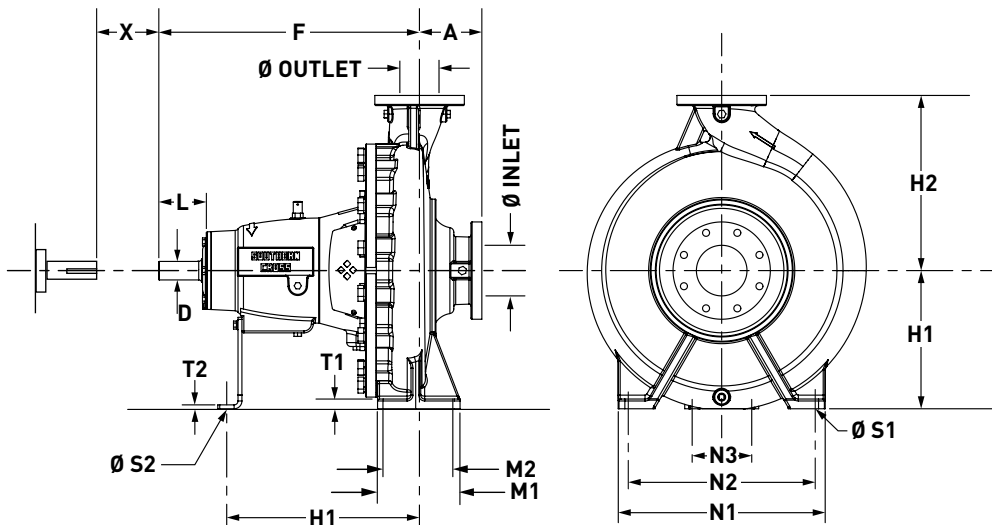


# PUMP DIMENSIONS

# ISO2858

END SUCTION PUMPS  
TECHNICAL DATA



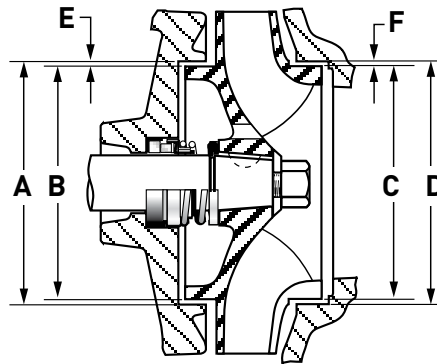
Standard Flange Drilling to AS2129 - 1982 Table "E".

Other drilling options available on request.

Dimensions in Inches.

PUMP MODEL	SHAFT NO.	PUMP DIMENSIONS							MOUNTING DIMENSIONS									BOLT HOLES		SHAFT END		GAP *	WEIGHT (lbs)
		INLET	OUTLET	IMP DIA	A	F	H1	H2	B	M1	M2	N1	N2	N3	T1	T2	W	S1	S2	D	L		
50x32-160	1	2.00	1.25	6.25	3.15	15.16	5.2	6.3	1.97	3.94	2.76	9.45	7.48	4.33	0.47	0.24	11.22	0.5	0.5	0.94	1.97	3.94	95
50x32-200	1	2.00	1.25	8.00	3.15	15.16	6.3	7.09	1.97	3.94	2.76	9.45	7.48	4.33	0.51	0.24	11.22	0.5	0.5	0.94	1.97	3.94	108
65x50-160	1	2.50	2.00	6.25	3.15	15.16	5.2	6.3	1.97	3.94	2.76	9.45	7.48	4.33	0.47	0.24	11.22	0.5	0.5	0.94	1.97	3.94	97
65x40-200	1	2.50	1.50	8.00	3.94	15.16	6.3	7.09	1.97	3.94	2.76	10.43	8.35	4.33	0.51	0.24	11.22	0.5	0.5	0.94	1.97	3.94	112
65x40-250	2	2.50	1.50	10.00	3.94	19.69	7.09	8.86	2.56	4.92	3.74	12.6	9.84	4.33	0.55	0.24	14.57	0.5	0.5	1.26	3.15	3.94	157
65x40-315	2	2.50	1.50	12.50	4.92	19.69	7.87	9.84	2.56	4.92	3.74	13.58	11.02	4.33	0.63	0.24	14.57	0.5	0.5	1.26	3.15	3.94	198
80x65-160	1	3.00	2.50	6.25	3.94	15.16	6.3	7.09	1.97	3.94	2.76	10.43	8.35	4.33	0.51	0.24	11.22	0.5	0.5	0.94	1.97	3.94	108
80x50-200	1	3.00	2.00	8.00	3.94	15.16	6.3	7.87	1.97	3.94	2.76	10.43	8.35	4.33	0.51	0.24	11.22	0.5	0.5	0.94	1.97	3.94	117
80x50-250	2	3.00	2.00	10.00	4.92	19.69	7.09	8.86	2.56	4.92	3.74	12.6	9.84	4.33	0.59	0.24	14.57	0.5	0.5	1.26	3.15	3.94	168
80x50-315	2	3.00	2.00	12.50	4.92	19.69	8.86	11.02	2.56	4.92	3.74	13.58	11.02	4.33	0.71	0.24	14.57	0.5	0.5	1.26	3.15	3.94	207
100x80-160	2	4.00	3.25	6.25	3.94	19.69	6.3	7.87	2.56	4.92	3.74	11.02	8.35	4.33	0.55	0.24	14.57	0.5	0.5	1.26	3.15	3.94	150
100x65-200	2	4.00	2.50	8.00	3.94	19.69	7.09	8.86	2.56	4.92	3.74	12.6	9.84	4.33	0.59	0.24	14.57	0.5	0.5	1.26	3.15	5.51	159
100x65-250	2	4.00	2.50	10.00	4.92	19.69	7.87	9.84	3.15	6.3	4.72	14.17	11.02	4.33	0.63	0.24	14.57	0.63	0.5	1.26	3.15	5.51	185
100x65-315	3	4.00	2.50	12.50	4.92	20.87	8.86	11.02	3.15	6.3	4.72	15.75	12.4	4.33	0.71	0.31	14.57	0.63	0.5	1.65	4.33	5.51	269
125x80-200	2	5.00	3.00	8.00	4.92	19.69	7.09	9.84	2.56	4.92	3.74	13.58	11.02	4.33	0.63	0.24	14.57	0.5	0.5	1.26	3.15	5.51	179
125x80-250	2	5.00	3.00	10.00	4.92	19.69	8.86	11.02	3.15	6.3	4.72	15.75	12.4	4.33	0.71	0.24	14.57	0.63	0.5	1.26	3.15	5.51	194
125x80-315	3	5.00	3.00	12.50	4.92	20.87	9.84	12.4	3.15	6.3	4.72	15.75	12.4	4.33	0.79	0.31	14.57	0.63	0.5	1.65	4.33	5.51	287
125x80-400	3	5.00	3.00	16.00	4.92	20.87	11.02	13.98	3.15	6.3	4.72	17.13	13.98	4.33	0.79	0.31	14.57	0.63	0.5	1.65	4.33	5.51	359
125x100-200	2	5.00	4.00	8.00	4.92	19.69	7.87	11.02	3.15	6.3	4.72	14.17	11.02	4.33	0.67	0.24	14.57	0.63	0.5	1.26	3.15	5.51	192
125x100-250	3	5.00	4.00	10.00	5.51	20.87	8.86	11.02	3.15	6.3	4.72	15.75	12.4	4.33	0.71	0.31	14.57	0.63	0.5	1.65	4.33	5.51	269
125x100-315	3	5.00	4.00	12.50	5.51	20.87	9.84	12.4	3.15	6.3	4.72	15.75	12.4	4.33	0.75	0.31	14.57	0.63	0.5	1.65	4.33	5.51	304
125x100-400	3	5.00	4.00	16.00	5.51	20.87	11.02	13.98	3.94	7.87	5.91	19.69	15.75	4.33	0.79	0.31	14.57	0.79	0.5	1.65	4.33	5.51	386
125x100-500	4	5.00	4.00	20.00	6.3	26.38	13.98	17.72	3.94	8.27	5.91	21.26	17.72	5.51	0.98	0.39	19.69	0.79	0.63	1.89	4.33	7.09	833
150x125-250	3	6.00	5.00	10.00	5.51	20.87	9.84	13.98	3.15	6.3	4.72	15.75	12.4	4.33	0.75	0.31	14.57	0.63	0.5	1.65	4.33	5.51	298
150x125-315	3	6.00	5.00	12.50	5.51	20.87	11.02	13.98	3.94	7.87	5.91	19.69	15.75	4.33	0.79	0.31	14.57	0.79	0.5	1.65	4.33	5.51	344
150x125-400	3	6.00	5.00	16.00	5.51	20.87	12.4	15.75	3.94	7.87	5.91	19.69	15.75	4.33	0.83	0.31	14.57	0.79	0.5	1.65	4.33	5.51	425
150x125-500	4	6.00	5.00	20.00	6.3	26.38	13.98	17.72	3.94	8.27	5.91	21.26	17.72	5.51	0.98	0.39	19.69	0.79	0.63	1.89	4.33	7.09	886
200x150-315	4	8.00	6.00	12.50	6.3	26.38	12.4	15.75	3.94	8.27	5.91	21.26	17.72	5.51	0.79	0.39	19.69	0.79	0.63	1.89	4.33	7.09	604
200x150-400	4	8.00	6.00	16.00	6.3	26.38	12.4	17.72	3.94	8.27	5.91	21.26	17.72	5.51	0.98	0.39	19.69	0.79	0.63	1.89	4.33	7.09	747
200x150-500	4	8.00	6.00	20.00	6.3	26.38	15.75	19.69	3.94	8.27	5.91	21.26	17.72	5.51	0.98	0.39	19.69	0.79	0.63	1.89	4.33	7.09	939
250x200-315	4	10.00	8.00	12.50	7.09	26.38	12.4	17.72	3.94	8.27	5.91	21.26	17.72	5.51	0.98	0.39	19.69	0.79	0.63	1.89	4.33	7.09	692

\* Gap necessary for the withdrawal or bearing housing, backplate and impeller assembly towards the drive end.



PUMP SIZE	IMPELLER AND CASING SEALING DIAMETERS						RADIAL CLEARANCE			
	A	B		C		D	E		F	
		CI/ZF	SS	CI/ZF	SS		CI/ZF	SS	CI/ZF	SS
50 x 32-160 65 x 50-160	3.624	3.613	3.607	3.613	3.607	3.624	0.005	0.007	0.005	0.007
	3.622	3.611	3.606	3.611	3.606	3.622	0.007	0.009	0.007	0.009
80 x 65-160	3.624	3.613	3.607	4.123	4.117	4.136	0.005	0.007	0.006	0.008
	3.622	3.611	3.606	4.121	4.115	4.134	0.007	0.009	0.007	0.010
100x 80-160	5.199	5.184	5.178	5.184	5.178	5.199	0.006	0.009	0.006	0.009
	5.197	5.181	5.175	5.181	5.175	5.197	0.009	0.012	0.009	0.012
50 x 32-200 65 x 40-200	4.136	4.123	4.117	3.613	3.607	3.624	0.006	0.008	0.005	0.007
	4.134	4.121	4.115	3.611	3.606	3.622	0.007	0.010	0.007	0.009
80 x 50-200	4.136	4.123	4.117	4.123	4.117	4.136	0.006	0.008	0.006	0.008
	4.134	4.121	4.115	4.121	4.115	4.134	0.007	0.010	0.007	0.010
100 x 65-200	5.199	5.184	5.178	5.184	5.178	5.199	0.006	0.009	0.006	0.009
	5.197	5.181	5.175	5.181	5.175	5.197	0.009	0.012	0.009	0.012
125 x 80-200 125 x 100-200	6.301	6.286	6.279	6.286	6.279	6.301	0.007	0.010	0.007	0.010
	6.299	6.283	6.276	6.283	6.276	6.299	0.009	0.012	0.009	0.012
65 x 40-250 80 x 50-250	4.530	4.516	4.510	4.516	4.510	4.530	0.006	0.009	0.006	0.009
	4.528	4.514	4.508	4.514	4.508	4.528	0.008	0.011	0.008	0.011
100 x 65-250	5.199	5.184	5.178	5.184	5.178	5.199	0.006	0.009	0.006	0.009
	5.197	5.181	5.175	5.181	5.175	5.197	0.009	0.012	0.009	0.012
125 x 80-250	5.199	5.184	5.178	6.286	6.279	6.301	0.006	0.009	0.007	0.010
	5.197	5.181	5.175	6.283	6.276	6.299	0.009	0.012	0.009	0.012
65 x 40-315	4.530	4.516	4.510	4.123	4.117	4.136	0.006	0.009	0.006	0.008
	4.528	4.514	4.508	4.121	4.115	4.134	0.008	0.011	0.007	0.010
80 x 50-315	4.530	4.516	4.510	4.516	4.510	4.530	0.006	0.009	0.006	0.009
	4.528	4.514	4.508	4.514	4.508	4.528	0.008	0.011	0.008	0.011
125 x 100-250 150 x 125-250 150 x 125-315 125 x 80-400 125 x 100-400 150 x 125-400	7.325	7.309	7.302	7.309	7.302	7.325	0.007	0.010	0.007	0.010
	7.323	7.307	7.300	7.307	7.300	7.323	0.009	0.013	0.009	0.013
100 x 65-315 125 x 80-315 125 x 100-315	6.301	6.286	6.279	6.286	6.279	6.301	0.007	0.010	0.007	0.010
	6.299	6.283	6.276	6.283	6.276	6.299	0.009	0.012	0.009	0.012
200 x 150-315	10.459	10.437	10.432	9.256	9.249	9.275	0.009	0.012	0.009	0.012
	10.457	10.435	10.430	9.253	9.247	9.273	0.012	0.015	0.011	0.014
250 x 200-315	10.459	10.437	10.432	10.437	10.432	10.459	0.009	0.012	0.009	0.012
	10.457	10.435	10.430	10.435	10.430	10.457	0.012	0.015	0.012	0.015
125 x 100-500	9.275	9.256	9.249	6.696	6.689	6.713	0.009	0.012	0.007	0.011
	9.273	9.253	9.247	6.694	6.687	6.711	0.011	0.014	0.009	0.013
150 x 125-500 200x150-500	9.275	9.256	9.249	7.878	7.870	7.896	0.009	0.012	0.007	0.011
	9.273	9.253	9.247	7.876	7.868	7.893	0.011	0.014	0.010	0.014
200x150-400	9.275	9.256	9.249	9.256	9.249	9.275	0.009	0.012	0.009	0.012
	9.273	9.253	9.247	9.253	9.247	9.273	0.011	0.014	0.011	0.014

# WEAR RING TOLERANCES

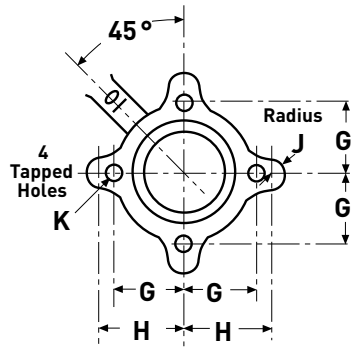
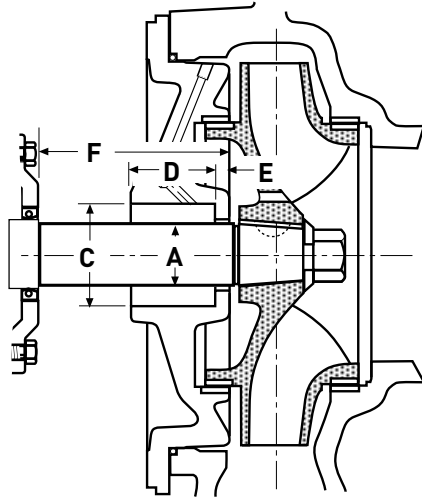
# ISO2858

END SUCTION PUMPS  
TECHNICAL DATA



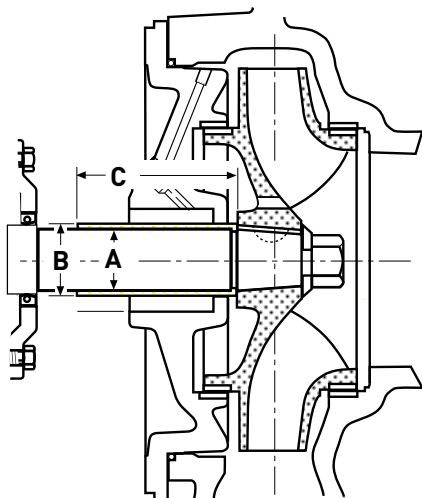
## Machining Sizes to Retrofit Wear Rings to Casings and Impellers

NOMINAL SIZE (Inches)	IMPELLER WEAR RING	IMPELLER TURN SIZE (Inches)	CASING WEAR RING	CASING BORE SIZE (Inches)
3.62	SEA026	Ø 3.34/3.338	SEA027	Ø 3.898/3.899
4.13	SEC026	Ø 3.852/3.85	SEC027	Ø 4.409/4.411
4.53	SGB026	Ø 4.205/4.203	SGB027	Ø 4.843/4.844
5.20	SED026	Ø 4.873/4.871	SED027	Ø 5.512/5.513
6.30	SFF026	Ø 5.975/5.974	SFF027	Ø 6.614/6.616
6.69	SKF026	Ø 6.224/6.222	SKF027	Ø 7.183/7.185
7.28	SGF026	Ø 6.999/6.997	SGF027	Ø 7.638/7.639
7.87	SKG026	Ø 7.406/7.404	SKG027	Ø 8.287/8.289
9.25	SHH026	Ø 8.783/8.781	SHH027	Ø 9.746/9.748
10.43	SHJ026	Ø 9.965/9.963	SHJ027	Ø 10.93/10.932



**Seal Cavity  
Dimension  
Data**

SHAFT MODULE	DIMENSION (Inches)								K (Metric)
	A	C	D	E	F	G	H	J	
<b>No. 1 Shaft</b>	1.298 1.299	2.209 2.215	2.205	0.276	4.291	1.535	1.772	0.472	M10 x 1.5mm
<b>No. 2 Shaft</b>	1.692 1.693	2.602 2.608	2.205	0.315	4.567	1.772	2.008	0.472	M10 x 1.5mm
<b>No. 3 Shaft</b>	2.085 2.087	3.154 3.159	2.697	0.354	5.315	2.087	2.362	0.472	M10 x 1.5mm
<b>No. 4 Shaft</b>	2.361 2.362	3.626 3.634	3.937	0.394	6.575	2.461	2.461	0.472	M12 x 1.75mm



**Shaft Sleeve  
Dimension Data**

SHAFT MODULE	DIMENSION (Inches)		
	A	B	C
<b>No. 1 Shaft</b>	1.30	1.57	3.78
<b>No. 2 Shaft</b>	1.69	1.97	3.78
<b>No. 3 Shaft</b>	2.09	2.36	4.33
<b>No. 4 Shaft</b>	2.36	2.68	5.51

# SHAFT DIMENSIONS

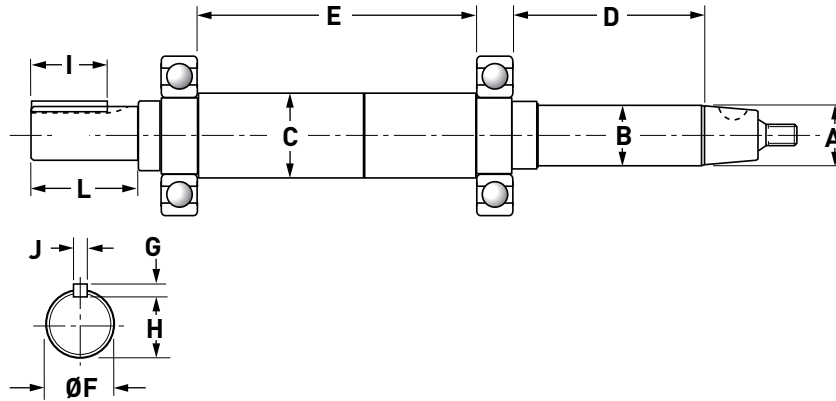
# ISO2858

END SUCTION PUMPS  
TECHNICAL DATA



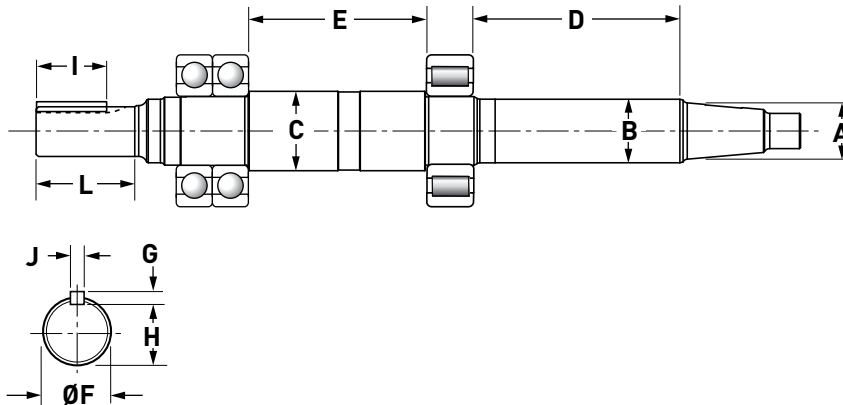
CENTRIFUGAL PUMP TECHNICAL DATA

## ISO SOVEREIGN PUMPS

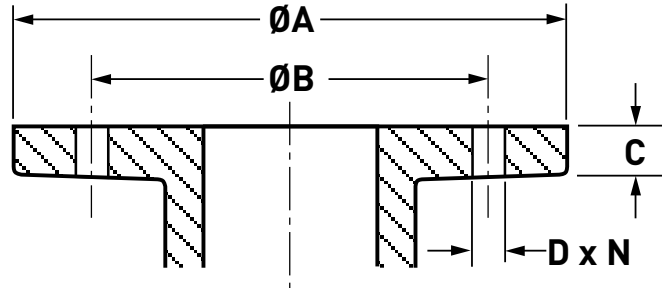


SHAFT MODULE	SHAFT DIMENSIONS (Inches)												BEARING SIZES		
	A	B	C	D	E	F (Dia.)		G	H (Depth)		I	J	L	IMP. END	DRIVE END
						NOM.	TOL.		NOM.	TOL.					
No. 1 Shaft	0.995	1.299	1.772	5.000	5.276	0.945	+0.0004 -0.0004	0.276	0.787	+0 -0.008	1.181	0.315	1.969	6307	6306
No. 2 Shaft	1.370	1.693	2.126	5.453	7.882	1.260	+0.0008 -0	0.315	1.063	+0 -0.008	2.165	0.394	3.150	6309	6308
No. 3 Shaft	1.772	2.087	2.598	6.142	6.457	1.654	+0.0008 -0	0.315	1.457	+0 -0.008	3.150	0.472	4.331	6311	6310
No. 4 Shaft	2.087	2.362	2.953	7.913	8.898	1.890	+0.0008 -0.004	0.354	1.673	+0 -0.008	3.150	0.551	4.331	6313	6313

## ISO PRO PUMPS (ISO5199 STANDARD)



SHAFT MODULE	SHAFT DIMENSIONS (Inches)												BEARING SIZES		
	A	B	C	D	E	F (Dia.)		G	H (Depth)		I	J	L	IMP. END	DRIVE END
						NOM.	TOL.		NOM.	TOL.					
No. 1 Shaft	0.995	1.299	1.772	5.039	4.154	0.945	+0.0004 -0.0004	0.276	0.787	+0.0 -0.008	1.102	0.315	1.890	NJ307ECP	7307BECBP (x2)
No. 2 Shaft	1.370	1.693	2.126	5.433	6.063	1.260	+0.0008 -0.0	0.315	1.063	+0.0 -0.008	2.165	0.394	3.150	NJ2309ECP	7309BECBP (x2)
No. 3 Shaft	1.772	2.087	2.598	6.142	4.409	1.654	+0.0008 -0.0004	0.315	1.457	+0.0 -0.008	3.150	0.472	4.331	NJ2311ECP	7311BECBP (x2)
No. 3 Shaft	2.087	2.087	2.598	6.142	4.409	1.654	+0.0008 -0.0004	0.315	1.457	+0.0 -0.008	3.150	0.472	4.331	NJ2311ECP	7311BECBP (x2)
No. 4 Shaft	2.087	2.362	2.953	7.961	6.614	1.890	+0.0008 -0.0004	0.354	1.673	+0.04 -0.01	3.150	0.551	4.331	NJ2313ECP	7313BECBP (x2)



		DIMENSIONS (mm)									
NOMINAL FLANGE SIZE		32	40	50	65	80	100*	125*	150*	200*	250*
FLANGE DIAMETER	A	140	150	165	185	200	220	250	285	340	405
HOLE P.C.D.	B	87	98	114	127	146	178	210	235	292	356
FLANGE THICKNESS	C	18	18	20	20	22	24	26	26	30	32
HOLE DIAMETER	D	14	14	18	18	18	18	18	22	22	22
NUMBER OF HOLES	N	4	4	4	4	4	8	8	8	8	12

**NOTE:**

- Holes machined off centrelines.
- Flange drilling as shown below conforms to AS2129 - 1982 Table 'E' for cast iron flanges.
- Flange drilling to ANSI B16.1.1975 Class 125 (ISO7005 - PN20) PN16 are available options.

\* Discharge flanges on No. 4 shaft pumps are tapped as follows:

125x100-500 and 150x125-500 tapped M16 x 2mm

200x150-315, 200x150-400, 200x150-500 and 250x200-315 tapped M20 x 2.5mm

		DIMENSIONS (Inches)									
NOMINAL FLANGE SIZE		1.26	1.57	1.97	2.56	3.15	3.94	4.92	5.91	7.87	9.84
FLANGE DIAMETER	A	5.51	5.91	6.50	7.28	7.87	8.66	9.84	11.22	13.39	15.94
HOLE P.C.D.	B	3.43	3.86	4.49	5.00	5.75	7.01	8.27	9.25	11.50	14.02
FLANGE THICKNESS	C	0.71	0.71	0.79	0.79	0.87	0.94	1.02	1.02	1.18	1.26
HOLE DIAMETER	D	0.55	0.55	0.71	0.71	0.71	0.71	0.71	0.87	0.87	0.87
NUMBER OF HOLES	N	0.16	0.16	0.16	0.16	0.16	0.31	0.31	0.31	0.31	0.47

# MISC. PUMP DATA

# ISO2858

END SUCTION PUMPS  
TECHNICAL DATA

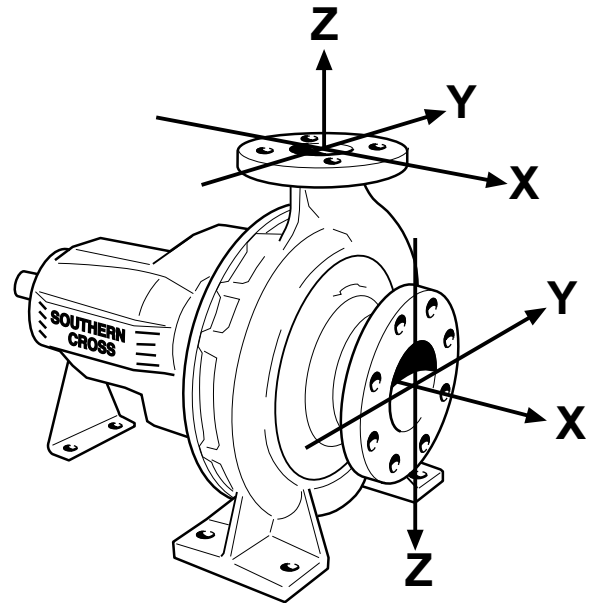


CENTRIFUGAL PUMP TECHNICAL DATA

PUMP SIZE	CI IMPELLER (lbs)	IMPELLER ROTATIONAL INERTIA (lbs.inch <sup>2</sup> )	MIN. CASING THICKNESS (inches)	CI / ZF IMPELLER		SHAFT CRITICAL SPEED (r.p.m.)	MAX OPERATING SPEED (r.p.m.)	IMPELLER	
				HYDROSTATIC TEST PRESSURE (psi)	MAX. WORKING PRESSURE (psi)			No. of VANES	MAX SPHERE SIZE (inches)
50 x 32 - 160	5.95	27.3	0.354	550.7	362.3	14,600	3600	6	0.20
65 x 50 - 160	5.73	27.3	0.354	550.7	362.3	14,600	3600	6	0.28
80 x 65 - 160	6.17	34.2	0.394	550.7	362.3	14,600	3600	6	0.43
100 x 80 - 160	9.26	47.8	0.394	550.7	362.3	16,700	3600	6	0.47
50 x 32 - 200	8.16	61.5	0.354	478.3	318.8	12,400	3600	6	0.16
65 x 40 - 200	8.82	64.9	0.354	550.7	362.3	12,400	3600	6	0.20
80 x 50 - 200	8.82	71.8	0.394	550.7	362.3	12,400	3600	6	0.35
100 x 65 - 200	13.23	112.8	0.394	405.8	268.1	14,900	3600	6	0.55
125 x 80 - 200	14.33	126.4	0.453	379.7	253.6	13,900	3000	6	0.59
125 x 100 - 200	14.11	123.0	0.512	434.8	289.9	14,400	3000	6	0.67
65 x 40 - 250	13.23	143.5	0.394	478.3	318.8	14,900	3600	5	0.20
80 x 50 - 250	13.23	143.5	0.394	405.8	275.4	14,900	3600	6	0.24
100 x 65 - 250	15.43	177.7	0.433	376.8	246.4	13,600	3000	6	0.35
125 x 80 - 250	17.64	208.4	0.492	379.7	253.6	12,600	3000	6	0.59
125 x 100 - 250	20.94	263.1	0.472	347.8	231.9	14,450	3000	6	0.91
150 x 125 - 250	22.05	300.7	0.551	358.0	239.1	13,970	2600	6	1.30
65 x 40 - 315	22.27	437.4	0.433	405.8	275.4	12,600	3000	5	0.20
80 x 50 - 315	20.28	382.7	0.472	478.3	318.8	11,800	3000	5	0.28
100 x 65 - 315	27.12	475.0	0.512	391.3	260.9	12,820	3000	6	0.37
125 x 80 - 315	28.66	519.4	0.551	379.7	253.6	12,300	3000	6	0.45
125 x 100 - 315	29.10	536.5	0.630	444.9	297.1	12,250	3000	6	0.57
150 x 125 - 315	29.54	560.4	0.630	358.0	239.1	12,160	2500	6	1.02
200 x 150 - 315	44.09	973.8	0.669	347.8	231.9	8660	2100	6	0.91
250 x 200 - 315	52.91	1230.1	0.709	347.8	231.9	7480	1800	6	1.14
125 x 80 - 400	45.19	1442.0	0.591	347.8	231.9	9990	2300	5	0.37
125 x 100 - 400	43.87	1329.2	0.630	347.8	231.9	10,140	2300	6	0.47
150 x 125 - 400	45.42	1459.1	0.669	347.8	231.9	9970	2300	6	0.71
200 x 150 - 400	66.14	2405.6	0.787	347.8	231.9	7380	1900	6	1.22
125 x 100 - 500	85.98	4213.2	0.787	347.8	231.9	6710	1800	9	0.83
150 x 125 - 500	90.39	4756.5	0.827	347.8	231.9	6510	1800	7	0.79
200 x 150 - 500	92.59	5282.7	0.866	347.8	231.9	6360	1800	6	0.85

\* Higher speeds are achievable for these models using ISO-PRO Pumps (ISO5199 Standard).

**Fx Fy Fz - Pounds-Force**  
**Mx My Mz - Foot.Pounds-Force**



FLANGE SIZE	SUCTION (lbs)			DISCHARGE (lbs)			MOMENTS (ft.lbs)		
	Fx	Fy	Fz	Fx	Fy	Fz	Mx	My	Mz
50mm (2")	100	80	65	80	65	100	169.6	84.8	129.8
65mm (2.5")	125	100	82.5	100	82.5	125	259.6	129.8	197.7
80mm (3")	149.9	120	100	120	100	149.9	349.6	174.8	264.8
100mm (4")	200.1	160.1	129.9	160.1	129.9	200.1	489.7	249.3	370.3
125mm (5")	274.9	219.9	179.8	219.9	179.8	274.9	669.7	342.2	509.7
150mm (6")	350	279.9	230	279.9	230	350	849.7	435.2	649.8
200mm (8")	549.9	424.9	349.8	424.9	349.8	549.9	1299.6	649.8	950
250mm (10")	749.9	599.8	500	599.8	500	749.9	1849.8	899.8	1399.9