



Oil -Gas

OH2

Chemical process pump

Model

FS-ZE150-315

4-P04BT

SR.NO.FS-ZE19811005

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

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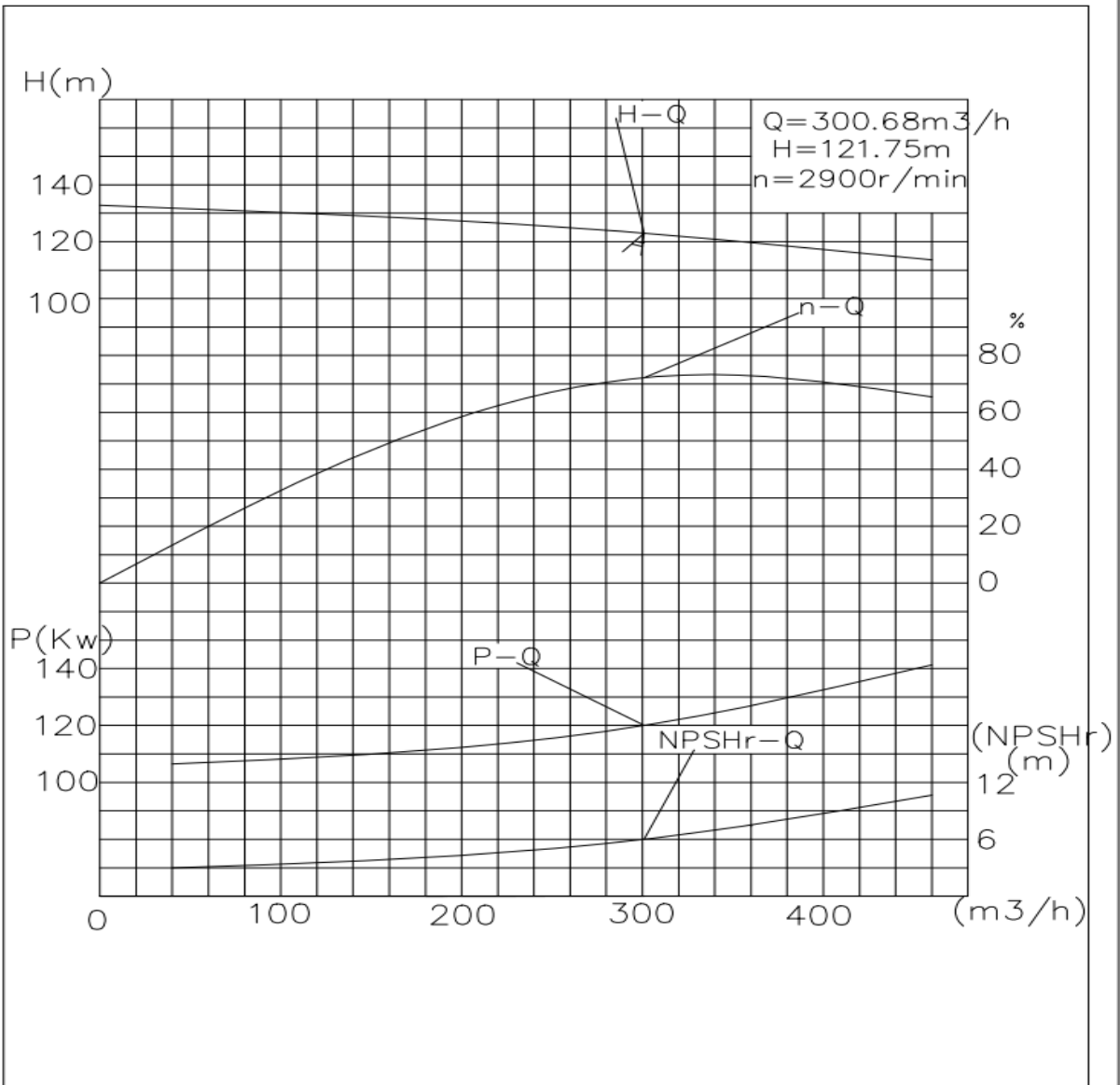
User Name :	
Device Name :	
4-P04BT	Quantity : 2
Equipment Name: Chemical Process Pumps	Pump Manufacturer : Ebara oil-Gas
Pump Model:FS-ZE150-315	

Working Conditions		Material(s)	
Flow rate: 300.68	m ³ /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: PLAN23+61	
Lift(H,m) 121.75 m	(NPSH)a : 29.9 m	Bearing: SKF	Brand: SKF
Usage : <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> intermittent(Number of starts/per day)		Coupling: 180	
Medium			
Name: light gas oil			
Working temperature:175°C			
Medium density:606.77kg/m ³			
Viscosity (CP): 0.34			
H ₂ S (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: 71 %	Shaft power: 120kW	
Impeller diameter (rated): 300mm		Impeller diameter (maximum): 315 mm	
Impeller diameter (minimum): 270 mm			

MCSF:150m ³ /h NPSH: 6m							
Maximum head at rated diameter: 129m							
From rated head to shutoff head: 93%				Head ratio (rated/maximum): 97%			
Flow rate (Best Efficiency Point, BEP): 320m ³ /h				Flow ratio (rated/BEP): 86 %			
Installation form: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal							
Impeller form: <input checked="" type="checkbox"/> Closed <input type="checkbox"/> Open <input 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	steam turbine		
					Model: <input checked="" type="checkbox"/>	NO.160-0.3	
Suction port	150	5MPa	PF	Horizontal	steam turbine		
Discharge port	150	5MPa	PF	Vertical	Rated power: 160kW	Maximum power:	
Drain port	/	/	/	/			
Pump casing design pressure: 5 MPa		Pump Casing Hydrostatic Test: 7.5 MPa					
Maximum working pressure: 1.4MPa		Maximum permissible suction pressure:3.6MPa Maximum permissible working pressure: 5MPa					
Bearing type: <input type="checkbox"/> Sliding bearing <input checked="" type="checkbox"/> Radial rolling							
Bearing Lubrication: <input checked="" type="checkbox"/> Oil Bath/Grease <input checked="" type="checkbox"/> Oil Slinger							



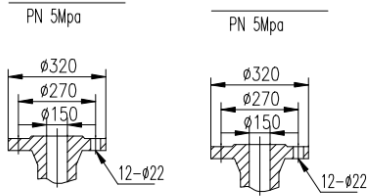
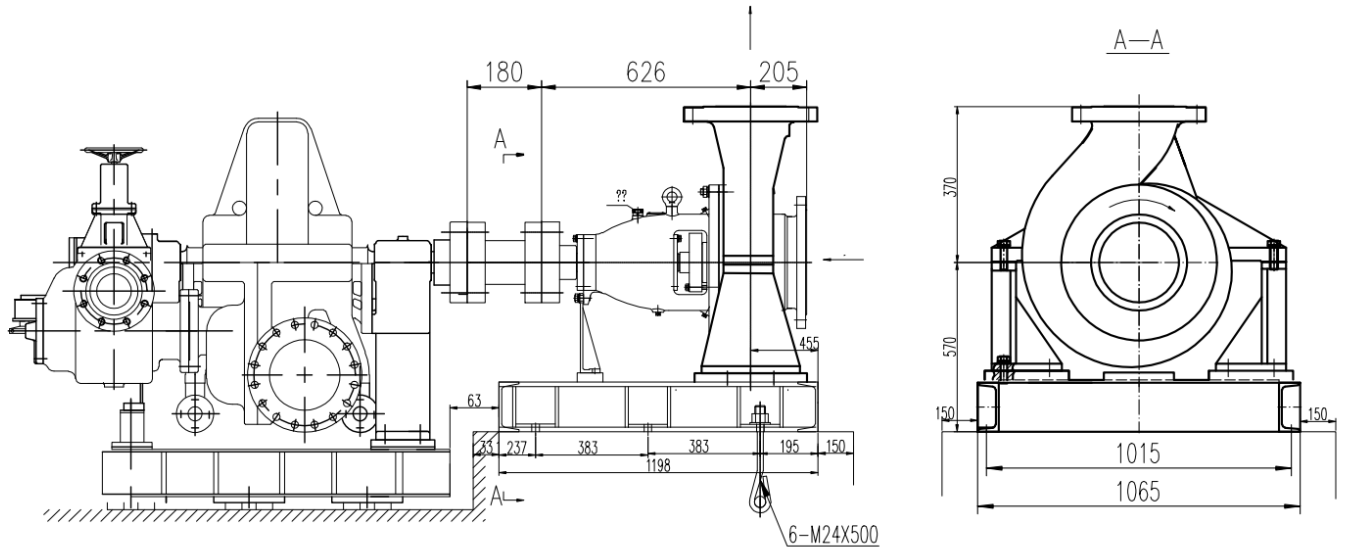
Oil - Gas



Line Item	name	model	flow: Q (m ³ /h)	Lift (H, m)	Quantity	Remark
4-P04 BT	(OH2) Chemical Process Pump	FS-ZE150-315	300.68	121.75	2	API610 standard production, mechanical seal meets API682 standard, material: cast steel, cartridge mechanical seal, mechanical seal flushing solution PLAN 23+61 () SKF bearings, supply scope pump head + base + diaphragm coupling.
	Steam Engine	N0.160-0.3	3000rpm	Inlet pressure 0.3MPa	2	Steam turbine body: N0.160-0.3 Steam turbine base, bolts, etc. are provided by the equipment factory Condenser: 80m ² Control system: Siemens PLC Coupling: Shenyang Schenk Spare parts: provided by the equipment factory



Oil -Gas



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Oil -Gas

Requested flow rate	300.68 m ³ /h
Requested developed head	121.75 m
Pumped medium	total naphtha
Temperature	175 °C
Fluid density	606.77 kg/m ³
Fluid viscosity (cP)	0.34
Vapors pressure	2.43 kg/cm ² a
Suction pressure max.	1.41 kg/cm ² g
Efficiency	71.00%
Power Absorbed	0
Pump speed of rotation	2900rpm
NPSH required	5m
Discharge press.	7.4 kg/cm ² .g
Stuffing box press.	VTA
Shutoff head	140m
Shutoff pressure	10kg/cm ²
Differential pressure	6.0 kg/cm ²
NPSH available	29.9
Ratio Q/Qbep	95.00%
Max. power on curve	105KW
low for continuous stab	VTA
Suction Flange Size & Rating	DN150 5MPa
Discharge Flange Size & Rating	DN150 5MPa
Shaft seal	As Per API 682
Shaft seal manufacture	EBARA
Sealing plan	API plan 23+61 (VTC)
Bearing bracket size	No. 5 bearing box
Coupling Manufacturer	EBARA
Coupling type	Diaphragm coupling
Spacer length	180mm
Driver type	Steam Turbine
Drive standard mech.	VTA
Motor const. type	VTA
Motor speed	VTA
Frequency	50 Hz
Rated voltage	Note 8

Rated power P2	Note 8
Volute casing (102)	Cast Steel
Casing cover (161)	Cast Steel
Shaft (210)	2Cr13
Impeller (230)	Cast Steel