Data sheet

Customer item no.:
Communication dated:
Doc. no.:
Quantity: 1

Number: ES 3519390
Item no.: 100
Date: 19/03/2015

Omega 125-290 A GB P F

Version no.: 1

Operating data

Requested flow rate	360.00 m³/h	Actual flow rate	360.00 m³/h
Operating data determined for maximum inlet pressure		Actual developed head	130.00 m
Requested developed head	130.00 m	Efficiency	78.2 %
Pumped medium	Water Clean water Not containing chemical and mechanical substances which affect the materials	Power absorbed	163.80 kW
		Pump speed of rotation	2986 rpm
		NPSH required	11.87 m
		NPSH 3%	6.61 m
		Discharge press.	13.01 bar.g
Ambient air temperature	20.0 °C		
Fluid temperature	20.0 °C		
Fluid density	998 kg/m³	Max. power on curve	220.56 kW
Fluid viscosity	1.00 mm²/s	Min. allow. flow for continuous stable operation	288.42 m³/h
Suction pressure max.	0.19 bar.g		
Suction pressure min.	0.19 bar.g	Min. allow. mass flow for continuous stable operation	79.96 kg/s
NPSH available	11.93 m		
Mass flow rate	99.80 kg/s	Shutoff head	143.15 m
		Max. allow. mass flow	190.96 kg/s
		Design	Single system 1 x 100 %

Design

Pump standard	KSB axially split volute casing pump	Full impeller diameter	301.0 mm
		Free passage size	19.0 mm
Design	Pump and motor on common Baseframe (3E)	Direction of rotation from drive	Clockwise
		Bearing seal driver side	Lip seal
Orientation	Horizontal	Bearing type driver side	Anti-friction bearings
Suction flange (AS)	EN 1092-2 / DN 200 / PN 16	Lubrication type driver side	Grease
drilling+seal face according to	21A / FF	Bearing sealing end side	Lip seal
Discharge flange (AD)	EN 1092-2 / DN 125 / PN 16	Bearing type end side	Anti-friction bearings
drilling+seal face according to	21A / FF	Bearing lubrication end side	Grease
Shaft seal	Gland packing	Temperature measurement tapping	with
Manufacturer	KSB		
Type	RT-P	Temperature sensor PT100 motor side	Without
Sealing plan	PE Gland packing (external circulation)		
		Vibration measurement tapping	with
Clean water operation: Pumped liquid with max. 50 mg/l solids.			
Wear ring	Casing wear ring	Color	Ultramarine blue (RAL 5002) KSB-blue
Wear ring type	Standard design		
Impeller diameter	301.0 mm		
Minimum impeller diameter	232.0 mm		

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Driver, accessories

Manufacturer	Flender
Coupling type	Eupex N
Nominal size	180
Coupling guard type	Lightweight, not treadproof (ZN79)
Guard size	A251
Guard material	Steel
Baseplate type	Pump and motor on common baseframe (3E) – light execution
Baseplate size	OM3E06
Motorside drill	No

Scope of mounting parts : Baseframe for pump set incl. foundation bolts

Features : Baseframe not suitable for pumpset transport / Without drip pan
Delivery : Pump, Motor and baseframe separately

Driver type	Electric motor
Drive standard mech.	IEC
Drive supplied by	Standard motor supplied by customer - mounted by customer
Motor const. type	B3
Motor size	315L
Frequency	50 Hz
Available reserve	22.10 %
Terminal box position	0°/360° (top) Viewed from the drive
Number of poles	2

Materials GB

Notes
general criteria for a water analysis: pH-value >= 7; chloride content (Cl) <=250 mg/kg. chlorine (Cl2) <=0.6 mg/kg. Ammonium (NH4+) <= 2 mg/kg, free of H2S; Chlorine (Cl2) <=0.6 mg/kg.

Volute casing (102)	Grey cast iron EN-GJL-250
Pump shaft (211)	Chrome steel 1.4021+QT800
Double-entry impeller (234)	Tin bronze CC480K-GS
Bearing housing (350.1)	Grey cast iron EN-GJL-250
Shaft seal housing (441)	Grey cast iron EN-GJL-250
Gland (452)	S235JR
Stuffing box insert (455)	Tin Bronze CC493K
Neck ring (457)	Tin Bronze CC493K
Lantern ring (458)	Tin Bronze CC493K
Casing wear ring (502)	Tin Bronze CC493K
Shaft protecting sleeve (524.1)	GX120CRMO29-2 1.4138

Certifications

Tests acc. to QCP-Plan

Test standard	QCP to ZN56555-1A

Acceptance standard: None; tolerances to ISO 9906 class 2

Test pressure	18.46 bar.g
Test time	10.0 min
Certificate	Without
Test participation	Non-witnessed
Quantity, non-witnessed	1
Quantity, witnessed	0

Balancing test

Balancing grade	G 6,3
Part	Impeller
Certificate	Without
Test participation	Non-witnessed
Quantity, non-witnessed	1
Quantity, witnessed	0

Hydrostatic test (room temp.)

Range	Complete pump with shaft seal

Final visual inspection

Certificate	Without
Test participation	Non-witnessed
Quantity, non-witnessed	1
Quantity, witnessed	0

Performance curve

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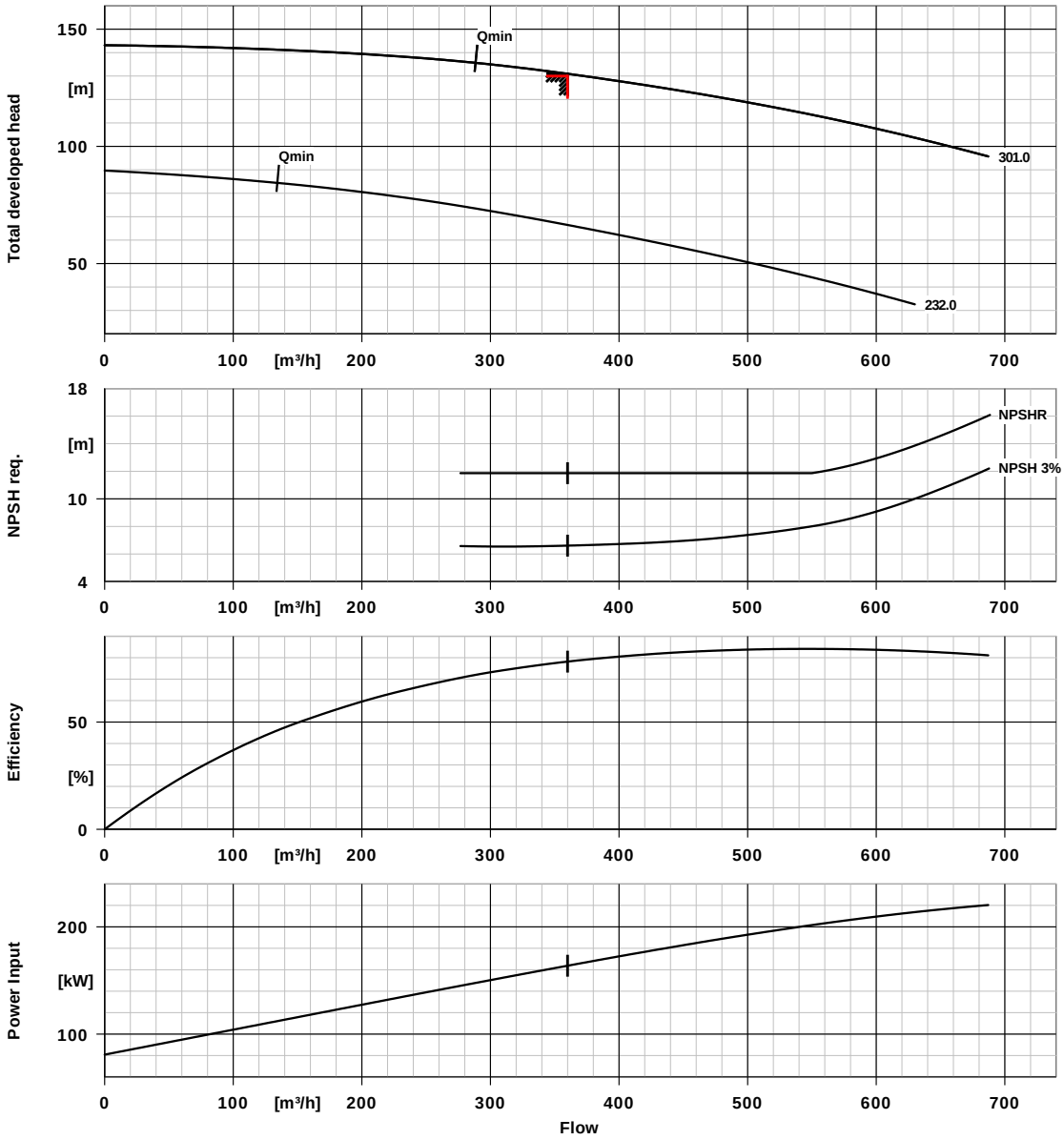

Curve data

Speed of rotation	2986 rpm	Efficiency	78.2 %
Fluid density	998 kg/m³	Power absorbed	163.80 kW
Viscosity	1.00 mm²/s	NPSH required	11.87 m
Flow rate	360.00 m³/h	NPSH 3%	6.61 m
Requested flow rate	360.00 m³/h	Curve number	K42782
Total developed head	130.00 m	Effective impeller diameter	301.0 mm
Requested developed head	130.00 m	Acceptance standard	tolerances to ISO 9906 class 2B; below 10 kW acc. to paragraph 4.4.2

Installation plan

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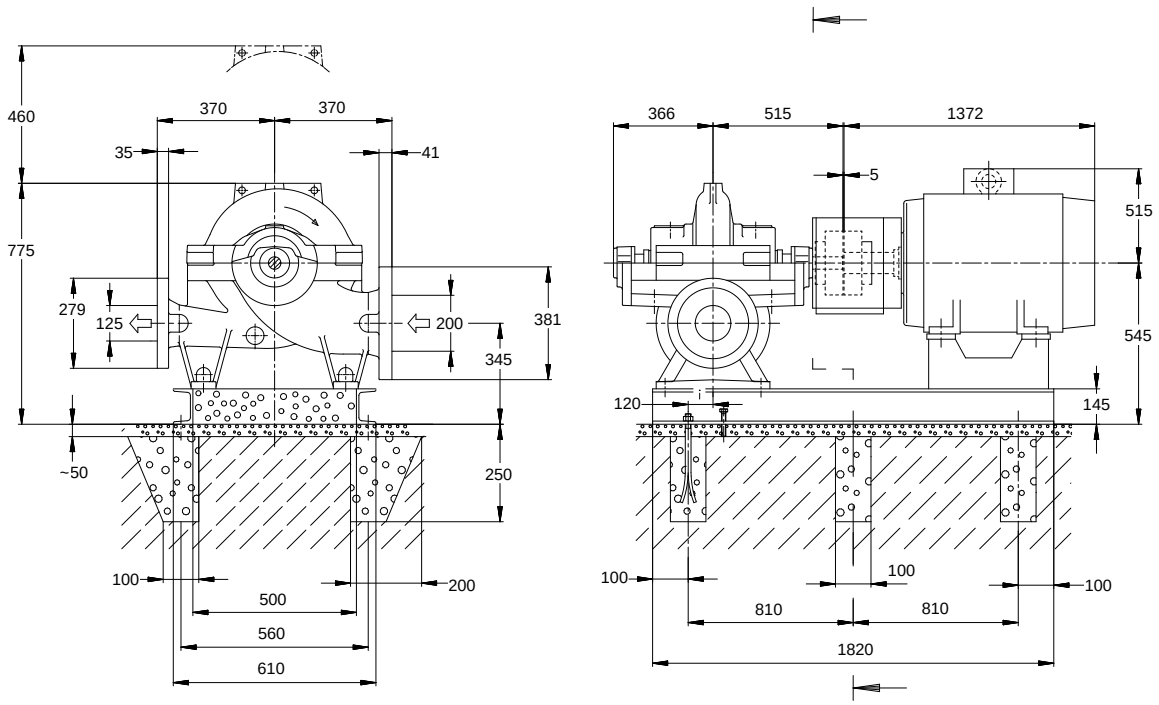

Drawing is not to scale

Dimensions in mm

Motor

Not in scope of supply

Motor manufacturer	Siemens
Motor size	315L
Motor power	200.00 kW
Number of poles	2
Speed of rotation	2986 rpm

Baseplate

Design	Pump and motor on common baseframe (3E) – light execution
Size	OM3E06
Material	S235JR
Leakage drain baseplate (8B)	Rp1, Without
Foundation bolts	M16x250

Connections

Suction flange (AS)	EN 1092-2 / DN 200 / PN
drilling+seal face according to	16 21A / FF
Discharge flange (AD)	EN 1092-2 / DN 125 / PN
drilling+seal face according to	16 21A / FF

Coupling

Coupling manufacturer	Flender
Coupling type	Eupex N
Coupling size	180
Spacer	0.0 mm

Weight net

Pump	275 kg
Baseplate	155 kg
Coupling	14 kg
Coupling guard	3 kg
Motor	1180 kg
Total	1627 kg

Connect pipes without stress or strain!

Notes for dimensions:
Drawing is not to scale.
Admissible tolerances for shaft height: DIN 747
Dimensions without tolerance indication: ISO 2768 CK

For auxiliary connections see separate drawing.

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Dimensions without tolerance indication – Welded parts: ISO 13920 – B/F
Dimensions without tolerance indication – Cast parts: ISO 8062 – CT13 – RMA(H)

General notes:
Piping must be connected free of stress. The pump must not be used as support for the piping (The pump is not an anchor point for the piping). The piping must be fixed in such a way that no forces, vibrations or the weight of the piping is transferred to the pump. Restrictions for forces and moments on suction and pressure nozzle must be considered. Connection by means of unrestrained expansion joints is not permitted!!

Connection plan

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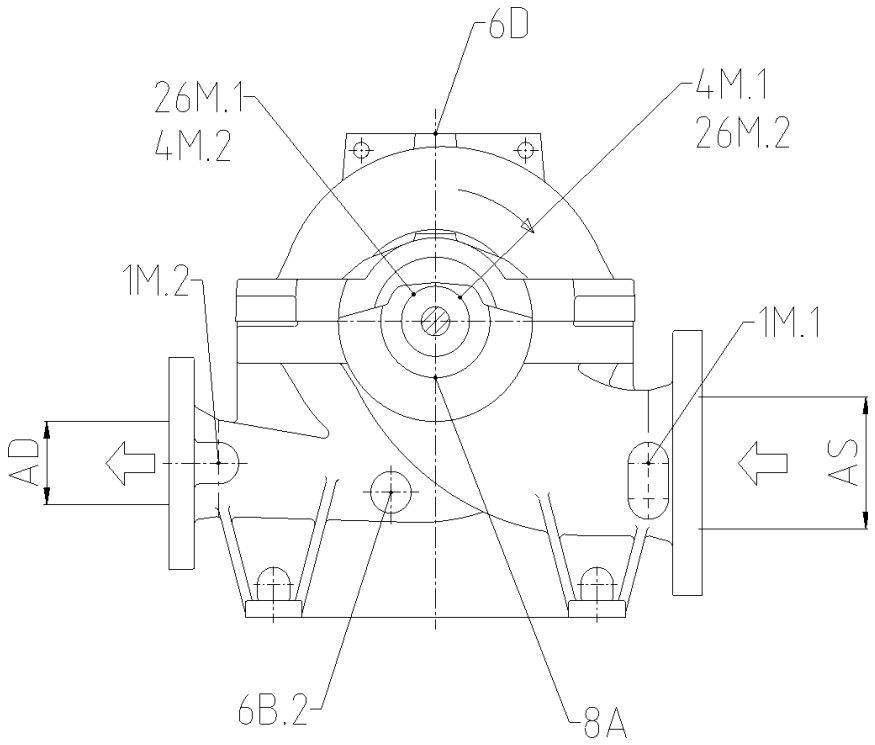

Connections

1M.1 Pressure gauge connection	G 1/2	Drilled and plugged.
1M.2 Pressure gauge connection	G 1/2	Drilled and plugged.
4M.1 Temperature gauge connection (Suction side)	G 1/2	Drilled and plugged.
4M.2 Temperature gauge connection (Pressure side)	G 1/2	Drilled and plugged.
6B.2 Pumped liquid drain	G 1/2	Drilled and plugged.
6D Pumped medium - filling / venting		Flexible pipe with four way connector and vent plugged
8A Leakage drain	G 3/4	Drilled and plugged.
26M.1 SPM sensor connection (driver side)	M 8	Drilled and plugged.
26M.2 SPM sensor connection (non-driver side)	M 8	Drilled and plugged.