



## DATI TECNICI - TECHNICAL DATA

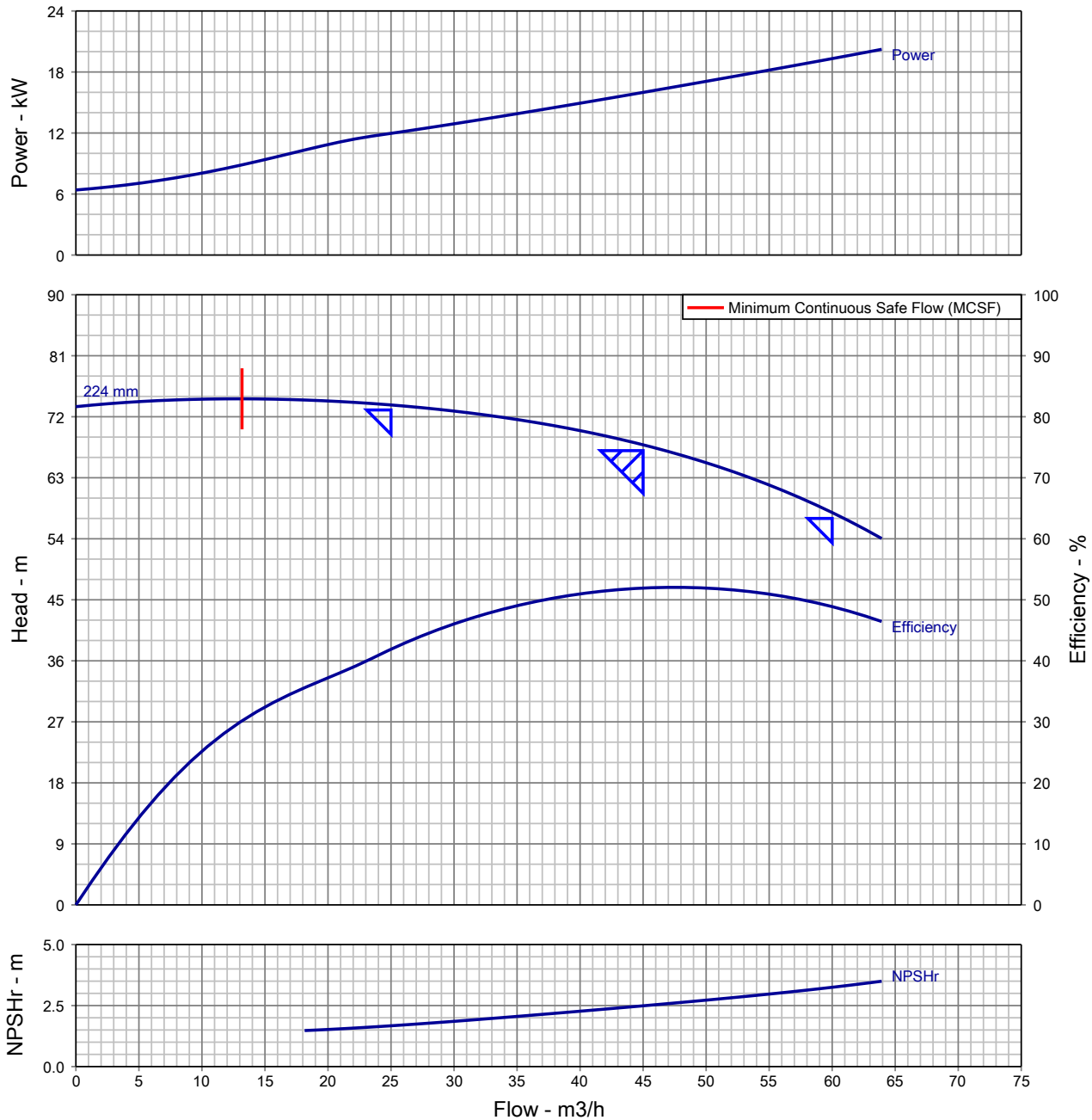
Cliente Customer		REFERENCE	PRELIMINARY
MOTORE TIPO - MOTOR TYPE			<b>BAA 180 M2</b>
POTENZA NOMINALE - RATED POWER		kW	22
SERVIZIO - DUTY			S1
TENSIONE - RATED VOLTAGE		V	400 DELTA
FREQUENZA - RATED FREQUENCY		Hz	50
CORRENTE NOMINALE - NOMINAL CURRENT		A	38,9
VELOCITA' NOMINALE - RATED SPEED		r.p.m.	2940
FORMA - SHAPE		IM	IM B3
ESECUZIONE - EXECUTION			TEFC
GRADO di PROTEZIONE - PROTECTION DEGREE		IP	55
TIPO di RAFFREDDAMENTO - COOLING SYSTEM		IC	411
MOMENTO D'INERZIA - MOMENT OF INERTIA ( $J = WD^2/4$ )		Kgm <sup>2</sup>	0,076
TEMPERATURA AMBIENTE - AMBIENT TEMPERATURE		°C	40°C
REGISTRO - CLASSIFICATION			-
CLASSE di ISOLAMENTO - INSULATION CLASS			F
SOVRATEMPERATURA - TEMPERATURE RISE			B
NORME APPLICABILI - APPLICABLE STANDARDS		IEC	IEC 60034-1

		CARICO - LOAD	
			4/4
RENDIMENTO - EFFICIENCY		%	90,6
COS $\phi$ - POWER FACTOR			0,90
COPPIA - TORQUE	NOMINALE - FULL LOAD	Nm	71,4
	SPUNTO - LOCKED ROTOR	p.u.	2,6
	MASSIMA - PULL-OUT	p.u.	2,8
CORRENTE di C.C. - LOCKED ROTOR CURRENT		p.u.	6,6
AVVIAMENTO - STARTING METHOD			DOL
PROTEZIONI TERMICHE - THERMAL PROTECTIONS	AVVOLGIMENTI - WINDINGS		-
	CUSCINETTI - BEARINGS		-
SCALDIGLIE ANTICONDENSA - SPACE HEATERS		V	-

## DATI MECCANICI - MECHANICAL DATA

TIPO CUSCINETTI - BEARINGS TYPE	L.A. - D-end		6311-2Z
	L.O. - N-end		6311-2Z
LUBRIFICAZIONE - LUBRICATION	TIPO - TYPE		-
	INTERVALLO - INTERVAL	hr	-
DIREZIONE di ROTAZIONE - DIRECTION of ROTATION			BOTH
RUMOROSITA' A VUOTO - NO LOAD NOISE ( $\pm 3$ dB(A) tolerance)		dB(A)	89
PESO - WEIGHT		Kg	167
VERNICIATURA - PAINTING		MUNSELL	RAL 5010
INTENSITA' di VIBRAZIONE - VIBRATION LEVEL		IEC 34.14	A

# Pump Performance Curve



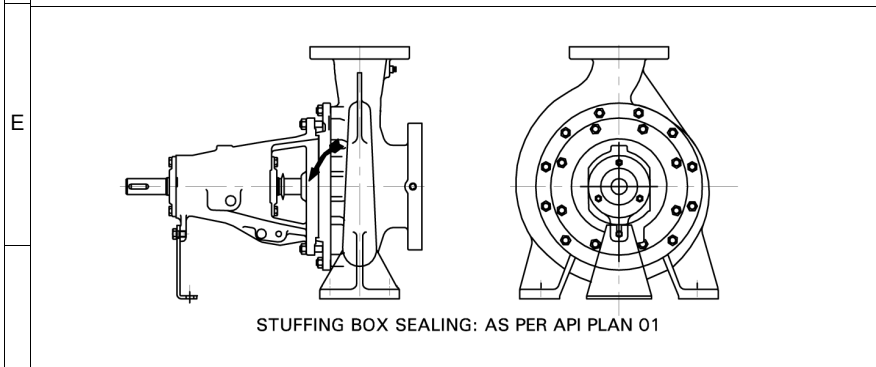
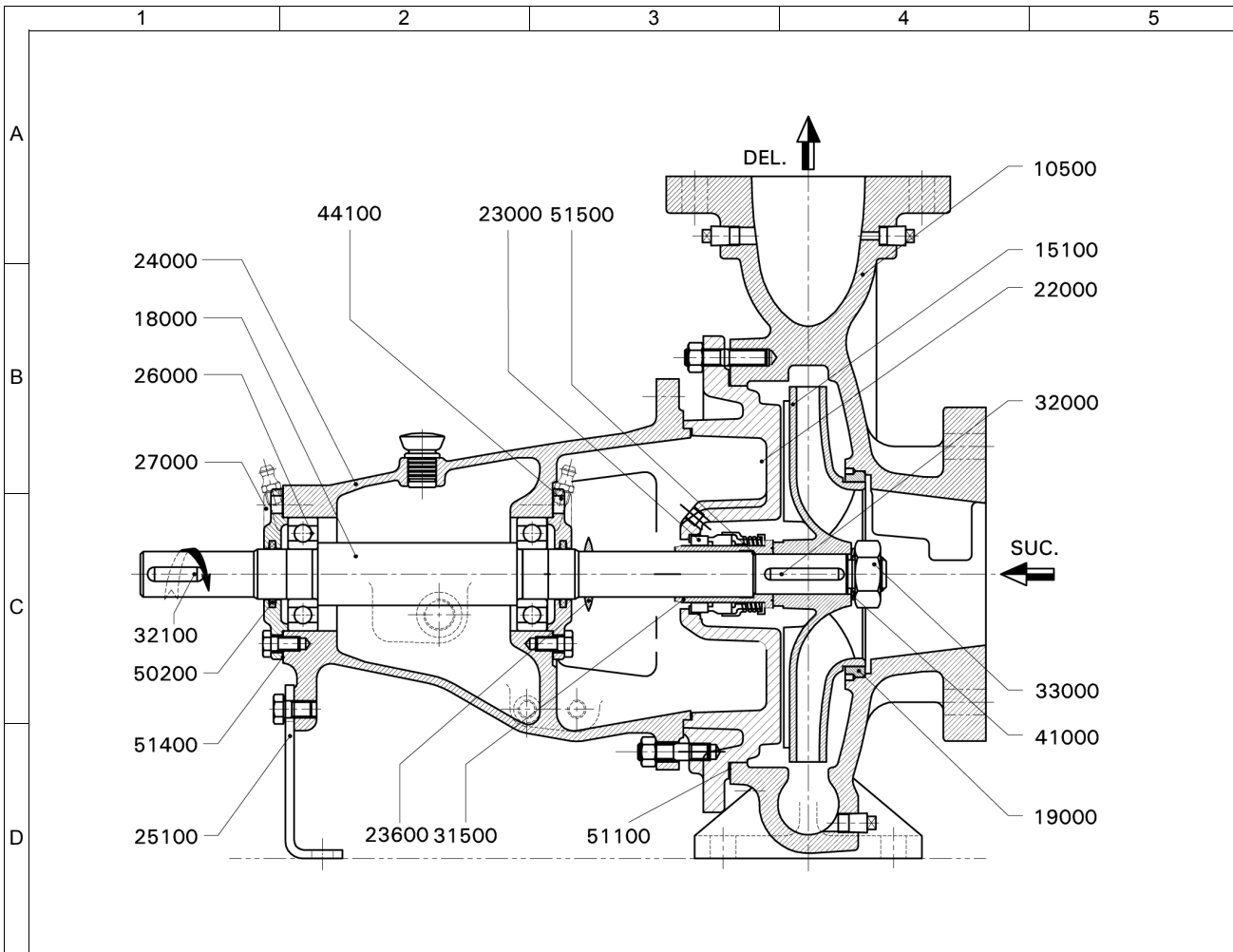
Customer :		Pump Size/ Stages :	DB 50/26/ 1
Customer enquiry :		Speed, rated :	2940 rpm
Project :	Default	Based on curve number :	HD10212A0 Rev 0
Quote number :	312657	Viscosity :	1.00 cSt
Item number :	001	Cq/Ch/Ce/Cn [HI2010] :	1.00 / 1.00 / 1.00 / 1.00
Quantity :	1	Minimum recommended driver rating :	22.00 kW / 29.50 hp
Flow, rated :	45.00 m <sup>3</sup> /h	Performance testing standard :	ISO 9906 / ANSI-HI 14.6 Gr 2B
Differential Head :	67.00 m	Date last saved :	08 Oct 2020 9:39 AM
Fluid density rated :	0.998 kg/dm <sup>3</sup>	Notes:	
Efficiency :	51.92 %	1.	Performance at shut off condition is approximate.
Power, rated :	15.99 kW	2.	Rated impeller diameter is approximate.
NPSH required :	2.49 m	3.	Only duty point is guaranteed as per testing standard.
Liquid Type/ Application :	Water		



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## Pump Performance Datasheet

General				
Customer	:		Quote number	: 312657
Customer Enquiry No.	:		Pump model	: DB 50/26
Project	:	Default	Stages	: 1
End user	:	-	Based on curve number	: HD10212A0 Rev 0
Tag number	:	001	Date last updated	: 08 Oct 2020 9:39 AM
Service	:	-	Quantity of pumps	: 1
Operating Conditions		Liquid		
Flow, rated	:	45.00 m3/h	Liquid handled	: Water
Suction pressure, rated / max	:	0.00 bar.g / 0.00 bar.g	Additional liquid description	: Fresh Water
Discharge pressure, rated	:	6.64 bar.g	Temperature, max	: 20.00 deg C
Head, rated (requested)	:	67.00 m	Solids diameter, max	: 0.00 mm
NPSH available, rated	:	Value not specified	Solids in suspension by volume	: 0.00 %
Frequency	:	50 Hz	Specific gravity, rated / max	: 0.998 / 0.998 kg/dm3
Performance		Viscosity, Rated / Max.		: 1.00 cSt / -
		Driver & Power Data		
Pump speed, rated	:	2940 rpm	Driver sizing specification	: Maximum Power
Impeller Dia, Rated (Approx.)	:	224 mm	Margin over specification	: 0.00 %
Impeller diameter, maximum	:	264 mm	Power, rated	: 15.99 kW
Impeller diameter, minimum	:	205 mm	-	: -
Efficiency at duty point	:	51.92 %	-	: -
NPSH required / margin required	:	2.49 m / 0.50 m	Driver Rating	: 22KW
		Pressure Data		
MCSF	:	13.18 m3/h	Maximum working pressure	: 7.31 bar.g
Cq/Ch/Ce: [-]	:	1.00 / 1.00 / 1.00	Maximum allowable working pressure	: 16.00 bar.g
Water eq. duties (Qw/Hw/Ew)	:	45.00 m3/h / 67.00 m / 51.92 %	Maximum allowable suction pressure	: 1.96 bar.g
Suction / Delivery nozzle size	:	65.00 mm / 50.00 mm	Hydrostatic test pressure	: 18.34 bar.g
Noise level	:	90 dB	Construction	
Vibration level (RMS)	:	5.1 mm/s	Basic construction	: End Suction Pump-OH1
Test standard	:	ISO 9906 / ANSI-HI 14.6 Gr 2B	Impeller type	: Enclosed
Starting condition	:	Closed Delivery Valve	Selection status	: Acceptable
Material		Rec. Pipe Size (Suc / Del)		: 100 mm / 80.00 mm
MOC Code	:	16MOC		
Material (Casing / Impeller / Shaft)	:	CI IS210:FG260 (012) / CI IS210:FG260 (012) / ST ST ASTM A276-410 ANLD (253)		
-	:	-		



**NOTES:**

- " \* " INDICATES RECOMMENDED SPARES.
- FASTENERS IN LIQUID CONTACT ARE IN CS

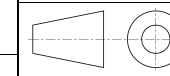
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PART NO.	PART DESCRIPTION	MAT. CODE	MOC DESCRIPTION
10500	PUMP CASING	012	CI IS210:FG260
15100*	IMPELLER	012	CI IS210:FG260
18000*	PUMP SHAFT	253	ST ST ASTM A276-410 ANLD
19000*	WEAR RING - SUCTION SIDE	012	CI IS210:FG260
22000	CASING COVER	012	CI IS210:FG260
23000*	MECHANICAL SEAL	998	DIN SEAL
23600*	LIQUID DEFELCTOR	370	NATURAL RUB ASTM D2000AA-70SHORE/7MPa
24000	BEARING HOUSING	012	CI IS210:FG260
25100	SUPPORT FOOT	042	MS IS:5986-Fe410WA (OLD-IS:1079)
26000*	DEEP GROOVE BALL BEARING	000	STEEL
27000	BEARING COVER DE & NDE	012	CI IS 210-FG 260
31500*	SHAFT SLEEVE - MECHANICALSEAL	565	ST ST ASTMA276-410(210/250BHN)-ANLD
32000*	KEY FOR IMPELLER	253	ST ST ASTM A276-410 ANLD
32100	KEY FOR COUPLING	053	CS IS1570:40C8 HOT RLD
33001*	IMPELLER NUT	664	AUS ST ASTMA194/194M-8M-UNS S31600 (NUT)
41000*	LOCK WASHER-IMPELLER NUT	054	SPRING ST IS:4072-80C6
44100	GREASE NIPPLE	444	CS IS:1367 Part3 CL4.6 CDP
50200*	FELT RING	375	FELT
51100*	GASKET-CASING COVER	702	NON ASBESTOS FERROLITE NAM37 OR EQ
51400*	GASKET-BEARING COVER	702	NON ASBESTOS FERROLITE NAM37 OR EQ
51500*	GASKET-SHAFT SLEEVE	702	NON ASBESTOS FERROLITE NAM37 OR EQ

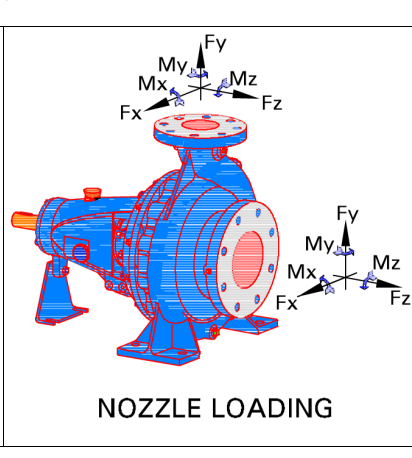
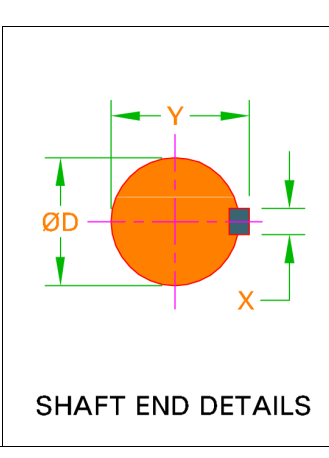
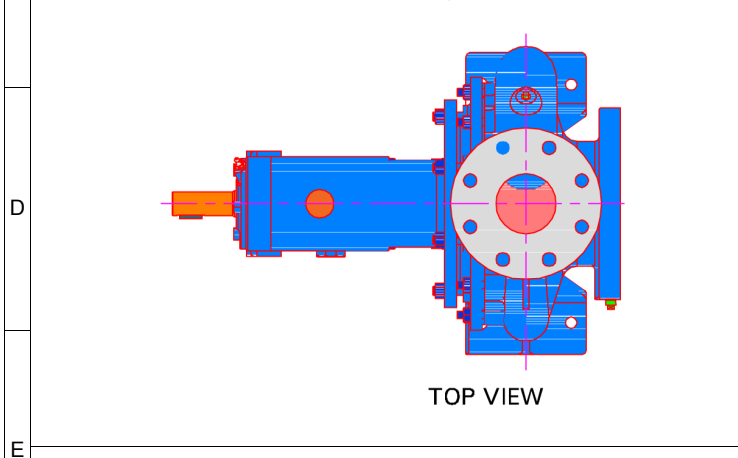
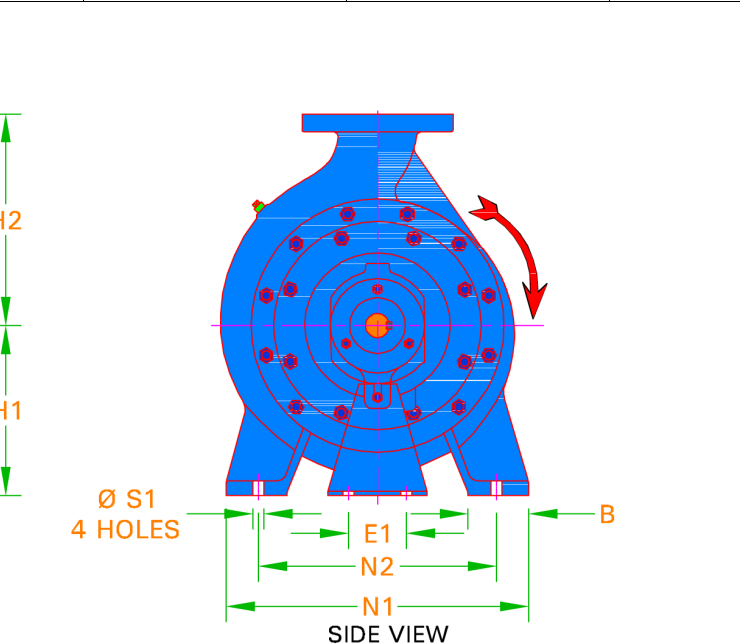
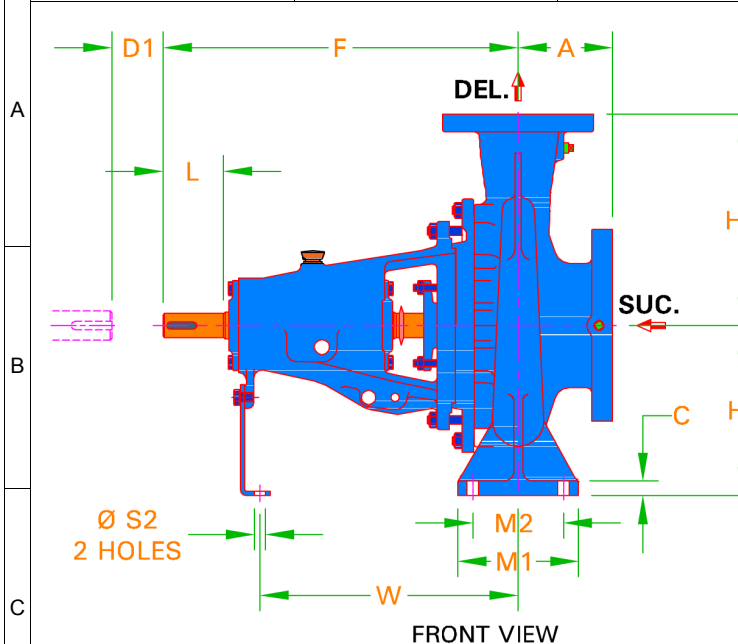
PUMP	DB 50/26	MOC	16
ENQUIRY NO./DATE	/	QUANTITY	1
PO. NO./DATE	-	TAG NO.	001
QUOTATION NO.	0	DATE.	-
O/A. NO.	-	MISI.	-
CUSTOMER	-		
END USER	-		
PROJECT	Default		
CONSULTANT	-		
SERVICE	-		



**Kirloskar Brothers Limited**  
KIRLOS KARVADI - 416308, DIST.- SANGLI (INDIA)

CROSS SECTIONAL DRAWING

DRAWING NO. **TC02-1**



Enriching Lives

PUMP DUTIES			
CAPACITY	45.00 m <sup>3</sup> /h	EFFICIENCY	51.92 %
TOTAL HEAD	67.00 m	PUMP INPUT	15.99 kW
DENSITY	0.998 kg/dm <sup>3</sup>	NPSHR	2.49 m

FLANGE DRILLING STANDARD AND DETAILS					
SUCTION	BS EN1092 PN16 FF	DELIVERY	BS EN1092 PN16		
	NOM. SIZE	RF DIA.	P.C.D.	NO OF HOLES	HOLE DIA.
SUCTION	65.00 mm	N.A.	145 mm	4	18.0
DELIVERY	50.00 mm	N.A.	125 mm	4	18.0

ALLOWABLE NOZZLE LOADING						
	FORCES			MOMENTS		
	Fx	Fy	Fz	Mx	My	Mz
SUCTION	57.00 kgf	142.0 kgf	114.0 kgf	843 N.m	422 N.m	422 N.m
DELIVERY	45.00 kgf	114.0 kgf	91.00 kgf	677 N.m	343 N.m	343 N.m

TAPPING DETAILS	
DESCRIPTION	SIZE / TYPE
Suction Gauge	1/4"BSP
Delivery Gauge	1/4"BSP
Casing Drain	3/8"BSP
Casing Vent	NA
Bearing Cooling in / out	NA
Pad Cooling in / out	NA
Priming in	NA
Base Drain	NA

DIRECTION OF ROTATION FROM DE		CLOCKWISE	
PUMP	DB 50/26	PUMP WT.	63.00
REC. DRIVER RATING	22KW	GD*2	0.02 kg
ENQ. NO./DATE	/	RATED SPEED	2940R
PO. NO./DATE	-	QUANTITY	1
QUOTATION NO.	0	TAG NO.	001
O/A NO.	-	DATE	-
CUSTOMER	-	MISI	-
END USER	-		
PROJECT	Default		
CONSULTANT	-		
SERVICE	-		

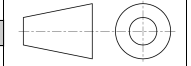
**NOTES:**  
 • ALL DIMENSIONS ARE IN mm  
 • DIM 'D1' INDICATES THE DISTANCE REQUIRED TO REMOVE BACK PULL OUT ASSEMBLY.

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A	F	H1	H2	B	C	M1	M2	N1	N2	S1	E1	S2	W	-	D
100	360	180	225	65.00	14.00	125	95.00	320	250	14.00	110	14.00	267	-	24.00

X	Y	L	D1	-	-	-	-	-	-	-	-	-	-	-	-
8.00	27.00	50.00	100	-	-	-	-	-	-	-	-	-	-	-	-

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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PUMP OUTLINE DRAWING

DRAWING NO. TL02-1-