

**SIMALFA**<sup>®</sup>

**WATER BORNE ADHESIVES**



## Simple Rack Specifications:

### Upright Frame:

Height: 10'  
Depth: 36"  
Size: F20 (3" x 2.5")  
Quantity: 2

### Beam:

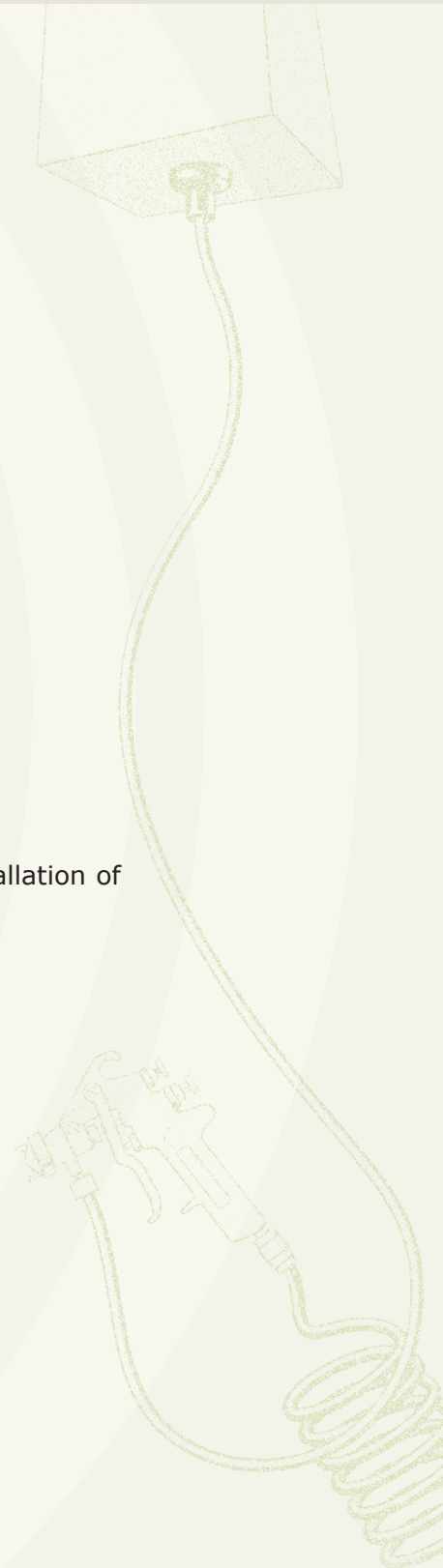
Length: 48"  
Size: P2500  
Quantity: 4

### Accessories:

Safety Bars  
Quantity: 4

### Setup Instructions:

1. Set the top beams at 9' and lock in place.
2. Set the 2nd set of beams at about 3" for support and lock in place
3. Fasten rack to floor using concrete anchors.
4. Install safety bars on top set of beams. Space to evenly distribute tote.
4. Follow setup instructions for the Free Flowing System for complete installation of adhesive system.





## UNITED STEEL PRODUCTS COMPANY



### USP: THE STORAGE RACK COMPANY

USP HAS OVER 30 YEARS OF EXPERIENCE IN THE RACK MANUFACTURING INDUSTRY.

### STORAGE DIVERSITY

USP MANUFACTURES A FULL LINE OF STORAGE RACK CONFIGURATIONS. OUR RACK, ACCESSORIES AND SYSTEMS CAN BE USED FOR A VARIETY OF STORAGE APPLICATIONS.

### QUALITY FROM START TO FINISH

USP'S QUALITY FEATURES ARE UNMATCHED IN THE INDUSTRY.

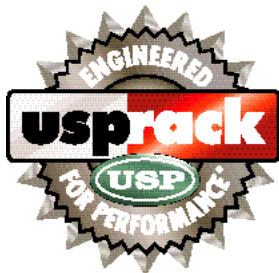
**MORE STEEL-** WE START BY PUTTING MORE STEEL INTO ALL OUR COMPONENTS FOR A HEAVIER, MORE RIGID AND DURABLE RACK.

**HIGH STRENGTH-** ONE PIECE TUBE-SEAMED STEP BEAMS WITH NO EXPOSED WELDS. SINGLE RIB COLUMN DESIGN ADDS TO STRENGTH AND RIGIDITY

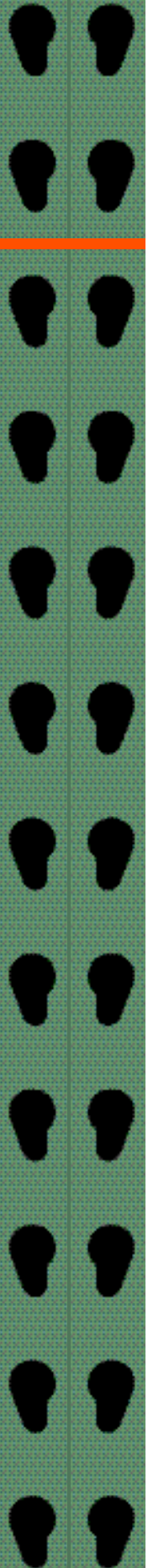
**EXTRA-SECURE CONNECTIONS-** THREE HIGH-STRENGTH BUTTONHEAD STUDS ON BEAM CONNECTOR PLATES AND TAPERED KEYHOLE SLOTS IN FRAMES FOR QUICK, EASY ASSEMBLY.

**SAFETY-** FACTORY-INSTALLED, FIELD REPLACEABLE SELF-ENGAGING ZINC PLATED CYLINDER-CLIP SAFETY LOCKS ARE STANDARD ON ALL BEAM CONNECTORS.

**BETTER FINISH-** WE USE A POWDER-COAT BAKED POLYESTER PROCESS ON ALL MAJOR COMPONENTS WHICH CREATES A DURABLE APPLIANCE FINISH, AVAILABLE IN A WIDE RANGE OF COLORS.



STORAGE RACK COMPONENTS & SYSTEMS



# APPLICATIONS

**PALLET SELECTIVE** IS BASIC WAREHOUSE STORAGE RACK, SET UP WITH AISLES FOR FORKLIFT ENTRY AND PRODUCT RETRIEVAL. USP OFFERS PALLET SELECTIVE RACK IN A WIDE RANGE OF SIZES, HEIGHTS AND CAPACITIES.



**DOUBLE DEEP**, SHOWN HERE, IS DESIGNED TO ACCOMMODATE EXTRA-DEEP PALLET LOADS OR FOR 2 PALLET LOADS PER POSITION, ONE BEHIND THE OTHER.



**DRIVE-IN** DELIVERS HIGH DENSITY STORAGE BY ELIMINATING AISLES. THIS SYSTEM HELPS YOU TO GAIN UP TO 60% IN TOTAL USEABLE STORAGE AREA OVER STANDARD SELECTIVE RACK AND IS IDEAL FOR FIRST-IN, LAST-OUT INVENTORY.

**PUSH-BACK** IS A SYSTEM OF ENVELOPING CARTS WITH WHEELS THAT GLIDE ON SLOPING RAILS. THE FIRST PALLET LOAD IS PLACED ON THE TOP CART. THE SECOND PALLET LOAD PUSHES THE FIRST BACK, AND SO ON FOR UP TO 6 DEEP. PUSH-BACK SAVES SPACE BY CREATING HIGH DENSITY STORAGE. EACH PALLET LOAD ON EACH LEVEL IS ALWAYS READILY AVAILABLE AT THE FACE OF THE RACK. PUSH-BACK IS IDEAL FOR FIRST-IN, FIRST-OUT INVENTORY.



**THE STORAGE RACK COMPANY**

PHONE: 570-476-1010 FAX: 570-476-4358

e-mail: [usp@usprack.com](mailto:usp@usprack.com)

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

# APPLICATIONS

**CARTON FLOW** IS SELECTIVE RACK FITTED WITH SLOPING SHELVES THAT HAVE ROLLERS OR WHEELS SO THAT ITEMS LOADED IN ONE SIDE OF THE RACK WILL FLOW TO THE OTHER SIDE FOR PICKING. "CARTON FLOW" IS USED FOR SMALLER ITEMS WHILE "PALLET FLOW", A SIMILAR CONFIGURATION, IS USED FOR GRAVITY FEED OF ENTIRE PALLET LOADS.



**ARCHIVE STORAGE RACK** IS DESIGNED AND SIZED FOR THE RECORDS & ARCHIVE STORAGE INDUSTRY. CONFIGURATIONS INCLUDE MAN-UP, CATWALK AND OPEN SHELF FILING SYSTEMS. MILLIONS OF BOXES AND FILES ARE CURRENTLY STORED ON USP RACKS NATIONWIDE.

**VERSA RACK** COMPONENTS FIT INTO USP SELECTIVE RACK TO CREATE A SYSTEM OF SHELVES AND DIVIDERS WHICH MAKE IT PERFECT FOR WAREHOUSE-STORE DISPLAY.



**RACK SUPPORTED STRUCTURES** - RACK SUPPORTED BUILDINGS ARE AN ECONOMICAL AND SPACE-SAVING OPTION FOR NEW CONSTRUCTION. RACK SUPPORTED MEZZANINES CAN BE ADDED TO EXISTING WAREHOUSES, CREATING MULTI-LEVEL STORAGE.



**THE STORAGE RACK COMPANY**

PHONE: 570-476-1010 FAX: 570-476-4358

e-mail: [usp@usprack.com](mailto:usp@usprack.com)

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

# APPLICATIONS



**INTEGRATED PICK MODULE** A PICK MODULE CONSISTS OF RACK FITTED WITH CARTON FLOW BEDS. PRODUCTS ARE LOADED FROM THE OUTSIDE AND FLOW TO THE INSIDE FOR PICKING/PACKING. PICK MODULES CAN BE ONE OR MULTI-LEVEL AND ARE OFTEN BUILT AROUND A CONVEYOR SYSTEM.


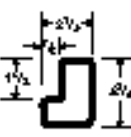
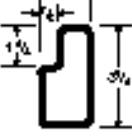
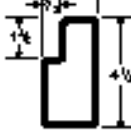
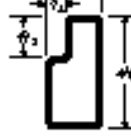

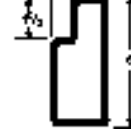
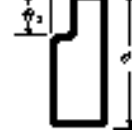


## ROLL-FORMED SPECIFICATIONS



**Notes:**

1. Based on RMI 1997 Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks.
2. Capacities are based on uniformly distributed loading in pounds per shelf (pair of beams).
3. Deflection limited to span/180.
4. Spans from 48" to 80" designed for 25% impact from placing 1 load per shelf.
5. Spans from 82" to 120" designed for 25% impact from placing 1 of 2 loads per shelf.
6. Spans from 122" to 144" designed for 25% impact from placing 1 of 3 loads per shelf.
7. Applicable for non-seismic use only. Building codes may require otherwise.
8. Capacities are for beam components only. Overall rack system configuration is the responsibility of others.
9. Contact your USP representative for design assistance or for applications not covered by above.
10. For beam lengths over 144" (green tinted on capacity chart) - 2 safety bars required per beam level, tek screwed to beam.

<b>ROLL-FORMED STEP BEAM CAPACITIES</b> (LBS. PER PAIR)								
Other sizes available - Please contact your USP representative for information.								
BEAM LENGTH (INCHES)	 MODEL NO. <b>P2250</b>	 <b>P2500</b>	 <b>T3600</b>	 <b>T4124</b>	 <b>T4624</b>	 <b>T5124</b>	 <b>T5900</b>	 <b>T6500</b>
48"	<b>3144</b>	<b>4066</b>	<b>6910</b>	<b>8775</b>	<b>10597</b>	<b>12000</b>	<b>12000</b>	<b>12000</b>
60"	2556	3285	5612	7097	8552	10767	12000	12000
72"	2002	2762	4743	5975	7186	9029	12000	12000
84"	1492	2252	4485	5734	6883	8632	12000	12000
<b>96"</b>	<b>1155</b>	<b>1735</b>	<b>3483</b>	<b>5028</b>	<b>6067</b>	<b>7596</b>	<b>10583</b>	<b>12000</b>
102"	1027	1540	3106	4476	5731	7168	9975	11825
<b>108"</b>	<b>919</b>	<b>1376</b>	<b>2788</b>	<b>4011</b>	<b>5309</b>	<b>6788</b>	<b>9434</b>	<b>11206</b>
<b>120"</b>	<b>747</b>	<b>1115</b>	<b>2283</b>	<b>3276</b>	<b>4330</b>	<b>5887</b>	<b>8512</b>	<b>10152</b>
132"				2726	3599	4887	7682	9196
<b>144"</b>				<b>2303</b>	<b>3038</b>	<b>4120</b>	<b>6511</b>	<b>8482</b>
156"					2597	3519	5551	7335
168"							4765	6357
180"							4163	5562

NOTE: SIZES HIGHLIGHTED IN BOLD INDICATE STANDARD SIZES.

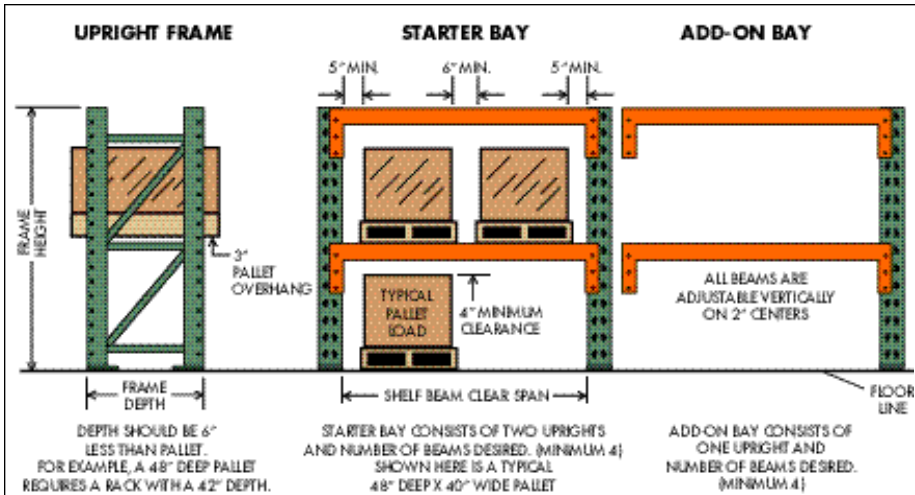


# ROLL-FORMED SPECIFICATIONS

FRAME CAPACITIES (LBS.)						
MAXIMUM BEAM SPACING*	F14 <sup>†</sup> 3" x 1 1/2" COL.	F20 3" x 2 1/2" COL.	F24 3" x 2 1/2" COL.	F30 3" x 3" COL.	F35 3" x 3" COL.	F40 3" x 3" COL.
36"	17437	23906	28005	31162	38909	PLEASE CONTACT YOUR USP REPRESENTATIVE FOR CAPACITIES AND INFORMATION
42"	16400	22610	26364	29481	36692	
48"	15220	21149	24530	27594	34218	
54"	13937	19559	22557	25549	31556	
60"	12594	17884	20502	23398	28775	
66"	11232	16167	18420	21194	25948	
72"	9870	14426	16332	18965	23101	
78"	8683	12794	14406	16842	20448	
84"	7679	11396	12771	15019	18183	
90"	6827	10195	11379	13449	16243	
96"	6101	9160	10188	12095	14577	

**Notes:**

- Based on RMI 1997 Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks.
- \*"Spacing" is distance from floor to top of first beam level. If maximum opening is not floor level, "Spacing" is distance from top of beam to top of beam + 1".
- Applicable for non-seismic use only. Building codes may require otherwise.
- Capacities are for frame components only. Overall rack system configuration is the responsibility of others.
- Contact your USP representative for design assistance for applications not covered by above.
- Where the bottom portion of frames are exposed to potential minor impacts from forklift trucks or moving equipment, consideration shall be given to purchasing one of the optional protection devices offered by USP.
- † F14 Frame capacity: 4,000 lbs. max per beam level.



**HIGH & HEAVY COLUMNS**

DI 40  
DI 46

Minimum quantity required.  
For capacities and additional information, contact your USP representative.



## HOW TO ORDER:

**BEAM LENGTH:** SHELF LENGTH EQUALS THE DISTANCE BETWEEN UPRIGHTS. IT IS DETERMINED BY ADDING THE WIDTHS OF PALLET LOADS PLUS A 5" SIDE CLEARANCE BETWEEN UPRIGHT AND PALLET AND 6" BETWEEN PALLET LOADS. SHELF BEAM CAPACITIES ARE BASED ON A PAIR OF BEAMS SUPPORTING AN EVENLY DISTRIBUTED LOAD.

**RACK HEIGHT:** ADD THE FOLLOWING FIGURES:

- HEIGHT OF PALLET LOADS (INCLUDING PALLET)
- + HEIGHT OF SHELF BEAM
- + 4" MINIMUM VERTICAL CLEARANCE FOR EACH PALLET LOAD

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- SUM OF ABOVE DIMENSIONS = RACK HEIGHT

FOR UPPERMOST LOAD LEVEL, LOCATION OF SHELF BEAM SHOULD BE 6" LESS THAN FORK TRUCK'S MAXIMUM LIFT HEIGHT.

**ROLL-FORMED FRAME PART NUMBER**  
(EXAMPLE: 3" x 3" x 42" x 192" / VISTA GREEN)

<b>F</b>	<b>30</b>	<b>42</b>	<b>192</b>	<b>000</b>	<b>GV</b>
ROLL-FORMED FRAME	CAPACITY MODEL	DEPTH IN INCHES	HEIGHT IN INCHES	OPTIONS	COLOR

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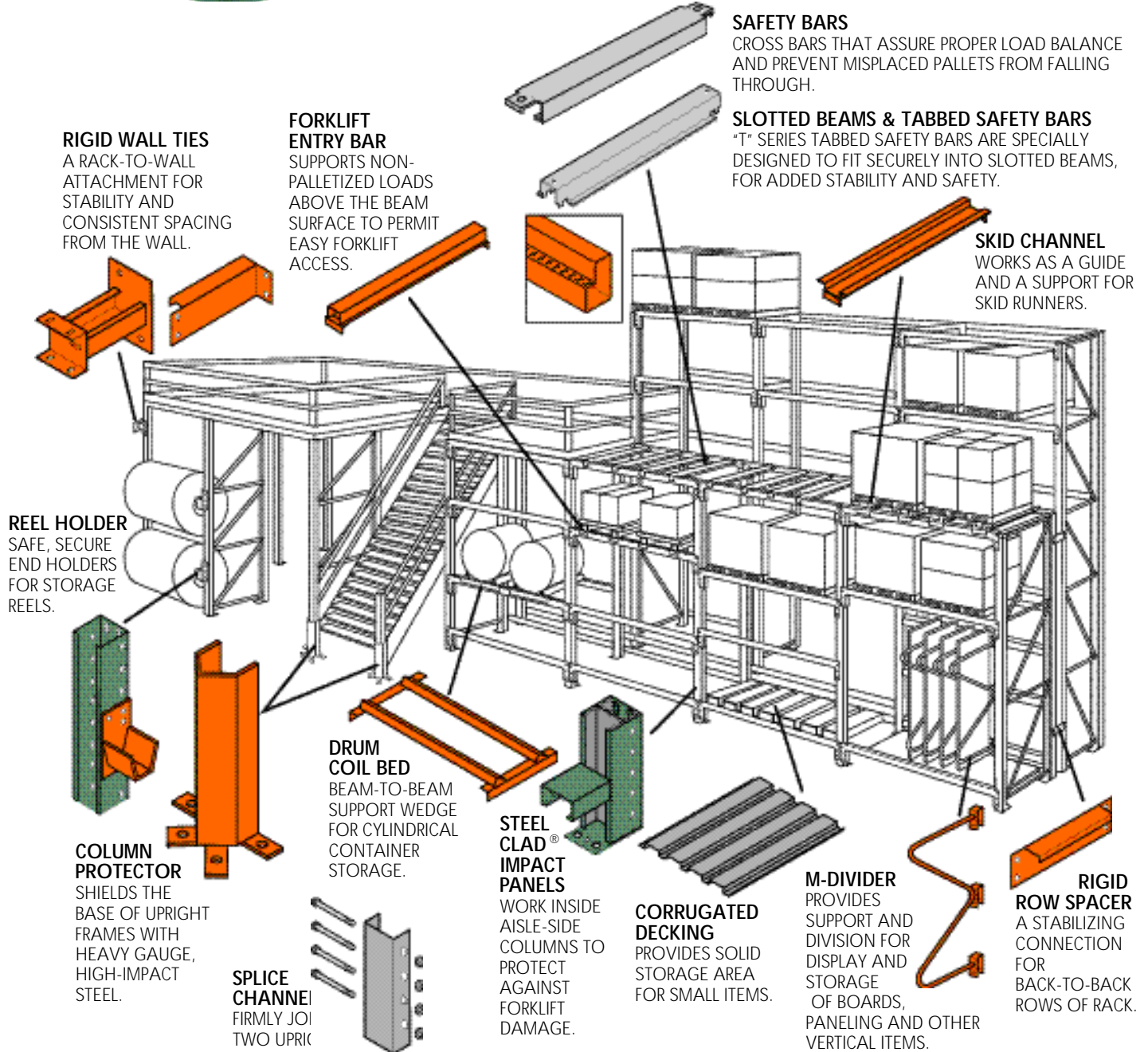
**ROLL-FORMED STEP BEAM PART NUMBER**  
(EXAMPLE: 4 1/8" x 96" / ULTRA ORANGE)

<b>T</b>	<b>4124</b>	<b>096</b>	<b>000</b>	<b>OU</b>
ROLL-FORMED STEP BEAM	HEIGHT IN INCHES	LENGTH IN INCHES	OPTIONS	COLOR

Capacity labels and load plaques are required by code and available from USP. See our literature.



# ROLL-FORMED ACCESSORIES



the storage rack company

## UNITED STEEL PRODUCTS COMPANY

A DIVISION OF UNITED STEEL ENTERPRISES, INC.

P.O. BOX 407, EAST STROUDSBURG, PA 18301-0407

570-476-1010 / FAX: 570-476-4358 e-mail: usp@usprack.com www.usprack.com

### MANUFACTURERS OF HIGH QUALITY STORAGE RACK PRODUCTS:

PALLET SELECTIVE • DRIVE-IN • PUSH-BACK • DOUBLE DEEP • MARINE STORAGE • BULK STORAGE  
ARCHIVE STORAGE • RETAIL DISPLAY • CARTON FLOW • PALLET FLOW • RACK-SUPPORTED BUILDINGS &  
MEZZANINES • INSTALLATION • CUSTOM DESIGNS • ROLL-FORMED OR STRUCTURAL STEEL



American Welding Society  
Sustaining Company Member

