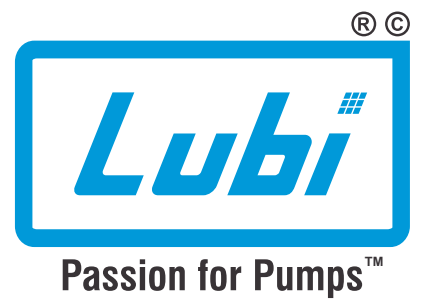


LSD SERIES

## Suction Diffusers



Pumping Solution

## INTRODUCTION

The Lubi **LSD** Suction Diffuser is a device which directly mounts to the suction side of horizontal or vertical centrifugal pumps.

It is designed to reduce space and installation cost by replacing a conventional 90° elbow, 'Y' strainer and flow stabilizing piping on the suction side of the pump. It may also be used as a reducing elbow, should the suction piping be larger than the pump inlet.

The suction diffuser consists of a start-up strainer (removable fine mesh filter), permanent strainer, guide vane, body cover and body cover 'O' ring.

The suction strainer helps to remove foreign materials that may be hazardous to the pump or other system components, while providing the proper flow conditions to the pump.

The water flow is passed through an in-built strainer to remove suspended solids and then guided to the pump suction through flow stabilizing guide vane. Guide vanes reduce turbulence and resulting stress and vibration. Fine mesh filter is provided to prevent seal failure and instrumentation damage during commissioning.

## FEATURES AND BENEFITS

Its multi functional design saves space and installation costs by incorporating all conventional devices into a single device solution.

### ● 90° ELBOW

Direct mounting to the suction flange of any pump which turn the piping 90°, this feature replacing a conventional elbow. In addition, suction diffuser can be mount on a pump suction flange either horizontal or vertical position.

### ● IN-LINE STRAINER

The in-line strainer is divided into a outer cylindrical start-up strainer and a star-shaped permanent strainer.

The start-up strainer is a fine mesh strainer which helps in removing unwanted metal and other foreign particles or objects when the pump is first started. This strainer is made out of Galvanized steel and it is preferable to remove it after the first 15 days of service.

The permanent strainer is made out of 3 mm perforated stainless steel AISI 304 sheet metal. It will protect the pump against metallic or other foreign particles and objects during the entire service life of the pump. The design of this strainer provide a large free flow area to reduce pressure drop. This feature replaces a conventional 'Y' strainer.

### ● GUIDE VANES

Flow stabilizing vanes on the outlet of suction diffuser allow the suction diffuser to bolt directly to the pump. This feature saves space and also reduces cost of a conventional long straight pipe. Integrally straightening guide vanes also reduces flow turbulence, thereby creating optimum flow conditions and minimize stress on pump components.

### ● REDUCING ELBOW

The suction diffuser connects same size piping to the pump suction, but can also connect to inlet piping one size larger than the pump suction, eliminating a reducing elbow.

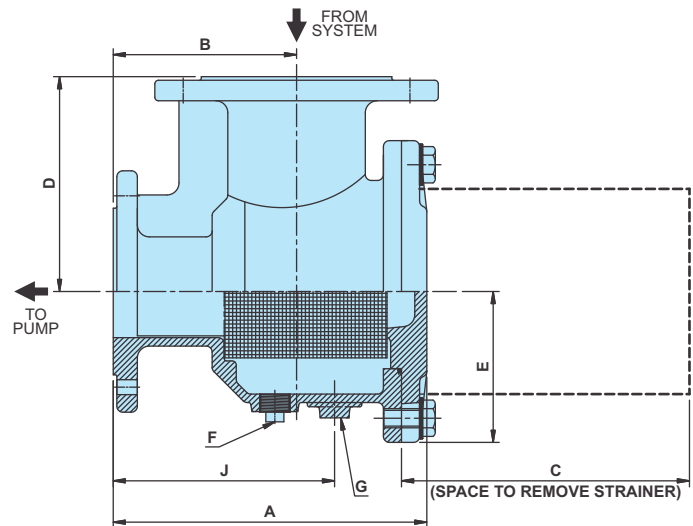
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## FEATURES AND BENEFITS

### STANDARD FEATURES INCLUDE

- ” Available in PN 16 & PN 25 as per DIN standard EN 1092-2, with flanged connections. Flanges with ANSI 125 & ANSI 250 are available as per ASME B16.1. Grooved end flanged connections are available on request.
- ” Available with equal or reduced outlet flanges.
- ” Cast on supporting pads for convenient mounting of standard I.D support foot.
- ” Drain/purge plugs is used to drain the suction diffuser when required. It has an in-built magnet to trap small metallic particles.
- ” Available suction gauge port.
- ” 'O' ring seals body cover.
- ” Quick opening bolted body cover minimize down time while cleaning the strainer.

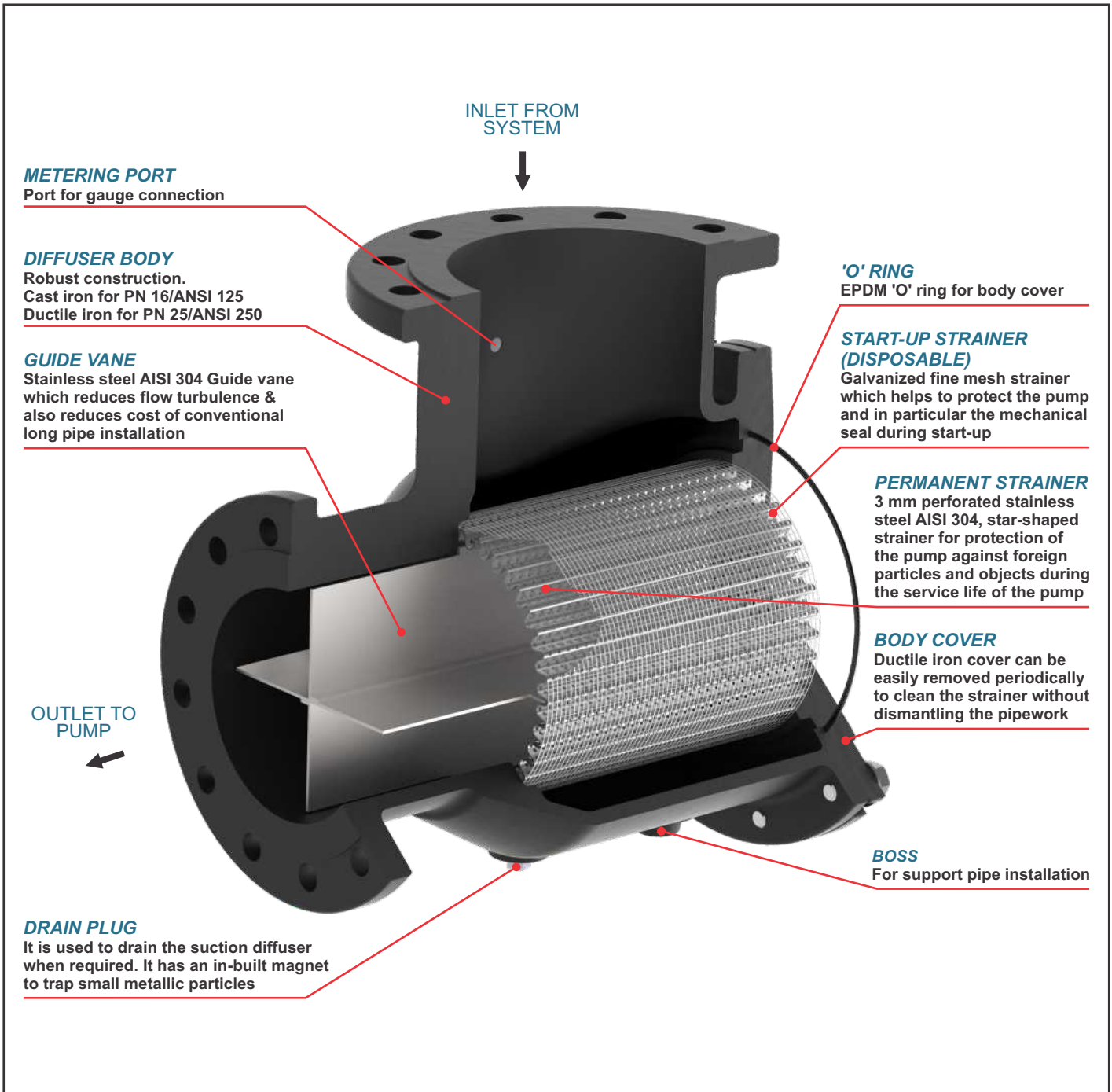
## TECHNICAL DATA



Type	Flange size [mm]		Flange size [inch]		Strainer free area [sq.inch]	Dimensions [mm]							Gross weight [kg]	
	Pump side	System side	Pump side	System side		A	B	C	D	E	F	G		J
LSD 5050		50		2	35	228	127	250	159	110	1/2" NPT	25	161.5	20
LSD 6550	50	65	2	2½	35	228	127	250	159	110	1/2" NPT	25	161.5	21.5
LSD 8050		80		3	35	228	127	250	159	110	1/2" NPT	25	161.5	23.5
LSD 6565		65	2½	2½	35	241	140	275	159	110	1/2" NPT	25	174.5	23
LSD 8065		80		3	35	241	140	275	159	110	1/2" NPT	25	174.5	25
LSD 8080		80	3	3	50	267	152	300	178	125	3/4" NPT	25	183.5	32
LSD 10080		100		4	50	267	152	300	178	125	3/4" NPT	25	183.5	34
LSD 100100		100	4	4	88	315	178	325	203	138	3/4" NPT	32	232	45
LSD 125100	100	125	4	5	88	315	178	325	203	138	3/4" NPT	32	232	46
LSD 150100		150		6	88	315	178	325	203	138	3/4" NPT	32	232	48
LSD 125125		125	5	5	114	360	204	375	230	166	1" NPT	32	268	61
LSD 150125		150		6	114	360	204	375	230	166	1" NPT	32	268	65
LSD 150150		150	6	6	162	448	267	450	279	188	1" NPT	50	345	85
LSD 200150		200		8	162	448	267	450	279	188	1" NPT	50	345	91
LSD 200200		200	8	8	270	545	330	525	330	225	1" NPT	50	441	144
LSD 250200		250		10	270	545	330	525	330	225	1" NPT	50	441	150
LSD 250250		250	10	10	475	629	368	600	368	257.5	1" NPT	50	472	197
LSD 300250		300		12	475	629	368	600	368	257.5	1" NPT	50	472	205
LSD 300300		300	12	12	780	762	457	700	457	334.5	1" NPT	50	584	342
LSD 350300		350		14	780	762	457	700	457	334.5	1" NPT	50	584	355

Note: All dimensions in mm unless otherwise noted.

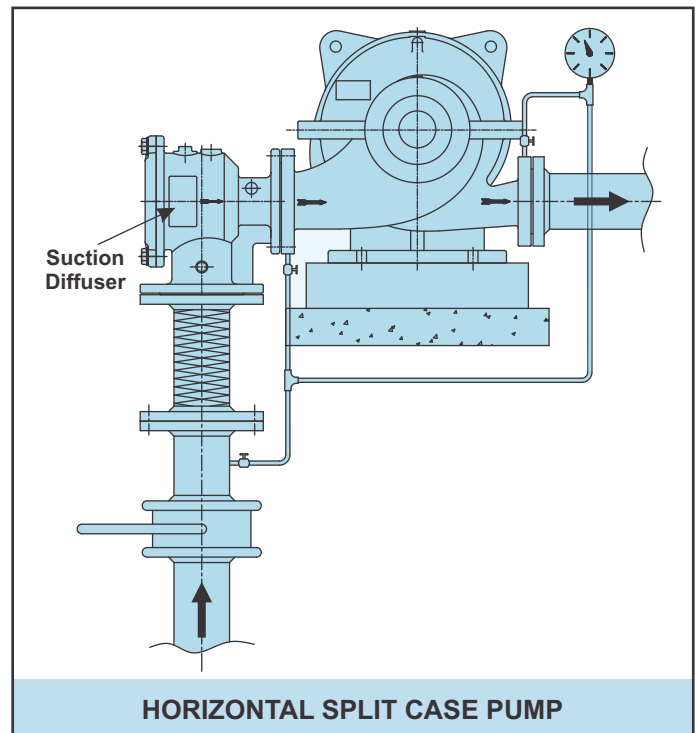
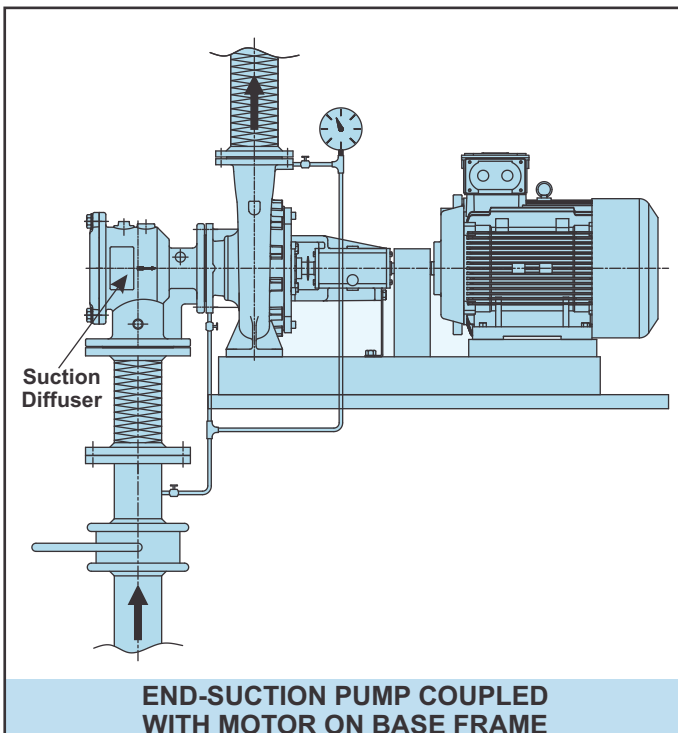
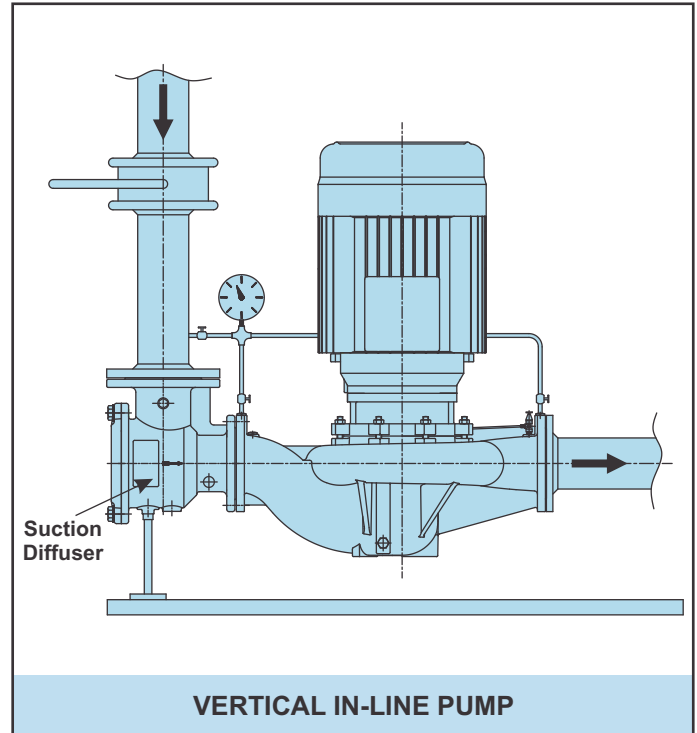
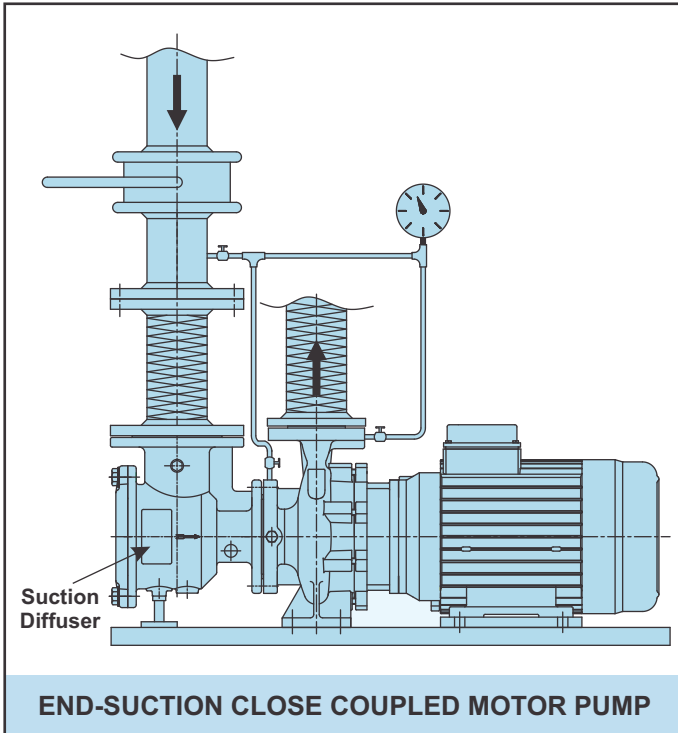
## DESIGN FEATURES



## MATERIAL OF CONSTRUCTION

COMPONENT	MATERIAL	
	PN 16/ANSI 125	PN 25/ANSI 250
Diffuser body	Cast iron	Ductile iron
Body cover	Ductile iron	Ductile iron
Permanent strainer (3 mm perforations)	Stainless steel AISI 304	Stainless steel AISI 304
Start-up strainer (fine mesh)	Galvanized steel	Galvanized steel
Guide vane (flow straightening vane)	Stainless steel AISI 304	Stainless steel AISI 304
Body cover 'O' ring	EPDM	EPDM

## TYPICAL INSTALLATION



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*Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.*

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ISO 9001



ISO 14001

**Customer Care Number : 09824200800**