



Oil –Gas

OH2
Chemical process pump
Model
FS-ZE50-4400
((4-P13 A/B))
SR. NO.FS-ZE 19811018

EBARA pumps Europe S.P.A
SEDE LEGALE
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PART. IVA IT 01234660221
R.E.A.N. 124581 TRENTO

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Oil – Gas

4- P 13 A/B

Requested flow rate	25.76 m ³ /h
Requested developed head	174.1 m
Pumped medium	raw water
Temperature	25.0 ° C
Fluid density	1004 kg/m ³
Fluid viscosity (cP)	0.89
Vapour pressure	0.03 kg/cm ² a
Suction pressure max.	.1 kg/cm ² g
Efficiency	30.00%
Power Absorbed	55
Pump speed of rotation	2900rpm
NPSH required	2m
Discharge press.	12.95 kg/cm ² . g
Stuffing box press.	VTA
Shutoff head	200m
Shutoff pressure	21kg/cm ²
Differential pressure	12.85 kg/cm ²
NPSH available	10.95 m
Ratio Q/Qbep	88.00%
Max. power on curve	54KW
low for continuous stab	VTA
Suction Flange Size & Rating	DN100 5MPa
Discharge Flange Size & Rating	DN50 5MPa
Shaft seal	As Per API 682
Shaft seal manufacture	EBARA
Sealing plan	API plan 11+61 (VTC)
Bearing bracket size	No. 4 bearing box
Coupling Manufacturer	EBARA
Coupling type	Diaphragm coupling
Spacer length	140mm
Driver type	Electric Motor
Drive standard mech.	3-phase Electric Motor
Motor const. type	IBM-250M-2-55
Motor speed	2985
Frequency	50 Hz
Rated voltage	380
Rated power P2	55KW
Type of protection	EEx de IIB T3
Motor enclosure	IP55
Volute casing (102)	Cast Steel
Casing cover (161)	Cast Steel
Shaft (210)	2Cr13
Impeller (230)	Cast Steel



User Name :	
Device Name :	
4-P13 A/B	Quantity : 1
Equipment Name: Chemical Process Pumps	Pump Manufacturer : Ebara oil-Gas
Pump Model:FS-ZE50-4400	

Working Conditions		Material(s)	
Flow rate: 25.76	m3/h	Pump body: Cast steel	Impeller: Cast steel
Inlet gauge pressure: (rated/maximum)	MPa.G	Shaft: 2Cr13	
Outlet gauge pressure:	MPa.G	Mechanical seal flushing plan: PLAN11+61	
Lift(H,m) 174.1 m	(NPSH)a : 10.95 m	Bearing: SKF	Brand: SKF
Usage : <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> intermittent (Number of starts/per day)		Coupling: 180	

Medium

Name: raw water	
Working temperature: 25 °C	
Medium density: 1004 kg/m3	
Viscosity (CP): 0.89	
H2S (Hydrogen Sulfide) Concentration (PPM)	Medium Characteristics: <input type="checkbox"/> Corrosive <input type="checkbox"/> Abrasive <input type="checkbox"/> Toxic

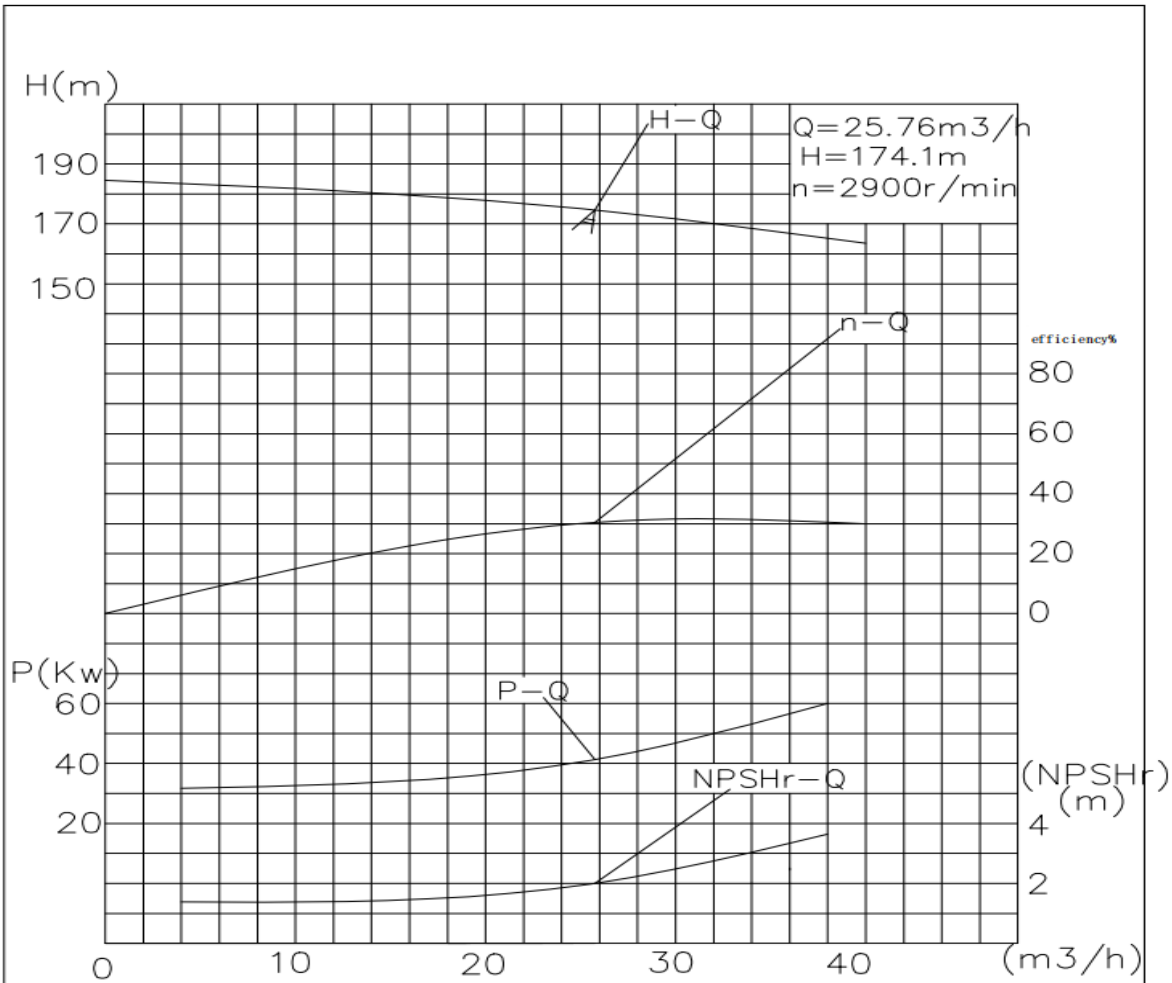
Pump performance and structure

Pump speed of rotation:2985rpm	Efficiency: 30 %	Shaft power: 41kW
Impeller diameter (rated): 350mm	Impeller diameter (maximum): 400 mm	
Impeller diameter (minimum): 300 mm		
MCSF: 12 m3/h	NPSHr: 2 m	
Maximum head at rated diameter: 180 m		
From rated head to shutoff head: 94%	Head ratio (rated/maximum): 96%	
Flow rate (Best Efficiency Point, BEP): 30 m3/h	Flow ratio (rated/BEP): 87 %	
Installation form: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal		
Impeller form: <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Open <input checked="" type="checkbox"/> Semi-open		
Pump Casing Split: Axial <input checked="" type="checkbox"/> Radial		
Pump casing type: <input checked="" type="checkbox"/> Single volute <input type="checkbox"/> Double volute <input type="checkbox"/> Guide casing (guide vane)		

Flange standard: GB9111.1-2000	caliber mm	Flange pressure rating	Sealing Face Type	Orientation position	Electric Motor		
					Model: ■	IBM-250M-2-55	
Suction port	100	5MPa	RF	Horizontal	Explosion-Proof High-Voltage Motor		
Discharge port	50	5MPa	RF	Vertical	Rated power: 55kW	Maximum power:	
Drain port	/	/	/	/	Number of Poles: 2	Speed 2985 rpm	Frequency: 50 Hz
Pump casing design pressure: 5 MPa		Pump Casing Hydrostatic Test: 7.5 MPa			Voltage: 380 V	Number of phases : 3 PH	Frequency: 50 Hz
Maximum working pressure: 1.9MP		Maximum permissible suction pressure: 3.1MPa Maximum permissible working pressure: 5MPa			Protection Rating: IP55	Explosion proof grade: BT4	Insulation grade: F
Bearing type: <input type="checkbox"/> Sliding bearing <input checked="" type="checkbox"/> Radial rolling					Incoming line of junction box:	Method:	Number:
Bearing Lubrication: <input checked="" type="checkbox"/> Oil Bath/Grease <input checked="" type="checkbox"/> Oil Slinger							



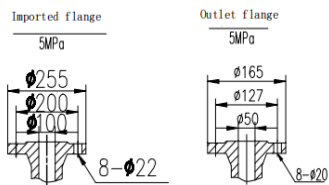
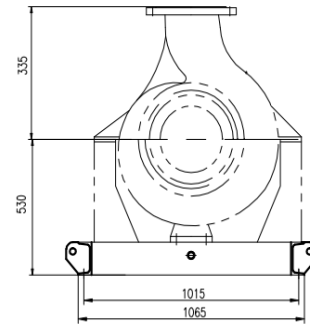
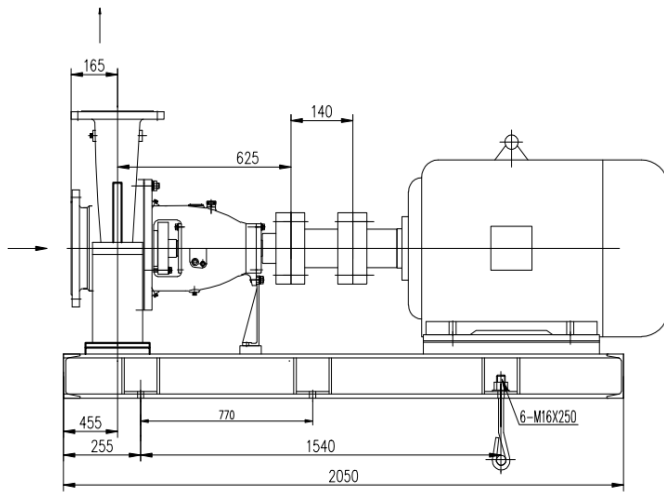
Oil - Gas



4-P13 A/B	(OH2) Chemical Process Pump	FS-2E50-4400	25.76	174.1	2	API610 standard production, mechanical seal meets API682 standard, material: cast steel, cartridge mechanical seal, mechanical seal flushing solution PLAN 11+61 () SKF bearings, supply scope pump head + base + diaphragm coupling.
	Explosion -proof motor	IBM-250M-2-55	55KW	2985r/min	2	Drive standard machine: three-phase motor Motor model: IBM-250M-2-55 Motor speed: 2985 Frequency: 50 Hz Rated voltage: 380V Rated power: 55KW Protection level: Ex de IIB T4 Motor protection level: IP55



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