

## Product

- TPS Metal Saddle is a curved metal shield roll formed into a 180 degree arc and designed to protect pipe insulation inserts from damage at the structural clevis hanger locations.
- The saddles are fabricated from carbon steel with a G90 galvanized finish. Stainless steel and painted steel available upon request.
- Designed to provide additional point load distribution when used in conjunction with Therma-Phen™ Phenolic Foam or TPSX-12® Calsil Inserts.
- TPS Metal Saddles are available in 16, 18, 20, 22 and 24 metal gauge thicknesses.
- 9" and 12" standard lengths with other custom lengths available upon request.



## Buy American Act Certified

Iron Pipe Size	METAL SHIELD OUTSIDE DIAMETER (INCHES) BASED ON PIPE INSULATION THICKNESS (INCHES)												Copper Tubing Size
	1/2" thick		1' thick		1 1/2" thick		2' thick		2 1/2" thick		3" thick		
	OD	Gauge	OD	Gauge	OD	Gauge	OD	Gauge	OD	Gauge	OD	Gauge	
5/8	2	24	3	24	3.5	24	4.5	24	—	—	—	—	5/8
1/2	2	24	3	24	4	24	5	24	6.5	24	7.5	24	7/8
3/4	2.5	24	3	24	4	24	5	24	6.5	24	7.5	24	1 1/8
1	2.5	24	3.5	24	4.5	24	5.5	24	6.5	24	7.5	24	1 3/8
1 1/4	3	22	3.5	22	5	22	5.5	22	6.5	22	7.5	22	1 5/8
1 1/2	3	22	4	22	5	22	5.5	22	7.5	22	8.5	22	2 1/8
2	3.5	22	4.5	22	5.5	22	6.5	22	7.5	22	8.5	22	2 5/8
2 1/2	4	20	5	20	6.5	20	7.5	20	8.5	20	9.5	20	3 1/8
3	4.5	20	5.5	20	6.5	20	7.5	20	8.5	20	9.5	20	3 5/8
4	5.5	20	6.5	20	7.5	20	8.5	20	9.5	20	11	20	5 1/8
5	6.5	18	7.5	18	8.5	18	9.5	18	11	18	12	18	6 1/8
6	7.5	18	8.5	18	9.5	18	11	18	12	18	13	18	
8	9.5	18	11	18	12	18	13	18	14	18	15	18	
10	—	—	13	16	14	16	15	16	16	16	17	16	
12	—	—	15	16	16	16	17	16	18	16	19	16	

## Technical Discussion

- "ANSI/MSS-SP 58" discusses protections saddles and shields. Section 7.6.3 states: "When used ***without*** high compressive strength inserts...shields shall be in accordance with Table A3."
- However, many engineers overlook general note #1 under Table A3: "The listed spacings and shield lengths are based on insulation with a compressive strength of 15 psi."
- The most commonly specified pipe insulation in commercial buildings is fiberglass which provides virtually no compressive resistance (<1 psi); and therefore should not be used in conjunction with metal shields. TPS recommends high strength inserts at all structural supports regardless of the pipe diameter.
- Section 7.6.5 states, "When pipe covering protection shields are used with high compressive strength inserts, the shield and the thickness shall be appropriate for the compressive strength of the insert material." This axiom provides an opportunity to reduce the gauge, length and cost of metal shields.
- Please contact TPS to discuss alternatives to antiquated practices such as field notching pipe cover with wood blocks that will reduce installation time, field labor costs and improve system performance.

## Buy American Act Certified

Full Carton Quantities (Standard Products): TPS Metal Shield (9" and 12" lengths)

Saddle OD	24 Gauge	22 Gauge	20 Gauge	18 Gauge	16 Gauge
2.0"	100	***	***	***	***
2.5"	100	***	***	***	***
3.0"	50	30	20	***	***
3.5"	50	30	20	***	***
4.0"	30	30	20	15	***
4.5"	30	20	20	15	***
5.0"	30	20	20	15	10
5.5"	30	20	20	15	10
6.5"	30	30	30	30	25
7.5"	20	20	20	20	15
8.5"	20	20	20	20	15
9.5"	***	10	10	10	5
10.5"	***	10	10	10	5
11.5"	***	***	10	10	5
12.5"	***	***	10	10	5
14.0"	***	***	***	10	5
15.0"	***	***	***	10	5
16.0"	***	***	***	10	5
17.0"	***	***	***	***	5
18.0"	***	***	***	***	5