



chemflo®



TYPE MSP
CHEMICAL PROCESS PUMPS

MSP FEATURES

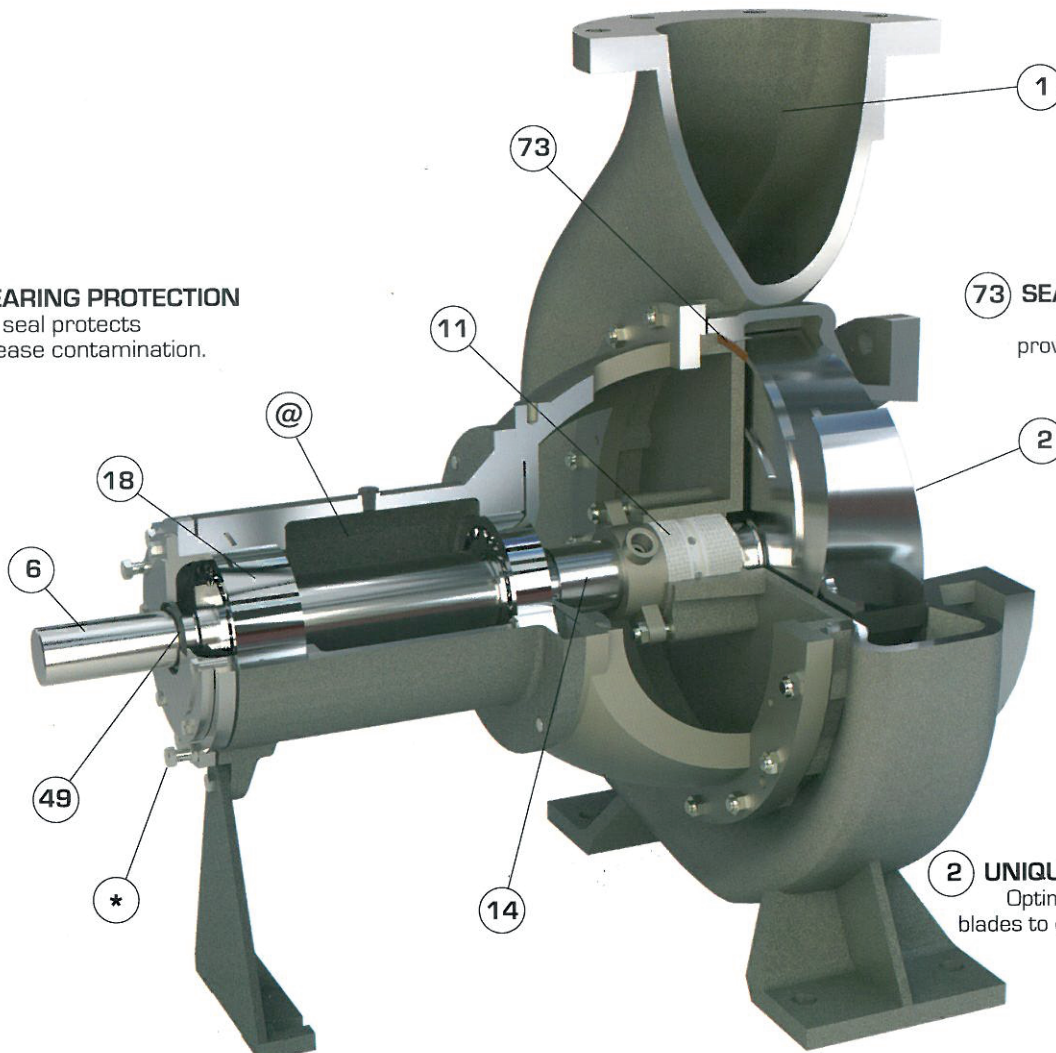
14 RENEWABLE SHAFT SLEEVE
Hook-type shaft sleeve is free to expand with temperature variation. Wide variety of corrosion resistant materials.

18 DOUBLE ROW THRUST BEARING
Keeps end play less than 0.025 mm for maximum seal life. Bearings sized for L10 rating life of minimum 2 years. (Single row for group 1A).

1 HEAVY WALLED CASING
All pumps have wall thickness corresponds to 16 bar pressure rating resists high pipe forces and moments. ANSI 150# flange standard.

49 BEARING PROTECTION
Oil seal protects grease contamination.

73 SEALING RELIABILITY
Fully confined gasket provides maximum safety.



*** SIMPLE-FAST EXTERNAL IMPELLER ADJUSTMENT**
Original high efficiency maintained by impeller adjustment resulting in long-term energy savings.

@ LUBRICATION
Grease lubrication - Standard.
Oil lubrication - Optional.

6 HEAVY DUTY SHAFT
Maximum shaft deflection less than 0.05 mm at face of the stuffing box. Insures long seal and bearing life and low maintenance.

11 MAXIMUM SEALING FLEXIBILITY
Choice of packed box or Chemflo Type CR100B1 cartridge mechanical seal.



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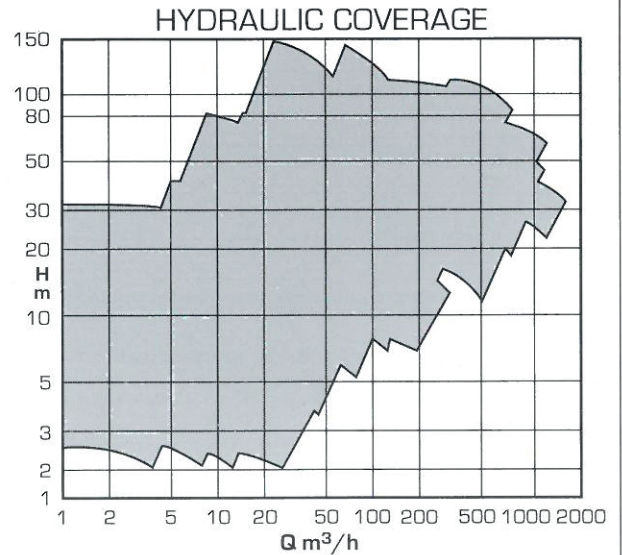
MSP

RANGE

- Capacity to 1600 m³/h.
- Head to 150 m.
- Temperature to -20°C to 150°C.
- Pressure to 1600 kPa.

FEATURES

- Meets ISO 2858 standard dimensions & ISO 5199 technical specification.
- Maximum interchangeability, gives minimum spare parts inventory.
- Greater quality control and accuracy in production of every pump with the modern machining operations.
- Back-Pull-Out design permits quick inspection of repairs of rotating elements without disturbing electrical and piping connections.
- Standard foundations save installation, down time, talent and money.
- MSP pumps available with Dynamic sealing.



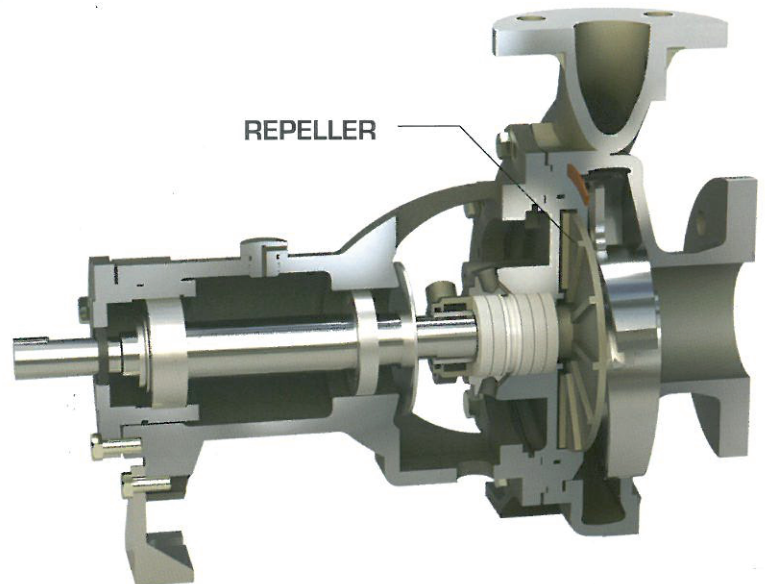
MSP-DS DYNAMIC SEALING

The purpose of Dynamic sealing is to eliminate leakage through gland when the pump is running.

PRINCIPAL OF OPERATION

When the pump is running, the repeller by its centrifugal action creates a liquid interface seal in the repeller chamber, which prevents the leakage of pumped media and penetration of air into the pump.

When the pump is idle, there is a negligible amount of leakage through packing.



CHEMFLO MECHANICAL SEAL

Chemflo Type CR100B1 cartridge mechanical seal is best suited for water containing solids, contaminated water, waste water and process water application due to isolation of spring from liquid media. Easy to install with very less maintenance time.



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MSP-SP FEATURES

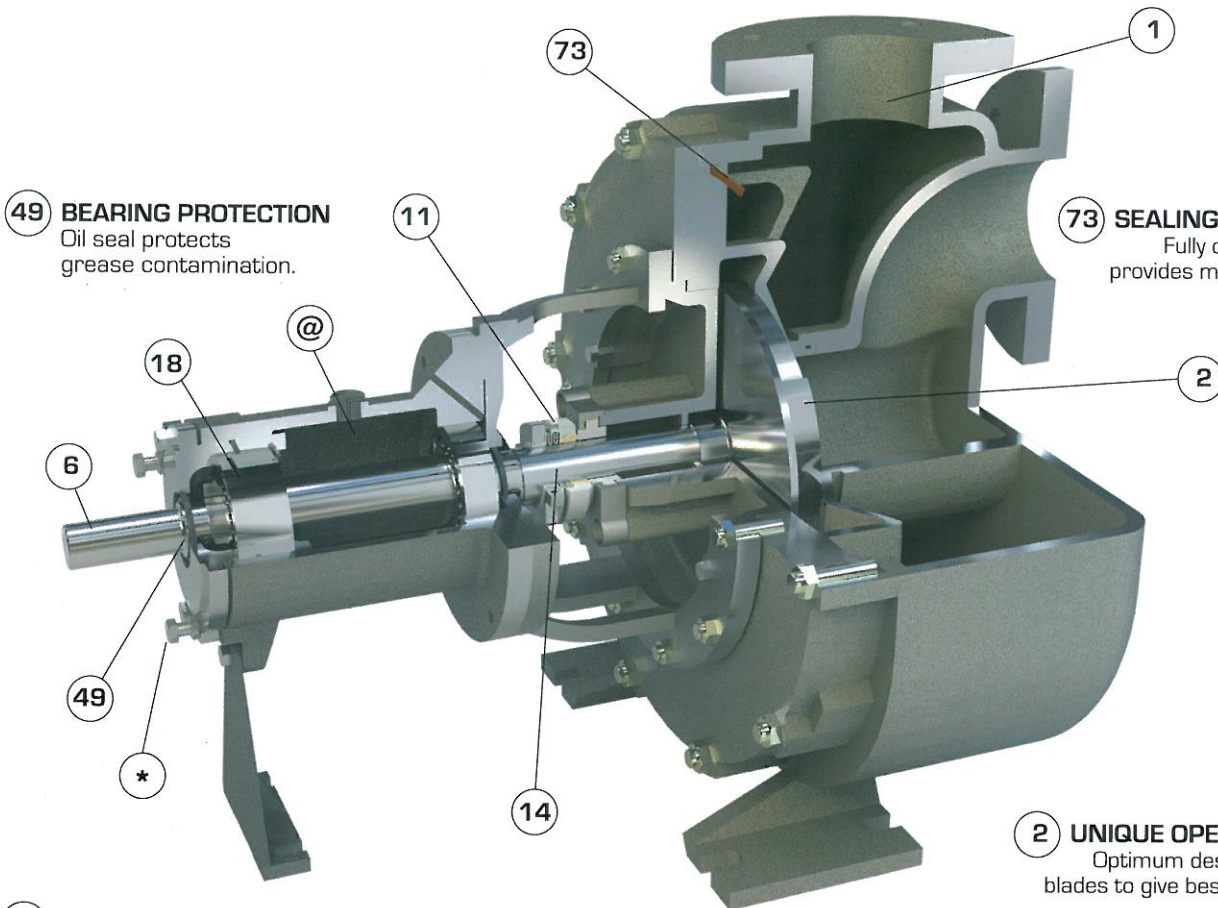
14 RENEWABLE SHAFT SLEEVE
Hook-type shaft sleeve is free to expand with temperature variation. Wide variety of corrosion resistant materials.

18 DOUBLE ROW THRUST BEARING
Keeps end play less than 0.025 mm for maximum seal life. Bearings sized for L10 rating life of minimum 2 years. [Single row for group 1A].

1 CASING
Casing is designed with sufficient volume for repriming and liquid retention even if the liquid siphoning into source of supply.

49 BEARING PROTECTION
Oil seal protects grease contamination.

73 SEALING RELIABILITY
Fully confined gasket provides maximum safety.



2 UNIQUE OPEN IMPELLER
Optimum design of impeller blades to give best performance and low NPSH.

*** SIMPLE-FAST EXTERNAL IMPELLER ADJUSTMENT**
Original high efficiency maintained by impeller adjustment resulting in long-term energy savings.

@ LUBRICATION
Grease lubrication - Standard.
Oil lubrication - Optional.

6 HEAVY DUTY SHAFT
Maximum shaft deflection less than 0.05 mm at face of the stuffing box. Insures long seal and bearing life and low maintenance.

11 SEALING
Chemflo Type 21 mechanical seal is a standard feature of MSP-SP.



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MSP-SP

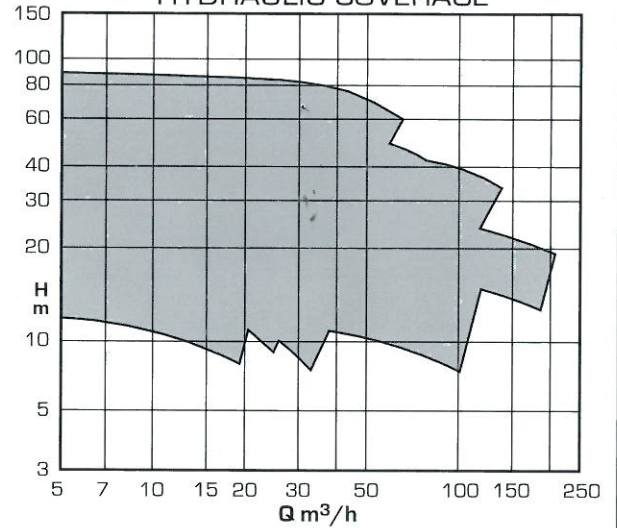
RANGE

- Capacity to 210 m³/h.
- Head to 90 m.
- Temperature to 0°C to 150°C.
- Pressure to 1600 kPa.

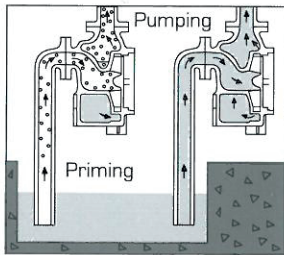
FEATURES

- Special design of self priming casing requires priming only once at the time of first start.
- No need to provide foot valve or check valve on suction.
- Power end assembly are interchangeable with corresponding groups of Akay MSP series.
- Back-Pull-Out design permits quick inspection of repairs of rotating elements without disturbing electrical and piping connections.

HYDRAULIC COVERAGE



RELIABLE SELF PRIMING OPERATION

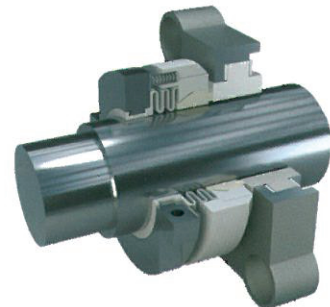


Twin volute design exhausts air in suction with only an initial priming charge of liquid in casing. During priming cycle, lower volute functions as intake while upper volute discharges liquid and entrained air into separation chamber. Air is separated and expelled through pump discharge while liquid recirculates into lower volute. Once air is completely exhausted from suction and liquid fills impeller eye, pump is primed and functions as conventional centrifugal pump with both volutes acting as discharges. Casing is designed so that an adequate volume of liquid for repriming is always retained in pump even if liquid is allowed to drain back to source of supply from discharge and suction.



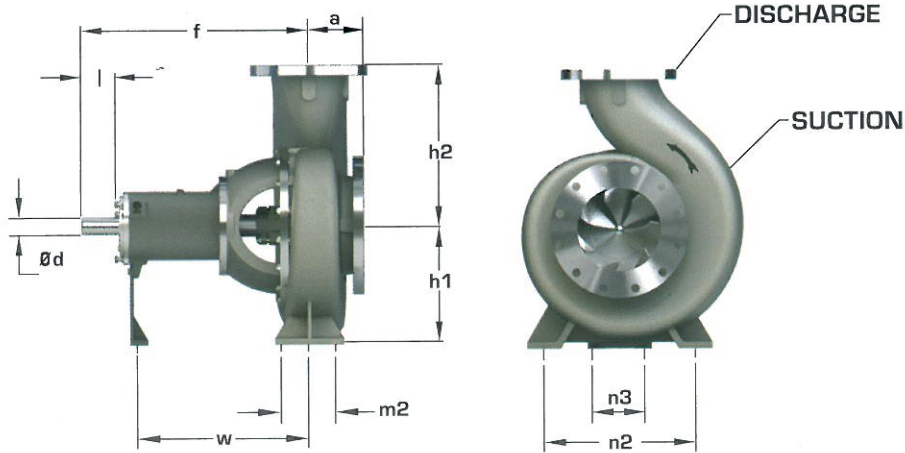
CHEMFLO MECHANICAL SEAL

Chemflo Type 21 Teflon bellow seal is a best choice for vacuum and low pressure application. During vacuum, seal face comes closer to the stationary seat and exerts pressure on it due to which perfect sealing takes place.



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MSP DIMENSIONS

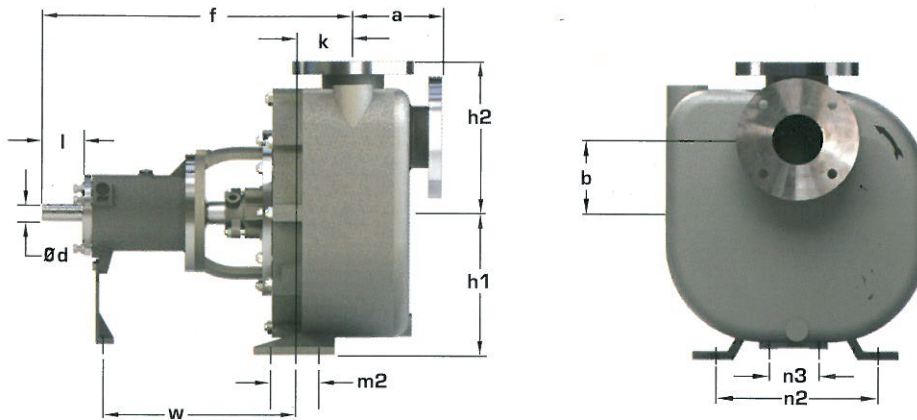


GROUP	MODELS	h1	h2	a	f	d	l	PUMP FEET			
								w	m2	n2	n3
MSP-1A	40 x 25 - 125	112	140	80	385	22	50	285	70	140	110
	50 x 32 - 125	112	140	80	385	22	50	285	70	140	110
	65 x 40 - 125	112	140	80	385	22	50	285	70	160	110
	40 x 25 - 160	132	160	80	385	22	50	285	70	190	110
	50 x 32 - 160	132	160	80	385	22	50	285	70	190	110
	65 x 40 - 160	132	160	80	385	22	50	285	70	190	110
MSP-1B	40 x 25 - 180	132	160	80	385	22	50	285	70	190	110
	80 x 65 - 125	132	160	100	385	24	50	285	70	190	110
	65 x 50 - 160	132	160	80	385	24	50	285	70	190	110
	40 x 25 - 200	160	180	80	385	24	50	285	70	190	110
	50 x 32 - 200	160	180	80	385	24	50	285	70	190	110
	65 x 40 - 200	160	180	100	385	24	50	285	70	212	110
MSP-II	80 x 50 - 200	160	200	100	385	24	50	285	70	212	110
	100 x 80 - 160	160	200	100	500	32	80	370	95	212	110
	100 x 65 - 200	180	225	100	500	32	80	370	95	250	110
	125 x 100 - 200	200	280	125	500	32	80	370	120	280	110
	40 x 25 - 250	180	225	100	500	32	80	370	95	250	110
	50 x 32 - 250	180	225	100	500	32	80	370	95	250	110
	65 x 40 - 250	180	225	100	500	32	80	370	95	250	110
	80 x 50 - 250	180	225	125	500	32	80	370	95	250	110
	100 x 80 - 250	200	250	125	500	32	80	370	120	280	110
	65 x 40 - 315	200	250	125	500	32	80	370	95	280	110
MSP-III	80 x 50 - 315	225	280	125	500	32	80	370	95	280	110
	125 x 100 - 250	225	280	140	530	42	110	370	120	315	110
	150 x 100 - 250	225	280	140	530	42	110	370	120	315	110
	200 x 150 - 250	280	355	160	530	42	110	370	150	400	110
	100 x 65 - 315	225	280	125	530	42	110	370	120	315	110
	100 x 80 - 315	225	280	125	530	42	110	370	120	315	110
	125 x 100 - 315	250	315	140	530	42	110	370	120	315	110
	150 x 100 - 315H	250	315	140	530	42	110	370	120	315	110
	100 x 80 - 400	280	355	125	530	42	110	370	120	355	110
	150 x 100 - 400	280	355	140	530	42	110	370	150	400	110
MSP-IV	200 x 150 - 315	315	400	160	670	48	110	500	150	450	140
	250 x 200 - 315	315	400	160	670	60	110	500	150	450	140
	200 x 150 - 400	315	430	160	670	48	110	500	150	450	140
	250 x 200 - 400	355	475	160	670	60	110	500	150	450	140
MSP-V	200 x 150 - 450	430	500	150	801	70	130	506	120	580	140
	250 x 200 - 450	430	555	150	801	70	130	506	120	580	140
	300 x 250 - 450	430	615	150	801	70	130	506	120	580	140
	200 x 150 - 500	430	525	150	801	70	130	506	120	580	140
	250 x 200 - 500	430	580	150	801	70	130	506	120	580	140
	300 x 250 - 500	430	640	150	801	70	130	506	120	580	140
	200 x 150 - 570	430	550	150	801	70	130	506	120	580	140
	250 x 200 - 570	430	610	150	801	70	130	506	120	580	140
	300 x 300 - 570	500	745	200	801	70	130	506	120	660	140



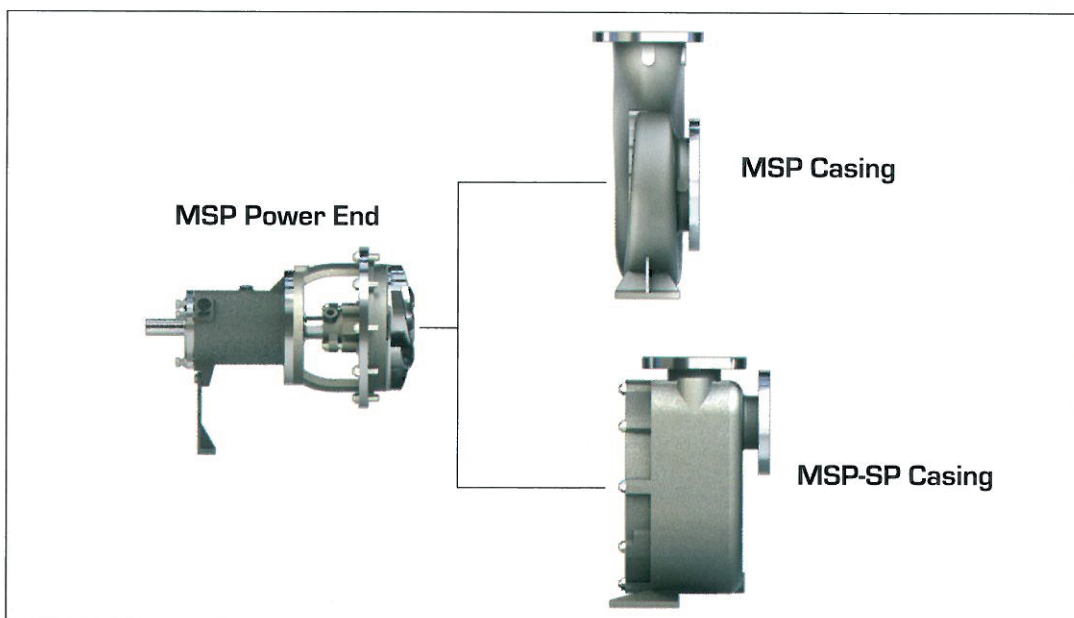
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MSP-SP DIMENSIONS



GROUP	MODELS	h1	h2	a	b	f	d	k	l	PUMP FEET			
										w	m2	n2	n3
1A	40 - 125	160	160	105	65	427	22	42	50	285	70	190	110
	65 - 125	160	180	140	78	443	22	58	50	285	70	190	110
	40 - 160	160	180	112	70	418	22	33	50	285	70	190	110
1B	65 - 160	200	200	130	97	460	24	75	50	285	70	212	110
	40 - 200	180	200	105	80	429	24	44	50	285	70	190	110
	65 - 200	200	225	135	109	444	24	59	50	285	70	212	110
	80 - 200	200	225	127	91	453	24	68	50	285	70	212	110
II	100 - 200	225	280	175	115	600	32	100	80	370	95	280	110
	65 - 250	225	250	135	100	558	32	57	80	370	95	280	110
	80 - 250	225	250	150	120	576	32	76	80	370	95	280	110
	100 - 250	280	300	175	150	615	32	115	80	370	120	315	110
III	80 - 315H	280	315	155	120	610	42	80	110	370	120	315	110
	100 - 315					610	42		110	370			140
	150 - 315H					610	42		110	370			140

INTERCHANGEABILITY OF POWER END



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BTM is an associate company of Akay Industries Pvt Ltd

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