

Screw Pump

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1.0 Project Data

Item: revision	customer		6	quantity	3
			7	delivery date	
			8	customer-no.	
			9	expert	
			10	phone/fax	
1	order-no.		11	application	Product oil circulation through heat ex
2	order-date		12	final destination	
3	project-no.		13	application code	
4	position		14	serial-no.	
5	project name	Inquiry HC-Pumps	15	item-no.	

2.0 Performance Data

1/2	pumped liquid	fuel oil,			
/3					
	operating points	1.	2.	3.	guarantee
4	temperature (C°)	70,0			70,0
5	viscosity (mm ² /s)	50,00			50,00
6	gravity (kg/dm ³)	0,980			0,980
7	vapour pressure (bara)				
8	gas content (%)				
9	solid content (%)				
10	particle size (mm)				
11	pH-value				
12	condition (liqu./gas.)	liquid			
13	remarks				

	operating points	1.	2.	3.	guarantee
14	capacity (m ³ /h)	60,00			60,00
15	suction pressure (barg)	1,00			0,00
16	discharge pressure (barg)	8,00			7,00
17	diff. pressure (bar)	7,00			7,00
18	speed (1/min-)	1472			1472
19	shaft power (kW)	20,00			20,00
20	motor power (kW)	30,00			30,00
21	NPSH required (m)	1,80			1,80
22	NPSH available (m)				

3.0 Material Execution

1	pump casing	EN-GJS-400-15 s. to AISI 60-40-18	7	bearing housing	EN-GJS-400-15 s. to AISI 60-40-18
2	screws	EN-GJS-400-15 s. to AISI 60-40-18	8	sealing housing	1.4057 sim. to AISI 431
3	shafts	1.4542 sim. to AISI 630	9	flat gaskets	fiber composition, non asbestos
4	liner		10	o-rings medium wett.	FKM
5	intermediate flange		11	non med. wetted seals	NBR
6	remarks				

4.0 Shaft Sealing

1	construction / function	mechanical seal, single acting	6	API-plan	:-
2	manufacturer	EagleBurgmann	7	pipng	
3	type	M7-G13	8	pipng execution	
4	material code	Q1AVGG	9	quench / barrier fluid	
5	remarks				

5.0 Bypass / Heating / Design / Bearings

1	bypass	without handwheel	9	heating fluid data	barg °C
2	setting point	7,0 bar	10	bearing life time	h
3	max. suction pressure	6 barg	11	additional execut. 1	
4	casing design	12 bar, 100°C	12	additional execut. 2	
5	design data heating		13	measuring points 1	
6	heating		14	measuring points 2	
7	heating fluid		15	-----	
8	remarks				

6.0 Flanges / Connections

		<u>rule</u>	<u>size</u>	<u>press. rate</u>	<u>position</u>
1	suction	DIN EN 1092-2 type A	DN 200	PN 10	left
2	discharge	DIN EN 1092-2 type A	DN 200	PN 16	top
3	heating				
4	drain	DIN ISO 228-1	G 1"		bottom
5	quench				
6	cooling				
7	flange options				
8	remarks				

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Screw Pump

HC 147 - 36/1 / N

7.0 Installation / Rotation / Name Plate

1	installation	horizontal	5	rotation	cw
2	location		6	pos. of drive shaft	left
3	area classification		7/8	name plate	English / aluminium
4	remarks				

8.0 Accessories

1	base plate	steel plate	9	maker coupling	FLENDER
2	executioncode		10	coupling type	N-Eupex ADS
3	option base plate 1	with earthing connection	11	coupling guard	aluminium
4	option base plate 2		12	cover for drive	
5	drip pan		13	instruments/options	
6	mounting option 1		14	spare parts	
7	mounting option 2		15	electrical wiring	
8	remarks				

9.0 Drive

1	drive system	3-phase-motor	11	frequency (Hz)	:50
2	type		12	protection	:IP 55
3	manufacturer	WEG / ABB / or equivalent	13	explosion proof	EEEx d IIB T4
4/5	size/ mounting form	200L / B3	14	thermal class	F (155 °C)
6	start	inverter driven	15	certificate	ATEX certificate
7	power (kW)	30,0	16	supplied by	
8	speed (1/min-)	1500	17	assembly	
9	voltage (V)	400	18		
10	remarks	3 thermistors (PTC) in case of inverter operation			

10.0 Painting / Conservation

1	painting	blue, RAL 5010 (standard)	5	intermediate coat	-
2	surface preparation	acc. to QSA 09032 (standard)	6	final coat	acc. to QSA 09032 (standard)
3	primer coat	acc. to QSA 09032 (standard)	7	preservation	acc. to QSA 09011 standard
4	remarks				

11.0 Mill Certs / Testing

1	casing		11	liner	-	
2	shafts		12	bearing housing	<input type="checkbox"/>	
3	screws		13	intermediate flange	-	
4	additional parts					
	Testing	<u>yes/no</u>	<u>according to</u>	<u>by</u>	<u>pressure</u>	<u>test medium</u>
5	hydrostat. press. test	yes	EN 10204-2.2		1,5 x pD	water
6	performance test	yes	VDMA 24284			water
7	NPSH-test	no				
8	noise level test	no				
9	vibration test	no				
10	remarks					

12.0 Documentation

1	language	English, Russian where available	6	operation manual	1-fold
2	hydrostat. press. test	1-fold	7	mill certs	
3	performance test	1-fold	8	dimensional drawing	1-fold
4	documents to				
5	remarks				

13.0 Weights / Packing

1	pump	kg	3	accessories	kg	5	total gross	kg
2	base plate	kg	4	total net	kg	6	packing	packing for truck transport

14.0 Remarks

1								

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