

## Multitec D 125/6-10.1 10.167

## Operating data

Requested flow rate	200.15 m <sup>3</sup> /h	Actual flow rate	200.15 m <sup>3</sup> /h
Requested developed head	152.00 m	Actual developed head	152.02 m
Pumped medium	Water	Efficiency	77.6 %
Pumped medium details	Clean water Not containing chemical and mechanical substances which affect the materials	Power absorbed	106.57 kW
Solids content max. 50 ppm		Pump speed of rotation	1492 rpm
Max. ambient air temperature	20.0 °C	NPSH required	2.35 m
Min. ambient air temperature	20.0 °C	Permissible operating pressure	40.00 bar.g
Fluid temperature	20.0 °C	Discharge press.	14.88 bar.g
Fluid density	998 kg/m <sup>3</sup>	Shutoff head	202.28 m
Fluid viscosity	1.00 mm <sup>2</sup> /s	Shutoff pressure	19.80 bar.g
Vapour pressure	0.02 bar.a	Minimum allowable flow for continuous operation	63.22 m <sup>3</sup> /h
Suction pressure max.	0.00 bar.g	Minimum flow for stable curve	63.22 m <sup>3</sup> /h
Mass flow rate	55.49 kg/s	Min. mass flow for stable curve	17.53 kg/s
Max. power on curve	114.54 kW	Max. allow. flow rate	234.82 m <sup>3</sup> /h
Min. allow. flow for short term operation	45.16 m <sup>3</sup> /h	Max. allow. mass flow	65.10 kg/s
Min. allow. mass flow for continuous operation	17.53 kg/s	Design	Single system 1 x 100 % Tolerances to ISO 9906 Class 3B; below 10 kW acc. to paragraph 4.4.2
Min. allow. mass flow short term operation	12.52 kg/s		

## Design

Variant	D	Shaft seal code	167
Stage number	6	Sealing plan	E Single acting mechanical (external circulation)
Balance drum	with piston	Pumped liquid without abrasive solids	
Design	Baseplate mounted, long-coupled	Seal chamber design	Standard seal chamber
Orientation	Horizontal	Wear ring	Casing wear ring
Suction nominal dia.	DN 150	Impeller diameter	301.0 mm
Suction nominal pressure	PN 16	Minimum impeller diameter	274.0 mm
Suction position	90° (right)	Full impeller diameter	305.0 mm
Suction flange drilled according to standard	EN 1092-2	Free passage size	20 mm
Discharge nominal dia.	DN 125	Direction of rotation from drive	Anticlockwise
Discharge nominal pressure	PN 40	Bearing bracket construction	Standard (normal) two-sided
Discharge position	top (0°/360°)	Bearing bracket size	125
Discharge flange drilled according to standard	Viewed from the drive	Bearing seal	Lip seal
Shaft seal	EN 1092-2	Bearing type	Anti-friction bearings
Shaft seal manufacturer	Single acting mechanical seal	Lubrication type	Oil
Shaft seal type	KSB	Lubrication monitoring	Constant level oiler
Material code	5B	Temperature sensor PT100 mts	Without
	BQ1EGG	Color	Ultramarine blue (RAL 5002) KSB-blue

**Multitec D 125/6-10.1 10.167****Driver, accessories (not included)**

Coupling Manufacturer	Flender	Rated voltage	400 V
Coupling type	Eupex N	Rated power P2	132.00 kW
Nominal size	200	Available reserve	23.86 %
Coupling guard type	Lightweight, not treadproof (ZN79)	Rated current	238.0 A
Guard size	H254	Starting current ratio	7.3
Guard material	Galvanised steel ST TZN	Insulation class	F to IEC 34-1
Baseplate type	Steel baseplate for Multitec	Motor enclosure	IP55
Baseplate size	GP13	Cos phi at 4/4 load	0.83
Driver type	Electric motor	Motor efficiency at 4/4 load	96.4 %
Drive standard mech.	IEC	Temperature sensor	3 PTC resistors
Model (make)	KSB-Motor	Terminal box position	0°/360° (top)
Drive supplied by	Standard motor supplied by KSB - mounted by KSB	Motor winding	Viewed from the drive
Motor const. type	B3	Number of poles	400 / 690 V
Motor size	315M	Connection mode	4
Efficiency class	Efficiency class IE4 acc. to IEC60034-30-1	Motor cooling method	Delta
Motor speed	1492 rpm	Motor material	Surface cooling
Frequency	50 Hz	Motor noise pressure level	Grey cast iron GG/CAST IRON
Motor data can vary from type plate information. Motor data describes KSB's choice functional specification and is used for pump selection.			71 dBA
			EAC Approval
			Yes

**Materials 10**

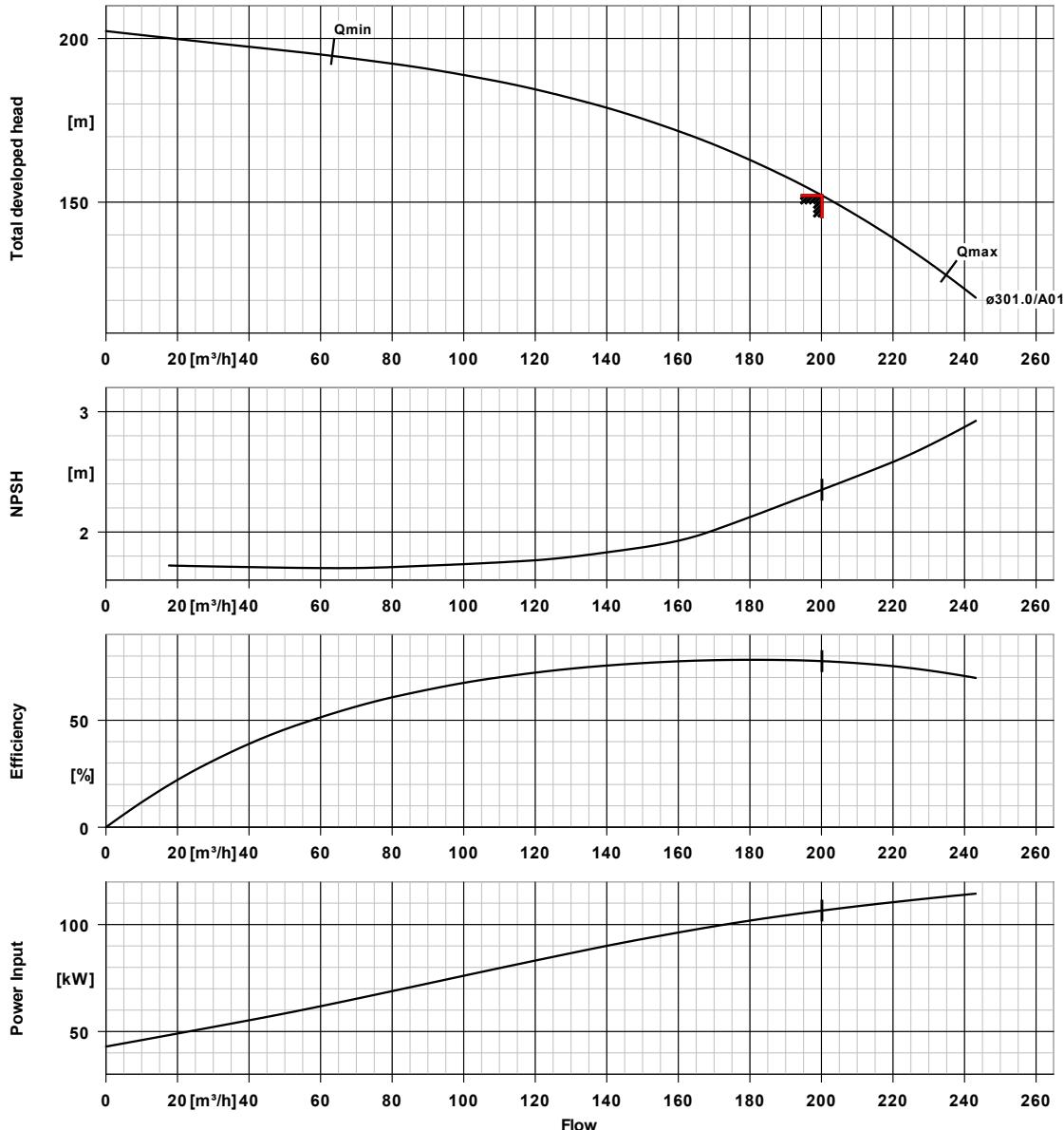
Notes	Bearing housing (350)	Grey cast iron EN-GJL-250
General criteria for a water analysis: pH-value >= 6,5; chloride content (Cl) <=250 mg/kg. Chlorine (Cl2) <=0.6 mg/kg.	O-Ring (412)	EPDM 80
Suction casing (106)	Shaft seal housing (441)	Grey cast iron EN-GJL-250
Discharge casing (107)	Casing wear ring (502.1)	Grey cast iron EN-GJL-250
Stage casing (108)	Casing wear ring (502.2)	Grey cast iron EN-GJL-250
Diffuser (171)	Shaft sleeve (523)	Chrome steel 1.4057+QT800
Shaft (210)	Bush (540)	Grey cast iron EN-GJL-250
Impeller (230)	Piston (59-4)	Chrome steel
Impeller, suction stage (231)	Tie bolt (905)	1.4021QT700+SR
		42CrMo4

**Packaging**

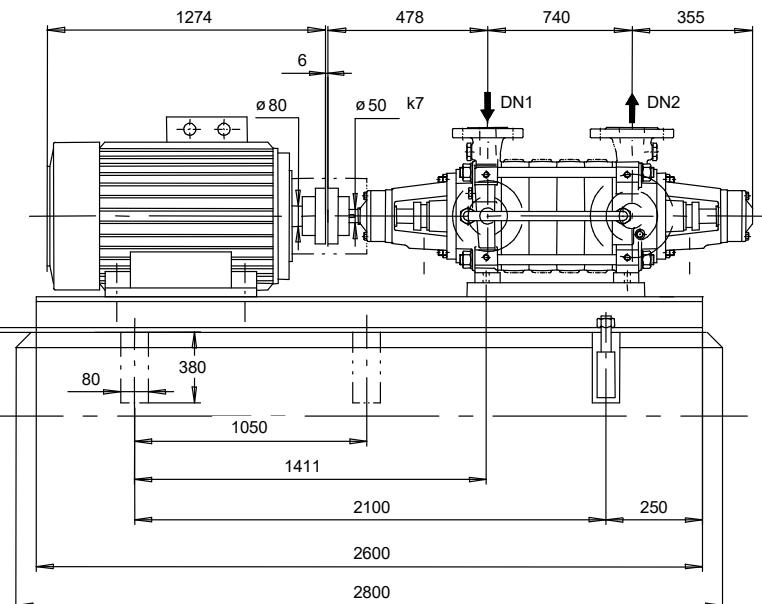
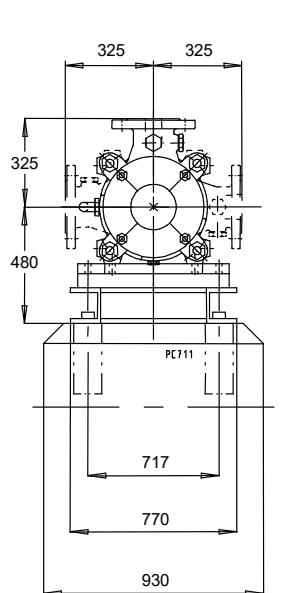
Packaging category	A0	Packing acc. to KSB choice	Packaging for transport	Truck
Packaging for storage	Indoor		Storage must not exceed 3 months. For outdoor storage cover the packed or unpacked pump (set) and accessories with waterproof material.	

**Nameplates**

Nameplates language	International
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**Multitec D 125/6-10.1 10.167****Curve data**

Speed of rotation	1492 rpm	Efficiency	77.6 %
Fluid density	998 kg/m <sup>3</sup>	Power absorbed	106.57 kW
Viscosity	1.00 mm <sup>2</sup> /s	NPSHR	2.35 m
Flow rate	200.15 m <sup>3</sup> /h	Curve number	1777.407541/10 GG/2
Requested flow rate	200.15 m <sup>3</sup> /h	Impeller diameter	301.0 mm
Total developed head	152.02 m	Acceptance standard	Tolerances to ISO 9906
Requested developed head	152.00 m		Class 3B; below 10 kW acc. to paragraph 4.4.2

**Multitec D 125/6-10.1 10.167***Drawing is not to scale**Dimensions in mm***Motor (not included)**

Motor manufacturer	KSB-Motor
Motor size	315M
Motor power	132.00 kW
Number of poles	4
Speed of rotation	1492 rpm
Position of terminal box	0°/360° (top) Viewed from the drive

**Connections**

Suction nominal size DN1	DN 150 / EN 1092-2
Discharge nominal size DN2	DN 125 / EN 1092-2
Nominal pressure suct.	PN 16
Rated pressure disch.	PN 40

**Baseplate (not included)**

Design	Steel baseplate for Multitec
Size	GP13
Leakage drain baseplate (8B)	Rp1, Without
Baseplate drain piping execution	Without
Foundation bolts	M20x320 (required but not scope of supply)

**Coupling (not included)**

Coupling manufacturer	Flender
Coupling type	Eupex N
Coupling size	200
Spacer	0.0 mm

**Weight net**

Pump	753 kg
Baseplate	
Coupling	
Coupling guard	
Motor	
Total	

**Connect pipes without stress or strain!**

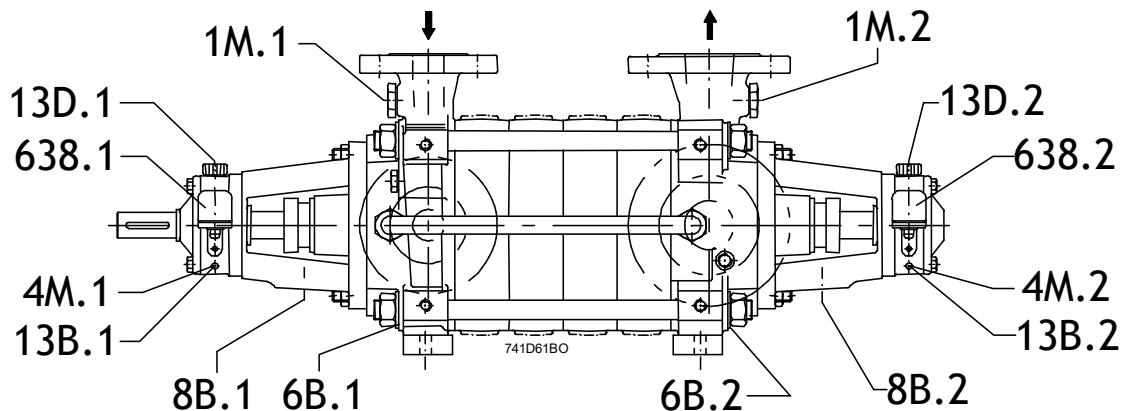
Dimensional tolerances for shaft axis height:  
 Dimensions without tolerances, middle tolerances to:  
 Connection dimensions for pumps:  
 Dimensions without tolerances - welded parts:  
 Dimensions without tolerances - gray cast iron parts:

DIN 747  
 ISO 2768-m  
 EN735  
 ISO 13920-B  
 ISO 8062-CT9

**For auxiliary connections see separate drawing.**

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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)	Rp 1/2	Drilled and plugged.
4M.2 Temperature gauge connection (Pressure side)	Rp 1/2	Drilled and plugged.
6B.1 Pumped liquid drain	G 1/2	Drilled and plugged.
6B.2 Pumped liquid drain	G 1/2	Drilled and plugged.
8B.1 Leakage drain	Rp 3/8	Drilled
8B.2 Leakage drain	Rp 3/8	Drilled
13B.1 Oil drain	Rp 1/4	Drilled and plugged.
13B.2 Oil drain	Rp 1/4	Drilled and plugged.
13D.1 Refill / venting	Rp 1/2	Closed with venting plug
13D.2 Refill / venting	Rp 1/2	Closed with venting plug
638 Constant level oiler	Rp 1/4	Mounted at the factory