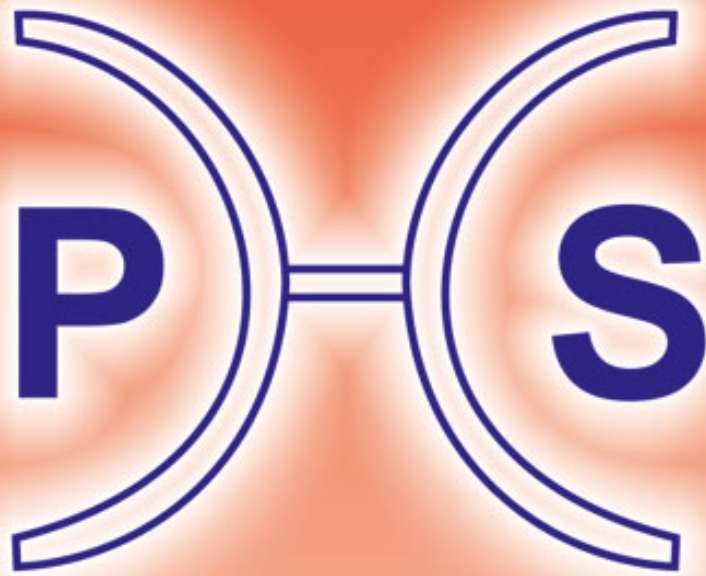


# Pipe Hangers & Supports



Over 25 years of serving Power generation, Petroleum, Nuclear, Process, Oil & gas, Offshore, Water & HVAC industries worldwide.



### History

We were Incorporated in the year 1984 under the name and style of Myricks Piping Systems (P) Ltd to manufacture state of the art Pipe Hanger & supports equipment in India with technology from Support Technology & Products UK.

In the year 2000, we signed a joint venture agreement with Pipe Supports Group UK to manufacture the "Pipe Supports" range of hangers & supports and upgraded to the latest technology. The company was renamed Pipe Supports India (P) Ltd.

The joint venture came to an end in Jan 2010 having completed its stipulated 10 year term and the technology was fully absorbed.

### Present

The renamed company, 'Pipe Hangers & Supports (P) Ltd - PHSPL' was incorporated in January 2010 with its unique brand identity. We are enhancing the technology and introducing new products in the near future.

We use state of the art technology, modern manufacturing methods, latest software, computer systems, CNC machines etc. to deliver a competitive, cost effective high quality product. We are highly focused on timely delivery and on time response to client requirements. We provide after sales support including responding to site emergencies during erection and commissioning.

## LOW FRICTION SLIDE BEARINGS

### WHY USE SLIDE BEARINGS

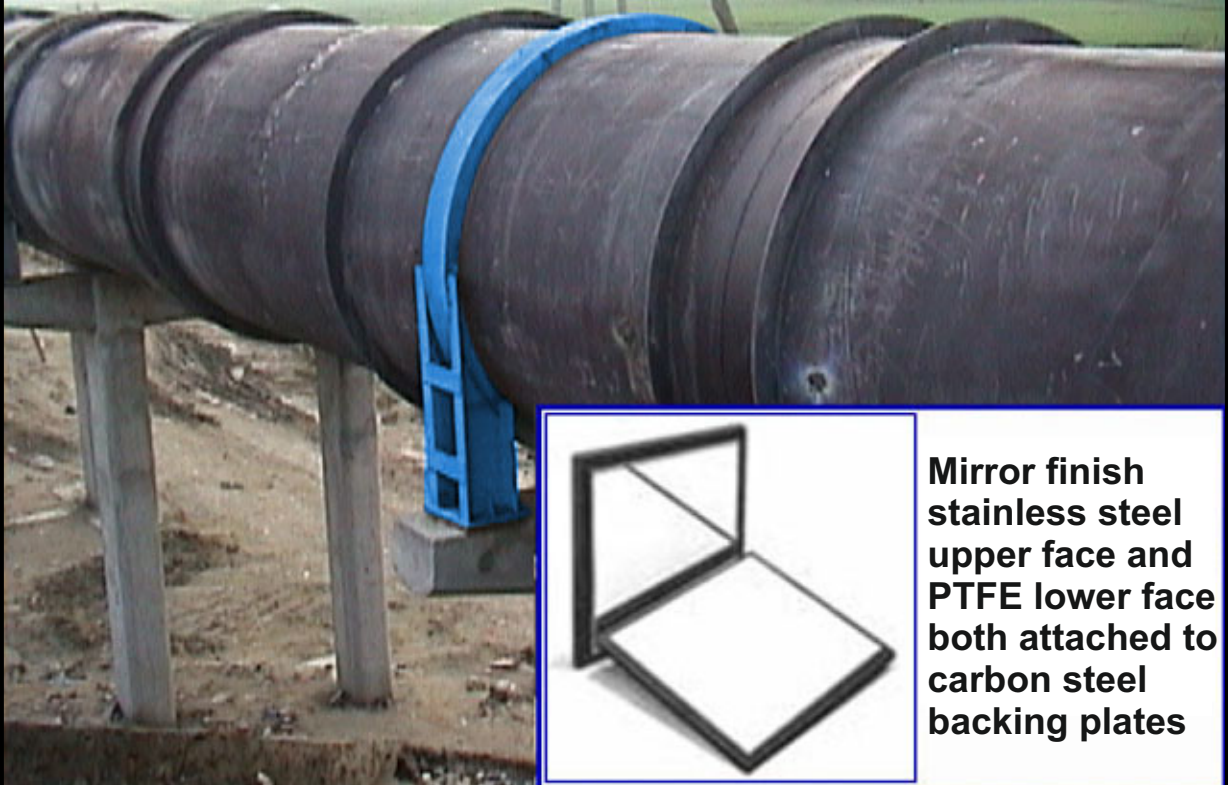
When pipe lines / structures are subjected to heat by external means due to difference in day & night temperatures or due to weather changes or due to temperatures of fluids carried in them as in the case of pipe lines, they will expand and contract by an amount decided by the geometry / shape and co-eff of thermal expansion of the material used in building them.

By not allowing them to expand and contract freely, severe stresses get induced leading to failures or over loadings.

A sensible & cost effective way of accommodating such expansion is to allow one item to move with respect to another — and this can be achieved by using low friction slide bearings to separate the expanding item from the supporting structure.

It is imperative that slide bearing is designed to keep frictional force to a minimum, to prevent the development of high loads and stresses.

### Slide Bearings supplied to Sonia Vihar Project, Delhi Jal Board for use in cross country piping.



**Mirror finish stainless steel upper face and PTFE lower face both attached to carbon steel backing plates**

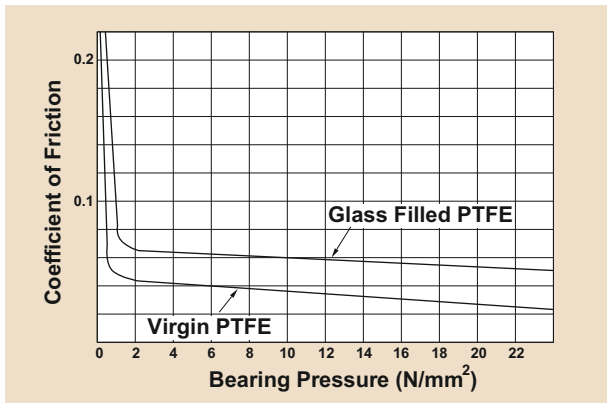
### WHY USE EASISLIDE BEARINGS?

- They incorporate PTFE — which has a coefficient of friction lower than any other solid material.
- The bearings are designed to achieve optimum performance, by carefully designing bearing pad dimensions to achieve ideal workable compressive stress.
- No routine maintenance required can work completely dry, require no lubrication.
- Designed to withstand a wide range of environmental conditions — operating at temperatures from minus 200°C to plus 150°C and are resistant to a wide range of organic and inorganic chemicals and vagaries of nature.
- Can tolerate some embedment of small particles in the bearing pad without causing failure.
- Compact design — fit into areas unsuitable for other types of bearing.
- Designed for easy on-site installation. No special tools or tackles required
- Long and maintenance free life.
- Operating successfully in a wide range of installations.

## THE RIGHT MATERIALS

The Slide Bearing standard range uses a PTFE pad (or pads) counterfaced by a larger polished stainless steel plate — the PTFE is bonded to a carbon steel backing plate for attachment to existing steelwork either by means of countersunk bolts or by welding. The stainless steel pad is similarly attached to a carbon steel backing plate. For corrosive environments, units can be supplied manufactured entirely in stainless steel with a PTFE slider pad.

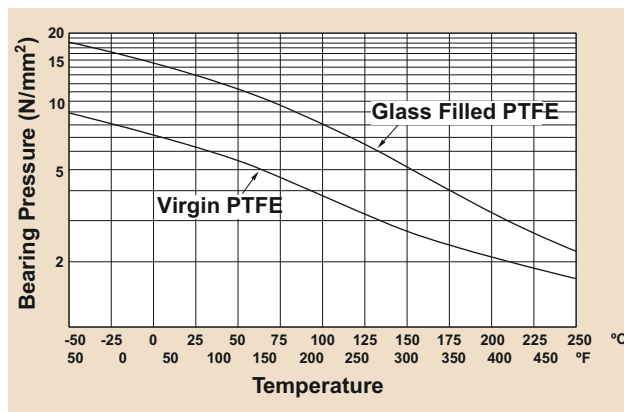
Alternatively, other combinations of material, Different slider materials such as bronze based or Graphite based for High temperature applications are also available.



## THE RIGHT BEARING SIZE

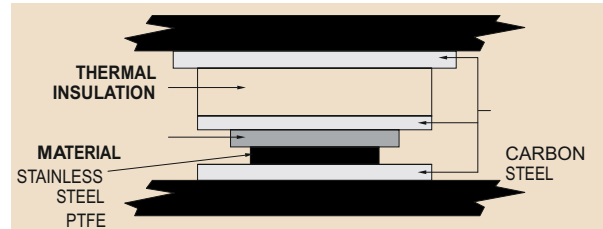
The PTFE pad is sized based on allowable bearing pressure at the working temperature or ambient temperature. PTFE bearing pads will not function well at low bearing pressures and co-eff of friction may increase defeating the purpose of providing them. Bearing pressures can be read off the curve below, but as a thumb rule 60 kg / cm<sup>2</sup> at normal ambient temperature is recommended.

The inputs for calculating will be the load, the movement in transverse and axial directions, the ambient temperature and the space available to accommodate the bearing. Sometimes filled PTFE slide bearings with a higher bearing pressure may be used in order to reduce size and operating at higher temperatures. Typical fillers are 25% Glass or 60% Bronze. The size of the counter facing stainless plate ( AISI SS304 mirror finished on one side) is calculated by adding 2 x expected movements to the size of the bearing PTFE pad + 25 mm over travel .



## THE RIGHT CONDITIONS

PTFE is suitable for continuous operation at temperatures up to 150°C — at greater temperatures load bearing thermal insulation material can be used to reduce the temperature of the bearing.



## SELECTING THE RIGHT LOW FRICTION SLIDE BEARING

- Decide the style of bearing required and check that the imposed load is within the recommended operating load range of the bearing assembly.
- The standard bearing may be used at loadings below the recommended minimum, but an increased coefficient of friction will result.
- For loadings in excess of the recommended maximum, please state the load capacity required, and we will design an assembly to suit.
- Select the appropriate axial and lateral movement ranges to accommodate the maximum anticipated movements.
- Where the bearing gives a choice of height dimensions, these should be specified.
- If no standard bearing suits your application, please contact our design service with your requirements.

## THE RIGHT DESIGN

Low Friction Slide Bearings are designed and produced by Pipe Hangers & Supports Pvt Ltd.

We have the expertise and experience to design bearings for larger loads or movements or those with special operating requirements (Whether you need a bearing for a larger load or movement than those covered by our standard range, or even to a totally different style, our experienced team can design a) to meet your needs exactly.

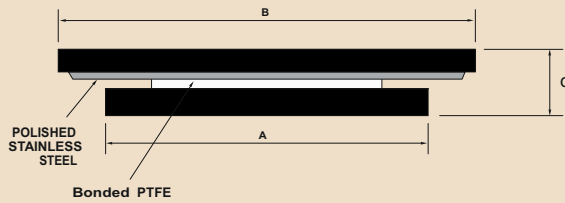
So whatever your slide bearing requirements, call PHSPL and ask for Low Friction Slide Bearings.

## SL07 / SL07DS

The SL07 PTFE/Stainless Steel slide bearing is suitable for a wide range of sliding applications. If stability of the supported item is a consideration, a number of SL07 bearings may be used. Alternatively, larger bearings with split PTFE pads (either strips or discs) can be designed and made to suit particular requirements. PTFE partially embedded in steel substrate and bonded can also be supplied to counter harsh environments. The standard bearing thickness ('C') should be suitable for most applications.

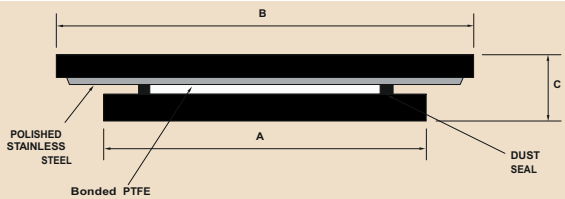
Alternative thicknesses can be supplied to order. Care should be taken if reducing 'C' that the attached structure has sufficient local strength. The standard bearing is designed for attachment by welding. Bearings for attachment by bolting can also be supplied. SL07DS slide bearing design incorporates a dust seal for use where significant amounts of dust or other contaminants are present.

SL07



SIZE	RECOMMENDED LOADING AT 25°C (kgf)	A (Sq.) mm	C mm	B mm		
				MOVEMENT		
				RANGE 1	RANGE 2	RANGE 3
250	100TO250	40	15	65	90	115
500	200TO500	55	21	75	100	125
1000	400TO1000	70	25	85	110	135
2000	800TO2000	100	29	105	130	155
4000	1600TO4000	125	35	125	150	175
8000	3200TO8000	180	45	165	190	215
16000	6400TO16000	230	55	205	230	255
32000	12800TO32000	300	55	275	300	325
64000	25600TO64000	400	55	375	400	425

SL07DS

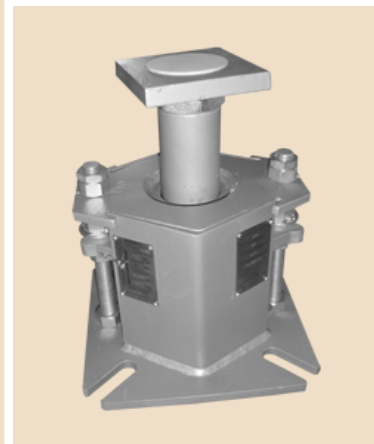


SIZE	RECOMMENDED LOADING AT 25°C (kgf)	A (Sq.) mm	C mm	B mm		
				MOVEMENT		
				RANGE 1	RANGE 2	RANGE 3
250	100 TO 250	60	15	85	110	135
500	200 TO 500	75	21	95	120	145
1000	400 TO 1000	90	25	105	130	155
2000	800 TO 2000	120	29	125	150	175
4000	1600 TO 4000	145	35	145	170	195
8000	3200 TO 8000	200	45	185	210	235
16000	6400 TO 16000	260	55	235	260	285
32000	12800 TO 32000	330	55	305	330	355
64000	25600 TO 64000	430	55	405	430	455

RANGE 1 = +/-12.5 mm MOVEMENT  
 RANGE 2 = +/-25 mm MOVEMENT  
 RANGE 3 = +/-37.5 mm MOVEMENT  
 BOTTOM PLATE IS SQUARE.  
 TOP PLATE MAY BE SQUARE OR RECTANGULAR DEPENDING UPON REQUIRED MOVEMENT IN CO-ORDINATE DIRECTIONS.

FOR SIZE 16000 AND ABOVE, PARTICULAR CARE SHOULD BE TAKEN TO ENSURE THAT THE SLIDE BEARINGS ARE MOUNTED ON A BACKING STRUCTURE OF ADEQUATE STRENGTH.  
 TYPICAL SELECTION:  
 SL07-8000 — RANGE 2 X RANGE 2.

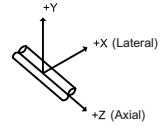
Slide bearings can be used as stand alone or in conjunction with spring hangers or pipe shoes



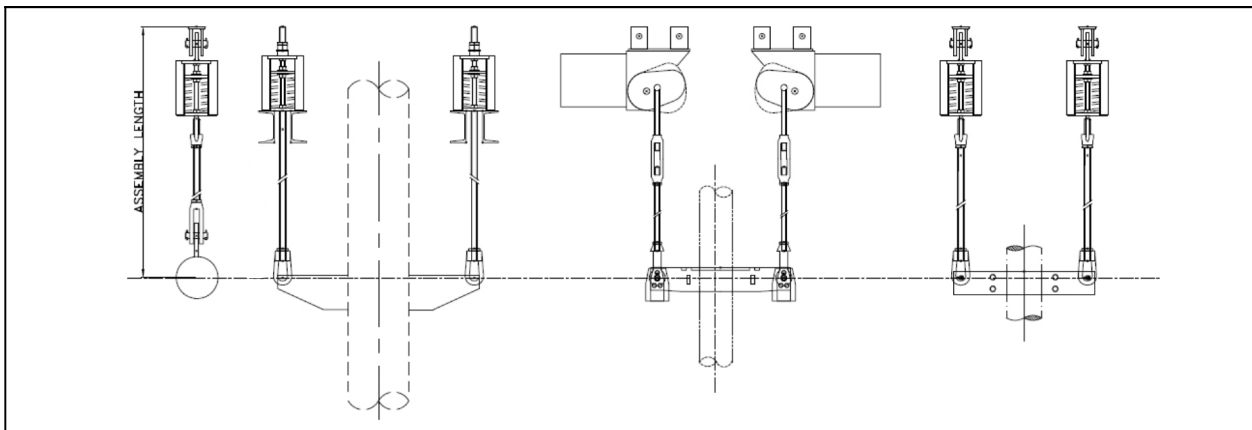


# Pipe Hangers & Supports Private Limited

## Ordering Information



- 1) Hot Load (Operating Load) in Kgs : \_\_\_\_\_
- 2) Thermal Movement / Travel (Direction + or -) in mm : UP (+) \_\_\_\_\_ mm
- 3) Type of Hanger Variable / Constant /Rigid : VariableEffort Support
- 4) For Constant Add Over Travel :  Yes  No
- 5) For Variable Springs Max Allowable % Load Variation : \_\_\_\_\_ %
- 6) Horizontal / Lateral Movement (If any) : 'X' Dir \_\_\_\_\_ mm / 'Z' Dir \_\_\_\_\_ mm
- 7) Hydro Load ( If any) : \_\_\_\_\_ Kgs
- 8) Model & Type of Support : \_\_\_\_\_
- 9) Assembly Length (From BOS/TOS to Pipe CL ) : \_\_\_\_\_ mm
- 10) Operating Temperature : \_\_\_\_\_ Deg C
- 11) Pipe Insulation Thk : \_\_\_\_\_ mm
- 12) Pipe Material : \_\_\_\_\_
- 13) Require Pipe Shoe for Foot Mounted Support :  Yes  No
- 14) For Foot Mounted Support Match Height :  Yes  No
- 15) Attachments like Lugs, Cleats Welded to Pipe in Scope :  Yes  No
- 16) Operating Load includes Wt of Accessories like Clamp, Tie Rods, Cleats, Lugs etc. :  Yes  No
- 17) Preferred Surface Protection / Painting : \_\_\_\_\_
- 18) For 'G' Type / Double / Trapeze type Hanger the Load Given above is for 1 assembly consisting of 2 Hangers / Individual Hanger :  Yes  No





# Pipe Hangers & Supports Private Limited

## Thanjavur



## Chennai



# Additional Services



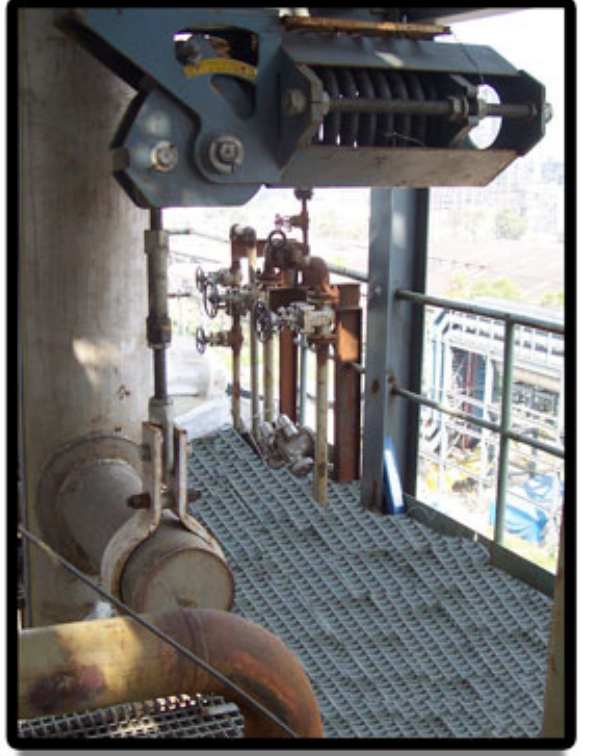
- Design and Detail of complete Pipe Support Systems
- Survey of existing pipe supports
- Inspection at site prior to commissioning
- Assist customers with innovative ideas to provide unique solutions



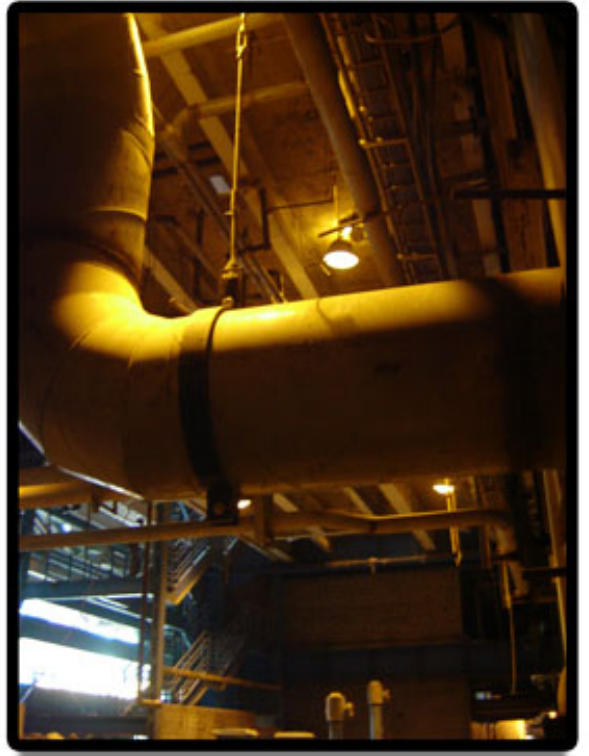
- Stress analysis & detail support engineering
- Conduct training programs on Hangers & Supports







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# Pipe Hangers & Supports Private Limited

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Thanjavur

Chennai



Pipe Hangers & Supports is India's leading manufacturer of spring hangers, supports and accessories. Over the past 25 years we have supplied to major power plants, refineries, nuclear installations & process industries in India and several international projects.

[www.pipehangers.in](http://www.pipehangers.in)