

VA 200-150-350 5504GDBQ82LECCO OA

Vitacast - Hygienic centrifugal pump

Operating data

Requested flow rate		Actual flow rate	299.81 m³/h
Requested developed head		Actual developed head	29.96 m
Pumped medium	+ Bpara	Efficiency	65.5 %
	+	Power absorbed	42.94 kW
Pumped medium details	Not containing chemical and mechanical substances which affect the materials	Pump speed of rotation	1484 rpm
		NPSH required	2.64 m
Max. ambient air temperature	20.0 °C	Permissible operating pressure	10.00 bar.g
Min. ambient air temperature	20.0 °C	Discharge press.	3.38 bar.g
Fluid temperature	32.0 °C		
Fluid density	1150 kg/m³	Shutoff head	31.76 m
Fluid viscosity	30.00 mm²/s	Min. allow. flow for continuous stable operation	42.42 m³/h
Suction pressure max.	0.00 bar.g	Min. allow. mass flow for continuous stable operation	13.55 kg/s
Mass flow rate	95.77 kg/s	Viscosity factor CQ	0.99746512
Max. power on curve	49.30 kW	Viscosity factor CE	0.95016218
Max. allow. mass flow	165.22 kg/s	Viscosity factor CH	0.99804554
Design	Single system 1 x 100 %		

Design

The pump conforms to the regulations of EGV 1935/2004.

Design	Baseplate mounted, long-coupled	Material code	BQ1EGG
Orientation	Horizontal	Manufacturer atm. side	Roten
Suction nominal dia.	DN 200	Type atm. side	7K
Suction nominal pressure	PN 10	Material code atm. side	BGEGG
Suction position	axial	Shaft seal code	Q82
Connection standard	EN1092-1	Sealing plan	DB double acting mechanical seal (back to back)
Discharge nominal dia.	DN 150	Seal chamber design	Standard seal chamber
Discharge nominal pressure	PN 10	Impeller diameter	328.0 mm
Discharge position	top (0°/360°)	Free passage size	24 mm
Discharge flange drilled according to standard	EN1092-1	Direction of rotation from drive	Clockwise
Counter Flange	No	Silicon free pump assembly	Yes
Shaft seal	Double-acting mechanical seal	Bearing bracket construction	Close-coupled
		Bearing bracket size	55
Shaft seal manufacturer	Roten	Bearing type	Anti-friction bearings
Shaft seal type	Uniten 5	Lubrication type	Oil
Mechanical Seal Form	Unbalanced	Lubrication monitoring	Constant level oiler
Direction of rotation	Clockwise	Support or motor foot	None
Spring Shrouding	open	Motor shroud	Without
		Surface finish wetted parts	3.2 µm

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Driver, accessories (nicht im Lieferumfang enthalten!/not included!)

Coupling Manufacturer	Samiflex	Rated voltage	400 V
Coupling type	SCA	Rated power P2	55.00 kW
Nominal size	A4	Available reserve	28.07 %
Coupling guard type	Lightweight, not treadproof (ZN79)	Rated current	103.6 A
Guard size	4	Starting current ratio	7.9
Guard material	Stainless steel 1.4301	Insulation class	F to IEC 34-1
Baseplate type	Welded steel	Motor enclosure	IP55
Baseplate size	17-SS	Cos phi at 4/4 load	0.86
Baseplate Material	Stainless steel 1.4301	Motor efficiency at 4/4 load	94.6 %
Baseplate drain piping material		Temperature sensor	3 PTC resistors
Driver type	Electric motor	Terminal box position	0°/360° (top)
Drive standard mech.	IEC	Motor winding	Viewed from the drive
Model (make)	KSB-Motor	Number of poles	400 / 690 V
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Connection mode	4
Motor const. type	B3	Motor cooling method	Delta
Motor size	250M	Motor material	Surface cooling
Efficiency class	Efficiency class IE3 acc. to IEC60034-30-1	Frequency inverter operation allowed	Grey cast iron GG/CAST IRON
Motor speed	1484 rpm	Motor noise pressure level	VFD-suitability only in connection with KSB PumpDrive
Frequency	50 Hz	Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.	69 dBa
		EAC Approval	Yes

Materials C

Circular casing (103)	Stainless steel 1.4409	Taper locking ring (515)	Stainless steel 1.4301
Discharge cover (163)	Stainless steel 1.4409	Cover plate (68-3)	Stainless steel 1.4301
Shaft (210)	CrNiMo steel 1.4404	Motor shroud (683)	Without
Impeller (230)	Stainless steel 1.4409	Impeller nut (922)	CrNiMo steel 1.4404
O-Ring (412)	EPDM 70 FDA		

Packaging

Packaging for transport	Truck	IPPC Standard ISPM 15	Yes
Packaging for storage	Indoor	Packaging category	A7 Wooden crate

Nameplates

Nameplates language	International
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Auxiliary connections

6B Pumped liquid drain	G 3/8, Not executed	638 Constant level oiler	G 1/4, Mounted at the factory
6B Position	None	13D Refill / venting	G 1/4, Closed with venting plug
10E/10A Sealing liquid in/out	G 1/4, Extension pipe closed	13B Oil drain	G 1/4, Drilled and plugged.
24E/24A Quench liquid in/out	G 1/4, Not executed		

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Order documentation

The following documents will be supplied with the order:

Manufacturer's or conformity declaration

General arrangement drawing

Auxiliary connection plan

Technical data sheet

Separate operating manual driver

Dimension sheet driver

Performance curve

Operating manual

Languages

Procedure for unsupported
languages

Russian, English

Supply the document in
English instead

Coating

KSB coating code

Surface preparation

Primer

A1 to KSB AN 1897

Free from dirt, grease, rust

Hydro primer, water based

Final coating

Color

Total film thickness approx.

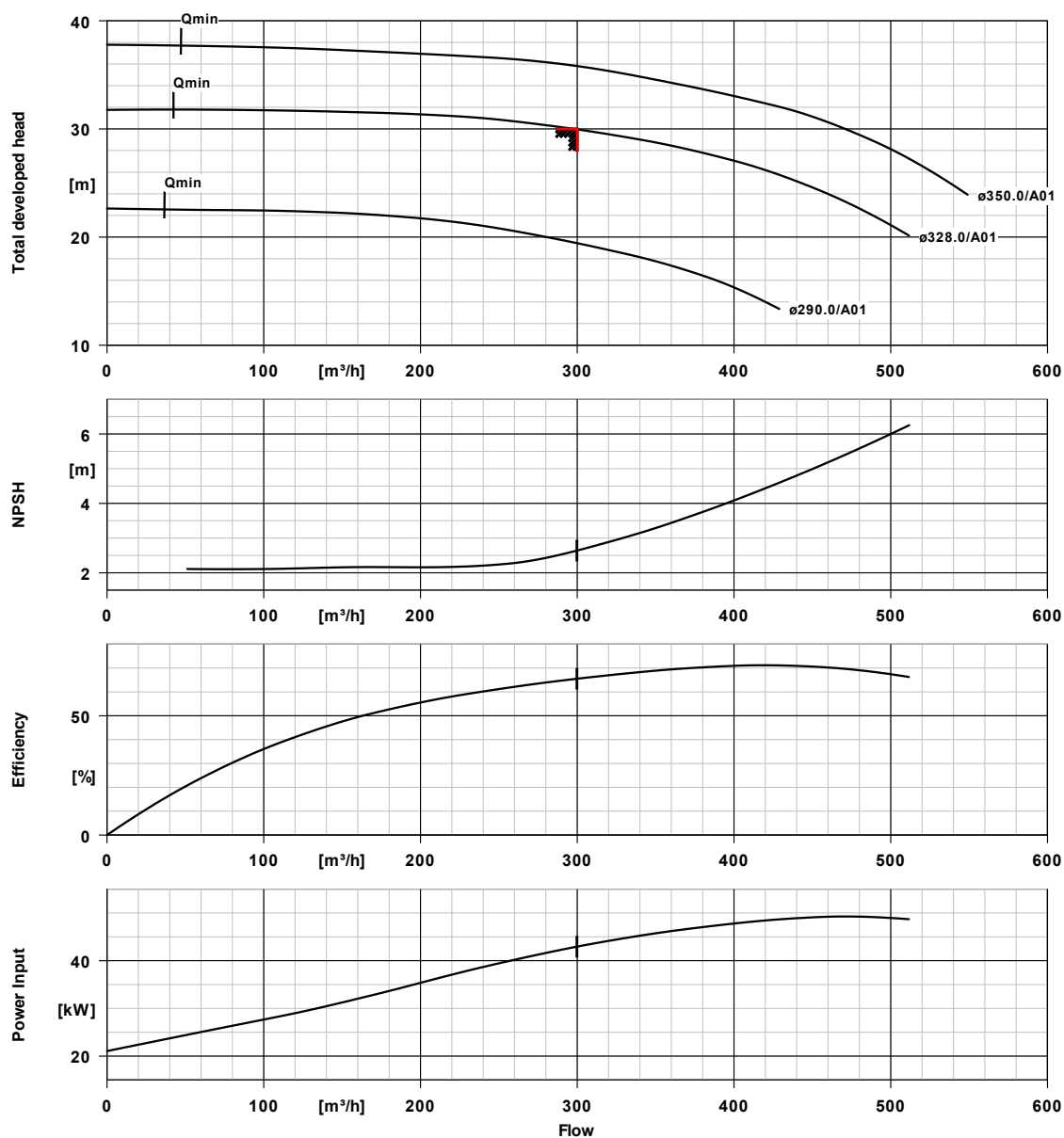
Polycondensate/acrylate-
polymer combination, water
soluble

Gentian blue (RAL 5010)

100 µm

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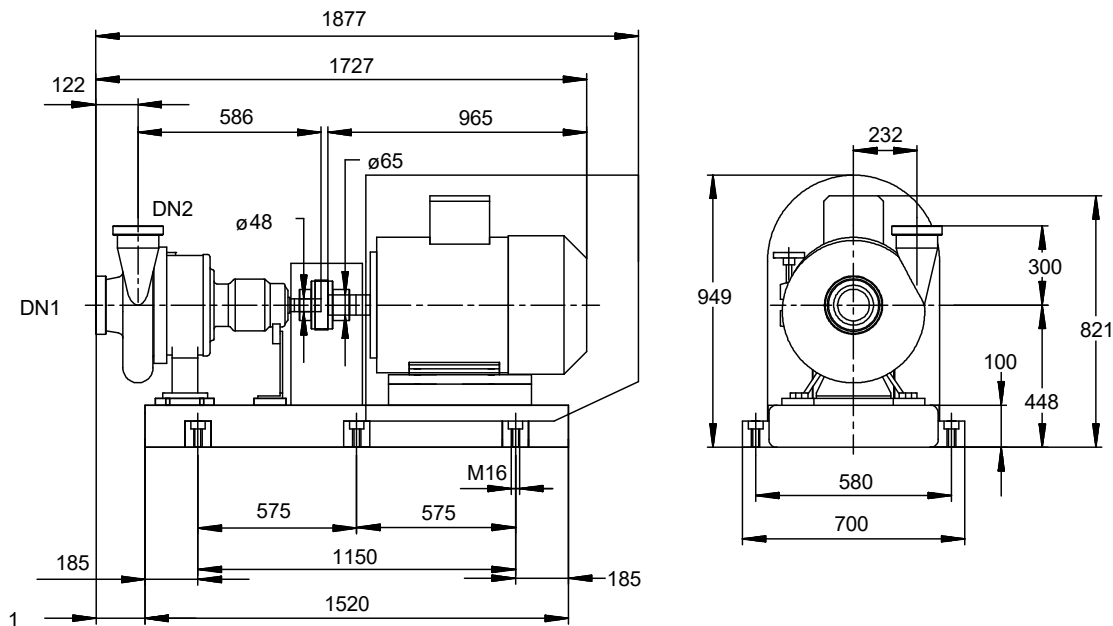


Curve data

Speed of rotation	1484 rpm	Requested developed head	30.00 m
Fluid density	1150 kg/m^3	Efficiency	65.5 %
Viscosity	30.00 mm^2/s	Power absorbed	42.94 kW
Flow rate	299.81 m^3/h	NPSH required	2.64 m
Requested flow rate	300.00 m^3/h	Curve number	VA-150350-1450
Total developed head	29.96 m	Effective impeller diameter	328.0 mm

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Drawing is not to scale

Dimensions in mm

Motor (nicht im Lieferumfang enthalten!/not included!)

Motor manufacturer	KSB-Motor
Motor size	250M
Motor power	55.00 kW
Number of poles	4
Speed of rotation	1484 rpm
Position of terminal box	0°/360° (top)
	Viewed from the drive

Baseplate

Design	Welded steel
Size	17-SS
Material	Stainless steel 1.4301
Leakage drain baseplate (8B)	Rp1, Without
Baseplate drain piping execution	Without
Foundation bolts	(required but not scope of supply)

Connections

Suction nominal size DN1	DN 200 / EN1092-1
Discharge nominal size DN2	DN 150 / EN1092-1
Nominal pressure suct.	PN 10
Rated pressure disch.	PN 10

Coupling

Coupling manufacturer	Samiflex
Coupling type	SCA
Coupling size	A4
Spacer	0.0 mm

Weight net

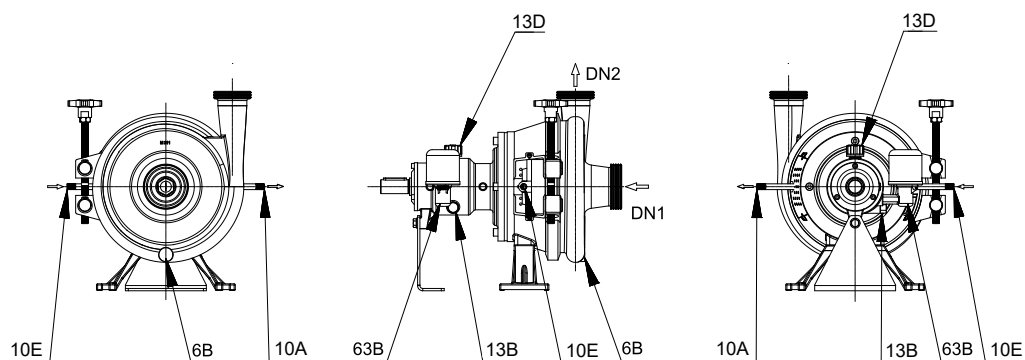
Pump	177 kg
Baseplate	150 kg
Coupling	13 kg
Coupling guard	1 kg
Total	340 kg

Connect pipes without stress or strain!

For auxiliary connections see separate drawing.

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Connections

6B Pumped liquid drain
10E/10A Sealing liquid in/out
24E/24A Quench liquid in/out
638 Constant level oiler
13D Refill / venting
13B Oil drain

G 3/8
G 1/4
G 1/4
G 1/4
G 1/4
G 1/4

Not executed
Extension pipe closed
Not executed
Mounted at the factory
Closed with venting plug
Drilled and plugged.