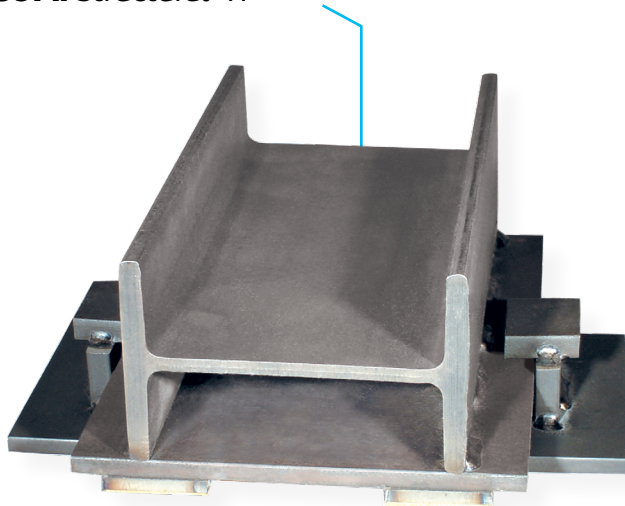


Pipe Slide Assembly, Complete

Fig. 439: Structural "H" Slide Assembly

Fig. 439A: Structural "H"



Features:

- No lubrication required
- Allows up to 4" of insulation
- Allows up to 10" travel standard
- Weld in place design

Available Options:

- Increased travels
- Increased "H" Section heights
- Clamps, Fig. 212 or Fig. 432
- Base plate with mounting holes. The bolt spacing for the bolted base plates is equal to the "W" dimension minus 1 1/2" and the "BL" dimension minus 1 1/2" for all pipe sizes and the hole diameter is 9/16" for all sizes

Notes:

Types 1, 2, and 3 provide for longitudinal movement only. Types 4 and 5 provide for both longitudinal and transverse movement of piping.

*Refer to PTFE Slide Assemblies Overview.

Description

Size Range

6" through 36"

Material

Carbon steel "H" section, PTFE bonded slide plates and carbon steel base.

Finish

Plain

Painted

Hot-Dip Galvanized (Welded after

Galvanizing and Cold Spray Touched-up)

Service

A heavy duty slide support where horizontal movement resulting from expansion and contraction takes place and where a low coefficient of friction is desired.

Approvals

Complies with Federal Specification A-A-1192A (Type 35), ANSI/MSS SP-69 and MSS SP-58 (Type 35).

Maximum Load*

As indicated at 70° F see PTFE Slide Assemblies overview for rating factor at higher temperatures.

Maximum Temperature*

750° F

Temperature Range at PTFE*

-20° F to 400° F

Ordering

Specify figure number, type, name, finish and any other option desired.

Note:

In the PH-92 and PH-92R Catalogs:
The Fig. 439 (slide "H" section only) formerly referred to as Fig. 437. The Fig. 439 (slide base plate) formerly referred to as Fig. 438 (slide base plate). The acceptability of galvanized coatings at temperatures above 450°F is at the discretion of the end user.



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Pipe Slide Assembly, Complete

Fig. 439: Structural "H" Slide Assembly

Fig. 439A: Structural "H"

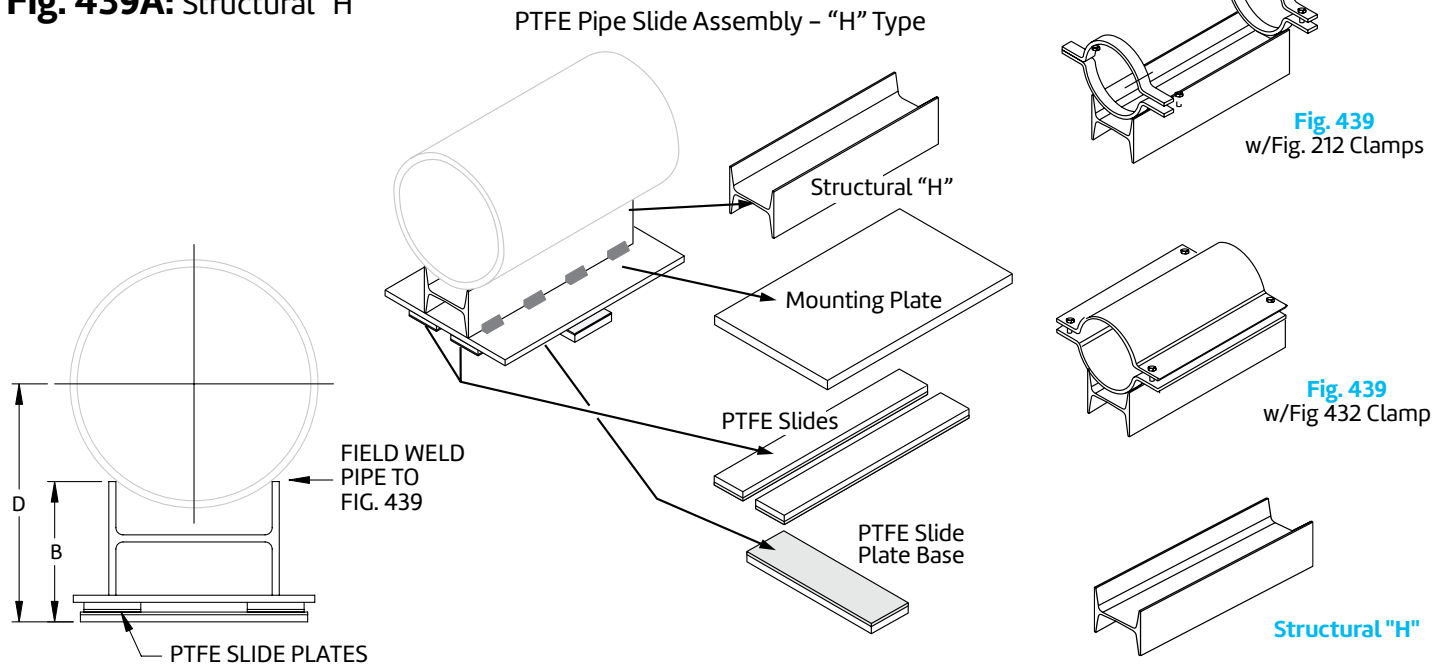


Fig. 439 Dimensions (In) • Loads (Lbs)

Pipe Size	B			D*			Max Load		
	1 & 4	2 & 5	3	1 & 4	2 & 5	3	Down	Side Type 2, 3, 5	Up Type 3
6				7 ¹ / ₄	8	8	12,000	3,000	1,200
8	5	5 ¹ / ₄	5 ⁵ / ₁₆	8 ³ / ₄	9	9			
10				9 ⁵ / ₈	9 ⁷ / ₈	9 ¹⁵ / ₁₆			
12				10 ³ / ₄	11	11 ¹ / ₁₆			
14				10 ⁷ / ₈	11 ¹ / ₈	11 ³ / ₁₆	16,000	4,000	1,600
16	5 ¹ / ₈	5 ³ / ₈	5 ⁷ / ₁₆	12 ¹ / ₈	12 ³ / ₈	12 ⁷ / ₁₆			
18				12 ⁵ / ₈	12 ⁷ / ₈	12 ¹⁵ / ₁₆			
20				13 ³ / ₄	14	14 ¹ / ₁₆			
24	5 ¹ / ₄	5 ¹ / ₂	5 ⁹ / ₁₆	15 ⁵ / ₈	15 ⁷ / ₈	15 ¹⁵ / ₁₆	24,000	6,000	2,400
30	6 ¹ / ₄	6 ⁵ / ₈	6 ¹¹ / ₁₆	19 ⁵ / ₈	19 ⁷ / ₈	20 ¹ / ₁₆			
36	6 ⁷ / ₁₆	6 ¹³ / ₁₆	6 ³ / ₄	23	23 ¹ / ₄	23 ⁷ / ₁₆			

Note:

*With clamps; add material thickness of a Fig. 212 and Figure 432 special clamp.



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Pipe Slide Assembly, Complete

Fig. 439: Structural "H" Slide Assembly

Fig. 439A: Structural "H"

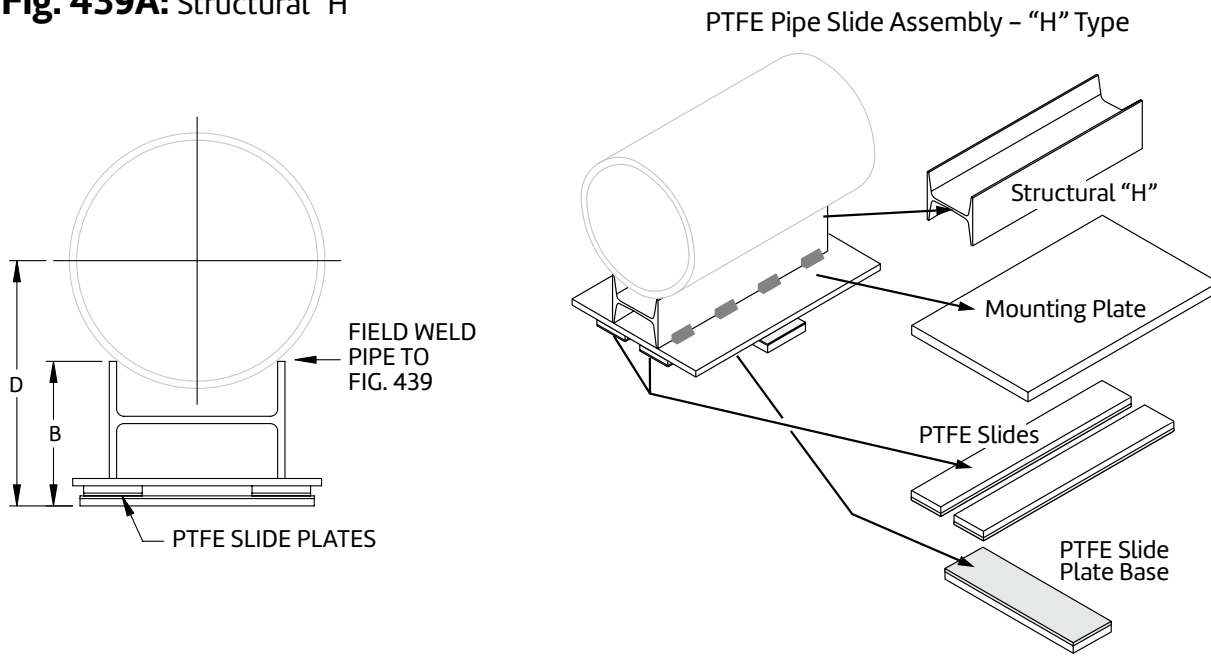


Fig. 439 - with Welded Base Dimensions (In)

Pipe Size	B					D				
	Type 1	Type 2	Type 3	Type 4	Type 5	Type 1	Type 2	Type 3	Type 4	Type 5
6						7 ¹³ / ₁₆	8 ¹ / ₁₆	8 ¹ / ₁₆	7 ¹³ / ₁₆	8 ¹ / ₁₆
8	5	5 ¹ / ₄	5 ¹ / ₄	5	5 ¹ / ₄	8 ¹⁵ / ₁₆	9 ³ / ₁₆	9 ³ / ₁₆	8 ¹⁵ / ₁₆	9 ³ / ₁₆
10						9 ¹³ / ₁₆	10 ¹ / ₁₆	10 ¹ / ₁₆	9 ¹³ / ₁₆	10 ¹ / ₁₆
12	5 ³ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ³ / ₁₆	5 ⁷ / ₁₆	10 ¹⁵ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆	10 ¹⁵ / ₁₆	11 ³ / ₁₆
14						11 ³ / ₁₆	11 ³ / ₈	11 ³ / ₈	11 ¹ / ₈	11 ³ / ₈
16	5 ³ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ³ / ₁₆	5 ⁷ / ₁₆	12 ¹ / ₄	12 ¹ / ₂	12 ¹ / ₂	12 ¹ / ₄	12 ¹ / ₂
18						12 ⁷ / ₈	13 ¹ / ₈	13 ¹ / ₈	12 ⁷ / ₈	13 ¹ / ₈
20	5 ³ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ³ / ₁₆	5 ⁷ / ₁₆	14	14 ¹ / ₄	14 ¹ / ₄	14	14 ¹ / ₄
24	5 ³ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ³ / ₁₆	5 ⁷ / ₁₆	15 ³ / ₄	16	16	15 ³ / ₄	16
30	6 ³ / ₁₆	6 ⁷ / ₁₆	6 ⁷ / ₁₆	6 ³ / ₁₆	6 ⁷ / ₁₆	19 ¹¹ / ₁₆	19 ¹⁵ / ₁₆	19 ¹⁵ / ₁₆	19 ¹¹ / ₁₆	19 ¹⁵ / ₁₆
36	6 ¹¹ / ₁₆	6 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	6 ¹¹ / ₁₆	6 ¹⁵ / ₁₆	23 ¹ / ₁₆	23 ⁵ / ₁₆	23 ⁵ / ₁₆	23 ¹ / ₁₆	23 ⁵ / ₁₆



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Structural "H" Slide Assembly Fig. 439

Fig. 439 with Fig. 212 Clamps – Welded Base Dimensions (In)

Pipe Size	D				
	Type 1	Type 2	Type 3	Type 4	Type 5
6	8¼	8½	8½	8¼	8½
8	9¾	9⅝	9⅝	9¾	9⅝
10	10¾	10⅝	10⅝	10¾	10⅝
12	11½	11¾	11¾	11½	11¾
14	11 ¹¹ / ₁₆	11 ¹⁵ / ₁₆	11 ¹⁵ / ₁₆	11 ¹¹ / ₁₆	11 ¹⁵ / ₁₆
16	12 ⁷ / ₈	13 ¹ / ₁₆	13 ¹ / ₁₆	12 ⁷ / ₈	13 ¹ / ₁₆
18	13 ⁹ / ₁₆	13 ¹³ / ₁₆	13 ¹³ / ₁₆	13 ⁹ / ₁₆	13 ¹³ / ₁₆
20	14 ¹¹ / ₁₆	14 ¹⁵ / ₁₆	14 ¹⁵ / ₁₆	14 ¹¹ / ₁₆	14 ¹⁵ / ₁₆
24	16 ⁷ / ₁₆	16 ¹¹ / ₁₆	16 ¹¹ / ₁₆	16 ⁷ / ₁₆	16 ¹¹ / ₁₆
30	20½	20⅝	20⅝	20½	20⅝
36					

Fig. 439 with Fig. 432 Clamps – Welded Base Dimensions (In)

Pipe Size	D				
	Type 1	Type 2	Type 3	Type 4	Type 5
6	8 ¹ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ¹ / ₁₆	8 ⁵ / ₁₆
8	9 ¹ / ₈	9 ³ / ₈	9 ³ / ₈	9 ¹ / ₈	9 ³ / ₈
10	10 ¹ / ₁₆	10 ⁵ / ₁₆	10 ⁵ / ₁₆	10 ¹ / ₁₆	10 ⁵ / ₁₆
12	11 ¹ / ₈	11 ³ / ₈	11 ³ / ₈	11 ¹ / ₈	11 ³ / ₈
14	11 ³ / ₈	11 ⁵ / ₈	11 ⁵ / ₈	11 ³ / ₈	11 ⁵ / ₈
16	12 ⁹ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆	12 ⁹ / ₁₆	12 ¹³ / ₁₆
18	13 ¹ / ₈	13 ³ / ₈	13 ³ / ₈	13 ¹ / ₈	13 ³ / ₈
20	14 ⁵ / ₁₆	14 ⁹ / ₁₆	14 ⁹ / ₁₆	14 ⁵ / ₁₆	14 ⁹ / ₁₆
24	16	16¼	16¼	16	16¼
30					
36					



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Structural "H" Slide Assembly
Fig. 439

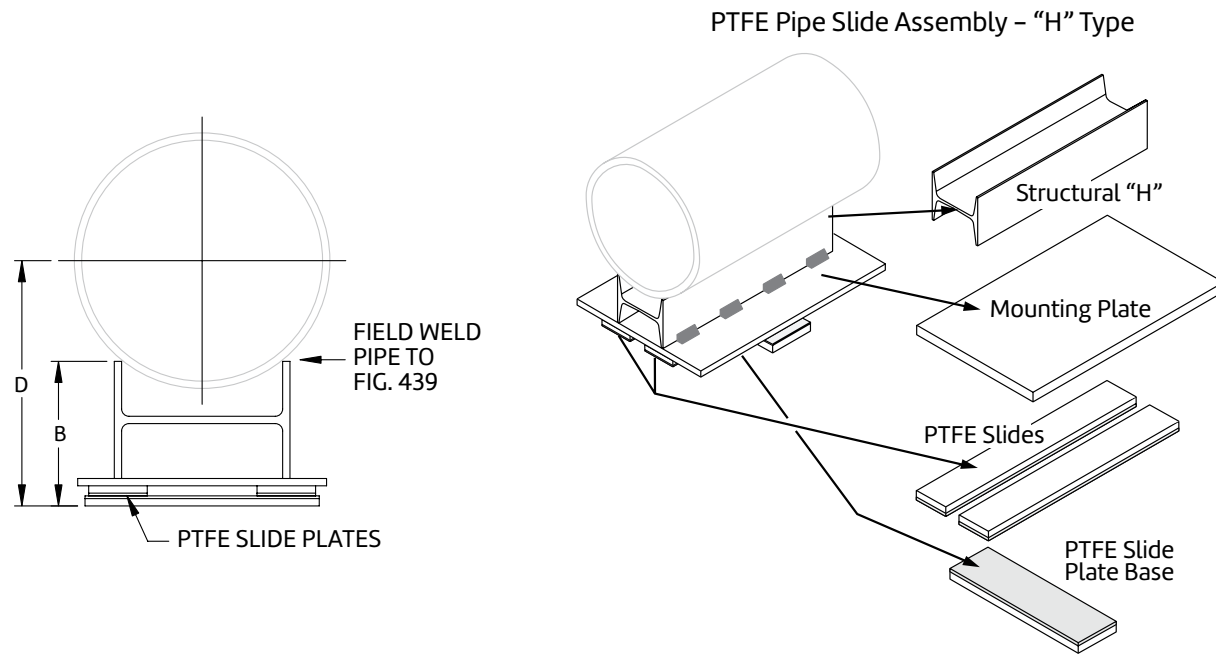


Fig. 439 – with Bolted Base Dimensions (In)

Pipe Size	B					D				
	Type 1	Type 2	Type 3	Type 4	Type 5	Type 1	Type 2	Type 3	Type 4	Type 5
6						8	8 ¹ / ₁₆	8 ¹ / ₁₆	8 ¹ / ₁₆	8 ¹ / ₁₆
8	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄	5 ¹ / ₄	8 ³ / ₁₆	9 ³ / ₁₆	9 ³ / ₁₆	9 ³ / ₁₆	9 ³ / ₁₆
10						10 ¹ / ₁₆	10 ¹ / ₁₆	10 ¹ / ₁₆	10 ¹ / ₁₆	10 ¹ / ₁₆
12	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆
14						11 ³ / ₈	11 ³ / ₈	11 ³ / ₈	11 ³ / ₈	11 ³ / ₈
16	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	12 ¹ / ₂	12 ¹ / ₂	12 ¹ / ₂	12 ¹ / ₂	12 ¹ / ₂
18						13 ¹ / ₈	13 ¹ / ₈	13 ¹ / ₈	12 ³ / ₈	13 ¹ / ₈
20	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	13 ⁵ / ₈	14 ¹ / ₄	14 ¹ / ₄	14 ¹ / ₄	14 ¹ / ₄
24	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	5 ⁷ / ₁₆	16	16	16	16	16
30	6 ⁷ / ₁₆	6 ⁷ / ₁₆	6 ⁷ / ₁₆	6 ⁷ / ₁₆	6 ⁷ / ₁₆	19 ¹⁵ / ₁₆	19 ¹⁵ / ₁₆	19 ¹⁵ / ₁₆	19 ¹⁵ / ₁₆	19 ¹⁵ / ₁₆
36	6 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	6 ¹⁵ / ₁₆	23 ⁵ / ₁₆	23 ⁵ / ₁₆	23 ⁵ / ₁₆	23 ⁵ / ₁₆	23 ⁵ / ₁₆



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Structural "H" Slide Assembly Fig. 439

Fig. 439 with Fig. 212 Clamps – Bolted Base Dimensions (In)

Pipe Size	D				
	Type 1	Type 2	Type 3	Type 4	Type 5
6	8½	8½	8½	8½	8½
8	9 ⁵ / ₈	9 ⁵ / ₈	9 ⁵ / ₈	9 ⁵ / ₈	9 ⁵ / ₈
10	10 ⁵ / ₈	10 ⁵ / ₈	10 ⁵ / ₈	10 ⁵ / ₈	10 ⁵ / ₈
12	11¾	11¾	11¾	11¾	11¾
14	11 ¹⁵ / ₁₆	11 ¹⁵ / ₁₆	11 ¹⁵ / ₁₆	11 ¹⁵ / ₁₆	11 ¹⁵ / ₁₆
16	13 ¹ / ₁₆	13 ¹ / ₁₆	13 ¹ / ₁₆	13 ¹ / ₁₆	13 ¹ / ₁₆
18	13 ¹³ / ₁₆	13 ¹³ / ₁₆	13 ¹³ / ₁₆	13 ¹³ / ₁₆	13 ¹³ / ₁₆
20	14 ¹⁵ / ₁₆	14 ¹⁵ / ₁₆	14 ¹⁵ / ₁₆	14 ¹⁵ / ₁₆	14 ¹⁵ / ₁₆
24	16 ¹¹ / ₁₆	16 ¹¹ / ₁₆	16 ¹¹ / ₁₆	16 ¹¹ / ₁₆	16 ¹¹ / ₁₆
30	20 ⁵ / ₈	20 ⁵ / ₈	20 ⁵ / ₈	20 ⁵ / ₈	20 ⁵ / ₈
36					

Fig. 439 with Fig. 432 Clamps – Bolted Base Dimensions (In)

Pipe Size	D				
	Type 1	Type 2	Type 3	Type 4	Type 5
6	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆
8	9 ³ / ₈	9 ³ / ₈	9 ³ / ₈	9 ³ / ₈	9 ³ / ₈
10	10 ⁵ / ₁₆	10 ⁵ / ₁₆	10 ⁵ / ₁₆	10 ⁵ / ₁₆	10 ⁵ / ₁₆
12	11 ³ / ₈	11 ³ / ₈	11 ³ / ₈	11 ³ / ₈	11 ³ / ₈
14	11 ⁵ / ₈	11 ⁵ / ₈	11 ⁵ / ₈	11 ⁵ / ₈	11 ⁵ / ₈
16	12 ¹³ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆	12 ¹³ / ₁₆
18	13 ³ / ₈	13 ³ / ₈	13 ³ / ₈	13 ³ / ₈	13 ³ / ₈
20	14 ⁹ / ₁₆	14 ⁹ / ₁₆	14 ⁹ / ₁₆	14 ⁹ / ₁₆	14 ⁹ / ₁₆
24	16¼	16¼	16¼	16¼	16¼
30					
36					



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Structural "H" Slide Assembly Fig. 439

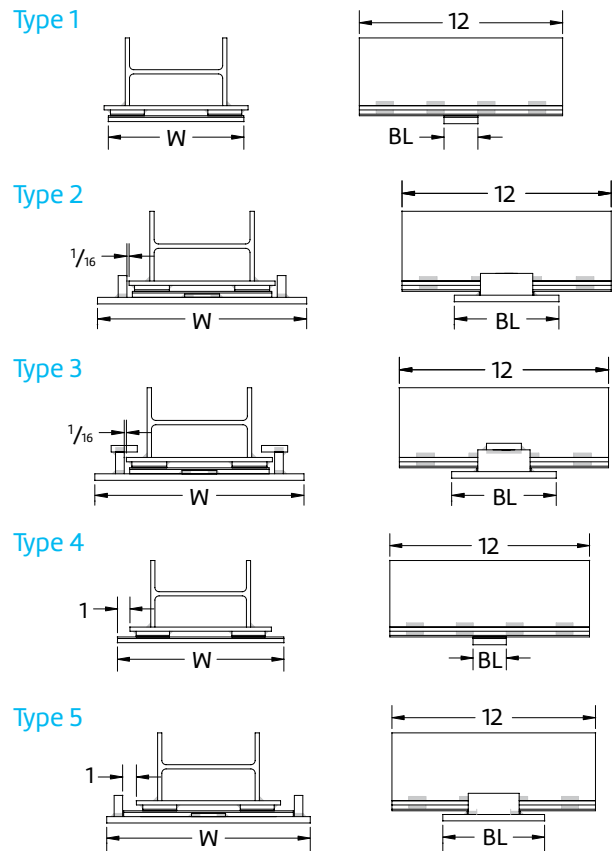
Welded - Dimensions (In)

Pipe Size	W				BL	
	Type				Type	
	1	2 & 3	4	5	1 & 4	2, 3 & 5
6						
8	5½	10	7½	10		
10						
12	8	12½	10½	12½		
14					2	
16	10	14½	12½	14½		6
18						
20	12	17	14½	17		
24	14	19	16½	19		
30	16	21	18¼	21		3
36	18	23	20¼	23		

Notes:

Types 1, 2, and 3 provide for longitudinal movement only.
Types 4 and 5 provide for both longitudinal and transverse movement of piping.

Welded Schematics



Options

(for all types)

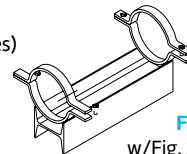


Fig. 439
w/ Fig. 212 Clamps

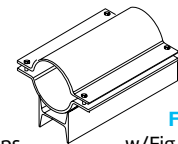


Fig. 439
w/ Fig. 432 Clamp



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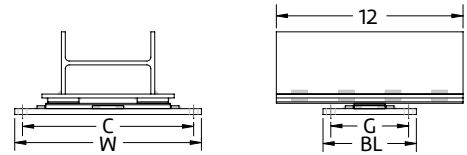
Structural "H" Slide Assembly Fig. 439

Bolted – Dimensions (In)

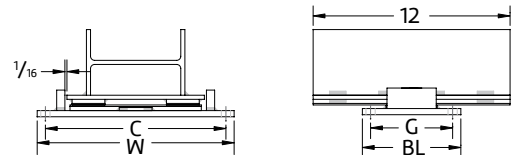
Pipe Size	W Type 1 to 5	BL Type 1 to 5	Hole Spacing	
			C	G
6	10	6	8½	4½
8				
10	12½		11	
12				
14				
16	14½		13	
18	17		15½	
20				
24	19		17½	
30	21		19½	
36	23	21½		

Bolted Schematics

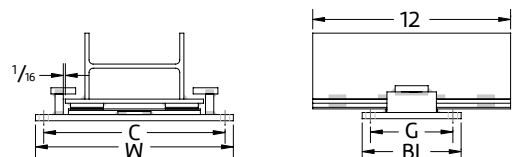
Type 1



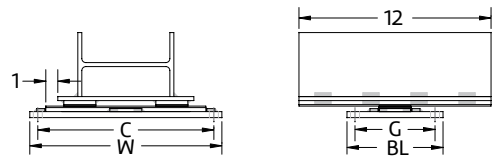
Type 2



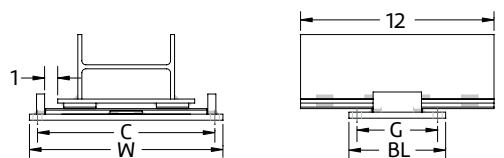
Type 3



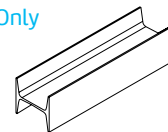
Type 4



Type 5



"H" Section Only



Options
(for all types)

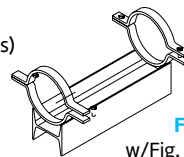


Fig.439
w/ Fig. 212 Clamps

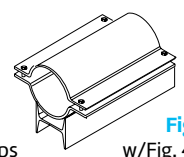


Fig. 439
w/ Fig. 432 Clamp



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PTFE Pipe Slide Assemblies

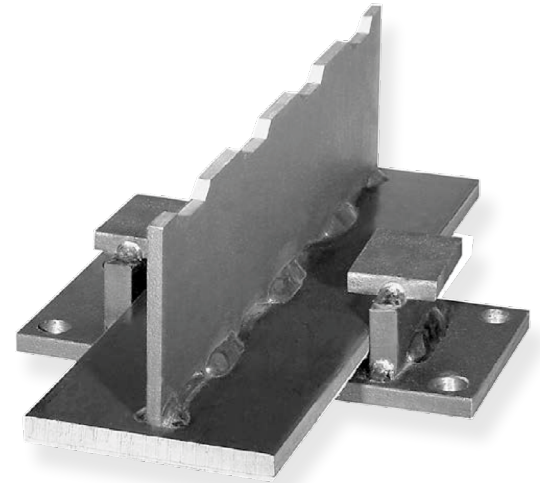
Overview

Application:

Anvil PTFE pipe slide assemblies are designed to support the pipe and provide for lateral and axial movement due to thermal expansion and contraction of the piping system. Assemblies are fabricated using PTFE slide bearings to provide a low coefficient of friction, minimizing frictional stress on the pipe and support structure.

Features:

- Pre-engineered to save calculation and installation time.
- PTFE slide bearing pads are composed of 25% glass-filled virgin Polytetrafluoroethylene (PTFE) polymer.
- Capable of supporting constant loads up to 2000 PSI at 70° F.
- Coefficient of friction typically ranges between 0.06 and 0.2 depending on bearing surface area, bearing load (sample ranges shown in chart for given pressures at 70° F). Consult your ASC representative for further information. The low coefficient of friction for the PTFE slide assemblies permits a smooth, unrestrained movement of the pipe and reduces overturning movements on supporting structures.
- PTFE is chemically inert and resists damage from chemicals, with the exception of alkalis such as bleach, lye, ammonia, etc., humidity and other elements found in harsh environments provided that the steel supports are suitably protected.
- Self-lubricating, maintenance-free.
- Provides resistance to galvanic corrosion between pipe and support structure.
- Maximum temperature: 400° F at PTFE.
- Allows for up to 4" insulation thickness as standard. Greater than 4" insulation available on special request. Special designed slides and tees available on request.



Selection:

1. Determine the support location based on allowable span and loading conditions.
2. Calculate the load for each slide assembly location.
3. Determine the lateral and axial movement of the pipe and the direction of movement, cold to hot.
4. Select pipe slide or tee figure number and attachment configuration, welded or bolted.
5. Select the method of slide plate attachment to support structure, welded or bolted.
6. Designate whether guided or non-guided slide plate is required.
7. Maximum recommended loads shown for pipe slides and structural tees are for vertical loading. Transitional loads for pipe structural tees are to be determined by customer.



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PTFE Pipe Slide Assemblies Overview (cont.)

Installation:

1. Determine offset of pipe slide–slide plate interface to allow maximum pipe movement in direction of greatest thermal displacement.
2. Attach PTFE slide to pipe by welding or clamping with standard Fig. 212 pipe clamp or Fig. 432 special pipe clamp.
3. Attach slide plates to supporting structure by bolting or welding.
4. Verify setting to insure full bearing between the PTFE slide and slide base surfaces under all pipe movement conditions.

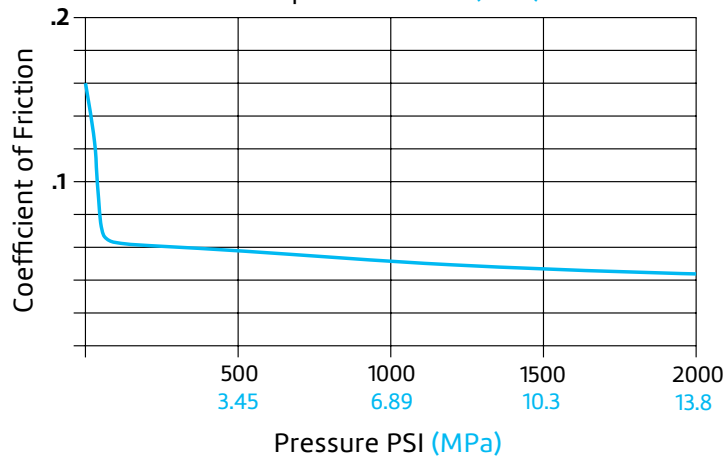
Note: PTFE surfaces should be protected from mechanical damage and contamination as well as from ultraviolet rays prior to installation.

The maximum load on the pipe slides is based on using a PTFE width of 2" for the slide plate and a 70° F temperature. For a different temperature at the bearing surfaces, multiply the maximum load rating by the following factor.

Temperature °F	Factor
70	1.00
100	0.85
200	0.55
300	0.40
400	0.25

Coefficient of Friction Versus Pressure

Test Speed: 1"/min. (25mm/min.)
Temperature: 70° F (21° C)



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