	Without base (Caution: Using #1 without a base may prevent proper operation)	11000	1.4/.04	22/9.9
#2	Table style can opener with new plated steel base	12100	2.6/.07	31/15.8
#2 S	With new stainless steel base	12200	2.6/.07	31/15.8
#2 WB	Without base (Caution: Using #2 without a base may prevent proper operation)	12000	2.3/.07	23/10.8
ST-93	Rustproof can opener cleaning tool	38500		.5/.2



ST-93 Rustproof  
can opener cleaning tool



**Edlund** *We're in your kitchen.™*

Edlund Company, Inc., 159 Industrial Parkway, Burlington, VT 05401, USA 800-772-2126 [www.edlundco.com](http://www.edlundco.com)

WARRANTY INFORMATION: THE EDLUND COMPANY WARRANTS THESE PRODUCTS TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF PURCHASE. THE COMPANY'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIRING OR REPLACING WITHOUT CHARGE ANY PART OR PARTS FOUND TO BE DEFECTIVE UNDER NORMAL USE. IT IS THE RESPONSIBILITY OF THE PURCHASER TO RETURN THE ENTIRE UNIT TO THE FACTORY, TRANSPORTATION CHARGES PREPAID. THIS WARRANTY DOES NOT COVER PARTS THAT MUST BE REPLACED UNDER NORMAL USE, INCLUDING KNIVES AND DRIVE GEARS ON CAN OPENERS. NO OTHER WARRANTY, WRITTEN OR VERBAL, IS AUTHORIZED BY THE COMPANY. WARRANTY INFORMATION OUTSIDE THE UNITED STATES MAY VARY, CONSULT YOUR DISTRIBUTOR.

08/08 EDL-4848



## STAINLESS STEEL WORK TABLES

### PREMIUM Series - 5" Backsplash - Open Base Style

Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

#### FEATURES:

Top is furnished with 1 5/8" sanitary rolled rim edge on front and square sides, and a 5" splash with a 1" return on the rear side.

24" wide tables supplied with TWO hat channels stud welded to reinforce and maintain a level working surface. 30" and 36" wide tables supplied with THREE hat channels.

Pre-engineered welded angle adapters insure ease of future drawer installation.

Front to back Stretchers are welded to legs. Left to right Stretcher bolted to legs and requires assembly.

#### CONSTRUCTION:

All TIG welded. Exposed weld areas polished to match adjacent surfaces.

Entire top mechanically polished to a satin finish.

Top is sound deadened.

Roll formed embossed galvanized hat channels are secured to top by means of structural adhesive and weld studs.

Gussets welded to support hat sections.



#### NEW

**Rolled Rim Edges on  
Front & Splash on  
Back and Square  
Side Edges**



**1-5/8" LEG STRETCHERS  
Ensure Stability**

#### MATERIAL:

**TKSS-SERIES: Stainless Steel Legs - Open Base**

**TOP:** 14 gauge stainless steel type "304" series.

**STRETCHERS:** 1 5/8" dia. tubular stainless steel.

**LEGS:** 1 5/8" diameter tubular stainless steel.  
1" adjustable stainless steel bullet feet.  
Stainless steel gussets.

**TKLG-SERIES: Galvanized Legs - Open Base**

**TOP:** 14 gauge stainless steel type "304" series.

**STRETCHERS:** 1 5/8" dia. tubular galvanized steel.

**LEGS:** 1 5/8" diameter tubular galvanized steel.  
1" adjustable plastic bullet feet.  
Galvanized steel gussets.

#### TKSS-Series: Stainless Steel Legs & Stretchers

L	24" Wide	30" Wide	36" Wide
30"	TKSS-240	TKSS-300	
24"	TKSS-242	TKSS-302	
36"	TKSS-243	TKSS-303	TKSS-363
48"	TKSS-244	TKSS-304	TKSS-364
60"	TKSS-245	TKSS-305	TKSS-365
72"	TKSS-246	TKSS-306	TKSS-366
84"	TKSS-247	TKSS-307	TKSS-367
96"	TKSS-248	TKSS-308	TKSS-368
108"	TKSS-249	TKSS-309	TKSS-369
120"	TKSS-2410	TKSS-3010	TKSS-3610
132"	TKSS-2411	TKSS-3011	TKSS-3611
144"	TKSS-2412	TKSS-3012	TKSS-3612



#### TKLG-Series: Galvanized Steel Legs & Stretchers

L	24" Wide	30" Wide	36" Wide
30"	TKLG-240	TKLG-300	
24"	TKLG-242	TKLG-302	
36"	TKLG-243	TKLG-303	TKLG-363
48"	TKLG-244	TKLG-304	TKLG-364
60"	TKLG-245	TKLG-305	TKLG-365
72"	TKLG-246	TKLG-306	TKLG-366
84"	TKLG-247	TKLG-307	TKLG-367
96"	TKLG-248	TKLG-308	TKLG-368
108"	TKLG-249	TKLG-309	TKLG-369
120"	TKLG-2410	TKLG-3010	TKLG-3610
132"	TKLG-2411	TKLG-3011	TKLG-3611
144"	TKLG-2412	TKLG-3012	TKLG-3612

Create Your Own Efficient Workstation with the Available Standard Accessories (Visit Section K)



Customer Service Available To Assist You **1-800-645-3166** 8:30 am - 8:00 pm E.S.T.

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#### TEXAS

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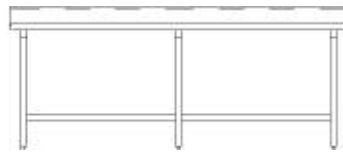


# DETAILS and SPECIFICATIONS

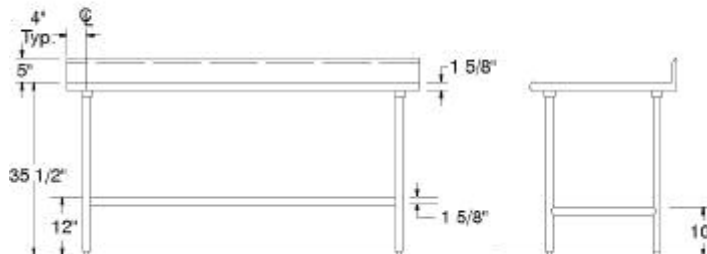
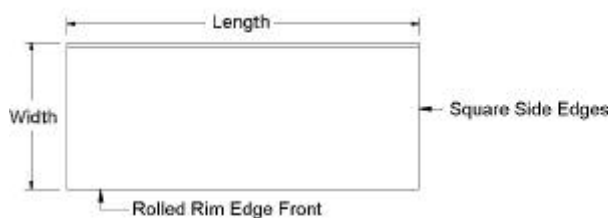
ALL DIMENSIONS ARE TYPICAL TOL  $\pm .500"$ 

All Units Shipped Unassembled (KD) for Reduced Shipping Costs.

## TKSS & TKLG Series Open Base Style 5" Backsplash



Units 8ft. and larger are furnished with six (6) legs



### TKSS-Series: Stainless Steel Legs & Stretchers

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	TKSS-240	49 lbs.	TKSS-300	55 lbs.		
24"	TKSS-242	43 lbs.	TKSS-302	48 lbs.		
36"	TKSS-243	55 lbs.	TKSS-303	62 lbs.	TKSS-363	80 lbs.
48"	TKSS-244	67 lbs.	TKSS-304	75 lbs.	TKSS-364	85 lbs.
60"	TKSS-245	77 lbs.	TKSS-305	89 lbs.	TKSS-365	99 lbs.
72"	TKSS-246	89 lbs.	TKSS-306	97 lbs.	TKSS-366	112 lbs.
84"	TKSS-247	107 lbs.	TKSS-307	118 lbs.	TKSS-367	131 lbs.
96"	TKSS-248	119 lbs.	TKSS-308	131 lbs.	TKSS-368	145 lbs.
108"	TKSS-249	135 lbs.	TKSS-309	150 lbs.	TKSS-369	165 lbs.
120"	TKSS-2410	234 lbs.	TKSS-3010	249 lbs.	TKSS-3610	268 lbs.
132"	TKSS-2411	258 lbs.	TKSS-3011	276 lbs.	TKSS-3611	298 lbs.
144"	TKSS-2412	273 lbs.	TKSS-3012	291 lbs.	TKSS-3612	313 lbs.

### TKLG-Series: Galvanized Steel Legs & Stretchers

L	24" Wide	Wt.	30" Wide	Wt.	36" Wide	Wt.
30"	TKLG-240	49 lbs.	TKLG-300	55 lbs.		
24"	TKLG-242	43 lbs.	TKLG-302	48 lbs.		
36"	TKLG-243	55 lbs.	TKLG-303	62 lbs.	TKLG-363	80 lbs.
48"	TKLG-244	67 lbs.	TKLG-304	75 lbs.	TKLG-364	85 lbs.
60"	TKLG-245	77 lbs.	TKLG-305	89 lbs.	TKLG-365	99 lbs.
72"	TKLG-246	89 lbs.	TKLG-306	97 lbs.	TKLG-366	112 lbs.
84"	TKLG-247	107 lbs.	TKLG-307	118 lbs.	TKLG-367	131 lbs.
96"	TKLG-248	119 lbs.	TKLG-308	131 lbs.	TKLG-368	145 lbs.
108"	TKLG-249	135 lbs.	TKLG-309	150 lbs.	TKLG-369	165 lbs.
120"	TKLG-2410	234 lbs.	TKLG-3010	249 lbs.	TKLG-3610	268 lbs.
132"	TKLG-2411	258 lbs.	TKLG-3011	276 lbs.	TKLG-3611	298 lbs.
144"	TKLG-2412	273 lbs.	TKLG-3012	291 lbs.	TKLG-3612	313 lbs.





# Welded Sinks Into Table Top NSF

## Deep Drawn & Fabricated Sink Bowls



Flat Top  
w/ K-50  
Deck Mount  
Faucet Shown



10" Backsplash  
w/ K-1  
Splash Mount  
Faucet Shown

Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Project #: \_\_\_\_\_

### FEATURES:

Sinks welded into table top.

Includes K-6 basket drain(s)

**All faucets included meet federal lead free standards.**

**Flat Top, 1", 1-1/2" & 5" backsplash** tables include deck mounted faucet.

- Single Sink Bowls provided with K-50 swing spout faucet
- Double Sink Bowls provided with K-53 swing spout faucet

**10" backsplash** tables include splash mounted faucet

- Single and double sink bowls provided with K-1 swing spout faucet

### OPTIONS:

**TA-11Z** - Allow 5" backsplash accommodate splash mounted faucet

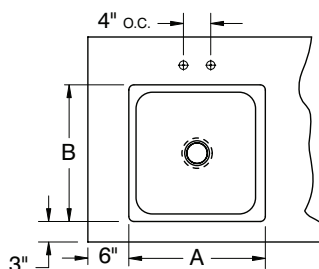
Single Bowl	Double Bowl	Size
Model#	Model#	A B
<b>DEEP DRAWN SINK BOWLS</b>		
TA-11A**	TA-11A-2**	16" x 20" x 8"
TA-11B**	TA-11B-2**	16" x 20" x 12"
TA-11C	TA-11C-2	20" x 20" x 8"
TA-11D*	TA-11D-2*	20" x 20" x 12"
TA-11E*	TA-11E-2*	24" x 24" x 12"
TA-11F	TA-11F-2†	10" x 14" x 10"
TA-11G*	TA-11G-2*	28" x 20" x 12"
TA-11J	TA-11J-2	14" x 16" x 12"
TA-11L	TA-11L-2	18" x 24" x 12"
TA-11Q	TA-11Q-2	10" x 14" x 5"
<b>FABRICATED SINK BOWLS</b>		
TA-11N	TA-11N-2	18" x 18" x 14"
TA-11P	TA-11P-2	20" x 24" x 14"

\* Only Installed In Tables 30" Wide or Wider

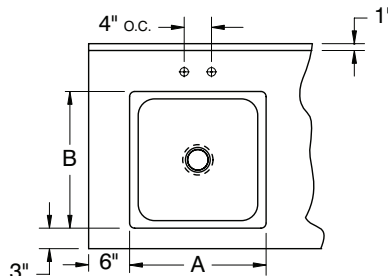
\*\* Bowls Are Turned In 24" Wide Tables (20" X 16" X 8")

† K-50 Swing Spout Faucet (Double Bowl)

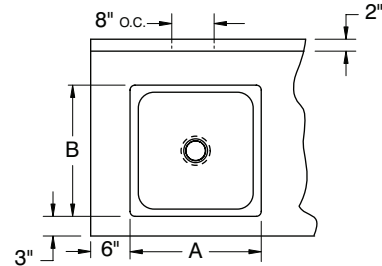
**FLAT TOP, 1" or 1-1/2" REAR SPLASH**  
(Deep Drawn Sink Bowl Shown)



**5" REAR SPLASH with 1" RETURN**  
(Deep Drawn Sink Bowl Shown)



**10" REAR SPLASH with 2" RETURN**  
(Deep Drawn Sink Bowl Shown)



## MODIFICATIONS & ACCESSORIES

<b>K-2A</b>	Poly-Vance Sink Cover 10"x14"
<b>K-2B</b>	Poly-Vance Sink Cover 14"x16"
<b>K-2C</b>	Poly-Vance Sink Cover 16"x20"
<b>K-2D</b>	Poly-Vance Sink Cover 18"x24"
<b>K-2E</b>	Poly-Vance Sink Cover 20"x20"
<b>K-2F</b>	Poly-Vance Sink Cover 24"x24"
<b>K-4</b>	Lever Drain Bracket
<b>K-5</b>	Lever Drain
<b>K-12</b>	Deck Mounted Soap Dispenser
<b>K-15</b>	Lever Drain with Overflow
<b>K-50</b>	Deck Mounted 4" O.C. 8" Swing Spout Faucet
<b>K-500MIT</b>	Omit Swing Spout Faucet
<b>K-52</b>	Deck Mounted 4" O.C. 3-1/2" Gooseneck Faucet
<b>K-520MIT</b>	Omit Swing Spout Faucet
<b>K-53</b>	Deck Mounted 4" O.C. 12" Gooseneck Faucet
<b>K-54</b>	8-1/4" High Water Filler Faucet

<b>K-54A</b>	12" High Water Filler Faucet
<b>K-55</b>	8 1/2" Spout 4" O.C. Deck Mt. Gooseneck Faucet
<b>K-56</b>	5" NSF Partition
<b>K-60</b>	4" O.C. Splash Mounted Gooseneck Faucet
<b>K-62</b>	X.H.D. 4" O.C. Deck Mounted Gooseneck Faucet
<b>K-105</b>	14" Splash Mounted 8" O.C. Faucet
<b>K-112</b>	Extra Heavy Duty 12" Splash Mounted Faucet
<b>K-316-LU</b>	Wrist Handles for 4" O.C. Faucets
<b>K-452</b>	6"x9" Control Bracket
<b>K-453</b>	14"x16" Control Bracket
<b>K-455A</b>	Stainless Steel Sink Cover 10"x14"
<b>K-455B</b>	Stainless Steel Sink Cover 14"x16"
<b>K-455C</b>	Stainless Steel Sink Cover 16"x20"
<b>K-455D</b>	Stainless Steel Sink Cover 18"x24"
<b>K-455E</b>	Stainless Steel Sink Cover 20"x20"
<b>K-455F</b>	Stainless Steel Sink Cover 24"x24"

<b>K-455G</b>	Stainless Steel Sink Cover 20"x28"
<b>K-460</b>	Installation of Disposal Cone with 6"x9" Control Bracket
<b>K-461</b>	Installation of Collar with 6"x9" Control Bracket
<b>K-470</b>	14" deep Bowls
<b>K-472</b>	Faucet Hole Revision
<b>TA-11Z</b>	Return Only (5" Splash Tables Require 2" Return For Splash Mounted Faucet)
<b>TA-31</b>	5" Side Splash
<b>TA-32</b>	10" Side Splash
<b>TA-34</b>	Top Cut-Out

For More Faucet Options & Faucet Specs, See Faucet Specifications in Section G



**Customer Service Available To Assist You 1-800-645-3166 8:30 am - 8:00 pm E.S.T.**

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# COMBINATION PROCESSOR : Bowl cutter & Vegetable prep *robot coupe®*

## R 2 N


**A**

### SALES FEATURES

**R 2 N Combination Processor:** Bowl cutter & Vegetable Prep equipped with a cutter attachment for chopping, fine mincing, emulsions, grinding and kneading, and a vegetable preparation attachment for slicing, grating, ripple cut slicing, and julienne.

**B**

### TECHNICAL FEATURES

R 2 N Combination Processor: Bowl cutter & Vegetable Prep. Single phase 120/60/1. Power 1 HP. Speed: 1725 rpm. 3 qt. cutter bowl in composite material and smooth bowl-base blade assembly. Vegetable preparation attachment in composite material equipped with 2 hoppers : 1 large and 1 cylindrical hopper. Supplied with 2mm (5/64") grating and 4mm (5/32") slicing discs. Large range of 23 stainless steel discs available as option. 10 to 30 meals.

Select your options at the back page, **F** part.

**C**

### TECHNICAL DATA

Output power	1 HP
Electrical data	120V/60/1 - 7 Amp
Speed	1725 rpm
Dimensions (WxDxH)	8 3/4" x 15 13/16" x 19 3/16"
Rate of recyclability	95%
Net weight	27 lbs
Nema #	5-15P
Reference	R 2 N 120V/60/1

**D**

Number of meals per service	10 to 30
Quantity per batch in cutter function	Up to 2.2 lbs
Vegetable slicer output	Up to 90 lbs/h

**E**

### VEGETABLE PREPARATION FUNCTION

#### MOTOR BASE

- Direct drive induction motor (no belt) for intensive use.
- Power 1 HP
- Stainless steel motor shaft.
- Built in on / off / pulse buttons.
- **Speed:** 1725 rpm.
- **Pulse** button for better cut precision.

#### CUTTER FUNCTION

- **3 qt. cutter bowl** in composite material with handle, and high resistance smooth blade assembly.

#### VEGETABLE FUNCTION

- Vegetable preparation attachment equipped with 2 hoppers :  
1 large hopper (surface : 12 square inches) and 1 cylindrical hopper (Ø : 2 1/4"). Removable bowl and lid.
- Removable chute and feed lead for dishwasher safe and easy cleaning.
- Vertical pusher presses on vegetables for uniform cuts.
- Large range of 23 stainless steel discs available as option.

#### COULIS/ FRUIT SAUCE & CITRUS PRESS FUNCTIONS:

- **Option:** Cuisine Kit including a coulis/ fruit sauce attachment and a citrus press attachment to prepare amuse-bouche, in-a-glass preparations, sauces, soups, sorbets and ice cream, smoothies, jam, fruit pastes...

#### ACCESSORIES INCLUDED

- Cutter attachment: lid and high resistance stainless steel smooth blade assembly with removable cap.
- Vegetable attachment : chute, feed lead and discharge plate
- Supplied with 2 mm (5/64") grating and 4mm (5/32") slicing discs

#### STANDARDS

ETL electrical and sanitation Listed/ cETL (Canada)



Specification sheet

[www.robotcoupeusa.com](http://www.robotcoupeusa.com)

Update : November 2014

Robot Coupe USA, Inc.

264 South Perkins - Ridgeland, MS 39157

PH: 601-898-8411 - Toll free: 800-824-1646 - Fax: 601-898-9134

info@robotcoupeusa.com

# COMBINATION PROCESSOR : Bowl cutter & Vegetable prep *robot coupe®*

## R 2 N

### F OPTIONAL ACCESSORIES

#### • BLADE OPTIONS

- Coarse serrated blade assembly for kneading and grinding, ref 27138
- Fine serrated blade assembly for chopping herbs and spices, ref 27061

#### • OTHER OPTIONS

- Cuisine Kit for fruit sauces and citrus fruit juice, ref 27393
- Wall-mounted blade and disc holder: holds 1 blade and 8 discs, ref 107810

### SUGGESTED PACKS OF DISCS

#### 3 disc package

6mm (1/4") coarse grating, 6mm (1/4"x1/4") julienne and 1mm (1/32") slicing discs.

#### 5 disc package

6mm (1/4") coarse grating, 6mm (1/4"x1/4") julienne and 1mm (1/32") slicing, 2mm (5/64") julienne and 6mm (1/4") slicing discs.

#### • OPTIONAL DISCS



#### SLICING

1 mm (1/32")	27051
2 mm (5/64")	27555
3 mm (1/8")	27086
4 mm (5/32")	27566
5 mm (3/16")	27087
6 mm (1/4")	27786



#### RIPPLE CUTTING

2 mm (5/64")	27621
--------------	-------



#### GRATING

1.5 mm (1/16")	27588
2 mm (5/64")	27577
3 mm (1/8")	27511
6 mm (1/4")	27046
9 mm (11/32")	27632
Hard Cheese grate	27764
Röstis potatoes	27191
Fine Pulping Disc	27078
Pulping Disc	27079
Pulping Disc	27130



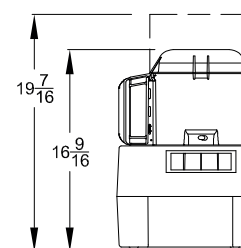
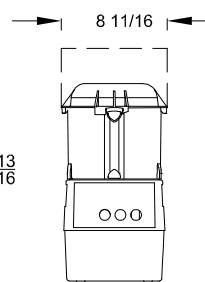
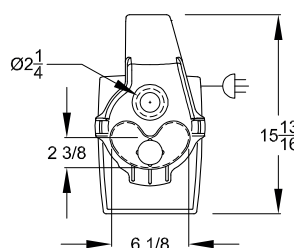
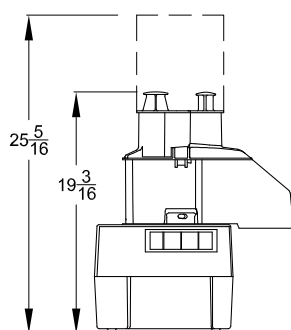
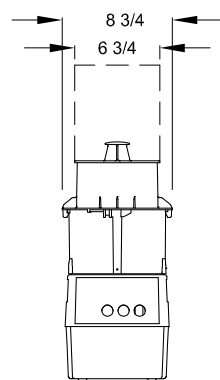
#### JULIENNE

2x4 mm (5/64" x 5/32")	27080
2x6 mm (5/64" x 1/4")	27081
2x2 mm (5/64" x 5/64")	27599
4x4 mm (5/32" x 5/32")	27047
6x6 mm (1/4" x 1/4")	27610
8x8 mm (5/16" x 5/16")	27048

### G

### ELECTRICAL DATA

120V/60/1 - delivered with cord and plug



Specification sheet

[www.robotcoupeusa.com](http://www.robotcoupeusa.com)

Update : November 2014

R 2 N

Item # \_\_\_\_\_

Quantity \_\_\_\_\_

C.S.I. Section 11400



701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartcorp.com

## 610 SLICER



### STANDARD FEATURES

- 1/2 H.P. Knife Drive motor
- Belt Driven
- Two-Stone Knife Sharpener
- Rear-Mounted Meat Grip
- Anodized Aluminum Base with Rounded Surfaces
- 10" Hollow Ground Carbon Steel Knife
- Anodized Aluminum Removable Carriage and Knife Cover
- Removable Rear Deflector
- Cleaning Brush
- 6' Flexible Three-Wire Cord and Plug

### MODEL

- 610 – Manual Slicer, 120/60/1

**610 SLICER**

# 610 SLICER

**HOBART**

 701 S Ridge Avenue, Troy, OH 45374  
 1-888-4HOBART • www.hobartcorp.com

## SOLUTIONS/BENEFITS

### 1/5 H.P. Knife Drive Motor

Durability &amp; Performance

- Reserve power runs at 342 RPM for optimum results

### Belt Driven

Durability &amp; Reduced Maintenance

- Quieter operating slicer
- More economical for service and repairs with reduced parts and reduced service time

### Two-stone Knife Sharpener

Ease of Use

- Two-stone sharpener and hone, thumbscrew lock for positioning, stores under slicer

### Rear-Mounted Meat Grip

Performance, Ease of Use

- Self Adjusting
- Grips product on top and serves as pusher plate for end pieces
- Swings out of way when not in use

### Removable Rear Deflector

Improved Sanitation, Ease of Use

- Allows access for through cleaning
- No tools required means easy removal during cleaning

### Anodized Aluminum Finish with Rounded Surfaces

Improved Sanitation

- Resists tarnish, stains, rust, peeling and cracking
- One-piece base with rounded surfaces
- All surfaces are durable and smooth; presenting no holes or crevices in which food can lodge

### 10" Hollow Ground Carbon Steel Knife

Performance

- Positive angle carriage design enables operator to slice without manual feed

### Anodized Aluminum Carriage and Knife Cover

Ease of Cleaning

- Carriage and knife cover easily removes for thorough cleaning and sanitation procedures
- Carriage has a 8 1/4" manual travel

## SPECIFICATIONS

**MOTOR:** 1/5 H.P. Knife Drive and Grease-packed ball bearings. Single phase operation.

**ELECTRICAL:** 120/60/1 – UL Listed. Also available in 220/50/1 – not submitted for UL listing.

**SWITCH:** Moisture protected toggle-type.

**CAPACITY:** The carriage will take food up to 7 1/4 inches in width.

**GAUGE PLATE:** Anodized aluminum casting for smooth feeding and easy cleaning. Adjustable to cut any thickness of slice up to 5/8 inches.

**CORD AND PLUG:** 6 foot flexible three-wire cord and plug.

### WEIGHTS AND DIMENSIONS:

Net Weight – 35 lbs.

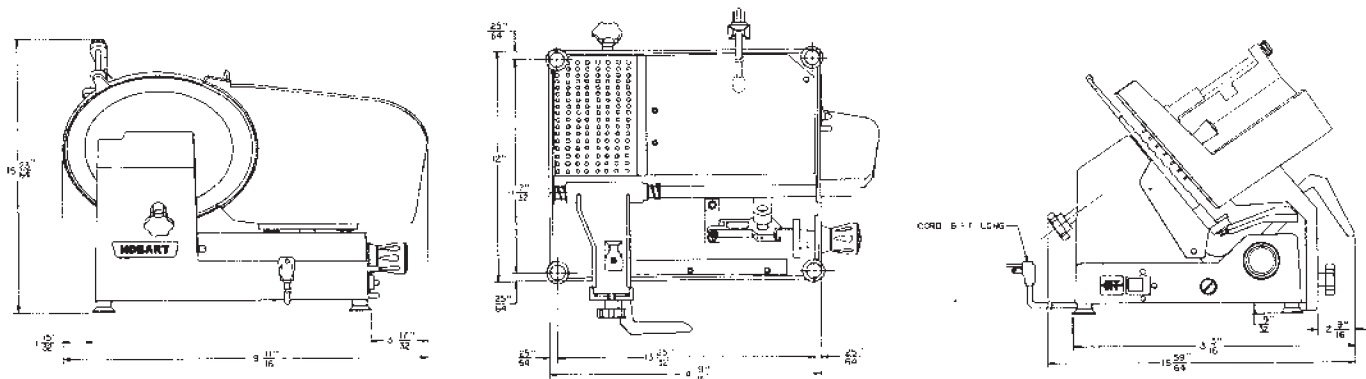
Overall Length – 15 59/64".

Overall Width – 16 15/16".

Height – 15 23/64".

**WARRANTY:** Unit has a full one-year warranty on parts, labor and mileage against manufacturer's defects.

## DETAILS AND DIMENSIONS



As continued product improvement is a policy of Hobart, specifications are subject to change without notice.



There's only one #1™

Project \_\_\_\_\_  
 Item # \_\_\_\_\_  
 Quantity \_\_\_\_\_

## Toast-Qwik® Electric Conveyor Toasters

Models: TQ-10, -400, -405, -400BA, -400H

The Hatco Toast-Qwik® is an economical conveyor toaster with fast, dependable and versatile toasting. These toasters utilize conveyor speed, not temperature to determine toasting color.

### Standard features

- Hatco's ColorGuard sensing system assures toast uniformity. (excludes TQ-10)
- Optional power save mode with indicator light saves energy and money during slow periods
- Efficient design of front or rear discharge allows Toast-Qwik to be placed where it is most convenient – for sending product to operator side or customer/server
- BA models toast one side only and are for bagels and buns only, cut side up
- Opening height is 2" (5 mm) and for H models is 3" (8 mm)
- Insulation and an interior fan provide cool surface temperatures
- TQ-10 has a durable painted steel top and aluminized steel construction
- Toast storage area keeps bread warm and dry
- Permanently lubricated ball bearing motor and heating elements guaranteed against burnout and breakage for two years



### Options (available at time of purchase only)

- ☐ Automatic Power Save Mode (TQ-400 Series only)

### Accessories

- ☐ Additional extended feed guide (Add 3" (76 mm))  
☐ Security Package



**HATCO CORPORATION** | P.O. Box 340500 Milwaukee, WI 53234-0500 U.S.A.

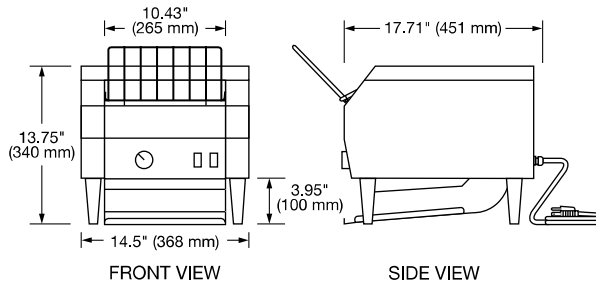
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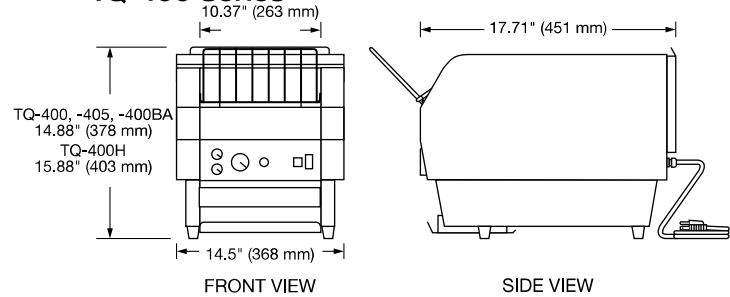
# Toast Qwik® Electric Conveyor Toasters

Models: TQ-10, -400, -405, -400BA, -400H

## TQ-10



## TQ-400 Series



## SPECIFICATIONS

### Toast Qwik Conveyor Toasters

The shaded areas contain electrical information for international models

Model	Dimensions (Width x Depth x Height*)	Volts	Hertz	Phase	Watts	Amps	Plug	Ship Weight*
TQ-10	14.5" x 17.71" x 13.75" (368 x 451 x 340 mm)	120	60	Single	1800	15.0	NEMA 5-15P*	42 lbs. (19 kg)
		208			1830	8.8	NEMA 6-15P	
		240				7.6		
		200	50/60		2070	10.4	AS 3112	
		220-230 (CE)			1866-2048	8.5-8.9	CEE 7/7, BS-1363, or AS 3112	
		230-240 (CE)			2048-2221	8.9-9.3		
TQ-400	14.5" x 17.71" x 14.88" (368 x 451 x 378 mm)	120	60	Single	1790	14.9	NEMA 5-15P*	46 lbs. (21 kg)
		208			2230	10.7	NEMA 6-15P	
		240				9.3		
		200	50/60		2064	10.3	AS 3112	
		220-230 (CE)			1860-2030	8.5-8.8	CEE 7/7, BS-1363, or AS 3112	
		230-240 (CE)			2030-2210	8.8-9.2		
TQ-405	14.5" x 17.71" x 14.88" (368 x 451 x 378 mm)	220-230 (CE)	50-60	Single	2131-2330	9.7-10.1	CEE 7/7, BS-1363, or AS 3112	46 lbs. (21 kg)
		230-240 (CE)			2030-2210	8.8-9.2		
TQ-400H	14.5" x 17.71" x 15.88" (368 x 451 x 403 mm) Tray extends 2.5" (64 mm) in rear	208	60	Single	2230	10.7	NEMA 6-15P	46 lbs. (21 kg)
		240				9.3		
		200	50/60		2064	10.3	AS 3112	
		220-230 (CE)			2131-2330	9.7-10.1	CEE 7/7, BS-1363, or AS 3112	
		230-240 (CE)			2030-2210	8.8-9.2		
TQ-400BA	14.5" x 17.71" x 14.88" (368 x 451 x 378 mm)	120	60	Single	1780	14.8	NEMA 5-15P*	46 lbs. (21 kg)
		208			1880	9.0	NEMA 6-15P	
		240				7.8		
		200	50/60		1848	9.2	AS 3112	
		220-230 (CE)			1765-1930	8.0-8.4	CEE 7/7, BS-1363, or AS 3112	
		230-240 (CE)			1930-2100	8.4-8.8		

\* TQ-400 and -400BA, add 2.5" (64 mm) to depth if using tray extension in rear. Height includes legs.

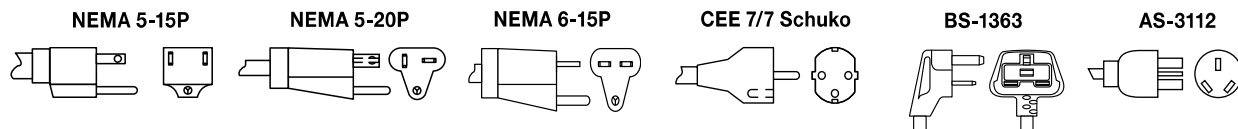
\* Shipping weight includes packaging.

\* NEMA 5-20P for Canada.

## CORD LOCATION

Lower right corner on back of unit.

## PLUG CONFIGURATIONS



## PRODUCT SPECS Conveyor Toasters

The electric Toast-Qwik® Conveyor Toaster with Color Guard sensing system (excludes TQ-10) shall be a Hatco model ... as manufactured by the Hatco Corporation, Milwaukee, WI 53234 U.S.A.

The Toaster shall have the capacity to toast up to ... pieces per minute and it shall be rated at ... kW, ... volts, single phase. The toaster shall be of stainless steel design and shall include a front mounted control panel with

a toast selector knob, variable speed control knob, and an aluminum toast collector pan (excluding TQ-10). The toaster will have multiple metal sheathed heating elements and an impedance protected motor. It shall be complete with factory attached UL listed 4' (1219 mm) cord and plug.

Comes with 24/7 parts and service assistance (U.S. and Canada only).

**HATCO CORPORATION** | P.O. Box 340500 Milwaukee, WI 53234-0500 U.S.A.

(800) 558-0607 | (414) 671-6350 | [www.hatcocorp.com](http://www.hatcocorp.com) | [equipsales@hatcocorp.com](mailto:equipsales@hatcocorp.com) | [intlsales@hatcocorp.com](mailto:intlsales@hatcocorp.com)



## BEVERAGE-AIR

3779 Champion Blvd., Winston-Salem, NC 27105  
1-888-845-9800 Fax# 1-336-245-6453  
<http://www.Beverage-Air.com>

**CUSTOMER'S CHOICE FOR A HOT KITCHEN**  
**Tested & Certified to Ambient Class of 100°F**

**3 Year Parts/Labor Warranty**  
**Additional 2 Year Compressor Warranty**

### SMF SERIES—SINGLE ACCESS, FORCED-AIR

Forced-air milk coolers are designed to keep milk cold during prolonged serving periods. A continuous cold-air blanket over the milk containers keeps the milk cold and drinkable (under 38°F) during serving.

### CABINET CONSTRUCTION

Standard construction includes the lid, door, adjustable hinges, and door latches made from stainless steel. Balance of exterior is white finish on steel. One-piece, reinforced stainless steel floor for maximum milk crate support. Balance of interior is galvanized steel. Heavy-duty, epoxy coated steel wire floor racks are provided for added floor protection. Floor drain is centrally located for easy cleaning, connecting to drain hose with hose adapter.

Exterior thermometer, cylinder lock, bottom drain, and 4" swivel casters (2 with locks) are provided as standard.

Foamed-in-place CFC and HCFC-free polyurethane insulation enhances the structural strength of the cabinet and helps increase energy efficiency. This insulation helps to prevent liquid penetration that results in foul odors. Overall depth of 31 1/2" allows easy mobility and clear passage through most doorways.

Models are also offered with stainless steel exterior in place of white finish on steel. A stainless steel interior is optionally available. Additional options include wrap around and corner bumpers.

### REFRIGERATION

Refrigeration system uses R134a refrigerant, which is CFC and HCFC-free for compliance with environmental safety concerns.

### ELECTRICAL

Units wired at factory and ready for connection to a 115/60/1 phase, 15 amp dedicated outlet. 8' long cord and plug set included.

### SPECIAL FEATURES

- One-piece, reinforced stainless steel floor for maximum support of milk crates.
- SMF34Y and SMF49Y models have earned the ENERGY STAR®.
- Stainless options available.

Item No. \_\_\_\_\_  
Quantity \_\_\_\_\_

### SCHOOL MILK COOLERS SINGLE ACCESS, FORCED-AIR SMF SERIES

**MODELS:**  
**SMF34Y**  
**SMF49Y**  
**SMF58**



**SMF34 (white exterior shown)**



**SMF49 (white exterior shown)**



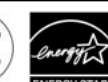
**SMF58 (white exterior shown)**

### ELECTRICAL CONNECTION



115/60/1  
NEMA-5-15P

Units pre-wired at factory and include 8' long cord and plug set.



Available From: \_\_\_\_\_

\*Note: Not all markings may apply to all model variations.



Model Specified \_\_\_\_\_

Store# \_\_\_\_\_

Location \_\_\_\_\_

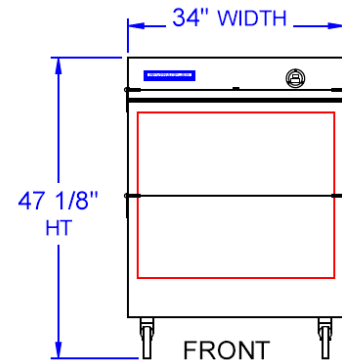
Quantity \_\_\_\_\_

**BEVERAGE-AIR****SMF SERIES School Milk Coolers****Models: SMF34Y, SMF49Y, SMF58**

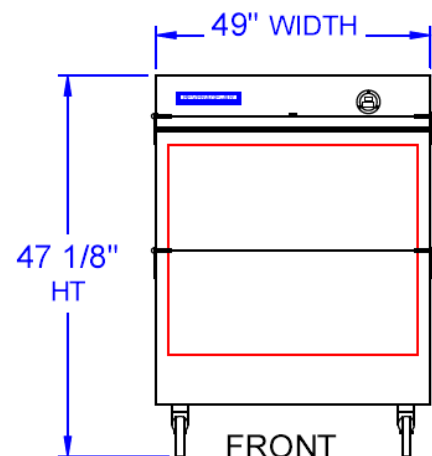
MODEL	SMF34Y	SMF49Y	SMF58
<b>EXTERNAL DIMENSIONAL DATA</b>			
Length Overall (inches)	34"	49"	58"
Length Overall (mm)	864	1245	1473
Depth Overall (inches)	33 1/2"	33 1/2"	33 1/2"
Depth Overall (mm)	851	851	851
Height Overall— (inches)	47 1/8"	47 1/8"	47 1/8"
Height Overall—(mm)	1197	1197	1197
Number of doors/lids	2	2	2
<b>INTERNAL DIMENSIONAL DATA</b>			
NET Capacity (cubic ft.)	13.35	17.28	24.8
NET Capacity (Liters)	378	489	702
<b>CASE CAPACITIES</b>			
13" x 13" x 11"	8	12	16
19" x 13" x 11"	4	8	10
<b>ELECTRICAL DATA</b>			
Full Load Amperes 115/60/1	4.2	4.2	8.2
<b>REFRIGERATION DATA</b>			
Horsepower	1/5	1/5	1/2
<b>WEIGHT DATA</b>			
Gross Weight (Crated lbs)	343	437	484
Gross Weight (Crated kg)	156	198	220



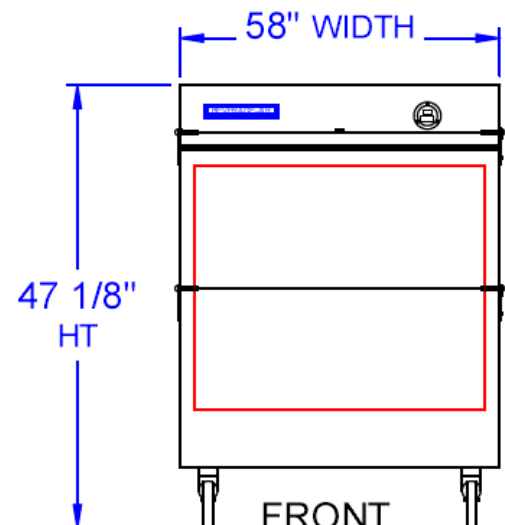
\*Note: Not all markings may apply to all model variations.

**PLAN VIEWS**

FRONT

**SMF34Y**

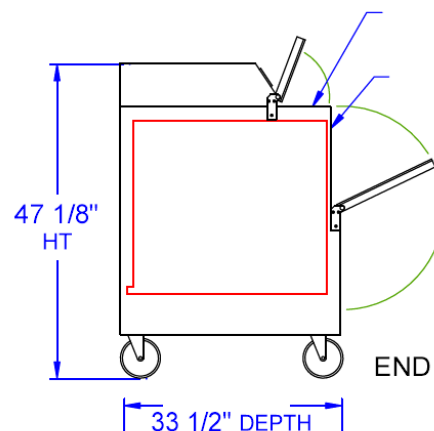
FRONT

**SMF49Y**

FRONT

**SMF58****ELECTRICAL CONNECTION**

Units pre-wired at factory and include 8' long cord and plug set.



END

**BEVERAGE-AIR® CORPORATION**

3779 Champion Blvd. • Winston-Salem, NC 27105 USA • (336) 245-6400 • Fax (336) 245-6453 • (888) 845-9800 • www.beverage-air.com

Specifications are subject to change without prior notice. 06/13



## CU1526 / CU2026 - 150lb / 200lb Self-Contained Ice Machine

Prodigy® Undercounter Cuber with Storage



CU1526 / CU2026

### Features and Benefits

- Prodigy® undercounter cubers use significantly less energy and water than other cube ice machines, exceeding Federal energy efficiency regulations.
- AutoAlert™ control panel can communicate operating status and signal when it's time to descale, sanitize and more- making upkeep easier.
- The patented WaterSense adaptive purge control delivers maximum reliability by reducing scale buildup for a longer time between cleanings.
- All external panel components are crafted for optimal aesthetic appeal through superior fit and finish.
- Preventative maintenance is simpler than ever with easily-removed door, top panel and storage bin allowing clear access to all internal components and a diagnostic code display insuring the right fix the first time.
- Front removable air filter.

CU1526 / CU2026 - 150lb / 200lb  
Self-Contained Ice Machine



### 24 Hour Volume Production

	Air Cooled		Water Cooled	
	70°F/21°C 50°F/10°C	Air Water	70°F/21°C 50°F/10°C	Air Water
CU1526:	150/68	110/50	175/80	124/56
CU2026:	200/91	155/70	240/109	190/83
	lb/kg	lb/kg	lb/kg	lb/kg

Front Air Filter



### Cube Ice

Common ice form, ideal for mixed drinks.



Small Cube  
7/8" x 7/8" x 3/8"  
(2.22 x 2.22 x .95 cm)



Medium Cube  
7/8" x 7/8" x 7/8"  
(2.22 x 2.22 x 2.22 cm)



### Certification



### Warranty

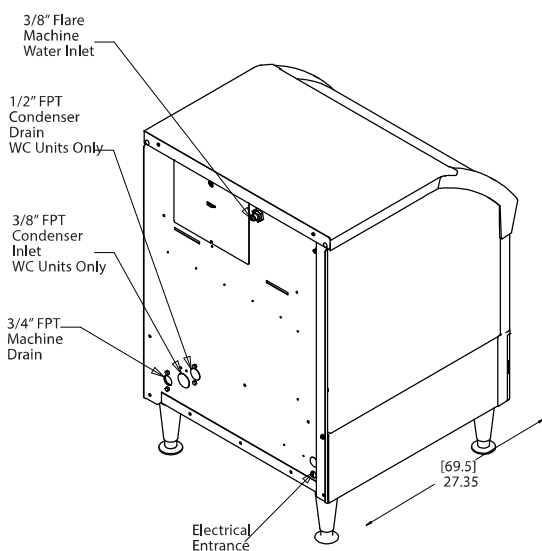
- 3 years parts and labor on all components.
- 5 years parts and labor on the evaporator.
- 5 years parts on the compressor and condenser.
- Warranty valid in North, South & Central America for commercial installations.
- Contact factory for warranty in other regions.

**Scotsman**  
ICE THE WORLD DEMANDS

- 775 Corporate Woods Parkway, Vernon Hills, IL 60061 •
- 1-800-SCOTSMAN • Fax: 847-913-9844 • [www.scotsman-ice.com](http://www.scotsman-ice.com) • [customer.relations@scotsman-ice.com](mailto:customer.relations@scotsman-ice.com) •

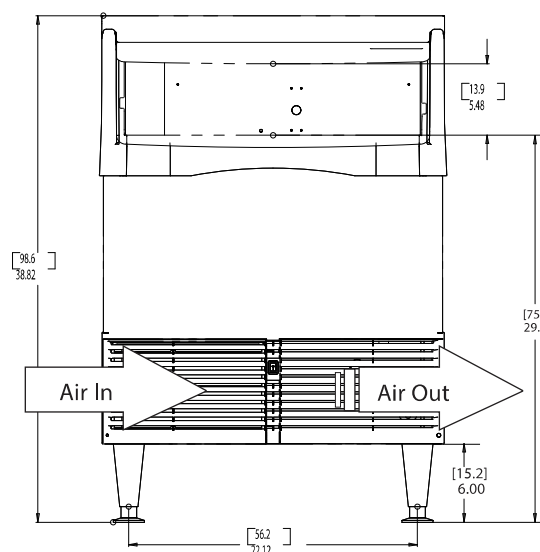
## CU1526 / CU2026 - 150lb / 200lb Self-Contained Ice Machine

Prodigy® Undercounter Cuber with Storage



CU1526 / CU2026

Installation Note: Allow 6" at back for utility connections



CU1526/CU2026 front view



## Specifications

Model Number*	Condenser Unit	Storage lb/kg	Basic Electrical Volts/Hz/Phase	Max. Fuse Size or HACR Circuit Breaker (amps)	Circuit Wires	Min. Circuit Ampacity	Energy Consumption kWh/100 lb (45.4 kg) 90°F(32°C)/70°F(21°C)	Water Usage Gallons/100 lb (liters/45.4 kg)	
								Potable 90°F(32°C)/70°F(21°C)	Condenser 90°F(32°C)/70°F(21°C)
CU1526MA-1	Air	80/36	115/60/1	15	2	Cord	11.5	18.0/68.2	-
CU1526MW-1	Water	80/36	115/60/1	15	2	Cord	8.8	18.0/68.2	160/606
CU2026MA-1	Air	80/36	115/60/1	15	2	Cord	9.7	18.0/68.2	-
CU2026MA-32	Air	80/36	208-230/60/1	15	2	Cord	9.7	18.0/68.2	-
CU1526SA-1	Air	80/36	115/60/1	15	2	Cord	11.5	18.0/68.2	-
CU1526SW-1	Water	80/36	115/60/1	15	2	Cord	8.8	18.0/68.2	160/606
CU2026SA-1	Air	80/36	115/60/1	15	2	Cord	9.7	18.0/68.2	-
CU2026SW-1	Water	80/36	115/60/1	15	2	Cord	6.6	18.0/68.2	180/682



## All Models

## Dimensions (W x D x H):

Unit: 26" x 27 3/8" x 33" \*  
(66.0 x 69.5 x 83.8 cm)  
\* Add 6" for legs.

Shipping Carton: 29" x 30" x 37"  
(73.7 x 76.2 x 94.0 cm)

Shipping Weight: CU1526: 150lb / 68kg  
CU2026: 175lb / 80kg

BTUs per hour: CU1526: 3,100  
CU2026: 3,900

Refrigerant: R-404A



## Accessories

Model Number	Description
KLP8S	Kit 6 inch leg SS
KPUFM26	Kit Prodigy undercounter floor mount 26 inch for CU1526 - CU2026 (add .5" to height)

Scotsman recommends all ice machines have water filtration. See Scotsman water filter specification sheet for details.



## Operating Requirements

	Minimum	Maximum
Air Temperatures	50°F (10°C)	100°F (38°C)
Water Temperatures	40°F (4.4°C)	100°F (38°C)
Remote Cond. Temps	-20°F (-29°C)	120°F (49°C)
Water Pressures	20 PSIG (1.4 bar)	80 PSIG (5.5 bar)
Electrical Voltage	-5%	+10%

Specifications and design are subject to change without notice.

**Scotsman**  
ICE THE WORLD DEMANDS

• 775 Corporate Woods Parkway, Vernon Hills, IL 60061 •

• 1-800-SCOTSMAN • Fax: 847-913-9844 • www.scotsman-ice.com • customer.relations@scotsman-ice.com •

# 3M™ Water Filtration

SPEC# \_\_\_\_\_

application: **ICE**

QUANTITY \_\_\_\_\_

models:

## ICE120-S/ICE125-S

3M™ Water Filtration Products Models ICE120-S and ICE125-S single cartridge water filtration systems help provide consistent high quality water for commercial ice by reducing the effects of sediment and chlorine taste and odor at flow rates up to 1.5 gpm (5.7 lpm). Built-in scale inhibition reduces the ability of calcium and magnesium to precipitate on the evaporator plates as hard scale.

- **ICE120-S** combines cyst, sediment and chlorine taste and odor reduction, while reducing the effects of chlorine corrosion and scale for up to 9,000 gallons (34,069 liters).
- **ICE125-S** combines chlorine taste and odor reduction with sediment and scale reduction from higher turbidity water, while reducing the effects of chlorine corrosion and scale for up to 10,000 gallons (37,854 liters).

### PRODUCT BENEFITS

- Effectively reduces sediment and chlorine taste and odor for better equipment protection and clearer, great tasting ice.
- Certified by NSF to Standard 53 for cyst reduction (HF20-S replacement cartridge).
- NSF Standard 42 and/or FDA CFR-21 compliant materials.
- Built-in scale inhibitor reduces lime scale build-up on evaporator plates as tested by CUNO.
- Patented valve-in-head design simultaneously shuts off and vents water, allowing for simple and virtually trouble-free cartridge change-outs without the need to shut off the upstream feed water.
- Sanitary Quick Change (SQC) encapsulated cartridge design allows for fast and easy cartridge change-outs with a 1/4 turn.
- 3/8" FNPT horizontal inlet and outlet ports allow direct or easily adaptable connections to existing plumbing lines.

### PRODUCT SPECIFICATIONS

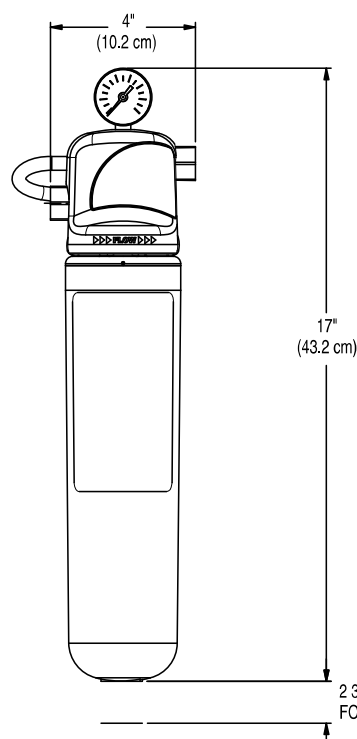
Model Number	Part Number	Reduction Claims	Nominal Micron Rating	Capacity	Service Flow Rate	Application	Replacement Cartridge	Sizing
ICE120-S	56160-03	Cyst, Sediment, Chlorine Taste and Odor, Scale <sup>1</sup>	0.5	9,000 gallons (34,069 liters)	1.5 gpm (5.7 lpm)	Most Standard Water	HF20-S: 56151-03	Low Flow Cubers to 750 lbs. (340 kg) High Flow Cubers to 200 lbs. (91 kg) Flakers to 1,200 lbs. (544 kg)
ICE125-S	56160-04	Sediment, Chlorine Taste and Odor, Scale <sup>1</sup>	1.0	10,000 gallons (37,854 liters)	1.5 gpm (5.7 lpm)	Higher Turbidity Water	HF25-S: 56152-03	Low Flow Cubers to 750 lbs. (340 kg) High Flow Cubers to 200 lbs. (91 kg) Flakers to 1,200 lbs. (544 kg)

<sup>1</sup>Tested and verified by manufacturer's laboratory



# ICE120-S/ICE125-S

SPEC# \_\_\_\_\_  
 QUANTITY \_\_\_\_\_  
 MODEL NUMBER \_\_\_\_\_  
 PART NUMBER \_\_\_\_\_



## ⚠ WARNING: To reduce the risk associated with the ingestion of contaminants:

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. EPA Establishment #070595-CT-001

CUNO Incorporated recommends regularly scheduled maintenance and replacement of the filter cartridge(s) in order for the product to perform as advertised/sold. CUNO shall not be liable for system failures due to improper maintenance.

## LIMITED WARRANTY

CUNO Incorporated warrants this Product to be free from defects in material and workmanship for five (5) years from the date of purchase. This warranty does not cover failures resulting from abuse, misuse, alteration or damage not caused by CUNO or failure to follow installation and use instructions. If the Product is defective CUNO will replace the Product or refund your Product purchase price. CUNO will not be liable for any indirect, special, incidental, or consequential damages arising from the use of this Product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. To obtain warranty service, mail your request to Warranty Claims, CUNO Incorporated, 400 Research Parkway, Meriden, CT 06450. Proof of purchase (original sales receipt) must accompany the warranty claim, along with a complete description of the Product, model number and alleged defect. This warranty gives you specific legal rights and you may have other rights which vary from state to state, or country to country.

# 3M™ Water Filtration Products

## PHYSICAL SPECIFICATIONS

- System includes a head assembly with integral mounting bracket, pressure gauge and a single cartridge filter.
- Inlet and outlet plumbing connections are 3/8" FNPT.
- System incorporates an internal automatic 1/4 turn shut-off valve.
- Filter cartridges are o-ring seal type.
- System maximum operating pressure of 125 psi (862 kPa) and operating temperature of 100°F (37.8°C).
- Recommended service flow rate is up to 1.5 gpm (5.7 lpm).
- Filter cartridges incorporate carbon block filtration medium and scale inhibitor.
- System materials are NSF Standard 42 and/or FDA CFR-21 compliant.
- Cartridges are sanitary in design, requiring no contact with the filter media during cartridge change-out.
- Filter cartridges require no pre-activation.
- NSF Performance Data Sheet (PDS) is included.
- Shipping weight: 19 lbs. (8.6 kg) per case.
- Case quantity: 6.

## IMPORTANT: INSTALLATION TIPS

These installation tips are for informational purposes only and are not intended to be used as actual installation instructions. **CAUTION: To reduce the risk associated with property damage due to water leakage:**

- **Read and follow** Use Instructions before installation and use of this system.
- Installation and use **MUST** comply with all state and local plumbing codes.
- **Protect from freezing**, remove filter cartridge when temperatures are expected to drop below 40°F (4.4°C).
- **Do not install on hot water supply lines.** The maximum operating water temperature of this filter system is 100°F (37.8°C).
- **Do not install** if water pressure exceeds 125 psi (862 kPa). If your water pressure exceeds 80 psi (552 kPa), you must install a pressure limiting valve. Contact a plumbing professional if you are uncertain how to check your water pressure.
- **Do not install** where water hammer conditions may occur. If water hammer conditions exist you must install a water hammer arrester. Contact a plumbing professional if you are uncertain how to check for this condition.
- The disposable filter cartridge **MUST** be replaced every 12 months, at the rated capacity or if a noticeable reduction in flow rate occurs.

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 70020194158



Visit [www.nsf.org](http://www.nsf.org) for the claims associated with products that are NSF listed.



**CUNO Incorporated**  
 400 Research Parkway  
 Meriden, CT 06450 U.S.A.  
 Toll Free: 1.888.218.CUNO  
 Worldwide: 203.237.5541  
 Fax: 203.238.8701  
[www.cunofoodservice.com](http://www.cunofoodservice.com)



# Cantilever Glass and Tray Mobile Dispensers

PRODUCT:

QUANTITY:

Models: ☐ CTR ☐ CTRD

ITEM#:

## Bid Specifications

Mobile, cantilever-type, self-leveling dispenser that is easily field adjustable for dispensing trays, glasses, or cups. CTR Dispensers and CTRD Double Dispensers are excellent for use in serving lines, tray makeup lines, or at hot and cold beverage service points and are open on three sides for easy access. Stainless steel construction. Four-inch rubber casters standard.

## Standard Features

- Protective corner bumper standard.
- Open-sided construction for versatility.
- Tray carrier will not tip or bind.
- Lift-out panel for easy access to dispensing mechanism.
- Full base for sanitary protection and empty rack storage.

## Reliability backed by APW Wyott's Warranty

- All APW Wyott Food Wells are backed by a 1-year Parts and Labor warranty, including On-Site Service calls within 50 miles of authorized service technicians.
- Cold Wells are Certified by the following agencies:



**Mobile Dispensers**

## Options:

- ☐ -5P 5inch polyurethane casters, two with brakes (not installed; add 1 inch to height)
  - ☐ -PB Perimeter bumpers for model CTR
  - ☐ -OS Overshelf for Model CTR (installed; add 8 inches to overall height)
  - ☐ -SD 8-hole, stainless steel cutlery dispenser for Model CTR (installed; add 17-1/2 inches to height)
  - ☐ -WB Wrap-around bumpers for Model CTRD
- 
- ☐ CTR-1014    ☐ CTR-1020    ☐ CTR-1418
  - ☐ CTR-1620    ☐ CTR-1622    ☐ CTR-2020
  - ☐ CTRD-1014    ☐ CTRD-1418    ☐ CTRD-1620
  - ☐ CTRD-1622

See reverse side for product specifications.



## APW Wyott Foodservice Equipment Company

729 Third Avenue • Dallas, TX 75226 • 800-527-2100 • 1-214-421-7366 • Fax 1-214-565-0976

For more information e-mail us at: [Info@APWwyott.com](mailto:Info@APWwyott.com)

Rev. 1/1/2003





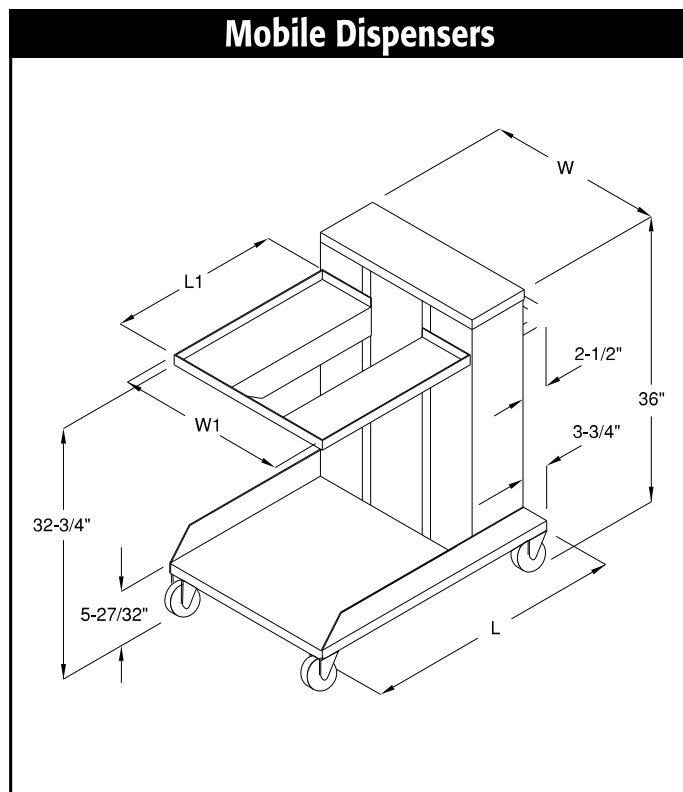
# Cantilever Glass and Tray Mobile Dispensers

Models: ☐ CTR ☐ CTRD

PRODUCT:

QUANTITY:

ITEM#:



Mobile Dispensers

## PRODUCT SPECIFICATIONS

### Construction

All stainless steel base.

Caster brakes on rear casters. Dependable and adjustable extension spring dispensing mechanism.

### Dispensing System

Easily field adjustable to a wide load range.

By connecting the self-contained extension springs, the load rate can be increased in increments of 1 lb./in. Stainless steel carrier cannot bind or tip.

### Capacity:

To 125 trays, 14 dozen cups, 16 dozen glasses.

Vertical storage:

27-1/8" (23" travel and 4-1/8" to top of upright).

### Total Load Capacity:

Model CTR: 250 pounds.

Model CTRD: 500 pounds.

F.O.B. Cheyenne, WY

MODEL NUMBER	PLATFORM DIMENSIONS		OVERALL DIMENSIONS		SHIPPING WEIGHT
	W1	L1	W	L	
CTR-1014	14-1/2"	10-1/2"	18 1/16"	21 7/8"	108 lbs.
CTR-1418	14-1/2"	18-1/2"	18 1/16"	29 7/8"	110 lbs.
CTR-1620	16-3/4"	20-3/4"	18 1/16"	32 1/8"	110 lbs.
CTR-1020	16-3/4"	22-1/2"	22 11/16"	21 7/8"	110 lbs.
CTR-1622	20-1/2"	10-1/2"	18 1/16"	33 7/8"	110 lbs.
CTR-2020	20-1/2"	20-1/2"	22 11/16"	31 7/8"	118 lbs.

MODEL NUMBER	PLATFORM DIMENSIONS		OVERALL DIMENSIONS		SHIPPING WEIGHT
	W1	L1	W	L	
CTRD-1014	14"	10"	36"	22"	225 lbs.
CTRD-1418	18"	14"	36"	30"	231 lbs.
CTRD-1620	16"	20"	37"	33"	232 lbs.
CTRD-1622	16"	22"	37"	35"	236 lbs.



## APW Wyott Foodservice Equipment Company

729 Third Avenue • Dallas, TX 75226 • 800-527-2100 • 1-214-421-7366 • Fax 1-214-565-0976

For more information e-mail us at: [Info@APWwyott.com](mailto:Info@APWwyott.com)

Rev. 1/1/2003 #1301





# Specifications

F.O.B Sedalia, Missouri 65301



**TEHF-46PG**  
(shown with optional foodshield)

## OPTIONS:

- ☐ 14 gauge tops
- ☐ Internal locking devices
- ☐ Individual drain valves
- ☐ No drains
- ☐ Recessed top to hold - 18" x 26" sheet pans, 1" deep
- ☐ Three phase wiring
- ☐ Electric heat in base module
- ☐ Foodshields
- ☐ Workshelves
- ☐ Trayslides
- ☐ Food pans - See Top Equipment in Price Book
- ☐ Sliding/Hinged doors
- ☐ 8' or 10' cord and plug
- ☐ Veneered plastic laminate panels on body
- ☐ Powder coat paint colors
- ☐ 6" adjustable legs in lieu of casters
- ☐ Kickplates s/s or p/g

## AGENCY LISTINGS:



**DUKE MANUFACTURING CO.**  
2305 N. Broadway  
St. Louis, MO 63102

800.735.3853 Toll Free  
314.231.1130 In Missouri  
314.231.5074 Fax  
www.dukemfg.com

SS-DM-00024-TSS-02

## Approval Stamp(s):

## PRODUCT INFORMATION:

PROJECT: \_\_\_\_\_

ITEM: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

## MODEL:

## Thurmaduke Serving Systems - Hot Food Units - Electric

- ☐ **TEHF-32** 32" length unit, 2 top openings
- ☐ **TEHF-46** 46" length unit, 3 top openings
- ☐ **TEHF-60** 60" length unit, 4 top openings
- ☐ **TEHF-74** 74" length unit, 5 top openings
- ☐ **TEHF-88** 88" length unit, 6 top openings

## TOP:

- 16 gauge, 300 Series stainless steel
- Die-stamped openings - 11-7/8" x 19-7/8"

## HEAT COMPARTMENTS:

- Die-stamped openings, raised beaded edges
- Seamless, fully coved, stainless wells, 6-1/2" deep
- Controls mounted below top on operator's side
- Heating element beneath each well
- 120, 208 or 240 volt (must choose one)
- Robertshaw thermostat, with indicator light
- Wired to master toggle switch w/indicator light
- 6' cord and plug
- Sealed wells with drains copper manifolded to valve

## BODY:

- ☐ Choice of (12) powder coat paint colors (must choose one):
 

<input type="checkbox"/> #217105 - Designer White	<input type="checkbox"/> #217103 - Natural Almond
<input type="checkbox"/> #217150 - Orange Red	<input type="checkbox"/> #217154 - Racing Red
<input type="checkbox"/> #217107 - Hollyberry Red	<input type="checkbox"/> #217120 - Sky Blue
<input type="checkbox"/> #217127 - Fence Green	<input type="checkbox"/> #217152 - Stone Gray
<input type="checkbox"/> #217102 - Duke Silver	<input type="checkbox"/> #217113 - Brown Kickplate
<input type="checkbox"/> #217101 - Semi-Gloss Black	<input type="checkbox"/> #217125 - Textured Black
- ☐ Stainless steel body
  - Operator's side open to bottom shelf
  - Customer side and ends fully enclosed
  - Bottom shelf paint grip or stainless steel to match body
  - Recessed stainless steel dish shelf

## SHORT FORM SPECIFICATIONS:

**Thurmaduke Serving Systems - Hot Food - Electric.** Top shall be 16ga, 300 series Stainless Steel flanged down edges, flush at ends, 20ga s/s body open at operator side with 15-1/2" opening for storage w/ recessed dish shelf standard, Pan openings to be 11-7/8" x 19-7/8" x 6-1/4" deep, die-stamped, drains, copper manifolds, one valve, Robertshaw thermostats, unit wired to master toggle w/ indicator, 5" dia. NSF approved swivel casters, 2 w/ locks, 6' cord & plug. (Note: Spillage pans will NOT fit in sealed well openings)

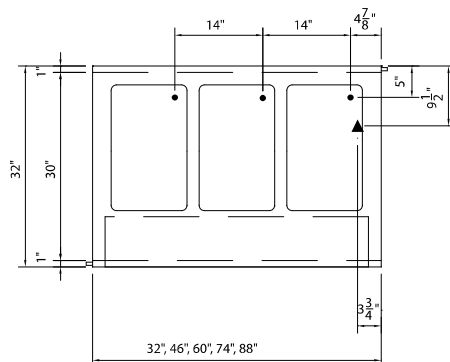
THURMADUKE SERVING SYSTEMS - HOT FOOD - ELECTRIC

Catalog No. TSS-ELECHOT

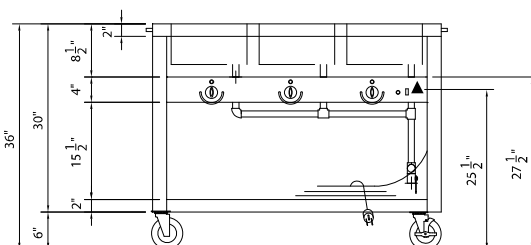
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REV A

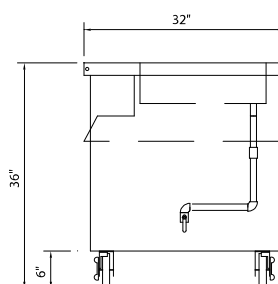
# Thurmaduke®



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

## THURMADUKE SERVING SYSTEMS HOT FOOD UNITS - ELECTRIC

- ☐ **TEHF-32** 32" length unit, 2 top openings
- ☐ **TEHF-46** 46" length unit, 3 top openings
- ☐ **TEHF-60** 60" length unit, 4 top openings
- ☐ **TEHF-74** 74" length unit, 5 top openings
- ☐ **TEHF-88** 88" length unit, 6 top openings

### LEGEND

- ▲ - ELECTRICAL CONNECTION
- - DRAIN LOCATION - 3/4" brass, male thread, pop out screen, copper manifolds and brass master valve

### DIMENSIONS:

Freight Class: 150

Model	Length		Width		Height		Cube ft. crated	Weight		Top Openings
	in	cm	in	cm	in	cm		lbs	kg	
<b>TEHF-32</b>	32	81.3	32	81.3	36	91.4	34.8	253	115.0	2
<b>TEHF-46</b>	46	116.8	32	81.3	36	91.4	47.7	327	148.6	3
<b>TEHF-60</b>	60	152.4	32	81.3	36	91.4	60.5	400	181.8	4
<b>TEHF-74</b>	74	188.0	32	81.3	36	91.4	73.3	482	219.1	5
<b>TEHF-88</b>	88	223.5	32	81.3	36	91.4	86.2	595	270.5	6

ELECTRICAL SPECIFICATIONS: *CONTACT FACTORY: Electric values & plug configurations change for 3 phase or when adding electric options.*

Model	120 Volt - 750 watt elements			208 Volt - 900 watt elements			240 Volt - 1200 watt elements		
	watts	amps	NEMA	watts	amps	NEMA	watts	amps	NEMA
<b>TEHF-32</b>	1500	12.5	5-15	1800	8.7	6-20	2400	10.0	6-20
<b>TEHF-46</b>	2250	18.8	L5-30	2700	13.0	6-20	3600	15.0	6-20
<b>TEHF-60</b>	3000	25.0	5-50	3600	17.3	L6-30	4800	20.0	L6-30
<b>TEHF-74</b>	3750	31.3	5-50	4500	21.6	L6-30	6000	25.0	6-50
<b>TEHF-88</b>	4500	37.5	5-50	5400	26.0	6-50	7200	30.0	6-50

### DUKE MANUFACTURING CO.

2305 N. Broadway  
St. Louis, MO 63102

800.735.3853 Toll Free  
314.231.1130 In Missouri  
314.231.5074 Fax  
[www.dukemfg.com](http://www.dukemfg.com)



Specification subject to change

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Your Solutions Partner

# Specifications

F.O.B Sedalia, Missouri 65301



540-xx

## OPTIONS:

- Fluorescent light
- Radiant heat rod w/incandescent light - 120V
- Radiant heat rod w/switch
- Special lengths or heights
- Special finish colors

## Approval Stamp(s):

### PRODUCT INFORMATION:

PROJECT: \_\_\_\_\_

ITEM: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

**MODEL:** Foodshield - Designer Series - Self Serve

Fits: Thurmaduke Steamtable, Aeroserv, Thurmaduke Serving Systems

- ☐ TS540-32
  - ☐ TS540-46
  - ☐ TS540-60
  - ☐ TS540-74
  - ☐ TS540-88
- Self Service Style - Stainless Steel Top

### TOP:

- All edges flanged down
- 18 gauge stainless steel or paint grip steel
- ☐ Choice of (12) powder coat paint colors (must choose one):

- |   |  |
|---|--|
| <input type="checkbox"/> #217105 - Bright White     | <input type="checkbox"/> #217103 - Natural Almond  |
| <input type="checkbox"/> #217150 - Orange           | <input type="checkbox"/> #217154 - Racing Red      |
| <input type="checkbox"/> #217107 - Hollyberry Red   | <input type="checkbox"/> #217120 - Sky Blue        |
| <input type="checkbox"/> #217127 - Fence Green      | <input type="checkbox"/> #217152 - Stone Gray      |
| <input type="checkbox"/> #217102 - Silver Hammer    | <input type="checkbox"/> #217113 - Brown Kickplate |
| <input type="checkbox"/> #217101 - Semi-Gloss Black | <input type="checkbox"/> #217125 - Textured Black  |

### FRAMES:

- 18 gauge stainless steel or choice of 12 powder coat colors

### GUARDS:

- Adjustable 1/4" tempered glass food shield

### SIZES:

- All units available in following lengths  
31-3/4", 45-3/4", 59-3/4", 73-3/4", 87-3/4"

## Agency Listings:



**DUKE MANUFACTURING CO.**  
2305 N. Broadway  
St. Louis, MO 63102

**800.735.3853 Toll Free**  
**314.231.5074 Fax**  
**www.dukemfg.com**

### SHORT FORM SPECIFICATIONS:

**FOODSHIELD - TS540-xx** - Self Service style with stainless steel or painted top and end panels. 10.375" glass front, positive stop guard

**NSF Updates:** (1) Added new side shield to guard (2) Made end guard deeper and added another hole for stability.

FOODSHIELDS - DESIGNER SERIES

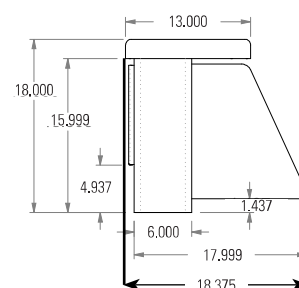
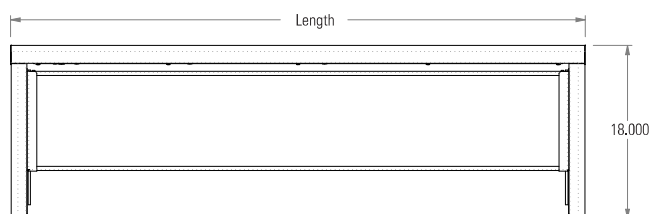
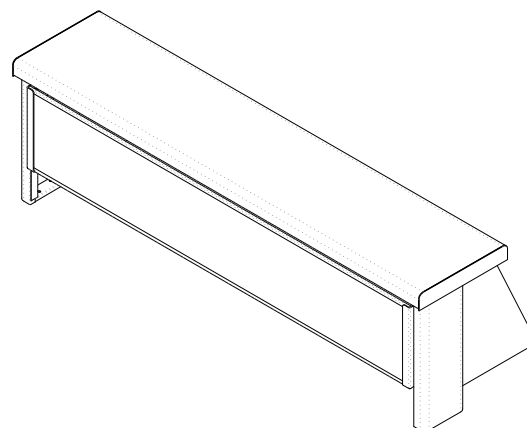
Catalog No. BG-DESIGNER

A.I.A. File No. 35-C-13

FS-04

**FOODSHIELD - DESIGNER SERIES**

- ☐ TS540-32  
☐ TS540-46  
☐ TS540-60 Self Service Style - Stainless Steel Top  
☐ TS540-74  
☐ TS540-88

**DIMENSIONS:**

Self-Service Style, w/stainless steel for painted top, stainless steel or painted end panels. Freight Class: 150

Model	Length		Height		Width		Weight		Cube ft. Crated
	in	cm	in.	cm	in.	cm	lbs.	kg	
<b>TS540-32</b>	32	81.3	18	45.7	18.375	33.0	25	11.4	8.3
<b>TS540-46</b>	46	116.8	18	45.7	18.375	33.0	31	14.1	11.4
<b>TS540-60</b>	60	152.4	18	45.7	18.375	33.0	36	16.4	14.5
<b>TS540-74</b>	74	188.0	18	45.7	18.375	33.0	40	18.2	17.5
<b>TS540-88</b>	88	223.5	18	45.7	18.375	33.0	44	20.0	20.6

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Specification subject to change

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## Glo-Ray® Curved Infrared Strip Heaters with LED Lights

### Models:

GR5AL-18, -24, -30, -36, -42, -48, -54, -60, -66, -72

GR5AHL-18, -24, -30, -36, -42, -48, -54, -60, -66, -72

This stylish patented design, based on our signature Glo-Ray® strip heaters, is the perfect solution for your front-of-the-house applications. Superb for buffet and serving lines, the sleek curved design minimizes its size while accenting and warming the products below.

Warm LED lighting provides perfect coloring and coverage while lowering energy costs.

The entire holding surface is heated evenly with no "cold" spots thanks to Hatco's dependable infrared element technology.

Hatco's wide array of colors help provide the right look for your venue.

### Standard features

- Narrow, curved design: 2"H by 6"D (51 x 150 mm) uses a very small footprint.
- Lengths available from 18"-72" (457- 1829 mm) in 6" (152 mm) increments
- Patented housing design has energy efficient dual LED lights across the entire strip heater which provides longer performance and energy savings (compared to standard incandescent bulbs - 3.5 to 15.2 watts based on length)
- LED lights are field replaceable
- 3050K LED light temperature provides more consistent warmth, improved light coverage and enhances food appearance
- Remote box with electronic infinite control and power on/off switch (controls lights and heat) included
- 100% linear infinite controls with adjustability from 0-100% allow for precise settings
- Pre-focused heat maintains safe serving temperatures longer without continuing to cook the food
- Available in standard or high watt
- Mounting Brackets, 3' ( 914 mm) Conduit and 5' (1524 mm) power leads are standard (included)
- Metal Sheathed Elements guaranteed against burnout and breakage for two years

Project \_\_\_\_\_ Item \_\_\_\_\_  
 Item # \_\_\_\_\_ 500A \_\_\_\_\_  
 Quantity \_\_\_\_\_



GR5AL-24/GR5AHL-24

### Options (available at time of purchase only)

Housing color (Clear Anodized standard) choose clearance and color below

#### Designer Color†

- ☐ Warm Red ☐ Black ☐ Gray Granite ☐ White Granite  
☐ Navy Blue ☐ Hunter Green ☐ Antique Copper

#### Gloss Finish†

- ☐ Radiant Red ☐ Glossy Gray ☐ Bold Black ☐ Gleaming Gold  
☐ Brilliant Blue

Non-adjustable Tubular Stands (Angle Brackets standard) choose clearance and color below

- ☐ 10' (254 mm) ☐ 12' (305 mm) ☐ 14' (356 mm) ☐ 16' (406 mm)

#### Designer Color†

- ☐ Warm Red ☐ Black ☐ Gray Granite ☐ White Granite  
☐ Navy Blue ☐ Hunter Green ☐ Antique Copper

#### Gloss Finish†

- ☐ Radiant Red ☐ Glossy Gray ☐ Bold Black  
☐ Gleaming Gold ☐ Brilliant Blue

Power Wire Lead Length – 5' (1524 mm) is standard (The standard LED lead length is 1.5' (457 mm) longer than the power lead length)

- ☐ 6' (1829 mm) ☐ 7' (2134 mm) ☐ 8' (2438 mm)  
☐ 9' (2743 mm) ☐ 10' (3048 mm)

†Non-standard colors are non-returnable

**FURNISH IN ANTIQUE  
NICKEL FINISH.**



**HATCO CORPORATION** | P.O. Box 340500 Milwaukee, WI 53234-0500 U.S.A.

(800) 558-0607 | (414) 671-6350 | [www.hatcocorp.com](http://www.hatcocorp.com) | [equipsales@hatcocorp.com](mailto:equipsales@hatcocorp.com) | [intlsales@hatcocorp.com](mailto:intlsales@hatcocorp.com)

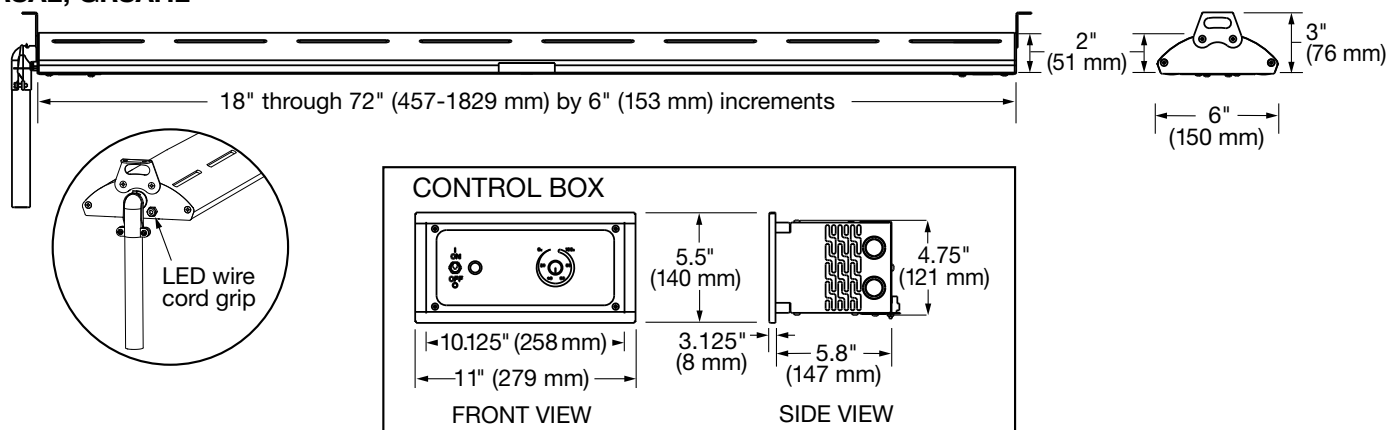


# Glo-Ray® Curved Infrared Strip Heaters with LED Lights

Models: GR5AL-18, -24, -30, -36, -42, -48, -54, -60, -66 -72

GR5AHL-18, -24, -30, -36, -42, -48, -54, -60, -66 -72

## GR5AL, GR5AHL



## SPECIFICATIONS

### Glo-Ray® Curved Infrared Strip Heaters with LED Lights

Phase: Single

Standard Watt				High Watt				All Models	
Model	Volts	Watts	Amps	Model	Volts	Watts	Amps	Dimensions W x D x H	Weight*
GR5AL-18	120	254	2.2	GR5AHL-18	120	354	3.0	18" x 6" x 2" (457 x 150 x 51 mm)	13 lbs. (6 kg.)
	208		1.2		208		1.7		
	240		1.1		240		1.5		
GR5AL-24	120	356	3.0	GR5AHL-24	120	506	4.3	24" x 6" x 2" (610 x 150 x 51 mm)	14 lbs. (7 kg.)
	208		1.7		208		2.5		
	240		1.5		240		2.1		
GR5AL-30	120	458	3.9	GR5AHL-30	120	668	5.6	30" x 6" x 2" (762 x 150 x 51 mm)	15 lbs. (7 kg.)
	208		2.2		208		3.2		
	240		1.9		240		2.8		
GR5AL-36	120	584	4.9	GR5AHL-36	120	809	6.8	36" x 6" x 2" (919 x 150 x 51 mm)	17 lbs. (8 kg.)
	208		2.9		208		3.9		
	240		2.5		240		3.4		
GR5AL-42	120	686	5.8	GR5AHL-42	120	961	8.1	42" x 6" x 2" (1067 x 150 x 51 mm)	18 lbs. (9 kg.)
	208		3.3		208		4.7		
	240		2.9		240		4.0		
GR5AL-48	120	812	6.9	GR5AHL-48	120	1112	9.4	48" x 6" x 2" (1219 x 150 x 51 mm)	20 lbs. (9 kg.)
	208		4.0		208		5.4		
	240		3.4		240		4.7		
GR5AL-54	120	939	7.9	GR5AHL-54	120	1264	10.7	54" x 6" x 2" (1372 x 150 x 51 mm)	21 lbs. (10 kg.)
	208		4.6		208		6.1		
	240		4.0		240		5.3		
GR5AL-60	120	1066	9.0	GR5AHL-60	120	1416	11.9	60" x 6" x 2" (1524 x 150 x 51 mm)	22 lbs. (10 kg.)
	208		5.2		208		6.9		
	240		4.5		240		6.0		
GR5AL-66	120	1177	10.0	GR5AHL-66	120	1577	13.3	66" x 6" x 2" (1675 x 150 x 51 mm)	24 lbs. (11 kg.)
	208		5.7		208		7.7		
	240		5.0		240		6.6		
GR5AL-72	120	1294	10.9	GR5AHL-72	120	1744	14.7	72" x 6" x 2" (1829 x 150 x 51 mm)	25 lbs. (12 kg.)
	208		6.3		208		8.5		
	240		5.5		240		7.3		

\* Weights are approximate and do not include shipping materials.

## CONTROL BOX

Refer to Installation and Operating Manual on Hatco website for more details.

An LED driver is included and mounted in control box.

### Box location:

Place control box in cool location. Ambient temperature should be no greater than 104° F (40 C).

### Cutout dimensions:

10.125"W x 4.75"H x 6.25"D (257 x 121 x 159 mm).

NOTE: Make sure the control box installation location provides enough space behind the vertical surface for the depth of the control box and electrical connections

## RECOMMENDED MOUNTING HEIGHTS

(Refer to the Installation section in the Installation and Operating Manual on the Hatco website)

Make sure countertop material is designed to withstand long periods of hot food holding temperatures. Contact manufacturer of countertop material for application information.

GR5AL Series strip heaters can be installed over a steam table. Follow the minimum clearance requirements for non-combustible surroundings.

### Combustible surroundings (GR5AL only)

Below overshelf: 1" (25 mm) clearance  
Unit to surface below: 11" (279 mm)  
Back to wall: 1" (25 mm)

### Non-Combustible surroundings (GR5AL, GR5AHL)

Below overshelf: 1" (25 mm) clearance  
Unit to surface below: 10" (254 mm)  
Back to wall: 0" (0 mm)

## PRODUCT SPECS

### Glo-Ray® Slim Curved LED Strip Heater

The Curved Infrared Strip Heater with LED Lights shall be a Glo-Ray®, manufactured by the Hatco Corporation, Milwaukee, WI 53234 U.S.A.

The Foodwarmer shall be a Glo-Ray model ... , rated at ... watts, ... volts, single phase and be ... inches (millimeters) in overall width.

The Glo-Ray shall consist of Clear Anodized, Designer or Gloss Finish painted patented housing and include as standard equipment 3' (914 mm) conduit with

5' (1524 mm) power leads, a Remote Control Enclosure and mounting brackets.

The infrared heating element shall be tubular metal sheathed. The foodwarmer shall be factory assembled ready for electrical installation.

Options shall include choice of Designer color or Gloss Finish, extended power leads and Non-adjustable Tubular Stands

Comes with 24/7 parts and service assistance (U.S. and Canada only).

HATCO CORPORATION | P.O. Box 340500 Milwaukee, WI 53234-0500 U.S.A.

(800) 558-0607 | (414) 671-6350 | www.hatcocorp.com | equipsales@hatcocorp.com | intl@hatcocorp.com



Your Solutions Partner

# Specifications

F.O.B Sedalia, Missouri 65301



TST-46

## OPTIONS:

- ☐ 14 gauge tops
- ☐ Internal Locking device
- ☐ Pass-Thru construction
- ☐ Foodshields
- ☐ Workshelves
- ☐ Trayslides
- ☐ Special length not listed
- ☐ Recessed top (to accommodate griddles, fryers, etc.)
- ☐ 6" Stainless steel legs
- ☐ Veneered plastic laminate panels on body
- ☐ Powder coat paint colors
- ☐ Kickplates s/s or p/g

## AGENCY LISTING:



**DUKE MANUFACTURING CO.**  
 2305 N. Broadway  
 St. Louis, MO 63102

**800.735.3853 Toll Free**  
**314.231.1130 In Missouri**  
**314.231.5074 Fax**  
**www.dukemfg.com**

SS-DM-00038-TSS-20

## Approval Stamp(s):

## PRODUCT INFORMATION:

PROJECT: \_\_\_\_\_

ITEM: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

## MODEL:

### Thurmduke Serving Systems - Solid Top Units

- ☐ **TST-18** 18" length units
- ☐ **TST-32** 32" length units
- ☐ **TST-46** 46" length units
- ☐ **TST-60** 60" length units
- ☐ **TST-74** 74" length units
- ☐ **TST-88** 88" length units

## TOP:

- ☒ 16 gauge, 300 Series stainless steel
- ☒ Sound-deadening

## BODY:

- ☐ Choice of (12) powder coat paint colors (must choose one):

- |   |  |
|---|--|
| <input type="checkbox"/> #217105 - Designer White   | <input type="checkbox"/> #217103 - Natural Almond  |
| <input type="checkbox"/> #217150 - Orange Red       | <input type="checkbox"/> #217154 - Racing Red      |
| <input type="checkbox"/> #217107 - Hollyberry Red   | <input type="checkbox"/> #217120 - Sky Blue        |
| <input type="checkbox"/> #217127 - Fence Green      | <input type="checkbox"/> #217152 - Stone Gray      |
| <input type="checkbox"/> #217102 - Duke Silver      | <input type="checkbox"/> #217113 - Brown Kickplate |
| <input type="checkbox"/> #217101 - Semi-Gloss Black | <input type="checkbox"/> #217125 - Textured Black  |

- ☐ Stainless steel body
- ☒ NSF approved 5" diameter polyurethane casters
- ☒ Operator's side open to bottom shelf
- ☒ 7" high stainless steel rail on operator's side
- ☒ End and side opposite operator fully enclosed
- ☒ Intermediate and bottom shelves to match body

## SHORT FORM SPECIFICATIONS:

**Thurmduke Serving Systems - Solid Top Units.** Top shall be 16ga, 300 series Stainless Steel flanged down edges, flush at ends, 20ga s/s body & under shelves with 9-1/2" clearance between, 5" dia. NSF approved swivel casters, 2 w/ locks.

THURMADUKE SERVING SYSTEMS - SOLID TOP UNITS

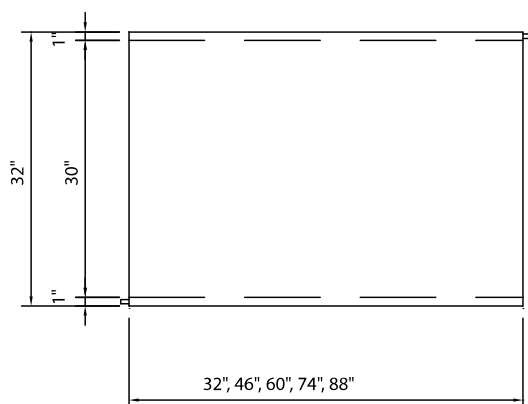
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A.I.A. File No. 35-C-13

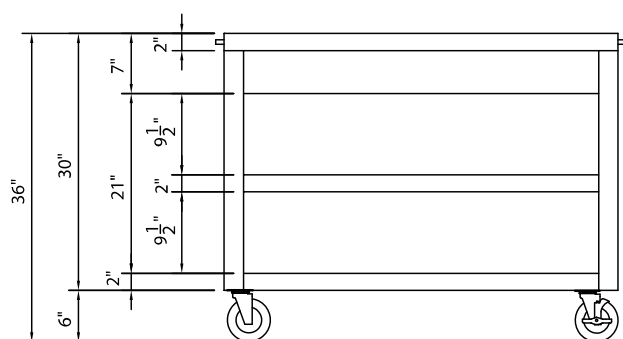
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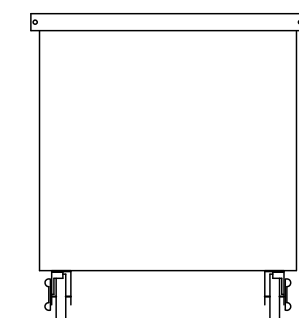
# Thurmaduke®



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

## THURMADUKE SERVING SYSTEMS SOLID TOP UNITS

- ☐ **TST-18** 18" lengths units
- ☐ **TST-32** 32" lengths units
- ☐ **TST-46** 46" lengths units
- ☐ **TST-60** 60" lengths units
- ☐ **TST-74** 74" lengths units
- ☐ **TST-88** 88" lengths units

### DIMENSIONS:

Freight Class: 150

Model	Length		Width		Height		Cube ft. crated	Weight	
	in	cm	in	cm	in	cm		lbs	kg
<b>TST-18</b>	18	45.7	32	81.3	36	91.4	22.0	200	90.9
<b>TST-32</b>	32	81.3	32	81.3	36	91.4	34.8	215	97.7
<b>TST-46</b>	46	116.8	32	81.3	36	91.4	47.7	314	142.7
<b>TST-60</b>	60	152.4	32	81.3	36	91.4	60.5	380	172.7
<b>TST-74</b>	74	188.0	32	81.3	36	91.4	73.3	446	202.7
<b>TST-88</b>	88	223.5	32	81.3	36	91.4	86.2	480	218.2



### DUKE MANUFACTURING CO.

2305 N. Broadway  
St. Louis, MO 63102

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Specification subject to change

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Your Solutions Partner

# Specifications

F.O.B Sedalia, Missouri 65301



540-xx

## OPTIONS:

- Fluorescent light
- Radiant heat rod w/incandescent light - 120V
- Radiant heat rod w/switch
- Special lengths or heights
- Special finish colors

## Approval Stamp(s):

### PRODUCT INFORMATION:

PROJECT: \_\_\_\_\_

ITEM: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

**MODEL:** Foodshield - Designer Series - Self Serve

Fits: Thurmaduke Steamtable, Aeroserv, Thurmaduke Serving Systems

- ☐ TS540-32
- ☐ TS540-46
- ☐ TS540-60 Self Service Style - Stainless Steel Top
- ☐ TS540-74
- ☐ TS540-88

### TOP:

- All edges flanged down
- 18 gauge stainless steel or paint grip steel
- ☐ Choice of (12) powder coat paint colors (must choose one):

- |   |  |
|---|--|
| <input type="checkbox"/> #217105 - Bright White     | <input type="checkbox"/> #217103 - Natural Almond  |
| <input type="checkbox"/> #217150 - Orange           | <input type="checkbox"/> #217154 - Racing Red      |
| <input type="checkbox"/> #217107 - Hollyberry Red   | <input type="checkbox"/> #217120 - Sky Blue        |
| <input type="checkbox"/> #217127 - Fence Green      | <input type="checkbox"/> #217152 - Stone Gray      |
| <input type="checkbox"/> #217102 - Silver Hammer    | <input type="checkbox"/> #217113 - Brown Kickplate |
| <input type="checkbox"/> #217101 - Semi-Gloss Black | <input type="checkbox"/> #217125 - Textured Black  |

### FRAMES:

- 18 gauge stainless steel or choice of 12 powder coat colors

### GUARDS:

- Adjustable 1/4" tempered glass food shield

### SIZES:

- All units available in following lengths  
31-3/4", 45-3/4", 59-3/4", 73-3/4", 87-3/4"

## Agency Listings:



**DUKE MANUFACTURING CO.**  
**2305 N. Broadway**  
**St. Louis, MO 63102**

**800.735.3853 Toll Free**  
**314.231.5074 Fax**  
**www.dukemfg.com**

### SHORT FORM SPECIFICATIONS:

**FOODSHIELD - TS540-xx** - Self Service style with stainless steel or painted top and end panels. 10.375" glass front, positive stop guard

**NSF Updates:** (1) Added new side shield to guard (2) Made end guard deeper and added another hole for stability.

FOODSHIELDS - DESIGNER SERIES

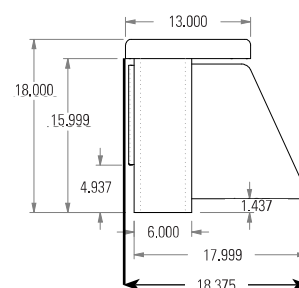
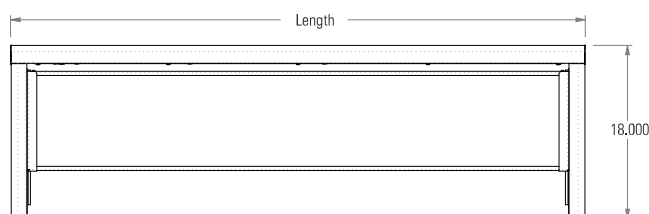
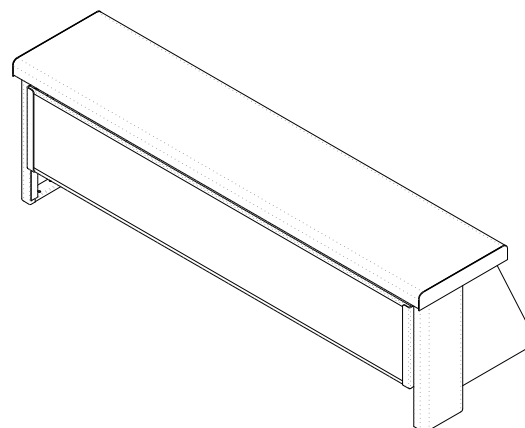
Catalog No. BG-DESIGNER

A.I.A. File No. 35-C-13

FS-04

**FOODSHIELD - DESIGNER SERIES**

- ☐ TS540-32  
☐ TS540-46  
☐ TS540-60 Self Service Style - Stainless Steel Top  
☐ TS540-74  
☐ TS540-88

**DIMENSIONS:**

Self-Service Style, w/stainless steel for painted top, stainless steel or painted end panels. Freight Class: 150

Model	Length		Height		Width		Weight		Cube ft. Crated
	in	cm	in.	cm	in.	cm	lbs.	kg	
<b>TS540-32</b>	32	81.3	18	45.7	18.375	33.0	25	11.4	8.3
<b>TS540-46</b>	46	116.8	18	45.7	18.375	33.0	31	14.1	11.4
<b>TS540-60</b>	60	152.4	18	45.7	18.375	33.0	36	16.4	14.5
<b>TS540-74</b>	74	188.0	18	45.7	18.375	33.0	40	18.2	17.5
<b>TS540-88</b>	88	223.5	18	45.7	18.375	33.0	44	20.0	20.6

**DUKE MANUFACTURING CO.**

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[www.dukemfg.com](http://www.dukemfg.com)

Specification subject to change

11/10  
Printed in U.S.A.  
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## Glo-Rite® Curved Display Lights

A stylish choice for illuminating your serving area. The HL5 LED Display Light offers the highest light output that is ideal for illuminating food products with either a warm white light (3050K) or a cool or neutral white light (4100K).

The patented sleek, curved design matches Hatco's line of Glo-Ray® Curved Infrared Strip Heaters for a fully integrated look. The LED lighting delivers longer performance and significant savings with lower energy consumption (compared to standard incandescent bulbs) and greater reliability.

The dual LED lights are conveniently field replaceable.

Angle brackets (Black only), 6" (152 mm) power leads and Clear Anodized color are standard; optional non-adjustable tubular stands available.

The HL5 models offer the same color selection as the GR5A models.

Dimensions (W x D x H)				
Model	(Add 1" (25 mm) to height for bracket)		Volts	Watts
HL5-18	18" x 6" x 2"	(457 x 152 x 52 mm)	120	4.3
HL5-24	24" x 6" x 2"	(610 x 152 x 52 mm)	120	5.9
HL5-30	30" x 6" x 2"	(762 x 152 x 52 mm)	120	7.6
HL5-36	36" x 6" x 2"	(914 x 152 x 52 mm)	120	9.2
HL5-42	42" x 6" x 2"	(1067 x 152 x 52 mm)	120	10.8
HL5-48	48" x 6" x 2"	(1219 x 152 x 52 mm)	120	12.4
HL5-54	54" x 6" x 2"	(1372 x 152 x 52 mm)	120	14.0
HL5-60	60" x 6" x 2"	(1524 x 152 x 52 mm)	120	15.7
HL5-66	66" x 6" x 2"	(1676 x 152 x 52 mm)	120	17.3
HL5-72	72" x 6" x 2"	(1829 x 152 x 52 mm)	120	18.9



**HL5-36**  
in Clear Anodized (standard)  
shown in top and underside views

**FURNISH IN ANTIQUE  
NICKEL FINISH.**



# CAMBRO®

## Versa Food Bars™

Model	Description	Standard Height	Low Height	Standard Casters	Heavy Duty Casters
VBR6	6 ft (183 cm)	•		•	
<b>VBR6L6</b>	6 ft (183 cm)		•	•	
VBRHD6	6 ft (183 cm)	•			•
VBR6LHD6	6 ft (183 cm)		•		•
VBR5	5 ft (152 cm)	•		•	
VBR6L5	5 ft (152 cm)		•	•	
VBRHD5	5 ft (152 cm)	•			•
VBR6LHD5	5 ft (152 cm)		•		•

### Features & Benefits

- A stylish, non-electric portable food bar keeps cold food cold for hours with or without ice, using optional Buffet Camchillers® with food pans or Coldfest® Food Pans and Crock.
- Holds GN 1/1 Full or Fractional Size Food Pans up to 6" (15 cm) deep with Divider Bars.
- Sneeze Guard Side and End Panels are easy to assemble and are made from clear, durable NSF listed material. Sneeze Guard is fully compliant with current NSF requirements.
- Sneeze Guards and Optional Tray Rails fold down quickly and easily to fit through standard 36" (91,5 cm) wide doorways during transportation and to minimize storage space requirements.
- Top merchandising shelf is 9" (22,9 cm) wide and can be used to display optional Merchandising Sign Holder for even greater visual appeal.
- Straight Connector and Corner Connector attach easily and securely to expand serving options.
- Double-wall polyethylene construction with foam injected polyurethane provides extra strength and durability. Scratch-resistant textured exterior is easy to clean and will not crack, rust, chip or break.
- NSF listed threaded faucet drain with standard hose hook-up on underside of well can be used for quick and easy draining and cleaning.
- Choose from models with 4 each 6" x 1 ¼" (15,2 x 3,2 cm) standard swivel casters with brakes or 6" x 2" (15,2 x 5 cm) heavy duty swivel casters with brakes.
- Molded-in handle on each end offers stable maneuverability.
- Non-electrical.
- Only sneeze guards and optional accessories require assembly.
- Available in 5 colors.
- Optional accessories include Tray Rails, End Table, Straight and Corner Connectors, Buffet Camchiller, Well Cover, Divider Bars, GN Food Pans, Coldfest Crock and Pans, Pumps, Crock and Salad Bowl Holders, Merchandising Sign Holder, LED Light, and Vinyl Cover.
- Food Bar set-up guides and best practices are available at [www.cambro.com/schools](http://www.cambro.com/schools).

Item No. \_\_\_\_\_

Specifier Identification No. \_\_\_\_\_

Model No. \_\_\_\_\_

Quantity \_\_\_\_\_



VBRHD6



VBRHD6

VBRHD5

### Approvals

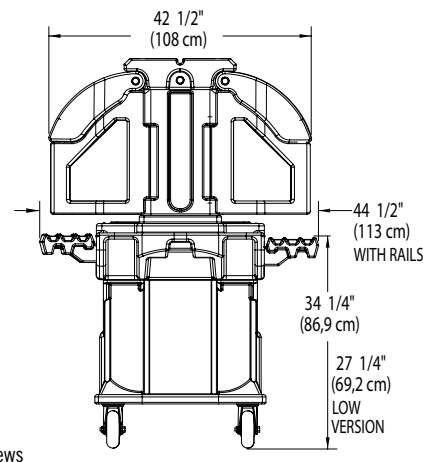
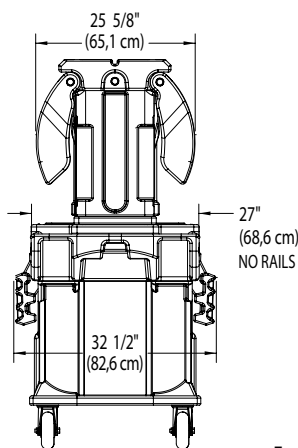
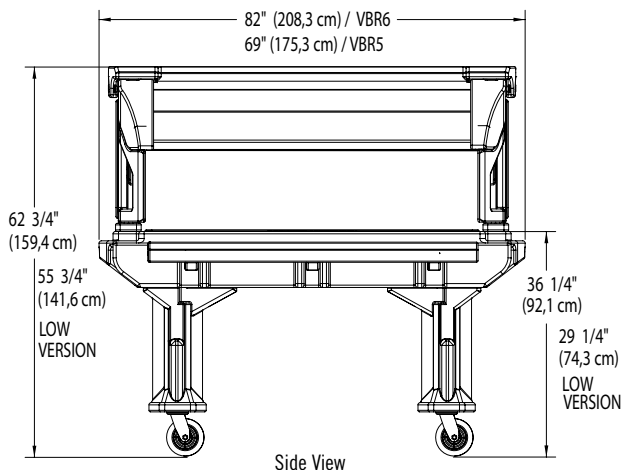


**CAMBRO®**  
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Telephone 714 848 1555 Toll Free 800 854 7631 Customer Service 800 833 3003

# CAMBRO®

## Versa Food Bars™

**Models:** VBR6, VBRL6, VBRHD6, VBRLDH6, VBR5, VBRL5, VBRHD5, VBRLDH5


### Specifications Dimension Tolerance: +/- 1/4" (0,64 cm)

Code	Description	GN 1/1 Full Size Food Pan Capacity	Exterior Dimensions L x W x H	Case lbs./cube Kg/m <sup>3</sup>
VBR6	6ft. (183 cm) Food Bar Standard Height with Standard Casters	5	82" x 42½" x 62¾" (208,3x108x159,4 cm)	214 lbs (45.95) 97,2 Kg (1,30 m <sup>3</sup> )
<b>VBRL6</b>	<b>6ft. (183 cm) Food Bar Low Height with Standard Casters</b>	5	82" x 42½" x 55¾" (208,3x108x141,6 cm)	202.5 lbs (45.95) 92 Kg (1,30 m <sup>3</sup> )
VBRHD6	6ft. (183 cm) Food Bar Standard Height with Heavy Duty Casters	5	82" x 42½" x 62¾" (208,3x108x159,4 cm)	224.5 lbs (45.95) 102 Kg (1,30 m <sup>3</sup> )
VBRLDH6	6ft. (183 cm) Food Bar Low Height with Heavy Duty Casters	5	82" x 42½" x 55¾" (208,3x108x141,6 cm)	213 lbs (45.95) 96,8 Kg (1,30 m <sup>3</sup> )
VBR5	5ft. (152 cm) Food Bar Standard Height with Standard Casters	4	69" x 42½" x 62¾" (175,3x108x159,4 cm)	179 lbs (39.10) 83,2 Kg (1,10 m <sup>3</sup> )
VBRL5	5ft. (152 cm) Food Bar Low Height with Standard Casters	4	69" x 42½" x 55¾" (175,3x108x141,6 cm)	175 lbs (39.10) 79,5 Kg (1,10 m <sup>3</sup> )
VBRHD5	5ft. (152 cm) Food Bar Standard Height with Heavy Duty Casters	4	69" x 42½" x 62¾" (175,3x108x159,4 cm)	189.9 lbs (39.10) 86,3 Kg (1,10 m <sup>3</sup> )
VBRLDH5	5ft. (152 cm) Food Bar Low Height with Heavy Duty Casters	4	69" x 42½" x 55¾" (175,3x108x141,6 cm)	181.9 lbs (39.10) 82,7 Kg (1,10 m <sup>3</sup> )

### Optional Accessories

#### Tray Rails

- ☐ VBRR5 - 5' (152 cm) Versa Food Bars/ Work Tables
- ☐ VBRR6 - 6' (183 cm) Versa Food Bars/ Work Tables

#### Divider Bars

- ☐ DIV12 - 12" (30,5 cm)
- ☐ DIV20 - 20" (50,8 cm)

#### Crock and Salad Bowl Holders

- ☐ CPH3 - Fits all Versa Food Bars / Work - Tables and holds 3 Cocks
- ☐ SBH15 - Holds 15" (38 cm) Bowl & 3 Cocks
- ☐ SBH18 - Holds 18" (46 cm) Bowl

#### Merchandising Sign Display

- ☐ VBRSHTS - Versa Food Bar Top Shelf Sign Holder

#### Connectors and Well Cover

- ☐ VBRC90 - Corner Connector
- ☐ VBRC - Straight Connector
- ☐ VBRWC - Versa Well Cover

#### Vinyl Covers

- ☐ VBRCVR5 - 5' (152 CM) Versa Food Bars
- ☐ VBRCVR6 - 6' (183 CM) Versa Food Bars

#### Other Accessories

- ☐ CPB1220 - Buffet Camchiller®
- ☐ VBRTBL - End Table For All Versa Food Bars /Work Tables
- ☐ LED54LIGHTPKG - Versa Food Bar Lighting Kit

Visit [www.cambro.com](http://www.cambro.com) for details on all accessories.

### Architect Specs

The non-electric, portable and modular Versa Food Bar shall be a Floor Model Food Bar, Models VBR5, VBR6, VBRHD5, VBRHD6, manufactured by Cambro Mfg. Co., Huntington Beach, CA 92647 USA. It shall be made of double-wall polyethylene with foam-injected polyurethane. It shall include a clear sneeze guard with clear protective end panels. The interior well shall be 6 ½" (16,5 cm) deep. The sneeze guard and optional tray rails shall fold down to fit through 36" (91,5 cm) wide doorways and to minimize storage space requirements during non-use. It shall have a 9" (22,9 cm) wide merchandising shelf. It shall have molded-in handles on each end. It shall have 4 each 6" x 1 ¼" (15,2 x 3,2 cm) swivel casters with brakes or heavy duty 6" x 2" (15,2 x 5 cm) swivel casters with brakes. It shall have an NSF listed threaded faucet drain with a standard hose hook up on the underside of the well. It shall be NSF listed and available in 5 colors. It shall require minimal assembly. It shall connect with other standard height Versa Food Bars, Versa Work Tables and/or Versa Carts using an optional Corner Connector or Straight Connector. Optional accessories shall include Tray Rails, End Table, Straight and Corner Connectors, Buffet Camchiller, Well Cover, Divider Bars, GN Food Pans, Coldfest® Cocks and Pans, Pumps, Cocks and Salad Bowl Holders, Merchandising Sign Holder, LED Light, and Vinyl Cover.

### Versa Food Bar Colors

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Black (110)   | <input type="checkbox"/> Kentucky Green (519)* | <input type="checkbox"/> Hot Red (158)* |
| <input type="checkbox"/> Bronze (146)* | <input type="checkbox"/> Navy Blue (186)*      |   |

\*Made to order. Non-returnable.

### Approvals



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"Your Solutions Partner"

# Specifications

F.O.B Sedalia, Missouri 65301



**TCS-30SS**

Shown with optional drawer

## OPTIONS:

- ☐ 14 gauge tops
- ☐ Internal locking devices
- ☐ Tray Slides - **TS3BTS-HD/FX, TSSOLID-HD/FX**
- ☐ Electric outlets - **TE-OP1, TE-OP2, TE-OP3, TE-OP4**
- ☐ 6', 8' or 10' cord and plug
- ☐ Pusher Bar - **TMOD-7**
- ☐ Bumpers - **TMOD-8**
- ☐ Stainless steel legs - **TMOD-15**
- ☐ Stainless steel drawer with or without lock & keys
- ☐ Veneered plastic laminate panels on body - **TSS-SP**
- ☐ Powder coat paint colors
- ☐ Grommated top cutout
- ☐ Interior shelf
- ☐ Stainless steel kickplates - **TMOD-2**

## Agency Listing:



**DUKE MANUFACTURING CO.**  
**2305 N. Broadway**  
**St. Louis, MO 63102**

**800.735.3853 Toll Free**  
**314.231.1130 In Missouri**  
**314.231.5074 Fax**  
**www.dukemfg.com**

## Approval Stamp(s):

## PRODUCT INFORMATION:

PROJECT: \_\_\_\_\_

ITEM: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

## MODEL:

### Thurmaduke Serving Systems - Cashier Stand

☐ **TCS-30**

## TOP:

- 16 gauge, 300 Series stainless steel
- Sound-deadening vinyl foam tape between top and body

## BODY:

☐ Choice of (12) powder coat paint colors (must choose one):

- |   |  |
|---|--|
| <input type="checkbox"/> #217105 - Designer White   | <input type="checkbox"/> #217103 - Natural Almond  |
| <input type="checkbox"/> #217150 - Orange Red       | <input type="checkbox"/> #217154 - Racing Red      |
| <input type="checkbox"/> #217107 - Hollyberry Red   | <input type="checkbox"/> #217120 - Sky Blue        |
| <input type="checkbox"/> #217127 - Fence Green      | <input type="checkbox"/> #217152 - Stone Gray      |
| <input type="checkbox"/> #217102 - Duke Silver      | <input type="checkbox"/> #217113 - Brown Kickplate |
| <input type="checkbox"/> #217101 - Semi-Gloss Black | <input type="checkbox"/> #217125 - Textured Black  |

- ☐ Stainless steel body
- NSF listed, 5" diameter polyurethane casters
- Operator's side open to foot rest
- End panels die-formed into channels
- End and side opposite operator fully enclosed
- Stainless steel tubular foot rest

## SHORT FORM SPECIFICATIONS:

**Thurmaduke Serving Systems - Cashier Unit.** Top shall be constructed of 16 gauge, 300 Series stainless steel with edges flanged down 2" at 90° on all four sides and flush with body on ends. Vinyl foam tape to be used between top and body for sound-deadening. Body shall be free standing and formed of heavy gauge powder coat painted steel with specified color or 300 Series stainless steel. Operator's side of unit to be open to foot rest with corners of end panels die-formed into channels. Side opposite operator and ends fully enclosed. Opening shall allow knee room and is provided with stainless steel tubular foot rest. Unit to be mounted on NSF approved 5" polyurethane casters, all swivel, two with locks. Must add "PG" to model number for Paint Grip Bodies, "SS" for Stainless Steel Bodies.

THURMADUKE SERVING SYSTEMS - CASHIER STAND

Catalog No. TSS-CASH

A.I.A. File No. 35-C-13

**TSS-19**

A.I.A. File No. 35-C-13

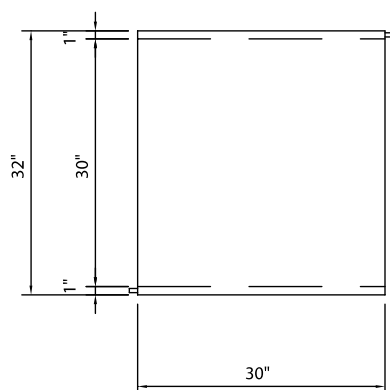
Catalog No. TSS-CASH

THURMADUKE SERVING SYSTEMS - CASHIER UNIT

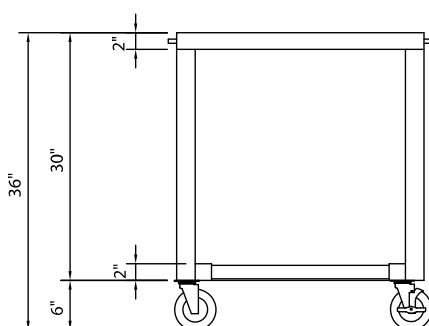
# Thurmaduke

## THURMADUKE SERVING SYSTEMS CASHIER STAND

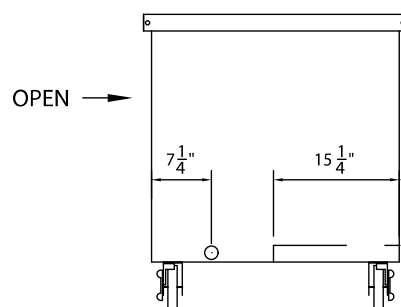
□ TCS-30



TOP VIEW



FRONT VIEW



RIGHT SIDE VIEW

### DIMENSIONS:

Freight Class: 150

Model	Length		Width		Height		Cube ft. crated	Weight		Optional Drawer Size					
	in.	cm	in.	cm	in.	cm		lbs.	kg	Length		Width		Depth	
TCS-30	30	76.2	32	81.3	36	91.4	33.0	242	110.0	24-3/8	62.0	20	50.8	3-1/2	8.9

### INSTALLATION DATA:

Must specify location of drawer

### POWER SUPPLY:

N/A



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Specification subject to change

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# ITEM 600 - CUSTOM 3-COMPARTMENT SINK & SOILED DISHTABLE

SEE DRAWINGS & SPECIFICATIONS



Item # \_\_\_\_\_

Quantity \_\_\_\_\_

C.S.I. Section 11400



701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartcorp.com

## advansys VENTLESS TALL DISHWASHER

HOBART

### STANDARD FEATURES

- Internal condensing system minimizes water vapor
- Does not require a vent hood
- Energy recovery
- Sense-A-Temp™ 70°F rise electric booster heater
- .74 gallons per rack final rinse water
- 40 racks per hour – hot water sanitizing
- NSF pot and pan listed for 2-, 4- & 6- minute cycles plus condense time
- Timed wash cycles for 1, 2, 4 or 6 minutes plus condense time
- 27" door opening for 18" x 26" sheet pans or 60 quart mixing bowl
- Solid state, integrated controls with digital status indicators
- Self-draining, high efficiency stainless steel pump and stainless steel impeller
- Stainless steel drawn tank, tank shelf, chamber, trim panels, frame and feet
- Spring counterbalanced chamber with UHMW polyethylene guides
- Revolving, interchangeable upper and lower anti-clogging wash arms
- Revolving, interchangeable upper and lower rinse arms
- Slanted, self-locating, one-piece scrap screen and basket system
- Pumped rinse for constant rinse pressure
- Cycle light
- End of cycle audible alarm (field activated)
- Automatic fill
- Door actuated start
- Automatic drain closure
- Delime cycle with notification (field activated)
- Service diagnostics
- NAFEM Data Protocol capable
- Hot water sanitation

### VOLTAGE

- ☐ 208-240/60/1
- ☐ 208-240/60/3
- ☐ 480/60/3

### MODEL

- ☐ AM15VLT

### OPTIONS AT EXTRA COST

- ☐ Single point electrical connection (3 phase only)

### ACCESSORIES

- ☐ Peg rack
- ☐ Combination rack
- ☐ Sheet pan rack
- ☐ Flanged and seismic feet
- ☐ End of cycle audible alarm (field activated)
- ☐ Drain water tempering kit

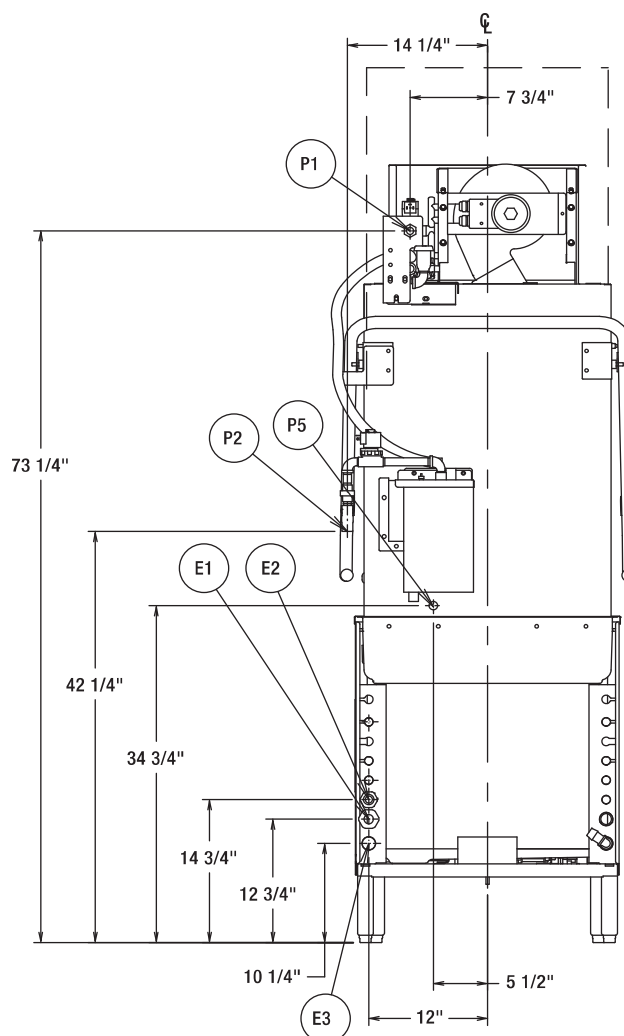
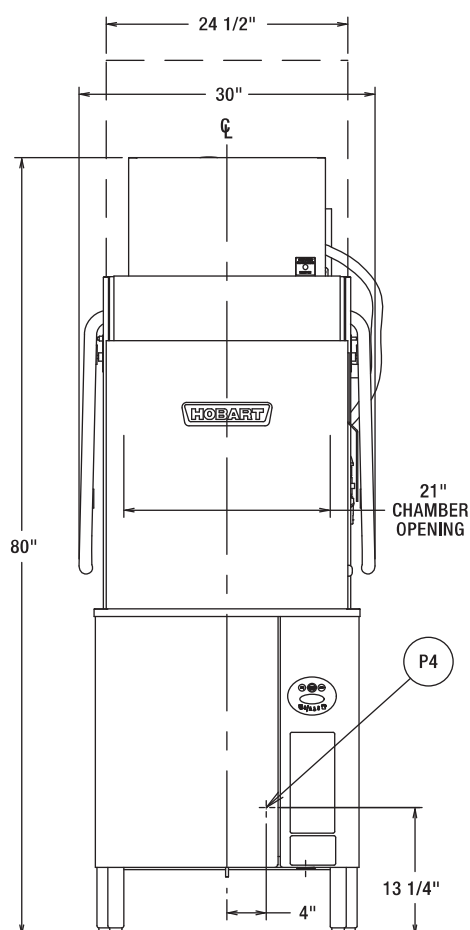
Specifications, Details and Dimensions on Inside and Back.



advansys VENTLESS TALL DISHWASHER

# advansys VENTLESS TALL DISHWASHER

**HOBART**

 701 S Ridge Avenue, Troy, OH 45374  
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## MACHINE ELECTRICAL SPECIFICATIONS

 208-240/60/1  
 208-240/60/3  
 480/60/3

 MODEL:  
 AM-15VLT  
 E-941177  
 REV B

AM-15VLT WITH ELECTRIC HEAT			
ELEC. SPECS	RATED AMPS	MINIMUM SUPPLY CIRCUIT CONDUCTOR AMPACITY	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
208-240/60/1	43.0	50	50
208-240/60/3	24.9	30	30
480/60/3	13.4	15	15

## WARNING

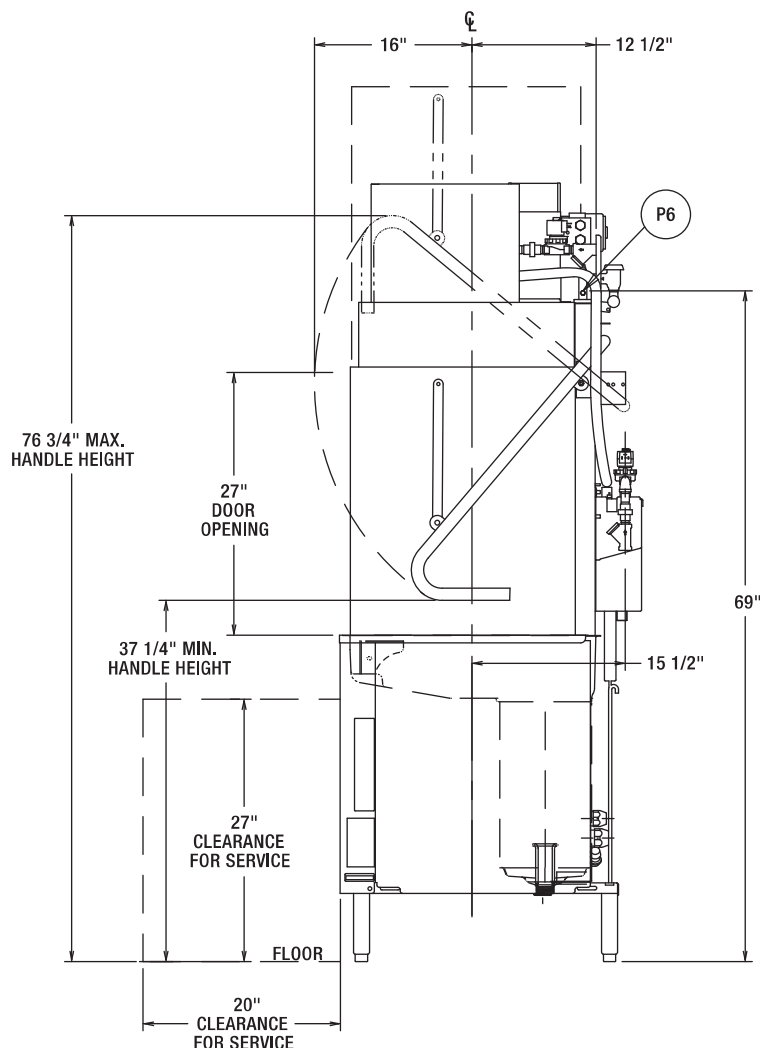
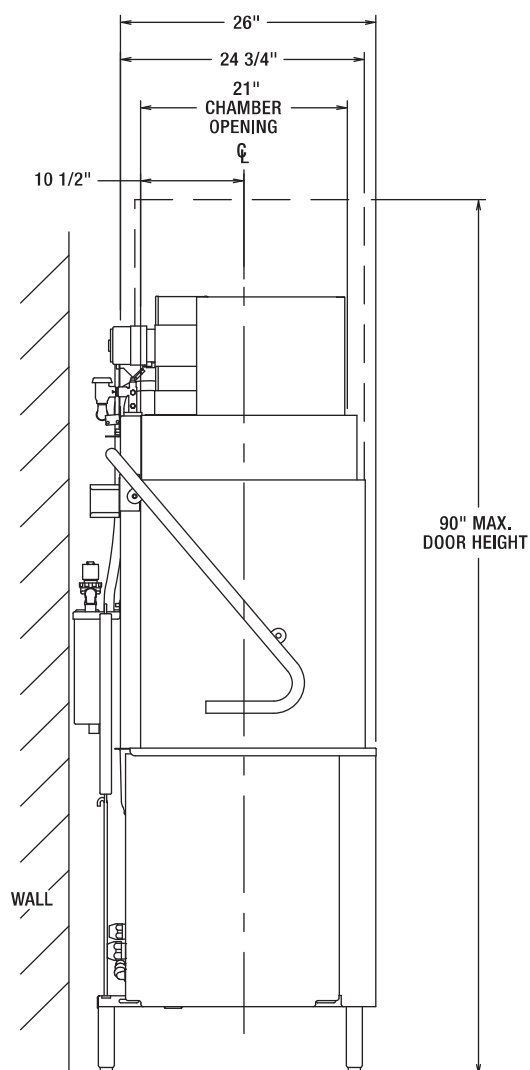
ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

PLUMBING CONNECTIONS MUST COMPLY WITH APPLICABLE SANITARY, SAFETY, AND PLUMBING CODES.

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# advansys VENTLESS TALL DISHWASHER



## BOOSTER ELECTRICAL SPECIFICATIONS

208-240/60/1  
208-240/60/3  
480/60/3

BOOSTER AMPACITY RATINGS 8.5KW			
ELEC. SPECS	RATED AMPS	MINIMUM SUPPLY CIRCUIT CONDUCTOR AMPACITY	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
208-240/60/1	35.4	50	50
208-240/60/3	20.4	30	30
480/60/3	10.2	15	15

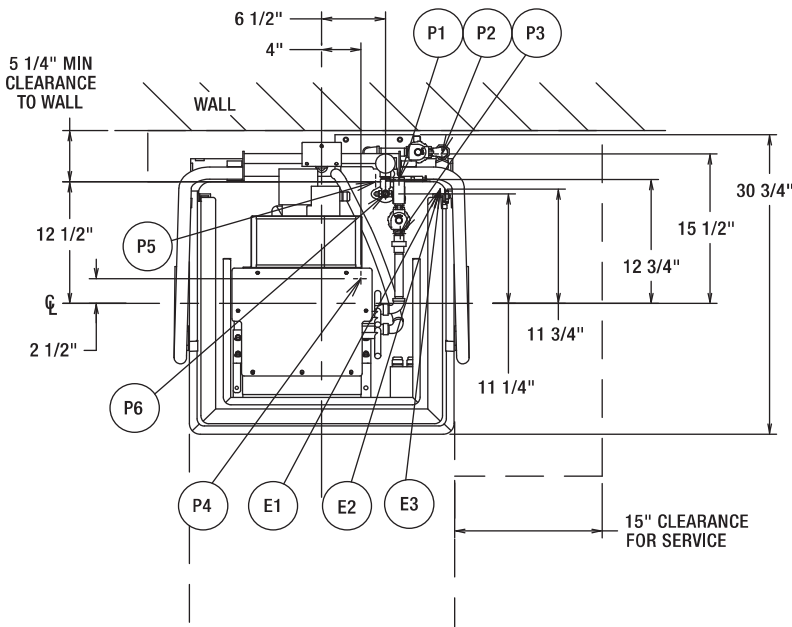
OPTIONAL AM15VLT SINGLE POINT ELECTRICAL SERVICE CONNECTION AS SHOWN BELOW			
ELEC. SPECS	RATED AMPS	MINIMUM SUPPLY CONDUCT OR AMPACITY	MAXIMUM PROTECTIVE DEVICE
208-240/60/3	45.4	60	60
480/60/3	23.7	30	30



# advansys VENTLESS TALL DISHWASHER

## HOBART

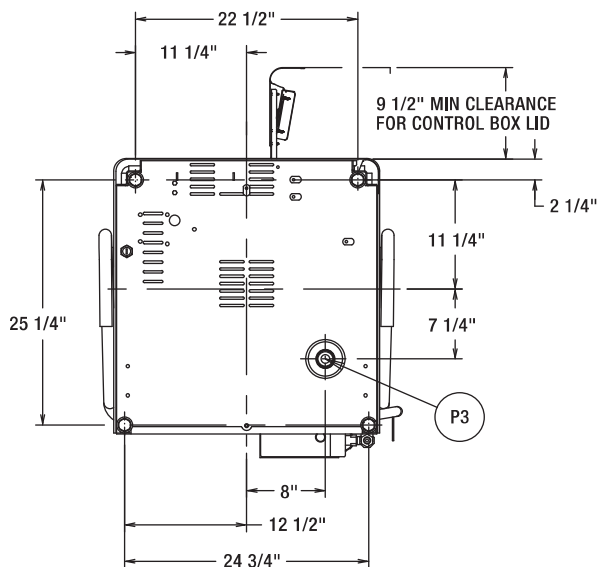
701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartcorp.com



### CONNECTION INFORMATION (\*AFF - ABOVE FINISHED FLOOR)

#### LEGEND

- E1 ELECTRICAL CONNECTION: MOTORS & CONTROLS (INCLUDING ELECTRIC HEAT), 1" OR 3/4" CONDUIT HOLE; 12-3/4" AFF.
- E2 ELECTRICAL CONNECTION: RINSE AGENT FEEDER, 1/2" CONDUIT HOLE. (DPS1 & DPS2) 1.5 AMPS @ NAMEPLATE SUPPLY VOLTAGE. (RPS1 & RPS2) 1.5 AMPS @ NAMEPLATE SUPPLY VOLTAGE; 14-3/4" AFF.
- E3 ELECTRICAL CONNECTION: ELECTRIC BOOSTER ONLY OR SINGLE POINT ELECTRICAL CONNECTION (3PH ONLY), 1" CONDUIT HOLE; 10-1/4" AFF.
- P1 COLD WATER CONNECTION: 90°F MAX. (65°F OPTIMAL); 1/2" FPT; 73-1/4" AFF.
- P2 HOT WATER CONNECTION: 110°F WATER MIN. (HOT WATER SANITIZING); 1/2" FPT; 42-1/4" AFF.
- P3 DRAIN: 1-1/2" MPT; 7-1/4" AFF.
- P4 DETERGENT PROBE SENSOR: REMOVE CAP AND STUD ASSEMBLY TO ACCESS 7/8" HOLE; 13-1/4" AFF.
- P5 DETERGENT FEEDER: REMOVE CAP PLUG TO ACCESS 7/8" HOLE; 34-3/4" AFF.
- P6 RINSE AGENT FEEDER: 1/8" NPT, REMOVE 1/8" NPT PIPE PLUG TO ACCESS TAPPED HOLE; 69" AFF.



#### PLUMBING NOTES:

WATER HAMMER ARRESTOR (MEETING ASSE-1010 STANDARD OR EQUIVALENT) TO BE SUPPLIED (BY OTHERS) IN COMMON WATER SUPPLY LINE AT SERVICE CONNECTION.

RECOMMENDED WATER HARDNESS TO BE 3 GRAINS OR LESS FOR BEST RESULTS.

FOR CONVENIENCE WHEN CLEANING, WATER TAP SHOULD BE INSTALLED NEAR MACHINE WITH HEAVY DUTY HOSE AND SQUEEZE VALVE.

THIS IS A PUMPED RINSE MACHINE. PRESSURE REGULATING VALVE IS NOT NECESSARY ON HOT OR COLD LINES.

#### MISCELLANEOUS NOTES:

ALL DIMENSIONS TAKEN FROM FLOOR LINE MAY INCREASE 3/4" OR DECREASE 1/2" DEPENDING ON LEG ADJUSTMENT.

NET WEIGHT OF MACHINE: 405 LBS.  
DOMESTIC SHIPPING WEIGHT: 494 LBS.

SIZE OF RACKS - 19-3/4" X 19-3/4"

DRAIN LEVER LOCATED INSIDE TANK.

SINGLE POINT ELECTRICAL CONNECTION AVAILABLE ON 3 PH MACHINES ONLY.

RECOMMENDED CONDENSE TIMES (BASED ON INCOMING WATER TEMP.)			
INCOMING TEMP. (F°)	CONDENSE TIME (SEC.)	RINSE TIME (SEC.)	RACKS PER HOUR (1 MIN. CYCLE)
60	30	10	40
65	33	11	37
70	36	12	36
75	39	13	34
80	42	14	33
85-90	45	15	32

#### APPROXIMATE HEAT GAIN TO SPACE WITHOUT VENT HOOD

TYPE	BTU/HR
LATENT	13,000
SENSIBLE	4,800

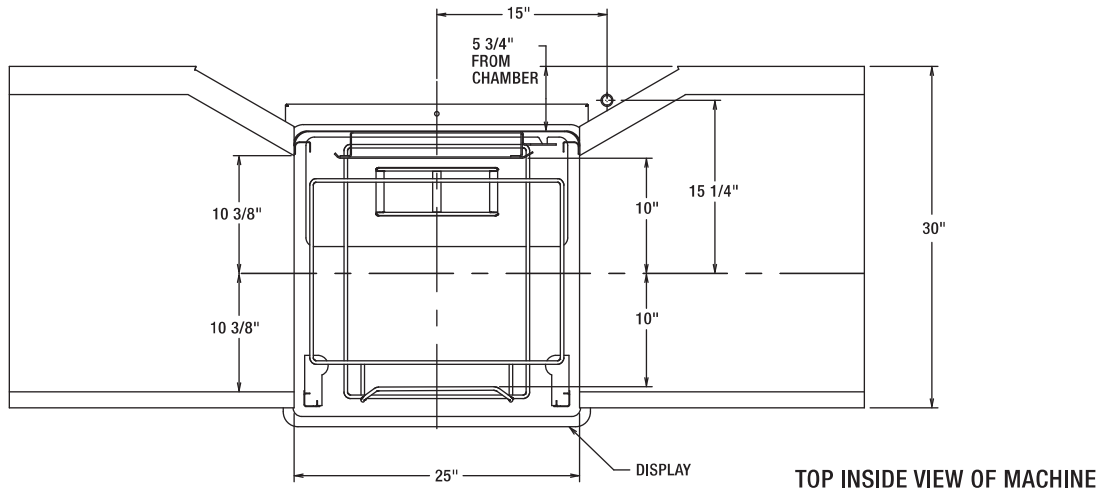
VENT HOOD IS NOT REQUIRED DUE TO INTERNAL CONDENSING SYSTEM.

CITY OF LA APPROVAL M-660004.

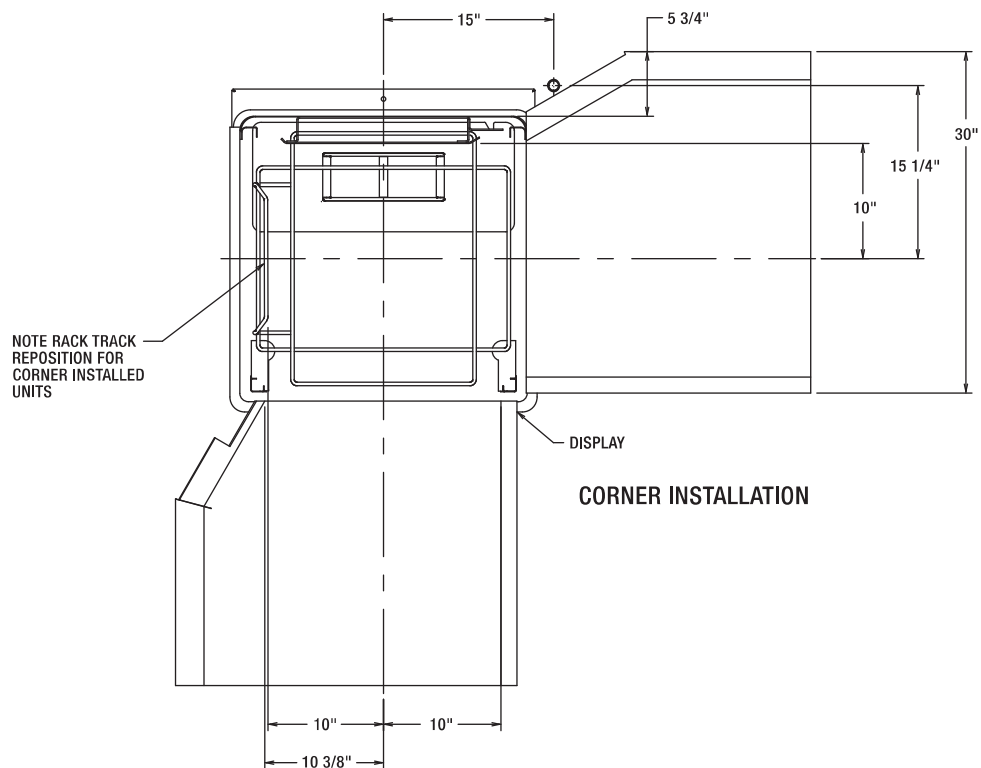


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# advansys VENTLESS TALL DISHWASHER

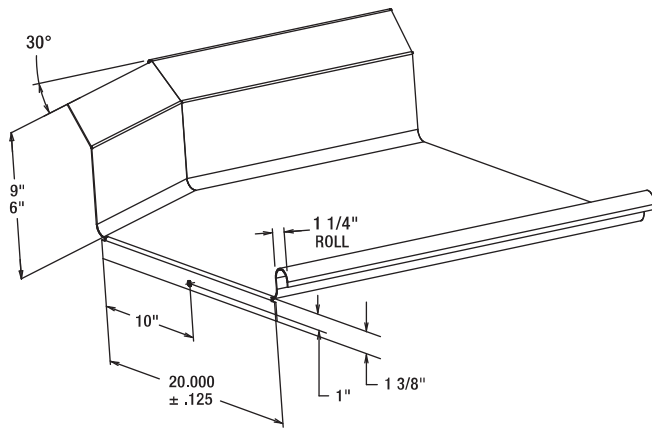
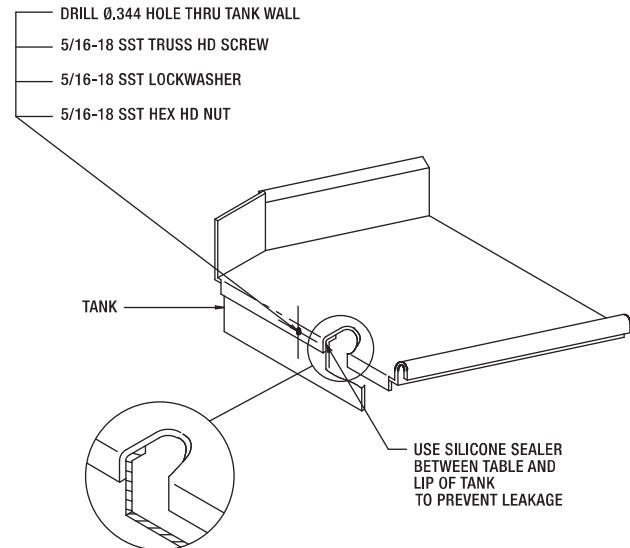


PASS THRU INSTALLATION



# advansys VENTLESS TALL DISHWASHER

**HOBART**

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**SUGGESTED TABLE DESIGN**


	advansys Ventless Tall Dishwasher
<b>Machine Ratings (Mechanical)</b>	
Racks per Hour (Max.)	40
Dishes per Hour (Average 25 per rack)	1,000
Glasses per Hour (Average 45 per rack)	1,800
<b>Table to Table - Inside Tank at Table Connection (Inches)</b>	25 1/4"
<b>Overall Dimensions - (H x W x D) (Inches)</b>	80" x 29 3/4" x 30"
<b>Wash Motor H.P.</b>	2
<b>Wash Tank Capacity - Gallons</b>	14
<b>Wash Pump Capacity - Gallons per Minute - Weir Test</b>	160
<b>Electric Booster Heater (Kw)</b>	8.5 Kw
<b>Electric Heating Unit (Regulated)</b>	5 Kw
<b>Blower Motor H.P.</b>	1/20
<b>Rinse Pump Motor H.P.</b>	1/15
<b>Rinse - Minutes operated during hour of capacity operation</b>	6.66
Seconds of rinse per rack	10
<b>Rate of Rinse Flow - Gallons per Minute</b>	4.4
<b>Rinse Consumption - Gallons per Hour - Maximum</b>	29.6
<b>Rinse Cycle - Gallons per Rack</b>	.74 - 180°F Min.
<b>Peak Rate of Drain Flow - Gallons per Minute (Initial rate with full tank)</b>	14
<b>Exhaust Requirements</b>	0
<b>Shipping Weight Crated - Approx. lbs. - Unit only</b>	494



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## advansys VENTLESS TALL DISHWASHER

The microcomputer-based control system is built into the AM Select Ventless dishwasher. It is available in standard electrical specifications of 208-240/60/1, 208-240/60/3, 480/60/3 and is equipped with a reduced voltage pilot circuit transformer.

Water hardness must be controlled to 3 grains of hardness or less for best results.

**CONSTRUCTION:** Drawn tank, tank shelf and feet constructed of 16 gauge stainless steel. Wash chamber and front trim panel above motor compartment are polished, satin finish. Frame is 12 gauge stainless steel, chamber is 18 gauge, and removable trim panels are 20 gauge.

**CHAMBER:** Stainless steel chamber with large 20 $\frac{3}{4}$ " W x 27" H opening will accommodate 18" x 26" sheet pans or a 60-quart mixing bowl.

**CHAMBER LIFT:** Chamber coupled by stainless steel handle, spring counterbalanced. Chamber guided for ease of operation and long life.

**WASH PUMP:** With stainless steel pump and impeller, integral with motor assures alignment and quiet operation. Pump shaft seal with stainless steel parts and a carbon ceramic sealing interface. Easily removable impeller housing permits ease of inspection. Capacity 160 GPM. Pump is completely self-draining.

**WASH PUMP MOTOR:** Built for Hobart, 2 H.P., with inherent thermal protection, grease-packed ball bearings, splash-proof design, ventilated. Single-phase is capacitor-start, induction-run type. Three-phase is squirrel-cage, induction type.

**RINSE PUMP:** Powered by a  $\frac{1}{15}$  H.P. single phase motor, the rinse pump is made of high strength engineered composite material.

**BLOWER:** The condenser blower is an all stainless steel forward curved centrifugal wheel powered by a  $\frac{1}{20}$  H.P. TEFC single phase motor for nearly silent operation.

**CONDENSER COIL:** The condensing system using a tube and fin coil constructed of copper and corrosion resistant aluminum.

**MICROCOMPUTER CONTROL SYSTEM:** Hobart microcomputer controls, assembled within water-resistant enclosure, provide built-in performance and reliability.

The microcomputer control, relays and contactors are housed behind a stainless steel enclosure, hinged

to provide easy access for servicing. The line voltage electrical components are completely wired with 105°C, 600V thermoplastic insulated wire with stranded conductors. Electrical components are wired with type ST cord. Line disconnect switch NOT furnished.

**CYCLE OPERATION:** The microcomputer-timing program is started by closing the doors, which actuates the door cycle switch. The cycle light turns ON. The microcomputer energizes the wash pump motor contactor during the wash portion of the program. After the wash, a dwell permits the upper wash manifold to drain. At the end of the dwell, the final rinse pump is energized. After the final rinse pump turns off, Sani-Dwell permits sanitization to continue. The Rinse display remains on during this period. The Blower and Cold Water Valve turn on for 30 seconds to condense the vapor laden air inside of the chamber. The display shows a count down time (in seconds) during this operation. After the 30 seconds is complete the Cycle Light turns OFF, completing the program. If the microcomputer is interrupted during a cycle by the door-cycle switch, the microcomputer is reset to the beginning of the program. 40 racks per hour – 87 seconds: 38 Second Wash, 2 Second Dwell, 10 Second Rinse, 7 Second Sani-Dwell. 30 Second Condensing. Other programs can be pre-selected by your Hobart service technician.

Manual wash cycle selector also provides selection of 2-, 4- or 6-minute wash cycles plus condense time for heavier washing applications.

**WASH:** Hobart revolving stainless steel wash arms with unrestricted openings above and below provide thorough distribution of water jets to all dishware surfaces. Arms are easily removable for cleaning and are interchangeable. Stainless steel tubing manifold connects upper and lower spray system.

**RINSE:** Rotating rinse arms, both upper and lower, feature 14 rinse nozzles. The stainless steel upper and lower rinse arms are easily removable without tools for inspection and are interchangeable. The motor driven rinse pump gives constant rinse pressure regardless of water service supply pressure. Easy open brass line strainer furnished.

**HOT FILL:** Microcomputer controlled fill is supplied from the hot water service connection. It enters the machine through an air gap system which protects the potable water supply from contamination. Ratio fill method is used giving the correct fill at any flowing water pressure.

# advansys VENTLESS TALL DISHWASHER



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**COLD WATER:** Cold water supplied to condenser coil is heated during the condensing period at the end of each cycle. This pre-heated water is supplied to the booster for subsequent heating.

**DRAIN AND OVERFLOW:** Large bell type automatic overflow and drain valve controlled from inside of machine. Drain automatically closed by lowering chamber. Drain seal is large diameter, high temperature "O" ring. Cover for overflow is integral part of the standpipe.

**STRAINER SYSTEM:** Equipped with large, exclusive self-flushing, easily removable perforated stainless steel, one-piece strainer and large capacity scrap basket. Submerged scrap basket minimizes frequent removal and cleaning.

**HEATING EQUIPMENT:** Standard tank heat is 5 KW electric immersion heating element. Water temperature regulation is controlled by thermistor sensor in combination with microcomputer controls. The tank heat and positive low water protection microcomputer

circuits are automatically activated when the main power switch is turned "on". If tank is accidentally drained, low water protection device automatically turns heat off. These features are standard with the Hobart Microcomputer Control System.

**ENERGY RECOVERY:** Heat energy is recovered from the condensation of vapors in the chamber at the end of each cycle. This pre-heats the water for the next rinse cycle from 55°F up to 140°F.

**ELECTRIC BOOSTER HEATER:** 8.5 KW electric booster with Sense-A-Temp™ technology adequately sized to raise 110°F inlet water to 180°F.

**ACCESSORIES:** 19<sup>3</sup>/<sub>4</sub>" x 19<sup>3</sup>/<sub>4</sub>" peg and combination dish racks. Splash shield for corner installations. End of cycle audible alarm (field activated). Delime notification (field activated). Desirable functional accessories can be furnished at added cost. See listed options and accessories on this specification sheet. Write to the factory for special requirements not listed above.

As continued product improvement is a policy of Hobart, specifications are subject to change without notice.

ITEM 602 - CUSTOM CLEAN DISHTABLE

SEE DRAWINGS & SPECIFICATIONS







# DISHTABLE SORTING SHELVES



Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

## TRADITIONAL DESIGN

### FEATURES:

A solid die formed wall mounted rack shelf with solid end brackets.

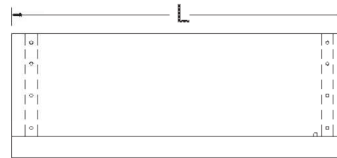
### CONSTRUCTION:

TIG-welded with exposed areas blended to a satin finish.

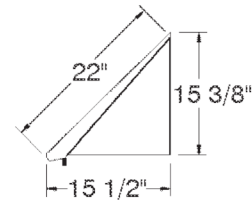
### MATERIAL:

Brackets are 16 gauge type 300 series stainless steel.

Shelf is 16 gauge type 300 series stainless steel.



Drip Tube



MODEL #	# of Racks	L	Wt
DT-6R-11	1	22"	20 lbs.
DT-6R-12	2	42"	30 lbs.
DT-6R-13	3	62"	40 lbs.
DT-6R-14	4	82"	50 lbs.



## KD TUBULAR DESIGN

### FEATURES:

A dual purpose open tubular design wall mounted rack shelf with solid end brackets bolted in field. Unit completely knock down.

### CONSTRUCTION:

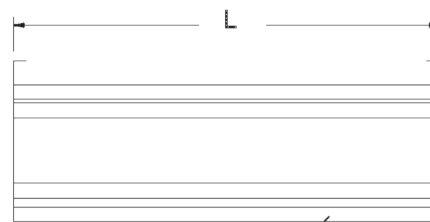
No welds. Unit is supplied with assembly hardware.

### MATERIAL:

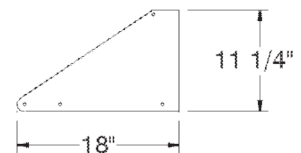
Brackets are 16 gauge type 300 series stainless steel.

Tubing is 1 5/8" diameter stainless steel 18 gauge tubing.

Stainless steel bolts (included).



1 5/8" S/S Tubing



MODEL #	# of Racks	L	Wt
DT-6R-21	1	22"	15 lbs.
DT-6R-22	2	42"	23 lbs.
DT-6R-23	3	62"	30 lbs.
DT-6R-24	4	82"	38 lbs.



Customer Service Available To Assist You **1-800-645-3166** 8:30 am - 8:00 pm E.S.T.

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TEXAS

Fax: (972) 932-4795

NEVADA

Fax: (775) 972-1578



# DTA-79 DISHTABLE RACK SHELF & UNDERSHELVES

NSF



Recommended for D, G and U-Shaped Series Dishtables Only.

## TABLE MOUNTED TUBULAR, DOUBLE SIDED DESIGN

Mounts to backsplash and end roll of dishtable

### FEATURES:

A dual purpose double sided open tubular design table mounted rack shelf with solid end plates.

### CONSTRUCTION:

All stainless steel posts, cross-tubes & end plates.

Mounts to dishtable with stainless steel bolts Ships Knocked Down\*.

Easily assembles with simple tool.

### MATERIAL:

End Plates are 14 gauge type 304 series stainless steel.

Tubing is 1 5/8" diameter 18 gauge type 300 stainless steel tubing.

### CENTER SUPPORT PROVIDED FOR 9' AND LONGER SHELVES

Shelf shipped separated from table to reduce freight costs and chance of shipping damage. Center support can be positioned to accommodate rack size.

MODEL #	Qty.
DTA-79	

Per Linear Foot. Minimum Length 48"

\*May ship pre-assembled from factory where special applications exist



**OPTION 1: Lower Angle**

(Racks cannot be back to back)

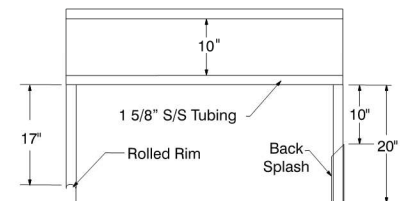
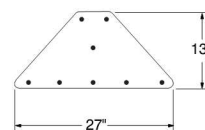
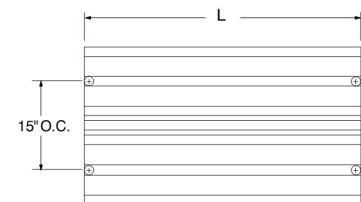


**OPTION 2: Higher Angle**

For back to back storage  
(For maximum rack storage)



When using DTA-79 as a pass-thru for a glass rack, use **OPTION 2** (see above). This will allow the rack to pass through the middle (10" Clearance).



## STAINLESS STEEL UNDERSHELVES

### FEATURES:

Stainless steel construction featuring the adjustable die cast leg clamp.

### CONSTRUCTION:

No welds. Shelf completely die formed.

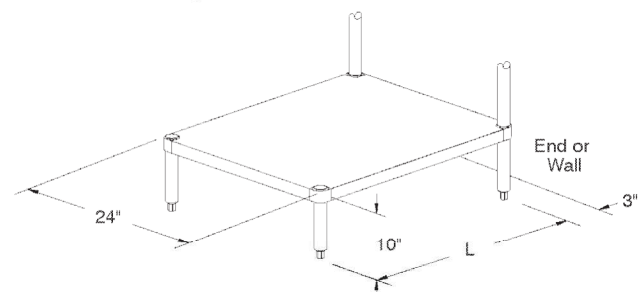
### MATERIAL:

Stainless steel.

MODEL #	L	Wt.
DTA-SS-18	18"	11 lbs.
DTA-SS-24	24"	13 lbs.
DTA-SS-30	30"	15 lbs.
DTA-SS-42	42"	20 lbs.
DTA-SS-54	54"	23 lbs.
DTA-SS-66	66"	30 lbs.

MODEL #	L	Wt.
DTA-SS-78	78"	35 lbs.
DTA-SS-90	90"	39 lbs.
DTA-SS-102	102"	45 lbs.
DTA-SS-114	114"	50 lbs.
DTA-SS-126	126"	55 lbs.
DTA-SS-138	138"	59 lbs.

Size Undershell to be at least 6" shorter than dishtable.



ADVANCE TABCO is constantly engaged in a program of improving our products. Therefore, we reserve the right to change specifications without prior notice.

© ADVANCE TABCO, SEPTEMBER 2016



Item # \_\_\_\_\_

Job \_\_\_\_\_

## METROMAX i™ POLYMER SHELVING

### with \*Microban Antimicrobial Product Protection

Part of the innovative MetroMax iQ™ Storage System, MetroMax i™ is a lifetime storage solution. The product is corrosion proof, easy to clean, strong like wire shelving, and provides a very efficient use of storage space. MetroMax i™ is integrated with online space planning tools and tutorials. [www.metro.com/iQ](http://www.metro.com/iQ)

- **Lifelong performance and corrosion proof:** All-polymer and Type 304 stainless design offers a lifetime warranty against rust and corrosion.
- **Strong and Durable:** Strong as steel, MetroMax i™ shelves hold as much weight as Metro's wire shelving and are impact resistant. Weight capacity for evenly distributed loads:  
800 lbs. (363kg) per shelf for lengths of 24" to 48" (610 to 1220mm)  
600 lbs. (275kg) per shelf for lengths of 54" (1370mm) or longer  
2,000 lbs. (907kg) maximum per stationary unit.
- **Easiest to clean and maintain:** Smooth surfaces easily wipe clean. Polymer mats can be easily removed and cleaned in a sink or dish machine. Microban antimicrobial product protection is built into the high contact areas of the shelf including the mats, frames, and posts to protect the product from bacteria, mold, mildew, and fungus that cause odors and product degradation. Microban protection keeps the product "cleaner between cleanings".
- **Smooth, Protective Surfaces:** Smooth, flat surfaces protect packaged shelf contents from unwanted rips, tears, or damage.
- **Robust Open Grid and Solid Mat Options:** Open grid shelves promote air circulation and light penetration. One-piece solid mats contain spills and are ideal to protect items on the bottom shelf from dirt or backsplashes from cleaning floors. Shelf mats are sturdy and safely support concentrated loads from instrumentation and equipment.
- **Interchangeable:** Part of the MetroMax iQ™ Storage System, corrosion proof MetroMax i™ shelves and posts are compatible with corrosion resistant MetroMax Q™ shelves and posts.
- **Efficient, Organized Storage:** Premium MetroMax iQ™ accessories efficiently organize, contain, and compartmentalize **all** space between shelves.
- **Fast, Easy Assembly:** MetroMax i™ assembles easily in minutes, without tools. Shelves can be adjusted at 1" (25mm) increments along the post. Shelf wedges have a window to locate your desired position.



MetroMax i™ Mobile Unit



MetroMax i™ with Accessories

\*MICROBAN® and the MICROBAN® symbol are registered trademarks of the Microban Products Company, Huntersville, NC.



**InterMetro Industries Corporation**  
North Washington Street  
Wilkes-Barre, PA 18705  
[www.metro.com](http://www.metro.com)



# MetroMax i™ Polymer Shelving

# 9.20



# METROMAX i™ POLYMER SHELVING

## Specifications

- **Longitudinal Beams and Posts:** Pultrusions — continuous glass fibers and thermoset resin composite with built-in Microban® antimicrobial product protection.
- **End Beams, Adjustable Foot and Socket:** Injection molded polyester thermoplastic resin with glass reinforcement
- **Shelf Wedge Connector:** reinforced nylon
- **Mats, Open and Solid:** Mineral reinforced polypropylene. Mats contain Microban® antimicrobial.
- **Post Cap and Center Beam Cap:** High-density polyethylene.
- **“S” Hook Tab Hole Plug:** Vinyl.
- **Collar and “S” Hook:** Type 304 Stainless Steel.
- **Bonding of Longitudinal Beams to End Beams:** High temperature polyamide adhesive and stainless steel screws.
- **Continuous Temperature** — MetroMax i™ can be used continuously within a range of -20/120° F (-29/49° C) with intermittent exposure to 212° F (100° C) for cleaning.

## Standard Shelves

- Part number includes shelf with removable mats and one bag of wedges

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	24 610	MX1824G	8.7 4.0	MX1824F	12.7 5.8
18 457	30 760	MX1830G	10.5 4.7	MX1830F	14.5 6.6
18 457	36 914	MX1836G	12.2 5.5	MX1836F	17.2 7.8
18 457	42 1060	MX1842G	13.9 5.3	MX1842F	20.1 9.1
18 457	48 1220	MX1848G	15.7 7.1	MX1848F	23.1 10.5
18 457	54 1372	MX1854G	17.5 7.9	MX1854F	21.5 9.7
18 457	60 1524	MX1860G	19.2 8.7	MX1860F	23.2 10.5
18 457	72 1829	MX1872G	22.5 10.2	MX1872F	27.5 12.5
24 610	24 610	MX2424G	12.2 5.5	MX2424F	14.2 6.4
24 610	30 760	MX2430G	13.9 6.3	MX2430F	15.9 7.2
24 610	36 914	MX2436G	15.6 7.1	MX2436F	19.6 8.9
24 610	42 1060	MX2442G	17.5 7.9	MX2442F	21.5 9.8
24 610	48 1220	MX2448G	19.3 8.7	MX2448F	25.3 11.5
24 610	54 1372	MX2454G	21.0 9.5	MX2454F	25.0 11.3
24 610	60 1524	MX2460G	22.8 10.5	MX2460F	26.8 12.1
24 610	72 1829	MX2472G	26.0 11.8	MX2472F	31.0 14.1

### Actual Dimensions:

Width: Add 1/8" (6mm) to nominal size.

Length: Subtract 9/32" (7mm) from nominal size.



**MetroMax i Open Grid Shelf**



**MetroMax i™ Solid Shelf**

## Heavy-Duty Dunnage Shelves

- Open grid and solid mat options.
- Compatible for use on MetroMax i™ and MetroMax Q shelving units.
- Weight capacity per shelf evenly distributed: 1,200 lbs. (544kg) on shelves up to and including 48" (1220mm) long; 900 lbs. (408kg) for shelves 60" (1524mm) long.
- Dunnage shelves are recommended for use on units with four posts, not as part of an add-on unit with two posts.

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	36 914	MHP1836G	18 8.2	MHP1836F	22 10.0
18 457	48 1220	MHP1848G	22 10.0	MHP1848F	26 11.8
18 457	60 1524	MHP1860G	26 11.8	MHP1860F	30 13.6
24 610	36 914	MHP2436G	21 9.5	MHP2436F	25 11.3
24 610	48 1220	MHP2448G	27 12.2	MHP2448F	31 14.1
24 610	60 1524	MHP2460G	33 15.0	MHP2460F	37 16.8



**Heavy-Duty Dunnage Shelf**





# METROMAX i™ POLYMER SHELVING

## Polymer Posts

- Corrosion proof with built-in Microban antimicrobial product protection.
- Compatible for use with MetroMax i™ and MetroMax Q shelves.
- Stationary posts include an adjustable leveling foot to compensate for uneven floors. Leveling foot can be adjusted 1" (25mm).
- When mounting a shelving unit to a dolly base, stationary posts are used.
- Special height cut posts are available. Consult your Metro representative.

Nominal Height (in.)	(mm)	Approx. Pkd. Wt. (lbs.)	(kg)	Stationary Post with Leveling Foot Model No.	Actual Height* (in.)	(mm)	Post for Stem Caster Model No.	Actual Height (in.)	(mm)
9	228	0.3	0.15				MX9UP	9 <sup>1</sup> / <sub>4</sub>	235
13	370	0.5	0.2	MX13P	14 <sup>3</sup> / <sub>4</sub>	375	MX13UP	13 <sup>3</sup> / <sub>4</sub>	349
27	685	0.9	0.4	MX27P	26 <sup>3</sup> / <sub>4</sub>	730	MX27UP	27 <sup>3</sup> / <sub>4</sub>	705
33	875	1.0	0.5	MX33P	34 <sup>3</sup> / <sub>4</sub>	883	MX33UP	33 <sup>3</sup> / <sub>4</sub>	857
54	1370	1.6	0.7	MX54P	54 <sup>3</sup> / <sub>4</sub>	1391	MX54UP	53 <sup>3</sup> / <sub>4</sub>	1365
63	1585	1.8	0.8	MX63P	62 <sup>3</sup> / <sub>4</sub>	1594	MX63UP	61 <sup>3</sup> / <sub>4</sub>	1568
74	1690	2.2	1.0	MX74P	74 <sup>3</sup> / <sub>4</sub>	1899	MX74UP	73 <sup>3</sup> / <sub>4</sub>	1873
86	2195	2.5	1.1	MX86P	86 <sup>3</sup> / <sub>4</sub>	2203	MX86UP	85 <sup>3</sup> / <sub>4</sub>	2178



**Polymer Stationary Post**



**Replacement Shelf Wedges MX9985**

Replacement Leveling Foot: Model No. RPM3-FOOT

Replacement Post Cap: Model No. RPMX3-POSTCAP

Replacement MetroMax i™ Wedges: Model No. MX9985 Bag of 4

### NOTE: Compatibility with existing Metro polymer mat shelving systems

- MetroMax i™ is interchangeable with MetroMax Q shelves (manufactured within or after April 2009) and MetroMax Q posts.
- MetroMax i™ shelves, posts, and wedges are NOT compatible with original MetroMax shelves, posts, and wedges manufactured before April 2009.

## Post Clamp

Adds stability by joining posts of two separate units together. With it, each unit is supported by four posts and buttressed by the adjacent unit.

**Model No. 9994X**



## Foot Plate

Use to add stability to the shelving unit or to bolt units to the floor.

**Model No. Zinc 9993Z**

**Model No. Stainless Steel 9993S**



## Stem Casters

A variety of stem casters are offered for MetroMax i™ mobile applications. Stem caster models include bumpers. See Catalog Sheet 11.20 for stem casters.

**Load Rating:** 3 x Stem Caster Load Rating, maximum — 900 lbs. (363kg) per stem caster cart.



**Replacement Bumper M9992DBX**



Job \_\_\_\_\_

# METROMAX i™ POLYMER SHELVING



## Starter and Add-On Units

- 4- and 5-tier models available. Consult the Metro catalog for models.
- Starter units: consist of shelves and (4) posts
- Add-on units: consist of shelves, (2) posts, and "S" Hooks (M9995)

**"S" Hook:** Used to "add on" one or multiple MetroMax i™ storage systems while eliminating the cost of two posts per unit. Can be used to join units end-to-end, back-to-back, at right angles, etc. Two "S" hooks are required for each shelf.

**Model No. M9995**



## MetroMax i™ Intermediate

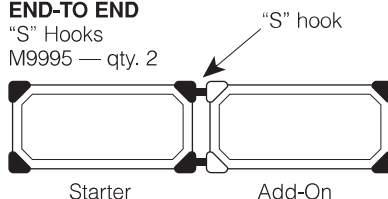
**"S" Hook Kit:** Includes one intermediate bracket (pictured) and two "S" hooks. Snaps onto front or back of MetroMax i™ shelf when joining units at right angles. Order one kit per shelf.

**Model No. MX9996**

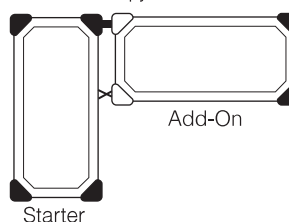


- Regular "S" Hook location
- ✕ Intermediate bracket location
- Post
- Post not required

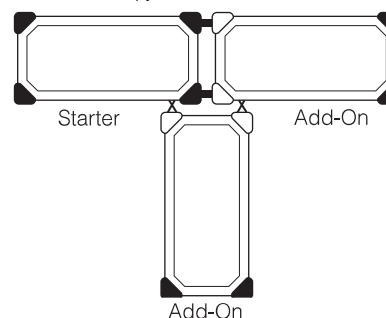
### END-TO-END "S" Hooks M9995 — qty. 2



### RIGHT ANGLES Intermediate "S" Hook Kit MX9996 — qty. 1



### COMBINATION Intermediate "S" Hook Kits MX9996 — qty. 2



## MetroMax i™ Carts

- 4- and 5-tier models
- All-grid and all-solid shelf models
- Units consist of shelves, (4) posts, (2) swivel, and (2) swivel brake casters.
- Consult the Metro catalog for models.



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



## InterMetro Industries Corporation

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Item # \_\_\_\_\_

Job \_\_\_\_\_

## METROMAX i™ POLYMER SHELVING

with \*Microban Antimicrobial Product Protection

Part of the innovative MetroMax iQ™ Storage System, MetroMax i™ is a lifetime storage solution. The product is corrosion proof, easy to clean, strong like wire shelving, and provides a very efficient use of storage space. MetroMax i™ is integrated with online space planning tools and tutorials. [www.metro.com/iQ](http://www.metro.com/iQ)

- **Lifelong performance and corrosion proof:** All-polymer and Type 304 stainless design offers a lifetime warranty against rust and corrosion.
- **Strong and Durable:** Strong as steel, MetroMax i™ shelves hold as much weight as Metro's wire shelving and are impact resistant. Weight capacity for evenly distributed loads:  
800 lbs. (363kg) per shelf for lengths of 24" to 48" (610 to 1220mm)  
600 lbs. (275kg) per shelf for lengths of 54" (1370mm) or longer  
2,000 lbs. (907kg) maximum per stationary unit.
- **Easiest to clean and maintain:** Smooth surfaces easily wipe clean. Polymer mats can be easily removed and cleaned in a sink or dish machine. Microban antimicrobial product protection is built into the high contact areas of the shelf including the mats, frames, and posts to protect the product from bacteria, mold, mildew, and fungus that cause odors and product degradation. Microban protection keeps the product "cleaner between cleanings".
- **Smooth, Protective Surfaces:** Smooth, flat surfaces protect packaged shelf contents from unwanted rips, tears, or damage.
- **Robust Open Grid and Solid Mat Options:** Open grid shelves promote air circulation and light penetration. One-piece solid mats contain spills and are ideal to protect items on the bottom shelf from dirt or backsplashes from cleaning floors. Shelf mats are sturdy and safely support concentrated loads from instrumentation and equipment.
- **Interchangeable:** Part of the MetroMax iQ™ Storage System, corrosion proof MetroMax i™ shelves and posts are compatible with corrosion resistant MetroMax Q™ shelves and posts.
- **Efficient, Organized Storage:** Premium MetroMax iQ™ accessories efficiently organize, contain, and compartmentalize **all** space between shelves.
- **Fast, Easy Assembly:** MetroMax i™ assembles easily in minutes, without tools. Shelves can be adjusted at 1" (25mm) increments along the post. Shelf wedges have a window to locate your desired position.



MetroMax i™ Mobile Unit



MetroMax i™ with Accessories

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**InterMetro Industries Corporation**  
North Washington Street  
Wilkes-Barre, PA 18705  
[www.metro.com](http://www.metro.com)



**MetroMax i™ Polymer Shelving**

**9.20**





# METROMAX i™ POLYMER SHELVEING

## Specifications

- **Longitudinal Beams and Posts:** Pultrusions — continuous glass fibers and thermoset resin composite with built-in Microban® antimicrobial product protection.
- **End Beams, Adjustable Foot and Socket:** Injection molded polyester thermoplastic resin with glass reinforcement
- **Shelf Wedge Connector:** reinforced nylon
- **Mats, Open and Solid:** Mineral reinforced polypropylene. Mats contain Microban® antimicrobial.
- **Post Cap and Center Beam Cap:** High-density polyethylene.
- **“S” Hook Tab Hole Plug:** Vinyl.
- **Collar and “S” Hook:** Type 304 Stainless Steel.
- **Bonding of Longitudinal Beams to End Beams:** High temperature polyamide adhesive and stainless steel screws.
- **Continuous Temperature** — MetroMax i™ can be used continuously within a range of -20/120° F (-29/49° C) with intermittent exposure to 212° F (100° C) for cleaning.

## Standard Shelves

- Part number includes shelf with removable mats and one bag of wedges

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	24 610	MX1824G	8.7 4.0	MX1824F	12.7 5.8
18 457	30 760	MX1830G	10.5 4.7	MX1830F	14.5 6.6
18 457	36 914	MX1836G	12.2 5.5	MX1836F	17.2 7.8
18 457	42 1060	MX1842G	13.9 5.3	MX1842F	20.1 9.1
18 457	48 1220	MX1848G	15.7 7.1	MX1848F	23.1 10.5
18 457	54 1372	MX1854G	17.5 7.9	MX1854F	21.5 9.7
18 457	60 1524	MX1860G	19.2 8.7	MX1860F	23.2 10.5
18 457	72 1829	MX1872G	22.5 10.2	MX1872F	27.5 12.5
24 610	24 610	MX2424G	12.2 5.5	MX2424F	14.2 6.4
24 610	30 760	MX2430G	13.9 6.3	MX2430F	15.9 7.2
24 610	36 914	MX2436G	15.6 7.1	MX2436F	19.6 8.9
24 610	42 1060	MX2442G	17.5 7.9	MX2442F	21.5 9.8
24 610	48 1220	MX2448G	19.3 8.7	MX2448F	25.3 11.5
24 610	54 1372	MX2454G	21.0 9.5	MX2454F	25.0 11.3
24 610	60 1524	MX2460G	22.8 10.5	MX2460F	26.8 12.1
24 610	72 1829	MX2472G	26.0 11.8	MX2472F	31.0 14.1

### Actual Dimensions:

Width: Add 1/8" (6mm) to nominal size.

Length: Subtract 9/32" (7mm) from nominal size.



**MetroMax i Open Grid Shelf**



**MetroMax i™ Solid Shelf**

## Heavy-Duty Dunnage Shelves

- Open grid and solid mat options.
- Compatible for use on MetroMax i™ and MetroMax Q shelving units.
- Weight capacity per shelf evenly distributed: 1,200 lbs. (544kg) on shelves up to and including 48" (1220mm) long; 900 lbs. (408kg) for shelves 60" (1524mm) long.
- Dunnage shelves are recommended for use on units with four posts, not as part of an add-on unit with two posts.

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	36 914	MHP1836G	18 8.2	MHP1836F	22 10.0
18 457	48 1220	MHP1848G	22 10.0	MHP1848F	26 11.8
18 457	60 1524	MHP1860G	26 11.8	MHP1860F	30 13.6
24 610	36 914	MHP2436G	21 9.5	MHP2436F	25 11.3
24 610	48 1220	MHP2448G	27 12.2	MHP2448F	31 14.1
24 610	60 1524	MHP2460G	33 15.0	MHP2460F	37 16.8



**Heavy-Duty Dunnage Shelf**



# METROMAX i™ POLYMER SHELVING

## Polymer Posts

- Corrosion proof with built-in Microban antimicrobial product protection.
- Compatible for use with MetroMax i™ and MetroMax Q shelves.
- Stationary posts include an adjustable leveling foot to compensate for uneven floors. Leveling foot can be adjusted 1" (25mm).
- When mounting a shelving unit to a dolly base, stationary posts are used.
- Special height cut posts are available. Consult your Metro representative.

Nominal Height (in.)	(mm)	Approx. Pkd. Wt. (lbs.)	(kg)	Stationary Post with Leveling Foot Model No.	Actual Height* (in.)	(mm)	Post for Stem Caster Model No.	Actual Height (in.)	(mm)
9	228	0.3	0.15				MX9UP	9 <sup>1</sup> / <sub>4</sub>	235
13	370	0.5	0.2	MX13P	14 <sup>3</sup> / <sub>4</sub>	375	MX13UP	13 <sup>3</sup> / <sub>4</sub>	349
27	685	0.9	0.4	MX27P	26 <sup>3</sup> / <sub>4</sub>	730	MX27UP	27 <sup>3</sup> / <sub>4</sub>	705
33	875	1.0	0.5	MX33P	34 <sup>3</sup> / <sub>4</sub>	883	MX33UP	33 <sup>3</sup> / <sub>4</sub>	857
54	1370	1.6	0.7	MX54P	54 <sup>3</sup> / <sub>4</sub>	1391	MX54UP	53 <sup>3</sup> / <sub>4</sub>	1365
63	1585	1.8	0.8	MX63P	62 <sup>3</sup> / <sub>4</sub>	1594	MX63UP	61 <sup>3</sup> / <sub>4</sub>	1568
74	1690	2.2	1.0	MX74P	74 <sup>3</sup> / <sub>4</sub>	1899	MX74UP	73 <sup>3</sup> / <sub>4</sub>	1873
86	2195	2.5	1.1	MX86P	86 <sup>3</sup> / <sub>4</sub>	2203	MX86UP	85 <sup>3</sup> / <sub>4</sub>	2178



**Polymer Stationary Post**



**Replacement Shelf Wedges MX9985**

Replacement Leveling Foot: Model No. RPM3-FOOT

Replacement Post Cap: Model No. RPMX3-POSTCAP

Replacement MetroMax i™ Wedges: Model No. MX9985 Bag of 4

### NOTE: Compatibility with existing Metro polymer mat shelving systems

- MetroMax i™ is interchangeable with MetroMax Q shelves (manufactured within or after April 2009) and MetroMax Q posts.
- MetroMax i™ shelves, posts, and wedges are NOT compatible with original MetroMax shelves, posts, and wedges manufactured before April 2009.

## Post Clamp

Adds stability by joining posts of two separate units together. With it, each unit is supported by four posts and buttressed by the adjacent unit.

**Model No. 9994X**



## Foot Plate

Use to add stability to the shelving unit or to bolt units to the floor.

**Model No. Zinc 9993Z**

**Model No. Stainless Steel 9993S**



## Stem Casters

A variety of stem casters are offered for MetroMax i™ mobile applications. Stem caster models include bumpers. See Catalog Sheet 11.20 for stem casters.

**Load Rating:** 3 x Stem Caster Load Rating, maximum — 900 lbs. (363kg) per stem caster cart.



**Replacement Bumper M9992DBX**



Job \_\_\_\_\_

# METROMAX i™ POLYMER SHELVING



## Starter and Add-On Units

- 4- and 5-tier models available. Consult the Metro catalog for models.
- Starter units: consist of shelves and (4) posts
- Add-on units: consist of shelves, (2) posts, and “S” Hooks (M9995)

**“S” Hook:** Used to “add on” one or multiple MetroMax i™ storage systems while eliminating the cost of two posts per unit. Can be used to join units end-to-end, back-to-back, at right angles, etc. Two “S” hooks are required for each shelf.

**Model No. M9995**



## MetroMax i™ Intermediate

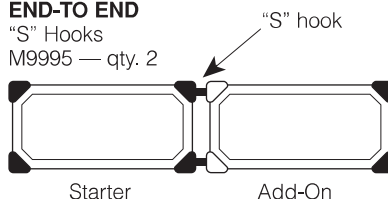
**“S” Hook Kit:** Includes one intermediate bracket (pictured) and two “S” hooks. Snaps onto front or back of MetroMax i™ shelf when joining units at right angles. Order one kit per shelf.

**Model No. MX9996**



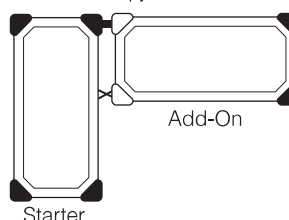
- Regular “S” Hook location
- ✕ Intermediate bracket location
- Post
- Post not required

### END-TO-END “S” Hooks M9995 — qty. 2



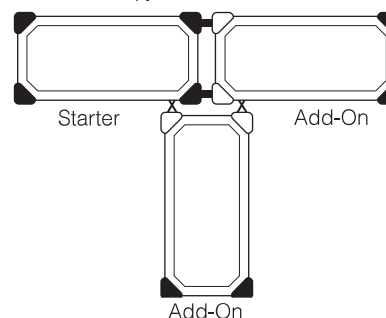
### RIGHT ANGLES

Intermediate “S” Hook Kit  
MX9996 — qty. 1



### COMBINATION

Intermediate “S” Hook Kits  
MX9996 — qty. 2



## MetroMax i™ Carts

- 4- and 5-tier models
- All-grid and all-solid shelf models
- Units consist of shelves, (4) posts, (2) swivel, and (2) swivel brake casters.
- Consult the Metro catalog for models.



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



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Printed in U.S.A. 4/09

Information and specifications are subject to change without notice. Please confirm at time of order.

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JOB:

ITEM #:

QUANTITY:

**DUNNAGE RACKS**

# Dunnage Racks

## **STATIONARY & MOBILE UNITS**

### *Stationary Units*

Approved for use in freezers, displays, as well as packaging and storage areas, these heavy duty all welded aluminum racks keep product organized and off of the floor. Many standard sizes are available to fit a wide variety of applications with weight capacities ranging between 2000 and 4000 pounds.



**Heavy Duty All Welded Dunnage Racks**  
(Mobile Unit Shown With Optional Handle)

### *Mobile Units*

Ideal for any storage application, the versatile mobile racks eliminate wasted storage space. Their sanitary all welded construction easily moves loads up to 1200 pounds with no cracks or crevices to trap dirt. *Optional handle is available as well as a heavy duty caster upgrade.*



All New Age products have a *Lifetime Guarantee* against rust and corrosion as well as a *Five-Year Guarantee* against material defects and workmanship.  
*See our current price list for details.*



**New Age Industrial Corp., Inc.**

E Hwy-36 • PO Box 520

Norton, Kansas 67654

**Phone#: 800-255-0104**

**Fax#: 785-877-2616**



**NSF Certified**

**0298**

**DUNNAGE RACKS**



**DUNNAGE RACKS**

JOB:

ITEM #:

QUANTITY:

**SPECIFICATIONS****STATIONARY UNITS**

**MATERIAL:** High tensile extruded aluminum tube, 1-½" x 1-¾" x .070 wall thickness, uniform throughout. Primary aluminum, Type 6063-T5 alloy.

**CONSTRUCTION:** All heli-arc welded. All seams welded, feet capped and welded.

**WEIGHT CAPACITY:** See Chart

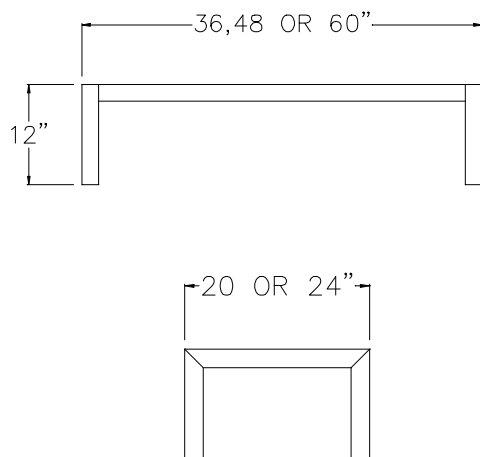
**MOBILE UNITS**

**MATERIAL:** High tensile extruded aluminum tube, 1-½" x 2-¾" x .070 wall and 1-½" x 1-½" x .070 wall. Primary aluminum, Type 6063-T5 alloy.

**CONSTRUCTION:** All heli-arc welded.

**WEIGHT CAPACITY:** Maximum distributed load capacity is 1200#.

**CASTERS:** Platform type with 1-⅜" x 5" diameter wheel, thermoplastic rubber tread and ball bearing axle. Two swivel (#C455) and two rigid (#C460).

**NSF Certified****STATIONARY DUNNAGE RACKS**

MODEL NO.	# OF LAT	WT. CAP.	SIZE W-H-L	WT.
° 2001	4	3000#	18" x 8" x 36"	8.5#
° 2002	4	2500#	18" x 8" x 48"	10.5#
° 2003	4	2000#	18" x 8" x 60"	12.5#
° 2020	4	3000#	18" x 12" x 36"	9#
° 2021	4	2500#	18" x 12" x 48"	11#
° 2022	4	2000#	18" x 12" x 60"	13#
° 2017	4	3000#	20" x 8" x 36"	9#
° 2018	4	2500#	20" x 8" x 48"	11#
° 2019	4	2000#	20" x 8" x 60"	13#
° 2052	4	3000#	20" x 12" x 30"	8.5#
° 2004	4	3000#	20" x 12" x 36"	10#
° 2054	4	3000#	20" x 12" x 42"	10.5#
° 2005	4	2500#	20" x 12" x 48"	12#
° 2006	4	2000#	20" x 12" x 60"	14#
° 2014	5	2500#	24" x 8" x 36"	10.5#
° 2015	5	2500#	24" x 8" x 48"	13#
° 2016	5	2000#	24" x 8" x 60"	15#
° 2013	5	2500#	24" x 12" x 24"	8#
° 2062	5	2500#	24" x 12" x 30"	10#
° 2008	5	2500#	24" x 12" x 36"	11#
° 2064	5	2500#	24" x 12" x 42"	12.5#
° 2009	5	2500#	24" x 12" x 48"	13.5#
2010	5	2000#	24" x 12" x 60"	16#
2012	5	4000#	24" x 12" x 72"	20.5#
° 2026	6	3000#	30" x 12" x 36"	13#
2027	6	3000#	30" x 12" x 48"	16#
2028	6	2500#	30" x 12" x 60"	21#
2007	6	2500#	30" x 12" x 72"	25#

Model #2012 has 6 legs.

Maximum distributed load capacity: 2000# to 4000# (above)

**MOBILE DUNNAGE RACKS**

○ 1201 .....	1200# .....	20" x 8" x 24" .....	17#
○ 1211 .....	1200# .....	20" x 8" x 30" .....	18.5#
○ 1202 .....	1200# .....	20" x 8" x 36" .....	19#
○ 1200 .....	1200# .....	20" x 8" x 42" .....	21#
○ 1203 .....	1200# .....	20" x 8" x 48" .....	22#
○ 1212 .....	1200# .....	20" x 8" x 60" .....	24#
○ <b>1208 .....</b>	<b>Handle For 20" Wide Units Above</b> .....	<b>4#</b>	
○ 1213 .....	1200# .....	24" x 8" x 24" .....	18#
○ 1214 .....	1200# .....	24" x 8" x 30" .....	19#
○ 1204 .....	1200# .....	24" x 8" x 36" .....	20#
○ 1205 .....	1200# .....	24" x 8" x 42" .....	21#
○ 1206 .....	1200# .....	24" x 8" x 48" .....	22#
○ 1207 .....	1200# .....	24" x 8" x 60" .....	25#
○ <b>1174 .....</b>	<b>Handle For 24" Wide Units Above</b> .....	<b>4#</b>	

Four 5" plate casters: two swivel #C455 and two rigid #C460

° **UPS-able**

☐ **HEAVY DUTY CASTERS** - Wt. Cap - 2200#

Four 6" casters: two swivel (#C490) two rigid (#C500)

-- Add "HD6" suffix to model # --



0400

**"Nobody Builds It Better."****PHONE#: 800-255-0104****FAX#: 785-877-2616**



Item # \_\_\_\_\_

Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING

- **Unique Design:** The open wire design of these shelves minimizes dust accumulation and allows free circulation of air, greater visibility of stored items and greater light penetration.
- **Durable Construction:** Super Erecta shelves and posts are constructed of heavy-gauge carbon steel or Type 304 stainless steel.
- **Choice of Finishes:** Super Erecta Brite™ and chrome-plated for dry storage; Metroseal 3™ with Microban® antimicrobial product protection and stainless steel for corrosive environments; and attractive epoxy color options for merchandising applications.
- **Versatile:** Super Erecta Shelf® wire shelving can adapt to your changing needs. By using various accessories, hundreds of shelving configurations become possible.
- **Fast, Secure Assembly:** SiteSelect™ Posts have a double groove visual guide feature every 8" (203mm), circular grooves at 1" (25mm) increments, and are numbered at 2" (50mm) intervals. A patented, tapered split sleeve snaps together around each post. Tapered openings in the shelf corners slide over the tapered split sleeves providing a positive lock. Shelf is assembled in minutes without the use of any special tools.
- **Adjustability:** Shelves can be adjusted at 1" (25mm) intervals along the entire length of the post.
- **Shelf Ribs:** Run front to back, allowing you to slide items on and off shelves smoothly.
- **Shelf Accessibility:** Shelves can be loaded/unloaded easily from all sides. This open construction allows maximum use of storage cube.
- **Adjustable Feet:** Bolt levelers compensate for surface irregularities.

**Note:** Stainless stationary posts are equipped with stainless steel leveling feet.



\*MICROBAN® and the MICROBAN® symbol are registered trademarks of the Microban Products Company, Huntersville, NC.



**InterMetro Industries Corporation**  
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[www.metro.com](http://www.metro.com)



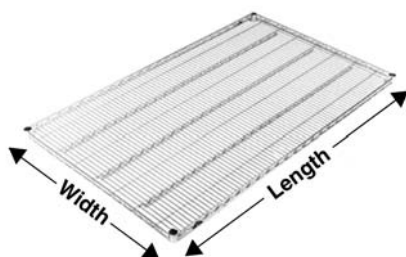
# Wire Shelving

# 10.01



# SUPER ERECTA SHELF® WIRE SHELVING

## Wire Shelves



**Split Sleeve**



**Aluminum  
Split Sleeve**

- **Metroseal 3:** Metro's proprietary epoxy coating contains Microban® antimicrobial product protection. Microban antimicrobial protects the epoxy coating from bacteria, mold, mildew, and fungus that cause odors, stains, and product degradation.
- See spec sheet 10.14 for epoxy color options.
- Plastic split sleeves are included with each shelf  
Replacements are available: Cat. No. 9985 (bag of 4)
- Aluminum split sleeves are recommended for abusive mobile applications and autoclave applications.  
Cat. No. 9986Z (bag of 4 with zinc C-rings)  
Cat. No. 9986S (bag of 4 with stainless steel C-rings)
- Load capacity (evenly distributed) per shelf  
Depths: 14" to 24" (355 to 610mm)  
800 lbs. (363kg) for lengths of 18" to 48" (457 to 1219mm)  
600 lbs. (272kg) for lengths of 54" (1370mm) or longer
- Load capacity (evenly distributed) per unit.  
Stationary shelving units have a maximum load capacity (evenly distributed) of 2,000 lbs. (907kg)  
Mobile units have a maximum capacity of three times the caster load rating up to but not exceeding 1,000 lbs. (453kg) total. Consult the Metro catalog for caster load ratings
- SUPER ERECTA SHELF meets Government Specifications MIL-S-40144E.

Model No. Super Erecta Brite	Model No. Chrome	Model No. Metroseal 3 with Microban®	Model No. Stainless	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
1424BR	1424NC	1424NK3	1424NS	14x24	355x610	6	2.7
1430 BR	1430NC	1430NK3	1430NS	14x30	355x760	7	3.2
1436BR	1436NC	1436NK3	1436NS	14x36	355x914	8	3.6
1442BR	1442NC	1442NK3	1442NS	14x42	355x1066	9½	4.3
1448BR	1448NC	1448NK3	1448NS	14x48	355x1219	10½	4.7
1460BR	1460NC	1460NK3	1460NS	14x60	355x1524	14	6.3
1472BR	1472NC	1472NK3	1472NS	14x72	355x1829	17	7.7
1824BR	1824NC	1824NK3	1824NS	18x24	457x610	7	3.2
1830BR	1830NC	1830NK3	1830NS	18x30	457x760	8	3.6
1836BR	1836NC	1836NK3	1836NS	18x36	457x914	9½	4.3
1842BR	1842NC	1842NK3	1842NS	18x42	457x1066	11	5.0
1848BR	1848NC	1848NK3	1848NS	18x48	457x1219	12	5.4
1854BR	1854NC	1854NK3	1854NS	18x54	457x1370	14½	6.6
1860BR	1860NC	1860NK3	1860NS	18x60	457x1524	17	7.7
1872BR	1872NC	1872NK3	1872NS	18x72	457x1829	20	9.1
2124BR	2124NC	2124NK3	2124NS	21x24	530x610	8	3.6
2130BR	2130NC	2130NK3	2130NS	21x30	530x760	9	4.1
2136BR	2136NC	2136NK3	2136NS	21x36	530x914	11	5.0
2142BR	2142NC	2142NK3	2142NS	21x42	530x1066	12	5.4
2148BR	2148NC	2148NK3	2148NS	21x48	530x1219	14	6.4
2154BR	2154NC	2154NK3	2154NS	21x54	530x1370	16	7.3
2160BR	2160NC	2160NK3	2160NS	21x60	530x1524	18	8.2
2172BR	2172NC	2172NK3	2172NS	21x72	530x1829	24	10.9
2424BR	2424NC	2424NK3	2424NS	24x24	610x610	9	4.1
2430BR	2430NC	2430NK3	2430NS	24x30	610x760	11	5.0
2436BR	2436NC	2436NK3	2436NS	24x36	610x914	13	5.9
2442BR	2442NC	2442NK3	2442NS	24x42	610x1066	15	6.8
2448BR	2448NC	2448NK3	2448NS	24x48	610x1219	16	7.3
2454BR	2454NC	2454NK3	2454NS	24x54	610x1370	19	8.6
2460BR	2460NC	2460NK3	2460NS	24x60	610x1524	21	9.5
2472BR	2472NC	2472NK3	2472NS	24x72	610x1829	26	11.8

**Note:** 14" (355mm) deep units.

Free-standing units: Foot plates should be used and secured to the floor.

Mobile units: maximum allowable post height is 54" (1370mm).



# SUPER ERECTA SHELF® WIRE SHELVING



## SiteSelect™ Posts

### Stationary Posts

Stationary posts are equipped with a leveling bolt to account for uneven floors.

- Height includes leveling bolt (completely tightened) and post cap. Leveling bolt can be adjusted 1/2" (13mm).
- Foot plates may be ordered separately and installed in place of leveling foot.
- Replacement leveling bolts  
Zinc Cat. No. RPF04-004 Stainless Steel Cat. No. RPF04-004C
- Replacement post cap for standard posts  
Black Cat. No. RPC06-035



**SiteSelect Posts feature double grooves every 8" (203mm) to aid assembly.**

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
7P			7 <sup>3</sup> / <sub>8</sub>	187	1/2	0.3
13P	13PK3	13PS	14 <sup>3</sup> / <sub>8</sub>	365	1	0.5
27P		27PS	28 <sup>3</sup> / <sub>8</sub>	720	1 <sup>3</sup> / <sub>4</sub>	0.75
33P	33PK3	33PS	34 <sup>3</sup> / <sub>8</sub>	873	2	0.9
54P	54PK3	54PS	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P	63PK3	63PS	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P	74PK3	74PS	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8
86P	86PK3	86PS	86 <sup>1</sup> / <sub>2</sub>	2197	5	2.3
*96P			96 <sup>1</sup> / <sub>2</sub>	2450	5 <sup>1</sup> / <sub>2</sub>	2.5

\*96P should not be used on units less than 24" (610mm) deep. Consult Metro Engineering for alternate recommendations.

### Mobile Posts (For use with Stem Casters)

- Height includes post cap.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
27UP		27UPS	27 <sup>3</sup> / <sub>4</sub>	704	1 <sup>3</sup> / <sub>4</sub>	0.75
33UP	33UPK3	33UPS	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UP	54UPK3	54UPS	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UP	63UPK3	63UPS	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6
	70UPK3		69 <sup>3</sup> / <sub>4</sub>	1771	3 <sup>3</sup> / <sub>4</sub>	1.7
74UP	74UPK3	74UPS	73 <sup>7</sup> / <sub>8</sub>	1876	4	1.8
86UP	86UPK3	86UPS	85 <sup>7</sup> / <sub>8</sub>	2181	4 <sup>1</sup> / <sub>2</sub>	2.0

### Staked Posts (For use with Truck Dollies)

- Each post connects to the truck dolly through the stem receptacle. The stem receptacle is staked into the bottom of the post to ensure a durable connection in abusive mobile applications.
- Each includes a leveling/connecting bolt.

Model No. Chrome	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
		(in.)	(mm)	(lbs.)	(kg)
54P-STKD	54PS-STKD	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P-STKD	63PS-STKD	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P-STKD	74PS-STKD	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8

### Swedged Posts (For use with Stem Casters in Cart Wash Applications)

- Each post has an aluminum cap swedged into the top of the post.

Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
	(in.)	(mm)	(lbs.)	(kg)
33UPS-SW	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UPS-SW	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UPS-SW	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6

### Special Length Posts

Special length cut posts are available. Consult your Metro representative for more information.

Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING



### Super Wide Shelving

- **High-density Storage:** Super Wide™ shelves have a greater storage area for holding large quantities of supplies, especially large, bulky objects, providing maximum storage in minimum space.
- **Load Capacity** (evenly distributed) per shelf:  
Depths: 30" and 36" (760 and 914mm)  
600 lbs. (272kg) for lengths 48" (1219mm) or shorter.  
400 lbs. (181kg) for lengths 54" (1370mm) or longer.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
3036NC	3036NK3	3036NS	30x36	760x914	15	6.8
3048NC	3048NK3	3048NS	30x48	760x1219	21	9.5
3060NC	3060NK3	3060NS	30x60	760x1524	26 1/2	11.8
3072NC	3072NK3	3072NS	30x72	760x1829	31	14.0
3636NC	3636NK3	3636NS	36x36	910x914	18	8.2
3648NC	3648NK3	3648NS	36x48	910x1219	23	10.4
3660NC	3660NK3	3660NS	36x60	910x1524	29	13.1
3672NC	3672NK3	3672NS	36x72	910x1829	34 1/2	15.4



### Foot Plates

- Use to bolt units to the floor, or when a broader, more stable foot is desired. Foot plates also help to protect floors by distributing the point load of the shelving unit across a larger contact point.
- Foot plates (completely tightened) add 1/8" (3mm) to the specified heights of each stationary post on the table.  
Zinc Cat. No. 9993Z  
Stainless Steel Cat. No. 9993S



### "S" Hook

- Used to add on shelving units with only two posts required. Order two per shelf level.  
Cat. No. 9995Z



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



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Middle East/Africa: +971.4.811.8286



Item # \_\_\_\_\_

Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING

- **Unique Design:** The open wire design of these shelves minimizes dust accumulation and allows free circulation of air, greater visibility of stored items and greater light penetration.
- **Durable Construction:** Super Erecta shelves and posts are constructed of heavy-gauge carbon steel or Type 304 stainless steel.
- **Choice of Finishes:** Super Erecta Brite™ and chrome-plated for dry storage; Metroseal 3™ with Microban® antimicrobial product protection and stainless steel for corrosive environments; and attractive epoxy color options for merchandising applications.
- **Versatile:** Super Erecta Shelf® wire shelving can adapt to your changing needs. By using various accessories, hundreds of shelving configurations become possible.
- **Fast, Secure Assembly:** SiteSelect™ Posts have a double groove visual guide feature every 8" (203mm), circular grooves at 1" (25mm) increments, and are numbered at 2" (50mm) intervals. A patented, tapered split sleeve snaps together around each post. Tapered openings in the shelf corners slide over the tapered split sleeves providing a positive lock. Shelf is assembled in minutes without the use of any special tools.
- **Adjustability:** Shelves can be adjusted at 1" (25mm) intervals along the entire length of the post.
- **Shelf Ribs:** Run front to back, allowing you to slide items on and off shelves smoothly.
- **Shelf Accessibility:** Shelves can be loaded/unloaded easily from all sides. This open construction allows maximum use of storage cube.
- **Adjustable Feet:** Bolt levelers compensate for surface irregularities.

**Note:** Stainless stationary posts are equipped with stainless steel leveling feet.



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**InterMetro Industries Corporation**  
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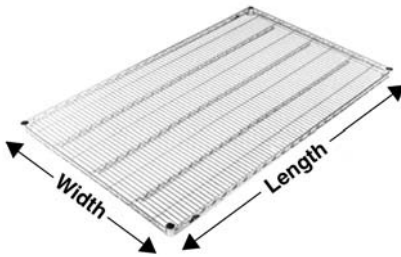
# Wire Shelving

# 10.01



# SUPER ERECTA SHELF® WIRE SHELVING

## Wire Shelves



**Split Sleeve**



**Aluminum  
Split Sleeve**

- **Metroseal 3:** Metro's proprietary epoxy coating contains Microban® antimicrobial product protection. Microban antimicrobial protects the epoxy coating from bacteria, mold, mildew, and fungus that cause odors, stains, and product degradation.
- See spec sheet 10.14 for epoxy color options.
- Plastic split sleeves are included with each shelf  
Replacements are available: Cat. No. 9985 (bag of 4)
- Aluminum split sleeves are recommended for abusive mobile applications and autoclave applications.  
Cat. No. 9986Z (bag of 4 with zinc C-rings)  
Cat. No. 9986S (bag of 4 with stainless steel C-rings)
- Load capacity (evenly distributed) per shelf  
Depths: 14" to 24" (355 to 610mm)  
800 lbs. (363kg) for lengths of 18" to 48" (457 to 1219mm)  
600 lbs. (272kg) for lengths of 54" (1370mm) or longer
- Load capacity (evenly distributed) per unit.  
Stationary shelving units have a maximum load capacity (evenly distributed) of 2,000 lbs. (907kg)  
Mobile units have a maximum capacity of three times the caster load rating up to but not exceeding 1,000 lbs. (453kg) total. Consult the Metro catalog for caster load ratings
- SUPER ERECTA SHELF meets Government Specifications MIL-S-40144E.

Model No. Super Erecta Brite	Model No. Chrome	Model No. Metroseal 3 with Microban®	Model No. Stainless	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
1424BR	1424NC	1424NK3	1424NS	14x24	355x610	6	2.7
1430 BR	1430NC	1430NK3	1430NS	14x30	355x760	7	3.2
1436BR	1436NC	1436NK3	1436NS	14x36	355x914	8	3.6
1442BR	1442NC	1442NK3	1442NS	14x42	355x1066	9½	4.3
1448BR	1448NC	1448NK3	1448NS	14x48	355x1219	10½	4.7
1460BR	1460NC	1460NK3	1460NS	14x60	355x1524	14	6.3
1472BR	1472NC	1472NK3	1472NS	14x72	355x1829	17	7.7
1824BR	1824NC	1824NK3	1824NS	18x24	457x610	7	3.2
1830BR	1830NC	1830NK3	1830NS	18x30	457x760	8	3.6
1836BR	1836NC	1836NK3	1836NS	18x36	457x914	9½	4.3
1842BR	1842NC	1842NK3	1842NS	18x42	457x1066	11	5.0
1848BR	1848NC	1848NK3	1848NS	18x48	457x1219	12	5.4
1854BR	1854NC	1854NK3	1854NS	18x54	457x1370	14½	6.6
1860BR	1860NC	1860NK3	1860NS	18x60	457x1524	17	7.7
1872BR	1872NC	1872NK3	1872NS	18x72	457x1829	20	9.1
2124BR	2124NC	2124NK3	2124NS	21x24	530x610	8	3.6
2130BR	2130NC	2130NK3	2130NS	21x30	530x760	9	4.1
2136BR	2136NC	2136NK3	2136NS	21x36	530x914	11	5.0
2142BR	2142NC	2142NK3	2142NS	21x42	530x1066	12	5.4
2148BR	2148NC	2148NK3	2148NS	21x48	530x1219	14	6.4
2154BR	2154NC	2154NK3	2154NS	21x54	530x1370	16	7.3
2160BR	2160NC	2160NK3	2160NS	21x60	530x1524	18	8.2
2172BR	2172NC	2172NK3	2172NS	21x72	530x1829	24	10.9
2424BR	2424NC	2424NK3	2424NS	24x24	610x610	9	4.1
2430BR	2430NC	2430NK3	2430NS	24x30	610x760	11	5.0
2436BR	2436NC	2436NK3	2436NS	24x36	610x914	13	5.9
2442BR	2442NC	2442NK3	2442NS	24x42	610x1066	15	6.8
2448BR	2448NC	2448NK3	2448NS	24x48	610x1219	16	7.3
2454BR	2454NC	2454NK3	2454NS	24x54	610x1370	19	8.6
2460BR	2460NC	2460NK3	2460NS	24x60	610x1524	21	9.5
2472BR	2472NC	2472NK3	2472NS	24x72	610x1829	26	11.8

**Note:** 14" (355mm) deep units.

Free-standing units: Foot plates should be used and secured to the floor.

Mobile units: maximum allowable post height is 54" (1370mm).

# SUPER ERECTA SHELF® WIRE SHELVING

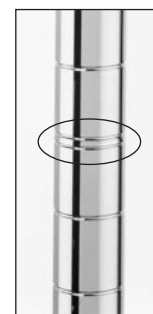


## SiteSelect™ Posts

### Stationary Posts

Stationary posts are equipped with a leveling bolt to account for uneven floors.

- Height includes leveling bolt (completely tightened) and post cap. Leveling bolt can be adjusted 1/2" (13mm).
- Foot plates may be ordered separately and installed in place of leveling foot.
- Replacement leveling bolts  
Zinc Cat. No. RPF04-004 Stainless Steel Cat. No. RPF04-004C
- Replacement post cap for standard posts  
Black Cat. No. RPC06-035



**SiteSelect Posts feature double grooves every 8" (203mm) to aid assembly.**

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
7P			7 <sup>3</sup> / <sub>8</sub>	187	1/2	0.3
13P	13PK3	13PS	14 <sup>3</sup> / <sub>8</sub>	365	1	0.5
27P		27PS	28 <sup>3</sup> / <sub>8</sub>	720	1 <sup>3</sup> / <sub>4</sub>	0.75
33P	33PK3	33PS	34 <sup>3</sup> / <sub>8</sub>	873	2	0.9
54P	54PK3	54PS	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P	63PK3	63PS	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P	74PK3	74PS	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8
86P	86PK3	86PS	86 <sup>1</sup> / <sub>2</sub>	2197	5	2.3
*96P			96 <sup>1</sup> / <sub>2</sub>	2450	5 <sup>1</sup> / <sub>2</sub>	2.5

\*96P should not be used on units less than 24" (610mm) deep. Consult Metro Engineering for alternate recommendations.

### Mobile Posts (For use with Stem Casters)

- Height includes post cap.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
27UP		27UPS	27 <sup>3</sup> / <sub>4</sub>	704	1 <sup>3</sup> / <sub>4</sub>	0.75
33UP	33UPK3	33UPS	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UP	54UPK3	54UPS	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UP	63UPK3	63UPS	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6
	70UPK3		69 <sup>3</sup> / <sub>4</sub>	1771	3 <sup>3</sup> / <sub>4</sub>	1.7
74UP	74UPK3	74UPS	73 <sup>7</sup> / <sub>8</sub>	1876	4	1.8
86UP	86UPK3	86UPS	85 <sup>7</sup> / <sub>8</sub>	2181	4 <sup>1</sup> / <sub>2</sub>	2.0

### Staked Posts (For use with Truck Dollies)

- Each post connects to the truck dolly through the stem receptacle. The stem receptacle is staked into the bottom of the post to ensure a durable connection in abusive mobile applications.
- Each includes a leveling/connecting bolt.

Model No. Chrome	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
		(in.)	(mm)	(lbs.)	(kg)
54P-STKD	54PS-STKD	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P-STKD	63PS-STKD	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P-STKD	74PS-STKD	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8

### Swedged Posts (For use with Stem Casters in Cart Wash Applications)

- Each post has an aluminum cap swedged into the top of the post.

Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
	(in.)	(mm)	(lbs.)	(kg)
33UPS-SW	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UPS-SW	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UPS-SW	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6

### Special Length Posts

Special length cut posts are available. Consult your Metro representative for more information.



Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING



### Super Wide Shelving

- **High-density Storage:** Super Wide™ shelves have a greater storage area for holding large quantities of supplies, especially large, bulky objects, providing maximum storage in minimum space.
- **Load Capacity** (evenly distributed) per shelf:  
Depths: 30" and 36" (760 and 914mm)  
600 lbs. (272kg) for lengths 48" (1219mm) or shorter.  
400 lbs. (181kg) for lengths 54" (1370mm) or longer.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
3036NC	3036NK3	3036NS	30x36	760x914	15	6.8
3048NC	3048NK3	3048NS	30x48	760x1219	21	9.5
3060NC	3060NK3	3060NS	30x60	760x1524	26 1/2	11.8
3072NC	3072NK3	3072NS	30x72	760x1829	31	14.0
3636NC	3636NK3	3636NS	36x36	910x914	18	8.2
3648NC	3648NK3	3648NS	36x48	910x1219	23	10.4
3660NC	3660NK3	3660NS	36x60	910x1524	29	13.1
3672NC	3672NK3	3672NS	36x72	910x1829	34 1/2	15.4



### Foot Plates

- Use to bolt units to the floor, or when a broader, more stable foot is desired. Foot plates also help to protect floors by distributing the point load of the shelving unit across a larger contact point.
- Foot plates (completely tightened) add 1/8" (3mm) to the specified heights of each stationary post on the table.  
Zinc Cat. No. 9993Z  
Stainless Steel Cat. No. 9993S



### "S" Hook

- Used to add on shelving units with only two posts required. Order two per shelf level.  
Cat. No. 9995Z



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



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# STAINLESS STEEL & ALUMINUM WALL SHELVES

## KD Wall Shelf



Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

### FEATURES:

Furnished with a 1-5/8" Bullnose edge with a 1-1/4" turn-up edge on sides and rear.

Unit is easily assembled employing the slip-fit TAB-LOK design.

### CONSTRUCTION:

Shelf and brackets are die stamped and die formed.

### MATERIAL:

**WS-KD Series** - 18 gauge stainless steel polished to a satin finish.

**AWS-KD Series** - Heavy gauge aluminum.

S/S	ALUMINUM	length
WS-KD-24	AWS-KD-24	24"
WS-KD-36	AWS-KD-36	36"
WS-KD-48	AWS-KD-48	48"
WS-KD-60	AWS-KD-60	60"

## Standard Wall Shelf

### FEATURES:

Brackets can be positioned to accommodate wall studs.

Furnished with a 1-5/8" Bullnose edge with a 1-1/2" turn-up edge at rear. Ends are turned down square.

### CONSTRUCTION:

Secured to wall by means of bolts through support brackets.

Units 7 ft. and larger are furnished with 3 brackets.

### MATERIAL:

**16 Gauge Series** - 304 stainless steel polished to a satin finish.

**18 Gauge Series** - 430 stainless steel polished to a satin finish.



10" Wide		12" Wide		15" Wide		18" Wide		Approx. Wt.	Approx. Cubes
16 Ga.	18 Ga.	16 Ga.	18 Ga.	16 Ga.	18 Ga.	16 Ga.	18 Ga.		
WS-10-24-16	WS-10-24	WS-12-24-16	WS-12-24	WS-15-24-16	WS-15-24	WS-18-24-16	WS-18-24	10 lbs.	3
WS-10-36-16	WS-10-36	WS-12-36-16	WS-12-36	WS-15-36-16	WS-15-36	WS-18-36-16	WS-18-36	12 lbs.	4
WS-10-48-16	WS-10-48	WS-12-48-16	WS-12-48	WS-15-48-16	WS-15-48	WS-18-48-16	WS-18-48	14 lbs.	5
WS-10-60-16	WS-10-60	WS-12-60-16	WS-12-60	WS-15-60-16	WS-15-60	WS-18-60-16	WS-18-60	17 lbs.	6
WS-10-72-16	WS-10-72	WS-12-72-16	WS-12-72	WS-15-72-16	WS-15-72	WS-18-72-16	WS-18-72	19 lbs.	7
WS-10-84-16	WS-10-84	WS-12-84-16	WS-12-84	WS-15-84-16	WS-15-84	WS-18-84-16	WS-18-84	22 lbs.	8
WS-10-96-16	WS-10-96	WS-12-96-16	WS-12-96	WS-15-96-16	WS-15-96	WS-18-96-16	WS-18-96	26 lbs.	10
WS-10-108-16	WS-10-108	WS-12-108-16	WS-12-108	WS-15-108-16	WS-15-108	WS-18-108-16	WS-18-108	28 lbs.	11
WS-10-120-16	WS-10-120	WS-12-120-16	WS-12-120	WS-15-120-16	WS-15-120	WS-18-120-16	WS-18-120	31 lbs.	12
WS-10-132-16	WS-10-132	WS-12-132-16	WS-12-132	WS-15-132-16	WS-15-132	WS-18-132-16	WS-18-132	35 lbs.	13
WS-10-144-16	WS-10-144	WS-12-144-16	WS-12-144	WS-15-144-16	WS-15-144	WS-18-144-16	WS-18-144	38 lbs.	14

Length = 24" to 144" in 12" increments.



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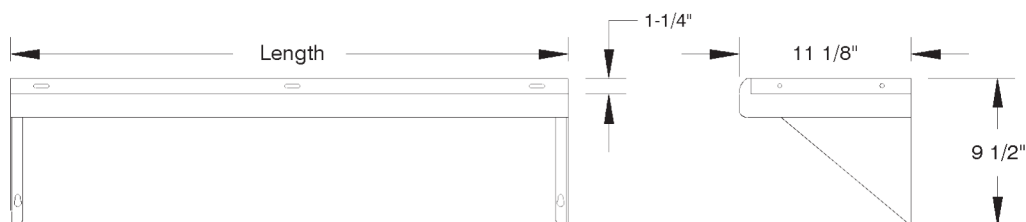


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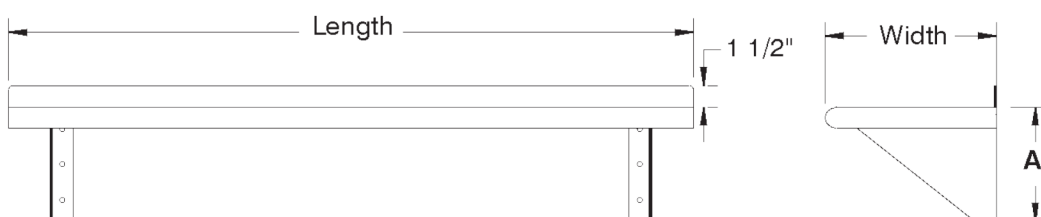
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ALL DIMENSIONS ARE TYPICAL

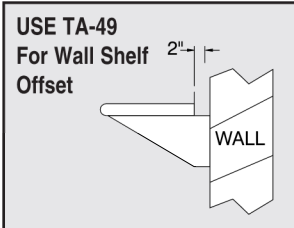
## KD WALL SHELF



## STANDARD WALL SHELF



Width	A
10"	8 1/2"
12"	10 1/2"
15"	13 1/2"
18"	16 1/2"



### Requirements for NSF Installations

1. Install at least 60" above floor.
2. Limit to dry storage.
3. Avoid contact with liquids.
4. For "Ganging-Up" installation, allow at least 2" between units or mount units side by side and seal joints with an approved sealant.





## STAINLESS STEEL POT RACKS

Item #: \_\_\_\_\_ Qty #: \_\_\_\_\_

Model #: \_\_\_\_\_

Project #: \_\_\_\_\_

### CEILING MOUNTED



### WALL MOUNTED



### SHELF w/ POT RACK



### Ceiling Mounted

L	S/S	POWDER COATED	# of Hooks	Wt
36"	SC-36	GC-36	12	42 lbs.
48"	SC-48	GC-48	12	48 lbs.
60"	SC-60	GC-60	18	54 lbs.
72"	SC-72	GC-72	18	60 lbs.
84"	SC-84	GC-84	18	66 lbs.
96"	SC-96	GC-96	18	80 lbs.
108"	SC-108	GC-108	18	86 lbs.
120"	SC-120	GC-120	18	92 lbs.
132"	SC-132	GC-132	18	98 lbs.
144"	SC-144	GC-144	18	104 lbs.

### Wall Mounted

L	S/S	POWDER COATED	# of Hooks	Wt
24"	SW-24	GW-24	12	18 lbs.
36"	SW-36	GW-36	12	22 lbs.
48"	SW-48	GW-48	12	26 lbs.
60"	SW-60	GW-60	18	30 lbs.
72"	SW-72	GW-72	18	34 lbs.
84"	SW-84	GW-84	18	44 lbs.
96"	SW-96	GW-96	18	48 lbs.
108"	SW-108	GW-108	18	52 lbs.
120"	SW-120	GW-120	18	56 lbs.
132"	SW-132	GW-132	18	60 lbs.
144"	SW-144	GW-144	18	64 lbs.

### Shelf with Pot Rack

L	12" Wide	Wt	15" Wide	Wt	18" Wide	Wt	# of Hooks
36"	PS-12-36	20 lbs.	PS-15-36	25 lbs.	PS-18-36	30 lbs.	6
48"	PS-12-48	30 lbs.	PS-15-48	35 lbs.	PS-18-48	40 lbs.	6
60"	PS-12-60	40 lbs.	PS-15-60	45 lbs.	PS-18-60	50 lbs.	9
72"	PS-12-72	50 lbs.	PS-15-72	55 lbs.	PS-18-72	60 lbs.	9
84"	PS-12-84	60 lbs.	PS-15-84	65 lbs.	PS-18-84	70 lbs.	9
96"	PS-12-96	70 lbs.	PS-15-96	75 lbs.	PS-18-96	80 lbs.	9
108"	PS-12-108	80 lbs.	PS-15-108	85 lbs.	PS-18-108	90 lbs.	9
120"	PS-12-120	90 lbs.	PS-15-120	95 lbs.	PS-18-120	100 lbs.	9
132"	PS-12-132	100 lbs.	PS-15-132	105 lbs.	PS-18-132	110 lbs.	9
144"	PS-12-144	110 lbs.	PS-15-144	115 lbs.	PS-18-144	120 lbs.	9

Units 8 ft. and larger are furnished with three (3) sets of supports brackets.

#### FEATURES: (Ceiling Mounted)

Ceiling suspension with chain hangers.  
Optional stainless steel Flat Bar in lieu of Chain available. Use **TA-98**.

#### MATERIAL:

Flat steel bar is 2" x 1/4", either stainless steel or powder coated (as specified).

Pot hooks are plated.

24" long chain hangers are plated.

#### CONSTRUCTION:

All welded stainless steel units are blended to a satin finish.

All powder coated units are coated with FDA approved material.

#### FEATURES: (Wall Mounted)

Secured to wall by means of bolts through welded brackets.  
(Hardware not provided)

#### MATERIAL:

Flat steel bar is 2" x 1/4", either stainless steel or powder coated (as specified).

Pot hooks are plated.

#### CONSTRUCTION:

All welded stainless steel units are blended to a satin finish.

All powder coated units are coated with FDA approved material.

#### FEATURES: (Shelf/Pot Rack)

A dual purpose unit for shelf and utensil storage.

Secured to wall by means of bolts through welded brackets.  
(Hardware not provided)

#### MATERIAL:

Flat stainless steel bar is 2" x 1/4".  
Pot hooks are plated.  
Type "430" stainless steel shelf.

#### CONSTRUCTION:

All welded stainless steel units are blended to a satin finish.



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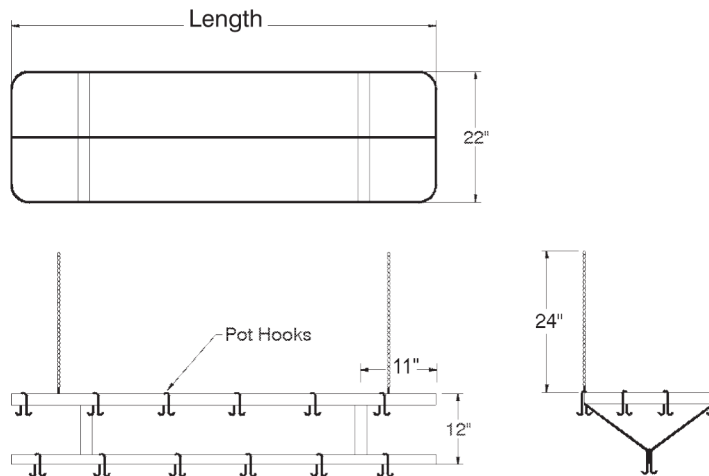
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# DETAILS and SPECIFICATIONS

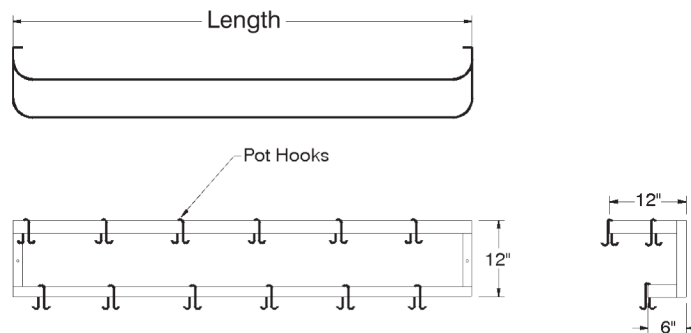
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ALL DIMENSIONS ARE TYPICAL

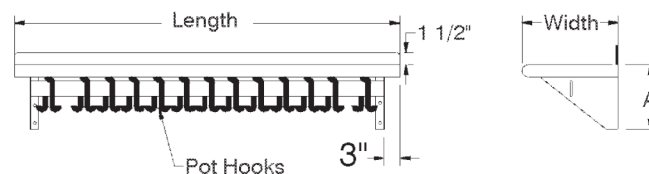
## Ceiling Mounted



## Wall Mounted



## Shelf with Pot Rack



Width	A
12"	10 1/2"
15"	13 1/2"
18"	16 1/2"





Item # \_\_\_\_\_

Job \_\_\_\_\_

## METROMAX i™ POLYMER SHELVING

with \*Microban Antimicrobial Product Protection

Part of the innovative MetroMax iQ™ Storage System, MetroMax i™ is a lifetime storage solution. The product is corrosion proof, easy to clean, strong like wire shelving, and provides a very efficient use of storage space. MetroMax i™ is integrated with online space planning tools and tutorials. [www.metro.com/iQ](http://www.metro.com/iQ)

- **Lifelong performance and corrosion proof:** All-polymer and Type 304 stainless design offers a lifetime warranty against rust and corrosion.
- **Strong and Durable:** Strong as steel, MetroMax i™ shelves hold as much weight as Metro's wire shelving and are impact resistant. Weight capacity for evenly distributed loads:  
800 lbs. (363kg) per shelf for lengths of 24" to 48" (610 to 1220mm)  
600 lbs. (275kg) per shelf for lengths of 54" (1370mm) or longer  
2,000 lbs. (907kg) maximum per stationary unit.
- **Easiest to clean and maintain:** Smooth surfaces easily wipe clean. Polymer mats can be easily removed and cleaned in a sink or dish machine. Microban antimicrobial product protection is built into the high contact areas of the shelf including the mats, frames, and posts to protect the product from bacteria, mold, mildew, and fungus that cause odors and product degradation. Microban protection keeps the product "cleaner between cleanings".
- **Smooth, Protective Surfaces:** Smooth, flat surfaces protect packaged shelf contents from unwanted rips, tears, or damage.
- **Robust Open Grid and Solid Mat Options:** Open grid shelves promote air circulation and light penetration. One-piece solid mats contain spills and are ideal to protect items on the bottom shelf from dirt or backsplashes from cleaning floors. Shelf mats are sturdy and safely support concentrated loads from instrumentation and equipment.
- **Interchangeable:** Part of the MetroMax iQ™ Storage System, corrosion proof MetroMax i™ shelves and posts are compatible with corrosion resistant MetroMax Q™ shelves and posts.
- **Efficient, Organized Storage:** Premium MetroMax iQ™ accessories efficiently organize, contain, and compartmentalize **all** space between shelves.
- **Fast, Easy Assembly:** MetroMax i™ assembles easily in minutes, without tools. Shelves can be adjusted at 1" (25mm) increments along the post. Shelf wedges have a window to locate your desired position.



*MetroMax i™ Mobile Unit*



*MetroMax i™ with Accessories*

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**InterMetro Industries Corporation**  
North Washington Street  
Wilkes-Barre, PA 18705  
[www.metro.com](http://www.metro.com)



**MetroMax i™ Polymer Shelving**

**9.20**



# METROMAX i™ POLYMER SHELVEING

## Specifications

- **Longitudinal Beams and Posts:** Pultrusions — continuous glass fibers and thermoset resin composite with built-in Microban® antimicrobial product protection.
- **End Beams, Adjustable Foot and Socket:** Injection molded polyester thermoplastic resin with glass reinforcement
- **Shelf Wedge Connector:** reinforced nylon
- **Mats, Open and Solid:** Mineral reinforced polypropylene. Mats contain Microban® antimicrobial.
- **Post Cap and Center Beam Cap:** High-density polyethylene.
- **“S” Hook Tab Hole Plug:** Vinyl.
- **Collar and “S” Hook:** Type 304 Stainless Steel.
- **Bonding of Longitudinal Beams to End Beams:** High temperature polyamide adhesive and stainless steel screws.
- **Continuous Temperature** — MetroMax i™ can be used continuously within a range of -20/120° F (-29/49° C) with intermittent exposure to 212° F (100° C) for cleaning.

## Standard Shelves

- Part number includes shelf with removable mats and one bag of wedges

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	24 610	MX1824G	8.7 4.0	MX1824F	12.7 5.8
18 457	30 760	MX1830G	10.5 4.7	MX1830F	14.5 6.6
18 457	36 914	MX1836G	12.2 5.5	MX1836F	17.2 7.8
18 457	42 1060	MX1842G	13.9 5.3	MX1842F	20.1 9.1
18 457	48 1220	MX1848G	15.7 7.1	MX1848F	23.1 10.5
18 457	54 1372	MX1854G	17.5 7.9	MX1854F	21.5 9.7
18 457	60 1524	MX1860G	19.2 8.7	MX1860F	23.2 10.5
18 457	72 1829	MX1872G	22.5 10.2	MX1872F	27.5 12.5
24 610	24 610	MX2424G	12.2 5.5	MX2424F	14.2 6.4
24 610	30 760	MX2430G	13.9 6.3	MX2430F	15.9 7.2
24 610	36 914	MX2436G	15.6 7.1	MX2436F	19.6 8.9
24 610	42 1060	MX2442G	17.5 7.9	MX2442F	21.5 9.8
24 610	48 1220	MX2448G	19.3 8.7	MX2448F	25.3 11.5
24 610	54 1372	MX2454G	21.0 9.5	MX2454F	25.0 11.3
24 610	60 1524	MX2460G	22.8 10.5	MX2460F	26.8 12.1
24 610	72 1829	MX2472G	26.0 11.8	MX2472F	31.0 14.1

### Actual Dimensions:

Width: Add 1/8" (6mm) to nominal size.

Length: Subtract 9/32" (7mm) from nominal size.



**MetroMax i Open Grid Shelf**



**MetroMax i™ Solid Shelf**

## Heavy-Duty Dunnage Shelves

- Open grid and solid mat options.
- Compatible for use on MetroMax i™ and MetroMax Q shelving units.
- Weight capacity per shelf evenly distributed: 1,200 lbs. (544kg) on shelves up to and including 48" (1220mm) long; 900 lbs. (408kg) for shelves 60" (1524mm) long.
- Dunnage shelves are recommended for use on units with four posts, not as part of an add-on unit with two posts.

Nominal Width (in.) (mm)	Nominal Length (in.) (mm)	Shelf with Grid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)	Shelf with Solid Mat Model No.	Approx. Pkd. Wt. (lbs.) (kg)
18 457	36 914	MHP1836G	18 8.2	MHP1836F	22 10.0
18 457	48 1220	MHP1848G	22 10.0	MHP1848F	26 11.8
18 457	60 1524	MHP1860G	26 11.8	MHP1860F	30 13.6
24 610	36 914	MHP2436G	21 9.5	MHP2436F	25 11.3
24 610	48 1220	MHP2448G	27 12.2	MHP2448F	31 14.1
24 610	60 1524	MHP2460G	33 15.0	MHP2460F	37 16.8



**Heavy-Duty Dunnage Shelf**





# METROMAX i™ POLYMER SHELVING

## Polymer Posts

- Corrosion proof with built-in Microban antimicrobial product protection.
- Compatible for use with MetroMax i™ and MetroMax Q shelves.
- Stationary posts include an adjustable leveling foot to compensate for uneven floors. Leveling foot can be adjusted 1" (25mm).
- When mounting a shelving unit to a dolly base, stationary posts are used.
- Special height cut posts are available. Consult your Metro representative.

Nominal Height (in.)	(mm)	Approx. Pkd. Wt. (lbs.)	(kg)	Stationary Post with Leveling Foot Model No.	Actual Height* (in.)	(mm)	Post for Stem Caster Model No.	Actual Height (in.)	(mm)
9	228	0.3	0.15				MX9UP	9 <sup>1</sup> / <sub>4</sub>	235
13	370	0.5	0.2	MX13P	14 <sup>3</sup> / <sub>4</sub>	375	MX13UP	13 <sup>3</sup> / <sub>4</sub>	349
27	685	0.9	0.4	MX27P	26 <sup>3</sup> / <sub>4</sub>	730	MX27UP	27 <sup>3</sup> / <sub>4</sub>	705
33	875	1.0	0.5	MX33P	34 <sup>3</sup> / <sub>4</sub>	883	MX33UP	33 <sup>3</sup> / <sub>4</sub>	857
54	1370	1.6	0.7	MX54P	54 <sup>3</sup> / <sub>4</sub>	1391	MX54UP	53 <sup>3</sup> / <sub>4</sub>	1365
63	1585	1.8	0.8	MX63P	62 <sup>3</sup> / <sub>4</sub>	1594	MX63UP	61 <sup>3</sup> / <sub>4</sub>	1568
74	1690	2.2	1.0	MX74P	74 <sup>3</sup> / <sub>4</sub>	1899	MX74UP	73 <sup>3</sup> / <sub>4</sub>	1873
86	2195	2.5	1.1	MX86P	86 <sup>3</sup> / <sub>4</sub>	2203	MX86UP	85 <sup>3</sup> / <sub>4</sub>	2178



**Polymer Stationary Post**



**Replacement Shelf Wedges MX9985**

Replacement Leveling Foot: Model No. RPM3-FOOT

Replacement Post Cap: Model No. RPMX3-POSTCAP

Replacement MetroMax i™ Wedges: Model No. MX9985 Bag of 4

### NOTE: Compatibility with existing Metro polymer mat shelving systems

- MetroMax i™ is interchangeable with MetroMax Q shelves (manufactured within or after April 2009) and MetroMax Q posts.
- MetroMax i™ shelves, posts, and wedges are NOT compatible with original MetroMax shelves, posts, and wedges manufactured before April 2009.

## Post Clamp

Adds stability by joining posts of two separate units together. With it, each unit is supported by four posts and buttressed by the adjacent unit.

**Model No. 9994X**



## Foot Plate

Use to add stability to the shelving unit or to bolt units to the floor.

**Model No. Zinc 9993Z**

**Model No. Stainless Steel 9993S**



## Stem Casters

A variety of stem casters are offered for MetroMax i™ mobile applications. Stem caster models include bumpers. See Catalog Sheet 11.20 for stem casters.

**Load Rating:** 3 x Stem Caster Load Rating, maximum — 900 lbs. (363kg) per stem caster cart.



**Replacement Bumper M9992DBX**



Job \_\_\_\_\_

# METROMAX i™ POLYMER SHELVING



## Starter and Add-On Units

- 4- and 5-tier models available. Consult the Metro catalog for models.
- Starter units: consist of shelves and (4) posts
- Add-on units: consist of shelves, (2) posts, and "S" Hooks (M9995)

**"S" Hook:** Used to "add on" one or multiple MetroMax i™ storage systems while eliminating the cost of two posts per unit. Can be used to join units end-to-end, back-to-back, at right angles, etc. Two "S" hooks are required for each shelf.

**Model No. M9995**



## MetroMax i™ Intermediate

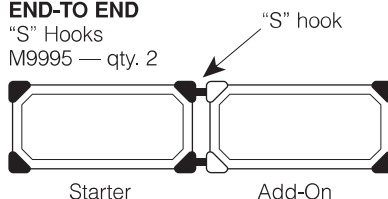
**"S" Hook Kit:** Includes one intermediate bracket (pictured) and two "S" hooks. Snaps onto front or back of MetroMax i™ shelf when joining units at right angles. Order one kit per shelf.

**Model No. MX9996**

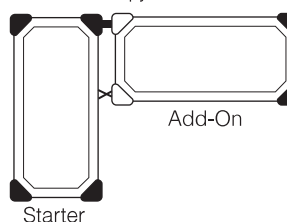


- Regular "S" Hook location
- ✕ Intermediate bracket location
- Post
- Post not required

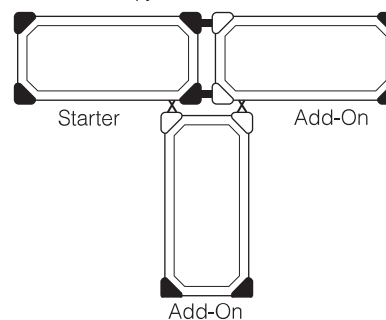
### END-TO-END "S" Hooks M9995 — qty. 2



### RIGHT ANGLES Intermediate "S" Hook Kit MX9996 — qty. 1



### COMBINATION Intermediate "S" Hook Kits MX9996 — qty. 2



## MetroMax i™ Carts

- 4- and 5-tier models
- All-grid and all-solid shelf models
- Units consist of shelves, (4) posts, (2) swivel, and (2) swivel brake casters.
- Consult the Metro catalog for models.



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



## InterMetro Industries Corporation

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Printed in U.S.A. 4/09

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Item # \_\_\_\_\_

Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING

- **Unique Design:** The open wire design of these shelves minimizes dust accumulation and allows free circulation of air, greater visibility of stored items and greater light penetration.
- **Durable Construction:** Super Erecta shelves and posts are constructed of heavy-gauge carbon steel or Type 304 stainless steel.
- **Choice of Finishes:** Super Erecta Brite™ and chrome-plated for dry storage; Metroseal 3™ with Microban® antimicrobial product protection and stainless steel for corrosive environments; and attractive epoxy color options for merchandising applications.
- **Versatile:** Super Erecta Shelf® wire shelving can adapt to your changing needs. By using various accessories, hundreds of shelving configurations become possible.
- **Fast, Secure Assembly:** SiteSelect™ Posts have a double groove visual guide feature every 8" (203mm), circular grooves at 1" (25mm) increments, and are numbered at 2" (50mm) intervals. A patented, tapered split sleeve snaps together around each post. Tapered openings in the shelf corners slide over the tapered split sleeves providing a positive lock. Shelf is assembled in minutes without the use of any special tools.
- **Adjustability:** Shelves can be adjusted at 1" (25mm) intervals along the entire length of the post.
- **Shelf Ribs:** Run front to back, allowing you to slide items on and off shelves smoothly.
- **Shelf Accessibility:** Shelves can be loaded/unloaded easily from all sides. This open construction allows maximum use of storage cube.
- **Adjustable Feet:** Bolt levelers compensate for surface irregularities.

**Note:** Stainless stationary posts are equipped with stainless steel leveling feet.



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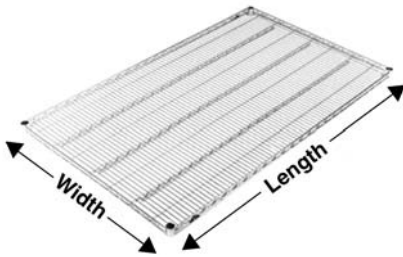
# Wire Shelving

# 10.01



# SUPER ERECTA SHELF® WIRE SHELVING

## Wire Shelves



**Split Sleeve**



**Aluminum  
Split Sleeve**

- **Metroseal 3:** Metro's proprietary epoxy coating contains Microban® antimicrobial product protection. Microban antimicrobial protects the epoxy coating from bacteria, mold, mildew, and fungus that cause odors, stains, and product degradation.
- See spec sheet 10.14 for epoxy color options.
- Plastic split sleeves are included with each shelf  
Replacements are available: Cat. No. 9985 (bag of 4)
- Aluminum split sleeves are recommended for abusive mobile applications and autoclave applications.  
Cat. No. 9986Z (bag of 4 with zinc C-rings)  
Cat. No. 9986S (bag of 4 with stainless steel C-rings)
- Load capacity (evenly distributed) per shelf  
Depths: 14" to 24" (355 to 610mm)  
800 lbs. (363kg) for lengths of 18" to 48" (457 to 1219mm)  
600 lbs. (272kg) for lengths of 54" (1370mm) or longer
- Load capacity (evenly distributed) per unit.  
Stationary shelving units have a maximum load capacity (evenly distributed) of 2,000 lbs. (907kg)  
Mobile units have a maximum capacity of three times the caster load rating up to but not exceeding 1,000 lbs. (453kg) total. Consult the Metro catalog for caster load ratings
- SUPER ERECTA SHELF meets Government Specifications MIL-S-40144E.

Model No. Super Erecta Brite	Model No. Chrome	Model No. Metroseal 3 with Microban®	Model No. Stainless	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
1424BR	1424NC	1424NK3	1424NS	14x24	355x610	6	2.7
1430 BR	1430NC	1430NK3	1430NS	14x30	355x760	7	3.2
1436BR	1436NC	1436NK3	1436NS	14x36	355x914	8	3.6
1442BR	1442NC	1442NK3	1442NS	14x42	355x1066	9½	4.3
1448BR	1448NC	1448NK3	1448NS	14x48	355x1219	10½	4.7
1460BR	1460NC	1460NK3	1460NS	14x60	355x1524	14	6.3
1472BR	1472NC	1472NK3	1472NS	14x72	355x1829	17	7.7
1824BR	1824NC	1824NK3	1824NS	18x24	457x610	7	3.2
1830BR	1830NC	1830NK3	1830NS	18x30	457x760	8	3.6
1836BR	1836NC	1836NK3	1836NS	18x36	457x914	9½	4.3
1842BR	1842NC	1842NK3	1842NS	18x42	457x1066	11	5.0
1848BR	1848NC	1848NK3	1848NS	18x48	457x1219	12	5.4
1854BR	1854NC	1854NK3	1854NS	18x54	457x1370	14½	6.6
1860BR	1860NC	1860NK3	1860NS	18x60	457x1524	17	7.7
1872BR	1872NC	1872NK3	1872NS	18x72	457x1829	20	9.1
2124BR	2124NC	2124NK3	2124NS	21x24	530x610	8	3.6
2130BR	2130NC	2130NK3	2130NS	21x30	530x760	9	4.1
2136BR	2136NC	2136NK3	2136NS	21x36	530x914	11	5.0
2142BR	2142NC	2142NK3	2142NS	21x42	530x1066	12	5.4
2148BR	2148NC	2148NK3	2148NS	21x48	530x1219	14	6.4
2154BR	2154NC	2154NK3	2154NS	21x54	530x1370	16	7.3
2160BR	2160NC	2160NK3	2160NS	21x60	530x1524	18	8.2
2172BR	2172NC	2172NK3	2172NS	21x72	530x1829	24	10.9
2424BR	2424NC	2424NK3	2424NS	24x24	610x610	9	4.1
2430BR	2430NC	2430NK3	2430NS	24x30	610x760	11	5.0
2436BR	2436NC	2436NK3	2436NS	24x36	610x914	13	5.9
2442BR	2442NC	2442NK3	2442NS	24x42	610x1066	15	6.8
2448BR	2448NC	2448NK3	2448NS	24x48	610x1219	16	7.3
2454BR	2454NC	2454NK3	2454NS	24x54	610x1370	19	8.6
2460BR	2460NC	2460NK3	2460NS	24x60	610x1524	21	9.5
2472BR	2472NC	2472NK3	2472NS	24x72	610x1829	26	11.8

**Note:** 14" (355mm) deep units.

Free-standing units: Foot plates should be used and secured to the floor.

Mobile units: maximum allowable post height is 54" (1370mm).

# SUPER ERECTA SHELF® WIRE SHELVING



## SiteSelect™ Posts

### Stationary Posts

Stationary posts are equipped with a leveling bolt to account for uneven floors.

- Height includes leveling bolt (completely tightened) and post cap. Leveling bolt can be adjusted 1/2" (13mm).
- Foot plates may be ordered separately and installed in place of leveling foot.
- Replacement leveling bolts  
Zinc Cat. No. RPF04-004 Stainless Steel Cat. No. RPF04-004C
- Replacement post cap for standard posts  
Black Cat. No. RPC06-035



**SiteSelect Posts feature double grooves every 8" (203mm) to aid assembly.**

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
7P			7 <sup>3</sup> / <sub>8</sub>	187	1/2	0.3
13P	13PK3	13PS	14 <sup>3</sup> / <sub>8</sub>	365	1	0.5
27P		27PS	28 <sup>3</sup> / <sub>8</sub>	720	1 <sup>3</sup> / <sub>4</sub>	0.75
33P	33PK3	33PS	34 <sup>3</sup> / <sub>8</sub>	873	2	0.9
54P	54PK3	54PS	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P	63PK3	63PS	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P	74PK3	74PS	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8
86P	86PK3	86PS	86 <sup>1</sup> / <sub>2</sub>	2197	5	2.3
*96P			96 <sup>1</sup> / <sub>2</sub>	2450	5 <sup>1</sup> / <sub>2</sub>	2.5

\*96P should not be used on units less than 24" (610mm) deep. Consult Metro Engineering for alternate recommendations.

### Mobile Posts (For use with Stem Casters)

- Height includes post cap.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
			(in.)	(mm)	(lbs.)	(kg)
27UP		27UPS	27 <sup>3</sup> / <sub>4</sub>	704	1 <sup>3</sup> / <sub>4</sub>	0.75
33UP	33UPK3	33UPS	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UP	54UPK3	54UPS	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UP	63UPK3	63UPS	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6
	70UPK3		69 <sup>3</sup> / <sub>4</sub>	1771	3 <sup>3</sup> / <sub>4</sub>	1.7
74UP	74UPK3	74UPS	73 <sup>7</sup> / <sub>8</sub>	1876	4	1.8
86UP	86UPK3	86UPS	85 <sup>7</sup> / <sub>8</sub>	2181	4 <sup>1</sup> / <sub>2</sub>	2.0

### Staked Posts (For use with Truck Dollies)

- Each post connects to the truck dolly through the stem receptacle. The stem receptacle is staked into the bottom of the post to ensure a durable connection in abusive mobile applications.
- Each includes a leveling/connecting bolt.

Model No. Chrome	Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
		(in.)	(mm)	(lbs.)	(kg)
54P-STKD	54PS-STKD	54 <sup>7</sup> / <sub>16</sub>	1382	3	1.4
63P-STKD	63PS-STKD	62 <sup>7</sup> / <sub>16</sub>	1585	3 <sup>1</sup> / <sub>2</sub>	1.6
74P-STKD	74PS-STKD	74 <sup>1</sup> / <sub>2</sub>	1892	4	1.8

### Swedged Posts (For use with Stem Casters in Cart Wash Applications)

- Each post has an aluminum cap swedged into the top of the post.

Model No. Stainless Steel	Height		Approx. Pkd. Wt.	
	(in.)	(mm)	(lbs.)	(kg)
33UPS-SW	33 <sup>3</sup> / <sub>4</sub>	857	2	0.9
54UPS-SW	53 <sup>13</sup> / <sub>16</sub>	1366	3	1.4
63UPS-SW	61 <sup>13</sup> / <sub>16</sub>	1570	3 <sup>1</sup> / <sub>2</sub>	1.6

### Special Length Posts

Special length cut posts are available. Consult your Metro representative for more information.

Job \_\_\_\_\_

## SUPER ERECTA SHELF® WIRE SHELVING



### Super Wide Shelving

- **High-density Storage:** Super Wide™ shelves have a greater storage area for holding large quantities of supplies, especially large, bulky objects, providing maximum storage in minimum space.
- **Load Capacity** (evenly distributed) per shelf:  
Depths: 30" and 36" (760 and 914mm)  
600 lbs. (272kg) for lengths 48" (1219mm) or shorter.  
400 lbs. (181kg) for lengths 54" (1370mm) or longer.

Model No. Chrome	Model No. Metroseal 3 with Microban	Model No. Stainless Steel	Nominal Width/Length (in.) (mm)		Approx. Pkd. Wt. (lbs.) (kg)	
3036NC	3036NK3	3036NS	30x36	760x914	15	6.8
3048NC	3048NK3	3048NS	30x48	760x1219	21	9.5
3060NC	3060NK3	3060NS	30x60	760x1524	26 1/2	11.8
3072NC	3072NK3	3072NS	30x72	760x1829	31	14.0
3636NC	3636NK3	3636NS	36x36	910x914	18	8.2
3648NC	3648NK3	3648NS	36x48	910x1219	23	10.4
3660NC	3660NK3	3660NS	36x60	910x1524	29	13.1
3672NC	3672NK3	3672NS	36x72	910x1829	34 1/2	15.4



### Foot Plates

- Use to bolt units to the floor, or when a broader, more stable foot is desired. Foot plates also help to protect floors by distributing the point load of the shelving unit across a larger contact point.
- Foot plates (completely tightened) add 1/8" (3mm) to the specified heights of each stationary post on the table.  
Zinc Cat. No. 9993Z  
Stainless Steel Cat. No. 9993S



### "S" Hook

- Used to add on shelving units with only two posts required. Order two per shelf level.  
Cat. No. 9995Z



All Metro Catalog Sheets are available on our Web Site: [www.metro.com](http://www.metro.com)



#### InterMetro Industries Corporation

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Phone: 570-825-2741  
Fax: 570-825-2852

L02-006  
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For Product Information:  
U.S. and Canada: 1.800.433.2232

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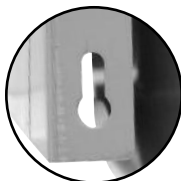
Asia/Pacific: +65.6567.8003  
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# STAINLESS STEEL HAND SINKS ELECTRONIC OPERATED FAUCETS



Keyhole Bracket for  
easier installation  
and greater stability.



**Item #:** \_\_\_\_\_ **Qty #:** \_\_\_\_\_

**Model #:** \_\_\_\_\_

**Project #:** \_\_\_\_\_



7-PS-51



## FEATURES:

One piece **Deep Draw** sink bowl design.

Sink bowl is 10" x 14" x 5".

"Hands Free" Electronic Faucet makes use of infrared technology to sense the user's presence and immediately turn on water supply that is pre-mixed to desired temp.

Standard Electronic gooseneck faucet is splash mounted and comes complete with AC/DC control module, sensor, 4 "AA" batteries and spout.

All sink bowls have a large liberal radii with a minimum dimension of 2" and are rectangular in design for increased capacity.

Keyhole wall mount bracket.

Stainless steel basket drain 1 1/2" IPS.

## Specific Features:

**7-PS-51 & 7-PS-81** lever operated drain and built-in overflow with plastic overflow tube and spring clamps. P-Trap is 1 1/2".

**7-PS-81** towel dispenser with hinged towel box. Unit uses standard C-fold towels. Liquid Soap dispenser.

**7-PS-91** pedestal skirt.

## CONSTRUCTION:

All TIG welded.

Welded areas blended to match adjacent surfaces and to a satin finish.

Die formed Countertop Edge with a 3/8" No-Drip offset.

One sheet of stainless steel - No Seams.

## MATERIAL:

Heavy gauge type 304 series stainless steel.

Electronic Faucet solid brass, chrome plated.

Wall mounting bracket is stainless steel and of offset design.

All fittings are brass / chrome plated unless otherwise indicated.

## MECHANICAL:

Electronic faucet is 1/2" male IPS thread.

**K-175** Replacement Electronic Operated Faucet.



7-PS-61



7-PS-81



7-PS-91

**Standard Faucet conforms to NSF 61 Standard 9.  
Faucets Are AB1953 Lead Free Compliant.**

For Replacement Faucets & Upgrades, Drains & Accessories  
visit our website at [www.advancetabco.com](http://www.advancetabco.com)



**Customer Service Available To Assist You 1-800-645-3166 8:30 am - 8:00 pm E.S.T.**

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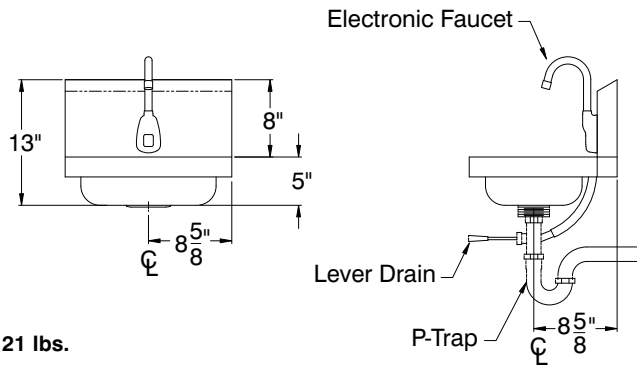
# DIMENSIONS and SPECIFICATIONS

TOL Overall:  $\pm .500"$  Interior:  $\pm .250"$

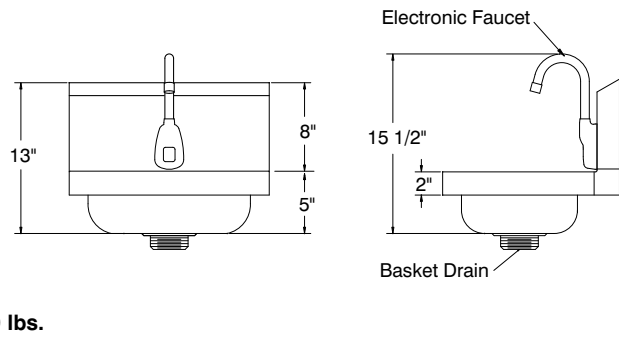
FITTINGS SUPPLIED AS SHOWN

ALL DIMENSIONS ARE TYPICAL

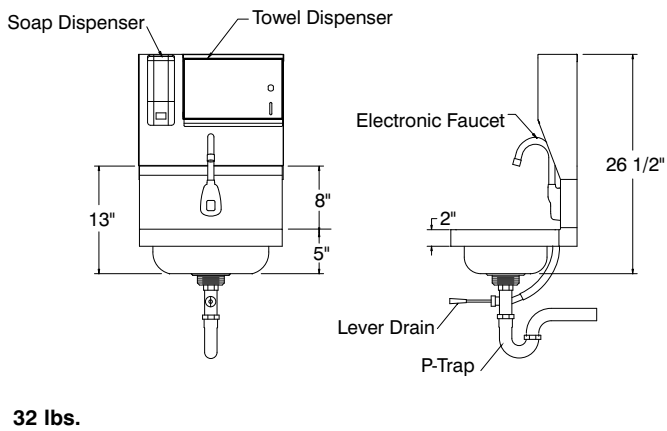
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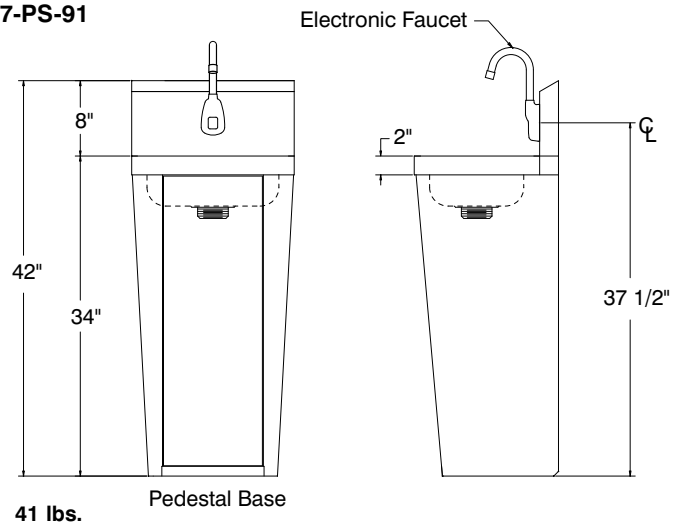
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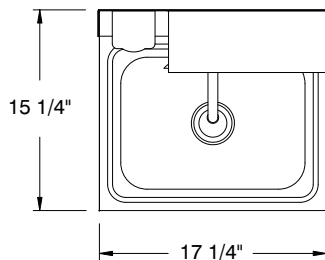
## 7-PS-81



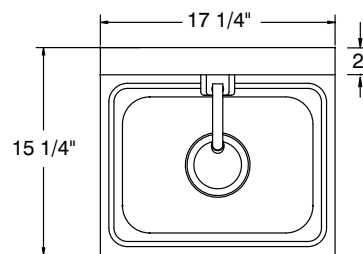
## 7-PS-91



### TOP VIEW for 7-PS-81



### TOP VIEW for 7-PS-61, 7-PS-81 & 7-PS-91



Sink Bowl 10" x 14" x 5"





Item # \_\_\_\_\_

Quantity \_\_\_\_\_

# Stainless Steel Utility Carts

Medium Duty - 500 Lb. Capacity



Model 444

## Ideal For All-Purpose Back-Of-The-House Duties.

- Durable, unitized electronically welded angle leg frame.
- 20 gauge stainless steel reinforced shelves.
- Protective bumpers on legs and handle safeguard furnishings.
- Sound deadening panels under shelves restrict vibrations and noise.
- 500 lbs. (230 kg.) capacity

Spec. # \_\_\_\_\_

AIA # \_\_\_\_\_

## Specifications

Unit shall be of fully welded unitized construction with an overall carrying capacity of 500 pounds. Corner legs shall be of 16-gauge angle stainless steel. Shelves shall be of 20-gauge stainless steel with long shelf edges double hemmed for extra strength, and shall be electronically spot welded to upright legs at all points. Unit shall have a stainless steel push handle welded to frame, and shall have corner bumpers mounted to front legs and ends of push handle. Unit shall have an independent galvanized steel dolly frame fastened to the bottom with 8 screws. Four each 4" swivel casters shall be mounted to the dolly frame.

### Models 444 and 459 Only

Unit shall have 4 each 5" diameter swivel casters with non-marking polyurethane wheels. Welded assembly shall have triangular stainless steel reinforcing gussets welded to four bottom corners. Top shelf shall have 16-gauge angle reinforcements welded to long shelf edges.



Lit# 0502 MDUC

Lakeside reserves the right to modify specifications or discontinue models without prior notification.

Printed in the U.S.A.

Lakeside Manufacturing, Inc.

4900 West Electric Avenue • West Milwaukee, WI 53219 U.S.A.  
800-558-8565 • 414-902-6400 • Fax 414-902-6446 • [www.eLakeside.com](http://www.eLakeside.com)

# Stainless Steel Utility Carts

## Medium Duty - 500 Lb. Capacity

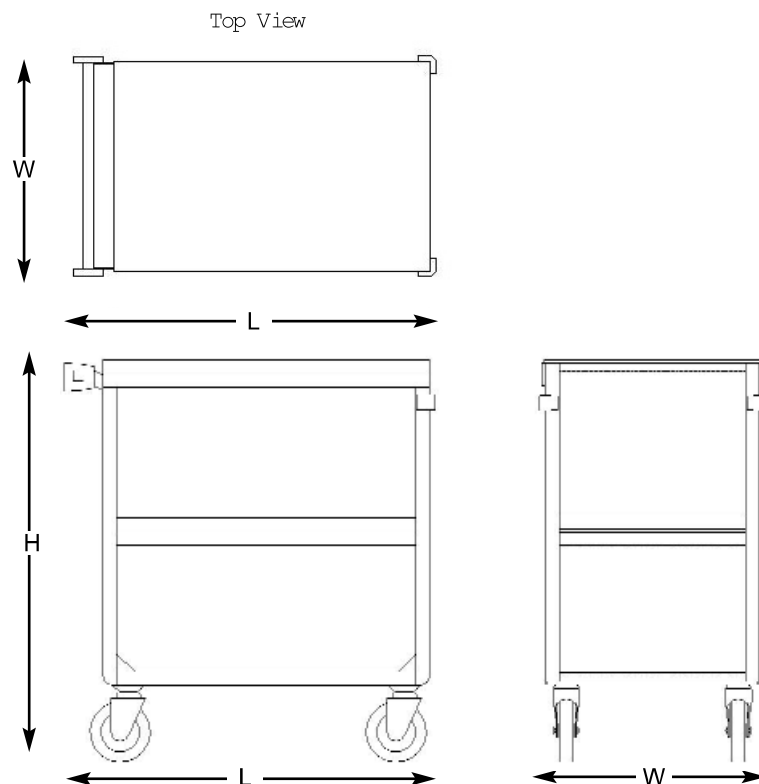
### Optional Accessories

(all models)

- Perimeter shelf mounted strip bumper
- Set of two each brake casters
- Cushion tread wheels
- Clear vinyl slipover box type cover

(models 444 and 459)

- Extended perimeter bumper
- 8" swivel casters



AutoCAD drawings available through KCL CADalog

### Dimensions

Model	Shelf Description			Overall Size			Lake-Glide® Casters		Case Weight	
	# of	Size	Clearance	W	L	H	Type	Dia.	lbs.	(kg.)
411	3	15-1/2" x 24" (394 x 610)	11-7/8" (302)	16-3/4" (425)	27-5/8" (702)	33-3/8" (848)	All swivel	4" (102)	39	(17.7)
422	3	18" x 27" (457 x 686)	11-7/8" (302)	19" (483)	31" (787)	33-3/8" (848)	All swivel	4" (102)	42	(19.1)
444	3	21" x 35" (533 x 889)	13-1/8" (333)	22-3/8" (568)	39-1/4" (997)	37-1/4" (946)	All swivel*	5" (127)	68	(30.8)
459	3	21" x 49" (533 x 1245)	13-1/8" (333)	22-3/8" (568)	54-1/8" (1374)	37-1/4" (946)	2 swivel 2 fixed*	5" (127) 5" (127)	88	(39.9)

Measurements in ( ) denote metric millimeters, unless otherwise specified.



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UC-2

ITEM 802 - TRASH RECEPTACLES

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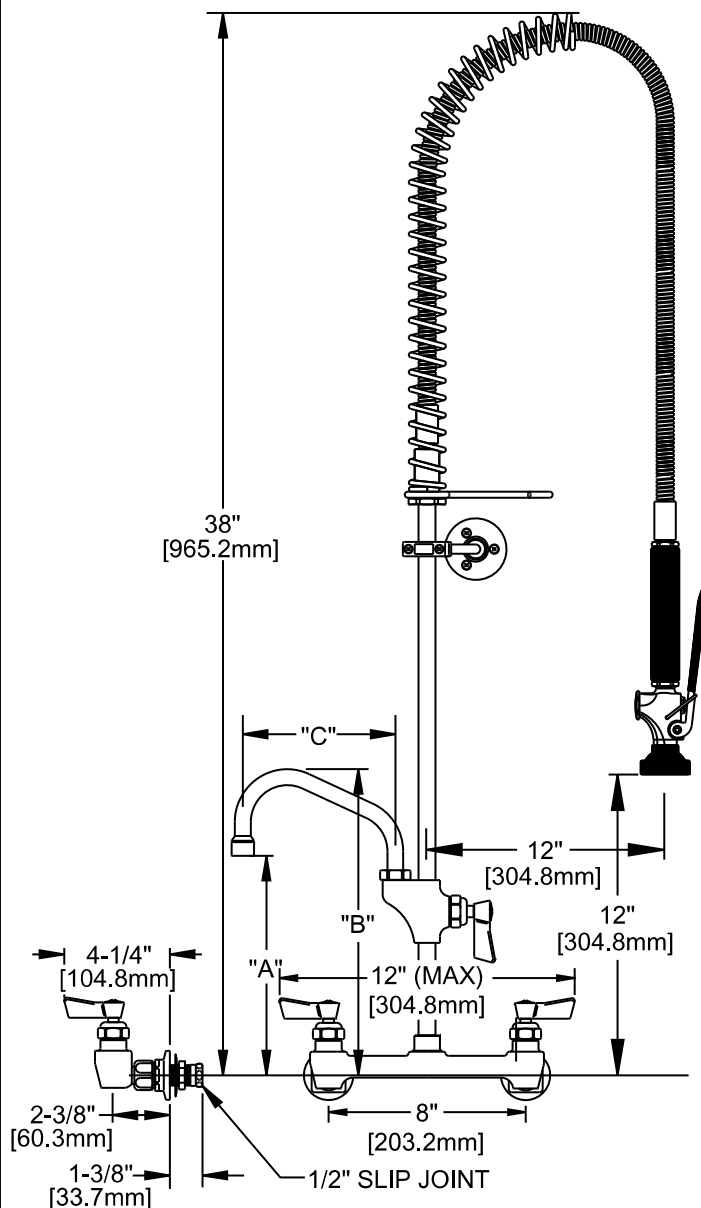


APPLICATION:

JOB NAME:

QUANTITY:

ITEM NO.:



ROUGH-IN	MODEL	DIM "A"	DIM "B"	DIM "C"
	34436	8-3/4" [221.3mm]	12-3/8" [313.3mm]	6" [152.4mm]
	34444	9" [227.6mm]	12-7/8" [326.0mm]	8" [203.2mm]
	34452	9-5/8" [243.5mm]	13-3/8" [340.3mm]	10" [254.0mm]
	34460	10-1/4" [259.4mm]	13-7/8" [351.4mm]	12" [304.8mm]
	34479	10-5/8" [275.0mm]	14-3/4" [373.7mm]	14" [355.6mm]
	34487	11-1/2" [292.1mm]	15-3/8" [389.5mm]	16" [406.4mm]



ANSI/A112.18.1M, ANSI/NSF 61.9

PRODUCT NAME:

# **PRE-RINSE SPRING 8" C/C BACKSPLASH WITH WALL BRACKET & ADD-ON FAUCET**

☐ \_\_\_\_\_ SPECIAL CONFIGURATION

MODEL:

- ☐ 34436 WITH 6" SWING SPOUT  
☐ 34444 WITH 8" SWING SPOUT  
☐ 34452 WITH 10" SWING SPOUT  
☐ 34460 WITH 12" SWING SPOUT  
☐ 34479 WITH 14" SWING SPOUT  
☐ 34487 WITH 16" SWING SPOUT

OPTIONS OR MODIFICATIONS:

- ☐ SUPPLY LINES (24" OR 36") CIRCLE LENGTH  
☐ IN-LINE DUAL CHECK VALVE  
☐ BRUSH  
☐ VANDAL RESISTANT KIT  
☐ HANDLES (CROSS OR WRIST) CIRCLE STYLE  
☐ OTHER \_\_\_\_\_

FEATURES:

## **MAIN CONTROL VALVE**

- \* 8" C/C BACKSPLASH
- \* INTERNAL SPRING LOADED CHECK VALVES
- \* SWIVELLING SEAT DISKS
- \* HOT SIDE STEM - RIGHT HAND CHECK
- \* COLD SIDE STEM - LEFT HAND CHECK
- \* STAINLESS STEEL SEATS, SEAT SCREWS AND HANDLE SCREWS

## **ADD-ON CONTROL VALVE**

- \* STEM - RIGHT HAND SWIVEL
- \* HOT INDEX BUTTON
- \* SWIVELING SEAT DISKS
- \* STAINLESS STEEL SEATS, SEAT SCREWS AND HANDLE SCREWS

## **HOSE**

- \* 36" LENGTH
- \* STAINLESS STEEL END FITTINGS
- \* STAINLESS STEEL EXTERNAL JACKET
- \* 3-PLY FIBER REINFORCED INTERNAL RUBBER HOSE
- \* REPAIRABLE IN FIELD WITH SIMPLE TOOLS

## **SPRAY VALVE**

- \* SOLID BRASS SHOWER HEAD - NO "O" RINGS TO LEAK
- \* BRONZE HANDLE - NOT PLASTIC - MEANS FULL "ON"
- \* FITS ALL BRANDS
- \* 2.65 GPM AT 80 PSI
- \* SHOWER SPRAY PATTERN

## **WALL BRACKET**

- \* ADJUSTS FROM 2" TO 12"

## **SYSTEM LIMITS**

- \* TEMP: 40°F MIN. TO 140°F MAX. STATIC
- \* PRESSURE 200 PSI MAX. STATIC
- \* SHIPPING WEIGHT: 15.0 LBS

# **FISHER**

FISHER MANUFACTURING COMPANY

TOLL FREE: 800-421-6162 - FAX: 800-832-8238

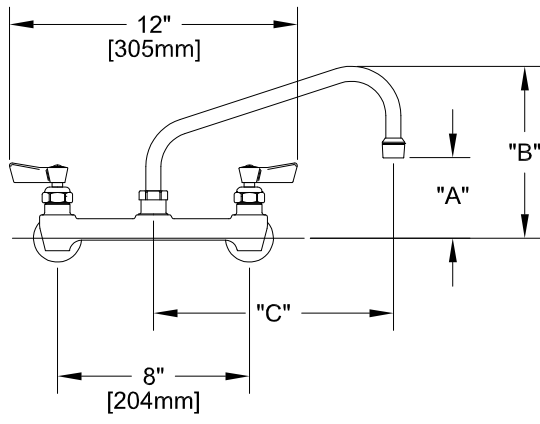
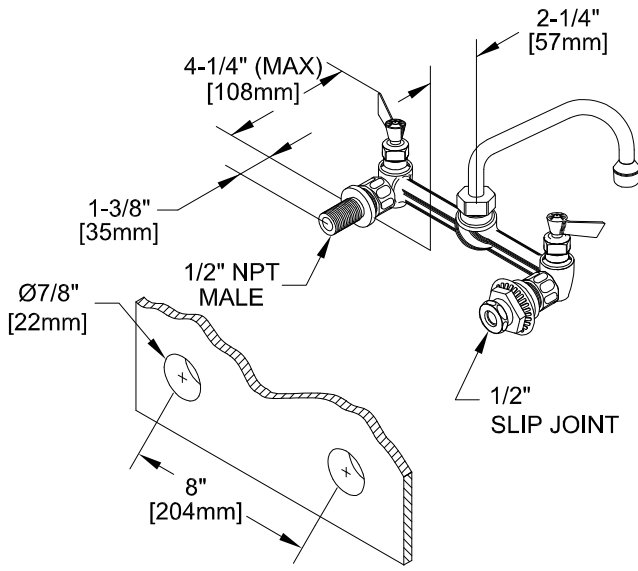


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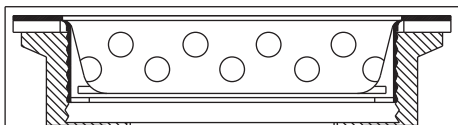


APPLICATION:		PRODUCT NAME: PRE-RINSE SPRING STYLE 8" C/C BACKSPLASH MOUNT	
JOB NAME:		<input type="checkbox"/> SPECIAL CONFIGURATION (CHECK BASE MODEL AND OPTIONS)	
QUANTITY:	ITEM NO.	MODEL:	
		<input type="checkbox"/> 13390 STD SPRAY VALVE W/ WALL BRACKET <input type="checkbox"/> 13366 STD SPRAY VALVE NO WALL BRACKET <input type="checkbox"/> 13382 ULTRA SPRAY VALVE W/ WALL BRACKET <input type="checkbox"/> 13374 ULTRA SPRAY VALVE NO WALL BRACKET	
		OPTIONS OR MODIFICATIONS <input type="checkbox"/> SUPPLY LINES (24" OR 36") CIRCLE LENGTH <input type="checkbox"/> ADD-ON FAUCET (6", 8", 10", 12", 14", 16") CIRCLE <input type="checkbox"/> BACKFLOW PREVENTER <input type="checkbox"/> BRUSH <input type="checkbox"/> ELBOWS <input type="checkbox"/> VANDAL RESISTANT KIT <input type="checkbox"/> HANDLES (CROSS OR WRIST) CIRCLE STYLE <input type="checkbox"/> OTHER _____	
ROUGH-IN:		FEATURES:  <b>CONTROL VALVE</b> * 8" C/C BACKSPLASH MOUNT * INTERNAL SPRING LOADED CHECK VALVES * SWIVELING SEAT DISKS * HOT SIDE STEM - RIGHT HAND * COLD SIDE STEM - LEFT HAND * STAINLESS STEEL SEATS * STAINLESS STEEL SEAT SCREWS * STAINLESS STEEL HANDLE SCREWS * 1/2" SLIP JOINT KIT  <b>HOSE</b> * 36" LENGTH * STAINLESS STEEL END FITTINGS * STAINLESS STEEL EXTERNAL JACKET * 3-PLY FIBER REINFORCED INTERNAL RUBBER HOSE  <b>STANDARD SPRAY VALVE</b> * SOLID BRASS SHOWER HEAD - NO O-RINGS TO LEAK * BRONZE HANDLE - NOT PLASTIC - MEANS FULL "ON" * SHOWER SPRAY PATTERN  <b>WALL BRACKET</b> * ADJUSTS FROM 2" TO 12"  <b>SYSTEM LIMITS</b> * 2.65 GPM AT 80 PSI * TEMP: 40°F MIN. TO 140°F MAX. STATIC * PRESSURE 200 PSI MAX. STATIC * SHIPPING WEIGHT: 12.0 LBS	
		<div style="text-align: center;"> </div> FISHER MANUFACTURING COMPANY TOLL FREE: 800-421-6162 - FAX: 800-832-8238 information@fisher-mfg.com - www.fisher-mfg.com	
SP ANSI/A112.18.1M			



APPLICATION:		PRODUCT NAME:  8" C/C BACKSPLASH FAUCET																													
JOB NAME:		<input type="checkbox"/> SPECIAL CONFIGURATION <input type="checkbox"/> CHECK BASE MODEL AND OPTIONS																													
QUANTITY:	ITEM NO.	MODEL:																													
		<input type="checkbox"/> 13234      W/ 6" SWING SPOUT <input type="checkbox"/> 13242      W/ 8" SWING SPOUT <input type="checkbox"/> 13250      W/ 10" SWING SPOUT <input type="checkbox"/> 13269      W/ 12" SWING SPOUT <input type="checkbox"/> 13277      W/ 14" SWING SPOUT <input type="checkbox"/> 13218      W/ 16" SWING SPOUT																													
		OPTIONS OR MODIFICATIONS: <input type="checkbox"/> SUPPLY LINES (24" OR 36") CIRCLE LENGTH <input type="checkbox"/> DJ SUB-ASSY (7-1/4" OR 13") CIRCLE LENGTH <input type="checkbox"/> ELBOWS <input type="checkbox"/> VANDAL RESISTANT KIT <input type="checkbox"/> HANDLES (CROSS OR WRIST) CIRCLE STYLE <input type="checkbox"/> OTHER _____																													
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>MODEL</th> <th>DIM "A"</th> <th>DIM "B"</th> <th>DIM "C"</th> </tr> </thead> <tbody> <tr> <td>13234</td> <td>2-1/4" [57mm]</td> <td>5-7/8" [149mm]</td> <td>6" [152mm]</td> </tr> <tr> <td>13242</td> <td>2-1/2" [64mm]</td> <td>6-3/8" [162mm]</td> <td>8" [204mm]</td> </tr> <tr> <td>13250</td> <td>3-1/8" [79mm]</td> <td>6-7/8" [175mm]</td> <td>10" [254mm]</td> </tr> <tr> <td>13269</td> <td>3-3/4" [95mm]</td> <td>7-3/8" [187mm]</td> <td>12" [305mm]</td> </tr> <tr> <td>13277</td> <td>4-3/8" [111mm]</td> <td>8-1/4" [210mm]</td> <td>14" [356mm]</td> </tr> <tr> <td>13218</td> <td>5" [127mm]</td> <td>8-7/8" [225mm]</td> <td>16" [406mm]</td> </tr> </tbody> </table>		MODEL	DIM "A"	DIM "B"	DIM "C"	13234	2-1/4" [57mm]	5-7/8" [149mm]	6" [152mm]	13242	2-1/2" [64mm]	6-3/8" [162mm]	8" [204mm]	13250	3-1/8" [79mm]	6-7/8" [175mm]	10" [254mm]	13269	3-3/4" [95mm]	7-3/8" [187mm]	12" [305mm]	13277	4-3/8" [111mm]	8-1/4" [210mm]	14" [356mm]	13218	5" [127mm]	8-7/8" [225mm]	16" [406mm]	FEATURES	
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ROUGH-IN:		CONTROL VALVE * 8" C/C BACKSPLASH MOUNT * SWIVELLING SEAT DISKS * HOT SIDE STEM - RIGHT HAND * COLD SIDE STEM - LEFT HAND * STAINLESS STEEL SEATS * STAINLESS STEEL SEAT SCREWS * STAINLESS STEEL HANDLE SCREWS * 1/2" SLIP JOINT  SYSTEM LIMITS * TEMP: 40°F MIN. TO 140°F MAX. * PRESSURE: 200 PSI MAX. STATIC * 2.20 GPM AT 80 PSI  SHIPPING WEIGHT * 5.0 LBS																													
		 FISHER MANUFACTURING COMPANY TOLL FREE: 800-421-6162 - FAX: 800-832-8238 information@fisher-mfg.com - www.fisher-mfg.com																													
 ANSI/A112.18.1M																															





## PRODUCT NAME:

DrainKing WASTE VALVE

☐ \_\_\_\_\_ SPECIAL CONFIGURATION  
(CHECK BASE MODEL AND OPTIONS)

## MODEL:

☐ 22349 w/ LOCKING BASKET STRAINER

## OPTIONS OR MODIFICATIONS:

☐ OTHER \_\_\_\_\_

## FEATURES:

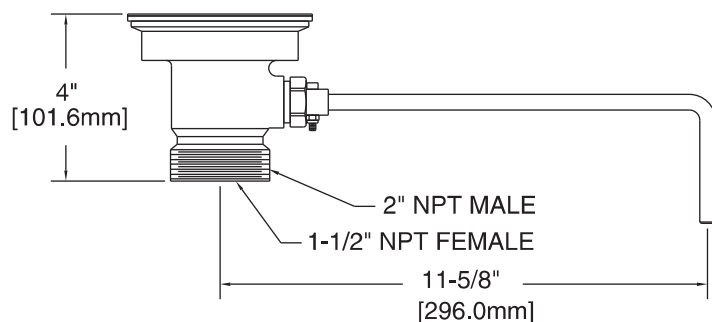
- \* DUAL TEFLON SEALS
- \* STAINLESS STEEL BALL
- \* CAST RED BRASS BODY
- \* EXTRA STURDY STAINLESS STEEL CLAMPING RING
- \* "CLEAR THROUGH" OPENING - NO NEED TO DISASSEMBLE IF SNAKING IS REQUIRED
- \* INDUSTRY STANDARD "SEALING" ANGLE - FITS FLUSH TO STANDARD STAINLESS STEEL SINKS
- \* STAINLESS STEEL LOCKING BASKET STRAINER
- \* 1/4 TURN FULLY OPENS AND CLOSES VALVE

## DRAIN RATE:

\* 12.0 GPM

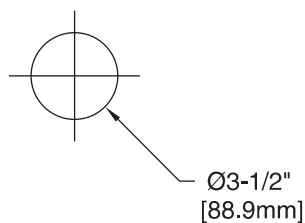
## SHIPPING WEIGHT

\* 5.0 LBS



ROUGH-IN:

DRAIN:



ANSI/A112.18.1M

FISHER MANUFACTURING COMPANY  
1900 SOUTH "O" STREET, TULARE, CALIFORNIA 93274  
MAILING ADDRESS: P.O. BOX 60, TULARE, CALIFORNIA 93275  
PHONE: (800) 421-6162 FAX: (800) 832-8238  
MADE IN U.S.A.





JOB NAME:

QUANTITY:

ITEM NO.:

PRODUCT NAME:

## ATMOSPHERIC VACUUM BREAKER

☐ \_\_\_\_\_ SPECIAL CONFIGURATION  
(CHECK BASE MODEL AND OPTIONS)

MODEL:

☐ 3990

OPTIONS OR MODIFICATIONS:

☐ SUPPLY LINES (24" OR 36") CIRCLE LENGTH☐ OTHER \_\_\_\_\_

FEATURES:

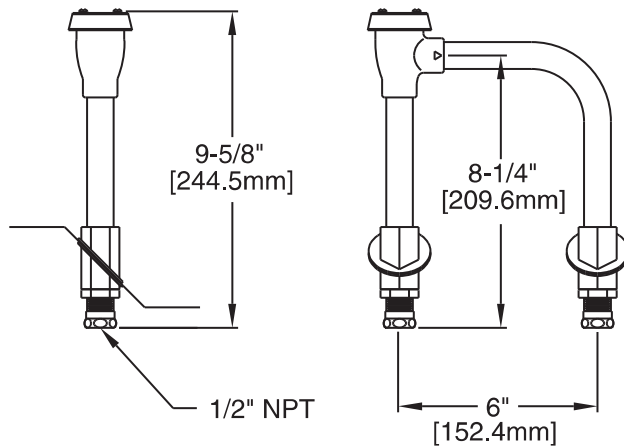
- \* ATMOSPHERIC VACUUM BREAKER
- \* LEDGE MOUNT

SYSTEM LIMITS

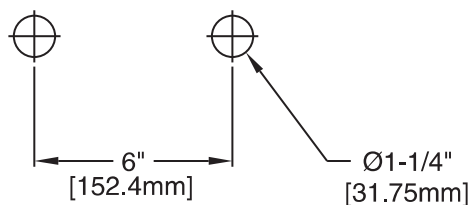
- \* TEMP: 40°F MIN. TO 140°F MAX.
- \* PRESSURE 200 PSI MAX. STATIC

SHIPPING WEIGHT

\* 3.5 LBS



ROUGH-IN:



ANSI/A112.18.1M

FISHER MANUFACTURING COMPANY  
1900 SOUTH "O" STREET, TULARE, CALIFORNIA 93274  
MAILING ADDRESS: P.O. BOX 60, TULARE, CALIFORNIA 93275  
PHONE: (800) 421-6162 FAX: (800) 832-8238  
MADE IN U.S.A.



PROJECT: \_\_\_\_\_ ITEM NO.: \_\_\_\_\_



# 1/2 – 1-1/4 H.P. DISPOSER MODELS

Heavy-duty disposer designed for continuous operation in restaurants, hotels, hospitals and cafeterias. Food waste including steak bones is quickly and efficiently removed with this labor-saving, self-cleaning, environmentally sound disposer.

## SPECIFICATIONS

- **Grind Chamber:** Corrosion Resistant Stainless Steel
- **Mounting:** 3/4" (19.1 mm) rubber mounting above grinding chamber isolates sound and eliminates vibration. Mounting is enclosed in chrome plated covers for sanitation and appearance.
- **Motor:** 1/2 – 1-1/4 HP Induction Motor, 1725 RPM, totally enclosed to provide protection against outside moisture. Controlled power air flow cools motor for efficiency and longer life. Built-in thermal overload protection.
- **Cutting Elements:** Stationary and rotating shredding elements made from cast nickel chrome alloy for long life and corrosion resistance, designed for reverse action grinding.
- **Main Bearings:** Double-tapered Timken roller bearings provide a shock absorbing cushion.
- **Motor Seals:** Triple lip seal protects motor from water damage. Secondary spring-loaded oil seal provides double protection against water and loss of grease.
- **Finish:** All Stainless Steel and Chrome plated. Paint-free for lasting sanitation.
- **Warranty:** 1 year full warranty from date of installation.
- **A Disposer Package Includes:** 1 Mounting/Bowl Assembly, 1 Electrical Control, 1 Syphon Breaker, 1 Solenoid Valve, and 1 Flow Control Valve. The standard Flow Control Valve will be sent with the unit unless the optional valve is specified.



## MODEL & HORSEPOWER/ELECTRICAL REQUIREMENTS

<input type="checkbox"/> <b>SS-50</b> 1/2 H.P.	<input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 8.4/4.0/4.2 amps, <b>UL</b>	<input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 2.0/2.2/1.1 amps, <b>UL</b>
<input type="checkbox"/> <b>SS-75</b> 3/4 H.P.	<input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 10.0/4.2/5.0 amps, <b>UL</b> <input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 2.5/3.0/1.5 amps, <b>UL</b> <input type="checkbox"/> 115/230V, 50 Hz, 1 Ph, 7.7/3.7 amps	<input type="checkbox"/> 230/460V, 50 Hz, 3 Ph, 2.7/1.4 amps <input type="checkbox"/> 380V, 50 Hz, 3 Ph, 1.1 amps
<input type="checkbox"/> <b>SS-100</b> 1 H.P.	<input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 11.6/5.1/5.7 amps, <b>UL</b> <input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 2.2/3.0/1.5 amps, <b>UL</b>	<input type="checkbox"/> 120/208-240V, 60 Hz, 1 Ph, 11.6/5.1/5.7 amps, <b>NOM</b> <input type="checkbox"/> 100/200-230V, 50/60 Hz, 1 Ph, 10.4/5.2/5.4 amps
<input type="checkbox"/> <b>SS-125</b> 1-1/4 H.P.	<input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 12.8/5.9/6.6 amps, <b>UL</b>	<input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 2.6/3.3/1.9 amps, <b>UL</b>

**NOTE:** All amp ratings denote amp draw during a grind load.

## ELECTRICAL CONTROLS



- ☐ AS-101 Control Center AquaSaver® (Auto-Reversing)



- ☐ CC-101 Control Center (Auto-Reversing)



- ☐ CC-202 Control Center (Auto-Reversing)



- ☐ Manual Reverse Switch (Dual Direction)



- ☐ Manual Switch (Single Direction)

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## DISPOSER MOUNTING ASSEMBLIES (choose one)

### Bowl Mounts



- ☐ Type A Sink Bowl Assembly: Includes bowl, water nozzle(s), bowl cover, splash baffle



- ☐ Type B Sink Bowl Assembly: Includes bowl, water nozzle(s), silver guard, splash baffle



- ☐ Type C Sink Bowl Assembly: Includes bowl, water nozzle(s), splash baffle

### Sink Bowl Assembly Size

- ☐ 12" (304.8 mm) with one adjustable water nozzle  
☐ 15" (381.0 mm) with one adjustable water nozzle  
☐ 18" (457.2 mm) with two adjustable water nozzles

### Collar Mounts



- ☐ #5 Sink Flange Mounting Assemblies for 3-1/2" – 4" (88.9 mm – 101.6 mm) sink opening (support legs are recommended)



- ☐ #6 Collar Adaptor for welding into trough, provides 6-5/8" (168.3 mm) opening, includes splash baffle



- ☐ #7 Collar Adaptor for welding into sink, provides 6-5/8" (168.3 mm) opening, includes splash baffle and stopper

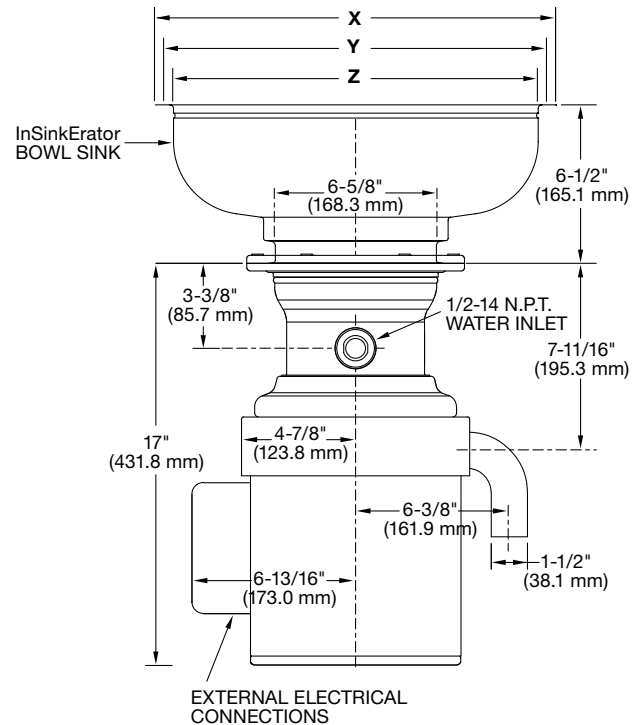
## DIMENSIONS

**IMPORTANT:** Use dimension chart below for adaptor height in place of InSinkEratr bowl sink height when mounting directly to a sink.

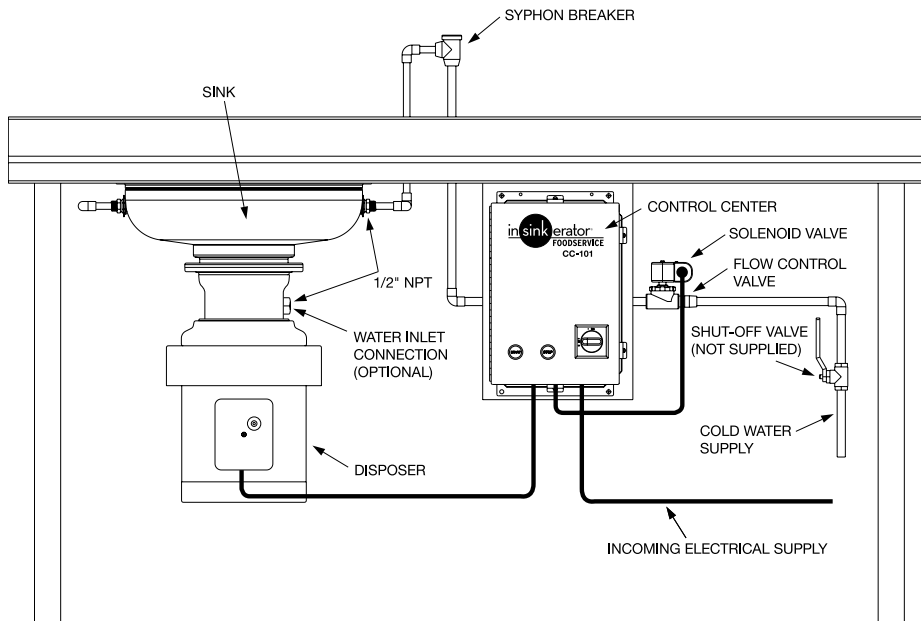
Bowl Sinks	Flange O.D. X	Work Table Hole Y	Flange I.D. Z	Height
12" (304.8 mm)	13-1/2" (342.9 mm)	12-1/4" (311.2 mm)	12" (304.8 mm)	6-1/2" (165.1 mm)
15" (381 mm)	16-1/2" (419.1 mm)	15-1/4" (387.4 mm)	15" (381.0 mm)	6-1/2" (165.1 mm)
18" (457.2 mm)	19-1/2" (495.3 mm)	18-1/4" (463.6 mm)	18" (457.2 mm)	6-1/2" (165.1 mm)
Adaptors	X	Y	Z	Height
No. 5	Fits Standard Sink Opening: 3-1/2" – 4" (88.9 mm – 101.6 mm)			2-3/4" (69.9 mm)
No. 6	7-13/16" (198.4 mm)	6-7/8" (174.6 mm)	6-5/8" (168.3 mm)	1-3/16" (30.2 mm)
No. 7	9-1/8" (231.8 mm)	7-7/8" (200.0 mm)	7-5/8" (193.7 mm)	2-1/16" (52.4 mm)

### NOTE:

- Adaptors are available upon request for all competitor sink bowls or cones.
- Please have sink bowl/cone type with the necessary dimensions when ordering adaptors.



## RECOMMENDED INSTALLATION



### RECOMMENDED WATER USAGE

	Standard	Optional
SS-50	3 GPM (11.4 LPM)	N/A
SS-75	3 GPM (11.4 LPM)	N/A
SS-100	5 GPM (18.9 LPM)	3 GPM (11.4 LPM)
SS-125	5 GPM (18.9 LPM)	3 GPM (11.4 LPM)

For additional information, see Foodservice Product Information Binder.

PROJECT: \_\_\_\_\_ ITEM NO.: \_\_\_\_\_



# CONTROL CENTER MODEL CC-101

## WATER/ENERGY SAVING FEATURE • AUTOMATIC REVERSING ACTION

### SPECIFICATIONS

#### STAINLESS STEEL ENCLOSURE

- NEMA 4
- Stainless steel construction
- Easy to clean and keep clean

#### AUTOMATIC REVERSING CONTROL

- Reverses direction of motor at each startup
- Increases cutting element life and reduces jams

#### REVERSING DELAY

- Disposer will not reverse while motor is in motion
- Protects motor from burn out from operator misuse

#### AUTOMATIC DROP OUT SYSTEM

- If a power loss occurs, control will automatically disengage power lines
- Disposer must be restarted

#### DISCONNECT SWITCH

- Disconnects electrical power beyond switch for service
- Interlock with front cover

#### SOLID STATE CONTROL

- Operates on 24V

#### SOLID STATE CONTROL CIRCUIT

- Printed circuit board with control diagnostic/function lights, delay timers and timed run pin and reversing control

#### POST WATER FLUSH

- Adjustable timer allows water to run automatically for up to 10 minutes, flushing disposer and drain lines after disposer is shut off

#### TIMED RUN OR CONTINUOUS RUN

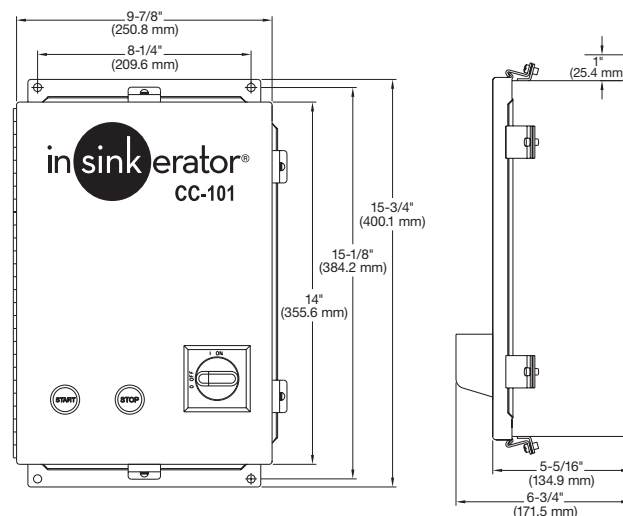
- Selected at your discretion, simply by moving the plug-in in on the printed circuit board
- Timed run shuts off disposer automatically after 10 minutes
- Can be shut off manually any time

#### SOLENOID VALVE

- Packed unattached inside control center carton
- Ensures that water is flowing into disposer while disposer is operating



### DIMENSIONS



### VOLTAGE/PHASE AVAILABILITY

Model	Voltage/Hz	Phase	Disposer Models
CC101K-5	120V, 50/60 Hz	1 Ph	SS-50 to SS-200
CC101K-6	208-240V, 50/60 Hz	1 Ph	SS-50 to SS-200
CC101K-7	208-240V, 50/60 Hz	3 Ph	SS-50 to SS-1000
CC101K-8	380-460V, 50/60 Hz	3 Ph	SS-50 to SS-1000

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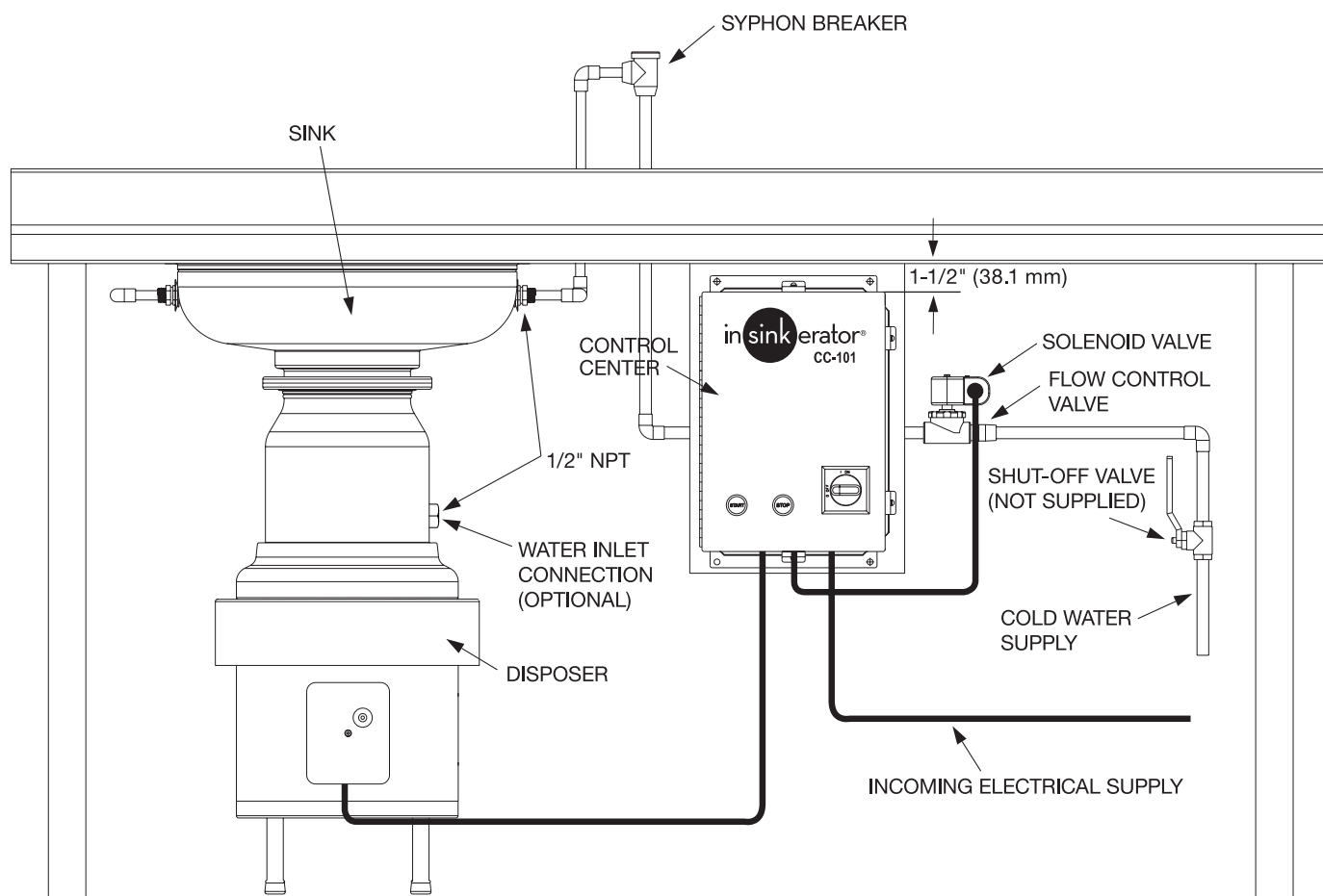
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TEL: 800-845-8345  
FAX: 262 554-3620  
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## RECOMMENDED INSTALLATION



**NOTE:** The CC-101 control center should be mounted 1-1/2" (38.1 mm) back from the front surface of the table.

PROJECT: \_\_\_\_\_ ITEM NO.: \_\_\_\_\_



# 1-1/2 – 2 H.P. DISPOSER MODELS

Heavy-duty disposer designed for continuous operation in restaurants, hotels, hospitals and cafeterias. Food waste including steak bones is quickly and efficiently removed with this labor-saving, self-cleaning, environmentally sound disposer.

## SPECIFICATIONS

- **Grind Chamber:** Corrosion Resistant Stainless Steel
- **Mounting:** 3/4" (19.1 mm) rubber mounting above grinding chamber isolates sound and eliminates vibration. Mounting is enclosed in chrome plated covers for sanitation and appearance.
- **Motor:** 1-1/2 – 1 HP Induction Motor, 1725 RPM, totally enclosed to provide protection against outside moisture. Controlled power air flow cools motor for efficiency and longer life. Built-in thermal overload protection.
- **Cutting Elements:** Stationary and rotating shredding elements made from cast nickel chrome alloy for long life and corrosion resistance, designed for reverse action grinding.
- **Main Bearings:** Double-tapered Timken roller bearings provide a shock absorbing cushion.
- **Motor Seals:** Triple lip seal protects motor from water damage. Secondary spring-loaded oil seal provides double protection against water and loss of grease.
- **Finish:** All Stainless Steel and Chrome plated. Paint-free for lasting sanitation.
- **Warranty:** 1 year full warranty from date of installation.
- **A Disposer Package Includes:** 1 Mounting/Bowl Assembly, 1 Electrical Control, 1 Syphon Breaker, 1 Solenoid Valve, and 1 Flow Control Valve. The standard Flow Control Valve will be sent with the unit unless the optional valve is specified.



## MODEL & HORSEPOWER/ELECTRICAL REQUIREMENTS

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> <b>SS-150</b><br>1-1/2 H.P. | <input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 12.2/5.7/6.1 amps, <b>UL</b><br><input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 3.2/4.6/2.3 amps, <b>UL</b><br><input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 12.2/5.7/6.1 amps, <b>UL</b> , <b>short body</b><br><input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 3.2/4.6/2.3 amps, <b>UL</b> , <b>short body</b> | <input type="checkbox"/> 115/230V, 50 Hz, 1 Ph, 10.3/5.6 amps<br><input type="checkbox"/> 230/460V, 50 Hz, 3 Ph, 3.0/1.5 amps<br><input type="checkbox"/> 380V, 50 Hz, 3 Ph, 1.7 amps   |
| <input type="checkbox"/> <b>SS-200</b><br>2 H.P.     | <input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 17.4/7.7/8.7 amps, <b>UL</b><br><input checked="" type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 3.3/5.0/2.5 amps, <b>UL</b><br><input type="checkbox"/> 115/208-230V, 60 Hz, 1 Ph, 17.4/7.7/8.7 amps, <b>UL</b> , <b>short body</b>   | <input type="checkbox"/> 208-230/460V, 60 Hz, 3 Ph, 3.3/5.0/2.5 amps, <b>UL</b> , <b>short body</b><br><input type="checkbox"/> 208-240/460V, 60 Hz, 3 Ph, 3.3/5.0/2.5 amps, <b>NOM</b> |

**NOTE:** All amp ratings denote amp draw during a grind load.

## ELECTRICAL CONTROLS



- ☐ AS-101 Control Center AquaSaver® (Auto-Reversing)



- ☐ CC-101 Control Center (Auto-Reversing)



- ☐ CC-202 Control Center (Auto-Reversing)



- ☐ Manual Reverse Switch (Dual Direction)



- ☐ Manual Switch (Single Direction)

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## DISPOSER MOUNTING ASSEMBLIES (choose one)

### Bowl Mounts



- ☐ Type A Sink Bowl Assembly: Includes bowl, water nozzle(s), bowl cover, splash baffle



- ☐ Type B Sink Bowl Assembly: Includes bowl, water nozzle(s), silver guard, splash baffle



- ☐ Type C Sink Bowl Assembly: Includes bowl, water nozzle(s), splash baffle

### Sink Bowl Assembly Size

- ☐ 12" (304.8 mm) with one adjustable water nozzle  
☐ 15" (381.0 mm) with one adjustable water nozzle  
☐ 18" (457.2 mm) with two adjustable water nozzles

### Collar Mounts



- ☐ #5 Sink Flange Mounting Assemblies for 3-1/2" – 4" (88.9 mm – 101.6 mm) sink opening (support legs are recommended)



- ☐ #6 Collar Adaptor for welding into trough, provides 6-5/8" (168.3 mm) opening, includes splash baffle



- ☐ #7 Collar Adaptor for welding into sink, provides 6-5/8" (168.3 mm) opening, includes splash baffle and stopper

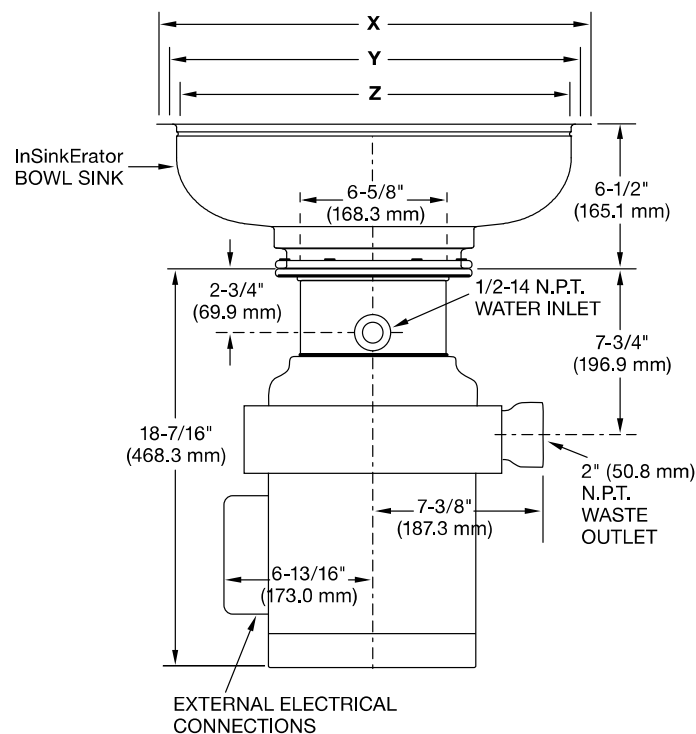
## DIMENSIONS

**IMPORTANT:** Use dimension chart below for adaptor height in place of InSinkEerator bowl sink height when mounting directly to a sink.

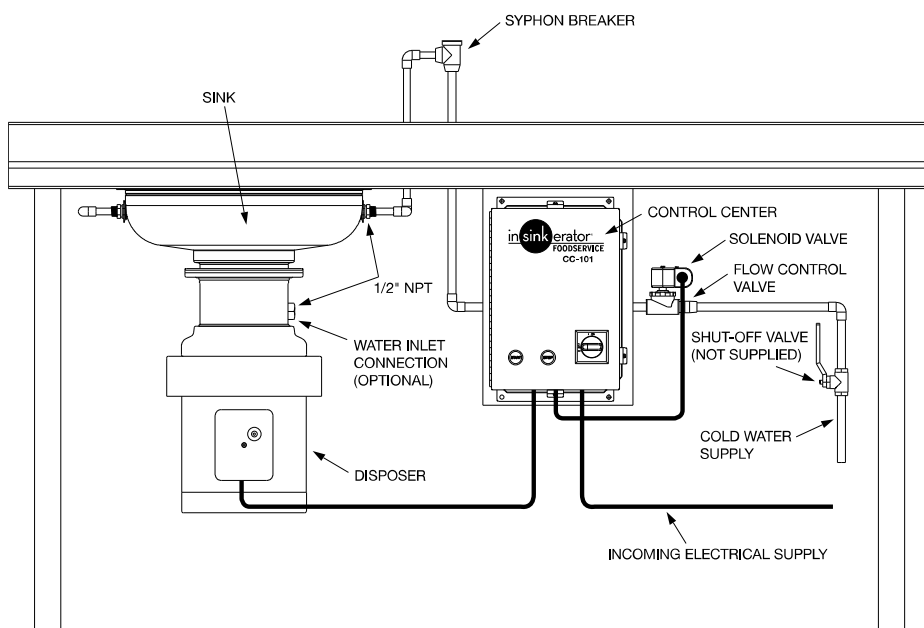
Bowl Sinks	Flange O.D. X	Work Table Hole Y	Flange I.D. Z	Height
12" (304.8 mm)	13-1/2" (342.9 mm)	12-1/4" (311.2 mm)	12" (304.8 mm)	6-1/2" (165.1 mm)
15" (381 mm)	16-1/2" (419.1 mm)	15-1/4" (387.4 mm)	15" (381.0 mm)	6-1/2" (165.1 mm)
18" (457.2 mm)	19-1/2" (495.3 mm)	18-1/4" (463.6 mm)	18" (457.2 mm)	6-1/2" (165.1 mm)
Adaptors	X	Y	Z	Height
No. 5	Fits Standard Sink Opening: 3-1/2" – 4" (88.9 mm – 101.6 mm)			2-3/4" (69.9 mm)
No. 6	7-13/16" (198.4 mm)	6-7/8" (174.6 mm)	6-5/8" (168.3 mm)	1-3/16" (30.7 mm)
No. 7	9-1/8" (231.8 mm)	7-7/8" (200.0 mm)	7-5/8" (193.7 mm)	2-1/16" (52.4 mm)

### NOTE:

- Adaptors are available upon request for all competitor sink bowls or cones.
- Please have sink bowl/cone type with the necessary dimensions when ordering adaptors.
- Also available as a **short body** model. Reduces overall height of disposer by 1" (25.4 mm).



## RECOMMENDED INSTALLATION



### RECOMMENDED WATER USAGE

	Standard	Optional
SS-150	7 GPM (26.5 LPM)	5 GPM (18.9 LPM)
SS-200	7 GPM (26.5 LPM)	5 GPM (18.9 LPM)

For additional information, see Foodservice Product Information Binder.



# CONTROL CENTER MODEL CC-101

## WATER/ENERGY SAVING FEATURE • AUTOMATIC REVERSING ACTION

### SPECIFICATIONS

#### STAINLESS STEEL ENCLOSURE

- NEMA 4
- Stainless steel construction
- Easy to clean and keep clean

#### AUTOMATIC REVERSING CONTROL

- Reverses direction of motor at each startup
- Increases cutting element life and reduces jams

#### REVERSING DELAY

- Disposer will not reverse while motor is in motion
- Protects motor from burn out from operator misuse

#### AUTOMATIC DROP OUT SYSTEM

- If a power loss occurs, control will automatically disengage power lines
- Disposer must be restarted

#### DISCONNECT SWITCH

- Disconnects electrical power beyond switch for service
- Interlock with front cover

#### SOLID STATE CONTROL

- Operates on 24V

#### SOLID STATE CONTROL CIRCUIT

- Printed circuit board with control diagnostic/function lights, delay timers and timed run pin and reversing control

#### POST WATER FLUSH

- Adjustable timer allows water to run automatically for up to 10 minutes, flushing disposer and drain lines after disposer is shut off

#### TIMED RUN OR CONTINUOUS RUN

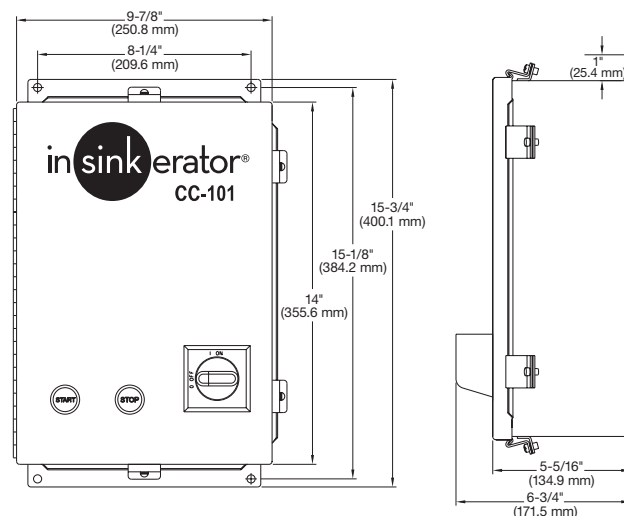
- Selected at your discretion, simply by moving the plug-in in on the printed circuit board
- Timed run shuts off disposer automatically after 10 minutes
- Can be shut off manually any time

#### SOLENOID VALVE

- Packed unattached inside control center carton
- Ensures that water is flowing into disposer while disposer is operating



### DIMENSIONS



### VOLTAGE/PHASE AVAILABILITY

Model	Voltage/Hz	Phase	Disposer Models
CC101K-5	120V, 50/60 Hz	1 Ph	SS-50 to SS-200
CC101K-6	208-240V, 50/60 Hz	1 Ph	SS-50 to SS-200
CC101K-7	208-240V, 50/60 Hz	3 Ph	SS-50 to SS-1000
CC101K-8	380-460V, 50/60 Hz	3 Ph	SS-50 to SS-1000

A complete collection of our product drawings is available for download at the **InSinkErator Revit/CAD Library**, which can be found at [www.insinkerator.com/foodservice](http://www.insinkerator.com/foodservice). Product information is also accessible on **The KCL CADalog**. More information is available from KCL at [www.kclcad.com](http://www.kclcad.com).



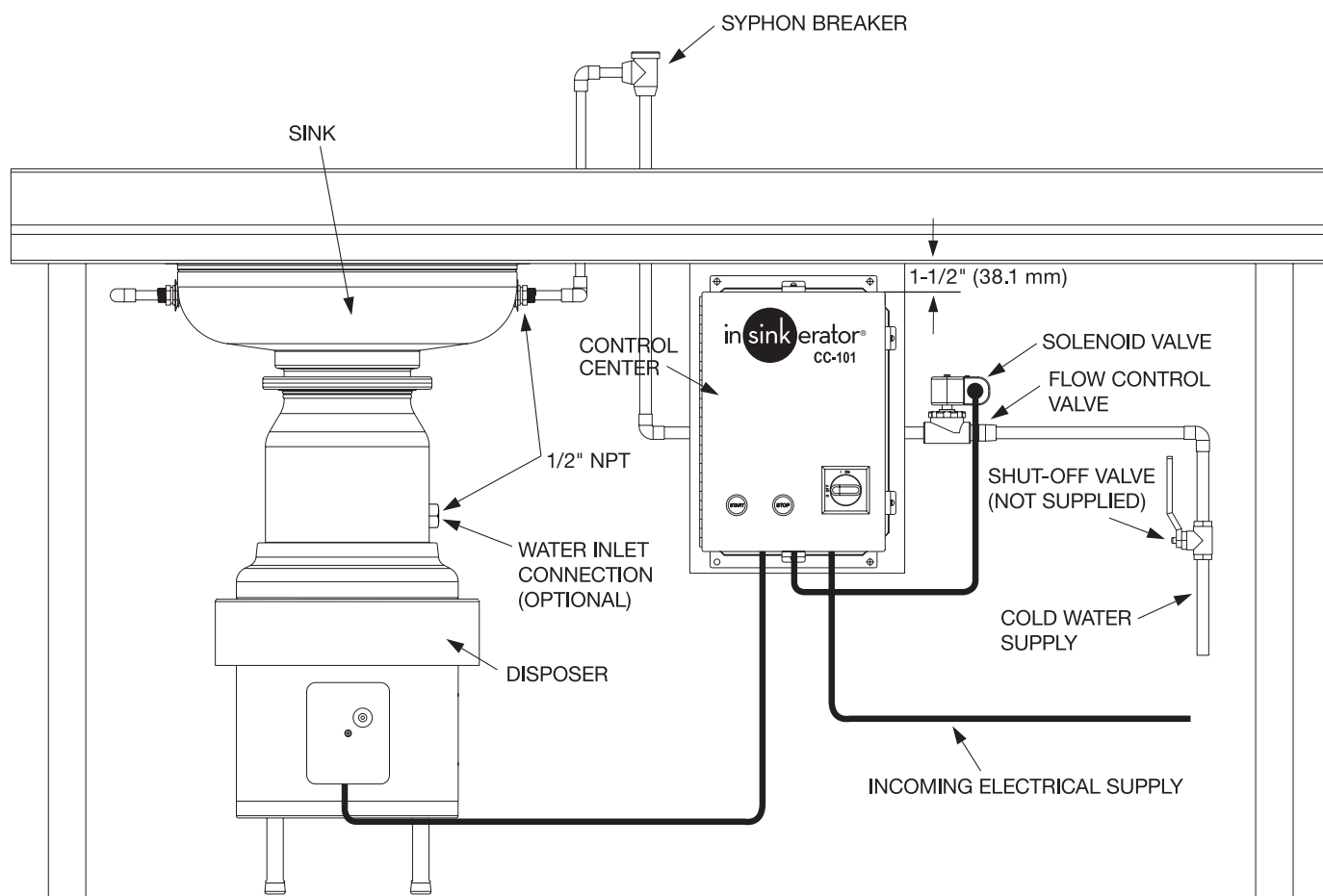
4700 21st STREET  
RACINE, WI 53406  
TEL: 800-845-8345  
FAX: 262 554-3620  
[www.insinkerator.com](http://www.insinkerator.com)



The Emerson logo is a trademark and a service mark of Emerson Electric Co.



## RECOMMENDED INSTALLATION



**NOTE:** The CC-101 control center should be mounted 1-1/2" (38.1 mm) back from the front surface of the table.

ITEM 810 - STAINLESS STEEL WALL END CAPS

ITEM 811 - STAINLESS STEEL WALL CLADDING

ITEM 812 - STAINLESS STEEL CORNERGUARDS

ITEM 813 - STAINLESS STEEL COOLER TRIM

ITEM 814 - STAINLESS STEEL HEAD & JAMB

CUSTOM FABRICATION

SEE DRAWINGS & SPECIFICATIONS



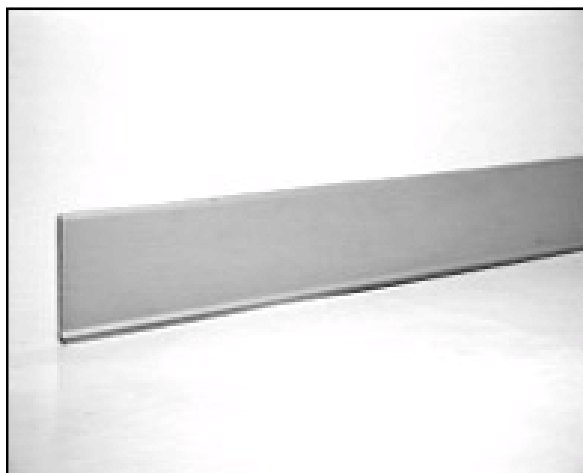
JOB:

ITEM #:

QUANTITY:

**ALUMINUM BASEBOARD**

# Aluminum Baseboard

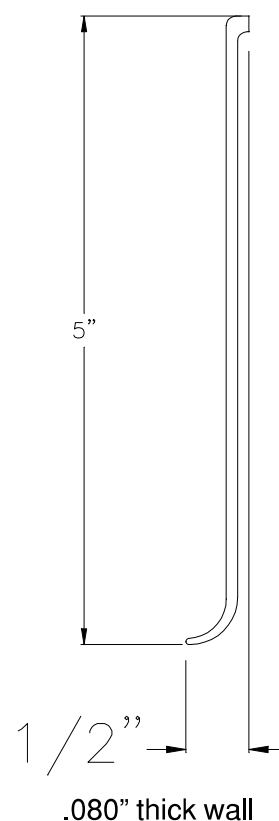


## Keeps Its Good Looks!

Our aluminum cove baseboard has a smooth, easy to clean, natural finish. No more paint chipped, discolored, or worn finishes. This solid aluminum baseboard keeps its good looks and cleans up easy with just soap and water!

## Ideal For Any Atmosphere!

Due to its natural propensity to ward off rust and corrosion, this baseboard is perfect for any type of atmosphere... from the freezer to the floor room!



Model #	Length	List Price
9787C .....	96" .....	\$ 39.00
9789C .....	6" .....	\$ 10.00
9790C .....	6" .....	\$ 10.00

#9789C = two piece inside corner = (2) 6" pieces.

#9790C = two piece outside corner = (2) 6" pieces.

\*\*\* Not Welded \*\*\*

**All Items Are 5" In Height.**

**All Items Are UPS-Able**



### New Age Industrial Corp., Inc.

1000 E Hwy-36 • PO Box 520  
Norton, Kansas 67654

**Phone#: 800-255-0104**

Fax#: 785-877-2616

**[www.newageindustrial.com](http://www.newageindustrial.com)**

0200

ALUMINUM BASEBOARD





ITEM 900 - FIRE EXTINGUISHER

ITEM 901 - FIRE SUPPRESSION SYSTEM

ITEM 902 - SOAP & PAPER TOWEL DISPENSER

BY OTHERS



## SECTION 115213 - PROJECTION SCREENS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Manually operated, front-projection screens.
2. Electrically operated, front-projection screens and controls.

#### 1.2 ACTION SUBMITTALS

##### A. Product Data: For each type of product.

##### B. Shop Drawings: Show layouts and types of front-projection screens. Include the following:

1. Location of seams in viewing surfaces.
2. Anchorage details, including connection to supporting structure for suspended units.
3. Location of wiring connections for electrically operated units.
4. Wiring diagrams for electrically operated units.

### PART 2 - PRODUCTS

#### 2.1 MANUALLY OPERATED, FRONT-PROJECTION SCREENS

##### A. General: Manufacturer's standard spring-roller-operated units, consisting of case, screen, mounting accessories, and other components necessary for a complete installation.

##### B. Surface-Mounted, Metal-Encased, Manually Operated Screens without Tab Tensioning: Units designed and fabricated for surface mounting on wall or ceiling, fabricated from formed-steel sheet not less than 0.027 inch (0.7 mm) thick or from aluminum extrusions; with flat back design and vinyl covering or baked-enamel finish. Provide units with matching end caps and concealed mounting.

1. Basis of Design Products: Subject to compliance with requirements, provide Draper Inc., Luma 2, or a comparable product by one of the following approved manufacturers:

- a. Bretford, Inc.
- b. Da-Lite Screen Company.
- c. Draper Inc.

##### C. Matte-White Viewing Surface; Peak gain of not less than 0.9, and gain of not less than 0.8 at an angle of 50 degrees from the axis of the screen surface.

1. Products: Subject to compliance with requirements, provide one of the following:

- a. BEI Audio-Visual Products; Matte White.
- b. Bretford, Inc; Matte White.
- c. Da-Lite Screen Company; Matte White.
- d. Draper Inc; Flexible Matte White XT1000E.
- e. Stewart Filmscreen Corporation; Snomatte 100.

- 2. Material: Vinyl-coated, glass-fiber fabric or vinyl sheet.
- 3. Seamless Construction: Provide screens, in sizes indicated, without seams.
- 4. Edge Treatment: Black masking borders.
- 5. Size of Viewing Surface: 70 by 70 inches (1778 by 1778 mm).

D. Accessories: provide attachments for hanging from ceiling.

2.2 ELECTRICALLY OPERATED, FRONT-PROJECTION SCREENS

A. General: Manufacturer's standard units consisting of case, screen, motor, controls, mounting accessories, and other components necessary for a complete installation.

- 1. Controls: Remote three-position control switch.
- 2. Motor in Roller: Instant-reversing motor of size and capacity recommended by screen manufacturer; with permanently lubricated ball bearings, automatic thermal-overload protection, and positive-stop action to prevent coasting.
- 3. Screen Mounting: Top edge securely anchored to rigid metal roller and bottom edge formed into a pocket holding a 3/8-inch- (9.5-mm-) diameter metal rod with ends of rod protected by plastic caps.

B. Wall Mounted, Electrically Operated Screens: Motor-in-roller units designed and fabricated for mounting on wall brackets; with bottom of case composed of two panels, fully enclosing screen, motor, and wiring; one panel hinged and designed to open and close automatically when screen is lowered and fully raised, the other removable or openable for access to interior of case.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Draper Paragon E, or a comparable product by one of the following approved manufacturers:

- a. Da-Lite Screen Company.
- b. Stewart Filmscreen Corporation.

C. Matte-White Viewing Surface; Peak gain of not less than 0.9, and gain of not less than 0.8 at an angle of 50 degrees from the axis of the screen surface.

1. Products: Subject to compliance with requirements, provide one of the following:

- a. BEI Audio-Visual Products; Matte White.
- b. Bretford, Inc; Matte White.
- c. Da-Lite Screen Company; Matte White.
- d. Draper Inc; Flexible Matte White XT1000E.
- e. Stewart Filmscreen Corporation; Snomatte 100.

2. Material: Vinyl-coated, glass-fiber fabric or vinyl sheet.
3. Seamless Construction: Provide screens, in sizes indicated, without seams.
4. Edge Treatment: Black masking borders.
5. Size of Viewing Surface: See Drawings.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install front-projection screens at locations indicated to comply with screen manufacturer's written instructions.
- B. Install front-projection screens with screen cases in position and in relation to adjoining construction indicated. Securely anchor to supporting substrate in a manner that produces a smoothly operating screen with vertical edges plumb and viewing surface flat when screen is lowered.
  1. Install low-voltage controls according to NFPA 70 and complying with manufacturer's written instructions.
    - a. Wiring Method: Install wiring in raceway except in accessible ceiling spaces and in gypsum board partitions where unenclosed wiring method may be used. Use UL-listed plenum cable in environmental air spaces, including plenum ceilings. Conceal raceway and cables except in unfinished spaces.
  2. Test electrically operated units to verify that screen controls, limit switches, closures, and other operating components are in optimum functioning condition.

END OF SECTION 115213



## SECTION 116623 - GYMNASIUM EQUIPMENT

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Basketball equipment.
2. Volleyball equipment.
3. Safety pads.

#### 1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. LEED Submittals:

1. Product Data for Credit IEQ 4.4: For composite wood products, documentation indicating that products contain no urea formaldehyde.
2. Laboratory Test Reports for Credit IEQ 4.4: For composite wood products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

C. Shop Drawings: For gymnasium equipment.

1. Include plans, elevations, sections, details, and attachments to other work.

D. Samples: For each exposed product and for each item and color specified.

#### 1.3 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Court layout plans, drawn to scale, and coordinated with floor inserts, game lines, and markers applied to finished flooring.

B. Product certificates.

C. Sample warranty.

#### 1.4 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.



## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

## 1.6 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of gymnasium equipment that fail in materials or workmanship within specified warranty period.

- 1. Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Basketball backstops and anchors shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

### 2.2 BASKETBALL EQUIPMENT

- A. Basis-of-Design Product: Subject to compliance with requirements, provide products by Porter Athletic, Inc., or comparable product by one of the following:
  - 1. AALCO Manufacturing.
  - 2. ADP Lemco.
  - 3. Arizona Courtlines, Inc.
  - 4. Bison, Inc.
  - 5. Douglas Industries, Inc.
  - 6. Draper, Inc.
  - 7. Institutional Products, Inc.
  - 8. Jaypro Sports Construction Group.
  - 9. L. A. Steelcraft.
  - 10. Performance Sports Systems; a Gared Holdings company.
  - 11. Porter Athletic, Inc.
  - 12. Schelde North America.
  - 13. Spalding Equipment.
- B. General: Provide equipment complying with requirements in NFHS's "NFHS Basketball Rules Book."
- C. Provide manufacturer's recommended connections complying with Section 055000 "Metal Fabrications" of size and type required to transfer loads to building structure.

- D. Wall-Mounted Backstops: Complete assembly extending from wall, including support framing to building structure, bracing, cables, support chains, pulleys, fittings, hardware, pipe anchors, equipment pads, and fasteners.
  - 1. Folding Type: Provide manufacturer's standard assembly for upward-folding backstop, with hardware and fittings to permit folding. Provide Porter Model 90219000 or equal.
    - a. Finish: Manufacturer's standard polyester powder-coat finish.
  - 2. Goal Height Adjuster: Adjustable from 8 to 10 feet (2.4 to 3 m) with gear-drive mechanism, locking in any position within adjustment range, with visible height scale attached to side of framing.
    - a. Operation: Manual with detachable crank handle.
- E. Backstop Safety Device: Designed to limit free fall if support cable, chains, pulleys, fittings, winch, or related components fail.
- F. Winch: Hoist, consisting of heavy-duty, fully enclosed worm-gear; brake; cable drum; cable; and fittings, for mounting on wall with equipment mounting board; designed to move and hold backboard in any raised or lowered position.
- G. Basketball Backboards:
  - 1. Shape and Size:
    - a. Rectangular, 72 by 42 inches (1800 by 1067 mm) width by height.
    - b. Porter Model 208, or equal.
  - 2. Backboard Material: With predrilled holes or preset inserts for mounting goals, and as follows:
    - a. Glass: Not less than 1/2-inch- (13-mm-) thick, transparent tempered glass complying with impact testing requirements in 16 CFR 1201 Category II or ANSI Z97.1 Class A for safety glazing.
      - 1) Rim-Restraining Device: Complying with NCAA and NFHS rules and designed to ensure that basket remains attached if glass backboard breaks.
  - 3. Target Area and Border Markings: Permanently etched in white color, marked in manufacturer's standard pattern and stripe width.
- H. Goal Mounting Assembly: Compatible with goal, backboard, and support framing.
- I. Basketball Goals: Complete with flanges, braces, attachment plate, and evenly spaced loops welded around underside of ring. Porter Model No. 22302, or equal.
  - 1. Single-rim basket ring competition goal.
  - 2. Type: Movable, breakaway design with manufacturer's standard breakaway mechanism and rebound characteristics identical to those of fixed, nonmovable ring.
  - 3. Finish: Manufacturer's standard finish.

- J. Basketball Nets: 12-loop-mesh net, between 15 and 18 inches (380 to 460 mm) long, sized to fit rim diameter, and as follows:
  - 1. Cord: Made from white nylon.
- K. Backboard Safety Pads: Designed for backboard thickness indicated and extending continuously along bottom and up sides of backboard and over goal mounting and backboard supports per manufacturer's standard design.
  - 1. Color: As selected by Architect from manufacturer's full range.

## 2.3 VOLLEYBALL EQUIPMENT

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Porter Athletic, Inc. Model #1971 Volleyball System, or comparable product by one of the following:
  - 1. AALCO Manufacturing.
  - 2. ADP Lemco.
  - 3. Arizona Courtlines, Inc.
  - 4. Bison, Inc.
  - 5. Douglas Industries, Inc.
  - 6. Draper, Inc.
  - 7. Jaypro Sports Construction Group.
  - 8. L. A. Steelcraft.
  - 9. Performance Sports Systems; a Gared Holdings company.
  - 10. Porter Athletic, Inc.
  - 11. Schelde North America.
  - 12. Spalding Equipment.
  - 13. Sports Imports.
- B. General: Provide equipment complying with requirements in NFHS's "NFHS Volleyball Rules Book."
- C. Floor Insert: Solid-brass floor plate; and steel pipe sleeve, concealed by floor plate, with capped bottom end, sized with ID to fit post standards, not less than 9 inches (228 mm) long to securely anchor pipe sleeve below finished floor in concrete footing. as indicated; with anchors designed for securing floor insert to floor substrate indicated; one per post standard.
  - 1. Floor Plate: Manufacturer's standard hinged access cover, designed to be flush with adjacent flooring. Provide two tool(s) for unlocking access covers.
- D. Post Standards: Removable, paired volleyball post standards as indicated. Adjustable, telescoping height. Fabricated from steel pipe or tubing, with nonmarking plastic or rubber end cap or floor bumper to protect permanent flooring. Finished with manufacturer's standard factory-applied, polyester powder-coat finish.
  - 1. Nominal Pipe or Tubing Diameter: 3-inch (76-mm) OD at base.
  - 2. Net Height Adjuster: Manufacturer's standard mechanism for height adjustment, complete with fittings; designed for positioning net at heights indicated.

- a. Net Heights: Between 6'-6" and 8'-0" or more.
3. Height Markers: Clearly marked at regulation play heights for elementary school, girls/women and boys/men.
- E. Net: 32 feet (9.75 m) long; one per pair of paired post standards; and as follows:
  1. Width and Mesh: Competition volleyball net, 36 inches (910 mm) with 4-inch- (102-mm-) square mesh made of black nylon string.
  2. Dowels: Not less than 1/2-inch- (13-mm-) diameter fiberglass or 1-inch- (25-mm-) diameter wood. Provide two dowels per net threaded through each side hem sleeve for straightening net side edges.
  3. Net Antennas: 3/8-inch- (9.5-mm-) diameter, high-tensile-strength, extruded-fiberglass or plastic rods, 72 inches (1800 mm) long, extending above top hem band of net, with alternating white and red bands according to competition rules. Provide two antennas per net.
  4. Boundary Tape Markers: 2-inch- (50-mm-) wide white strip, secured to net top and bottom with hook-and-loop attachment. Provide two tape markers per net for marking court boundaries.
- F. Net-Tensioning System: Designed to adjust and hold tension of net. Fully enclosed, nonslip worm-gear-type winch with cable length and fittings for connecting to net lines, positive-release mechanism, and manufacturer's standard handle.
- G. Bottom Net Lock Tightener: Manufacturer's standard.
- H. Safety Pads: Provide pads consisting of not less than 1-inch- (25-mm-) thick, multiple-impact-resistant manufacturer's standard foam filler covered by puncture- and tear-resistant fabric cover, manufacturer's standard; with fire-test-response characteristics indicated. Provide pads with hook-and-loop closure or attachments for the following components:
  1. Post Standards: Wraparound style, designed to totally enclose each standard to a height of not less than 66 inches (1680 mm); one per post.
  2. Net Lines: Four per net.
  3. Fabric Cover Flame-Resistance Ratings: Complies with NFPA 701.
  4. Fabric Color: As selected by Architect from full range of industry standard colors and color densities.
- I. Post Standard Transporter: Manufacturer's standard.
- J. Wall Storage Rack: Manufacturer's standard.
- K. Storage Cart: Manufacturer's standard.

## 2.4 SAFETY PADS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Porter Athletics, Inc., Model No. 560-1, or comparable product by one of the following:

1. AALCO Manufacturing.
  2. ADP Lemco.
  3. Draper, Inc.
  4. Institutional Products, Inc.
  5. Jaypro Sports Construction Group.
  6. Performance Sports Systems; a Gared Holdings company.
  7. Porter Athletic, Inc.
  8. Spalding Equipment.
- B. Safety Pad Surface-Burning Characteristics: ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
1. Flame-Spread Index: 25 or less.
  2. Smoke-Developed Index: 450 or less.
- C. Pad Coverings: Provide safety pad fabric covering that is fabricated from puncture- and tear-resistant, PVC-coated polyester or nylon-reinforced PVC fabric, not less than 14-oz./sq. yd (475-g/sq. m) and treated with fungicide for mildew resistance; with surface-burning characteristics indicated.
- D. Wall Safety Pads: Padded wall wainscot panels designed to be attached in a continuous row; each panel section consisting of fill laminated to backer board with visible surfaces fully covered by seamless fabric covering, free of sag and wrinkles and firmly attached to back of backer board.
1. Backer Board: Not less than 3/8-inch- (9.5-mm-) thick plywood, mat formed, or composite panel.
  2. Fire-Resistive Fill: Manufacturer's standard.
  3. Size: Each panel section, 24 inches (600 mm) wide by not less than 72 inches (1800 mm) long.
  4. Number of Modular Panel Sections: As indicated.
  5. Installation Method: Manufacturer's standard.
  6. Fabric Covering Color(s): As selected by Architect from manufacturer's full range for one color(s).

## 2.5 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for use and finish type indicated.
1. Extruded Bars, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).
  2. Cast Aluminum: ASTM B 179.
  3. Flat Sheet: ASTM B 209 (ASTM B 209M).
- B. Steel: Comply with the following:
1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
  2. Steel Tubing: ASTM A 500/A 500M or ASTM A 513, cold formed.
  3. Steel Sheet: ASTM A 1011/A 1011M.

- C. Support Cable: Manufacturer's standard galvanized-stranded-steel wire rope. Provide fittings complying with wire rope manufacturer's written instructions for size, number, and installation method.
- D. Support Chain and Fittings: For chains used for overhead lifting, provide Grade 80 heat-treated alloy steel chains, complying with ASTM A 391/A 391M, with commercial-quality, hot-dip galvanized or zinc-plated steel connectors and hangars.
- E. General-Purpose Chain: For chains not used for overhead lifting, provide carbon steel chain, complying with ASTM A 413/A 413M, Grade 30 proof coil chain or other grade recommended by gymnasium equipment manufacturer. Provide coating type, chain size, number, and installation method complying with manufacturer's written instructions.
- F. Castings and Hangers: Malleable iron, complying with ASTM A 47/A 47M; grade required for structural loading.
- G. Composite Wood Products: Products shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- H. Softwood Plywood: DOC PS 1, exterior.
- I. Particleboard: ANSI A208.1; made with binder containing no urea formaldehyde.
- J. Equipment Wall-Mounted Board: Manufacturer's standard.
- K. Anchors, Fasteners, Fittings, and Hardware: Manufacturer's standard corrosion-resistant or noncorrodible units; concealed; tamperproof, vandal- and theft-resistant design.
- L. Grout: ASTM C 1107/C 1107M with minimum strength recommended in writing by gymnasium equipment manufacturer.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Complete equipment field assembly where required.
- B. Permanently Placed Gymnasium Equipment and Components: Install rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations and elevations indicated; in proper relation to adjacent construction; and aligned with court layout.
- C. Removable Gymnasium Equipment and Components: Assemble in place to verify that equipment and components are complete and in proper working order. Instruct Owner's designated personnel in properly handling, assembling, adjusting, disassembling, transporting, storing, and maintaining units. Disassemble removable gymnasium equipment after assembled configuration is approved by Owner, and store units in location indicated on Drawings.

- D. Adjust movable components of gymnasium equipment to operate safely, smoothly, easily, and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and moving parts.

### 3.2 CLEANING

- A. After completing gymnasium equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.

### 3.3 DEMONSTRATION

- A. Train Owner's maintenance personnel to adjust, operate, and maintain gymnasium equipment.

END OF SECTION 116623



## SECTION 122113 - HORIZONTAL LOUVER BLINDS

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Horizontal louver blinds with aluminum slats – for use on school.
2. Horizontal louver blinds with polymer slats – for use on school.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Show fabrication and installation details for horizontal louver blinds.
- C. Samples: For each exposed product and for each color and texture specified.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Product certificates.
- B. Product test reports.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

#### 1.5 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
1. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 HORIZONTAL LOUVER BLINDS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Comfortex Window Fashions.
  2. Hunter Douglas Contract.
  3. Levolor Contract; a Newell Rubbermaid company.
  4. Springs Window Fashions.
- B. Aluminum Slats (for use on school):
1. Width: 1 inch (25 mm).
  2. Thickness: Manufacturer's standard.
  3. Spacing: Manufacturer's standard.
- C. Polymer Slats: Lead free, UV stabilized (for use on housing).
1. Width: 2 inches (51 mm).
  2. Profile: Manufacturer's standard.
  3. Flame-Resistance Rating: Comply with NFPA 701; testing by a qualified
- D. Slat Features:
1. Lift-Cord Rout Holes: Minimum size required for lift cord and located near back (outside) edge of slat to maximize slat overlap and minimize light gaps between slats.
- E. Headrail:
1. Manual Lift Mechanism:
    - a. Lift-Cord Lock: Variable; stops lift cord at user-selected position within blind full operating range.
    - b. Operator: Extension of lift cord(s) through lift-cord lock mechanism to form cord pull.
  2. Manual Tilt Mechanism: Enclosed worm-gear mechanism and linkage rod that adjusts ladders.
    - a. Tilt: Full.
    - b. Operator: Clear-plastic wandistant steel rod.
  3. Manual Lift-Operator and Tilt-Operator Lengths: Length required to extend to 48 inches (1219 mm) above floor level when blind is fully closed.
  4. Manual Lift-Operator and Tilt-Operator Locations: Manufacturer's standard unless otherwise indicated.

- F. Bottom Rail: Matching slats.
  - 1. Type: Manufacturer's standard.
- G. Ladders: Braided cord.
- H. Valance: Manufacturer's standard.
- I. Mounting Brackets: With spacers and shims required for blind placement and alignment indicated.
  - 1. Type: Overhead.
  - 2. Intermediate Support: Provide intermediate support brackets to produce support spacing recommended by blind manufacturer for weight and size of blind.
- J. Hold-Down Brackets and Hooks or Pins: Manufacturer's standard.
- K. Side Channels and Perimeter Light Gap Seals: Manufacturer's standard.
- L. Colors, Textures, Patterns, and Gloss:
  - 1. Slats: As selected by Architect from manufacturer's full range.
  - 2. Components: Provide rails, cords, ladders, and materials exposed to view matching or coordinating with slat color unless otherwise indicated.

## 2.2 HORIZONTAL LOUVER BLIND FABRICATION

- A. Product Safety Standard: Fabricate horizontal louver blinds to comply with WCMA A 100.1 including requirements for corded, flexible, looped devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F (23 deg C):
  - 1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which blind is installed less 1/4 inch (6 mm) per side or 1/2 inch (13 mm) total, plus or minus 1/8 inch (3.1 mm). Length equal to head-to-sill dimension of opening in which blind is installed less 1/4 inch (6 mm), plus or minus 1/8 inch (3.1 mm).
  - 2. Outside of Jamb Installation: Width and length as indicated, with terminations between blinds of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, and other conditions affecting performance.
  - 1. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Install horizontal louver blinds level and plumb, aligned and centered on openings, and aligned with adjacent units according to manufacturer's written instructions.
  - 1. Locate so exterior slat edges are not closer than 2 inches (51 mm) from interior faces of glass and not closer than 1/2 inch (13 mm) from interior faces of glazing frames through full operating ranges of blinds.
  - 2. Install mounting and intermediate brackets to prevent deflection of headrails.
  - 3. Install with clearances that prevent interference with adjacent blinds, adjacent construction, and operating hardware of glazed openings, other window treatments, and similar building components and furnishings.
- C. Adjust horizontal louver blinds to operate free of binding or malfunction through full operating ranges.
- D. Clean horizontal louver blind surfaces after installation according to manufacturer's written instructions.

END OF SECTION 122113

## SECTION 123530 - RESIDENTIAL CASEWORK

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes kitchen and vanity cabinets.
- B. Related Requirements:
  - 1. Section 123661 "Simulated Stone Countertops."

#### 1.2 DEFINITIONS

- A. MDF: Medium-density fiberboard.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For the following:
  - 1. Cabinets.
  - 2. Cabinet hardware.
- B. LEED Submittals:
  - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
  - 2. Certificates for [Credit MR 6] [Credit MR 7]: Chain-of-custody certificates indicating that products specified to be made from certified wood comply with forest certification and chain-of-custody requirements. Include statement indicating cost for each certified wood product.
  - 3. Laboratory Test Reports for Credit IEQ 4.1: For adhesives, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  - 4. Product Data for Credit IEQ 4.4: For adhesives and composite wood products, documentation indicating that product contains no urea formaldehyde.
  - 5. Laboratory Test Reports for Credit IEQ 4.4: For composite wood and agrifiber products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Shop Drawings: Include plans, elevations, details, and attachments to other work. Show materials, finishes, filler panels, and hardware.

- D. Samples: For cabinet finishes.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For casework.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A manufacturer that is certified for chain of custody by an FSC-accredited certification body.
- B. Vendor Qualifications: A vendor that is certified for chain of custody by an FSC-accredited certification body.
- C. Casework in accessible units shall comply with 2004 ADAABAAG (Americans with Disabilities Act an Architectural Barriers Act Accessibility Guidelines, 36 CFR, Part 1191).

### PART 2 - PRODUCTS

#### 2.1 CABINETS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. All Wood Cabinetry, LLC.
  2. Alpine Cabinet Company.
  3. Alpine Cabinetry, LLC.
  4. American Woodmark Corporation.
  5. Apple Valley Woodworks, LLC.
  6. Armstrong Cabinet Products.
  7. Avon Cabinet Corp.
  8. AyA Kitchens & Baths, Ltd.
  9. Barbosa Cabinets, Inc.
  10. Bass Cabinet Mfg.
  11. Benedettini Cabinetry.
  12. Bertch Cabinet Mfg., Inc.
  13. Bishop, Jim Cabinets, Inc.
  14. Blue River Cabinetry.
  15. Brandom Cabinets.
  16. Brighton Cabinetry, Inc.
  17. Cabinet Craft LLC.
  18. Cabinetry by Karman.
  19. Canyon Creek Cabinet Company.
  20. Carbide Industries, LLC.
  21. Cardell Cabinetry.
  22. Cheaha Cabinets, LLC.

23. Continental Cabinets, Inc.
24. Crotone Kitchens Inc.
25. De Pere Cabinet, Inc.
26. Distinctive Cabinet Design.
27. Dwyer Kitchens.
28. Evans Cabinet Corporation.
29. Fertig's Cabinet Company, Inc.
30. 1st Products, Inc.
31. Foremost Groups, Inc.
32. Founder's Choice, Inc.
33. Frendel Kitchens Limited.
34. Grandview Products Co., Inc.
35. Haas Cabinet Co., Inc.
36. Hilton Cabinets, Inc.
37. HomeCrest Cabinetry.
38. Huntwood Industries.
39. Interior Supply Direct.
40. International Kitchen Supply.
41. Interstock Premium Cabinetry.
42. Kent Moore Cabinets, Ltd.
43. Kitchen Cabinets Inc.
44. Kitchen Craft Cabinetry.
45. Kitchen Kompact, Incorporated.
46. Koch & Co., Inc.
47. Kountry Wood Products, LLC.
48. KraftMaid Cabinetry, Inc.
49. Kunal Kitchens, LLC.
50. LaFata Cabinets.
51. Lanz Cabinets.
52. Leedo Cabinetry.
53. Legacy Cabinets Inc.
54. Legacy Crafted Cabinets.
55. Lusara Cucine, Inc.
56. Markay Cabinets.
57. Marsh Furniture Company.
58. MasterBrand Cabinets, Inc.
59. Master WoodCraft Cabinetry LLC.
60. Medallion Cabinetry Inc.; an Elkay company.
61. Merillat Industries, LLC.
62. Metropolitan Cabinets & Countertops.
63. Mid-America Cabinets.
64. Mid Continent Cabinetry.
65. Mill's Pride.
66. Monschein Industries, Inc.
67. Normac Kitchens Inc.
68. Northwood Cabinets.
69. OakCraft Inc.
70. Omega Cabinetry.
71. Quality Cabinets.
72. Red Wing Cabinetry.

73. Regal Kitchens, LLC.
74. Republic Industries.
75. RiverRun Cabinetry.
76. Rosebud Manufacturing Co., Inc.
77. Saco Industries, Inc.
78. Serway Bros. Mfg., Inc.
79. 6 Square Cabinets, LLC.
80. Smart Cabinetry LLC.
81. Southern Stone Cabinets, Inc.
82. StarMark Cabinetry.
83. Stidham Cabinet Inc.
84. Sunco Cabinets.
85. Sycamore Creek Cabinetry.
86. Teamefforts Company.
87. Tru-Wood Cabinets, Inc.
88. Valley Casework, Inc.
89. Wellborn Cabinet, Inc.
90. Wellborn Forest Products, Inc.
91. Woodmont Cabinetry.
92. Wright's Cabinets, Inc.
93. Yorktowne Inc.; an Elkay company.

- B. Quality Standard: Provide cabinets that comply with KCMA A161.1.
1. KCMA Certification: Provide cabinets with KCMA's "Certified Cabinet" seal affixed in a semiexposed location of each unit and showing compliance with the above standard.
- C. Regional Materials: Cabinets shall be manufactured within 500 miles (800 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site.
- D. Regional Materials: Cabinets shall be manufactured within 500 miles (800 km) of Project site.
- E. Certified Wood: Cabinets shall be certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and to FSC STD-40-004, "FSC Standard for Chain of Custody Certification."
- F. Face Style: Flush overlay.
- G. Cabinet Style: Face frame.
- H. Door and Drawer Fronts: Solid-wood stiles and rails, 3/4 inch (19 mm) thick, with 1/4-inch-(6.4-mm-) thick, veneer-faced plywood center panels.
- I. Face Frames: 3/4-by-1-5/8-inch (19-by-41-mm) solid wood with glued mortise and tenon or doweled joints].
- J. Exposed Cabinet End Finish: Wood veneer.



## 2.2 CABINET MATERIALS

### A. General:

1. Adhesives and Composite Wood and Agrifiber Products: Do not use products that contain urea formaldehyde.
2. Hardwood Lumber: Kiln dried to 7 percent moisture content.
3. Softwood Lumber: Kiln dried to 10 percent moisture content.
4. Hardwood Plywood: HPVA HP-1; made with adhesive containing no urea formaldehyde.
5. Particleboard: ANSI A208.1, Grade M-2; made with binder containing no urea formaldehyde.

### B. Exposed Materials:

1. Exposed Wood Species: Manufacturer's standard domestic hardwood species.
  - a. Select materials for compatible color and grain. Do not use two adjacent exposed surfaces that are noticeably dissimilar in color, grain, figure, or natural character markings.
  - b. Staining and Finish: As selected by Architect from manufacturer's full range.
2. Solid Wood: Clear hardwood lumber of species indicated, free of defects.
3. Plywood: Hardwood plywood with face veneer of species indicated, with Grade A faces and Grade C backs of same species as faces.
4. Plastic Laminate: Particleboard faced with high-pressure decorative laminate complying with NEMA LD 3, Grade VGS.
  - a. Colors, Textures, and Patterns: As selected by Architect from cabinet manufacturer's full range.

### C. Semiexposed Materials: Unless otherwise indicated, provide the following:

1. Solid Wood: Sound hardwood lumber, selected to eliminate appearance defects. Same species as exposed surfaces or stained to be compatible with exposed surfaces.
2. Plywood: Hardwood plywood with Grade C faces and not less than Grade 3 backs of same species as faces. Face veneers of same species as exposed surfaces or stained to be compatible with exposed surfaces.

### D. Concealed Materials: Solid wood or plywood, of any hardwood or softwood species, with no defects affecting strength or utility; particleboard; MDF; or hardboard.

## 2.3 CABINET HARDWARE

- A. General: Manufacturer's standard units complying with BHMA A156.9, of type, size, style, material, and finish as selected by Architect from manufacturer's full range.
- B. Pulls: Back-mounted decorative pulls.
- C. Hinges: Concealed European-style, self-closing hinges.

- D. Drawer Guides: Epoxy-coated-metal, self-closing drawer guides; designed to prevent rebound when drawers are closed; with nylon-tired, ball-bearing rollers; and complying with BHMA A156.9, Type B05011 or Type B05091.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install cabinets with no variations in flushness of adjoining surfaces; use concealed shims. Where cabinets abut other finished work, scribe and cut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match cabinet face.
- B. Install cabinets without distortion so doors and drawers fit the openings, are aligned, and are uniformly spaced. Complete installation of hardware and accessories as indicated.
- C. Install cabinets level and plumb to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m).
- D. Fasten cabinets to adjacent units and to backing.
  - 1. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches (400 mm) o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch (38-mm) penetration into wood framing, blocking, or hanging strips.

#### 3.2 ADJUSTING AND CLEANING

- A. Adjust cabinets and hardware so doors and drawers are centered in openings and operate smoothly without warp or bind. Lubricate operating hardware as recommended by manufacturer.

END OF SECTION 123530

## SECTION 123623.13 - PLASTIC-LAMINATE-CLAD COUNTERTOPS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes plastic-laminate countertops.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product, including panel products and high-pressure decorative laminate.
- B. LEED Submittals:
  - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
  - 2. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional.
  - 3. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regionally manufactured and regionally extracted and manufactured materials. Include statement indicating cost for each regionally manufactured material.
    - a. Include statement indicating location of manufacturer and distance to Project for each regionally manufactured material.
    - b. Include statement indicating location of manufacturer and point of extraction, harvest, or recovery for each raw material used in regionally extracted and manufactured materials. Indicate distance to Project and fraction by weight of each regionally manufactured material that is regionally extracted.
  - 4. Certificates for [Credit MR 6] [Credit MR 7]: Chain-of-custody certificates indicating that products specified to be made from certified wood comply with forest certification and chain-of-custody requirements. Include statement indicating cost for each certified wood product.
  - 5. Product Data for Credit IEQ 4.1: For installation adhesives, including printed statement of VOC content.
  - 6. Laboratory Test Reports for Credit IEQ 4.1: For adhesives, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
  - 7. Product Data for Credit IEQ 4.4: For adhesives and composite wood products, documentation indicating that products contain no urea formaldehyde.

8. Laboratory Test Reports for Credit IEQ 4.4: For composite wood products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
- D. Samples:
  1. Plastic laminates, for each color, pattern, and surface finish.

### 1.3 INFORMATIONAL SUBMITTALS

- A. Woodwork Quality Standard Compliance Certificates: AWI Quality Certification Program certificates.

### 1.4 QUALITY ASSURANCE

- A. Fabricator Qualifications: Certified participant in AWI's Quality Certification Program.
- B. Installer Qualifications: Certified participant in AWI's Quality Certification Program.

### 1.5 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install countertops until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

## PART 2 - PRODUCTS

### 2.1 PLASTIC-LAMINATE COUNTERTOPS

- A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades indicated for construction, installation, and other requirements.
  1. Provide certificates from AWI certification program indicating that countertops, including installation, comply with requirements of grades specified.
- B. Grade: Premium.
- C. Regional Materials: Plastic-laminate countertops shall be manufactured within 500 miles (800 km) of Project site.

- D. Certified Wood: Plastic-laminate countertops shall be made from wood products certified as "FSC Pure" or "FSC Mixed Credit" according to FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship," and FSC STD-40-004, "FSC Standard for Chain of Custody Certification."
- E. High-Pressure Decorative Laminate: NEMA LD 3, Grade HGS.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Abet Laminati, Inc.
    - b. Formica Corporation.
    - c. Lamin-Art, Inc.
    - d. Panolam Industries International, Inc.
    - e. Wilsonart International; Div. of Premark International, Inc.
- F. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
  - 1. As indicated by manufacturer's designations.
  - 2. Match Architect's sample.
  - 3. As selected by Architect from manufacturer's full range in the following categories:
    - a. Solid colors and patterns, matte finish.
- G. Edge Treatment: [3-mm PVC edging.
- H. Core Material at Sinks: exterior-grade plywood.
- I. Core Thickness: 3/4 inch (19 mm).
  - 1. Build up countertop thickness to 1-1/2 inches (38 mm) at front, back, and ends with additional layers of core material laminated to top.
- J. Backer Sheet: Provide plastic-laminate backer sheet, NEMA LD 3, Grade BKL, on underside of countertop substrate.
- K. Paper Backing: Provide paper backing on underside of countertop substrate.

## 2.2 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard unless otherwise indicated.
  - 1. Wood Moisture Content: 5 to 10 percent.
- B. Composite Wood and Agrifiber Products: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.

1. Recycled Content of Medium-Density Fiberboard and Particleboard: Postconsumer recycled content plus one-half of preconsumer recycled content not less than <Insert number> percent.
2. Composite Wood and Agrifiber Products: Products shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
3. Medium-Density Fiberboard: ANSI A208.2, Grade 130, made with binder containing no urea formaldehyde.
4. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde.
5. Softwood Plywood: DOC PS 1.

## 2.3 ACCESSORIES

- A. Grommets for Cable Passage through Countertops: 2-inch (51-mm) OD, black, molded-plastic grommets and matching plastic caps with slot for wire passage.
  1. Product: Subject to compliance with requirements, provide "OG series" by Doug Mockett & Company, Inc.

## 2.4 MISCELLANEOUS MATERIALS

- A. Adhesives: Do not use adhesives that contain urea formaldehyde.
- B. Adhesives: Use adhesives that meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. VOC Limits for Installation Adhesives and Sealants: Use products that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
  1. Wood Glues: 30 g/L.
  2. Multipurpose Construction Adhesives: 70 g/L.
  3. Structural Wood Member Adhesive: 140 g/L.
  4. Architectural Sealants: 250 g/L.

## 2.5 FABRICATION

- A. Fabricate countertops to dimensions, profiles, and details indicated. Provide front and end overhang of 1 inch (25 mm) over base cabinets. Ease edges to radius indicated for the following:
  1. Solid-Wood (Lumber) Members: 1/16 inch (1.5 mm) unless otherwise indicated.

- B. Complete fabrication, including assembly, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- C. Shop cut openings to maximum extent possible to receive appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
  - 1. Seal edges of openings in countertops with a coat of varnish.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Before installation, condition countertops to average prevailing humidity conditions in installation areas.

#### 3.2 INSTALLATION

- A. Grade: Install countertops to comply with same grade as item to be installed.
- B. Assemble countertops and complete fabrication at Project site to the extent that it was not completed in the shop.
  - 1. Provide cutouts for appliances, plumbing fixtures, electrical work, and similar items.
  - 2. Seal edges of cutouts by saturating with varnish.
- C. Field Jointing: Prepare edges to be joined in shop so Project-site processing of top and edge surfaces is not required.
  - 1. Secure field joints in plastic-laminate countertops with concealed clamping devices located within 6 inches (150 mm) of front and back edges and at intervals not exceeding 24 inches (600 mm). Tighten according to manufacturer's written instructions to exert a constant, heavy-clamping pressure at joints.
- D. Install countertops level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm).
- E. Scribe and cut countertops to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
- F. Countertops: Anchor securely by screwing through corner blocks of base cabinets or other supports into underside of countertop.
  - 1. Install countertops with no more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line.

2. Secure backsplashes to tops with concealed metal brackets at 16 inches (400 mm) o.c..
3. Seal junctures of tops, splashes, and walls with mildew-resistant silicone sealant or another permanently elastic sealing compound recommended by countertop material manufacturer.

END OF SECTION 123623.13



## SECTION 123661 - SIMULATED STONE COUNTERTOPS

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Cultured marble countertops and backsplashes.

#### 1.2 ACTION SUBMITTALS

A. Product Data: For countertop materials.

B. LEED Submittals:

1. Certificates for [Credit MR 6] [Credit MR 7]: Chain-of-custody certificates indicating that wood products comply with forest certification requirements. Include documentation that manufacturer is certified for chain of custody by an FSC-accredited certification body. Include statement indicating cost for each certified wood product.
2. Product Data for Credit IEQ 4.4: For adhesives and composite wood products, documentation indicating that product contains no urea formaldehyde.
3. Laboratory Test Reports for Credit IEQ 4: For adhesives, sealants, and composite wood and agrifiber products, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

C. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.

D. Samples: For each type of material exposed to view.

### PART 2 - PRODUCTS

#### 2.1 CULTURED MARBLE COUNTERTOPS

A. Configuration: Provide countertops with the following front and backsplash style:

1. Front: Straight, slightly eased at top.
2. Backsplash: Straight, slightly eased at cove and top.
3. Endsplash: Matching backsplash.

B. Fabrication: Fabricate tops in one piece with integral sink bowls and backsplashes.

## 2.2 COUNTERTOP MATERIALS

- A. Certified Wood Materials: Fabricate countertops with wood and wood-based products produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- B. Composite Wood and Agrifiber Products: Provide products that comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers," including 2004 Addenda.
- C. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde].
- D. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.
- E. Adhesives: Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- F. Cultured Marble: Gel-coated solid fabrication of filled plastic resin complying with ANSI Z124.3, Type 4, with precoated finish, and not less than 1/2 inch (12.7 mm) thick.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Bathroom World Manufacturing Company.
    - b. Cameo Marble.
    - c. Cherry Marble Group.
    - d. Comar Products, Inc.
    - e. Craig Baker Marble Co., Inc.
    - f. Cultured Marble Products.
    - g. Custom Marble Products.
    - h. Custom Marble Products, Inc.
    - i. Imperial Marble Corp.
    - j. Marbleon, Inc.
    - k. MarCraft, Inc.
    - l. Princess Marble.
    - m. Roma Marble, Inc.
    - n. Rynone Manufacturing Corp.
    - o. Tiffany Marble.
  - 2. Colors and Patterns: As selected by Architect from manufacturer's full range.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Fasten countertops by screwing through corner blocks of base units into underside of countertop. Align adjacent surfaces and, using adhesive in color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

END OF SECTION 123661



## SECTION 126600 - TELESOPING STANDS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Wall-attached telescoping stands.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design telescoping stands, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
1. Manufacturer shall employ a registered, licensed Professional Engineer to certify that the equipment provided meets or exceeds the design criteria of this specification.
- B. Structural Performance: Telescoping stands shall withstand the effects of gravity loads and loads and stresses within limits and under conditions indicated according to NFPA 102.
1. Telescoping seating shall be designed to support, in addition to its own weight included accessories, a uniformly distributed live load of not less than one hundred (100) pounds per square foot of gross vertical projection. (ASCE/SEI Table 4-1, Reviewing Stands, Grandstands, and Bleachers)
    - a. Seat boards and footrests shall be designed for a live load of not less than 120 pounds per linear foot.
    - b. A sway force applied to seats shall be twenty four (24) pounds per linear foot parallel to the seats and ten (10) pounds per linear foot perpendicular to the seats. Sway forces shall not be considered simultaneously applied.
  2. Railings, posts, and sockets designed and constructed to withstand the following forces separately:
    - a. Handrails:
      - 1) A concentrated load of two hundred (200) pounds applied at any point and in any direction.
      - 2) A uniform load of fifty (50) pounds applied in any direction. The concentrated and uniform loading conditions shall not be required to be applied simultaneously.
    - b. Guards:
      - 1) A concentrated load of two hundred (200) pounds applied at any point and in any direction along the top railing member.
      - 2) A uniform load of fifty (50) pounds applied horizontally at the required guardrail height and simultaneously uniform load of one hundred (100) pounds per foot applied vertically downward at the top of the rail. The concentrated and uniform loading conditions shall not be required to be applied simultaneously.

3. American Institute of Steel Construction (AISC), American Iron and Steel Institute (AISI), and Aluminum Association (AA) design criteria shall be the basis for calculation of member sizes and connections.
  4. Wood members shall be designed in accordance with the National Forest Products Association (NFOPA) and the National Design Specification for Wood Construction.
- C. Comply with applicable codes as well as the Drawings and this section. Applicable codes include NFPA 5000, NFPA 102 “Standard for Assembly Seating, Tents and Membrane Structures,” and specifically with Chapter 5 “Folding and Telescopic Seating” and other requirements as may be required by the authority having jurisdiction (AHJ).

### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated, including literature, calculations, and specifications.
- B. Shop Drawings: For telescoping stands in both stacked and extended positions. Include plans, elevations, sections, details, and attachments to other work. Also show complete dimensioned design layout and details, mounting and attachment locations and details, details of accessories, necessary electrical service to be provided by others, and so forth.
- C. Samples: For each exposed product and for each color and texture specified, 6-inch- (150-mm-) square in size.
- D. Delegated-Design Submittal: For telescoping stands indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Certificate of Manufacturer’s Product Liability Insurance.
- F. Analysis data (indicating compliance with performance requirements and design criteria) signed and sealed by the qualified professional engineer responsible for its preparation.
- G. Provide three additional sets of shop drawings, product data, calculations, and other required information as noted in 1.3.D above, along with a properly executed Division of Safety and Risk Management (DSRM) submittal form (see attachment). DSRM approval of telescopic bleacher seating shop drawings is required prior to the contractor’s final order for production/installation. These sets shall be submitted through the BIA Project Manager. (25 IAM Safety and Health Handbook Topic 26.6.A4).

### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

- B. Warranty.
- C. Training documentation.

#### 1.6 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel," and AWS D1.3, "Structural Welding Code - Sheet Steel."
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Standard: Provide telescoping stands to comply with NFPA 102.
- D. Standard: Provide telescoping stands to comply with NFPA 5000, and ASCE/SEI 7, "Minimum Design Loads for Buildings and Other Structures" (NFPA 5000, 35.6.2).
- E. Product improvements: equipment shall incorporate manufacturer's design improvements and materials current at the time of shipment, provided such improvements and materials are consistent with the intent of this specification.
- F. Regulatory Requirements: Comply with applicable provisions of the Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines (ADA/ABAAG), Jul 23, 2004. Accessible wheelchair spaces shall comply with ADA/ABAAG Article 221, and other accessibility provisions as may occur regarding required accessible wheelchair spaces. Accessible wheelchair spaces shall have at least one fixed companion seat (directly adjacent thereto) for each wheelchair space. Ends of telescoping bleachers sections (when extended) shall comply with ADA/ABAAG Article 307, and other accessibility provisions as may occur regarding barriers for the visually impaired.
- G. Manufacturer shall carry product liability insurance coverage of not less than five million dollars (\$5,000,000).
- H. Preinstallation Conference: Conduct conference at Project site.
- I. Project Conditions: verify actual dimensions of openings and construction contiguous with telescoping bleacher seating by field measurements prior to fabrication. Verify location of walls, stairs, columns, existing electrical boxes, gym floor layout and minimum setback requirements and other construction that will interface with the operating of the telescoping seating.
- J. WARRANTY. The manufacture shall warrant all work provided under these specifications to be free of defects for a period of one (1) year. Any materials found to be defective within this period shall be replaced at no cost to the Owner. This warranty shall not include replacements required by acts of God, war, vandalism, flood, fire, calamity or deliberate abuse or misuse of equipment.

## PART 2 - PRODUCTS

### 2.1 TELESCOPING STANDS

- A. Wall-Attached Telescoping Stands: Forward-folding system, in which the bleachers open in the forward direction by initially moving the front row away from the stack to the fully extended position, and the rear of bleacher understructure is permanently attached to wall construction.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Irwin Model 4500 or comparable product by one of the following:
    - a. Hussey Seating Company.
    - b. Substitutions with prior approval.
  2. Configuration:
    - a. Row spacing: twenty two (22) inches.
    - b. Rise per row: ten (10) inches.
  3. Operation: manual.
- B. Telescoping Bleachers shall include the following (see drawings for design layout including bleacher length, aisle locations and widths, wheelchair recess locations, number of rows and opening depths, closed depth, etc).
1. Handrails shall extend to the alignment of the upper and lower steps (risers). At transitions to gym floor level, limit extending the handrail excessively beyond the front step's outer edge to prevent cross-traffic/game interference. (NFPA 5000, 11.2.2.4.2)
  2. The Smart Rail system shall be provided at all aisles and shall be self-storing. The non-removable folding aisle handrails shall be permanently attached to the mounting pocket and allow railings to pivot and fold within the deck without the need for removal. Aisle railing shall be an individual rail design, located on every other row starting at row two (2). Railing shall be constructed of one and one-half (1-1/2) inch X 11 gauge round steel tubing, finished in a textured powder coated epoxy. Aisle rails that require removal, rails made of square tubing or rail systems spanning several rows will not be acceptable. For safety, rail or rail products that protrude beyond the face of the bleacher while in the closed position or railings with blunt, non-turned ends will not be allowed. Aisle rails shall comply with accessibility requirements (per ADA/ABAAG) as well as other applicable building codes.
  3. Provide wheelchair recesses (see drawings for design layout), including self-storing guardrails at bleacher section behind all wheelchair recess locations. Permanent notches shall have Panelam closure panel to eliminate any open areas under the system and to support the next bleacher row. Guardrails shall comply with accessibility requirements (per ADA/ABAAG) as well as other applicable building codes. If the top of seats directly behind the open wheelchair spaces exceed 24-inches above finish floor, removable guardrails extending not less than 33-inches above top of seats, to be placed across the back of the open wheelchair spaces. (NFPA 5000, 16.4.10.3.3).
  4. Scorer's table shall be 8'-0" long X 1'-3" wide of wood grain high pressure laminate, and shall be relocatable to any row of any section with the use of mounting sockets.
  5. Self-storing end guardrails shall be provided at all exposed bleacher ends of each group, finished with textured epoxy powder-coated black enamel. Railings shall comply with all



applicable building codes. Railings with flexible uprights that can be expanded beyond the 4" sphere are not acceptable.

6. Aisles shall be foot-rest level with non-slip treads. Also provide permanently attached self-storing intermediate aisle steps with a closed design. Steps shall be designed to eliminate any possible toe catch between the top of the intermediate step and the bottom of the nose beam for compliance with accessibility requirements (per ADA/ABAAG) as well as other applicable building codes. Front step shall be hinged for storage on first row deck without the need for removal.
7. Provide end panels of plywood and supports to enclose the open ends of each group in the closed position. End panels shall enclose the space between the wall and the back of the self-storing end rails. Finish shall match deck panels.
8. Provide seat level rear filler panels as needed to close openings between top seat and wall. Closure panel shall match panel on deck surface.

C. FABRICATION.

1. Understructure System:
  - a. Steel supports and rolling frames shall be constructed of formed steel shapes of the size and shape necessary to support the design loads. All support bracing shall begin at Row 2 and be of diagonal or "knee" type for rigidity. Diagonal bracing shall be "U" shaped formed steel channel. Angle iron or "X" type bracing is unacceptable.
  - b. Wheels shall not be less than four (4) inch diameter X one (1) inch non-marring soft rubber face to protect the wood gym floor surfaces. Each operating row shall have a minimum of 8 wheels.
  - c. Each fully skirted wheel channel shall be continuously in contact with adjacent channels by nylon guides, to eliminate metal to metal contact, and non-binding Quadra-Link guide rods to provide alignment when opening and closing. Lubrication shall not be required either at the time of installation or periodically.
  - d. Each cantilever arm shall be triple formed 10 gauge steel, securely welded to the post assembly and contain non-binding Quadra-link interlocks with each row post assembly. Lubrication shall not be required either at the time of installation or periodically.
  - e. Vertical columns shall be high tensile steel structural tube to meet design criteria. Minimum column size to be one and one-half (1-1/2) inches X three (3) inch X 11 gauge structural tube.
  - f. Deck supports shall be bolted to both the rear beam and the nose with locking hardware.
2. Seat Systems shall be Plastic Seat Modules eighteen (18) inches long, one-piece, with scuff resistant textured surface ten (10) inches deep and contoured seat surface with vertical front. Modules shall be blow-molded, double-walled, high density, impact resistant, UV stabilized, linear polyethylene. Each module shall allow a full twenty six and one quarter (26-1/4) inch unobstructed area for foot room comfort and cleaning. Modules with external ribs or multiple piece modules are not acceptable.
3. Deck System:
  - a. Decking shall be Panelam decking, thirty thousandths (0.030) high density polyethylene overlay, permanently bonded to structural western fir plywood in strict compliance with U.S. Product Standard PS 195. Deck thickness shall be five-eighths (5/8) inch with polyethylene textured finish. Plywood shall be supported along the front and back edge for maximum rigidity. An "H" type aluminum splice beam shall be provided between all decks. Plywood with clear or painted finish is

unacceptable. Decking shall be through bolted to steel supports with locking hardware. Decking only attached by the use of self tapping fasteners or retained by friction is unacceptable.

- b. Nosing with panelam decks shall be one-piece, formed, fourteen (14) gauge steel with a minimum G-60 pre-galvanized finish.
- c. Rear risers shall be a minimum fourteen (14) gauge formed steel with a minimum G-60 pre-galvanized finish.
- d. Formed steel deck support members shall be a minimum of ten (10) gauge formed steel and connect the front nosing and rear riser members. These shall provide support for the decking, throughout its length, and at intermediate locations to limit deflection. Deck supports shall have maximum spacing of sixty (60) inches.
- e. Finish for rust resistance, all painted surfaces shall be epoxy powder coated semi-gloss black.

### PART 3 - EXECUTION

#### 3.1 REVIEWS AND APPROVALS.

- A. Shop drawings shall be approved by all entities (Architect and DSRM) and job site field measurements taken prior to installation, and telescopic seating shall be installed in conformance therewith. See Paragraph 1.3.G.

#### 3.2 PREPARATION.

- A. Verify adequate floor levelness and strength for operation; adequate wall strength for attachment and operation; and electrical wiring within the building as required for power operated telescopic bleacher seating. Immediately notify the Contracting Officer of any inadequacies; do not install telescoping bleacher seating where work by others has been verified as inadequate

#### 3.3 INSTALLATION

- A. Install telescoping stands to comply with referenced safety standard and manufacturer's written instructions.
- B. On completion of installation, lubricate, test, and adjust each telescoping stand unit so that it operates according to manufacturer's written operating instructions.
- C. Clean installed telescoping stands on exposed and semiexposed surfaces. Touch up shop-applied finishes or replace components as required to restore damaged or soiled areas.
- D. Installation of all components shall be completed by the telescopic seating manufacturer or by an installer certified by the manufacturer.

### 3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain telescoping stands.
- B. The manufacturer's representative shall transmit instructions in both the operation and maintenance to the Owner. The manufacturer's representative shall also provide and document training to the school's Facility Management staff on the proper operation and maintenance.
- C. After the date of substantial completion and a Certificate of Occupancy is obtained, the maintenance and operation of the telescopic gym seating shall be the responsibility of the Owner or the Owner's duly authorized representative, which shall include the following:
  - 1. During operation of the telescopic gym seating, the opening and closing shall be supervised by responsible personnel who will ensure that the operation is in accordance with manufacturer's instructions.
  - 2. Only attachments specifically approved by the manufacturer for the specific installation shall be attached to the telescopic gym seating.
  - 3. An annual inspection and required maintenance of all telescopic gym seating shall be performed to assure safe conditions. At least bi-annually the inspection shall be performed by a Professional Engineer, Safety Officer, or factory service personnel.

END OF SECTION 126600



## SECTION 133419 - METAL BUILDING SYSTEMS

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Structural-steel framing.
2. Metal roof panels.
3. Metal wall panels.
4. Metal soffit panels.
5. Thermal insulation.
6. Doors and frames.
7. Windows.
8. Accessories.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of metal building system component.
- B. Shop Drawings: For metal building system components. Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each type of exposed finish required.
- D. Delegated-Design Submittal: For metal building systems indicated to comply with performance requirements and design criteria, including analysis data and calculations signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Manufacturer Accreditation: Statement that metal building system and components were designed and produced by a manufacturer accredited according to the International Accreditation Service's AC472.
- C. Metal Building System Certificates: For each type of metal building system, from manufacturer.
  1. Letter of Design Certification: Signed and sealed by a qualified professional engineer. Include the following:
    - a. Name and location of Project.
    - b. Order number.
    - c. Name of manufacturer.

- d. Name of Contractor.
- e. Building dimensions including width, length, height, and roof slope.
- f. Indicate compliance with AISC standards for hot-rolled steel and AISI standards for cold-rolled steel, including edition dates of each standard.
- g. Governing building code and year of edition.
- h. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure, seismic design category or effective peak velocity-related acceleration/peak acceleration, and auxiliary loads (cranes).
- i. Load Combinations: Indicate that loads were applied acting simultaneously with concentrated loads, according to governing building code.
- j. Building-Use Category: Indicate category of building use and its effect on load importance factors.

- D. Material test reports.
- E. Source quality-control reports.
- F. Field quality-control reports.
- G. Warranties: Sample of special warranties.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Maintenance data.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer and member of MBMA.
  - 1. Accreditation: According to the International Accreditation Service's AC472.
  - 2. Engineering Responsibility: Preparation of comprehensive engineering analysis and Shop Drawings by a professional engineer who is legally qualified to practice in jurisdiction where Project is located.
- B. Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
  - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
  - 2. AWS D1.3, "Structural Welding Code - Sheet Steel."
- D. Structural Steel: Comply with AISC 360, "Specification for Structural Steel Buildings," for design requirements and allowable stresses.
- E. Cold-Formed Steel: Comply with AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members" for design requirements and allowable stresses.

- F. Preinstallation Conference: Conduct conference at Project site.

## 1.6 WARRANTY

- A. Special Warranty on Metal Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
1. Finish Warranty Period: 20 years from date of Substantial Completion.
- B. Special Weathertightness Warranty for Standing-Seam Metal Roof Panels: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that leak or otherwise fail to remain weathertight within specified warranty period.
1. Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. A&S Building Systems, Inc.; Division of NCI Building Systems, L.P.
  2. Alliance Steel, Inc.
  3. American Buildings Company; Division of Magnatrax Corp.
  4. American Steel Building Co., Inc.
  5. BC Steel Buildings, Inc.
  6. Behlen Mfg. Co.
  7. Bigbee Steel Buildings, Inc.
  8. Butler Manufacturing Company; a BlueScope Steel company.
  9. CBC Steel Buildings; Division of Magnatrax Corp.
  10. Ceco Building Systems; Division of NCI Building Systems, L.P.
  11. Chief Buildings; Division of Chief Industries, Inc.
  12. Elite Structures, Inc.
  13. Garco Building Systems; Division of NCI Building Systems, L.P.
  14. Gulf States Manufacturers, Inc.; Division of Magnatrax Corp.
  15. Inland Buildings; Subsidiary of Behlen Mfg. Co.
  16. Kirby Building Systems; Division of Magnatrax Corp.
  17. Mesco Building Solutions; Division of NCI Building Systems, L.P.
  18. Metallic Building Company; Division of NCI Building Systems, L.P.
  19. Metco Metal Supply.
  20. Mid-West Steel Building Company; Division of NCI Building Systems, L.P.
  21. Nucor Building Systems.
  22. Oakland Metal Buildings, Inc.
  23. Olympia Steel Building Systems.
  24. Package Industries, Inc.

25. Pinnacle Structures, Inc.
26. Robertson Building Systems; an NCI company.
27. Ruffin Building Systems, Inc.
28. Schulte Building Systems, LLP.
29. Spirco Manufacturing.
30. Star Building Systems; an NCI company.
31. Tyler Building Systems, L.P.
32. USA, Inc.
33. VP Buildings; a United Dominion company.
34. Vulcan Steel Structures, Inc.
35. Whirlwind Building Systems.

## 2.2 METAL BUILDING SYSTEM PERFORMANCE

- A. Delegated Design: Design metal building system, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance: Metal building systems shall be designed according to procedures in MBMA's "Metal Building Systems Manual."
  1. Design Loads: As indicated on Drawings.
  2. Deflection Limits: Design metal building system assemblies to withstand design loads with deflections no greater than the following:
    - a. Purlins and Rafters: Vertical deflection of 1/240 of the span.
    - b. Girts: Horizontal deflection of 1/240 of the span.
    - c. Metal Roof Panels: Vertical deflection of 1/180 of the span.
    - d. Metal Wall Panels: Horizontal deflection of 1/180 of the span.
    - e. Design secondary-framing system to accommodate deflection of primary framing and construction tolerances, and to maintain clearances at openings.
  3. Drift Limits: Engineer building structure to withstand design loads with drift limits no greater than the following:
    - a. Lateral Drift: Maximum of 1/400 of the building height.
  4. Metal panel assemblies shall withstand the effects of gravity loads and loads and stresses within limits and under conditions indicated according to ASTM E 1592.
- C. Seismic Performance: Metal building systems shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- D. Thermal Movements: Allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.



1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- E. Air Infiltration for Metal Roof Panels: Air leakage through assembly of not more than 0.06 cfm/sq. ft. (0.3 L/s per sq. m) of roof area when tested according to ASTM E 1680 at negative test-pressure difference of 1.57 lbf/sq. ft. (75 Pa).
- F. Air Infiltration for Metal Wall Panels: Air leakage through assembly of not more than 0.06 cfm/sq. ft. (0.3 L/s per sq. m) of wall area when tested according to ASTM E 283 at static-air-pressure difference of 1.57 lbf/sq. ft. (75 Pa).
- G. Water Penetration for Metal Roof Panels: No water penetration when tested according to ASTM E 1646 at test-pressure difference of 2.86 lbf/sq. ft. (137 Pa).
- H. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E 331 at a wind-load design pressure of not less than 2.86 lbf/sq. ft. (137 Pa).
- I. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for Class 90.
- J. Solar Reflectance Index: Not less than 78 when calculated according to ASTM E 1980 based on testing identical products by a qualified testing agency.

## 2.3 STRUCTURAL-STEEL FRAMING

- A. Primary Framing: Manufacturer's standard primary-framing system, designed to withstand required loads and specified requirements. Primary framing includes transverse and lean-to frames; rafter, rake, and canopy beams; sidewall, intermediate, end-wall, and corner columns; and wind bracing.
  1. General: Provide frames with attachment plates, bearing plates, and splice members. Factory drill for field-bolted assembly.
  2. Frame Configuration: Single gable.
  3. Exterior Column Type: Tapered.
  4. Rafter Type: Tapered.
- B. End-Wall Framing: Manufacturer's standard primary end-wall framing fabricated for field-bolted assembly.
- C. Secondary Framing: Manufacturer's standard secondary framing, including purlins, girts, eave struts, flange bracing, base members, gable angles, clips, headers, jambs, and other miscellaneous structural members. Unless otherwise indicated, fabricate framing from either cold-formed, structural-steel sheet or roll-formed, metallic-coated steel sheet, prepainted with coil coating.
- D. Bolts: Provide plain-finish bolts for structural-framing components that are primed or finish painted. Provide zinc-plated or hot-dip galvanized bolts for structural-framing components that are galvanized.

- E. Finish: Factory primed. Apply specified primer immediately after cleaning and pretreating.

## 2.4 METAL ROOF PANELS

- A. Vertical-Rib, Standing-Seam Metal Roof Panels: Formed with ribs at panel edges and intermediate stiffening ribs symmetrically spaced between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels and engaging opposite edge of adjacent panels.
  - 1. Material: Zinc-coated (galvanized) steel sheet, 0.022-inch (0.56-mm) nominal thickness.
    - a. Exterior Finish: Two-coat fluoropolymer.
    - b. Color: As selected by Architect from manufacturer's full range.
  - 2. Clips: Manufacturer's standard, floating type to accommodate thermal movement; fabricated from zinc-coated (galvanized) steel sheet.
  - 3. Joint Type: Panels snapped together.
  - 4. Joint Type: Mechanically seamed, folded according to manufacturer's standard.
  - 5. Panel Coverage: 16 inches (406 mm).
  - 6. Panel Height: 2 inches (51 mm).
  - 7. Uplift Rating: UL 90.

## 2.5 METAL WALL PANELS

- A. Tapered-Rib-Profile, Exposed-Fastener Metal Wall Pane: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
  - 1. Material: Zinc-coated (galvanized steel sheet, 0.022-inch (0.56-mm) nominal thickness.
    - a. Exterior Finish: Two-coat fluoropolymer.
    - b. Color: As selected by Architect from manufacturer's full range.
  - 2. Major-Rib Spacing: 12 inches (305 mm) o.c.
  - 3. Panel Coverage: 36 inches (914 mm).
  - 4. Panel Height: 1.125 inches (29 mm).

## 2.6 METAL SOFFIT PANELS

- A. General: Provide factory-formed metal soffit panels designed to be installed by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners and factory-applied sealant in side laps. Include accessories required for weathertight installation.
- B. Metal Soffit Panels: Match profile and material of metal roof panels.

1. Finish: Match finish and color of metal roof panels.

## 2.7 THERMAL INSULATION

- A. Faced Metal Building Insulation: ASTM C 991, Type II, glass-fiber-blanket insulation; 0.5-lb/cu. ft. (8-kg/cu. m) density; 2-inch- (51-mm-) wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.
- B. Unfaced Metal Building Insulation: ASTM C 991, Type I, or NAIMA 202, glass-fiber-blanket insulation; 0.5-lb/cu. ft. (8-kg/cu. m) density; 2-inch- (51-mm-) wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.
  1. Vapor-Retarder Facing: ASTM C 1136, with permeance not greater than 0.02 perm (1.15 ng/Pa x s x sq. m) when tested according to ASTM E 96/E 96M, Desiccant Method.

## 2.8 DOORS AND FRAMES

- A. Swinging Personnel Doors and Frames: Metal building system manufacturer's standard doors and frames; prepared and reinforced at strike and at hinges to receive factory- and field-applied hardware according to BHMA A156 Series.
  1. Hardware:
    - a. Provide hardware for each door leaf, as follows:
      - 1) Hinges: BHMA A156.1. Three plain-bearing, standard-weight, full-mortise, stainless-steel or bronze, template-type hinges; 4-1/2 by 4-1/2 inches (114 by 114 mm), with nonremovable pin.
      - 2) Lockset: BHMA A156.2. Mortise, with lever handle type.
      - 3) Exit Device: BHMA A156.3. Touch- or push-bar type.
      - 4) Threshold: BHMA A156.21. Extruded aluminum.
      - 5) Silencers: Pneumatic rubber; three silencers on strike jambs of single door frames and two silencers on heads of double door frames.
      - 6) Closer: BHMA A156.4. Surface-applied, standard-duty hydraulic type.
      - 7) Weather Stripping: Vinyl applied to head and jambs, with vinyl sweep at sill.
- B. Finishes for Personnel Doors and Frames:
  1. Factory-Applied Paint Finish: Manufacturer's standard, complying with SDI A250.3 for performance and acceptance criteria.
    - a. Color and Gloss: As selected by Architect from manufacturer's full range.

## 2.9 WINDOWS

- A. Aluminum Windows: Metal building system manufacturer's standard, with self-flashing mounting fins, and as follows:

1. Type, Performance Class, and Performance Grade: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 and as follows:
    - a. Fixed Units: F-C30.
  2. Sliding-Type Weather Stripping: Woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric; complying with AAMA 702/112.
  3. Insect Screens: Provide removable insect screen on each operable exterior sash, with screen frame finished to match window unit.
- B. Glazing: Comply with requirements specified in Section 088000 "Glazing."
- C. Finish:
1. Baked-Enamel Finish: Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603 except with a minimum dry film thickness of 0.7 mil (0.02 mm), medium gloss.
    - a. Color: As selected by Architect from manufacturer's full range.

## 2.10 ACCESSORIES

- A. General: Provide accessories as standard with metal building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.
1. Form exposed sheet metal accessories that are without excessive oil-canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
- B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fasciae, corner units, ridge closures, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.
- C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fasciae, mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.
- D. Flashing and Trim: Formed from 0.022-inch (0.56-mm) nominal-thickness, metallic-coated steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating; finished to match adjacent metal panels.
- E. Gutters: Formed from 0.022-inch (0.56-mm) nominal-thickness, metallic-coated steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating; finished to match roof fascia and rake trim. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- (2438-mm-) long sections, sized according to SMACNA's "Architectural Sheet Metal Manual."

1. Gutter Supports: Fabricated from same material and finish as gutters.
  2. Strainers: Bronze, copper, or aluminum wire ball type at outlets.
- F. Downspouts: Formed from 0.022-inch (0.56-mm) nominal-thickness, zinc-coated (galvanized) steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating; finished to match metal wall panels. Fabricate in minimum 10-foot- (3-m-) long sections, complete with formed elbows and offsets.
1. Mounting Straps: Fabricated from same material and finish as gutters.
- G. Roof Curbs: Fabricated from minimum 0.052-inch (1.32-mm) nominal-thickness, metallic-coated steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating; finished to match metal roof panels; capable of withstanding loads of size and height indicated.
- H. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

## 2.11 SOURCE QUALITY CONTROL

- A. Special Inspector: Owner will engage a qualified special inspector to perform the following tests and inspections and to submit reports. Special inspector will verify that manufacturer maintains detailed fabrication and quality-control procedures and will review the completeness and adequacy of those procedures to perform the Work.
1. Special inspections will not be required if fabrication is performed by manufacturer registered and approved by authorities having jurisdiction to perform such Work without special inspection.
    - a. After fabrication, submit copy of certificate of compliance to authorities having jurisdiction, certifying that Work was performed according to Contract requirements.
- B. Testing: Test and inspect shop connections for metal buildings according to the following:
1. Bolted Connections: Shop-bolted connections shall be tested and inspected according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
  2. Welded Connections: In addition to visual inspection, shop-welded connections shall be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at inspector's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
- C. Product will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

## 2.12 FABRICATION

- A. General: Design components and field connections required for erection to permit easy assembly.
  - 1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.
  - 2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members shall be free of cracks, tears, and ruptures.
- B. Tolerances: Comply with MBMA's "Metal Building Systems Manual" for fabrication and erection tolerances.
- C. Primary Framing: Shop fabricate framing components to size and section, with baseplates, bearing plates, stiffeners, and other items required for erection welded into place. Cut, form, punch, drill, and weld framing for bolted field assembly.
- D. Secondary Framing: Shop fabricate framing components to size and section by roll-forming or break-forming, with baseplates, bearing plates, stiffeners, and other plates required for erection welded into place. Cut, form, punch, drill, and weld secondary framing for bolted field connections to primary framing.
- E. Metal Panels: Fabricate and finish metal panels at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.

## PART 3 - EXECUTION

### 3.1 ERECTION OF STRUCTURAL FRAMING

- A. Erect metal building system according to manufacturer's written erection instructions and erection drawings.
- B. Do not field cut, drill, or alter structural members without written approval from metal building system manufacturer's professional engineer.
- C. Set structural framing accurately in locations and to elevations indicated, according to AISC specifications referenced in this Section. Maintain structural stability of frame during erection.
- D. Base and Bearing Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  - 1. Set plates for structural members on wedges, shims, or setting nuts as required.
  - 2. Tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.

3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.
- E. Align and adjust structural framing before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with framing. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
  1. Level and plumb individual members of structure.
  2. Make allowances for difference between temperature at time of erection and mean temperature when structure will be completed and in service.
- F. Primary Framing and End Walls: Erect framing level, plumb, rigid, secure, and true to line. Level baseplates to a true even plane with full bearing to supporting structures, set with double-nutted anchor bolts. Use grout to obtain uniform bearing and to maintain a level base-line elevation. Moist-cure grout for not less than seven days after placement.
  1. Make field connections using high-strength bolts installed according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for bolt type and joint type specified.
    - a. Joint Type: Snug tightened or pretensioned.
- G. Secondary Framing: Erect framing level, plumb, rigid, secure, and true to line. Field bolt secondary framing to clips attached to primary framing.
  1. Provide rake or gable purlins with tight-fitting closure channels and fasciae.
  2. Locate and space wall girts to suit openings such as doors and windows.
  3. Locate canopy framing as indicated.
  4. Provide supplemental framing at entire perimeter of openings, including doors, windows, louvers, ventilators, and other penetrations of roof and walls.
- H. Steel Joists: Install joists and accessories plumb, square, and true to line; securely fasten to supporting construction according to SJI's "Standard Specifications and Load Tables for Steel Joists and Joist Girders," joist manufacturer's written instructions, and requirements in this Section.
  1. Before installation, splice joists delivered to Project site in more than one piece.
  2. Space, adjust, and align joists accurately in location before permanently fastening.
  3. Install temporary bracing and erection bridging, connections, and anchors to ensure that joists are stabilized during construction.
  4. Bolt joists to supporting steel framework using carbon-steel bolts unless high-strength structural bolts are required by the manufacturer.
  5. Comply with RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" for high-strength structural bolt installation and tightening requirements.
  6. Install and connect bridging concurrently with joist erection, before construction loads are applied. Anchor ends of bridging lines at top and bottom chords if terminating at walls or beams.
- I. Bracing: Install bracing in roof and sidewalls where indicated on erection drawings.

1. Tighten rod and cable bracing to avoid sag.
  2. Locate interior end-bay bracing only where indicated.
- J. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.
- K. Erection Tolerances: Maintain erection tolerances of structural framing within AISC 303.

### 3.2 METAL PANEL INSTALLATION, GENERAL

- A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.
    - a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
  2. Install metal panels perpendicular to structural supports unless otherwise indicated.
  3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
  4. Locate and space fastenings in uniform vertical and horizontal alignment.
  5. Locate metal panel splices over, but not attached to, structural supports with end laps in alignment.
  6. Lap metal flashing over metal panels to allow moisture to run over and off the material.
- B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.
- C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.
- D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants recommended by metal panel manufacturer.
1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.



2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

### 3.3 METAL ROOF PANEL INSTALLATION

- A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
  1. Install ridge caps as metal roof panel work proceeds.
  2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.
- B. Standing-Seam Metal Roof Panels: Fasten metal roof panels to supports with concealed clips at each standing-seam joint, at location and spacing and with fasteners recommended by manufacturer.
  1. Install clips to supports with self-drilling or self-tapping fasteners.
  2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
  3. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
  4. Seamed Joint: Crimp standing seams with manufacturer-approved motorized seamer tool so that clip, metal roof panel, and factory-applied sealant are completely engaged.
  5. Rigidly fasten eave end of metal roof panels and allow ridge end free movement due to thermal expansion and contraction. Predrill panels for fasteners.
  6. Provide metal closures at peaks, rake edges, rake walls and each side of ridge caps.
- C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

### 3.4 METAL WALL PANEL INSTALLATION

- A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.
  1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
  2. Shim or otherwise plumb substrates receiving metal wall panels.
  3. When two rows of metal panels are required, lap panels 4 inches (102 mm) minimum.
  4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
  5. Rigidly fasten base end of metal wall panels and allow eave end free movement due to thermal expansion and contraction. Predrill panels.
  6. Flash and seal metal wall panels with weather closures at eaves, rakes, and at perimeter of all openings. Fasten with self-tapping screws.

7. Install screw fasteners in predrilled holes.
  8. Install flashing and trim as metal wall panel work proceeds.
  9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated; or, if not indicated, as necessary for waterproofing.
  10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
  11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.
- B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

### 3.5 METAL SOFFIT PANEL INSTALLATION

- A. Provide metal soffit panels the full width of soffits. Install panels perpendicular to support framing.
- B. Flash and seal metal soffit panels with weather closures where panels meet walls and at perimeter of all openings.

### 3.6 THERMAL INSULATION INSTALLATION

- A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.
1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
  2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
  3. Install factory-laminated, vapor-retarder-faced blankets straight and true in one-piece lengths, with both sets of facing tabs sealed, to provide a complete vapor retarder.
- B. Blanket Roof Insulation: Comply with the following installation method:
1. Over-Framing Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal roof panels fastened to secondary framing.
  2. Between-Purlin Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Hold in place with bands and crossbands below insulation.
  3. Over-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Install layer of filler insulation over first layer to fill space formed by metal roof panel standoffs. Hold in place by panels fastened to standoffs.
    - a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.

4. Two-Layers-between-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder between purlins. Carry vapor-retarder-facing tabs up and over purlin, overlapping adjoining facing of next insulation course and maintaining continuity of retarder. Install layer of filler insulation over first layer to fill space between purlins formed by thermal spacer blocks. Hold in place with bands and crossbands below insulation.
    - a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.
  5. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.
- C. Blanket Wall Insulation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Hold in place by metal wall panels fastened to secondary framing.
1. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.
  2. Sound-Absorption Insulation: Where sound-absorption requirement is indicated for metal liner panels, cover insulation with polyethylene film and provide inserts of wire mesh to form acoustical spacer grid.

### 3.7 DOOR AND FRAME INSTALLATION

- A. General: Install doors and frames plumb, rigid, properly aligned, and securely fastened in place according to manufacturers' written instructions. Coordinate installation with wall flashings and other components. Seal perimeter of each door frame with elastomeric sealant used for metal wall panels.
- B. Personnel Doors and Frames: Install doors and frames according to SDI A250.8.
- C. Field Glazing: Comply with installation requirements in Section 088000 "Glazing."
- D. Door Hardware: Mount units at heights indicated in DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  1. Install surface-mounted items after finishes have been completed on substrates involved.
  2. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
  3. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
  4. Set thresholds for exterior doors in full bed of butyl-rubber sealant complying with requirements specified in Section 079200 "Joint Sealants."

### 3.8 WINDOW INSTALLATION

- A. General: Install windows plumb, rigid, properly aligned, without warp or rack of frames or sash, and securely fasten in place according to manufacturer's written instructions. Coordinate

installation with wall flashings and other components. Seal perimeter of each window frame with elastomeric sealant used for metal wall panels.

1. Separate dissimilar materials from sources of corrosion or electrolytic action at points of contact with other materials by complying with requirements specified in AAMA/WDMA/CSA 101/I.S.2/A440.
- B. Set sill members in bed of sealant or with gaskets, as indicated, for weathertight construction.
- C. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.
- D. Mount screens directly to frames with tapped screw clips.
- E. Field Glazing: Comply with installation requirements in Section 088000 "Glazing."

### 3.9 ACCESSORY INSTALLATION

- A. General: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
  1. Install components required for a complete metal roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
  2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
  3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.
- B. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
  1. Install exposed flashing and trim that is without excessive oil-canning, buckling, and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and to result in waterproof and weather-resistant performance.
  2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).
- C. Gutters: Join sections with riveted-and-soldered or lapped-and-sealed joints. Attach gutters to eave with gutter hangers spaced as required for gutter size, but not more than 36 inches (914

mm) o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

- D. Downspouts: Join sections with 1-1/2-inch (38-mm) telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1524 mm) o.c. in between.
  - 1. Provide elbows at base of downspouts to direct water away from building.
  - 2. Tie downspouts to underground drainage system indicated.
- E. Roof Curbs: Install curbs at locations indicated on Drawings. Install flashing around bases where they meet metal roof panels.
- F. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to panel as recommended by manufacturer.

### 3.10 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform special inspections.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- C. Tests and Inspections:
  - 1. High-Strength, Field-Bolted Connections: Connections shall be tested and inspected during installation according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
  - 2. Welded Connections: In addition to visual inspection, field-welded connections shall be tested and inspected according to AWS D1.1/D1.1M and the following inspection procedures, at inspector's option:
    - a. Liquid Penetrant Inspection: ASTM E 165.
    - b. Magnetic Particle Inspection: ASTM E 709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration will not be accepted.
    - c. Ultrasonic Inspection: ASTM E 164.
    - d. Radiographic Inspection: ASTM E 94.
- D. Product will be considered defective if it does not pass tests and inspections.
- E. Prepare test and inspection reports.

END OF SECTION 133419

