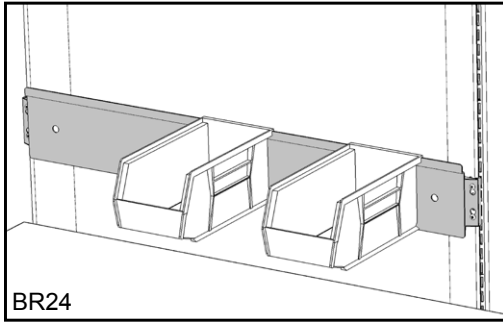


SECTION 12

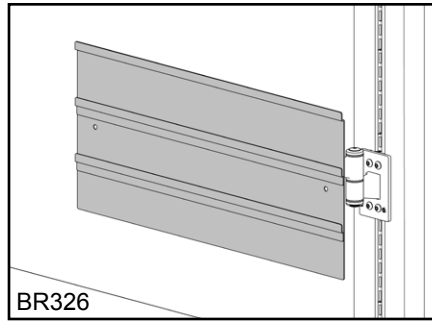
MATERIAL HANDLING

Bin Rails - Frame & Arm Mount	12.2
Dispensing Rails	12.3
Tote Bearers	12.4
Subcontainers & Subdividers	12.5
Mobile Tote Frames	12.6
Mobile Carts	12.7
Mobile Cart Handles & End Covers	12.8
Mobile Cart Bases	12.9
Spool Holders & Spindles	12.10
Holder	12.11
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BIN RAILS - FRAME & ARM MOUNT

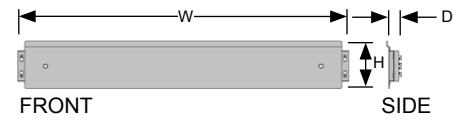


BR24

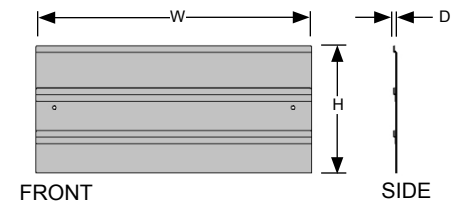


BR326

FRAME MOUNT



PIVOT



DESCRIPTION

Bin Rails, Frame Mount

- Rails provide hanging support for generic parts bins.
- Rails mount to frames and adjust vertically in 1" increments.
- Load capacity 40 lbs. evenly distributed.

Bin Rail, Pivoting Arm Mount

- Rails provide articulating support for up to 3 rows of generic parts bins.
- Rails attach to Flat Screen / Accessory Arms.
- Load capacity 25 lbs. evenly distributed.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Finish Standard or Dissipative

Standard Finishes:

- BK Black
- BT Black Texture*
- GL Grey Light Smooth
- GT Grey Light Texture*
- NW Neutral White
- ST Sand Texture*

Dissipative Finish:

- DG Dissipative Grey Light Smooth

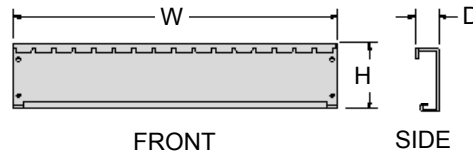
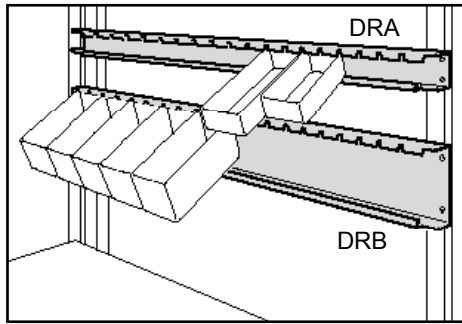
* Paint upcharge applies

NOTES:

- Dissipative Bin Rails each include an ESD Cable Kit Assembly for grounding.
- Consult Symbiote for parts bin availability.
- Flat Screen/Accessory Arms sold separately; see pages 11.6 - 11.8

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
BR24	frame mount	5 ¹ / ₄ [133]	24 [610]	³ / ₄ [19]	5 [2]
BR30	frame mount	5 ¹ / ₄ [133]	30 [762]	³ / ₄ [19]	6 [3]
BR36	frame mount	5 ¹ / ₄ [133]	36 [914]	³ / ₄ [19]	8 [4]
BR48	frame mount	5 ¹ / ₄ [133]	48 [1219]	³ / ₄ [19]	9 [4]
BR60	frame mount	5 ¹ / ₄ [133]	60 [1524]	³ / ₄ [19]	11 [5]
BR72	frame mount	5 ¹ / ₄ [133]	72 [1829]	³ / ₄ [19]	14 [6]
BR326	arm mount	12 [305]	26 [660]	¹ / ₂ [13]	8 [4]



DESCRIPTION

- Dispensing Rails provide hanging support for Symbiote Subcontainers.
- Subcontainers hang at a 20° slope when mounted on Dispensing Rails.
- A-size Subcontainers hang on A-size Dispensing Rails and B size Subcontainers hang on B-size rails.
- Dissipative Dispensing Rails each include an ESD Cable Kit Assembly for grounding.
- Load capacity 50 lbs. evenly distributed.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Finish Standard or Dissipative

Standard Finishes:

- BK Black
- BT Black Texture*
- GL Grey Light Smooth
- GT Grey Light Texture*
- NW Neutral White
- ST Sand Texture*

Dissipative Finish:

- DG Dissipative Grey Light Smooth

* Paint upcharge applies

NOTES:

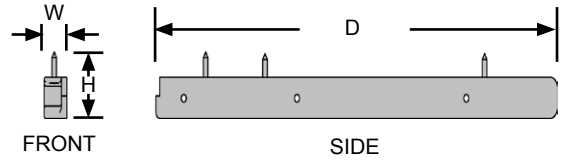
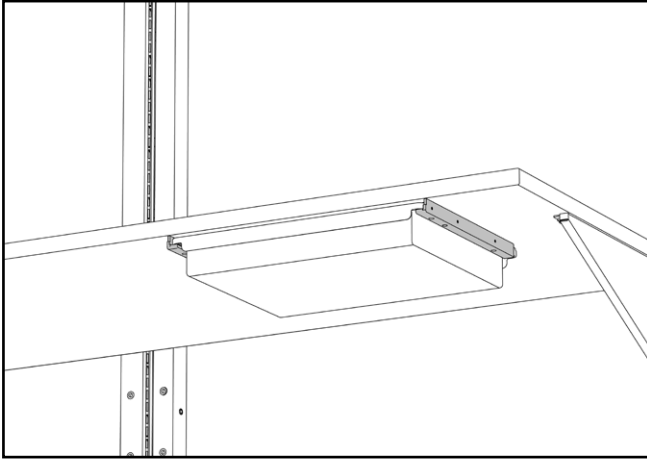
- Subcontainers sold separately; see page 12.6.
- Description below denotes quantity of Subcontainers possible per Dispensing Rail.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
DRA24	A-size, 5 subcontainers	3 1/4 [83]	24 [610]	1 1/4 [32]	5 [2]
DRA30	A-size, 6 subcontainers	3 1/4 [83]	30 [762]	1 1/4 [32]	6 [3]
DRA36	A-size, 7 subcontainers	3 1/4 [83]	36 [914]	1 1/4 [32]	8 [4]
DRA48	A-size, 10 subcontainers	3 1/4 [83]	48 [1219]	1 1/4 [32]	10 [5]
DRA60	A-size, 12 subcontainers	3 1/4 [83]	60 [1524]	1 1/4 [32]	13 [6]
DRB24	B-size, 5 subcontainers	6 [152]	24 [610]	2 1/4 [57]	6 [3]
DRB30	B-size, 6 subcontainers	6 [152]	30 [762]	2 1/4 [57]	8 [4]
DRB36	B-size, 7 subcontainers	6 [152]	36 [914]	2 1/4 [57]	9 [4]
DRB48	B-size, 10 subcontainers	6 [152]	48 [1219]	2 1/4 [57]	12 [14]
DRB60	B-size, 12 subcontainers	6 [152]	60 [1524]	2 1/4 [57]	15 [7]

TOTE BEARERS

MATERIAL HANDLING



DESCRIPTION

Tote Bearers

- Tote Bearers are compatible with Symbiote Totes and Co/Struc™ products.
- Bearers include an integral stop to prevent Totes from extending out of the track.
- Sold as a pair.
- Plastic finish is Dark Tone.

TO ORDER, SPECIFY:

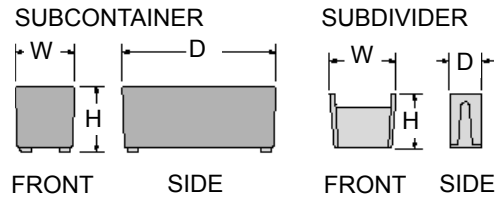
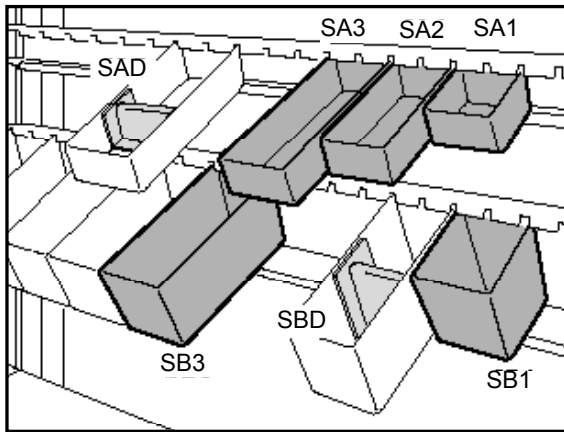
- 1) Product Number

NOTES:

- Tote Drawers are available. Contact Symbiote customer service for pricing and availability.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
TBDT	tote bearer, pair	3/4 [19]	1 [25]	14 1/4 [362]	1 [.5]



DESCRIPTION

Subcontainers

- Subcontainers provide storage and organization of small items.
- Subcontainers hang from Dispensing Rails at a 20° slope or lay flat in Totes and Plan Drawers for organization.
- A-size Subcontainers are used with A-size Dispensing Rails, A-size Totes and Plan Drawers.
- B-size Subcontainers are used with B size Dispensing Rails and B-size Totes.
- Sold individually.
- Plastic finish is Grey.

Subdividers

- Subdividers divide Subcontainers laterally.
- A-size Subdividers are used with A-size Subcontainers and B-size Subdividers are used with B-size Subcontainers.
- Sold in 10 unit packs.
- Plastic finish is Grey.

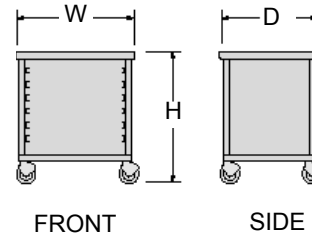
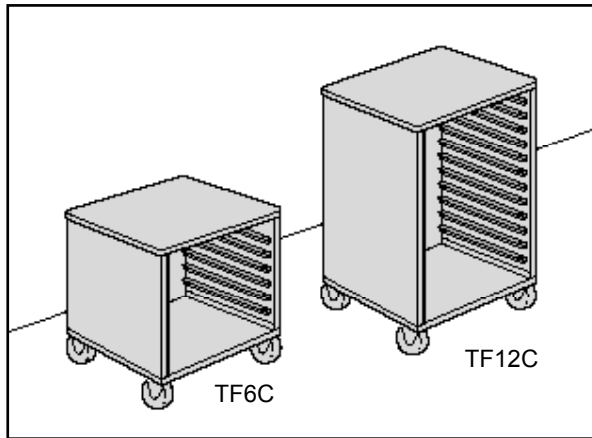
TO ORDER, SPECIFY:

- 1) Product Number

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
SA1GY	subcontainer A	2 ¹ / ₄ [57]	4 ¹ / ₂ [114]	4 ¹ / ₂ [114]	¹ / ₄ [.1]
SA2GY	subcontainer A	2 ¹ / ₄ [57]	4 ¹ / ₂ [114]	9 ¹ / ₄ [235]	¹ / ₄ [.1]
SA3GY	subcontainer A	2 ¹ / ₄ [57]	4 ¹ / ₂ [114]	13 ³ / ₄ [349]	¹ / ₂ [.2]
SB1GY	subcontainer B	5 ¹ / ₄ [133]	4 ¹ / ₂ [114]	4 ¹ / ₂ [114]	¹ / ₂ [.2]
SB3GY	subcontainer B	5 ¹ / ₄ [133]	4 ¹ / ₂ [114]	13 ³ / ₄ [349]	³ / ₄ [.3]
SADGY	subdivider A, 10 pack	1 ³ / ₄ [44]	4 ¹ / ₄ [114]	2 [51]	1 [.5]
SBDGY	subdivider B, 10 pack	4 [102]	4 ¹ / ₄ [114]	2 [51]	1 [.5]

MOBILE TOTE FRAMES



DESCRIPTION

- Tote Frames provide mobile storage for Symbiote Totes.
- Steel units each include a 1" high standard or dissipative laminate top with matching vinyl Edge-band, four 3" twin-wheel braking casters and Tote slots.
- Slots are at 3" intervals. Six-slot Tote Frames provide 18" of useable height while eight slot-frames provide 24", and twelve slot frames provide 36".
- Symbiote dissipative surfaces are manufactured with Nevamar® Static Dissipative Laminates (SDL). Nevamar® SDL is manufactured to have a point to point and point to ground resistance of 1×10^6 to 1×10^9 ohms @ 10-60% relative humidity. Nevamar® Static Dissipative Laminates conform to ESD Association Standard ESD-S4.1.
- Dissipative units each include a Laminate Grounding Terminal Kit and Ground Chain.
- Load capacity 250 lbs. per unit with a maximum capacity of 25 lbs. per individual Tote.

NOTES:

- To order, specify paint finish first and laminate finish second. i.e. TF8CGLGF has Grey Light paint and Grey Fleck laminate. If either paint or laminate is dissipative, use the dissipative price.
- Totes sold separately; see page 12.5.
- Other dissipative laminates available upon request; consult factory for ordering information.
- Customers are responsible for specifying ESD surface requirements; corporate ESD standards must be consulted prior to ordering.

TO ORDER, SPECIFY:

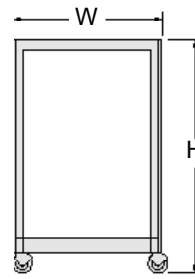
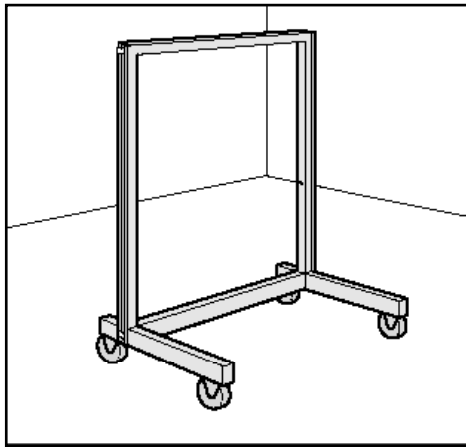
- 1) Product Number
- 2) Finish Standard or Dissipative
 - Standard Finishes:
 - BK Black
 - BT Black Texture*
 - GL Grey Light Smooth
 - GT Grey Light Texture*
 - NW Neutral White
 - ST Sand Texture*
 - Dissipative Finish:
 - DG Dissipative Grey Light Smooth
- 3) Laminate Standard or Dissipative
 - Standard Laminates:
 - GL Grey Light
 - GF Grey Fleck
 - NW Neutral White
 - WF White Fleck
 - SA Sand
 - SF Sand Fleck
 - BK Black
 - Dissipative Laminates:
 - DG Dissipative Grey Light
 - DNW Dissipative Neutral White
 - DS Dissipative Sand
 - DBK Dissipative Black

* Paint upcharge applies

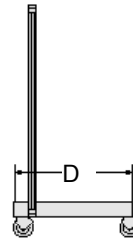
PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
TF6C	6-slot	23½ [597]	22½ [527]	16½ [419]	36 [16]
TF8C	8-slot	29½ [749]	22½ [527]	16½ [419]	56 [25]
TF12C	12-slot	41½ [1054]	22½ [527]	16½ [419]	77 [35]

MATERIAL HANDLING



FRONT



SIDE

DESCRIPTION

- Mobile Carts function as single-sided mobile workstations, assembly process carts or rack carts.
- 2" steel frames provide structural support for and permit vertical adjustment of components in 1" increments. 52" high carts provide 43" of useable hanger track while 66" high carts provide 57".
- Carts are equipped with connection points for end mounting of Flat Screen/Accessory Arms as well as attachment points for ESD grounding hardware.
- Assemblies each include 4" diameter polypropylene casters with totalock brakes (simultaneously locks the swivel and wheel).
- Dissipative carts each include a Ground Chain.
- Load capacity 500 lbs. evenly distributed.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Finish Standard or Dissipative

Standard Finishes:

- BK Black
- BT Black Texture*
- GL Grey Light Smooth
- GT Grey Light Texture*
- NW Neutral White
- ST Sand Texture*

Dissipative Finish:

- DG Dissipative Grey Light Smooth

* Paint upcharge applies

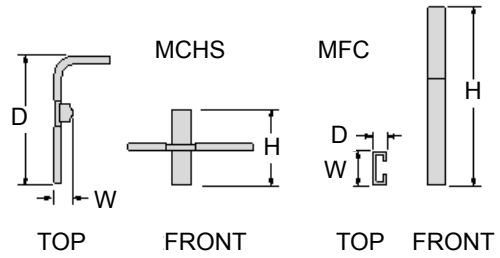
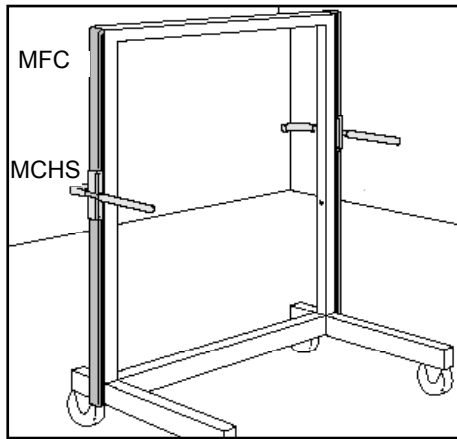
NOTES:

- Components over 24" deep must not be mounted on Mobile Carts.
- Components can only be mounted on the front side of Mobile Carts; plastic tubing inserted in the back side prevents mounting of components.
- Optional Mobile Cart Handles and End Covers to finish exposed hardware can be ordered separately; see page 12.9.

PRODUCT DIMENSIONS

Product Number	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
MCS5224	52 [1321]	24 [610]	29½ [749]	60 [27]
MCS5230	52 [1321]	30 [762]	29½ [749]	64 [29]
MCS6624	66 [1676]	24 [610]	29½ [749]	67 [30]
MCS6630	66 [1676]	30 [762]	29½ [749]	71 [32]

MOBILE CART HANDLES & END COVERS



DESCRIPTION

Mobile Cart Handles

- Handles bolt to the ends of Mobile Carts and are composed of 1" diameter steel tubing covered with black foam grip.
- Handles mount in one vertical position only when used in conjunction with Mobile Cart End Covers. Handles are adjustable in 6" increments when not used with other components.
- Sold in pairs.
- Finish is Black Texture.

Mobile Cart End Covers

- Metal covers finish exposed hardware on the ends of Mobile Carts when Mobile Cart Handles are used.
- Assemblies each include four metal covers to finish the exposed hardware above and below the handles on each side of the cart, as well as attachment hardware.
- Finish must be specified.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Finish Standard or Dissipative

Standard Finishes:

- BK Black
- BT Black Texture*
- GL Grey Light Smooth
- GT Grey Light Texture*
- NW Neutral White
- ST Sand Texture*

Dissipative Finish:

- DG Dissipative Grey Light Smooth

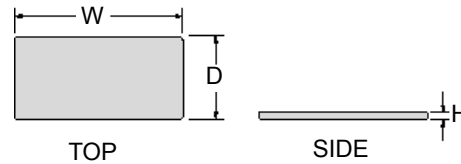
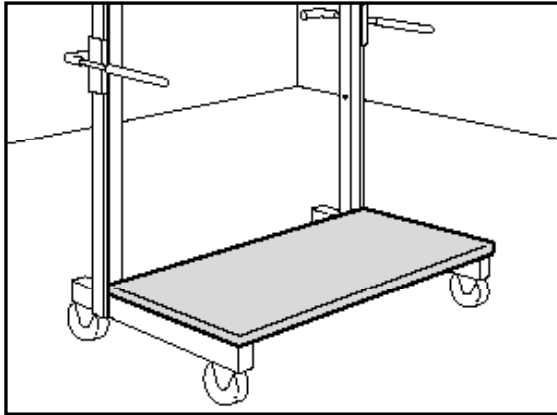
* Paint upcharge applies

NOTES:

- To finish exposed hardware on the ends of Mobile Carts when handles are not used, Panel End Covers must be used. 52" high carts require two EC48 and 66" high carts require two EC62. Order separately; see page 2.12.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
MCHSBT	handle, pair	7 [178]	2 1/2 [64]	16 [406]	6 [3]
MFC52	end cover, pair with handle cutouts	40 [1061]	2 [51]	1/2 [13]	2 [1]
MFC66	end cover, pair with handle cutouts	54 [1372]	2 [51]	1/2 [13]	3 [1]
EC48	end cover	48 [1219]	2 [51]	1/2 [13]	3 [1]
EC62	end cover	62 [1575]	2 [51]	1/2 [13]	4 [2]



DESCRIPTION

- 1 1/4" high laminate bases attach to Mobile Cart feet with hook and loop strips.
- Bases have square corners with matching edge banding.
- Symbiote dissipative surfaces are manufactured with Nevamar® Static Dissipative Laminates (SDL). Nevamar® SDL is manufactured to have a point to point and point to ground resistance of 1×10^6 to 1×10^9 ohms @10-60% relative humidity. Nevamar® Static Dissipative Laminates conform to ESD Association Standard ESD-S4.1.
- Dissipative surfaces each include a Laminate Grounding Terminal Kit.
- Load capacity 200 lbs. evenly distributed.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Laminate Standard or Dissipative

Standard Laminates:

- GL Grey Light
- GF Grey Fleck
- NW Neutral White
- WF White Fleck
- SA Sand
- SF Sand Fleck
- BK Black

Dissipative Laminates:

- DG Dissipative Grey Light
- DNW Dissipative Neutral White
- DS Dissipative Sand
- DBK Dissipative Black

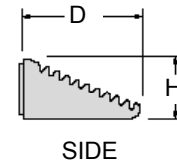
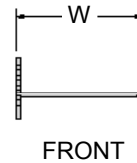
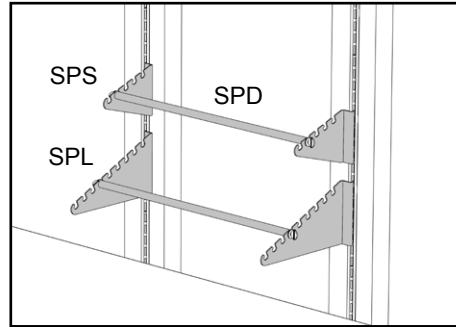
NOTES:

- Mobile Carts sold separately; see page 12.8.
- Other dissipative laminates available upon request; consult factory for ordering information.
- Customers are responsible for specifying ESD surface requirements; corporate ESD standards must be consulted prior to ordering.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
MFBLT24	standard	1 1/4 [32]	24 [610]	24 [610]	20 [9]
MFBLT30	standard	1 1/4 [32]	30 [762]	24 [610]	24 [11]
MFBDT24	dissipative	1 1/4 [32]	24 [610]	24 [610]	20 [9]
MFBDT30	dissipative	1 1/4 [32]	30 [762]	24 [610]	24 [11]

SPOOL HOLDERS & SPINDLES



DESCRIPTION

- Spool Holders display spooled material such as labels, wires and cables in workstations.
- Holders mount to frames or hang from Bin Rails and Tote Rails.
- Assemblies each include one $\frac{5}{8}$ " diameter spindle and two brackets. Rail-mounted assemblies each include a second spindle in back for support.
- Load capacity 50 lbs. for rail-mounted Spool Holders and 100 lbs. for frame-mounted holders, evenly distributed.
- Bracket finish is Black Texture.

TO ORDER, SPECIFY:

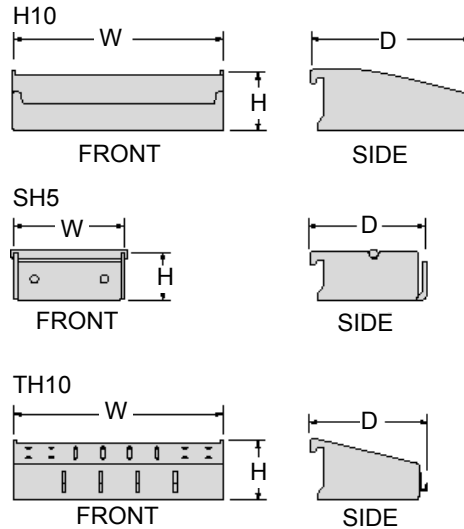
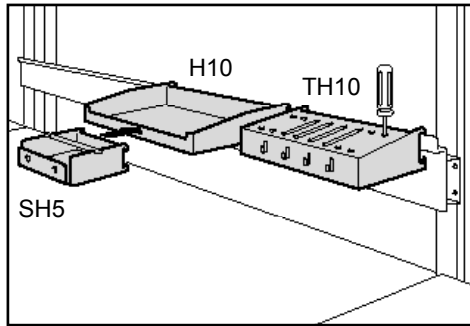
- 1) Product Number

NOTES:

- Bin Rails and Tote Rails sold separately; see pages 12.2 and 12.4.
- Additional spindles can be attached to a single Spool Holder. Order separately; see below.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
SPS24BT	frame, short	4 $\frac{1}{2}$ [114]	22 [559]	6 [152]	3 [1]
SPS30BT	frame, short	4 $\frac{1}{2}$ [114]	28 [711]	6 [152]	3 [1]
SPS36BT	frame, short	4 $\frac{1}{2}$ [114]	34 [864]	6 [152]	4 [2]
SPS48BT	frame, short	4 $\frac{1}{2}$ [114]	46 [1168]	6 [152]	5 [2]
SPL24BT	frame, long	5 $\frac{1}{2}$ [140]	22 [559]	9 $\frac{3}{4}$ [248]	4 [2]
SPL30BT	frame, long	5 $\frac{1}{2}$ [140]	28 [711]	9 $\frac{3}{4}$ [248]	4 [2]
SPL36BT	frame, long	5 $\frac{1}{2}$ [140]	34 [864]	9 $\frac{3}{4}$ [248]	5 [2]
SPL48BT	frame, long	5 $\frac{1}{2}$ [140]	46 [1168]	9 $\frac{3}{4}$ [248]	$\frac{1}{4}$ [.1]
SPD3	spindle	$\frac{5}{8}$ [16]	3 $\frac{1}{4}$ [83]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]
SPD12	spindle	$\frac{5}{8}$ [16]	10 [254]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]
SPD24	spindle	$\frac{5}{8}$ [16]	22 [559]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]
SPD30	spindle	$\frac{5}{8}$ [16]	28 [711]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]
SPD36	spindle	$\frac{5}{8}$ [16]	34 [864]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]
SPD48	spindle	$\frac{5}{8}$ [16]	46 [1168]	$\frac{5}{8}$ [16]	$\frac{1}{4}$ [.1]



DESCRIPTION

- Holders provide storage for small parts, tools, solder and work aids in workstations.
- Holders hang from Bin Rails.
- Tool Holders and Solder Holders hang from Bin Rails or from the front of Holders.
- Solder Holders each include a spindle.

TO ORDER, SPECIFY:

- 1) Product Number
- 2) Finish Standard or Dissipative

Standard Finishes:

- BK Black
- BT Black Texture*
- GL Grey Light Smooth
- GT Grey Light Texture*
- NW Neutral White
- ST Sand Texture*

Dissipative Finish:

- DG Dissipative Grey Light Smooth

* Paint upcharge applies

NOTES:

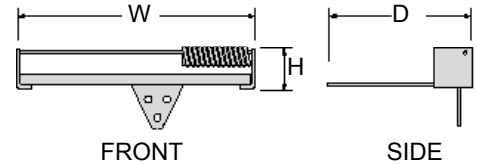
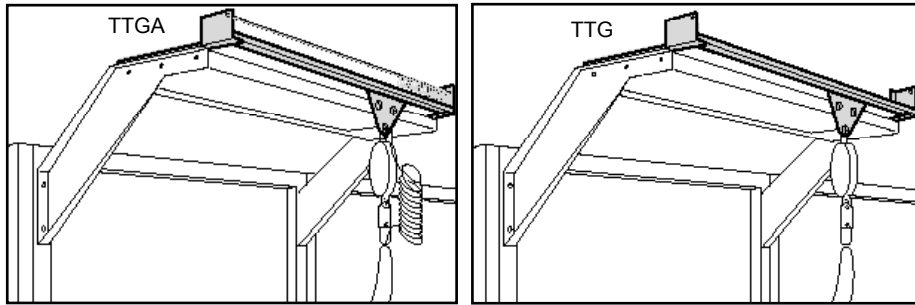
- Bin Rails sold separately; see page 12.2.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
H10	holder	2 1/2 [64]	10 [254]	5 3/4 [146]	1 [.5]
SH5	solder holder	2 [51]	4 [102]	3 1/2 [89]	1 [.5]
TH10	tool holder	2 [51]	9 [229]	4 [102]	1 [.5]

OVERHEAD TOOL TRAVELERS

MATERIAL HANDLING



DESCRIPTION

- Tool Travelers suspend small hand tools above workstations providing 8" of fore and aft adjustment.
- Travelers attach to the top of Cantilever Light Brackets with or without the use of Task Lights.
- Units without air each include a rail, one car and two end supports.
- Units with air each include a rail, one car with air adapter ending in 1/4" FPT, two end supports, a 3/8" push-in fitting for air feed of 1/2" OD tube and a 1/4" ID coiled poly tube.
- Load capacity 50 lbs.
- Finish is Black Texture.

TO ORDER, SPECIFY:

- 1) Product Number

NOTES:

- Cantilever Light Brackets sold separately; see page 8.8.
- Additional Tool Traveler Cars sold separately; see below. Two cars maximum per rail.
- Tool Traveler Cars with Air each include all parts needed to add the car to a Tool Traveler in the field.
- Compressed Air Coil Tube Kits (CAC) to connect the air tool to the car sold separately; see page 8.14.

PRODUCT DIMENSIONS

Product Number	Description	Height in. [mm]	Width in. [mm]	Depth in. [mm]	Weight lb. [kg]
TTG48BT	without air	4 1/2 [108]	48 [1219]	12 1/2 [318]	6 [3]
TTG60BT	without air	4 1/2 [108]	60 [1524]	12 1/2 [318]	7 [3]
TTG72BT	without air	4 1/2 [108]	72 [1829]	12 1/2 [318]	8 [4]
TTGA48BT	with air	4 1/2 [108]	48 [1219]	12 1/2 [318]	8 [4]
TTGA60BT	with air	4 1/2 [108]	60 [1524]	12 1/2 [318]	9 [4]
TTGA72BT	with air	4 1/2 [108]	72 [1829]	12 1/2 [318]	10 [5]
TCGBT	car without air	4 1/2 [108]	5 1/2 [140]	1/4 [6]	1 [.5]
TCGABT	car with air	4 1/2 [108]	5 1/2 [140]	1/4 [6]	2 [1]

MATERIAL HANDLING

12.12

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