

Customer**Supplier**

Company name
Editor
Phone number
E-mail

Fields of Application

Water supply and booster stations
Irrigation, overhead irrigation and draining
Filling and emptying of tanks and containers
Circulating of hot and cold water in HVAC systems
Pumping of condensate
Water circulating for swimming pools
Sanitary and cleaning installations
For industrial applications and public services
Fresh water supply on ships

**Design Specification**

Single-stage, end suction, centrifugal volute pump.

Main dimensions according to EN 733.

Single entry, closed impeller is hydraulically thrust compensated and dynamically balanced.

Pump and motor are separate components, connected to each other via a flexible coupling and mounted on a common base plate.

Maintenance is very much easier, the impeller shaft and other rotating parts being removable with no need to disconnect the suction and delivery pipes.

In fact the use of one extension coupling enables a pump to be dismantled without moving either the driver or the pump casing.

Maximum interchangeability of components, identical parts can be used with various sizes of a pump, which greatly simplifies and reduces stock of spare parts.

Technical Data

Suction Flange	: DN50 - DN400
Discharge Flange	: DN32 - DN350
Operating Pressure	: 10 bar
Temperature Range	: Up to 140 °C
Speed Range	: 1000 - 3500 rpm
Flow Range	: 5 - 3500 m ³ /h
Head Range	: 4 - 105 m

Bearings

The pump has sturdy maintenance-free antifriction bearings, which are greased for life with high-temperature grease. A deflector on the shaft prevents leakage fluid from getting into bracket.

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Operating data specification

Pumped fluid	Water	Rated flow	157	m ³ /h
Solids		Rated head	26	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	288	kPa
Kin. viscosity	1.005	Max. diff. pressure	288	kPa
Vapour pressure	2.34			

Pump

Make	MAS DAF	Impeller type		
Pump type	NM 100-315	Impeller construction		
Frame size	100-315	Impeller Ø		
Design	End Suction	Max.	328	mm
Self priming	<input checked="" type="checkbox"/> No	designed	282	mm
Speed	1450	rpm	263	mm
Stages	1	Flow		
Suction port		Nominal	190	m ³ /h
Pressure rating	PN16	Max.	266	m ³ /h
Nominal pipe size	DN125	Min.	0	m ³ /h
Standard	DIN	Head		
Discharge port		Nominal	23.5	m
Pressure rating	PN16	Min.	15.2	m
Nominal pipe size	DN100	Max.	29.4	m
Standard	DIN	Shut off head	29.4	m
Shaft power	15	kW	NPSH3	3.19
Shaft power P2(Q=max.)	17.6	kW	Efficiency	73.9
				%

Motor

Make/Type	18.5 KW-1500 RPM / 180M
Specific design	IE3 / 50 Hz / Pole pairs 2
Rated power	18.5 kW
Electric voltage	3~ 400 V
Speed	1470 rpm
Electric current	34.5 A
Frame size	180M
Degree of protection	IP 55
Type of protection	
Explosion protection	

Coupling

Make/Type	
Series	
Spacer length	mm
Frame size	

Materials

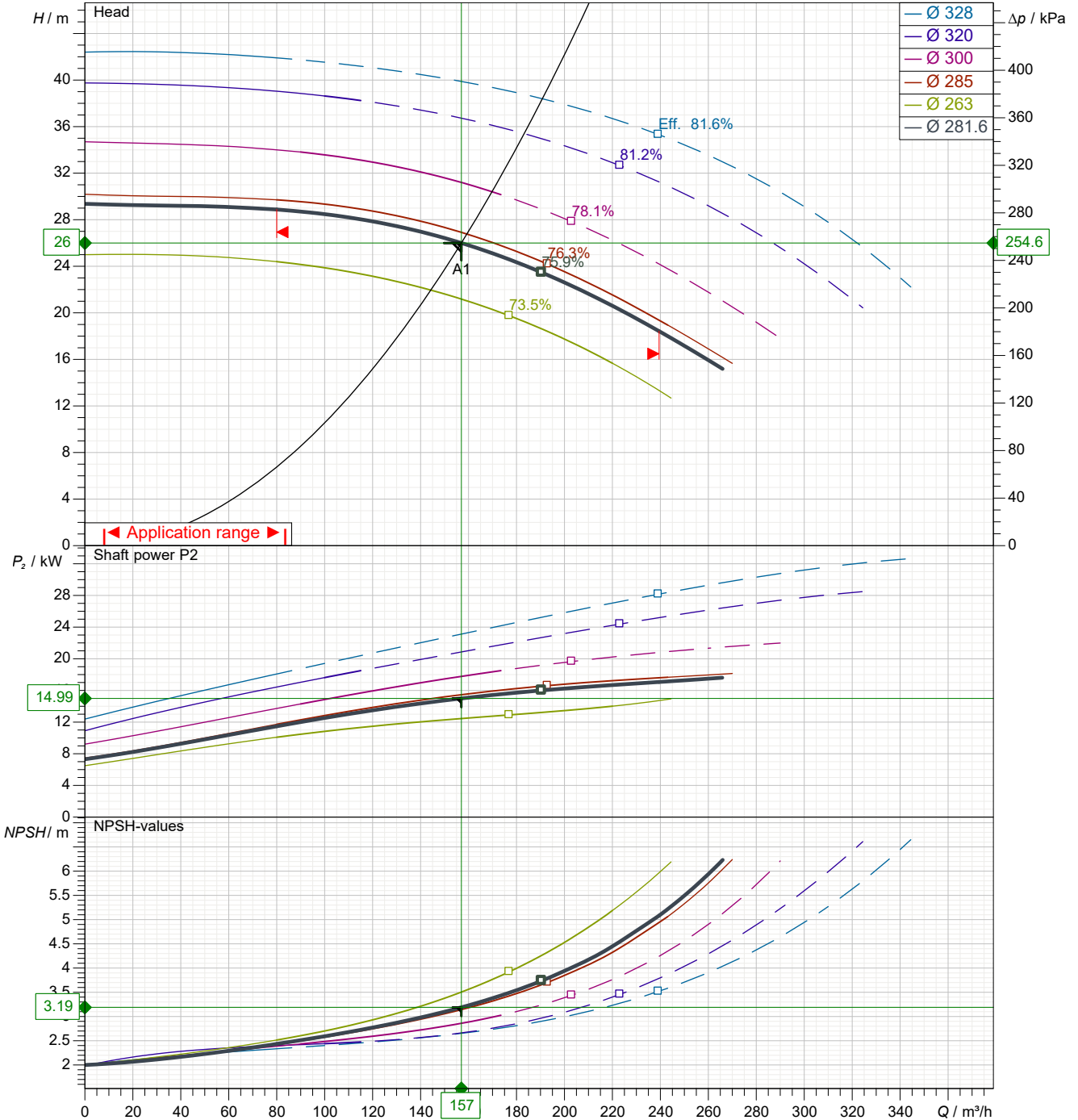
Pump		Shaft seal	Soft Packing
Pump Casing	GJL-250 (GG25)	Material code	
Impeller	GJL-250 (GG25)		
Shaft	A 276 Type 420 (X20Cr13)		
Bearing Housing	GJL-250 (GG25)		

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Power data referred to: Water; 20°C; 998.3kg/m³; 1.005mm²/s Sense of rotation Clockwise from the drive end



Pump curves in accordance with ISO 9906 2B

Pumped fluid	Water	Rated flow	157	m ³ /h
Temperature	20 °C	Rated head	26	m
Density	998.3 kg/m ³	Shaft power	15	kW
Kin. viscosity	1.005 mm ² /s	Speed	1450	rpm
Vapour pressure	2.34 kPa	NPSH3	3.19	m
Impeller Ø	282 mm	Efficiency	73.9	%

Subject to change

Projec
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Issue date
2023-07-29

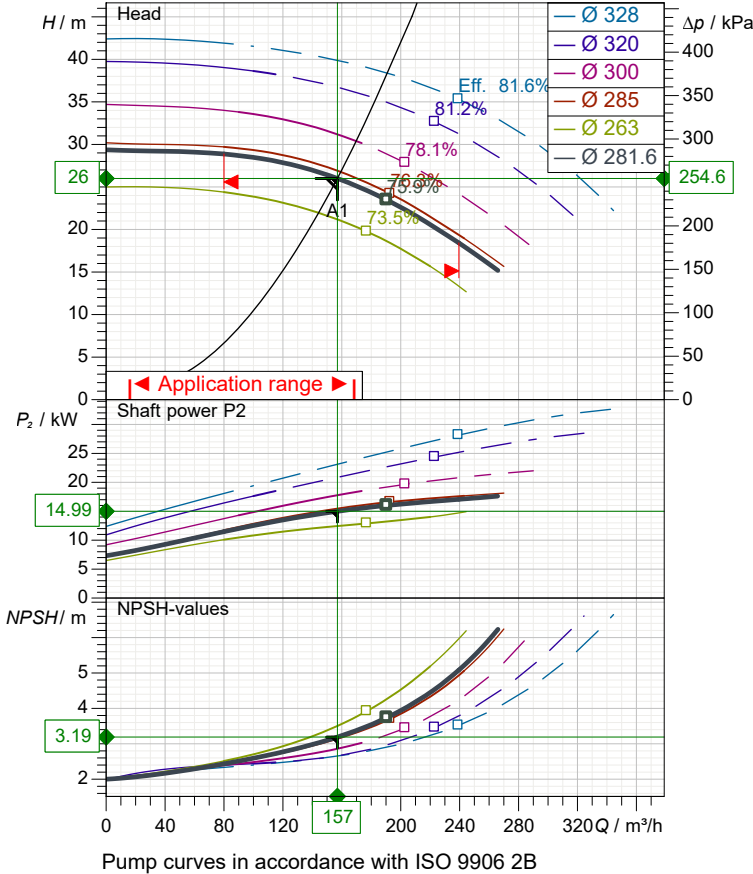
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Performance curves



Pump

Make	MAS DAF
Pump type	NM 100-315
Design	End Suction
Suction port	
Pressure rating	PN16
Nominal pipe size	DN125
Standard	DIN
Discharge port	
Pressure rating	PN16
Nominal pipe size	DN100
Standard	DIN

Operating data specification

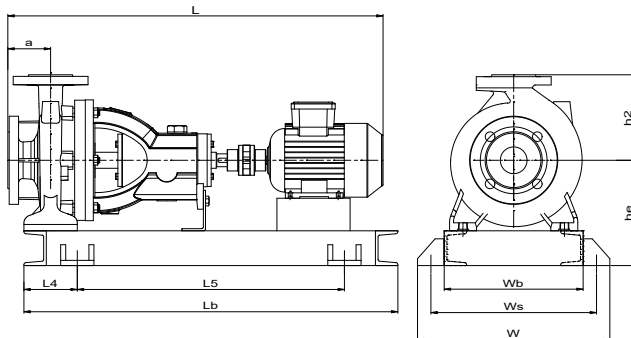
Pumped fluid	Water
Temperature	20 °C
Density	998.3 kg/m³
Kin. viscosity	1.005 mm²/s
Vapour pressure	2.34 kPa
Rated flow	157 m³/h
Rated head	26 m
Shaft power	15 kW
Speed	1450 rpm
NPSH3	3.19 m
Efficiency	73.9 %
Impeller Ø	282 mm

Motor

Make/Type	18.5 KW-1500 RPM / 180M
Specific design	IE3 / 50 Hz / Pole pairs 2
Rated power	18.5 kW
Speed	1470 rpm
Electric voltage	3~ 400 V
Electric current	34.5 A
Degree of protection	IP 55

Materials

Shaft seal	Soft Packing
Material code	



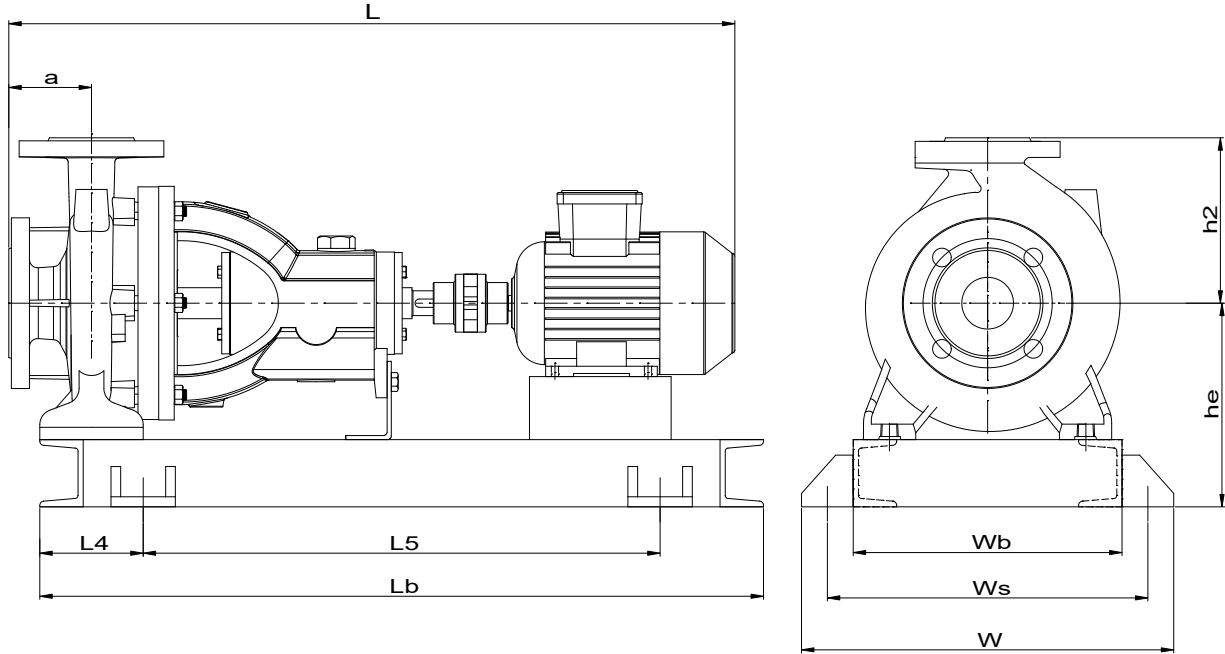
Dimensions	mm
a	140
h2	315
he	350
L	1302
L4	150
L5	850
Lb	1150
w	520
wb	420
ws	470

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
a	140
h2	315
he	350
L	1302
L4	150
L5	850
Lb	1150
w	520
wb	420
ws	470

Inlet / outlet

Suction port
DN125
PN16

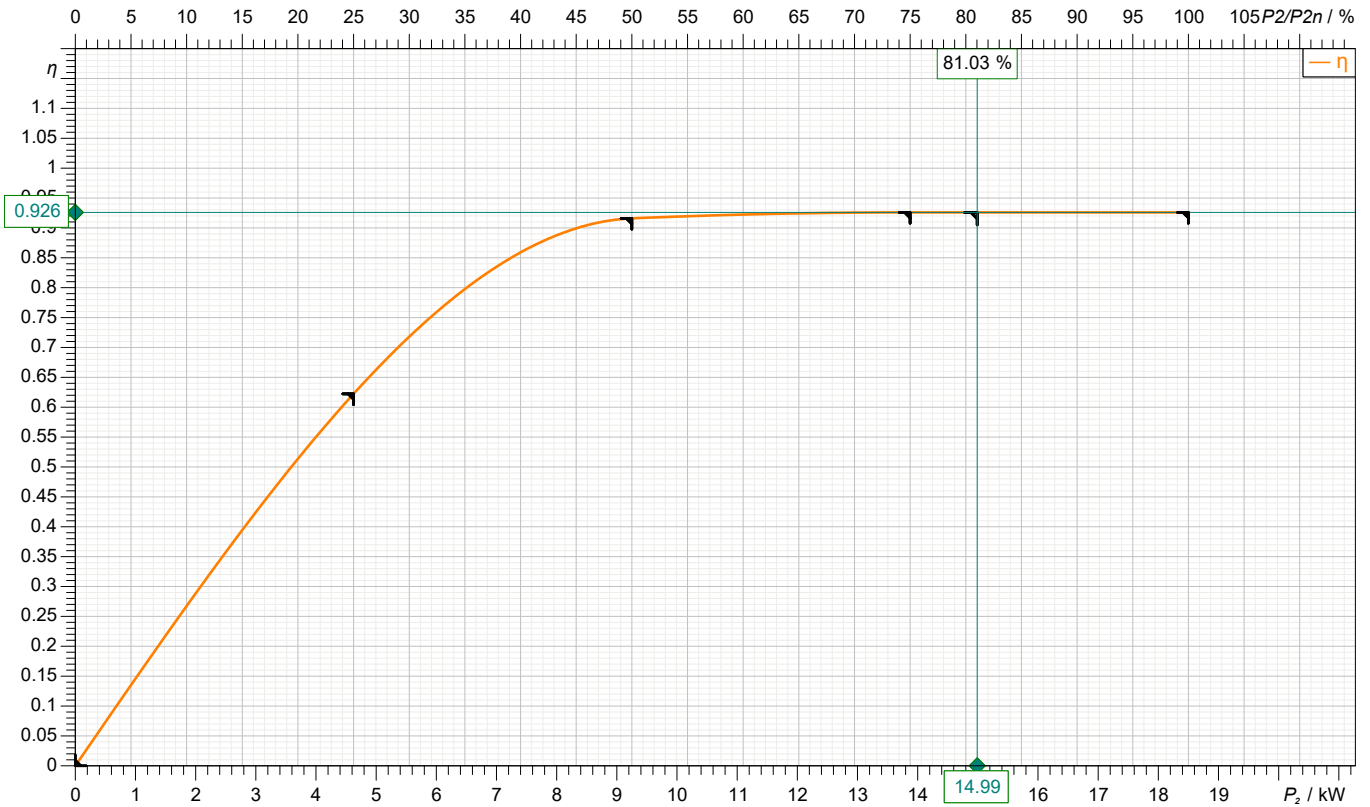
Discharge port
DN100
PN16

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motor data



Symbol	No load	25 %	50 %	75 %	100 %	125 %
P_2 / kW	0	4.625	9.25	13.88	18.5	
P_i / kW		7.43	10.1	14.98	19.98	
η / %	0	62.24	91.6	92.6	92.6	

Motor

Make/Type	18.5 KW-1500 RPM / 180M	Degree of protection	IP 55
Specific design	IE3 / 50 Hz / Pole pairs 2	Type of protection	
Rated power	18.5 kW	Explosion protection	
Electric voltage	3~ 400 V	Service factor	1.15
Number of poles	4	Starting current	
Speed	1470 rpm	Starting torque	
Electric current	34.5 A	Moment of inertia	
Power factor	0.84	No. starts per hour	
Frame size	180M	Rated torque	120 Nm
Efficiency class	IE3	Insulation class	F (155C°)

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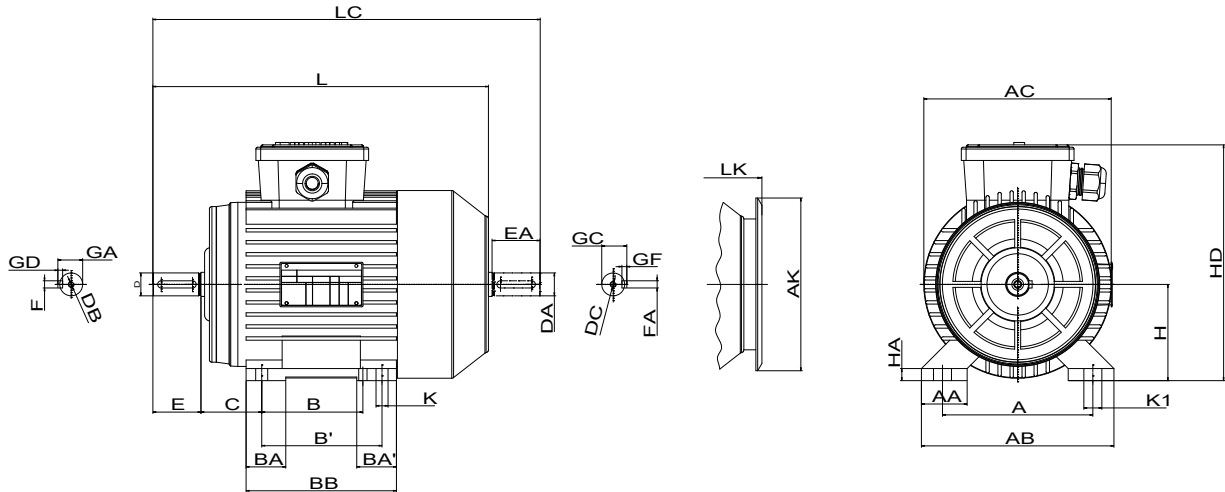
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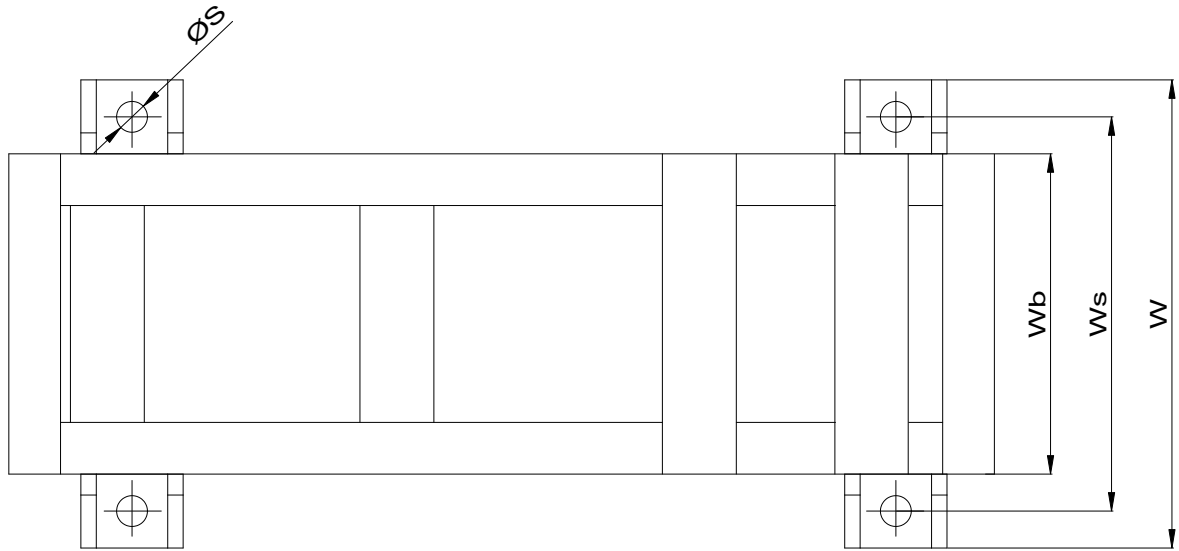


Dimensions	mm		
A	279	E	110
AA	68	EA	110
AB	354	FxGF	14X9
AC	348	FxGD	14X9
AK	303	GA	51.5
B	241	GC	51.5
B'	279	H	180
BA	57	HA	24
BA'	85	HD	421
BB	319	K	15
C	121	L	657
D	48	LC	773
DA	48	LK	714
DB	M16		
DC	M16		

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Dimensions	mm
hb	100
L4	150
L5	900
Lb	1150
S	19
w	520
wb	420
ws	470



Spare part list
NM 100-315

Revision number

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Spare part list
NM 100-315

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