

## Customer

## Supplier

Company name  
Editor  
Phone number  
E-mail

**Fields of Application**

Water supply systems.  
Booster sets in high rise buildings and industry.  
Water treatment.  
Industrial washdown systems.  
Fire extinguishing plants.  
Boiler feed and condensate transfer.  
Sanitary and cleaning installations.  
For industrial applications and public services.  
Water distribution services.  
Industrial applications.  
Shipbuilding, mining, power stations, filter units.  
Irrigation plants.  
Central heating systems.

**Design Specification**

The OMK Pump is a horizontal axis, radially split, ring section design multistage centrifugal pump of non-self priming type.

Impellers are between bearings, single entry, closed type and dynamically balanced. Impeller diameter will be corrected for optimal adherence to the required duty point.

The axial thrust is relieved by relieving boreholes in each impeller. The remaining thrust can be borne by large-sized bearings.

Pumps with exchangeable wear rings are available upon request.

The pump series consists of 5 sizes. OMK 32, 40, 50, 65 and 80. Stages are from 2 up to max. 14 stages.

Pump and motor are fitted on a common base plate and connected to each other via flexible coupling.

Normally, discharge part is at motor side on top, suction part is at dead end side on the right and rotation of direction is clockwise when viewed from driver.

Suction and discharge nozzles may be a choice of three 90° positions. By special request, it is possible to put the suction nozzle at the motor side. In this arrangement pump and motor rotation must be counter clockwise.

**Technical Data**

Suction Flanges	: DN50 - DN125 (PN25)
Discharge Flanges	: DN32 - DN80 (PN40)
Operating Pressure	: 40 bar
Flow Range	: 5 - 220 m <sup>3</sup> /h
Head Range	: 30 - 400 m
Temperature Range	: Up to 140 °C
Speed Range	: 1450 - 3600 rpm

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**Operating data specification**

Pumped fluid	Water	Rated flow	13	m <sup>3</sup> /h
Solids		Rated head	210	m
Kind		Geodetic head	0	m
Percentage of solid content	0	Available system NPSH		m
pH value		Inlet pressure (pin)	0	kPa
Temperature	20	Altitude above sea level	100	m
Density	998.3	Max. operating pressure	2440	kPa
Kin. viscosity	1.005	Max. diff. pressure	2440	kPa
Vapour pressure	2.34			

**Pump**

Make	MAS DAF	Impeller type		
Pump type	OMK 32/ 11	Impeller construction		
Frame size		Impeller Ø		
Design		Max.	145	mm
Self priming	<input checked="" type="checkbox"/> No	designed	131	mm
Speed	2900	rpm	115	mm
Stages	11	Flow		
Suction port		Nominal	15.5	m <sup>3</sup> /h
Pressure rating	PN25	Max.	20.2	m <sup>3</sup> /h
Nominal pipe size	DN50	Min.	0	m <sup>3</sup> /h
Standard	DIN	Head		
Discharge port		Nominal	193	m
Pressure rating	PN40	Min.	146	m
Nominal pipe size	DN32	Max.	249	m
Standard	DIN	Shut off head	249	m
Shaft power	13.7	kW	NPSH3	1.6
Shaft power P2(Q=max.)	16.3	kW	Efficiency	54.1
				%

**Motor**

Make/Type	30 KW-2900 RPM / 200L
Specific design	IE3 / 50 Hz / Pole pairs 1
Rated power	30 kW
Electric voltage	3~ 400 V
Speed	2970 rpm
Electric current	52 A
Frame size	200L
Degree of protection	IP 55
Type of protection	
Explosion protection	

**Coupling**

Make/Type	
Series	
Spacer length	mm
Frame size	

**Materials**

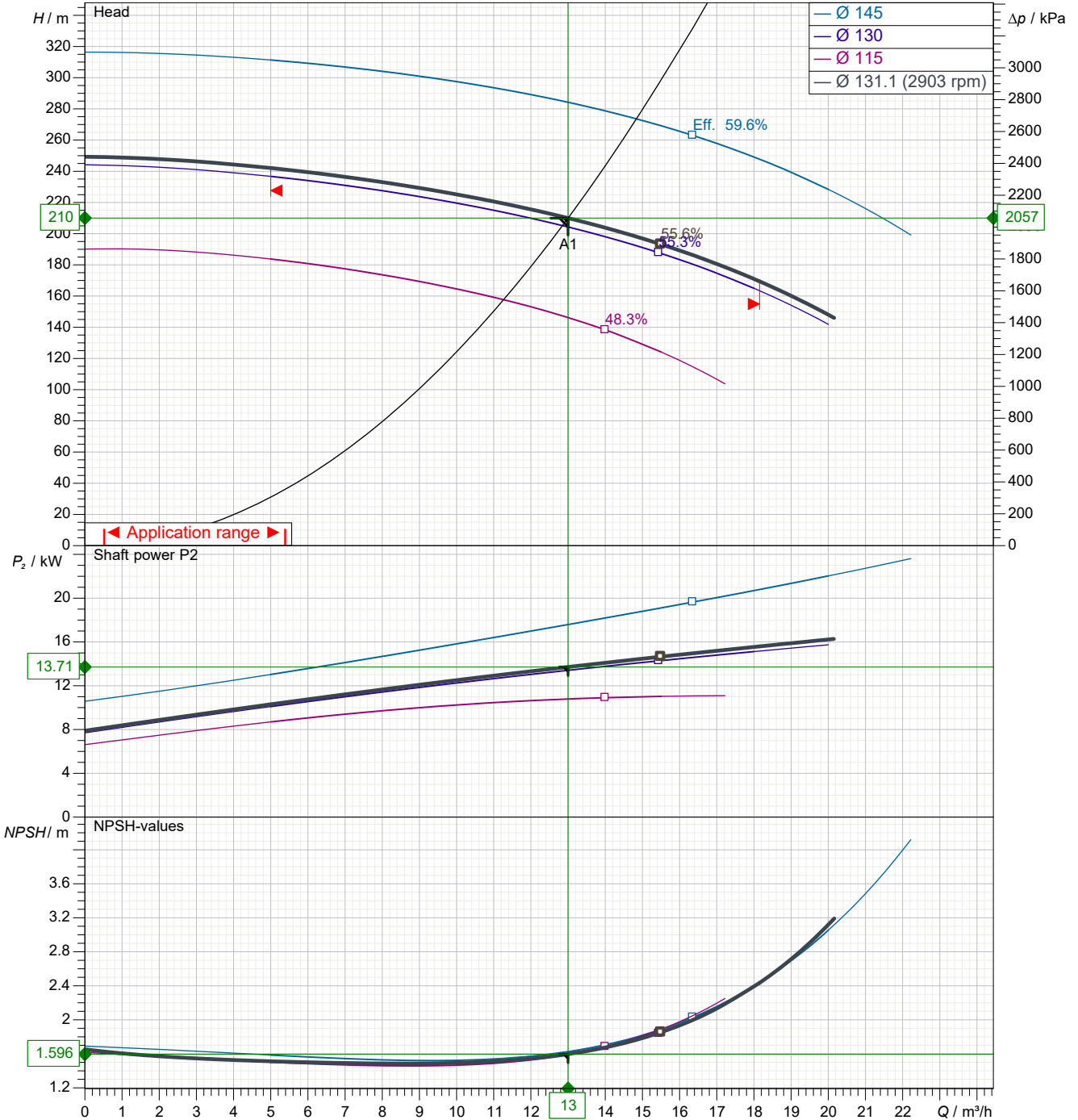
Pump		Shaft seal	Soft Packing
Pump Casing	GJL-250 (GG25)	Material code	
Impeller	GJL-250 (GG25)		
Shaft	A 276 Type 420 (X20Cr13)		
Bearing Housing	GJL-250 (GG25)		

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Power data referred to: Water; 20°C; 998.3kg/m<sup>3</sup>; 1.005mm<sup>2</sup>/s Sense of rotation Clockwise from the drive end



Pump curves in accordance with ISO 9906 2B

Pumped fluid	Water		Rated flow	13	m <sup>3</sup> /h
Temperature	20	°C	Rated head	210	m
Density	998.3	kg/m <sup>3</sup>	Shaft power	13.7	kW
Kin. viscosity	1.005	mm <sup>2</sup> /s	Speed	2900	rpm
Vapour pressure	2.34	kPa	NPSH3	1.6	m
Impeller Ø	131	mm	Efficiency	54.1	%

Subject to change

Projec

Issue date  
2024-02-19

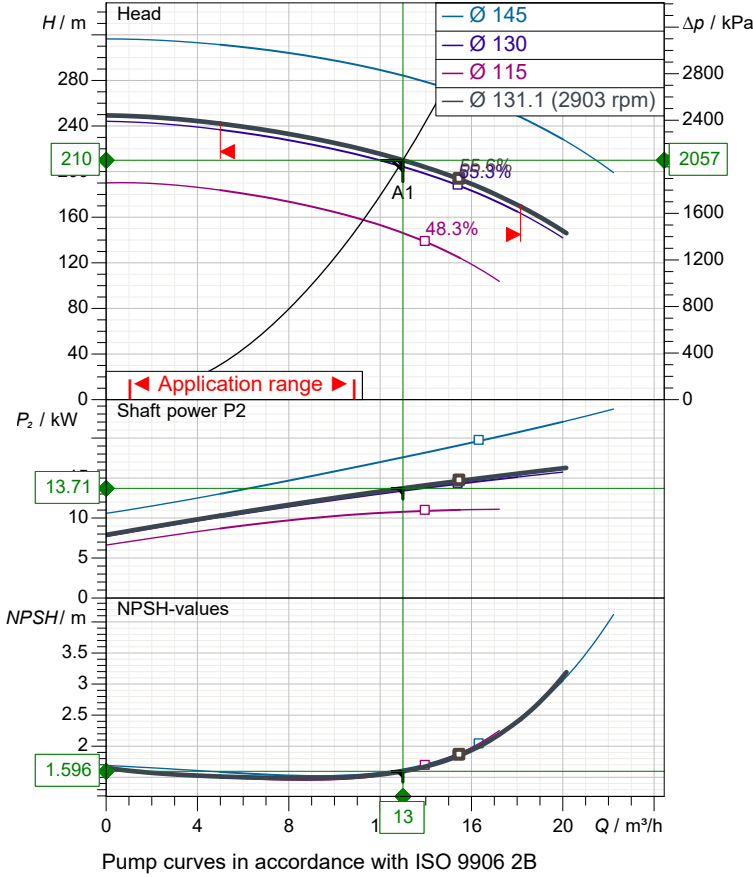
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**Performance curves**



**Pump**

Make	MAS DAF
Pump type	OMK 32/ 11
Design	
Suction port	
Pressure rating	PN25
Nominal pipe size	DN50
Standard	DIN
Discharge port	
Pressure rating	PN40
Nominal pipe size	DN32
Standard	DIN

**Operating data specification**

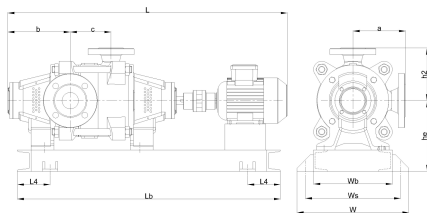
Pumped fluid	Water	
Temperature	20	°C
Density	998.3	kg/m <sup>3</sup>
Kin. viscosity	1.005	mm <sup>2</sup> /s
Vapour pressure	2.34	kPa
Rated flow	13	m <sup>3</sup> /h
Rated head	210	m
Shaft power	13.7	kW
Speed	2900	rpm
NPSH3	1.6	m
Efficiency	54.1	%
Impeller Ø	131	mm

**Motor**

Make/Type	30 KW-2900 RPM / 200L	
Specific design	IE3 / 50 Hz / Pole pairs 1	
Rated power	30	kW
Speed	2970	rpm
Electric voltage	3~ 400	V
Electric current	52	A
Degree of protection	IP 55	

**Materials**

Shaft seal	Soft Packing
Material code	



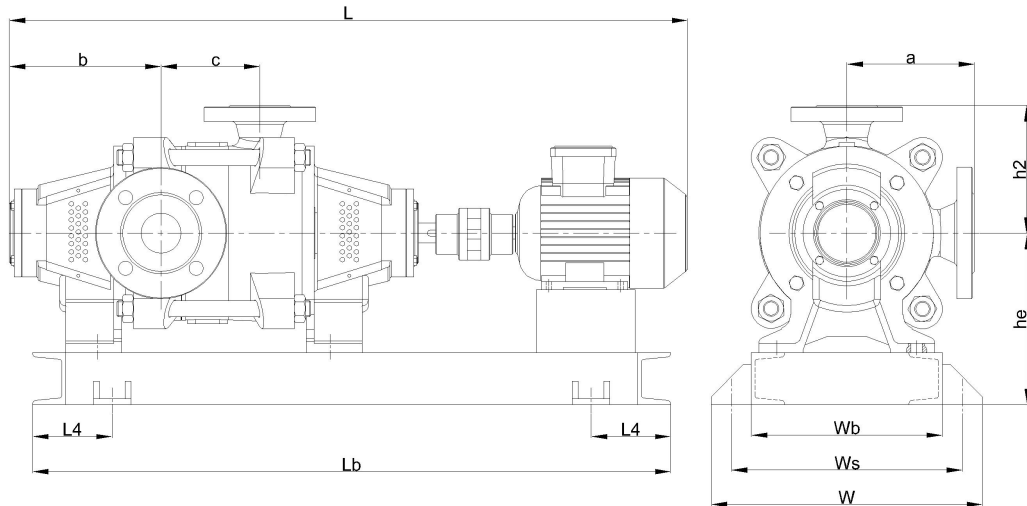
Dimensions	mm
a	160
b	190
c	610
h2	160
he	300
L	1849
L4	300
Lb	1700
w	520
wb	420
ws	470

Pump Casing	GJL-250 (GG25)
Impeller	GJL-250 (GG25)
Shaft	A 276 Type 420 (X20Cr13)
Bearing Housing	GJL-250 (GG25)

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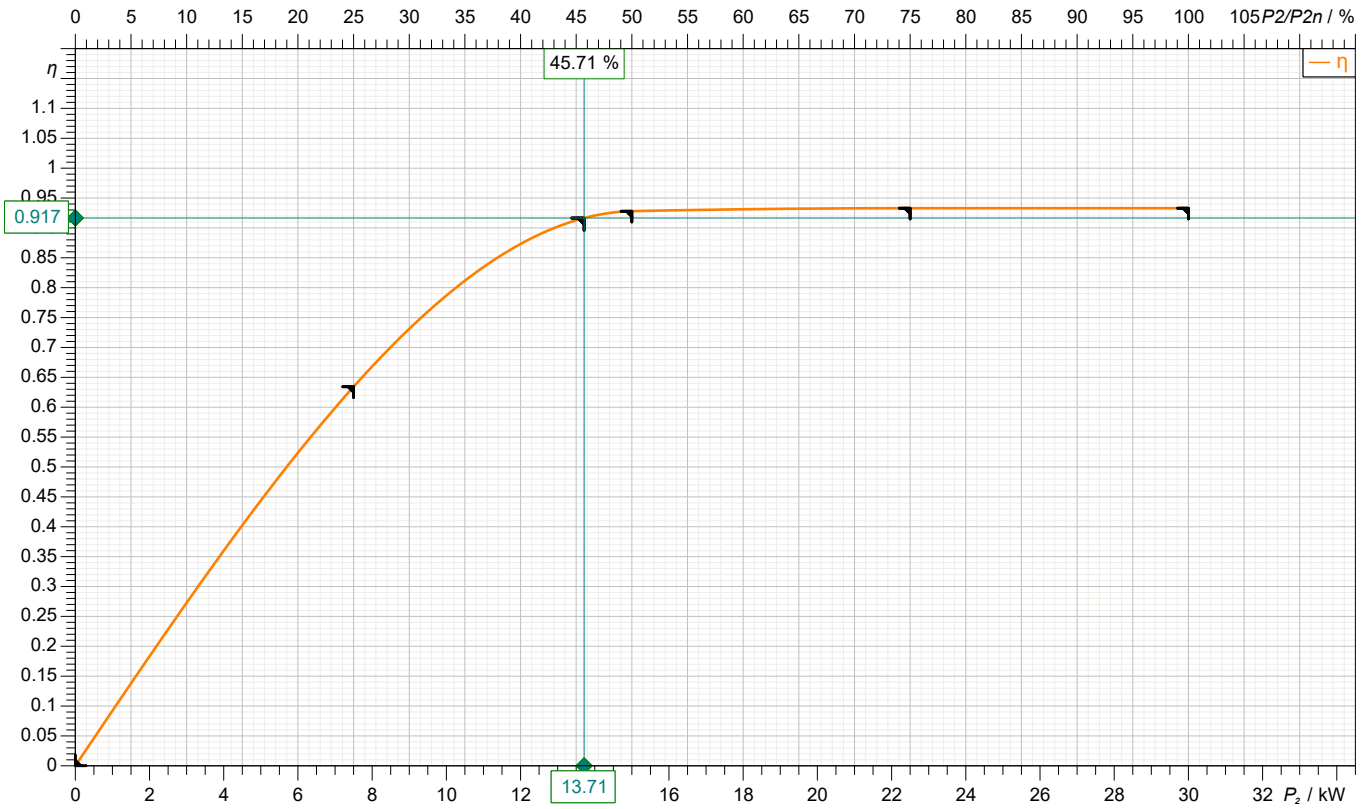
Dimensions	mm	Inlet / outlet	
a	160	Suction port	Discharge port
b	190	DN50	DN32
c	610	PN25	PN40
h2	160		
he	300		
L	1849		
L4	300		
Lb	1700		
w	520		
wb	420		
ws	470		

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**motor data**



Symbol	No load	25 %	50 %	75 %	100 %	125 %
$P_2$ / kW	0	7.5	15	22.5	30	
$P_1$ / kW		11.82	16.16	24.12	32.15	
$\eta$ / %	0	63.43	92.8	93.3	93.3	

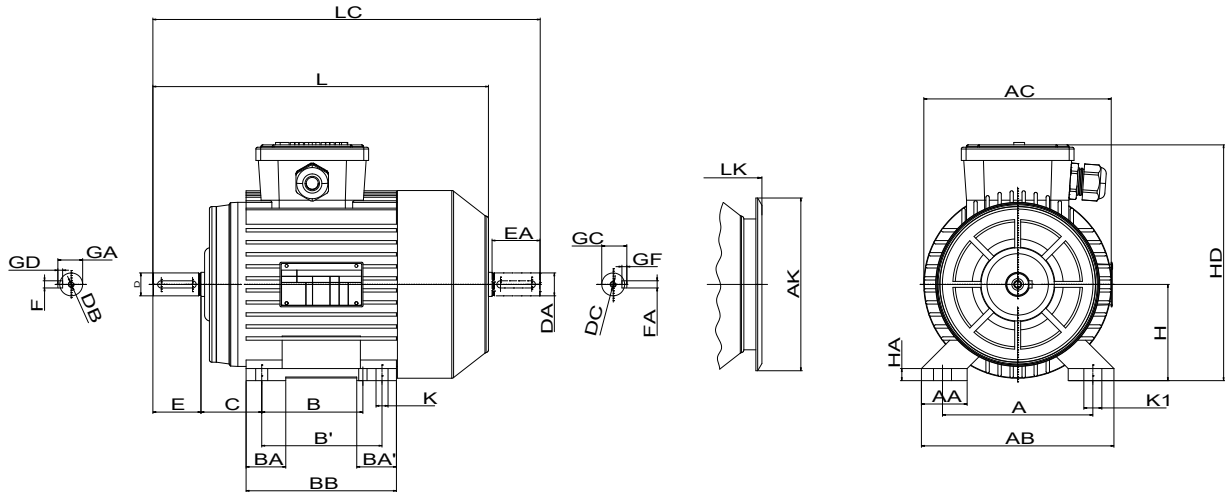
**Motor**

Make/Type	30 KW-2900 RPM / 200L	Degree of protection	IP 55
Specific design	IE3 / 50 Hz / Pole pairs 1	Type of protection	
Rated power	30 kW	Explosion protection	
Electric voltage	3~ 400 V	Service factor	1.15
Number of poles	2	Starting current	
Speed	2970 rpm	Starting torque	
Electric current	52 A	Moment of inertia	
Power factor	0.89	No. starts per hour	
Frame size	200L	Rated torque	96.5 Nm
Efficiency class	IE3	Insulation class	F (155C°)

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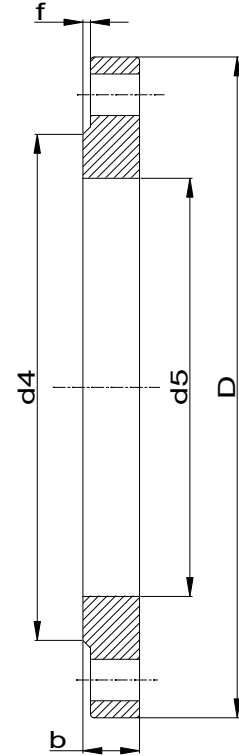
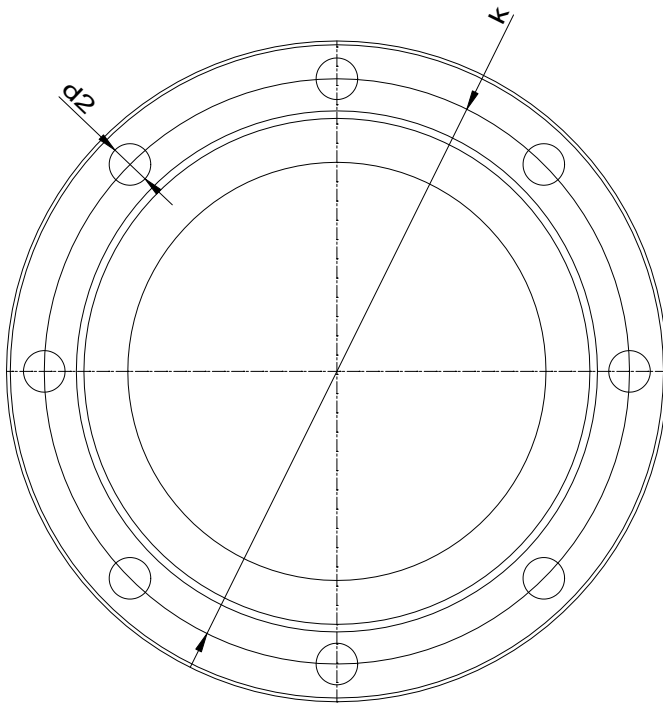


Dimensions	mm		
A	318	E	110
AA	80	EA	110
AB	396	FxGF	16X10
AC	390	FxD	16X10
AK	370	GA	59
B	305	GC	59
B'	-	H	200
BA	68	HA	26
BA'	-	HD	477
BB	355	K	19
C	133	L	747
D	55	LC	865
DA	55	LK	803
DB	M20		
DC	M20		

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**Suction connection**

DN50  
PN25

**Discharge connection**

DN32  
PN40

Dimensions	mm
b	20
D	165
d2	18
d4	102
d5	61.5
DN	50
f	2
k	125
n	4

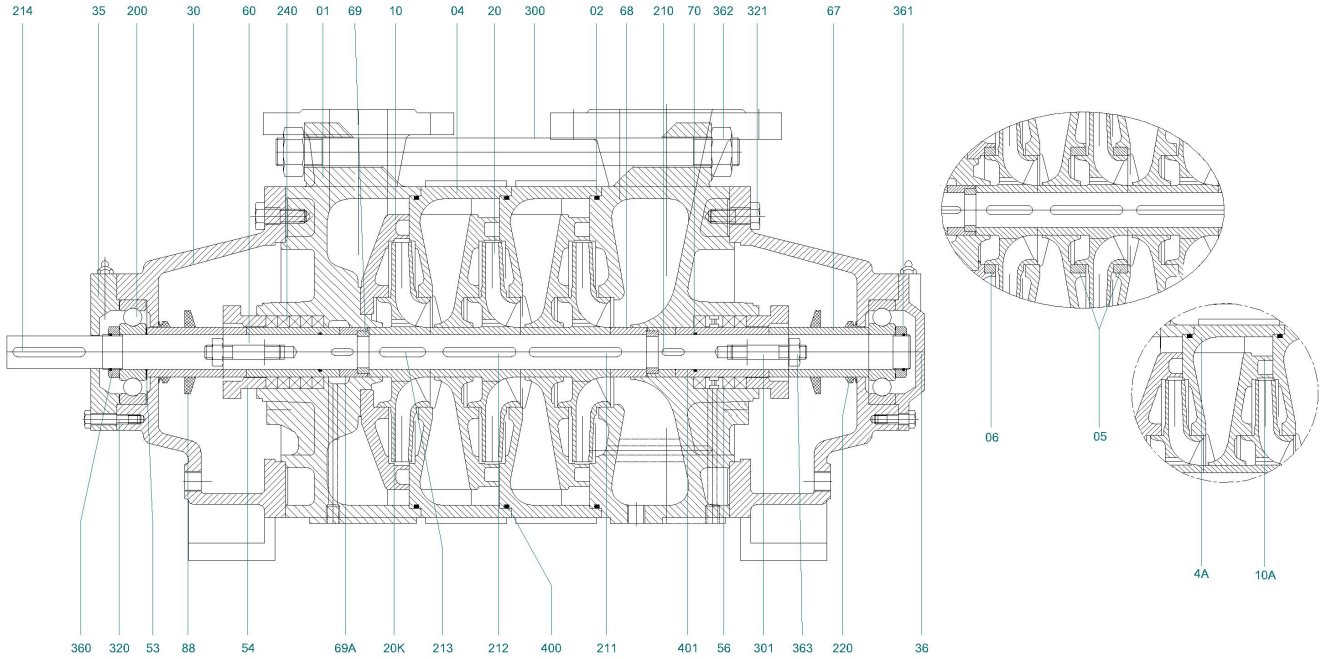
Dimensions	mm
b	18
D	140
d2	18
d4	78
d5	43.5
DN	32
f	2
k	100
n	4



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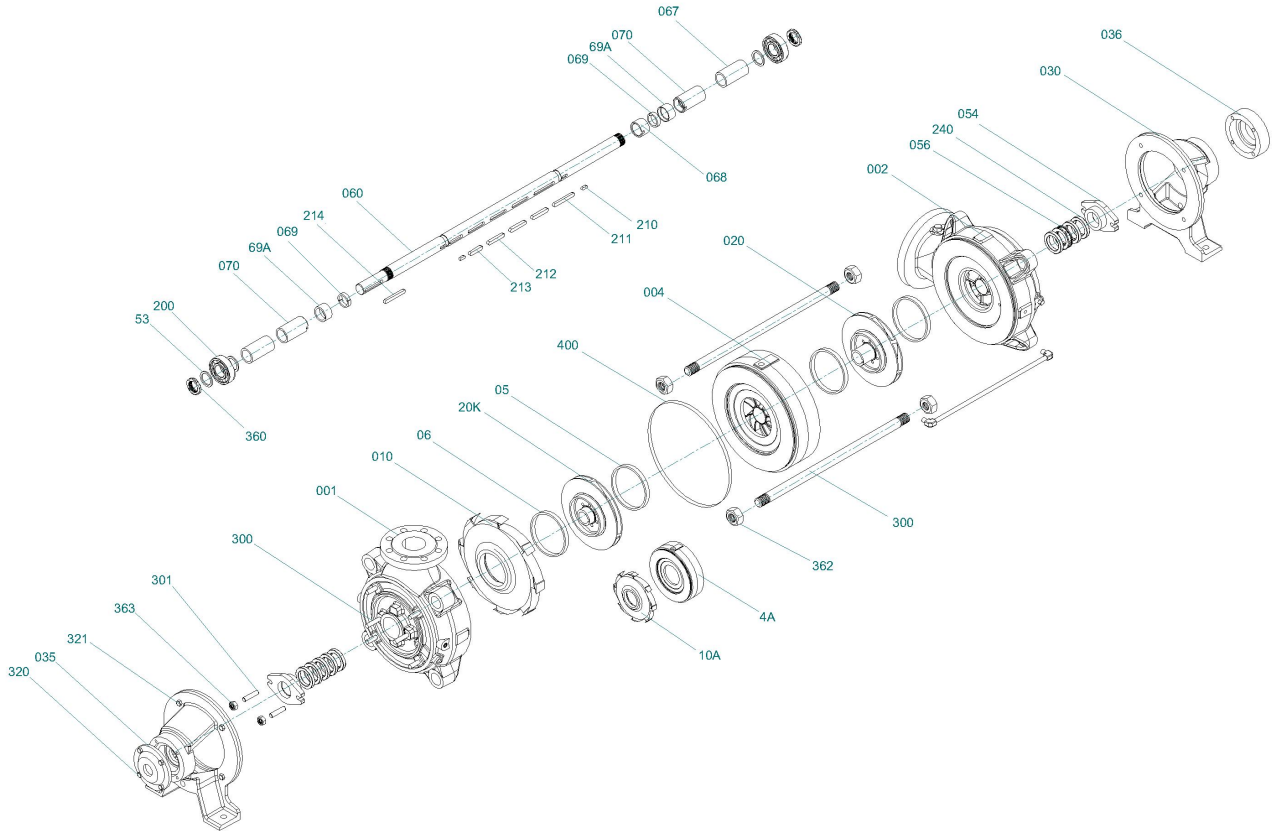


Part No	Part Name	Part No	Part Name	Part No	Part Name
1	Discharge Casing	54	Gland	214	Key, Coupling
2	Suction Casing	56	Lantern Ring	220	V-Ring
4	Stage Casing(with Diffuser)	60	Shaft	240	Soft Packing
4A	Stage Casing	67	Space Sleeve	300	Casing Stud
5	Wearing Ring (Stage)	68	Front Impeller Sleeve	301	Gland Stud
6	Wearing Ring (Casing)	69	Space Sleeve Short	320	Bolt
10	Last Stage Diffuser	69A	Safety Sleeve	321	Bolt
10A	Diffuser	70	Seal Sleeve	360	Safety Nut
20	Impeller	88	Water Splash Disc	361	Safety Nut
20K	Last Stage Impeller	200	Ball Bearing	362	Nut
30	Bearing Housing	210	Key	363	Nut, Gland
35	Bearing Cover	211	Key, First Stage Impeller	400	O-Ring (Stage Casing)
36	Bearing Cover (Suction)	212	Key, Impeller	401	O-Ring (Seal Sleeve)
53	Bearing Sleeve	213	Key, Last Stage		

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4A	Stage Casing	67	Space Sleeve	300	Casing Stud
5	Wearing Ring (Stage)	68	Front Impeller Sleeve	301	Gland Stud
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10A	Diffuser	70	Seal Sleeve	360	Safety Nut
20	Impeller	88	Water Splash Disc	361	Safety Nut
20K	Last Stage Impeller	200	Ball Bearing	362	Nut
30	Bearing Housing	210	Key	363	Nut, Gland
35	Bearing Cover	211	Key, First Stage Impeller	400	O-Ring (Stage Casing)
36	Bearing Cover (Suction)	212	Key, Impeller	401	O-Ring (Seal Sleeve)
53	Bearing Sleeve	213	Key, Last Stage		