HWS IDEA BOOK

Contents of clever ideas:

Page #	File No.	Title	
2	950612	No Kit to Fit? So Make One. For Example	
3	950613	·	
4	950614	Torq-Arm Makes Blind Riveting Easier Rivet Tool and Torg-Arm Workstation Kit	
5	950831	Rivet Tool and Torq-Arm Workstation Kit	
6 & 7	950906	Torq-Arm for Trolley Mounting	
	950906	Attaching Peg Board to Workstations	
9	951116	Here's Versatility - Bench, Conveyor Support & Shelves Aluminum Track to the Rescue!	
10	960404	Overhead Tool Crane Solves Many Problems	
11	960530	Universal Base "Pocket" Workstation Mount	
12	960710	Welding Festoon Track to Beams	
13	960715	Heavy Duty Continuous Tool Rail Using Aluminum Track	
14	960926	Beam Clamps - Mount tool Rails to I-Beams without Drilling or Welding	
15	961004	Twin Rail Assembly Line Workstation	
16	961022	Jibs With Balancers Could Be The Answer	
17	970109	360 Degree Swivel Base Has Flexible Conduit Lead for Reel	
18	970113	Traveling Boom - Add reach, Flexibility to Workstation	
19	970123	Power Up and Put Some Light on the Subject	
20	970227	Tool Rail Above Wire Harness Board	
21	970911	Tray Puts the Mice To Work	
22	970912	Mounts Align Reels with Work	
23	971125	Here's A New Look - See-Thru, Modular Bin Rack	
24 & 25	971212	Heavy Duty Overhead Tool Crane	
26	971213	Heavy Duty Continuous Tool Rail Offer Four Way Adjustment	
27	980429	Mobile Wire Spool Cart	
28	980430	Adjustable Foot Rest	
29	980501	Push'n Place Workstation	
30	980504	300 lb. Capacity Swing Jib	
31	980801	Air Lines for Workstations	
32	980807	Quick Jibs with WS50-MB	
33	980817	Neat and Tidy 36" Bench Back	
34	981211	Shelf Fits Any Upright Spacing	
35	990115	Keyed Reel Mounting Plate	
36	990505	Heavy-duty Tool Rail Hanger	
37	990507	Bright New Light	
38	990707	Test Bed Cart	
39	990805	Place'n Pick Parts Cart	
40	991119	"Shock Stop" Prevents Cable Damage on "Over-Powered" Balancers	
41	991120	Bench Top Bridge	
42	030716	Dual Booms allow Jib to do Double Duty	
43	030731	Portable Gantry Crane Straddles Assembly Area	
44	030925	Keep Large Air or Electric Tools Suspended Overhead	
45	040524	Another Use for 150 lb. Jib	
46	051021	Put Balancer Over Work Area	
47	051022	Qualtech™ Document Stands - Access Important Documents	
48	051023	Keep All Cables and Tools Out of Harm's Way with Jibs and Festoons	
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Hubbell Workplace Solutions products are so flexible that they can be used to solve almost any manufacturing application problem. So how can you use them?

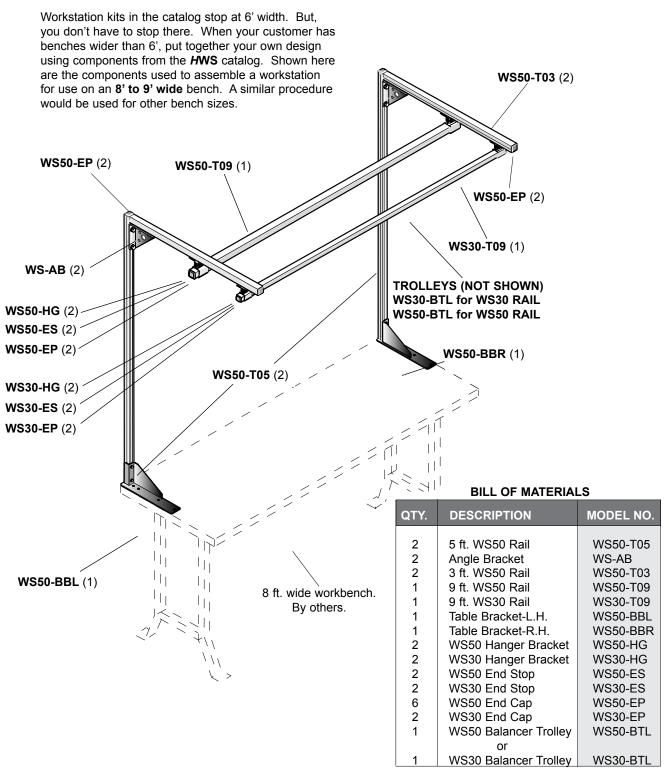
Idea Sheets! Each one shows you a new, better or different way to use Hubbell Workplace Solutions products. Some of these ideas came from our engineers trying to solve a customer's problem, others came from our customers showing us new ways to existing products use components. Wherever they came from, they are all unique and interesting. Each Idea Sheet shows you a step-bystep "how to do it" procedure or a complete new kit that is now available but not yet cataloged.

Maybe you'll be saying:

"I wish I had thought of this years ago!"

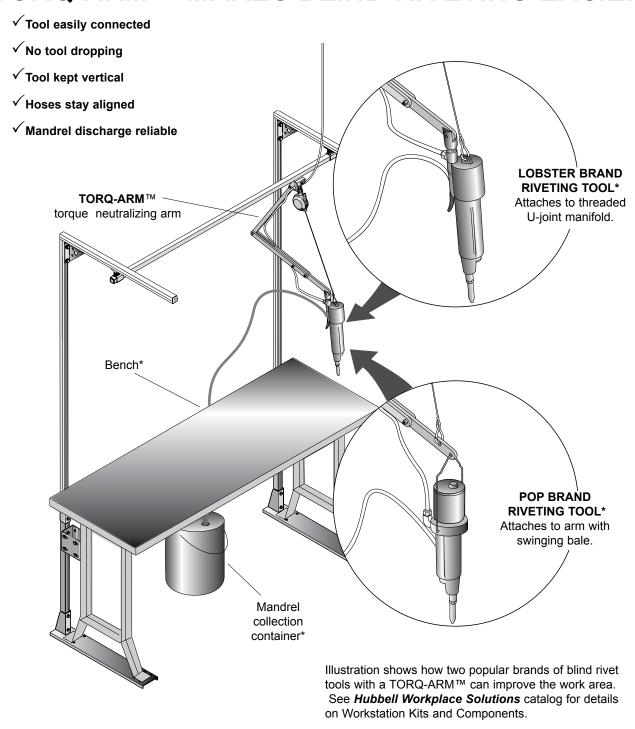


NO KIT TO FIT? SO MAKE ONE. FOR EXAMPLE...





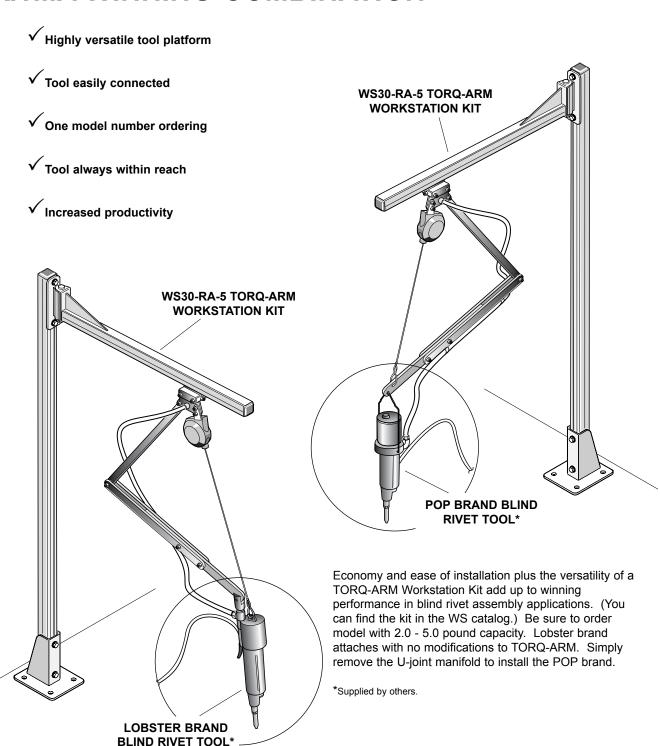
TORQ-ARM™ MAKES BLIND RIVETING EASIER



^{*}Supplied by others.



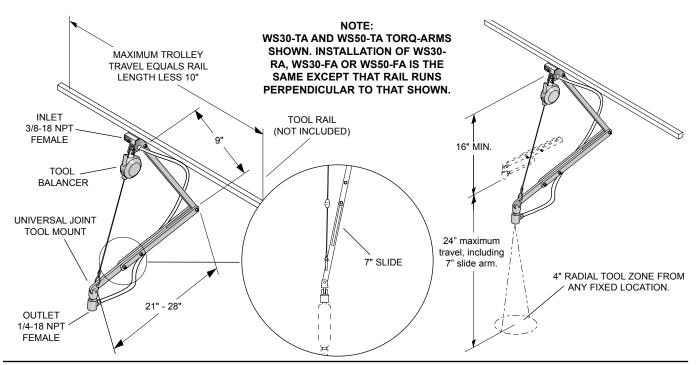
RIVET TOOL and TORQ-ARM™ WORKSTATION KIT...A WINNING COMBINATION





||D|=/A|=||L|= {!!950881

TORQ-ARM for Trolley Mounting INSTALLATION and ADJUSTMENT



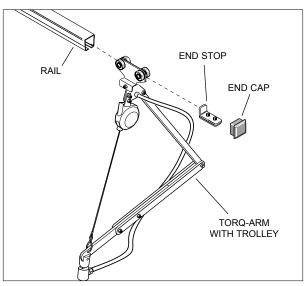
INSTALLATION

- 1- Slide trolley into rail. **NOTE:** WS30-xx TORQ-ARMS go into WS30 rails. WS50-xx TORQ-ARMS go into WS50 rails.
- 2- Install end stop and end cap into rail. Securely tighten bolts clamping end stop to rail.

WARNING

Improperly tightened end stop bolts could result in damage to equipment or personal injury.

- 3- Install tool onto TORQ-ARM and connect air line.
- 4- Adjust tool balancer for desired action.



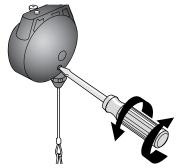
ADJUSTING BALANCER



1- Increase tension by turning adjustment knob clockwise.



2- Decrease tension by pushing button on top of balancer. One click equals 1/5 turn of adjustment knob.

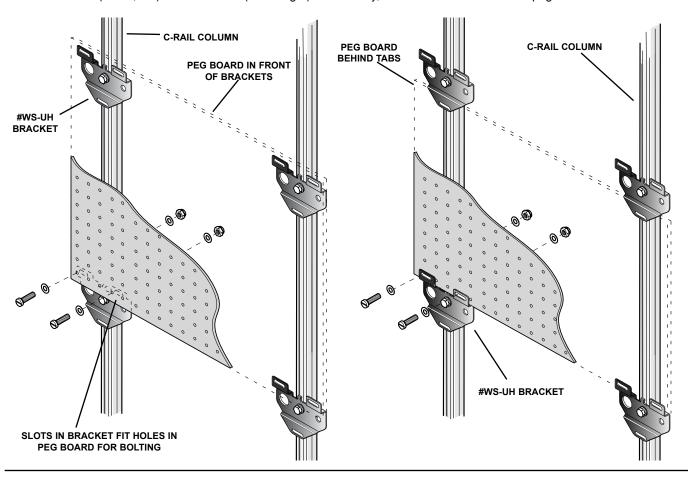


3- Adjust drag so that tool remains in desired "hands off" position.
Increase drag by turning screwdriver clockwise.
Decrease drag by turning screwdriver counterclockwise.

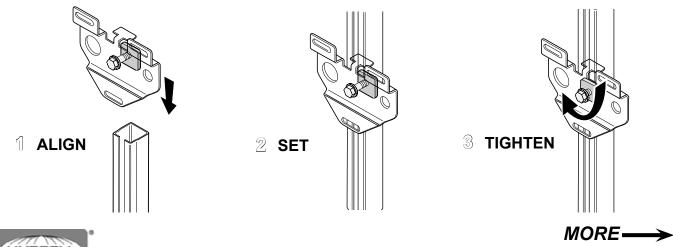


ATTACHING PEG BOARD TO WORKSTATIONS; HERE'S TWO SIMPLE WAYS...

#WS-UH UNIVERSAL BRACKETS were designed with peg board in mind. Peg board may be bolted to front of brackets (below, left) or behind tabs (below right). Either way, slots in brackets fit holes in peg board.

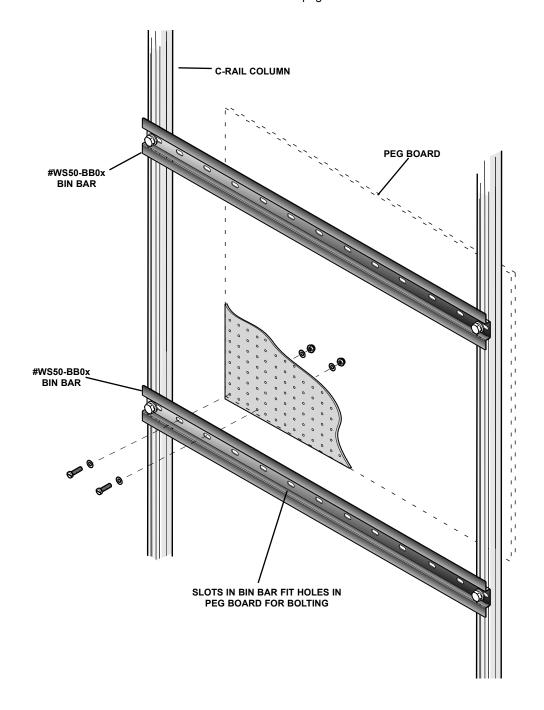


METHOD OF ATTACHING BRACKETS TO COLUMNS



ATTACHING PEG BOARD TO WORKSTATIONS; HERE'S EVEN ANOTHER WAY...

For added stiffness on wider workstations, use **#WS50-BB0x** BIN BARS top and bottom. Peg board is bolted to back. Four inch on center slots in bin bars fit holes in peg board. Use flat washers both sides.



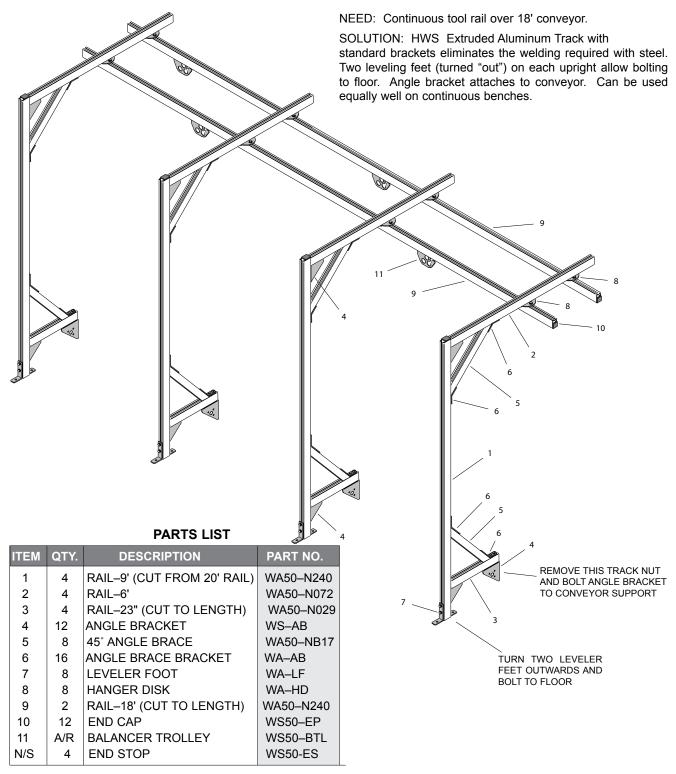


HERE'S VERSATILITY... BENCH, CONVEYOR SUPPORT & SHELVES

Here is an idea that could have broad application. Consider your customer's needs and the versatility of the new aluminum rail system and let your imagination run wild. This design features three shelves and a conveyor supported by the bench cross member. All frame components are standard except the length of some of the rails...cut those to fit shelf width. One could even use standard track nuts to fasten conveyor to rail. Two shelves...size to suit. Conveyor, supported by cross members Work shelf...raised, or flush with conveyor top. 2 **BILL OF MATERIALS ITEM** QTY. **DESCRIPTION** MODEL NO. 2 Rail, 36" WA50-T036 2 Rail, 29" 2 WA50-T029 2 Rail. 72" 3 WA50-T072 2 Rail, 60" WA50-T060 4 2 Rail, 29" (cut to WA30-T029 5 two 13" lengths, 4 total pieces) 6 6 Angle Bracket **WSAB** Corner Bracket WA-CB 7 4 Leveler Foot WA-LF 8 4 Top Mounting Bracket 9 4 WA-TMB 10 End Cap WS50-EP 4

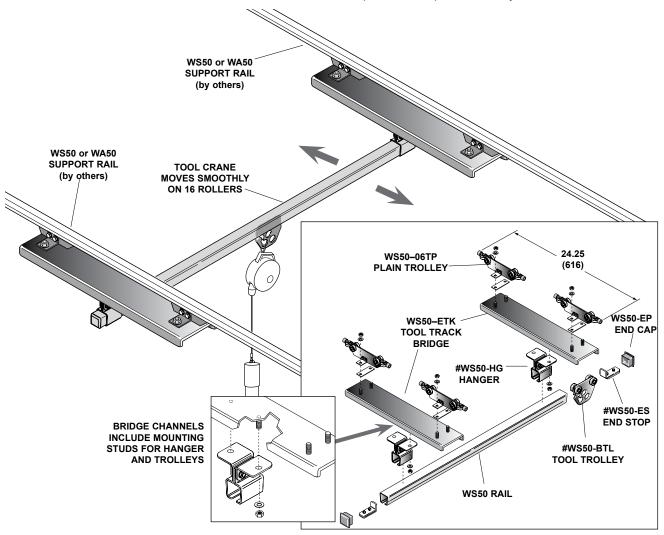


NO WELDING. MINIMAL CUTTING. ALUMINUM TRACK TO THE RESCUE!



OVERHEAD TOOL CRANE SOLVES MANY PROBLEMS

Rugged bridge crane allows overhead tool handling with maximum safety and minimum cost. Uses proven components which mount to standard WS-50 or WA-50 rails. Available as complete kits to speed assembly.



Tool Crane mounts in two WS50 rails. Rails must be parallel and level to allow free travel of crane. Recommended distance between support rails is length of tool rail less 12" (305mm). MAXIMUM RATED CAPACITY OF TOOL CRANE is 50 lbs (22.5 kg) including tool, balancer, and attachments. Unit depth is 24.25" (616mm) bumper–to–bumper.

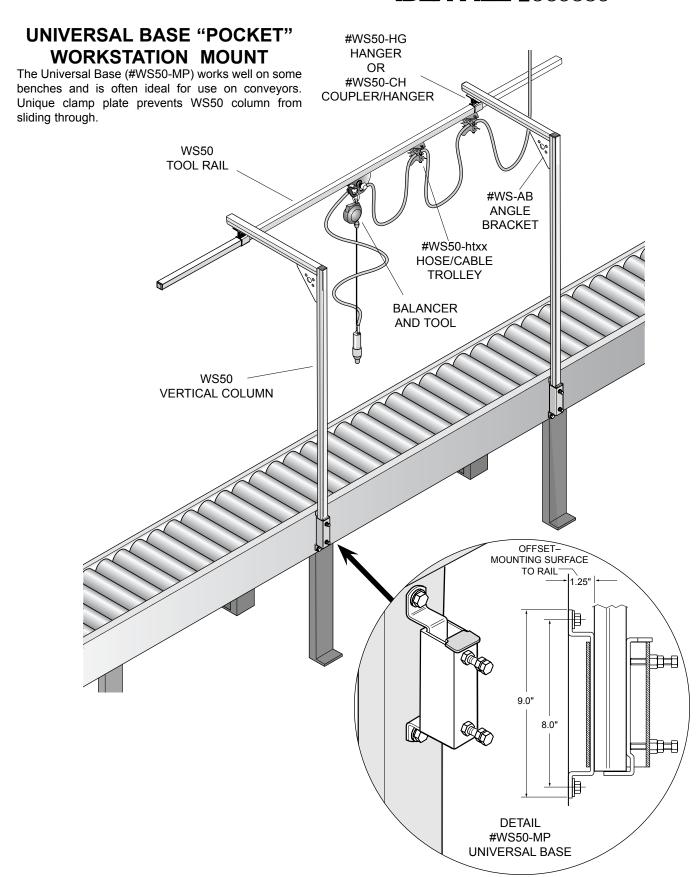
Overhead Tool Crane includes (4) WS50–06TP plain trolleys, (2) WS50–ETK tool track bridges, (2) WS50–HG hanger brackets, (2) WS50-EP end caps, (2) WS50–ES end stops, (1) WS50–BTL Labyrinth tool trolley, (1) WS50 tool rail (length per model) and all assembly hardware.

MODEL CHART

DESCRIPTION	MODEL NUMBER
O.H. Tool Crane, 48" long tool rail	WS50-ET04
O.H. Tool Crane, 60" long tool rail	WS50-ET05
O.H. Tool Crane, 72" long tool rail	WS50-ET06
O.H. Tool Crane, 108" long tool rail	WS50-ET09
O.H. Tool Crane, 144" long tool rail	WS50-ET12

NOTE: For best results, crane width should not exceed six (6) times trolley wheelbase. Example: $24"(2 \text{ ft.}) \times 6 = 12 \text{ ft.}$

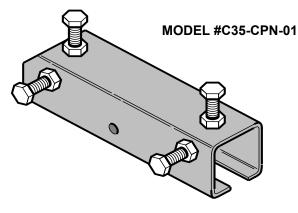


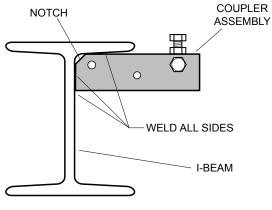




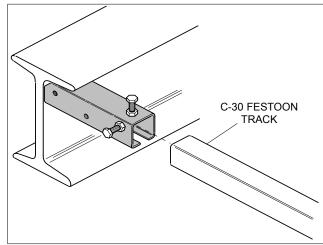
WELDING FESTOON TRACK TO BEAMS CAUSES PROBLEMS...UNTIL NOW.

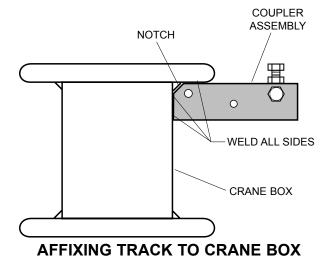
When is a track coupler more than a coupler? When it's the new *notched* festoon track coupler. It joins track sections, but also doubles as a sleeve that can be welded onto I-beams or crane boxes to support track or create tow arms. The notch on one end clears radii or weld. Simply remove two set screws and weld it in place. Zinc plated.

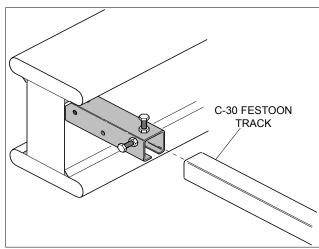








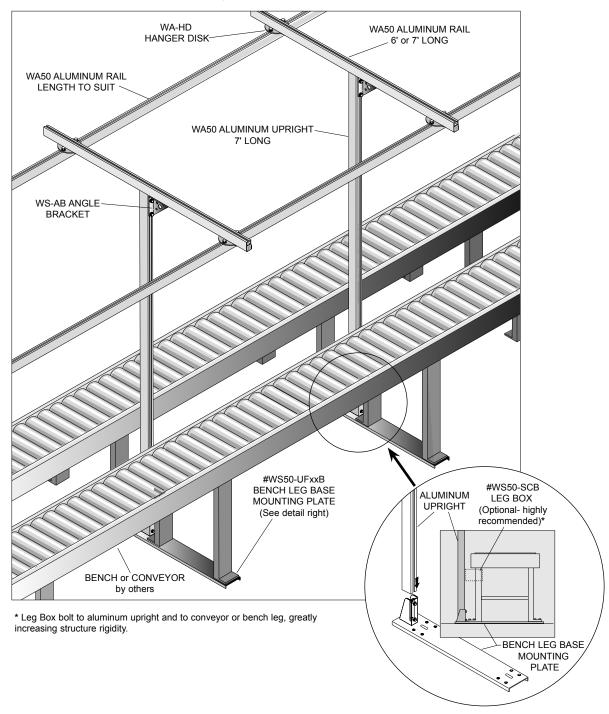






HEAVY DUTY CONTINUOUS TOOL RAIL USING ALUMINUM TRACK

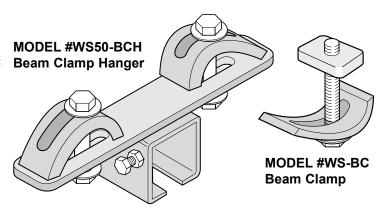
While HWS Extruded Aluminum Track will not fit into the "coupler" on the top of WS50-UFxx BENCH LEG BASES, it fits perfectly into the sleeve on the bottom plate (as it does on all other mounting bases). It's not cataloged, but the bottom plates, both 30" and 36", are available separately. Order model #WS50-UF30B (30") or #WS50-UF36B (36"). Also available separately is the LEG BOX, model #WS50-SCB. List prices below.





BEAM CLAMPS...MOUNT TOOL RAILS TO I-BEAMS WITHOUT DRILLING OR WELDING

Now you can quickly and accurately hang and align WS50 tool rails beneath or beside beams. Model #WS50-BCH Beam Clamp Hanger Bracket or separate Model #WS-BC Beam Clamp (with track nut) require no drilling or welding. Hanger Brackets attach to beam flanges from 2.625" to 5.25" wide. Beam Clamps affix WS50 support arms to top flange (Figure 3) or WA50 aluminum track to bottom flange perpendicular to or at an angle to beam (Figure 2).



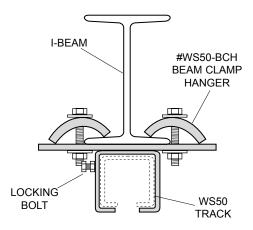


Figure 1
TOOL RAIL BENEATH I-BEAM,
PARALLEL TO BEAM

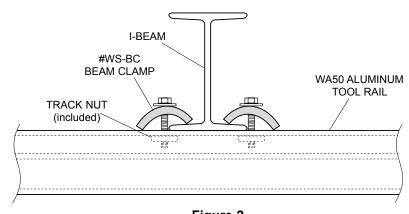


Figure 2
ALUMINUM TOOL RAIL BENEATH I-BEAM,
PERPENDICULAR (BEAM-TO-BEAM)

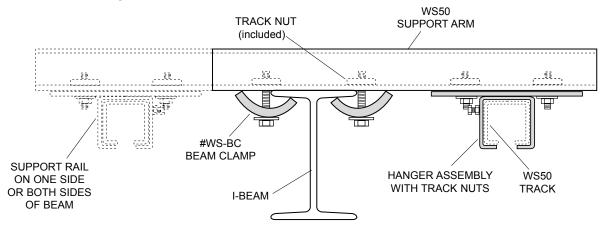
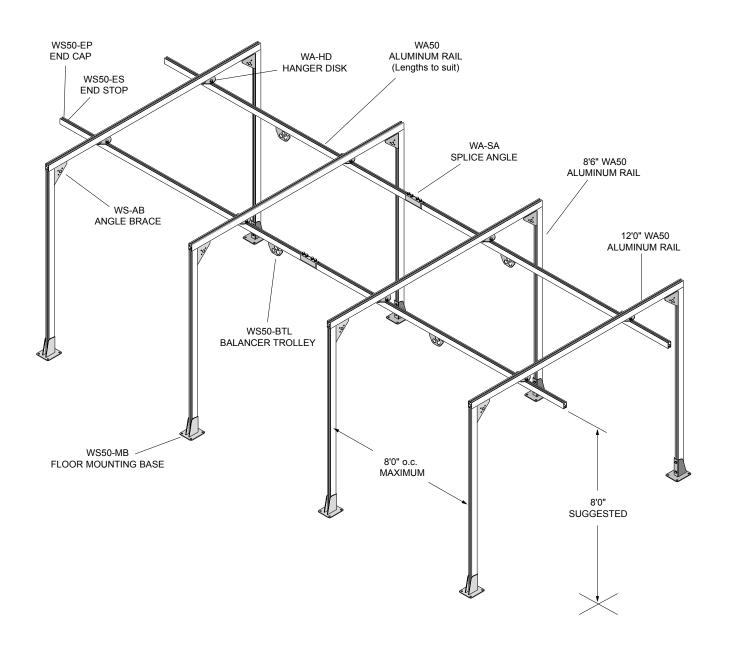


Figure 3
TOOL RAIL BESIDE I-BEAM, ONE OR BOTH SIDES



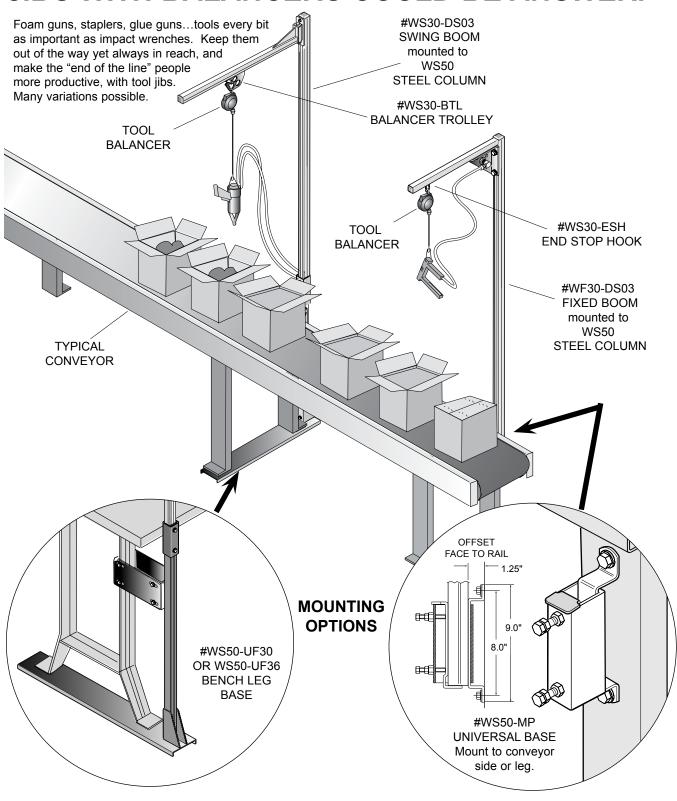
TWIN RAIL ASSEMBLY LINE WORKSTATION BUILD TO ANY LENGTH. ALUMINUM RAIL MAKES IT VERSATILE

There could be an infinite number of variations on this theme so use your imagination. Be sure to stay within the following size and capacity parameters: Maximum 10' wide and 8' (6' is ideal) between uprights, 50 lbs. maximum per trolley and no more than one trolley per upright. Design the structure to be as long as needed. Aluminum rail is available in 20' lengths, but make sure splice angles don't interfere with hanger disks.





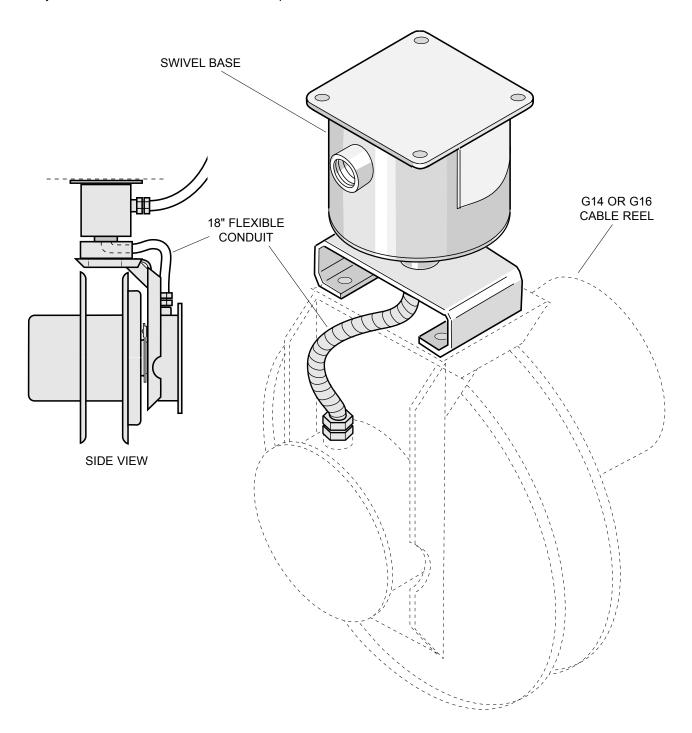
END OF ASSEMBLY LINE BLUES? JIBS WITH BALANCERS COULD BE ANSWER.





360° SWIVEL BASE NOW HAS FLEXIBLE CONDUIT LEAD FOR REEL

An 18" flexible conduit is now included with models SB360-430, SB360-830 and SB360-455 swivel bases for the G14 and G16 electric cable reels. Lead wires, pre-connected to the slip rings in the base, are long enough for easy connection in the reel junction box. Best news of all...there is no price increase.

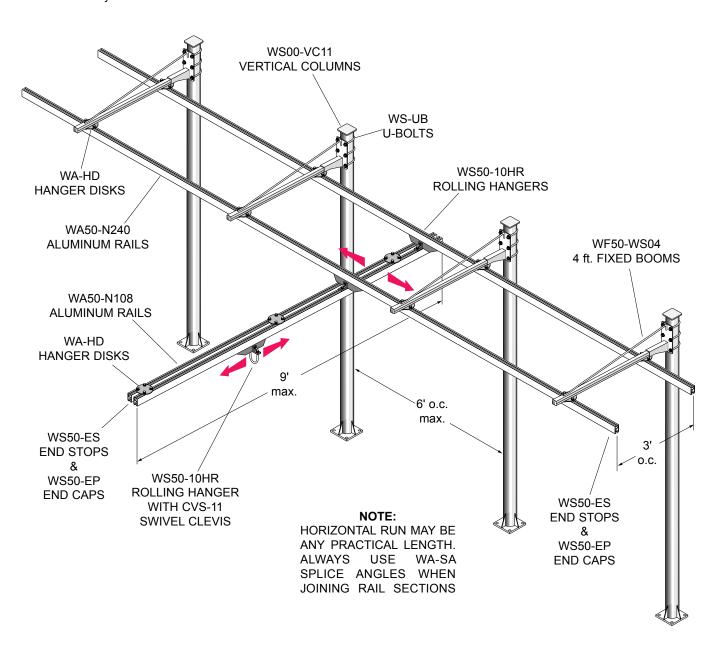




TRAVELING BOOM... ADD REACH, FLEXIBILITY TO WORKSTATION

The **PROBLEM:** Move a 30 lb. tool to any spot on a 40 ft. assembly line, including in or out 8+ ft.

The **SOLUTION:** Two aluminum rails hung beneath fixed jibs mounted on 11 ft. columns. WS50-10HR rolling hangers with side guide rollers inserted into the rails. Then, two 9 ft. aluminum rails hung from the trolleys and a third WS50-10HR trolley with CVS-11 swivel clevis in one of those rails. DOES IT WORK? You bet it does.





POWER UP... AND PUT SOME LIGHT ON THE SUBJECT

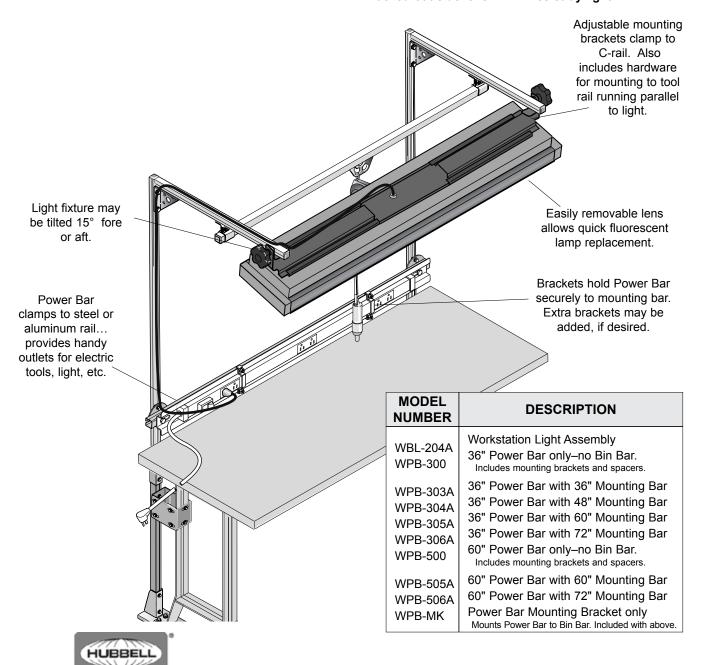
Here's a fitting touch to your workplace: a fluorescent, overhead work light and a power bar. Both are custom designed for use on Hubbell Workplace Solutions workstations. **Light** has adjustable mounting brackets and uses two 48" fluorescent T8 lamps (included). **Power Bar** is available in two lengths; 36" with six grounded outlets and 60" with ten outlets. Both feature on/off switch and circuit breaker with reset button. Available with or without mounting bar. Light includes 10' cord and power bar includes 6' cord with standard 110 volt grounded plugs.

NEW, IMPROVED LIGHT. ALL THESE FEATURES AT NO INCREASE IN PRICE.

- Polycarbonate safety tubes protect lamps, increase safety and prevent contamination if lamp breaks.
- Rotary locking lamp holders accept two T8 lamps.

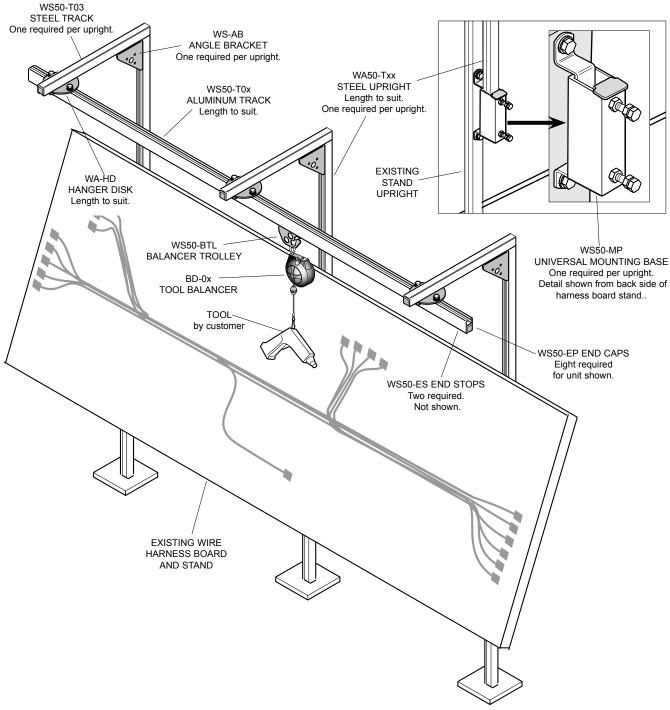
Workplace Solutions

- Custom brackets allow two mounting options.
- Light tilts 15° fore or aft. Allows you to direct light where needed.
- · Blacked-out side lens minimizes stray light.



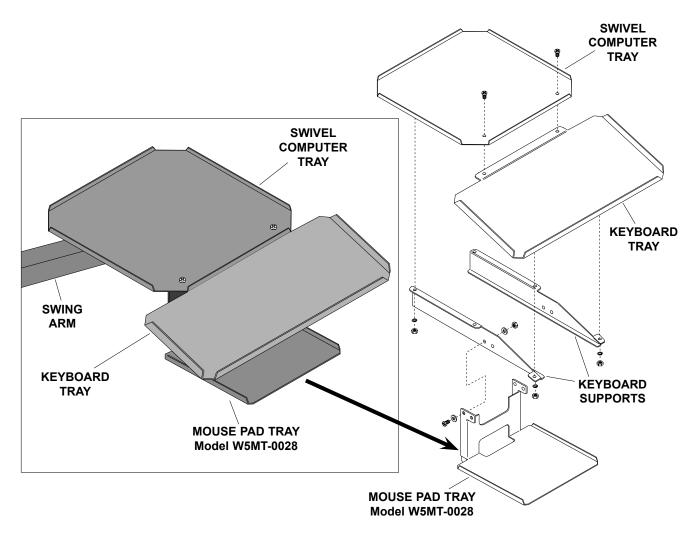
TOOL RAIL ABOVE WIRE HARNESS BOARD

The **PROBLEM**: Keep the tools used in assembling wire harnesses always within easy reach. The **SOLUTION**: An aluminum tool rail (could be steel with traditional hanger brackets) hung from WS50 supports. Support structures fastened to back of board by WS50-MP Universal Bases bolted to existing stand uprights. Sure beats laying the tools on five gallon pails as was done previously.



TRAY PUTS THE MICE TO WORK

When your computer terminal or PC has a mouse, it needs a place to live. Developed in cooperation with one of the leading manufactures of personal computers, the Hubbell Workplace Solutions Mouse Pad Tray attaches quickly to the keyboard supports on your swing arm mounted computer tray. It makes the mouse easy to reach and use. Plus, the tray's recessed design keeps your mouse safe in a manufacturing environment.



Easy to install. All hardware included.

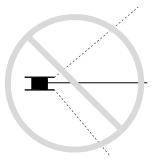
NOTE: May require that holes be drilled in older keyboard supports. Cannot be installed on units without keyboard supports.

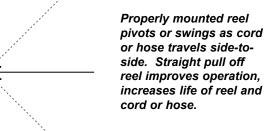


MOUNTS ALIGN REELS WITH WORK

Wear and tear on cord or cable is greatly reduced when the reel is aligned so the guide faces the direction of pull. These reel mounts allow the reel to turn toward the work and pivot or swing if the cord or hose is moved from side to side during use. Both are designed for used with the GL series Industrial Quality Cord Reels or GRC series Compact Hose Reels

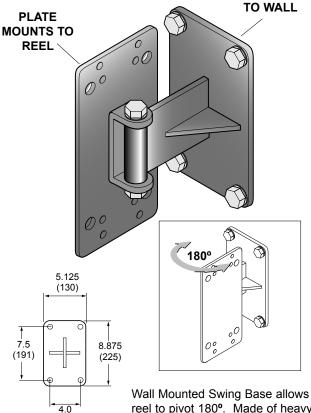
Reel that does not pivot or swing with side-to-side motion places undue stress on cord or hose as well as reel. Result: Increased wear and shortened life.





WALL MOUNTED SWING BASE

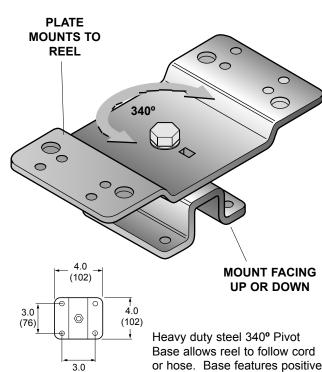
340° PIVOT BASE Model RC-WP Model RC-PB-B



MOUNTING PLATE TO WALL DIMENSIONS

(102)

reel to pivot 180°. Made of heavy steel, base features positive stops to prevent reel from contacting wall and porous bronze bushings. Fits all GL and GRC reels.



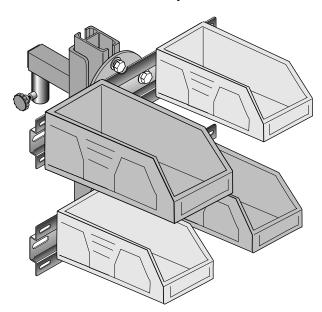
MOUNTING PLATE DIMENSIONS

(76)

or hose. Base features positive stop to prevent over travel which could tangle input lines. May be mounted with reel base facing up or down. Fits all GL and GRC reels.



HERE'S A NEW LOOK... SEE-THRU, MODULAR BIN RACK



SWINGING BIN RACK may be affixed to column or bench mounted swing arm bases, with or without arms or elbows. Available in three models, pictured below. Maximum rated capacity, including bins and contents, is 30 lbs. Accepts most standard bin boxes (not included). Bin bars are 18"(457mm) wide. Vertical track is 12"(305mm) high for single and double bar models, 24"(610mm) high on triple bar model. Black baked polyester finish. All hardware included.

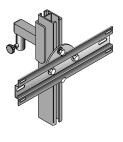


FIGURE 1 Single Bin Bar #W5BR-1018

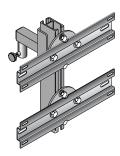


FIGURE 2 Double Bin Bar #W5BR-2018

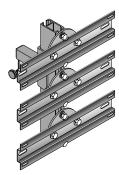
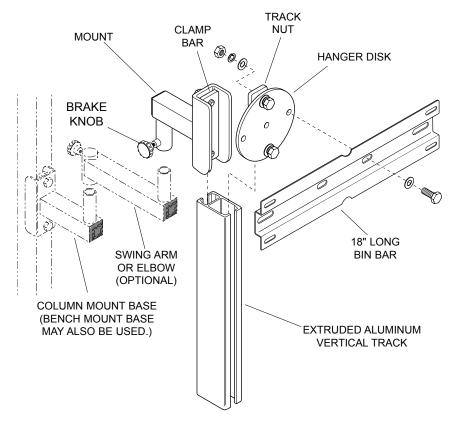


FIGURE 3 Triple Bin Bar #W5BR-3018



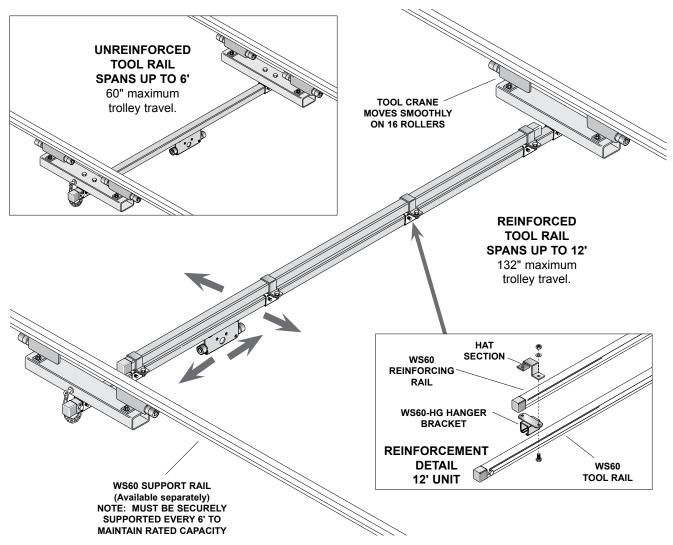
ASSEMBLY AND ADJUSTMENT IS QUICK AND EASY



HEAVY DUTY OVERHEAD TOOL CRANE

HAS 250 lb. CAPACITY

Rugged bridge crane allows overhead handling of extra-capacity tools with maximum safety and minimum cost. Uses proven components which mount to rugged WS60 rails. Available in 6' or 12' kits.



Tool Crane mounts in two WS60 rails. Rails must be parallel and level to allow free travel of crane and must be supported every 6' (1.9m). Recommended distance between support rails is length of tool rail less 12" (305mm). Tool rail and reinforcing rail may be cut if shorter length required. Do not span more than 72" (1829mm) without reinforcing rail installed. MAXIMUM RATED CAPACITY OF TOOL CRANE is 250 lbs (112.5 kg) including tool, balancer, and attachments. Unit depth is 37.875" (962mm) bumper–to–bumper. See reverse side for attachments and assembly details.

MODEL CHART

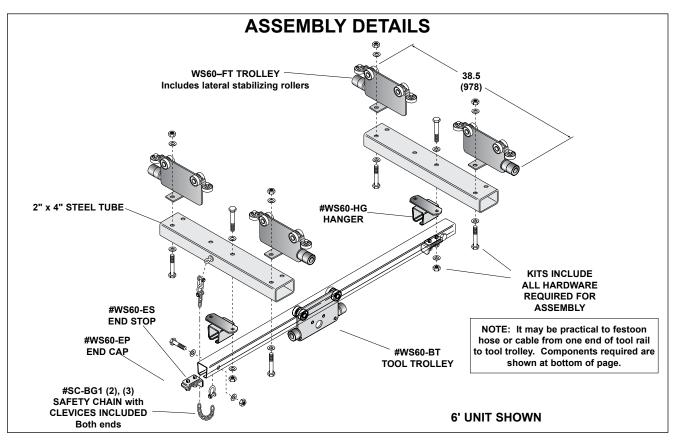
DESCRIPTION	MODEL NUMBER
250 lb. capacity O.H. Tool Crane 72"(1829mm) long tool rail	WS60-ET06
Max. rail spacing 60"(1524mm)	
250 lb. capacity O.H. Tool Crane 144"(3658mm) long tool rail	WS60-ET12
Max. rail spacing 132"(3353mm)	







IDEA-FILE #97/12/12 @on%

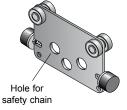


ACCESSORIES



#WS60-ES **END STOP**

Zinc plated steel. USE: Installs in rail to stop trolley.

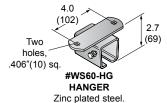


#WS60-BT **ROLLING TROLLEY**

Black polyester finish. USE: Supports tools, balance reels, torque reels, push button control stations.



RAIL COUPLER Zinc plated steel. USE: Joins track sections.



USE: Hangs/supports WS60 track from overhead beams, joists, or other structures.

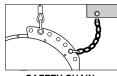


Galvanized. USE: Horizontal supports, rail for lateral movement of tools, controls, hoists, etc; up to 250 lbs. (113 kg) maximum total load.

RA LEN ft.	AIL GTH (m)	MODEL NUMBER
6.0	(1.8)	#WS60-G06
12.0	(3.6)	#WS60-G12
18.0	(5.4)	#WS60-G18

#WS60-EP **END CAP**

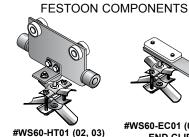
Black molded vinyl. USE: Caps off ends of rail for a finished look.



Strongly recommended, steel link chain prevents balancer

or tool rail from accidental fall. Includes clevis both ends.

LENGTH		MODEL
ft.	(m)	NO.
1.0	(0.3)	SC-BG1
2.0	(0.6)	SC-BG2
3.0	(0.9)	SC-BG3



#WS60-HT01 (02, 03) **FESTOON TROLLEY**

Black polyester finish. USE: Supports cable or hose in festoon system.



#WS60-EC01 (02, 03) END CLIP

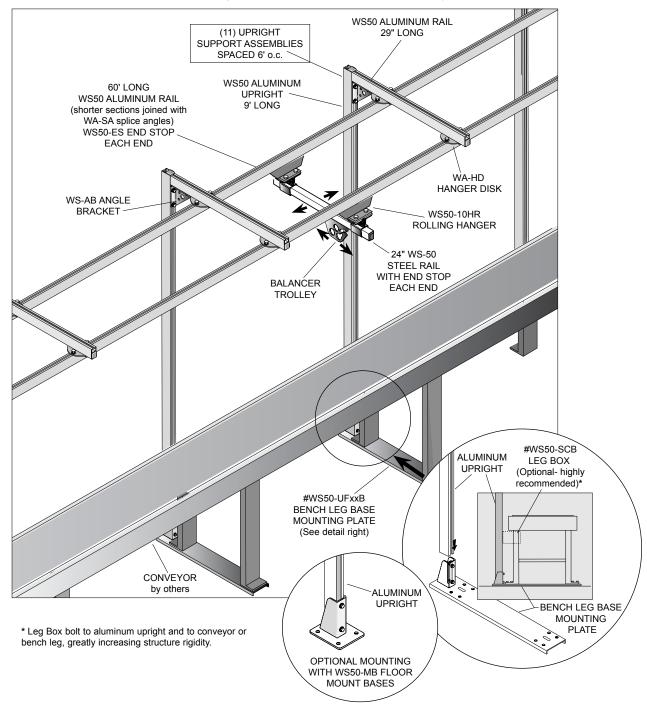
Black polyester finish. USE: Secures cable or hose and acts as end stop in festoon system.





HEAVY DUTY CONTINUOUS TOOL RAILS OFFER FOUR WAY ADJUSTMENT

Dual tool rails running entire length of 60' conveyor are spanned by multiple 24" long rolling rails with balancer trolleys. Easily reaches all areas of conveyor surface. Extruded Aluminum vertical supports fit perfectly into sleeves on the 30" or 36" bottom plates or WS50-MB mounting bases. Also recommended, for added stability, is the LEG BOX, model #WS50-SCB. Single 60' rail with numerous balancer trolleys could also be used.

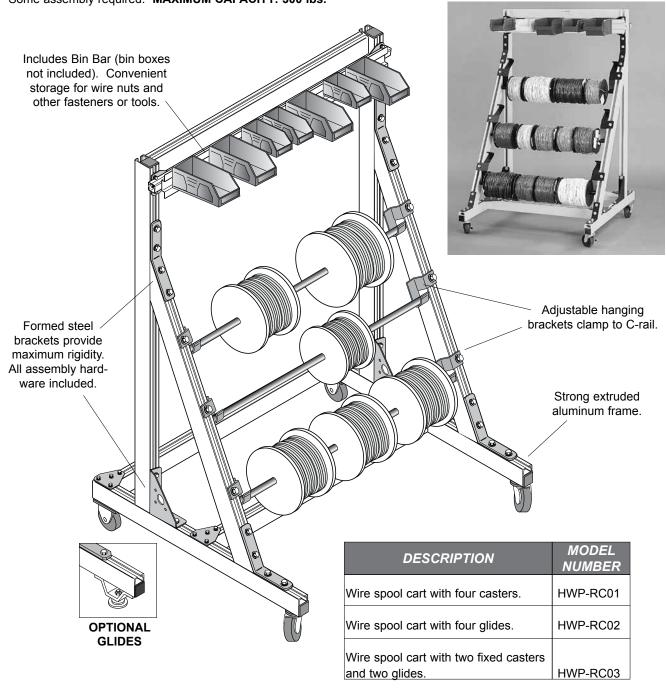




MOBILE WIRE SPOOL CART

SOLVES WIRING LOGISTICS

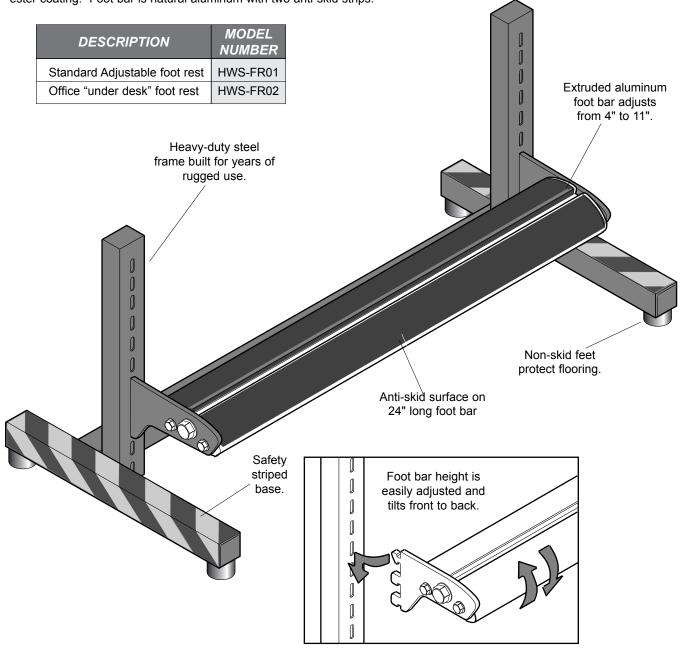
Here's the answer to production or maintenance wiring jobs. Roll the wire to the job, unspool what you need, and return the cart to a convenient storage place. Made of strong but light **WA50** aluminum rail with formed steel brackets, the cart measures 54" high, 36" deep and 33.6" wide. There is a 27" clear space between spool shaft brackets, which are fully adjustable. The cart is available with four heavy-duty casters (two fixed and two swivel with locks), two fixed casters and two glides or, for semi-permanent installation, with four glides. Swivel casters may be installed at either front or back. All components, except hardware, finished with chip-resistant baked polyester coating. Rails are beige and brackets are black. Some assembly required. **MAXIMUM CAPACITY: 300 lbs.**





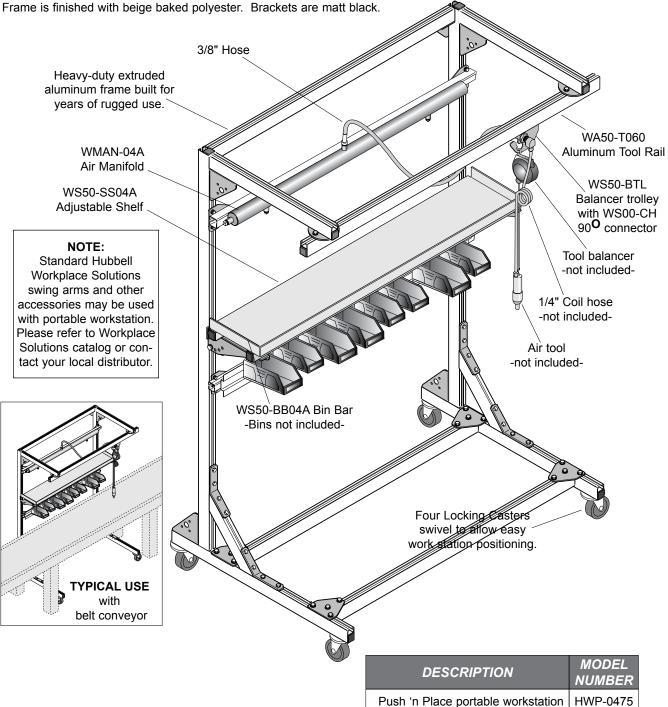
ADJUSTABLE FOOT REST EASY ON THE LEGS

Seated or standing, your workers can be more productive and more comfortable when a foot rest is used. In addition, use of a foot rest offers a degree of protection from back or leg strain. Fully adjustable and strong enough for heavy industrial applications, it's constructed of steel with extruded aluminum foot bar. Standard model measures 29" wide, 12.75" deep and 12.25" high. Smaller "under desk" version measures is 23" wide. Both rest on four non-skid rubber feet. The foot bar is easily adjustable from 4" to 11" above the floor and tilts 15° fore and aft. Frame is finished with matte black baked polyester coating. Foot bar is natural aluminum with two anti-skid strips.



Push in Place WORKSTATION A WORKSTATION WHERE YOU NEED IT

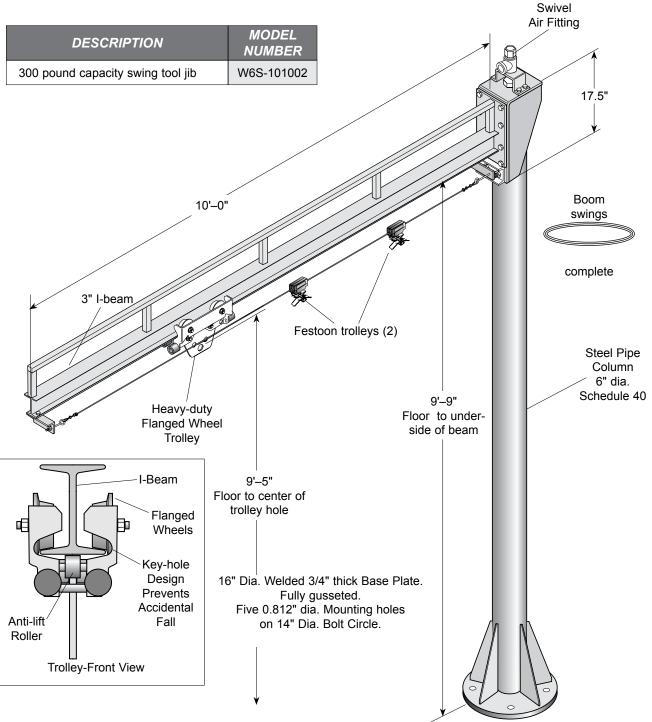
Here's a way to maintain flexibility on the plant floor without sacrificing safety and productivity. The Hubbell Workplace Solutions Push "In Place portable workstation moves to where the action is. It rolls easily on four heavy-duty locking, swivel casters. Constructed of light but strong extruded aluminum rail, it measures 36" deep and 90" high, including casters. Frame is 44" wide o.c., perfect for under a 5' conveyor section, while the tool bar is 60" long and can be fitted with splice angles to adjoin two or more units. Bin Bar, air manifold and balancer trolley with fitting plus 3/8" hose are standard.





300 Ib. CAPACITY SWING JIB RUGGED I-BEAM BOOM SWINGS FULL 360°

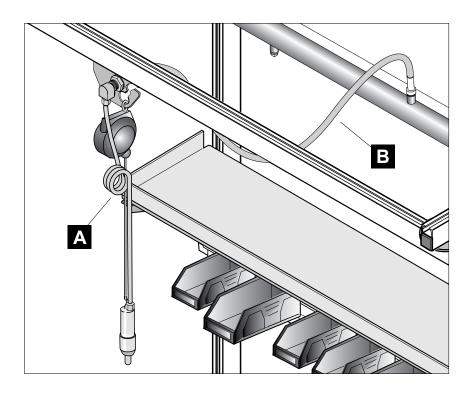
If your plant uses large tools with air balancers, the Hubbell Workplace Solutions 300# Tool Jib is for you. It features a proven flanged wheel trolley rolling on an I-beam mounted to a tubular steel column. Air supply is conveniently handled by a swivel fitting at the top of the column and festoon trolleys leading to the balancer trolley. Boom swings full 360°, supported by heavy tapered roller bearing and two rollers.





AIR LINES FOR WORKSTATIONS DON'T INTERFERE WITH AIR TOOL OPERATION

The purpose of tool trolleys on workstation rails is to allow the tool to be easily moved to the work position. Stiff, unyielding hoses prevent free trolley movement and can actually increase work effort. Hubbell Workplace Solutions 1/4" ID coiled hose is designed to run from the trolley fitting to the tool. It stays up, out of the way yet is so flexible you will hardly know it's there. For connecting fitting on tool trolley to air supply or manifold select the strong, flexible, 3/8" ID air lines. Available in eleven lengths, they feature swivel fittings at both ends for minimal trolley interference.



Coiled hose from trolley to tool. Transparent blue polyurethane hose is flexible and light weight, doesn't interfere with tool positioning. Excellent memory retention. High chemical resistance. 3/8" O.D. x 1/4" I.D. x 4' extended length. 1/4" NPT male swivel fitting one end; fixed male fitting opposite end.

DESCRIPTION	MODEL NUMBER
Coiled hose 3/8"od x 1/4"id x 4' Blue polyurethane	HWS-AC04

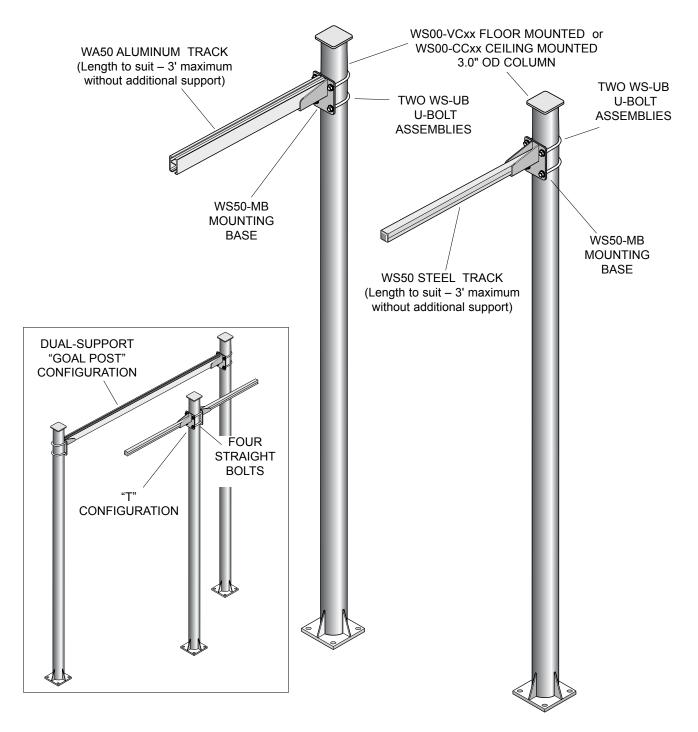
The most flexible air line we have found. Ideal for connecting tool trolley to manifold or other supply because its flexibility does not interfere with trolley movement. Clear, reinforced plastic, 3/8" I.D. with 3/8" NPT male swivel fittings on both ends.

LENGTH		MODEL
ft.	(m)	NUMBER
2	(0.6)	HWS-AL02
3	(0.9)	HWS-AL03
4	(1.2)	HWS-AL04
5	(1.5)	HWS-AL05
6	(1.8)	HWS-AL06

QUICK JIBS

WS50-MB MOUNTING BASE DOUBLES AS BOOM MOUNT

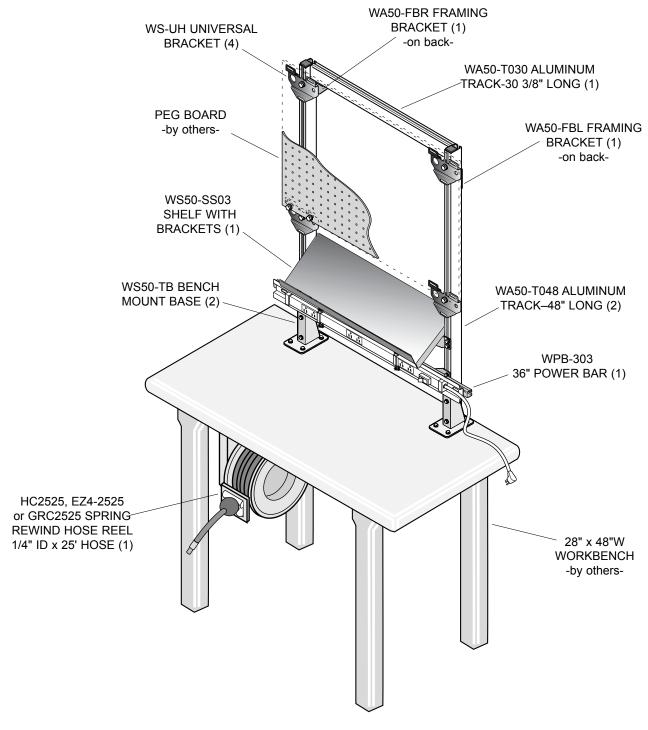
WS50 steel track or WA50 extruded aluminum track can easily and inexpensively be hung on standard 3" OD vertical columns to make jibs or rail supports. Height is fully adjustable. More than one "boom" can be mounted to each column, as shown in inset, below, or two booms can support longer track. May also be hung overhead using WS00-CC ceiling mounting columns. Maximum boom length with one end supported, 3'. Maximum capacity, 50 lbs.





NEAT & TIDY 36" BENCH BACK ALUMINUM FRAME PROVIDES STRENGTH AND RIGIDITY

Many applications don't require a full workstation with tool rails over head. A vertical structure to hold tools and parts does the job quite adequately. For the strongest and most rigid small workbench back, use WA50 track, standard brackets and accessories. All components are right out of the catalog. The customer can supply a peg board or magnet/marker board. Add the hose reel as a finishing touch.

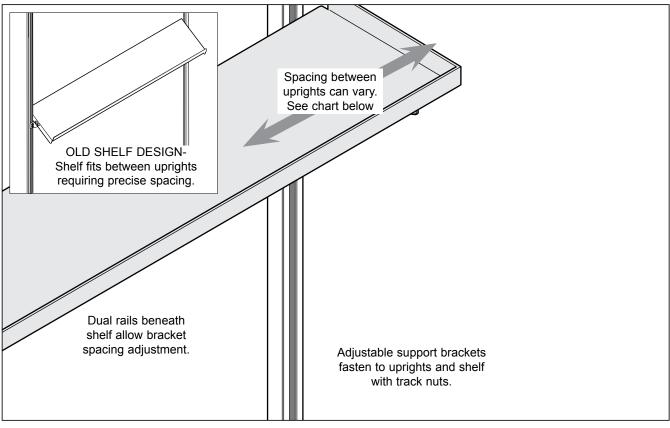


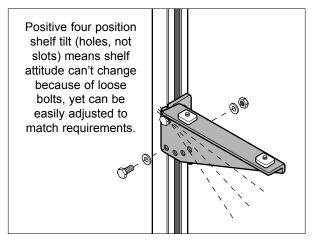


SHELF FITS ANY UPRIGHT SPACING POSITIVE FOUR POSITION TILT ADDS FLEXIBILITY

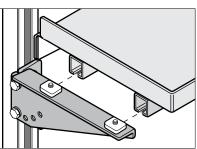
ester finish is beige on shelf and matt black on brackets. Shelf includes black end caps.

New design positions shelf in front of, not between, supporting uprights. This allows almost unlimited upright spacing, dictated by the bench design not shelf length. Shelf attaches to uprights with track nuts (like old style) and has adjustable tilt (also like old style). New design, however, features positive four position tilt with holes rather than slots. Brackets attach to shelf with track nuts into lateral rail welded to underside of shelf. Four models are available, fitting workstations with upright column center-to-center spacing to 68" (1727mm). Baked poly-





Proven track nut technology make assembly, mounting and width adjustment quick and easy.



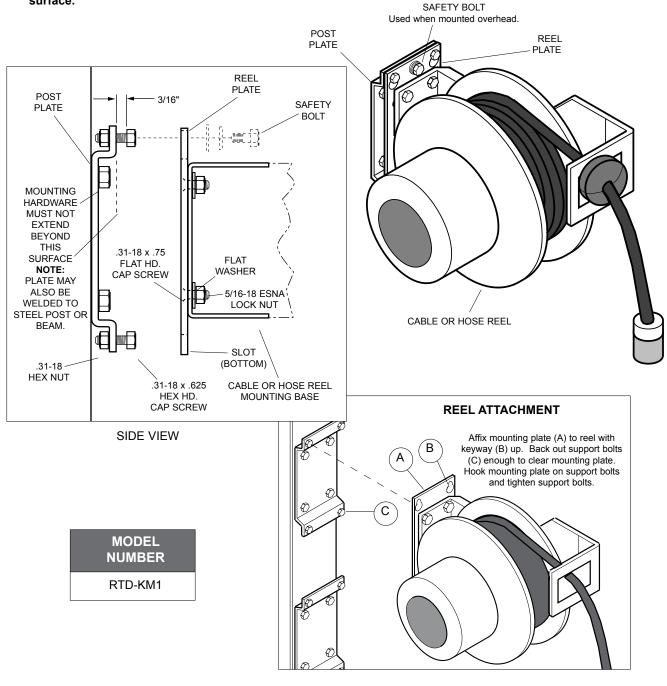
MODEL NUMBER	MAX. UPRIGHT SPACING center-to-center
WS50-SS03A	32" (812mm)
WS50-SS04A	44" (1117mm)
WS50-SS05A	56" (1422mm)
WS50-SS06A	68" (1727mm)



KEYED REEL MOUNTING PLATE

ALLOWS WELDED INSTALLATION...QUICK REMOVAL/REPLACEMENT

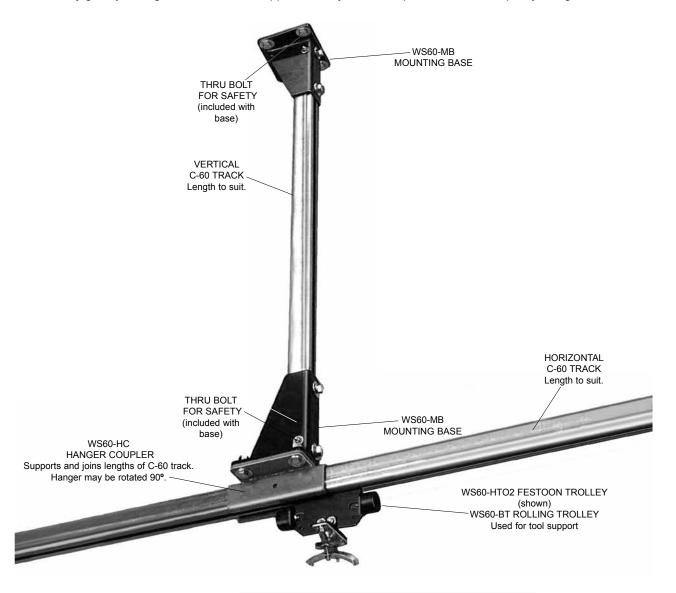
The model RTD-KM1 kit facilitates mounting of 14" and 16" hose or cable reels to vertical surfaces...walls, posts, etc. Reel is quickly and easily attached to mounting plate by sliding keyways and slots onto bolts which are then tightened to hold the reel securely in place. Removal is just as easy. The kit is especially useful when a welded installation is desired...only the plate, not the reel base, need be welded in place. Kit consists of one Post (or wall) Plate, one Reel Plate and hardware for attaching reel plate to reel and for hanging reel on post plate. Hardware for mounting post plate not included. Plates have durable matte black baked-on polyester finish. **NOTE:** Overhead mounting on horizontal support (ceiling) is not recommended. **Safety bolt,** included, **must be installed if mounted on horizontal surface.**





HEAVY-DUTY TOOL RAIL HANGER 250 POUND CAPACITY HANDLES EVEN HEAVIEST TOOLS

Listed here are the components needed for a hanging 250 lb. capacity tool or festoon rail. Three of them are new... the WS60-MB Mounting Base, the WS60-HC Hanger Coupler, and the WS60-HW Bolt Kit. The rest are listed in WS-5 catalog. Thru bolts both top and bottom (see photo) act as a safety net. Thru bolts are included with the mounting bases. These components will not be sold as a kit because the galvanized C-60 Track, both vertical and horizontal, can vary greatly in length. Track must be supported every six feet to preserve 250 lb. capacity rating.



DESCRIPTION	MODEL NO.
Mounting Base for C-60 Track	WS60-MB
C-60 Hanger Coupler	WS60-HC
Hardware Kit*	WS60-HW

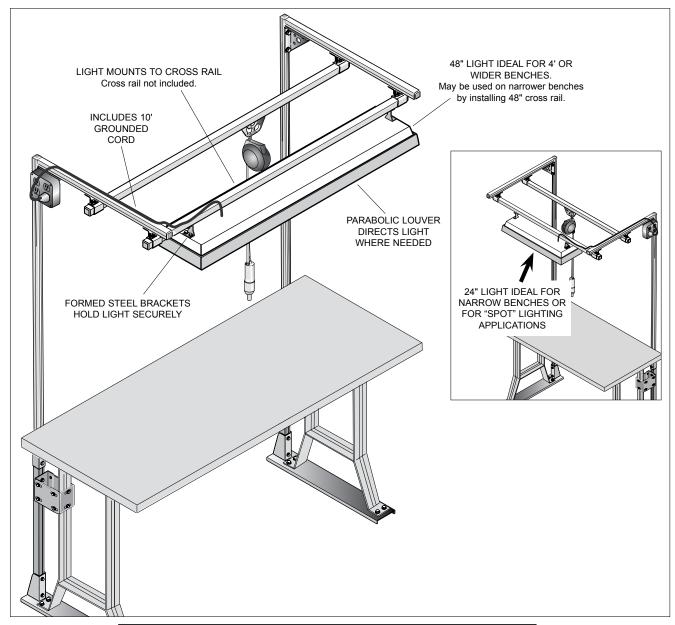
^{*}Hardware Kit includes (4) 1/2 x 1 1/2 bolts, nuts, lock washers and flat washers required to attach hanger coupler to mounting base.



BRIGHT NEW LIGHT

FOUR FLUORESCENT LAMPS, PARABOLIC DIFFUSER, GREAT VALUE

This new workstation light is designed to give you greatest light on the work at minimal cost. Available in either 2' or 4' length, both models feature **four T8 fluorescent lamps** with polycarbonate safety tubes, electric starters, 10' grounded cords for easy plug-in, and parabolic louvers to direct light where you need it. Lights include mounting brackets for easy attachment to workstation rail. NOTE: Brackets do not provide for tilt or width adjustment.



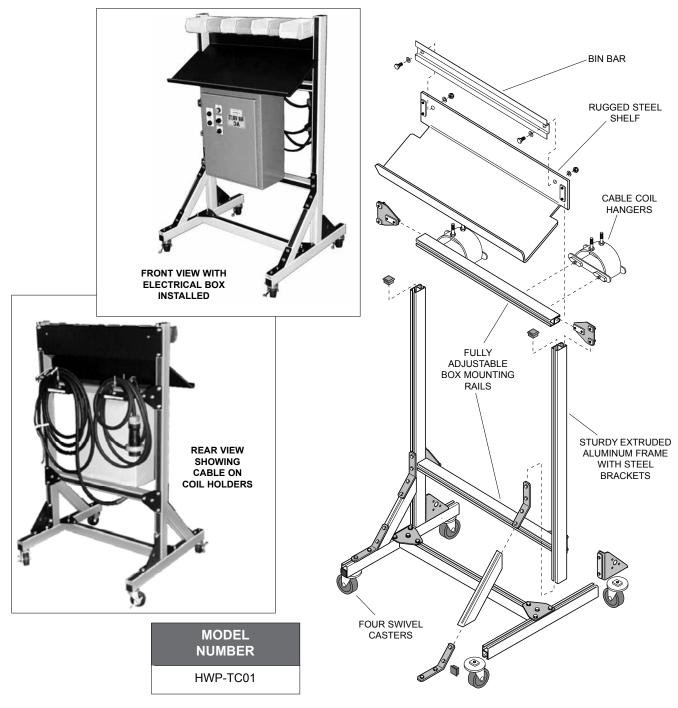
DESCRIPTION	MODEL NO
24" Fluorescent Light Fixture with four T8 lamps	WBL-402
48" Fluorescent Light Fixture with four T8 lamps	WBL-404



TEST BED CART

MOUNT ELECTRICAL BOX, OTHER TEST EQUIPMENT...ROLL TO JOB

The model HWP-TC01 Test Bed Cart represents the ultimate in versatility. Dual electrical box support rails adjust to any size box. Box mounts easily with exclusive **EZNUT**TM Trak Nuts, furnished. Two coil hangers keep cable off floor while cart is being rolled to the job. Heavy duty shelf easily supports even the heaviest technical manuals. Bin Bar holds box bins for miscellaneous storage. Frame is strong extruded aluminum with beige baked polyester finish. All joining brackets are heavy steel with matte black polyester. Includes four locking, swivel casters and all assembly hardware. Bin boxes, electrical box and cables not included. Some assembly required.





PLACE 'n PICKTM SHELF CART

NOW AVAILABLE IN VARIETY OF WIDTHS, DEPTHS

Do you ever need five or six foot wide* shelves on a mobile unit? Or, 18" deep shelves? Perhaps two shelves and a Bin Bar... or six Bin Bars, three on each side? How about adding a Power Bar for electrical power or a Manifold for air? Use your imagination.

Now it's possible to construct a Mobile Shelf Cart to exactly fill your requirements. Pick either the complete kit (HWP-SCxx) which includes three 12" x 30", 42", 54", or 66" shelves, aluminum frame, cover strip for the slots, four swivel casters, and all hardware... or choose the size frame that will fit your needs and equip it with either 12" or 18" deep shelves and any of numerous workstation accessories

The basic frames, available in 3', 4', 5' and 6' widths*, are constructed of sturdy aluminum with heavy steel brackets. All assembly hardware is included. Shelves, which must be ordered to fit cart width, may be either 12" or 18" deep. Other standard accessories such as Bin Bars, Power Bars, and manifolds are easily added to the frame. Cover strip is not included with the frame kits but may be ordered separately. Bin boxes are **not** included. Below is a list of most components, including prices.

*NOTE: Nominal dimensions. Actual shelf width between uprights is 6" less than nominal over all cart width; i.e., 6' wide unit has 66" wide shelves.



KIT & COMPONENT LISTING



DESCRIPTION	MODEL NO.
Complete Cart Kit-(3) 12"D x 30"W Shelves included	
Complete Cart Kit-(3) 12"D x 42"W Shelves included	
Complete Cart Kit-(3) 12"D x 54"W Shelves included	
Complete Cart Kit-(3) 12"D x 66"W Shelves included	HWP-SC66
Frame Kit-For 30" Wide Shelves	HWP-SC03
Frame Kit-For 42" Wide Shelves	HWP-SC04
Frame Kit-For 54" Wide Shelves	HWP-SC05
Frame Kit-For 66" Wide Shelves	HWP-SC06
Shelf-12"D x 30"W	WS50-SS03
Shelf-12"D x 42"W	WS50-SS04
Shelf-12"D x 54"W	WS50-SS05
Shelf-12"D x 66"W	WS50-SS06
Shelf-18"D x 30"W	WS50-SS183
Shelf-18"D x 42"W	WS50-SS184
Shelf-18"D x 54"W	WS50-SS185
Shelf-18"D x 66"W	WS50-SS186
Bin Bar-36" (Fits 30"W Frame Kit)	WS50-BB03A
Bin Bar-48" (Fits 42"W Frame Kit)	
Bin Bar-60" (Fits 54"W Frame Kit)	
Bin Bar-72" (Fits 66"W Frame Kit)	WS50-BB06A
Power Bar-36" Power Strip/36"Mounting Bar	WPB-303A
Power Bar-36" Power Strip/48"Mounting Bar	
Power Bar-60" Power Strip/60"Mounting Bar	
Power Bar-60" Power Strip/72"Mounting Bar	
Cover Strip-20' long roll. Field cut to length	WA-CS20

"SHOCK STOP" TO THE RESCUE PREVENTS CABLE DAMAGE ON "OVER-POWERED" BALANCERS

Cable breakage on tool balancers is extremely rare because of the tough, extremely durable nylon coated steel aircraft cable used. On most failure reports we receive, the cable breaks at the eye or, more precisely, just above the clip that is swaged around the cable to form the eye. Two of the primary causes of cable failure on Series BG balance reels are better classified as user error...(1) overtensioning the spring, and (2) allowing the tool to "slam" back into the balancer from a fully extended or near fully extended position. In most reported cases, both of the these conditions are present.

The result of this "overtensioned slamming" is that the cable stop is slowly pushed down the cable until it is against the eye and can go no farther. Then, every time the tool is returned to the raised position the cable stop hits against the reel housing but the tool tries to keep moving, causing the cable to bend at the point between the stop and the eye. Bend any cable in the same place enough times and it will fatigue and break.

The most obvious way to prevent this type of cable damage is better customer education. With a product as simple to use as a balancer, however, this isn't always easy. The customer buys the balancer, hangs it and a variety of people use and adjust it.

Now there is a mechanical means of minimizing this type of cable damage. We call it the "Shock Stop". It consists of a new fixed stop, a compression spring and a second cable stop which has been milled out so it can't grip the cable and thus slides easily. The kit is easily installed by removing the existing stop, threading the eye through the spring, and installing the two new stops with the "slider" on top.

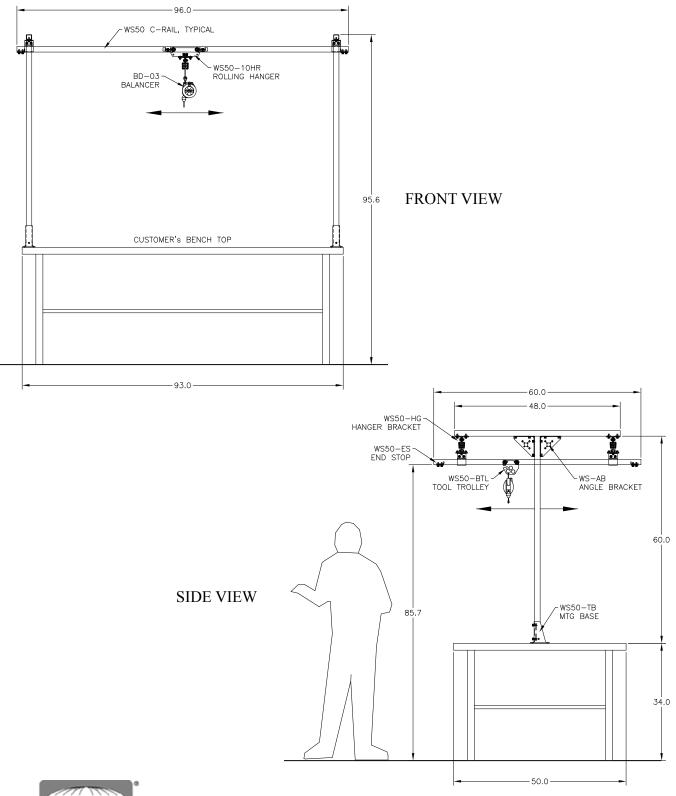
Shock Stop can be used on any model Series BG balancer. It is not needed on the smaller Series BD balancers.



DESCRIPTION	MODEL NO
Shock Stop for tool balancers	BG-SH

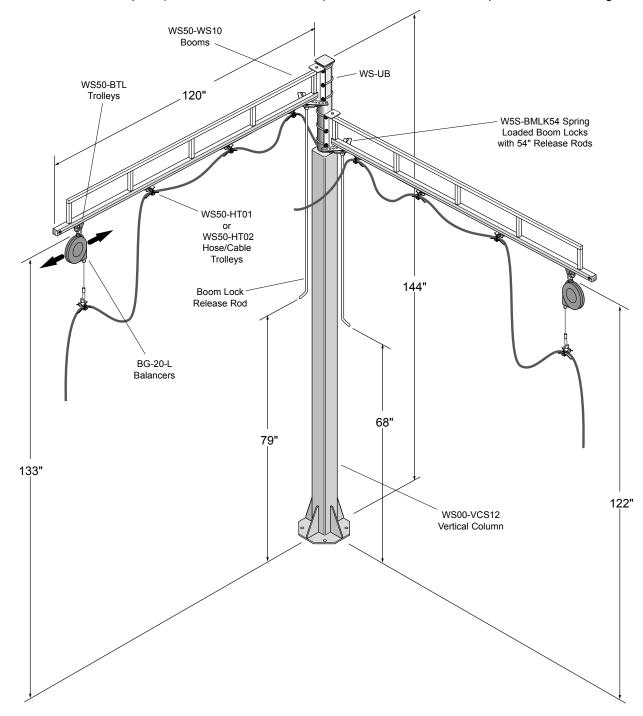


BENCH TOP BRIDGE ASSEMBLE WITH EASE



TWIN BOOMS INCREASE PRODUCTIVITY PUTS TOOLS WHERE NEEDED...OUT OF WAY WHEN NOT NEEDED

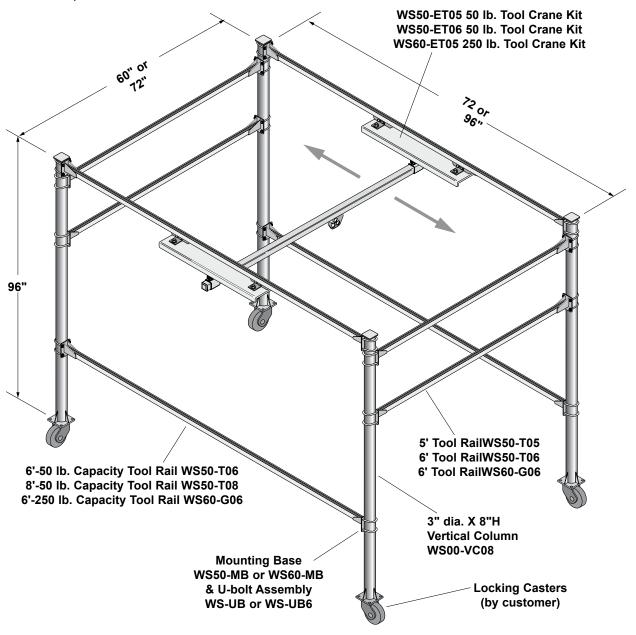
If you need to put tools into the hands of people working some distance apart on a large product (the bow and stern of a boat, for example) take a close look at this twin boom jib. Each boom swings approximately 170° but cannot cross. Stops can be set to allow free swing or to lock boom in straight position and at every 15° in either direction. Unit is not available as a kit, but the individual parts (model numbers shown below) are listed in the Hubbell Workplace Solutions catalog.





GANTRY TOOL CRANE STRADDLES WORK AREA OR ASSEMBLY LINE

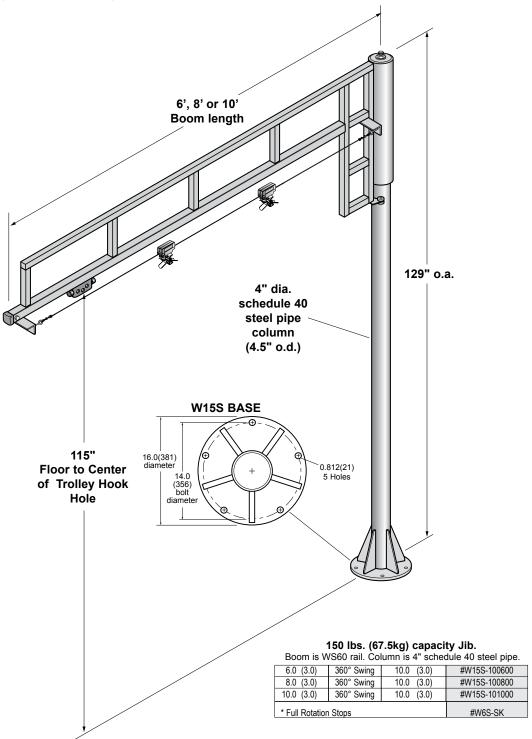
This highly versatile gantry tool crane can be assembled from standard components and kits. Capacity varies depending on which components are used. A 50 lb. capacity crane uses WS-50 components and a WS50-ET05 or WS50-ET06 tool crane kit. The rugged 250 lb. capacity unit is assembled from WS-60 components and a WS60-ET06 tool crane kit. To maintain full 250 lb. capacity, the rails on which the crane runs must be no more than 72" in length. Longer spans will decrease capacity. The cranes are designed to provide overhead tool support and are NOT designed for lifting. All but the casters are shown in the WS catalog. WS50 components have bake polyester finish. WS60 components are galvanized or zinc plated.





150 Ib. JIB FOR BIG TOOLS KEEPS LARGE AIR OR ELECTRIC TOOLS SUSPENDED OVERHEAD

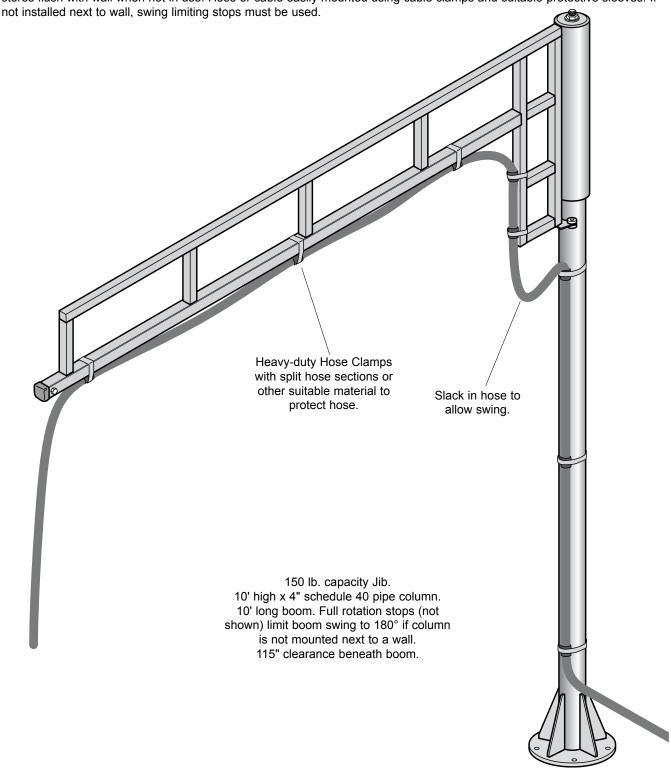
Extra-heavy duty jib is ideal for Series "EH" balancers with heavy torque wrenches and similar equipment. Boom swings full 360° but swing may be limited by optional stops. 6', 8' or 10' boom is rugged WS60 rail with ladder reinforcing. Ten foot high vertical column is 4" o.d. schedule 40 pipe. Boom supported by tapered bearing and heavy-duty rollers. Includes wire rope festoon system with two trolleys.





ANOTHER USE FOR 150 lb. JIB PROVIDES OVERHEAD ACCESS, SWINGS OUT-OF-THE-WAY

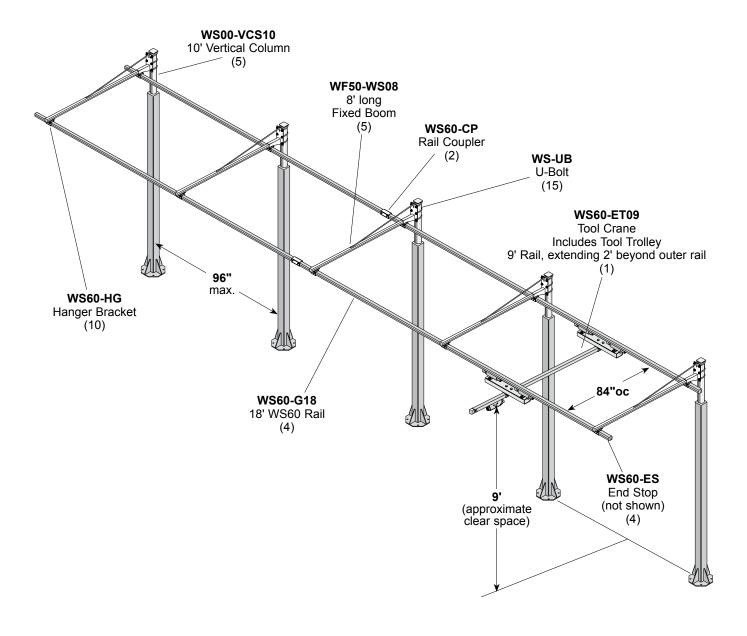
The 150 pound capacity extra-heavy duty jib is ideal for supporting large hose or cable. Boom swings out to perform task, stores flush with wall when not in use. Hose or cable easily mounted using cable clamps and suitable protective sleeves. If



PUT BALANCER OVER WORK AREA

WS60 TOOL CRANE REACHES OUT TO TASK

Originally designed to facilitate removal of cast aluminum car wheels from casting machines, the structure below was constructed from standard components (the WS60-ET09 tool crane is not cataloged but is available). In addition to its original use, it is ideal for heavier tools used on assembly lines and similar applications. Total rail length can be customized to fit the job. The one shown here is 36' long. Maximum capacity, including balancer plus tool or air hoist plus load is 85 lbs. Using two or more tool cranes is not recommended unless there is some provision to prevent the cranes from coming too close together. This could overload the rail structure. Obviously, the columns must be securely and appropriately anchored (suggested anchoring details are provided with each column).

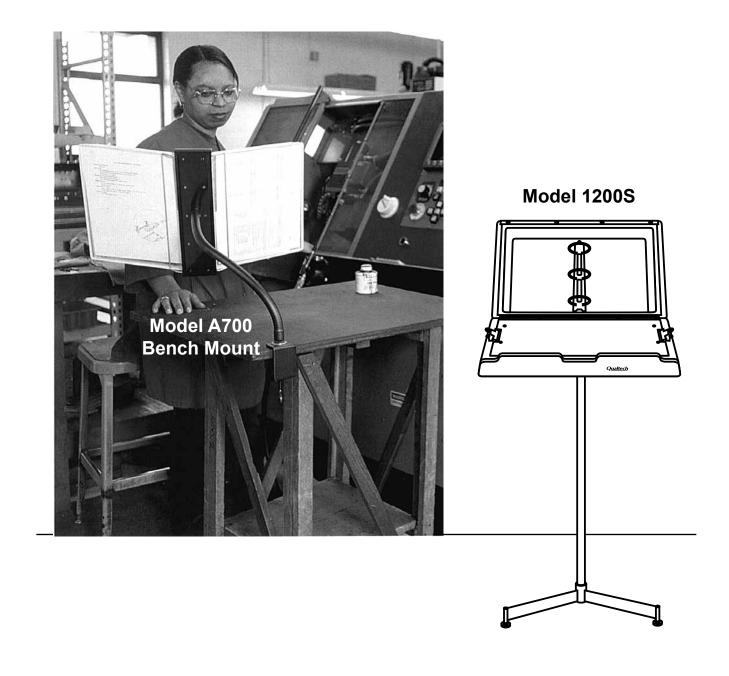




Qualtech

EASILY ACCESS IMPORTANT DOCUMENTS

When safety and efficiency matter, having the proper information easily accessible on the shop floor is very important. Qualtech Document Stands allow for files such as prints, drawings, production orders, instructions or safety guidelines to be kept clean, safe and organized right at your fingertips. We do offer a stand made especially for **MSDS - Right-to-Know** documents - Model A1200 Series. We offer many different types of stands with different mounting options. See our catalog for more information or call our office.



JIB KITS FOR USE OF MULTIPLE CABLES KEEPS ELECTRIC TOOLS SUSPENDED OVERHEAD

Use Hubbell Workplace Solutions Jib Kits and Festooning to keep tools suspended over a work zone. Tools located overhead keeps them in a safe and readily usable position at all times. You will not have to worry about losing expensive tools, tripping over cables or adding extra strain to assemblers. The Jib Kits can be ceiling or floor mounted. View our catalog for more information.

