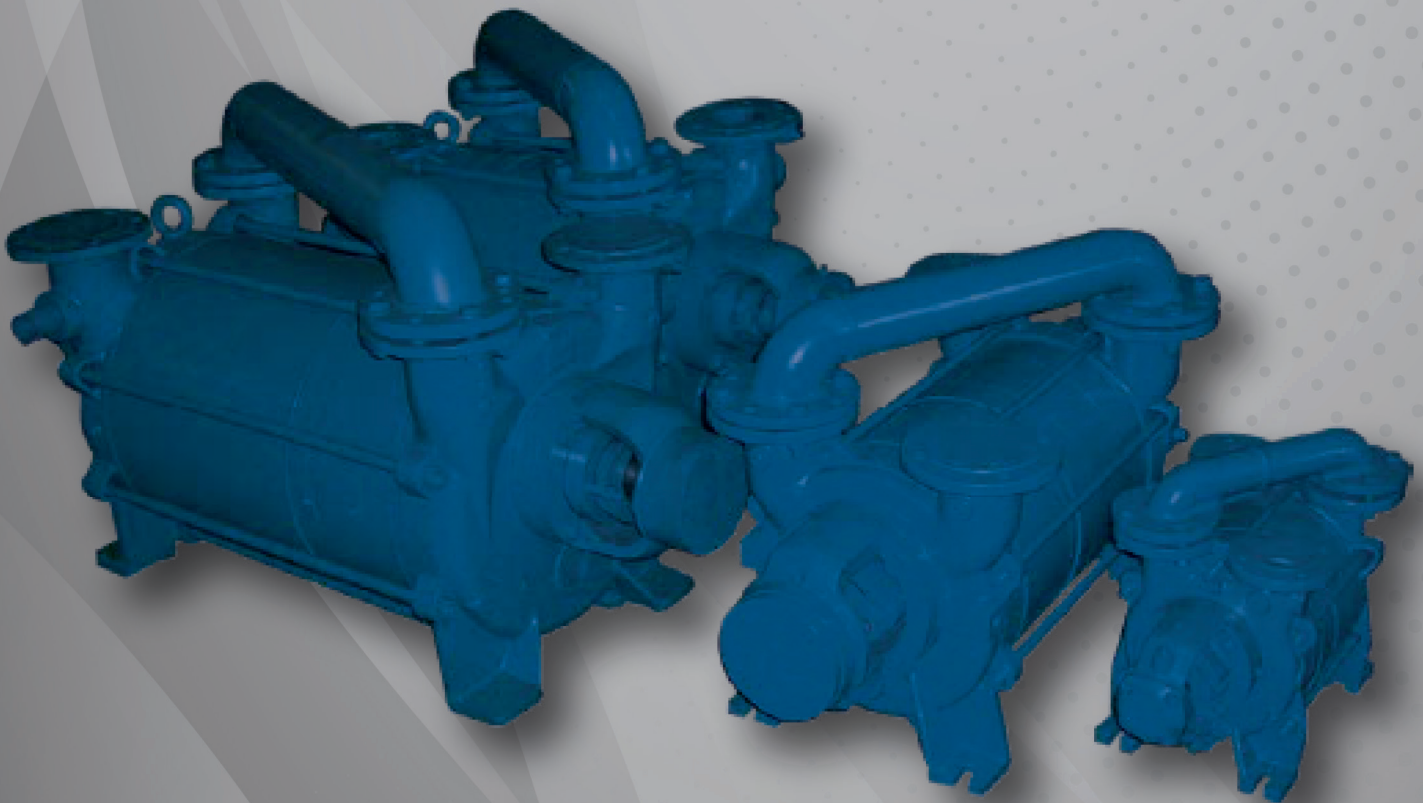


LIQUID RING VACUUM PUMPS



TITAN VACUUM PUMP

LIQUID RING DESIGN FEATURES

- ▶ TITAN Vacuum Pumps are 100% South African manufactured, built to suit the harshest conditions.
- ▶ Standard Materials of Construction include cast iron, bronze, 304 and 316 stainless steel (Exotic Materials can be arranged).
- ▶ TITAN Pumps have stuffing boxes built into the Casing Covers.
- ▶ Due to the lengthy service in the industry, modifications have been made to this range of pumps to improve the overall serviceability, which also ensures that TITAN Vacuum Pump wet-end spares are interchangeable with the majority of the vacuum pump population.
- ▶ High vacuum levels up to 25m Hg with the correct service liquid and cooling temperatures.
- ▶ Long service life, low maintenance costs.
- ▶ Minimal moving parts.
- ▶ Limited pulsation gasflow.
- ▶ Cooling water acts as lubrication internally.
- ▶ Liquid and vapour handling capabilities.
- ▶ Low starting torques.
- ▶ Variety of different service liquids available to be used.

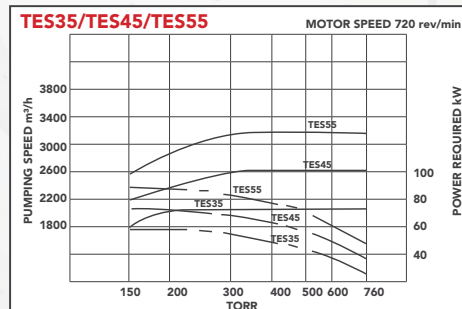
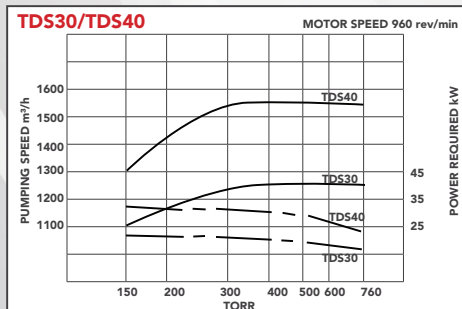
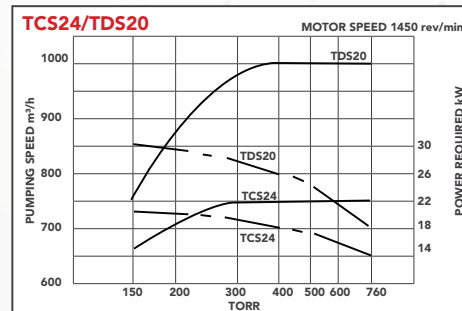
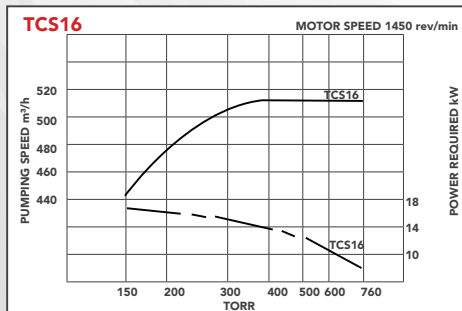


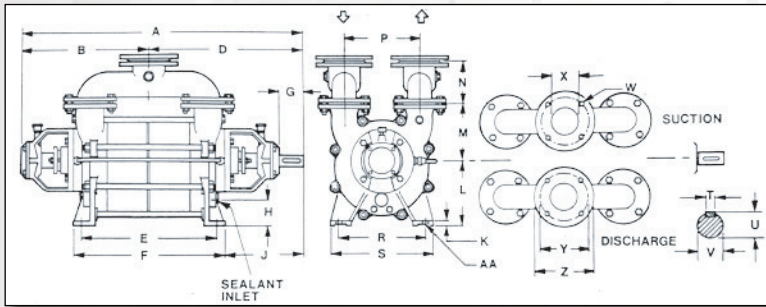
1 STAGE PUMP PERFORMANCE DATA - 50HZ

MODEL	660 TORR		560 TORR		460 TORR		350 TORR		250 TORR		150 TORR		SERVICE LIQUID FLOW RATE l/min	MOTOR kW	SPEED rev/min	FLANGE CONN mm	SERVICE LIQUID CONN
	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW					
TCS16	510	8,95	510	10,82	510	12,31	510	13,65	490	14,92	440	16,04	50	18,5	1450	80	1¼" BSP
TCS24	750	15	750	16	750	17	750	18	730	19	660	20	62	22	1450	100	1¼" BSP
TDS20	1000	20	1000	22	1000	24	1000	27	930	28	720	30	70	30	1450	100	2x1¼" BSP
TDS30	1250	28	1250	29	1250	30	1250	31	1200	31	1100	31	90	37	960	127	2" BSP
TDS40	1550	36	1550	37	1550	39	1550	40	1500	41	1300	41	105	45	960	127	2" BSP
TES35	2000	31	2000	37	2000	43	2000	49	2000	54	1800	58	150	75	720	203	2½" BSP
TES45	2600	46	2600	51	2600	56	2600	63	2500	67	2200	71	175	75	720	203	2½" BSP
TES55	3150	55	3150	61	3150	69	3150	76	3050	82	2600	87	200	90	720	203	2½" BSP

The above capacities are based on dry air at 20°C and seal water at 15°C. The barometric pressure is 760mm hg abs. Tolerance 10%

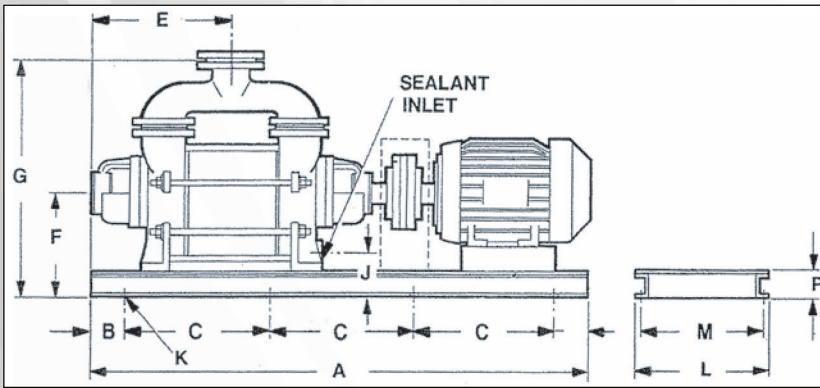
PUMPING SPEED & POWER CURVES 1 STAGE PUMPS - SERIES - 50Hz





**BARESHAF PUMP DIMENSIONS
 SINGLE STAGE SERIES**

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	Bolt Dia	X	PCD	Y	Z	AA	No of Bolts per Flange	Inlet Conn BSP	Mass Kg
TCS16	915	561	-	354	370	420	90	100	294	20	250	223	-	290	320	400	14	48,5	45	16	80	160	200	16	8	1¼"	316	
TCS24	995	450	-	545	450	500	90	100	294	20	250	223	165	290	320	400	14	48,5	45	16	100	180	220	16	8	1¼"	340	
TDS20	1091	498	-	593	546	596	90	100	294	20	250	223	165	290	320	400	14	48,5	45	16	100	180	220	16	8	1¼"	368	
TDS30	1230	537	-	693	575	645	120	100	370	30	330	290	280	370	370	470	20	74,6	70	16	125	210	250	20	8	2"	525	
TDS40	1330	587	-	743	675	745	120	100	370	30	330	290	280	370	370	470	20	74,6	70	16	125	210	250	20	8	2"	570	
TES35	1540	680	-	860	690	740	160	150	490	50	440	370	340	520	570	700	22	85,5	80	20	200	295	340	24	12	2½"	1150	
TES45	1640	730	-	910	790	840	160	150	490	50	440	370	340	520	570	700	22	85,5	80	20	200	295	340	24	12	2½"	1235	
TES55	1740	780	-	960	890	940	160	150	490	50	440	370	340	520	570	700	22	85,5	80	20	200	295	340	24	12	2½"	1300	



**OUTLINE DIMENSIONS
 SERIES - BASEPLATE & MOTOR**

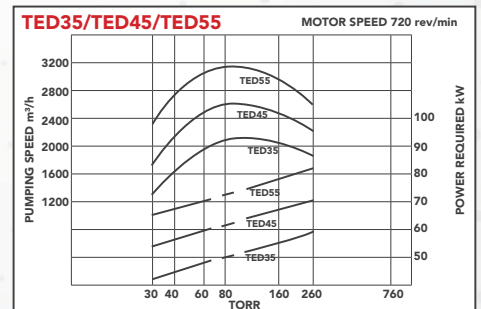
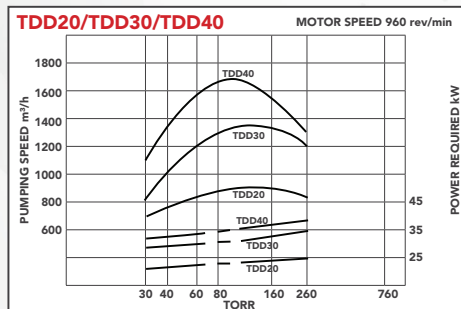
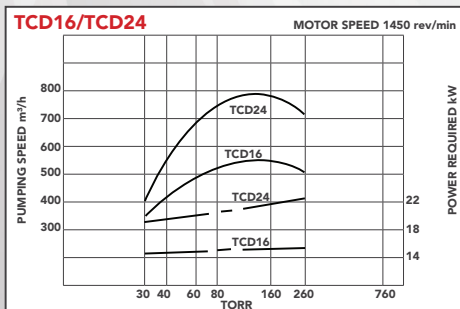
MODEL	A	B	C	D	E	F	G	J	K	L	M	N	P
TCS16	1600	100	700	-	561	358	581	208	6 x Ø18	514	470	-	108
TCS24	1800	100	800	-	450	358	746	208	6 x Ø18	514	470	-	108
TDS20	1900	100	850	-	498	358	746	208	6 x Ø18	514	470	-	108
TDS30	2300	100	1050	-	537	500	1070	270	6 x Ø20	580	520	-	170
TDS40	2300	100	1050	-	537	500	1070	270	6 x Ø20	580	520	-	170
TES35	3050	100	950	-	680	690	1400	400	8 x Ø24	790	720	-	250
TES45	3050	100	950	-	730	690	1400	400	8 x Ø24	790	720	-	250
TES55	3050	100	950	-	780	690	1400	400	8 x Ø24	790	720	-	250

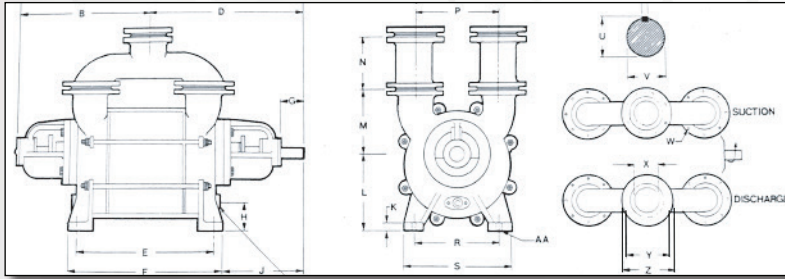
2 STAGE PUMP PERFORMANCE DATA - 50HZ

MODEL	260 TORR		160 TORR		80 TORR		60 TORR		40 TORR		30 TORR		25 TORR		SERVICE LIQUID FLOW RATE l/min	MOTOR kW	SPEED rev/min	FLANGE CONN mm	SERVICE LIQUID CONN
	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW	m ³ /h	kW					
TCD16	510	14,92	540	14,92	510	14,55	480	14,55	420	14,17	330	14,17	-	-	75	18,5	1450	80	1¼" BSP
TCD24	720	22,38	780	20,89	750	20,14	690	19,4	510	19,4	390	18,65	-	-	89	30	1450	80	1¼" BSP
TDD20	840	24	900	24	870	22	840	22	780	21	660	21	-	-	96	30	960	100	2" BSP
TDD30	1200	34	1350	34	1320	30	1230	29	1020	28	800	28	-	-	110	37	960	100	2" BSP
TDD40	1320	37	1500	37	1700	34	1620	33	1320	31	1080	30	-	-	120	45	960	100	2" BSP
TED35	1920	58	2100	57	2100	48	1980	46	1680	44	1320	43	-	-	166	75	720	150	2½" BSP
TED45	2280	70	2500	69	2650	60	2500	57	2200	55	1740	54	-	-	191	75	720	150	2½" BSP
TED55	2630	82	3000	83	3200	72	3100	69	2800	66	2200	65	-	-	232	90	720	150	2½" BSP

The above capacities are based on dry air at 20°C and seal water at 15°C. The barometric pressure is 760mm hg abs. Tolerance 10%

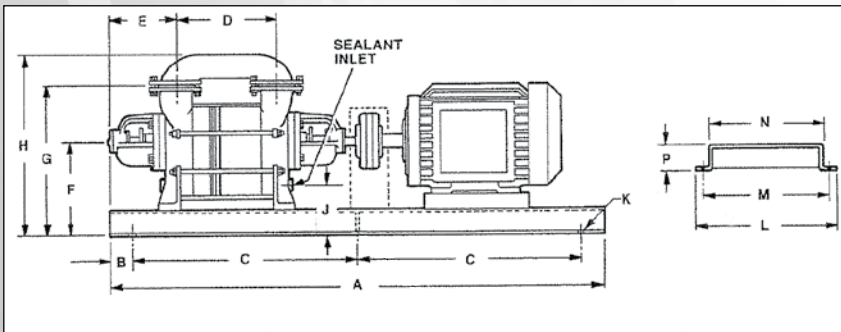
PUMPING SPEED & POWER CURVES 2 STAGE PUMPS - SERIES - 50Hz





**OUTLINE DIMENSIONS
 SERIES - BARESHAFT**

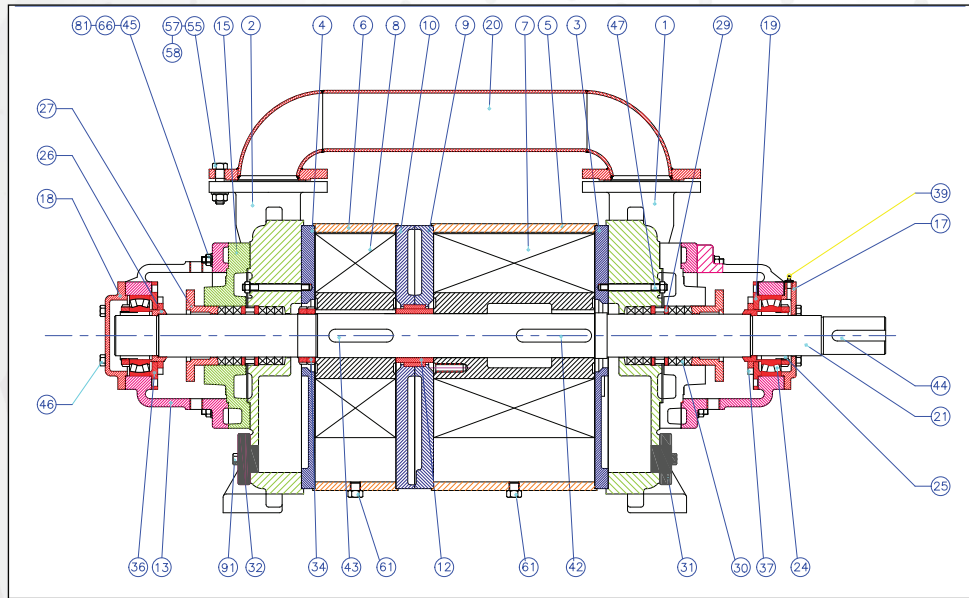
MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	Bolt Dia		PCD		Bolt Dia	No of Bolts per Flange	Inlet Conn BSP	Mass Kg
																				W	X	Y	Z				
TCD16	1055	259	442	354	510	560	90	100	294	20	250	223	118	290	320	400	14	48,5	45	16	80	160	200	16	8	1¼"	361
TCD24	1175	259	562	354	630	680	90	100	294	20	250	223	118	290	320	400	14	48,5	45	16	80	160	200	16	8	1¼"	398
TDD20	1300	300	545	455	645	715	120	100	370	30	330	290	165	370	370	470	20	74,6	70	16	100	180	220	20	8	2"	585
TDD30	1450	300	695	455	795	865	120	100	370	30	330	290	165	370	370	470	20	74,6	70	16	100	180	220	20	8	2"	640
TDD40	1550	300	795	455	895	965	120	100	370	30	330	290	165	370	370	470	20	74,6	70	16	100	180	220	20	8	2"	685
TED35	1790	380	850	560	940	990	160	150	490	50	440	370	245	570	520	700	22	85,5	80	20	150	240	285	24	8	2½"	1360
TED45	1940	380	1000	560	1090	1140	160	150	490	50	440	370	245	570	520	700	22	85,5	80	20	150	240	285	24	8	2½"	1550
TED55	2040	380	1100	560	1190	1240	160	150	490	50	440	370	245	570	520	700	22	85,5	80	20	150	240	285	24	8	2½"	1550



**OUTLINE DIMENSIONS
 SERIES - BASEPLATE & MOTOR**

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P
TCD16	1800	100	800	442	259	358	581	699	208	6 x Ø18	514	470	-	108
TCD24	2000	100	900	562	259	358	581	699	208	6 x Ø18	514	470	-	108
TDD20	2200	100	1000	545	300	500	790	955	270	6 x Ø18	580	520	-	170
TDD30	2500	100	1150	695	300	500	790	955	270	6 x Ø18	580	520	-	170
TDD40	2500	100	1150	795	300	500	790	955	270	6 x Ø18	580	520	-	170
TED35	3050	100	950	850	380	690	1060	1305	400	8 x Ø24	790	720	-	250
TED45	3200	100	1000	1000	380	690	1060	1305	400	8 x Ø24	790	720	-	250
TED55	3200	100	1000	1100	380	690	1060	1305	400	8 x Ø24	790	720	-	250

TDD RANGE



* The above cross sectional drawing is for illustrative purposes only

PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
1	SUCTION COVER	262	GREASE NIPPLE
2	DISCHARGE COVER	40	TIE BOLT
3	SUCTION DISC	42	FIRST STAGE IMPELLER KEY
4	DISCHARGE DISC	43	SECOND STAGE IMPELLER KEY
5	FIRST STAGE BARREL	44	DRIVE SHAFT KEY
6	SECOND STAGE BARREL	45	BEARING ARM STUD
7	FIRST STAGE IMPELLER	93	BEARING ARM STUD NUT
8	SECOND STAGE IMPELLER	5	BEARING COVER HEX HD SCREW
9	DISCHARGE INTERMEDIATE	47	END PLATE STUD
10	SUCTION INTERMEDIATE	47	GLAND STUD
12	DISTANCE BUSH	73	GLAND STUD NUT
13	BEARING ARM	93	GLAND STUD WASHER
15	STUFFING BOX FLANGE	325	UNION
17	BEARING COVER-DRIVE SIDE	329	TEE FM
18	BEARING COVER-NON DRIVE SIDE	309	BRASS GATE VALVE
19	INBOARD BEARING COVER-DRIVE SIDE	333	LONG BEND M/M
20	INTERCONNECTION PIPE COMPRISING	335	BEND M/FM
351	SHORT RADIUS BEND	339	NIPPLE
225	FLANGE	343	PIPE
345	PIPE	225	LOOSE FLANGE
21	DRIVE SHAFT	009	FLANGE BOLT
117	BEARING	74	FLANGE NUT
171	ADAPTOR SLEEVE, LOCKNUT & WASHER	94	FLANGE WASHER
26	BEARING DISTANCE RING	312	AIR ADMITTANCE VALVE
27	GLAND	322	DRAIN PLUG
29	LANTERN RING	75	THE BOLT NUT
186	GLAND PACKING	95	THE BOLT WASHER
31	SERVICE LIQUID CONNECTING FLANGE	93	BEARING ARM STUD WASHER
32	BLIND FLANGE	246	FLANGE GASKET
33	SERVICE LIQUID CONNECTING GASKET	6	SERVICE LIQUID CONNECTING BOLT
34	IMPELLER LOCKNUT	341	NIPPLE
36	INBOARD BEARING COVER-NON DRIVE SIDE	324	PLUG
205	V-RING	323	PLUG

YOUR SERVICE PROVIDER FOR THIS PUMP RANGE IS

Attach Business Card Here

