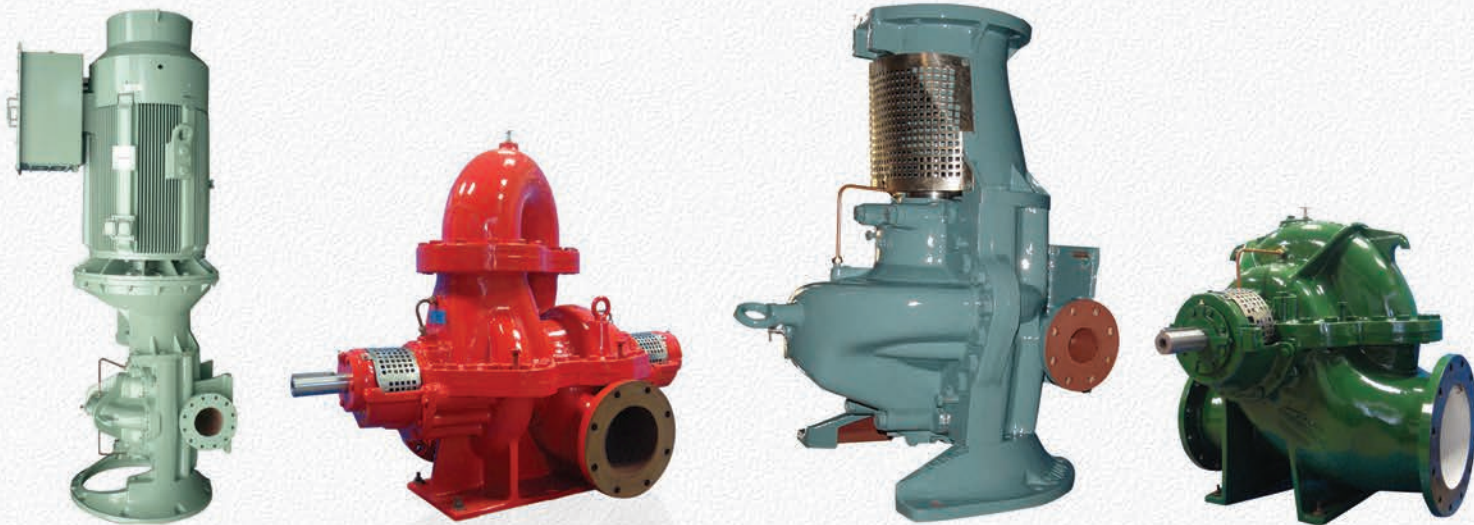




Axially Splitcase Pumps Series HS & HST



Masflo is a specialist manufacturer of centrifugal pumps. The standard split case range, HS/HST, includes over sixty frames and is one of the most comprehensive ranges of split case pumps in the industry.

These pumps have been designed with a sophisticated understanding of the needs of the various user segments. Pumps have extended best efficiency zones & low noise and vibration characteristics for energy efficient and environment friendly operation. Further, their ruggedness ensures long years of trouble-free operation.

Range

A comprehensive range spanning over 60 models, designed around seven shaft groups, with nominal impeller diameters of 300mm, 360mm, 400mm, 440mm, 540mm & 660mm, meet the standard requirements of all segments. Discharge range extends to 800 l/s with Heads up to 230m at 1450 rpm. Large custom engineered units are also available on request.

Applications

Building Services	Condenser and chilled water circulation, fire protection, water transfer.
Utilities	Raw water, clear water, waste water and auxiliary services.
Steel Mills	Service water, roll cooling, blast furnace cooling, cooling tower.
Pulp & paper	Fan pumps, white water, raw water and primary cleaner.
Irrigation	Lift and sprinkler irrigation.
General industry	Sugar mills - water supply and spray pond pumps, raw water and cooling water pumps for chemical, petrochemical and fertilizer industry; mine dewatering pumps.

Superior Hydraulic Performance

Stable Head-Capacity Characteristics: Facilitates capacity regulation and smooth operation when two or more pumps are operating in parallel.

Low NPSHR: Ensures high suction lift capability and protects the pump from cavitation erosion without compromising efficiency or smooth operation at part flows.

Non-overloading power characteristics: Keeps the motor rating low

Superior Mechanical Features

Easy access: With the top half casing removed, the complete rotating assembly can be withdrawn by the simple removal of four bearing housing ‘top clamp’ bolts; no need to dismantle bearings.

Straightforward Piping: Pipe layout made easy with suction and discharge flanges on the same centerline for single stage pumps.

Impellers: Are designed for optimum efficiency. They are double suction for single stage pumps and are dynamically balanced.

Casing Wear rings: Fitted as standard, simple heavy rectangular cross-section with “tongue & groove” arrangement to prevent rotation. Impeller wear rings are optional on all models.

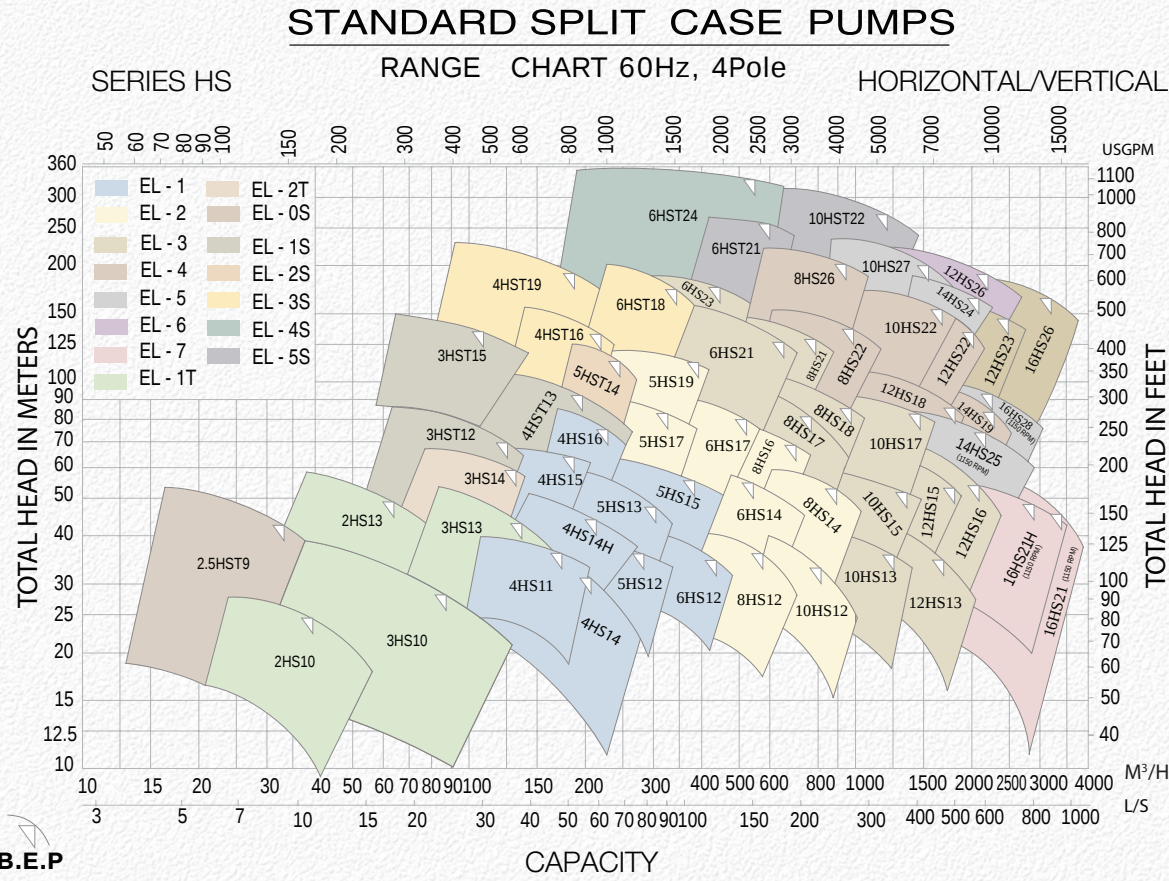
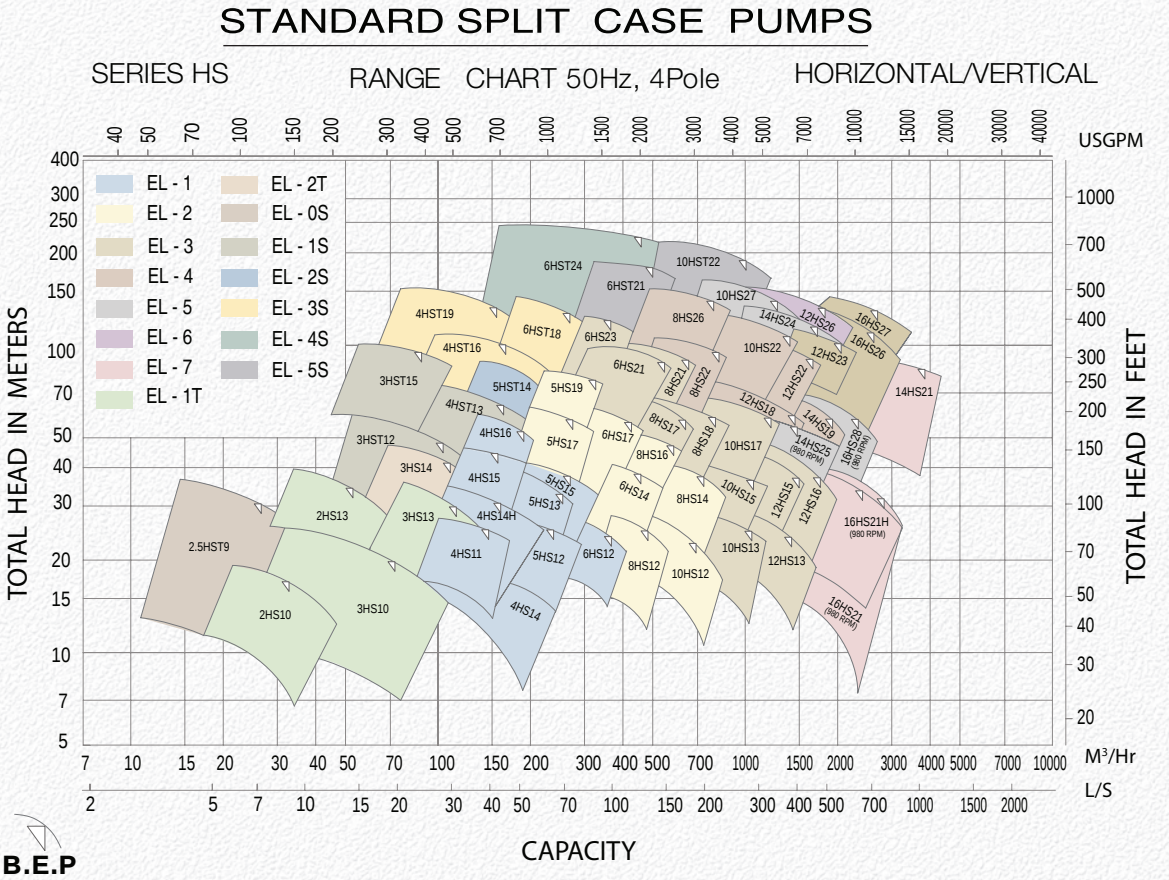
High Strength shaft: The shaft is generously sized to cover maximum loading and supported by two grease lubricated deep groove ball bearings. Shaft design ensures minimum deflection and improved life for bearings, wear rings and shaft seals. Shafts are protected by shaft sleeves in packed gland pumps.

Stuffing Box: Easily converted for use with soft-packing or mechanical seals. All pump casings are pre-drilled and tapped to easily facilitate either option.

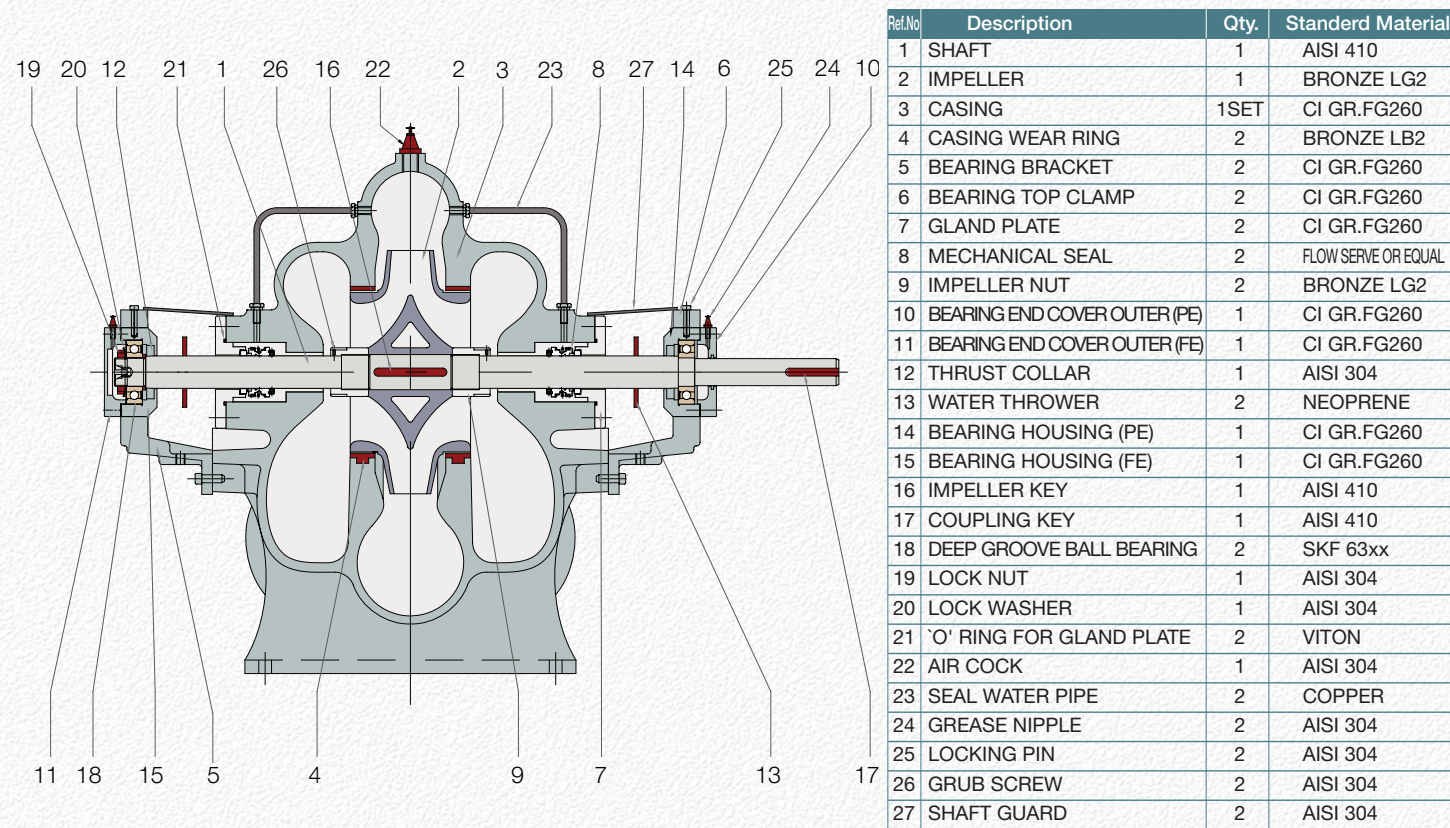
Double Volute Casings: All high head pumps have double volute casings to minimize radial loading during part flow operation

Optional Arrangements

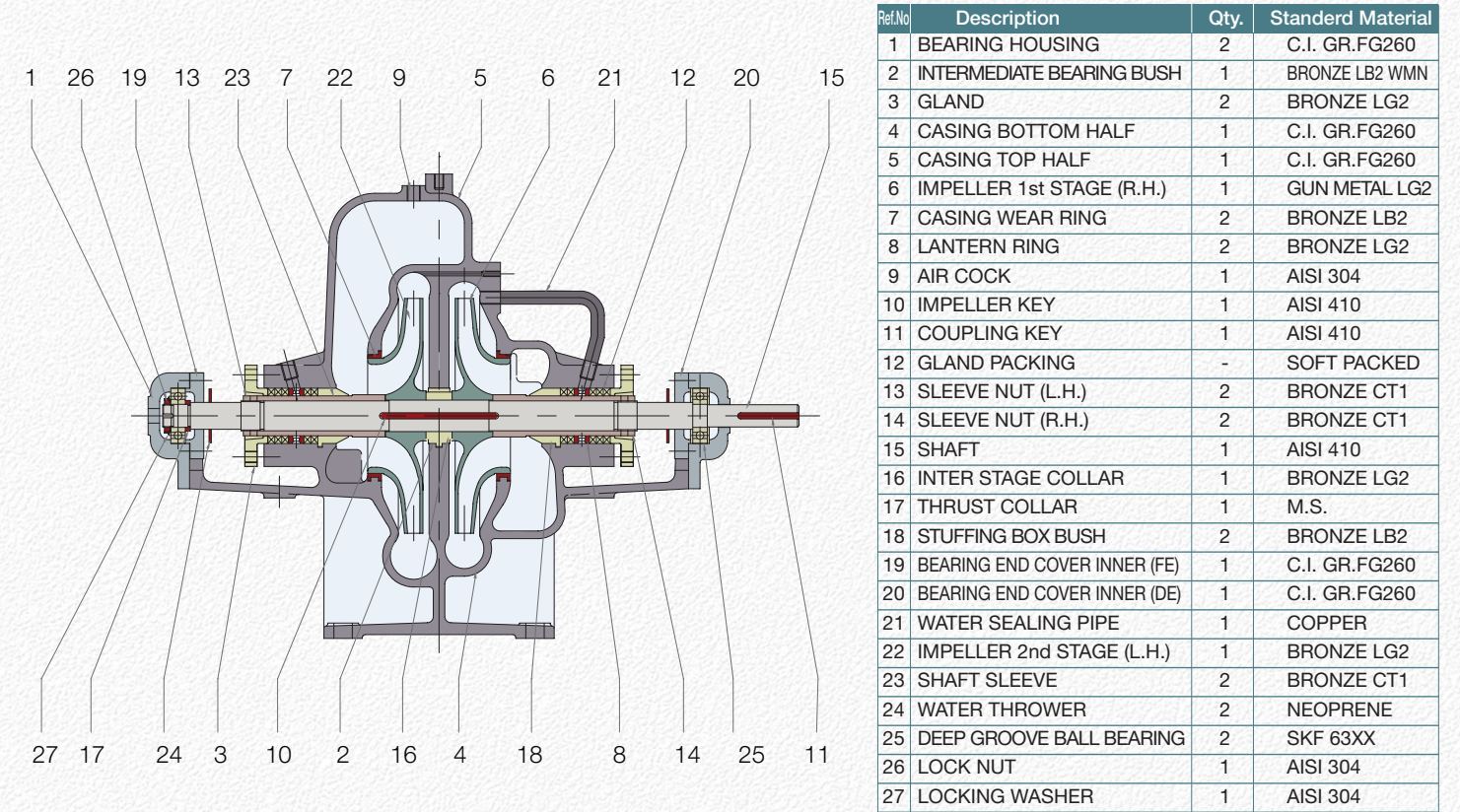
One of our major strengths is our ability to provide customized designs and product variants quickly and economically. Bottom suction, vertical dry pit and side suction/top discharge arrangements can all be provided against specific customer requirements.



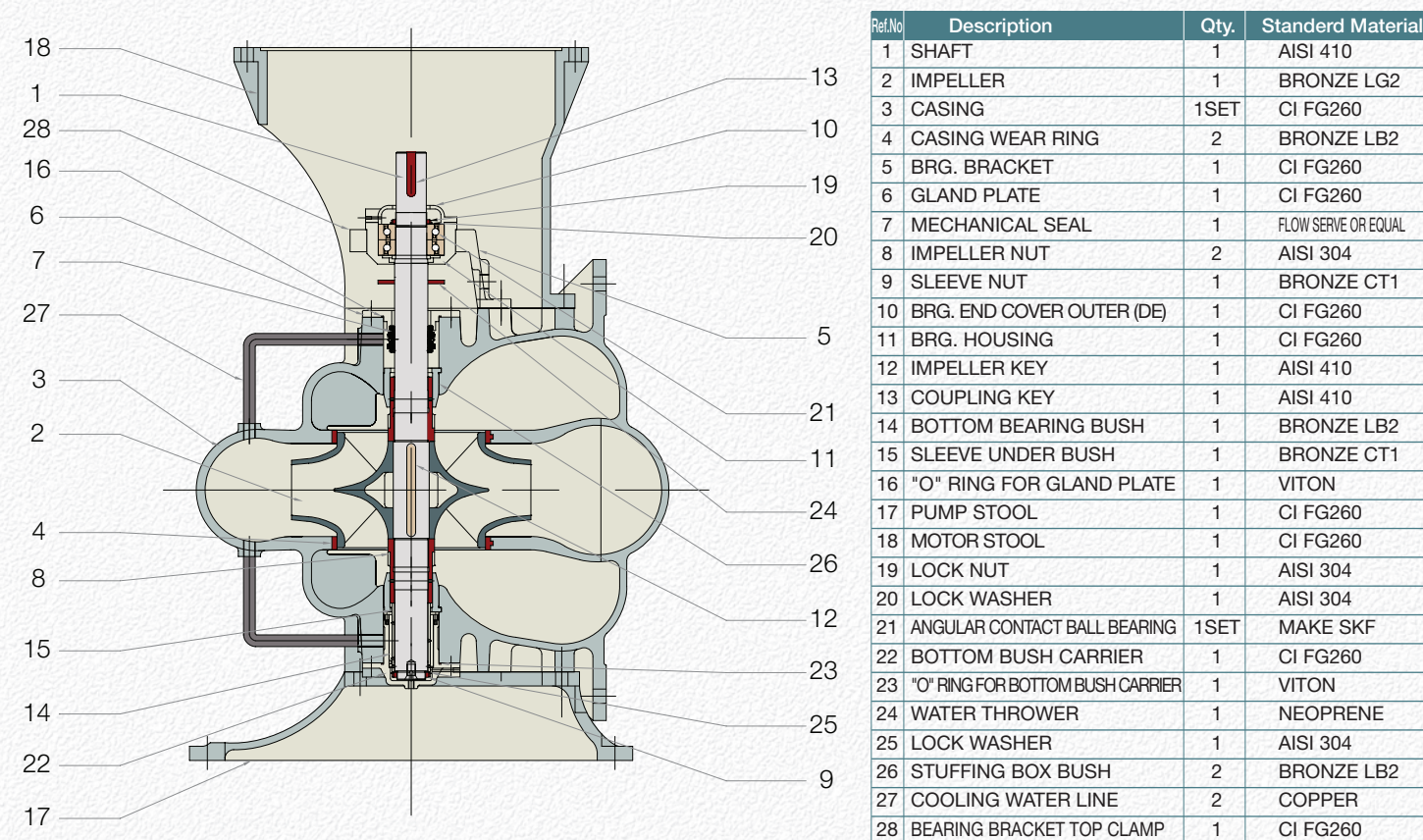
Cross Section of Single Stage Horizontal Splitcase Pump with Mechanical Seals - Series HS



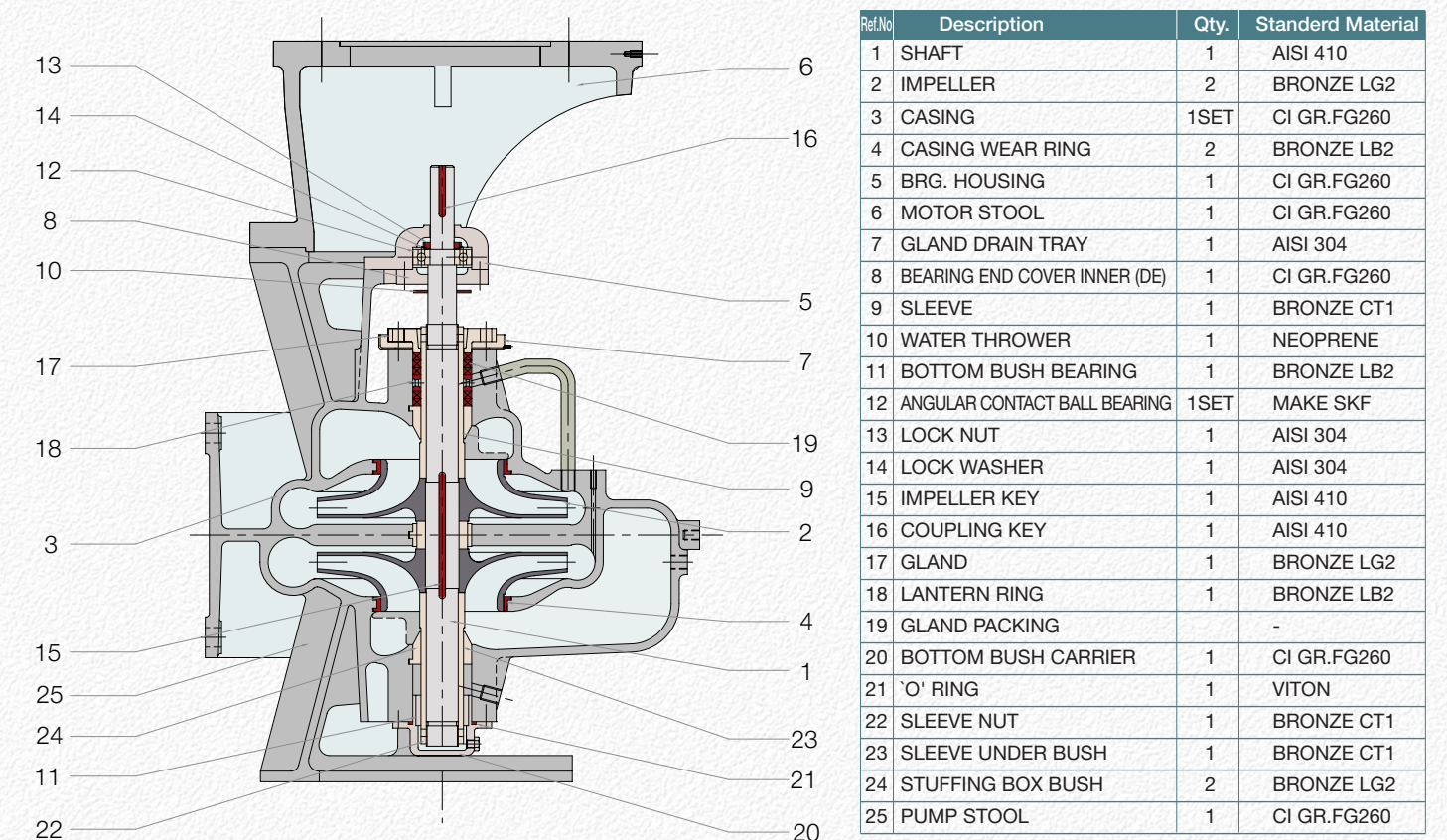
Cross Section of Two Stage Horizontal Splitcase Pump with Packed Gland - Series HST



Cross Section of Single Stage Vertical Splitcase Pump with Mechanical Seals - Series HS



Cross Section of Two Stage Vertical Splitcase Pump with Packed Gland - Series HST



Technical drawings of the pump assembly showing front, side, and plan views with dimension labels:

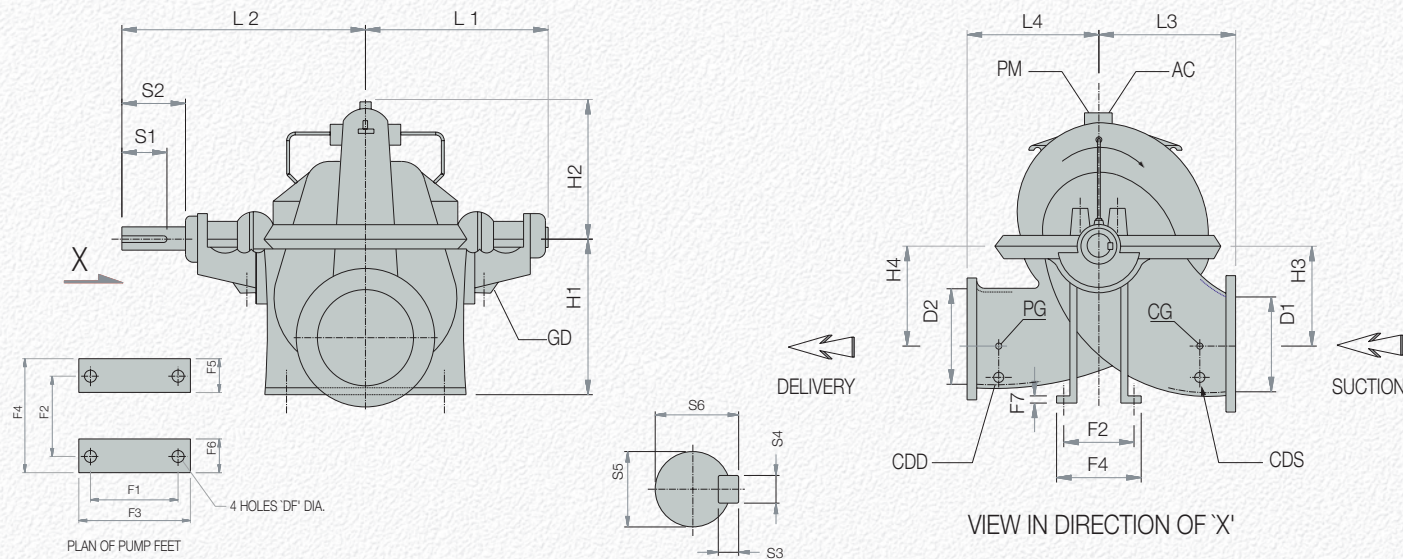
- Front View:** Shows the pump body with dimensions L1, L2, L3, L4, L5, L6, H1, H2, H3, H4, H5, H6, D1, D2, F1, and F2. Arrows indicate Suction and Delivery directions.
- Side View:** Shows the pump body from the side with dimensions L1, L2, L3, L4, L5, L6, H1, H2, H3, H4, H5, H6, D1, D2, F1, and F2.
- Plan View:** Shows the pump body from above with dimensions P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38, P39, P40, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P62, P63, P64, P65, P66, P67, P68, P69, P70, P71, P72, P73, P74, P75, P76, P77, P78, P79, P80, P81, P82, P83, P84, P85, P86, P87, P88, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100, P101, P102, P103, P104, P105, P106, P107, P108, P109, P110, P111, P112, P113, P114, P115, P116, P117, P118, P119, P120, P121, P122, P123, P124, P125, P126, P127, P128, P129, P130, P131, P132, P133, P134, P135, P136, P137, P138, P139, P140, P141, P142, P143, P144, P145, P146, P147, P148, P149, P150, P151, P152, P153, P154, P155, P156, P157, P158, P159, P160, P161, P162, P163, P164, P165, P166, P167, P168, P169, P170, P171, P172, P173, P174, P175, P176, P177, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P188, P189, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P200, P201, P202, P203, P204, P205, P206, P207, P208, P209, P210, P211, P212, P213, P214, P215, P216, P217, P218, P219, P220, P221, P222, P223, P224, P225, P226, P227, P228, P229, P230, P231, P232, P233, P234, P235, P236, P237, P238, P239, P240, P241, P242, P243, P244, P245, P246, P247, P248, P249, P250, P251, P252, P253, P254, P255, P256, P257, P258, P259, P260, P261, P262, P263, P264, P265, P266, P267, P268, P269, P270, P271, P272, P273, P274, P275, P276, P277, P278, P279, P280, P281, P282, P283, P284, P285, P286, P287, P288, P289, P290, P291, P292, P293, P294, P295, P296, P297, P298, P299, P300, P301, P302, P303, P304, P305, P306, P307, P308, P309, P310, P311, P312, P313, P314, P315, P316, P317, P318, P319, P320, P321, P322, P323, P324, P325, P326, P327, P328, P329, P330, P331, P332, P333, P334, P335, P336, P337, P338, P339, P340, P341, P342, P343, P344, P345, P346, P347, P348, P349, P350, P351, P352, P353, P354, P355, P356, P357, P358, P359, P360, P361, P362, P363, P364, P365, P366, P367, P368, P369, P370, P371, P372, P373, P374, P375, P376, P377, P378, P379, P380, P381, P382, P383, P384, P385, P386, P387, P388, P389, P390, P391, P392, P393, P394, P395, P396, P397, P398, P399, P400, P401, P402, P403, P404, P405, P406, P407, P408, P409, P410, P411, P412, P413, P414, P415, P416, P417, P418, P419, P420, P421, P422, P423, P424, P425, P426, P427, P428, P429, P430, P431, P432, P433, P434, P435, P436, P437, P438, P439, P440, P441, P442, P443, P444, P445, P446, P447, P448, P449, P450, P451, P452, P453, P454, P455, P456, P457, P458, P459, P460, P461, P462, P463, P464, P465, P466, P467, P468, P469, P470, P471, P472, P473, P474, P475, P476, P477, P478, P479, P480, P481, P482, P483, P484, P485, P486, P487, P488, P489, P490, P491, P492, P493, P494, P495, P496, P497, P498, P499, P500, P501, P502, P503, P504, P505, P506, P507, P508, P509, P510, P511, P512, P513, P514, P515, P516, P517, P518, P519, P520, P521, P522, P523, P524, P525, P526, P527, P528, P529, P530, P531, P532, P533, P534, P535, P536, P537, P538, P539, P540, P541, P542, P543, P544, P545, P546, P547, P548, P549, P550, P551, P552, P553, P554, P555, P556, P557, P558, P559, P560, P561, P562, P563, P564, P565, P566, P567, P568, P569, P570, P571, P572, P573, P574, P575, P576, P577, P578, P579, P580, P581, P582, P583, P584, P585, P586, P587, P588, P589, P590, P591, P592, P593, P594, P595, P596, P597, P598, P599, P600, P601, P602, P603, P604, P605, P606, P607, P608, P609, P610, P611, P612, P613, P614, P615, P616, P617, P618, P619, P620, P621, P622, P623, P624, P625, P626, P627, P628, P629, P630, P631, P632, P633, P634, P635, P636, P637, P638, P639, P640, P641, P642, P643, P644, P645, P646, P647, P648, P649, P650, P651, P652, P653, P654, P655, P656, P657, P658, P659, P660, P661, P662, P663, P664, P665, P666, P667, P668, P669, P670, P671, P672, P673, P674, P675, P676, P677, P678, P679, P680, P681, P682, P683, P684, P685, P686, P687, P688, P689, P690, P691, P692, P693, P694, P695, P696, P697, P698, P699, P700, P701, P702, P703, P704, P705, P706, P707, P708, P709, P710, P711, P712, P713, P714, P715, P716, P717, P718, P719, P720, P721, P722, P723, P724, P725, P726, P727, P728, P729, P730, P731, P732, P733, P734, P735, P736, P737, P738, P739, P740, P741, P742, P743, P744, P745, P746, P747, P748, P749, P750, P751, P752, P753, P754, P755, P756, P757, P758, P759, P760, P761, P762, P763, P764, P765, P766, P767, P768, P769, P770, P771, P772, P773, P774, P775, P776, P777, P778, P779, P780, P781, P782, P783, P784, P785, P786, P787, P788, P789, P790, P791, P792, P793, P794, P795, P796, P797, P798, P7

S/No.	Pump Model	Motor In Kw	Frame Size	D1	D2	Shaft Group	OVER ALL DIMENSIONS																BASE DIMENSIONS								APPROX. WEIGHTS (kg.)		
							L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	H6	X	F1	F2	P1	P2	P3	D	T1	T2	Bare Pump	Pump Stool	Motor Stool				
1	V4HS11	7.5	132M	125	100	1	270	220	195	215	166	781	340	560	346	25	587	5	520	660	190	520	600	23	70	130	190	40	60				
		247	346								671																						
		11.0	160M								247				346		671																
		15.0	160M								247				346		671																
2	V4HS15	15.0	160M	125	100	1	370	300	230	260	247	781	340	560	346	25	706	5	520	660	190	520	600	23	70	130	210	40	60				
		266	346								706																						
		22.0	180M								266				346		706																
		30.0	200M								284				346		731																
3	V4HS16	55.0	250M	125	100	1	385	315	245	275	448	781	340	560	376	25	1040	5	520	660	190	520	600	23	70	130	250	40	65				
		362	376								910																						
		75.0	280S								448				376		1040																
		90.0	280S								247				346		671																
4	V5HS12	15.0	160M	150	125	1	330	265	210	245	266	781	340	560	346	25	706	5	520	660	190	520	600	23	70	130	235	40	60				
		266	346								706																						
		22.0	180M								247				346		671																
		15.0	160M								266				346		706																
5	V5HS13	15.0	160M	150	125	1	350	280	213	240	247	781	340	560	346	25	706	5	520	660	190	520	600	23	70	130	270	40	60				
		266	346								706																						
		22.0	180M								266				346		706																
		30.0	200M								284				346		731																
6	V5HS14	22.0	180M	150	125	1	375	315	230	250	266	781	340	560	346	25	706	5	520	660	190	520	600	23	70	130	273	40	65				
		284	346								731																						
		30.0	200M								337				376		833																
		37.0	225S								337				376		833																
		45.0	225S								362				376		910																
		55.0	250M								448				376		1040																
7	V5HS17	37.0	225S	150	125	2	420	305	270	300	337	971	340	560	376	25	833	5	520	660	190	520	600	23	70	130	275	40	65				
		337	376								833																						
		55.0	250M								362				376		910																
		75.0	280S								448				376		1040																
8	V5HS19	55.0	250M	150	125	2	420	400	295	318	362	971	420	720	416	26	1040	5	580	720	190	550	660	23	70	130	390	110	100				
		448	416								1040																						
		70.0	280S								416				1040																		
		90.0	280S								448				416		1199																
9	V6HS12	18.5	180M	200	150	1	350	265	220	255	266	781	340	560	346	25	706	5	520	660	190	520	600	23	70	130	285	40	60				
		266	346								706																						
		30.0	200M								284				346		731																
		37.0	225S								337				376		833																
10	V6HS14	30.0	200M	200	150	2	390	320	250	290	284	971	420	720	386	26	731	5	580	720	190	550	660	23	70	130	415	110	100				
		337	416								833																						
		45.0	225S								337				416		833																
		55.0	250M								362				416		910																
11	V6HS17	75.0	280S	200	150	2	410	360	270	315	448	971	420	720	416	26	910	5	580	720	190	550	660	23	70	130	450	110	100				
		362	416								1040																						
		55.0	250M								448				416		1040																
		75.0	280S								448				416		1040																
12	V6HS21	90.0	280S	200	150	3	440	430	320	365	448	1086	535	920	473	28	1040	5	670	830	270	685	750	23	70	190	600	130	165				
		557	505								1199																						
		110.0	315S								557				503		1199																
		132.0	315S								557				503		1199																
		150.0	315M								557				503		1245																
		160.0	315M								557				503		1245																
13	V6HS23	200.0	315M	200	150	3	500	400	360	390	557	1086	535	920	503	28	1245	5	670	830	270	685	750	23	70	190	650	145	165				
		557	503								1245																						
		90.0	280S								448				473		1040																
		110.0	315S								557				503		1199																
		132.0	315S								557				503		1199																
		150.0	315M								557				503		1245																
14	V8HS12	160.0	315M	200	200	2	400	320	250	290	557	971	420	720	503	26	1245	5	580	720	190	550	660	23	70	130	370	110	100				
		557	503								833																						
		45.0	225S								337				416		833																

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Note: General Arrangement drawing of vertical two stage pumps (Series HST) on request

Dimensions of Single Stage Horizontal Splitcase Pumps - Series HS



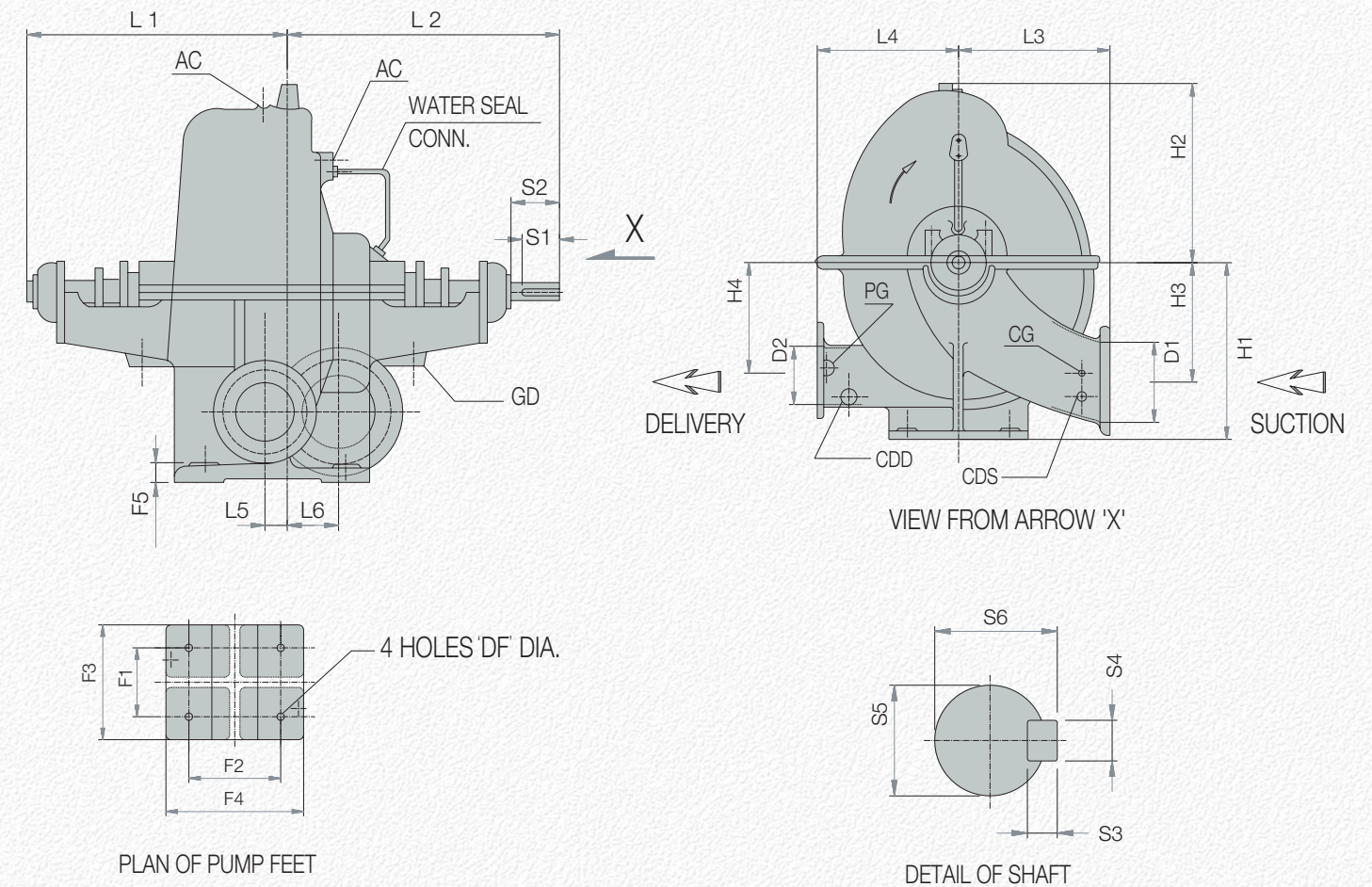
CONNECTION		SHAFT GROUP						
ITEM	DESCRIPTION	1	2	3	4	5	6	7
GD	Gland Drain	1/2"	1/2"	3/4"	1"	1"	1"	1"
CG	Comp. Gauge for Suction	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
PG	Pr. Gauge For Delivery	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
AC	Air cock	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
PM	Priming	1/2"	3/4"	1 1/2"	1"	1 1/4"	1"	1 1/2"
CDS	Casing Drain (Suc. Side)	1/2"	3/4"	3/4"	1"	1"	1"	1"
CDD	Casing Drain (Del. Side)	1/2"	3/4"	3/4"	1"	1"	1"	1"

SHAFT END DETAILS						
GROUP	S1	S2	S3	S4	S5	S6
1	80	89.5	7	8	29	32
2	95	100	8	12	39	42
3	110	125	10	16	54	58
4	130	147.5	12	20	69	74
5	115	135	14	22	79	85
6	120	211	14	25	89	94
7	150	190	14	25	94	99

SL NO.	PUMP MODEL	SIZE		SHAFT GROUP	OVERALL DIMENSIONS								MOUNTING DIMENSIONS								SHAFT END						APPROX WT(Kg)
		D1	D2		H1	H2	H3	H4	L1	L2	L3	L4	F1	F2	F3	F4	F5	F6	F7	DF	S1	S2	S3	S4	S5	S6	
1	4HS11	125	100	1	310	215	195	195	372	459.5	270	220	250	285	310	350	82.5	82.5	16	18	80	89.5	7	8	29	32	190
2	4HS11L	125	100	1	310	215	195	195	372	459.5	270	220	250	285	310	350	82.5	82.5	16	18	80	89.5	7	8	29	32	190
3	4HS15	125	100	1	330	260	230	230	372	459.5	370	300	285	285	350	350	82.5	82.5	16	18	80	89.5	7	8	29	32	210
4	4HS16	125	100	1	345	275	245	245	372	459.5	385	315	315	315	370	380	82.5	82.5	16	18	80	89.5	7	8	29	32	250
5	5HS12	150	125	1	330	245	210	210	372	459.5	330	265	280	285	340	350	82.5	82.5	25	18	80	89.5	7	8	29	32	235
6	5HS13	150	125	1	330	240	213	213	372	459.5	350	280	285	285	340	350	70	70	25	18	80	89.5	7	8	29	32	270
7	5HS14	150	125	1	350	250	230	230	372	459.5	375	315	315	315	370	350	82.5	82.5	16	18	80	89.5	7	8	29	32	273
8	5HS17	150	125	2	390	300	270	270	452	552	420	305	330	285	400	350	82.5	82.5	16	18	95	100	8	12	39	42	350
9	5HS19	150	125	2	415	318	295	295	452	552	420	400	360	360	420	425	82.5	82.5	20	22	95	100	8	12	39	42	390
10	6HS12	200	150	1	380	255	220	220	372	459.5	350	265	280	285	340	350	82.5	82.5	16	18	80	89.5	7	8	29	32	285
11	6HS14	200	150	2	400	290	250	250	452	552	390	320	360	360	420	425	82.5	82.5	20	22	95	100	8	12	39	42	415
12	6HS17	200	150	2	410	315	270	270	452	552	410	360	360	360	420	425	82.5	82.5	20	22	95	100	8	12	39	42	450
13	6HS21	200	150	3	460	365	320	320	480	605	440	430	400	360	460	425	82.5	82.5	25	26	110	125	10	16	54	58	600
14	6HS23	200	150	3	500	390	360	360	480	605	500	400	440	360	500	425	82.5	82.5	25	26	110	125	10	16	54	58	650
15	8HS12	200	200	2	410	290	250	250	452	552	400	320	360	360	420	425	82.5	82.5	20	22	95	100	8	12	39	42	370
16	8HS14	250	200	2	465	330	285	285	452	552	440	350	440	360	500	425	82.5	82.5	20	22	95	100	8	12	39	42	520
17	8HS16	200	200	2	430	330	270	270	452	552	420	350	360	360	420	425	82.5	82.5	20	22	95	100	8	12	39	42	475
18	8HS18	250	200	3	490	340	295	295	480	605	450	365	440	360	550	425	82.5	82.5	25	26	110	125	10	16	54	58	615
19	8HS17	200	200	3	500	345	300	300	480	605	450	400	440	360	500	425	82.5	82.5	30	26	110	125	10	16	54	58	615
20	8HS21	200	200	3	555	385	360	360	480	605	500	400	440	360	500	425	82.5	82.5	30	26	110	125	10	16	54	58	840
21	8HS22	250	200	4	550	395	360	360	550	685	520	400	455	500	520	570	100	100	28	28	130	147.5	12	20	69	74	900
22	8HS26	250	200	4	615	450	430	430	550	685	580	480	455	500	520	570	100	100	28	28	130	147.5	12	20	69	74	1240
23	10HS13	300	250	3	520	340	295	295	480	605	500	365	470	360	530	425	82.5	82.5	25	26	110	125	10	16	54	58	575
24	10HS13L	300	250	3	520	340	295	295	480	605	500	365	470	360	530	425	82.5	82.5	25	26	110	125	10	16	54	58	500
25	10HS12	250	250	2	505	323	275	275	452	552	475	380	470	360	530	425	100	100	25	26	95	100	8	12	39	42	486
26	10HS15	300	250	3	520	355	320	320	480	605	500	400	440	360	500	425	82.5	82.5	25	26	110	125	10	16	54	58	715
27	10HS17	300	250	3	540	375	335	335	480	605	500	400	470	360	530	425	82.5	82.5	25	26	110	125	10	16	54	58	890
28	10HS22	300	250	4	555	410	355	355	550	685	584	492	470	500	530	570	100	100	25	28	130	147.5	12	20	69	74	1000
29	10HS27	300	250	5	650	470	407	407	618	753	640	560	400	620	500	750	175	175	30	28	115	135	14	22	79	85	1600
30	12HS13	350	300	3	550	355	305	305	505	630	545	400	470	470	530	535	82.5	82.5	25	26	110	125	10	16	54	58	800
31	12HS15	350	300	3	550	375	335	335	480	605	550	365	470	470	530	535	82.5	82.5	25	26	110	125	10	16	54	58	740
32	12HS16	400	300	3	610	385	350	350	530	665	550	350	470	500	530	570	100	100	25	28	110	125	10	16	54	58	655
33	12HS18	350	300	4	600	378	345	345	550	685	575	475	455	640	520	720	125	125	28	28	130	147.5	12	20	69	74	1095
35	12HS22	350	300	4	635	450	378	378	550	685	630	550	455	640	520	720	125	125	28	28	130	147.5	12	20	69	74	1350
34	12HS23	350	300	7	700	466	470	470	760	950	750	650	650	600	800	700	150	150	36	30	150	190	14	25	94	99	1800
36	12HS26	350	300	6	725	465	445	445	656	861	660	610	400	620	530	750	175	175	30	28	120	211	14	25	89	94	1540
37	14HS19	450	350	4	660	445	380	380	569	704	650	547	555	550	620	620	100	100	25	28	130	147.5	12	20	69	74	1100
38	14HS21	400	350	5	750	466	450	450	618	753	700	550	555	550	655	650	150	150	30	28	115	135	14	22	79	85	2700
39	14HS24	400	350	5	750	490	450	450	618	753	710	655	500	500	630	630	175	175	30	28	115	135	14	22	79	85	1540
40	14HS25	400	350	5	750	475	470	470	618	753	750	600	555	550	620	620	100	100	35	28	115	135	14	22	79	85	2185
41	16HS21	500	400	4	435	490	428	428	620	755	635	432	930	380	1040	540	125	125	30	32	130	147.5	12	20	69	74	1320
42	16HS21L	500	400	4	435	490	428	428	620	755	635	432	930	380	1040	540	125	125	30	32	130	147.5	12	20	69	74	1400
43	16HS21H	500	400	4	780	450	425	425	686	865	700	450	500	500	630	630	175	175	30	28	130	147.5	12	20	69	74	2000
44	16HS26	500	400	7	825	535	490	490	760	950	770	650	600	700	700	820	185	185	40	28	150	190	14	25	94	99	2740
45	16HS28	450	400	5	800	577	521	521	678	825	864	762	440	800	540	1000	200	200	32	28	115	135	14	22	79	85	2285

All dimensions are in mm

Dimensions of Two Stage Horizontal Splitcase Pumps - Series HST



CONNECTION		SHAFT GROUP				
ITEM	DESCRIPTION	1S	2S	3S	4S	5S
GD	Gland Drain	1/2"	1/2"	3/4"	1"	1"
CG	Comp. Gauge For Suction	3/8"	3/8"	3/8"	3/8"	3/8"
PG	Pr. Gauge For Delivery	3/8"	3/8"	3/8"	3/8"	3/8"
AC	Air Cock	3/8"	3/8"	3/8"	3/8"	3/8"
PM	Priming	1/2"	3/4"	1"	1 1/2"	1 1/2"
CDS	Casing Drain(Suct.Side)	1/2"	3/4"	3/4"	1"	1"
CDD	Casing Drain(Dely.Side)	1/2"	3/4"	3/4"	1"	1"

A. PUMP FRAME		4HS11	4HS15	4HS16	5HS12	5HS13	5HS14	5HS17	6HS19	6HS12	6HS14	6HS17	6HS21	6HS23	8HS12	8HS14	8HS16	8HS18	8HS17	8HS22	8HS21	8HS26	10HS13	10HS12	10HS15
1. Discharge size	mm	100	100	100	125	125	125	125	125	150	150	150	150	150	150	200	200	200	200	200	200	200	250	250	250
	mm	125	125	125	150	150	150	150	150	200	200	200	200	200	200	250	250	250	250	250	250	250	300	250	300
3. Flange rating		PN16 as stadard ANSI 125# on request																							

4. Casing Material		BS 1452 Gr. FG 260 as standard. Other grades depending on application.																							
5. Casing Thickness	mm	10	10	15	10	10	11	12	20	12	13	14	15	22	12	15	18	15	16	22	25	23	14	12	15
6. No. of stages		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7. Split Flange Gasket	mm	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

B. IMPELLER AND ROTOR

1. Maxm Impeller Diameter	mm	275	380	410	300	335	360	440	490	300	360	438	530	580	300	360	403	445	440	560	537	662	325	305	390
2. Weight of Impeller	Kg	13	25	26	15	22	27	38	58	19	29	32	53	75	22	32	27	47	49	92	57	125	32	25	42
3. Weight of rotating Element	Kg	32	44	53	34	45	48	57	99	37	62	69	100	126	51	64	67	91	97	180	95	211	73	58	83
4. Wear Ring clearance dia (max.)	mm	0.290	0.320	0.370	0.320	0.340	0.376	0.340	0.376	0.376	0.376	0.376	0.376	0.382	0.370	0.376	0.382	0.390	0.376	0.400	0.376	0.430	0.400	0.400	
	Wear Ring clearance dia.(min.)	mm	0.230	0.260	0.310	0.260	0.280	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.310	0.340	0.310	0.390	0.340	0.340	
5. ID of Casing wear ring	mm	135	154	164	165	180	180	175	170	180	205	198	212	183	195	230	210	235	230	250	215	240	252	230	252
6. Impeller Eye Diameter	mm	114	130	140	144	150	158	151	138	154	176	170	183	155	172	200	180	208	196	218	186	212	222	203	222
7. Impeller Eye Area/ per Eye	Sq cm	76	106	127	136	150	170	153	111	160	205	188	201	128	194	276	216	277	239	278	209	258	325	261	325
8. GD *2 for Maximum Diameter	Kg.m ²	0.5	1.3	1.5	1	1.6	1.6	3.5	3	1.8	1.9	2.8	6	7.2	1	3.2	3.2	6	4	7.6	8.8	16	2.3	2.1	4

C. SHAFT AND BEARINGS

1. Shaft diameter at Impeller	mm	40	40	40	40	40	40	40	51	40	51	51	64	64	51	51	51	64	64	80	64	80	64	51	64
2. Shaft diameter at coupling	mm	29	29	29	29	29	29	29	39	29	39	39	54	54	39	39	39	54	54	69	54	69	54	39	54
3. Bearing Centres	mm	660	660	660	660	660	660	660	820	660	820	820	870	870	820	820	820	870	870	985	870	985	820	820	870
4. 1st Critical Speed	RPM	4925	4930	4750	4230	4895	4750	4320	4320	4300	4415	4820	5230	5090	4320	4270	4300	5725	4470	4630	5595	4550	4363	3890	3890
5. Bearing size drive end		6306	6306	6306	6306	6306	6306	6306	6306	6306	6308	6308	6311	6311	6311	6308	6308	6311	6311	6314	6311	6314	6311	6308	6311
6. Bearing size non-drive end		6306	6306	6306	6306	6306	6306	6306	6306	6308	6308	6308	6311	6311	6311	6308	6308	6311	6311	6314	6311	6314	6311	6308	6311

D. STUFFING BOX

1. Inside Diameter	mm	73	73	73	73	73	73	73	85	73	85	85	105	105	85	85	85	105	105	125	105	125	105	85	105
2. Depth of Box	mm	72	72	72	72	72	72	72	75	72	75	75	112	112	75	75	75	112	112	115	112	115	112	75	112
3. Size of Packing	mm Sq.	10	10	10	10	10	10	10	10	10	10	10	16	16	10	10	10	16	16	16	16	16	16	10	16
4. No. of rings per Box		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
5. Sleeve Diameter at Box	mm	53	53	53	53	53	53	53	65	53	65	65	73	73	65	65	65	73	73	93	73	93	73	65	73
6. Mech. Seal Size(Burgmann or eqv)	mm	35	35	35	35	35	35	35	45	35	45	45	60	60	45	45	45	60	60	75	60	75	60	45	60

E. SERVICE LIMITS

1. Maxm working pressure	Bar	16	16	16	16	16	16	16	16	16	16	16	20	20	16	16	16	20	20	20	20	20	16	16	16
2. Maxm Hydrotest pressure	Bar	24	24	24	24	24	24	24	24	24	24	24	30	30	24	24	24	30	30	30	30	30	24	24	24
3. Maxxm Suction pressure	Bar	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
4. Maxxm Temp packing	°Celsius	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
5. Max Temp Mech seal	°Celsius	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
6. Maxm Speed	RPM	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800

A. PUMP FRAME		Unit	10HS17	10HS22	10HS27	12HS13	12HS15	12HS16	12HS18	12HS23	12HS22	12HS28	14HS19	14HS25	14HS21	14HS24	16HS21	16HS28	16HS28	16HS26	2.5HS19	3HS12	3HS15	4HS13	4HS19	5HS14	6HS18	10HS12
1. Discharge size	mm	250	250	250	300	300	300	300	300	300	300	300	350	350	350	350	400	400	400	400	65	80	80	100	100	125	150	250
	mm	300	300	300	350	350	350	400	350	350	350	350	450	400	400	400	500	500	450	500	80	100	100	125	150	200	300	
3. Flange rating		PN16 as Standard ANSI 125# on request																										

4. Casing Material		BS 1452 Gr. FG 260 as standard. Other grades depending on application.																									
5. Casing Thickness		mm	18	17	25	13	15	12	18	22	20	19	15	22	16	25	16	25	27	10	18	10	25	19	25	30	29
6. No. of stages			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
7. Split Flange Gasket		mm	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

B. IMPELLER AND ROTOR

1. Maxm Impeller Diameter	mm	440	568	690	325	380	396	462	595	555	660	475	640	550	610	540	540	700	662	230	306	390	350	470	360	460	600	560
2. Weight of Impeller	Kg	44	98	125	40	43	62	67	125	101	116	76	152	95	138	82	105	200	185	12	26	30	32	66	40	40	150	170
3. Weight of rotating Element	Kg	88	192	267	77	87	103	162	290	201	238	191	342	285	285	190	275	390	350	50	45	52	55	145	110	130	280	320
4. Wear Ring clearance dia (max.)	mm	0.400	0.440	0.517	0.370	0.440	0.470	0.430	0.507	0.472	0.512	0.472	0.537	0.577	0.577	0.570	0.577	0.537	0.577	0.335	0.290	0.346	0.340	0.760	0.387	0.352	0.404	0.627
	mm	0.340	0.350	0.430	0.310	0.350	0.400	0.350	0.430	0.400	0.430	0.400	0.430	0.470	0.470	0.360	0.470	0.430	0.470	0.260	0.230	0.280	0.280	0.720	0.310	0.326	0.420	0.530
5. ID of Casing wear ring	mm	260	288	289	260	280	308	296	360	305	300	312	380	360	340	335	340	399	360	105	150	171	176	200	190	215	270	325
6. Impeller Eye Diameter	mm	230	250	246	230	248	278	256	315	271	260	280	316	320	300	300	300	345	310	88	134	147	156	166	162	190	230	289
7. Impeller Eye Area/ per Eye	Sq cm	353	404	358	344	421	536	428	636	482	398	520	667	687	590	620	620	818	611	45	117	131	161	155	168	227	329	524
8. GD *2 for Maximum Diameter	Kg.m ²	7	12.6	31.5	6.6	5.3	5.2	7.6	36	16.2	36	8.5	23.5	41	32.5	21	22	35.2	36	0.5	1.1	1.8	1.6	3.2	2.5	6.8	10.8	16.5

C. SHAFT AND BEARINGS

1. Shaft diameter at Impeller	mm	64	80	90	64	64	64	80	111	80	101</
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