



# CASTLE PUMPS LTD

Your process delivered.

The UK Agent of...  
**azcuepumps**



## Datasheet

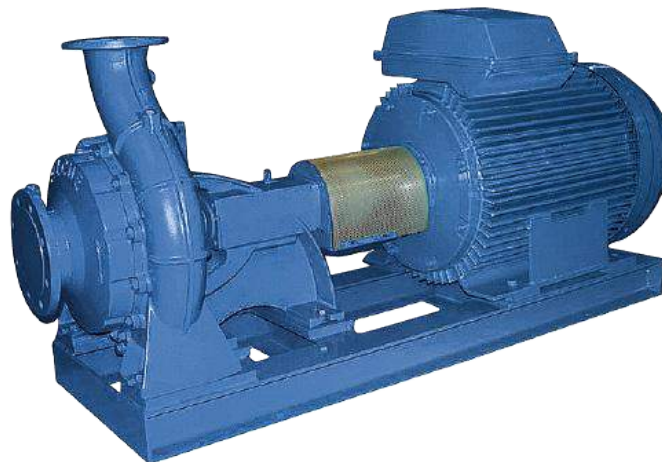
Pump **manufactured in Spain** with materials from own foundry

Can be supplied with a vacuum or electric **priming pump on request** for difficult suction conditions

**Separate shafts** in pump head and motor - no need to replace entire pump and motor if the shaft wears

Spare parts are available individually for a minimum of 15 years from supply, meaning **lower life time cost** as we guarantee parts will be available for 15 years and not obsolete

Heavy duty **twin ball bearing** design ensures suitability for heavy duty applications



**Major components** such as bearings, mechanical seal and motor **from world renowned companies**, with service available locally from OEM or through network of over 90 Azcue agents

**Tropicalized motors as standard** for operation up to 45°C, meaning the motor is designed to continue operating during higher than average temperatures

**Back pull out design** for easy maintenance - allows the internals to be removed without disconnecting the pump from the pipework

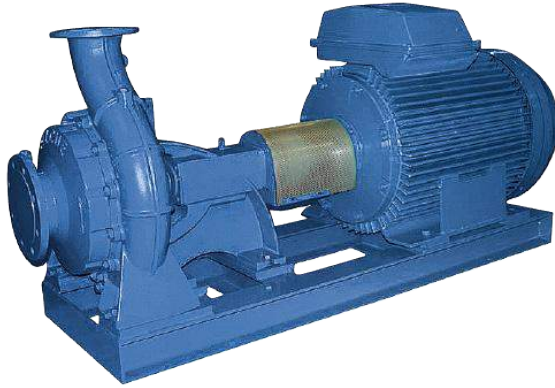
**Long coupled** making it durable for continuous use as it has additional bearings in pump head to share strain of operation

Casing wear rings **prolong life** of the casing and impeller, and increase hydraulic efficiency of the pump

The pump is fitted with a **flexible coupling** meaning the pump and motor are easily aligned - reducing service time

## Series **BOB** Long Coupled Centrifugal Pump

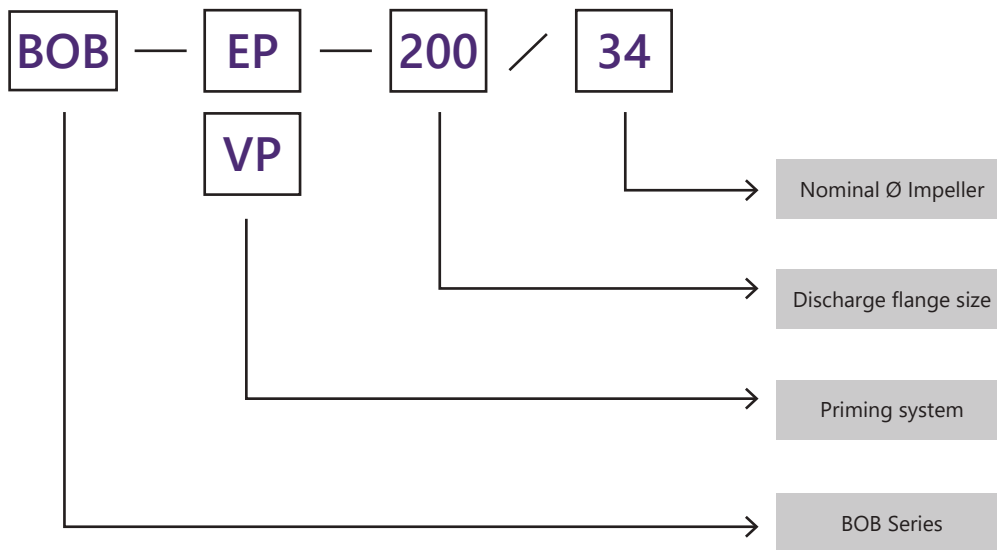
# BOB Long Coupled Centrifugal Pump – Flexible Coupling



## Performance:


Max Flow rate	2000 m <sup>3</sup> /h
Max Pressure	150 M
Max Temperature	120°C
Sizes Available	DN100 - DN250 Outlet

## Description



## Long Coupled Centrifugal Pumps

### Available options -

- ATEX approved 
- Long coupled on base plate
- Bare Shaft
- Supplied with priming pump for difficult suction conditions
  - » Vacuum priming - better solution for long suction distances thanks to its ability to dry run for short periods of time
  - » Electric priming pump

### Common Applications -

- Aquaculture
- Ballast
- Cooling
- Fire Fighting
- Fume Scrubber
- Grey Water
- Irrigation
- Pressure Booster
- Sea Water Cooling
- Sea Water Injection
- Sea Water Service
- Waste Water
- Water Circulating
- Water Transfer

## Benefits -

- Manufactured in Spain by manufacturer with over 100 years' experience, using materials from their own foundry for complete control
- Marine type approved by all classification societies e.g. Lloyds/ABS for independent verification the pump meets quality standards
- Long coupled via flexible coupling meaning that the pump and motor are easily aligned reducing service time
- Pump head is separated from the motor, so should the seal fail fluid is prevented from entering the motor and causing damage to this part
- Durable for continuous use thanks to additional bearings in the pump head to share the strain of operation, increasingly its robustness
- Interchangeable spare parts with other Azcue models to reduce stock holding required
- Spares available for a minimum of 15 years after model discontinuation for long term servicing even if the pump is no longer produced
- Version with double mechanical seal and cooling loop available for high temperature installations handling fluids up to 190°C
- Back pull out design for easy maintenance - allows the motor to be removed without disconnecting the pump
- Wearing rings to improve pump efficiency and provide clearance between the casing and impeller, preventing their wear, meaning only the less costly wear rings need replacing
- Separate shafts in pump head and motor - no need to replace entire pump and motor if shaft wears, saving costs
- ATEX approved version for hazardous environments
- Motors are tropicalized as standard for operation up to 45°C meaning the motor is designed continue operating during higher than average temperatures.



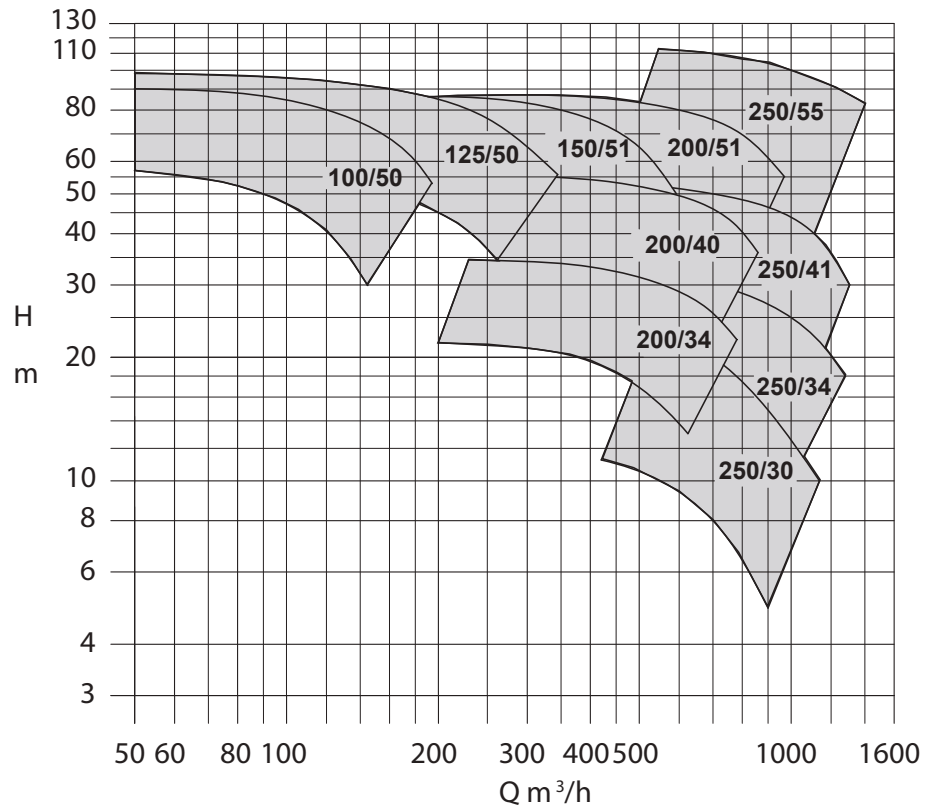
## Materials

Volute	Bronze	Cast iron	Stainless steel
Impeller	Bronze	Bronze	Stainless steel
Casing Cover	Bronze	Cast iron	Stainless steel
Shaft	Stainless steel		

**Other materials available on request**

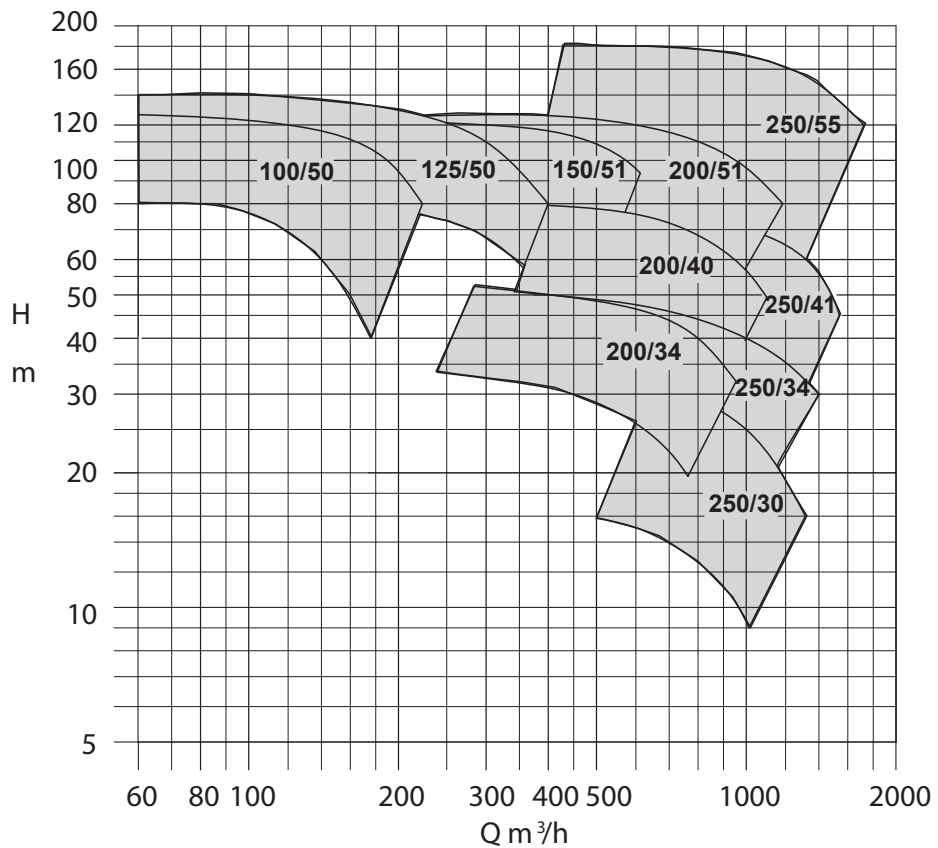
**Performance Curves - 50 Hz**

1.450 Min<sup>-1</sup>



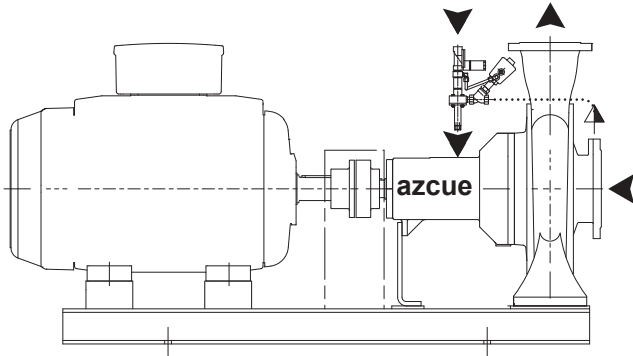
**Performance Curves - 60 Hz**

1.750 Min<sup>-1</sup>

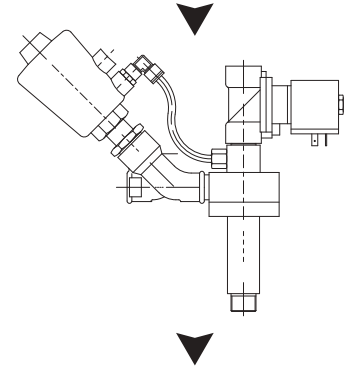


### Available Options

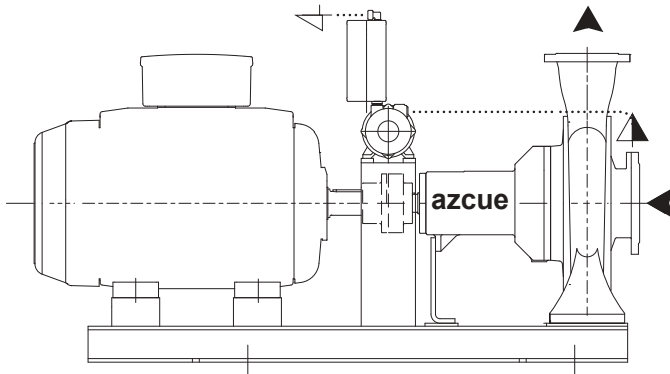
**BOB-VP**



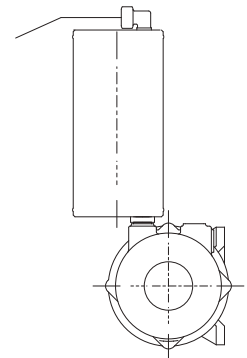
**VP - Ejector**



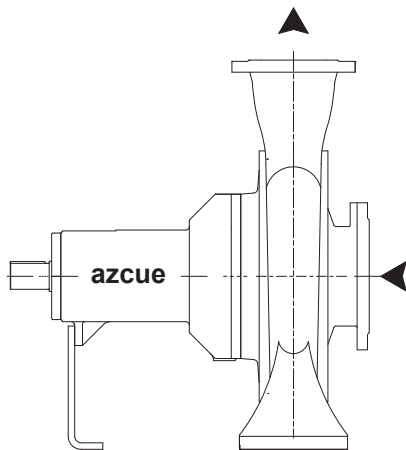
**BOB-EP**



**EP - Priming Pump**



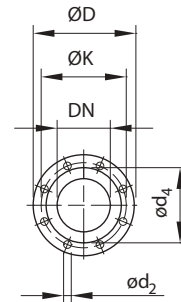
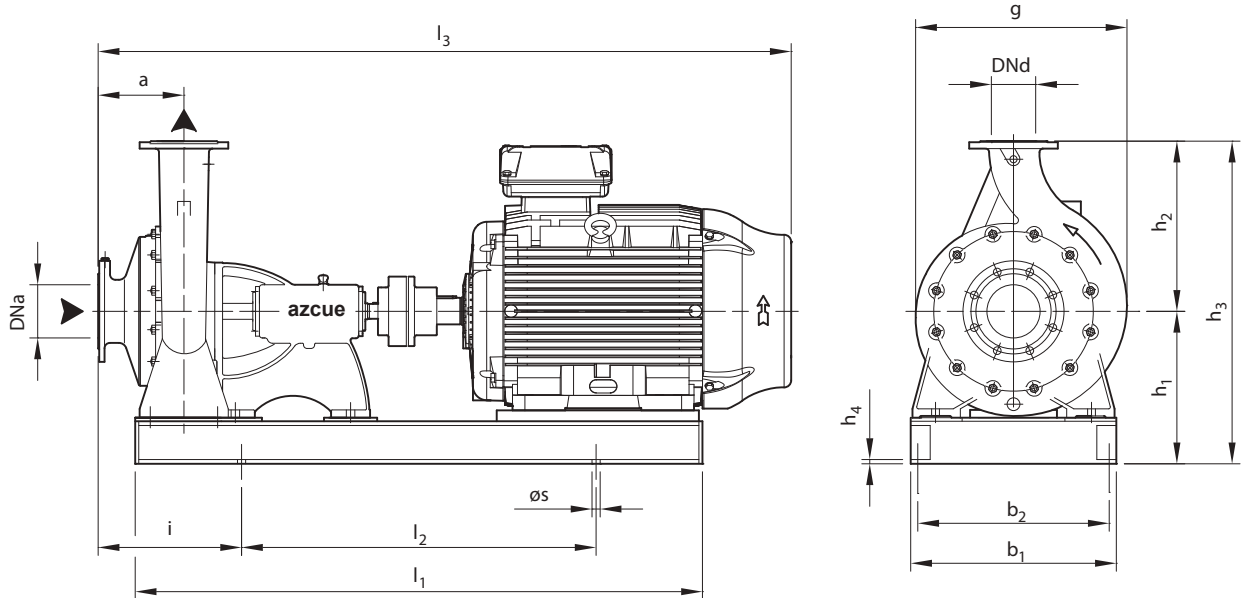
**BOB**



## Dimensions

Long Coupled Base Support Version

1450 / 1750 r.p.m



EN1092, Pn10				
$DN_a$	$DN_d$	100	125	150
$d_4$		158	188	212
$K$		180	210	240
$D$		220	250	285
$N^\circ$		8	8	8
$d_2$		18	18	22

Type	Motor		$DN_a$	$DN_d$	$a$	$h_1$	$h_2$	$h_3$	$h_4$	$s$	$b_1$	$b_2$	$g$	$i$	$l_1$	$l_2$	$l_3$	kg				
	KW	Type																				
100-50	30	200L-4	125	100	235	410	400	810	10	20	580	540	540	350	1400	900	1640	560				
	37	225S-4																650				
	45	225M-4																1720	680			
	55	250M-4																1500	900	1835	835	
	75	280SM-4																1600	1000	1940	1080	
125-50	37	225S-4	150	125	242	430	480	910	12	23	580	540	595	405	1500	900	1735	740				
	45	225M-4																770				
	55	250M-4																1850	925			
	75	280SM-4																405	1600	1000	1955	1170
	90	280SM-4																1240				
	110	315SM-4																1460				
	132	315SM-4																445	480	925	12	23

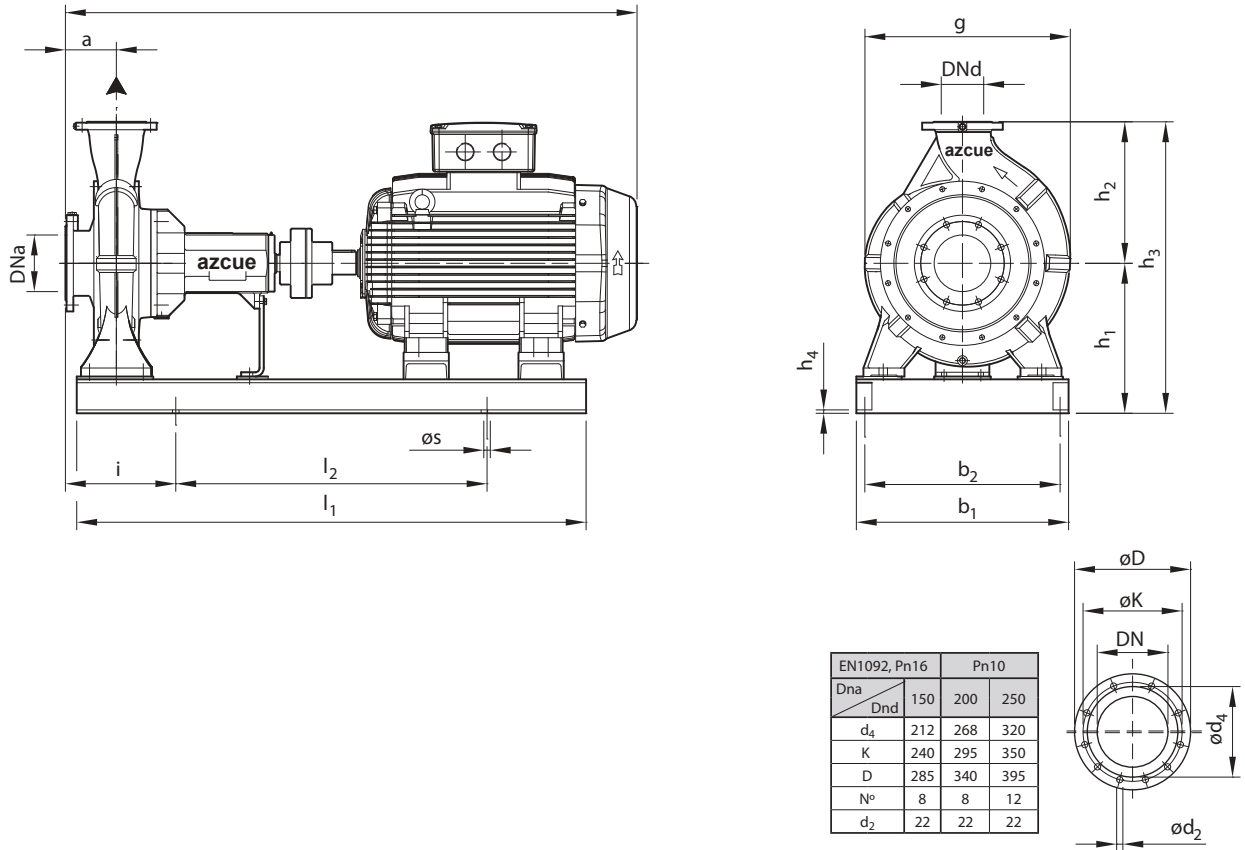
Subject to alterations

Ref. 940-BOB-10050

## Dimensions

Long Coupled Base Support Version

1450 / 1750 r.p.m



Type	Motor		DNa	DNd	a	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	s	b <sub>1</sub>	b <sub>2</sub>	g	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	kg
	KW	Type																
150-51	75	280SM-4	200	150	175	530	500	1030	12	23	750	690	725	385	1700	1000	1930	1160
	90	280SM-4																1200
	110	315SM-4																1600
	132	315SM-4																1610
	160	315SM-4																1680
	200	315SM-4																1780
200-34	37	225S-4	250	200	175	530	475	1005	12	23	750	690	600	398	1500	900	1800	910
	45	225M-4																940
	55	250M-4																1200
	75	280SM-4																1270
	90	280SM-4																1310
	110	315SM-4																1510
200-40	55	250M-4	250	200	180	530	525	1055	12	23	750	690	680	488	1700	1000	1980	1260
	75	280SM-4																1330
	90	280SM-4																1370
	110	315SM-4																1570
	132	315SM-4																1580
	160	315SM-4																1640
200-51	110	315SM-4	250	200	174	530	575	1105	12	23	820	760	746	384	1800	1100	2140	1630
	132	315SM-4																1640
	160	315SM-4																1710
	200	315SM-4																1810
	250	355ML-4																1900
	315	355ML-4																1930

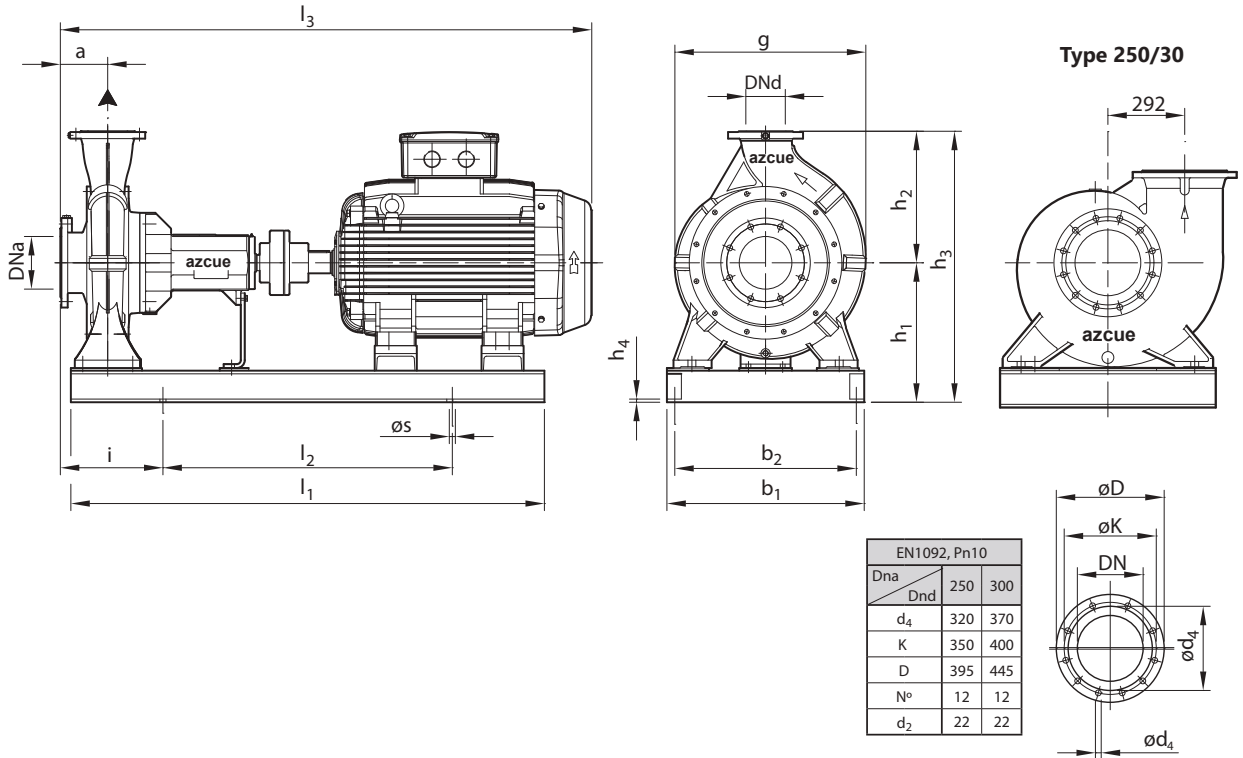
Subject to alterations

Ref. 784-BOB-15051

## Dimensions

Long Coupled Base Support Version

1450 / 1750 r.p.m



Type	Motor		DNa	DNd	a	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	s	b <sub>1</sub>	b <sub>2</sub>	g	i	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	kg			
	KW	Type																			
250-30	30	200L-4	250	250	220	550	350	900	12	25	820	395	-	455	1450	700	1665	780			
	37	225S-4												455	1550	800	1785	900			
	45	225M-4																930			
	55	250M-4																1865	1000		
	75	280SM-4												1970	1270						
250-34	37	225S-4	300	250	245	530	525	1055	12	23	750	680	655	398	1500	900	1800	920			
	45	225M-4												398	1600	1000	1875	950			
	55	250M-4																448	1700	1000	1980
	75	280SM-4												1980	1190						
	90	280SM-4														2220	1230				
	110	315SM-4												448	1800	1100	2185	1630			
	132	315SM-4																2185	1640		
250-41	110	315SM-4	300	250	180	530	600	1130	12	23	820	760	740	380	1800	1100	2355	1620			
	132	315SM-4															2355	2030			
	160	315SM-4																	380	2100	1400
	200	315SM-4															2465	2110			
	250	355ML-4																			

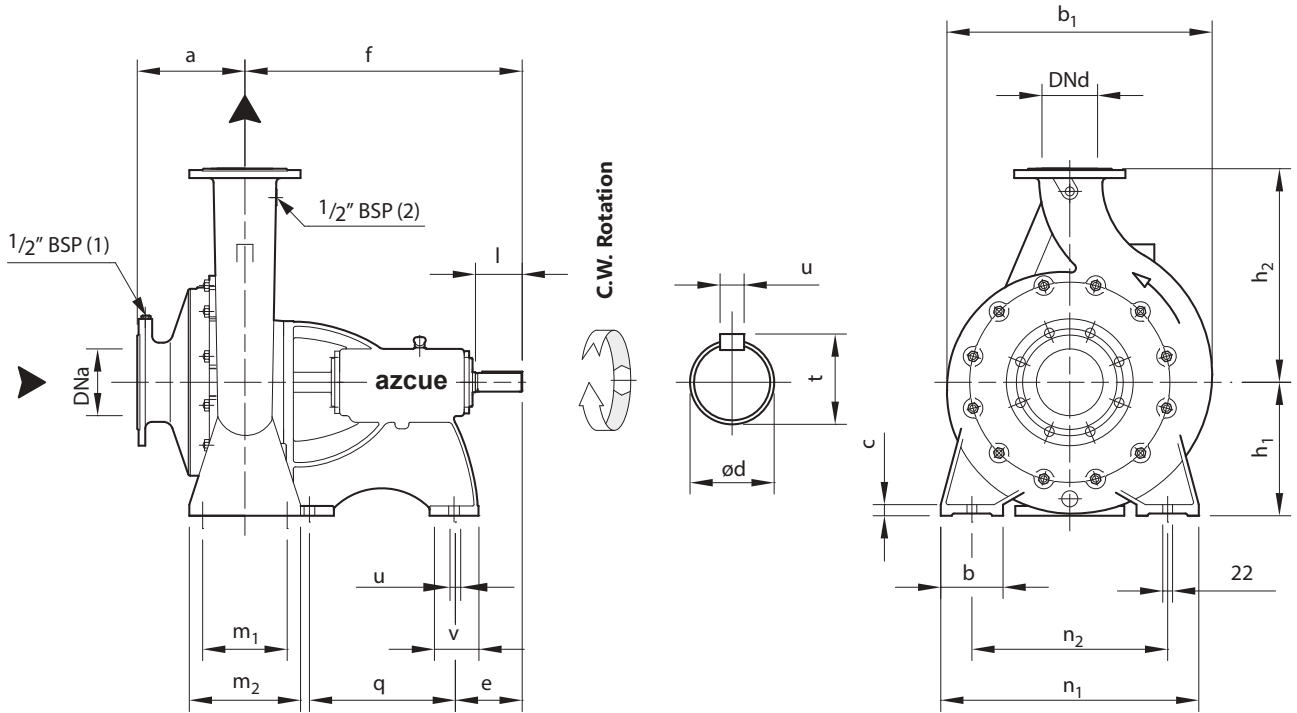
Subject to alterations

Ref. 637-BOB-25030



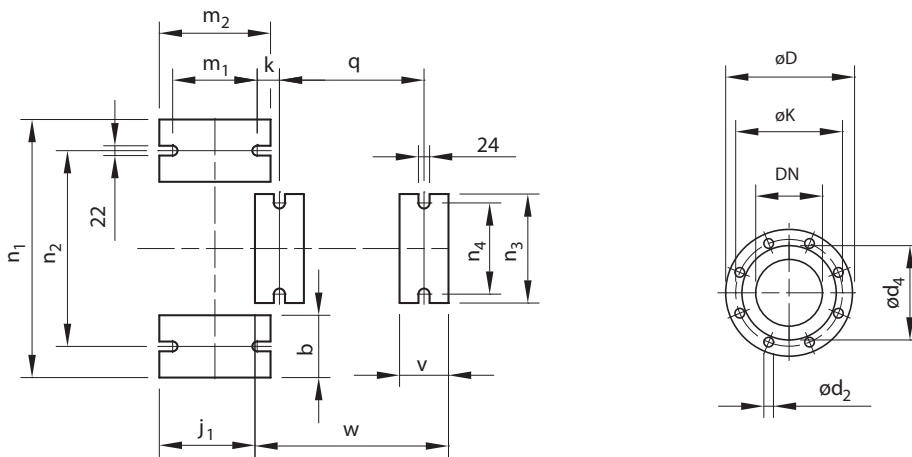
## Dimensions

### Bareshaft Version



1) Vacuumer connection

2) Manometer connection



EN1092, Pn10			
Dna \ Dnd	100	125	150
d <sub>4</sub>	158	188	212
K	180	210	240
D	220	250	285
N°	8	8	8
d <sub>2</sub>	18	18	22

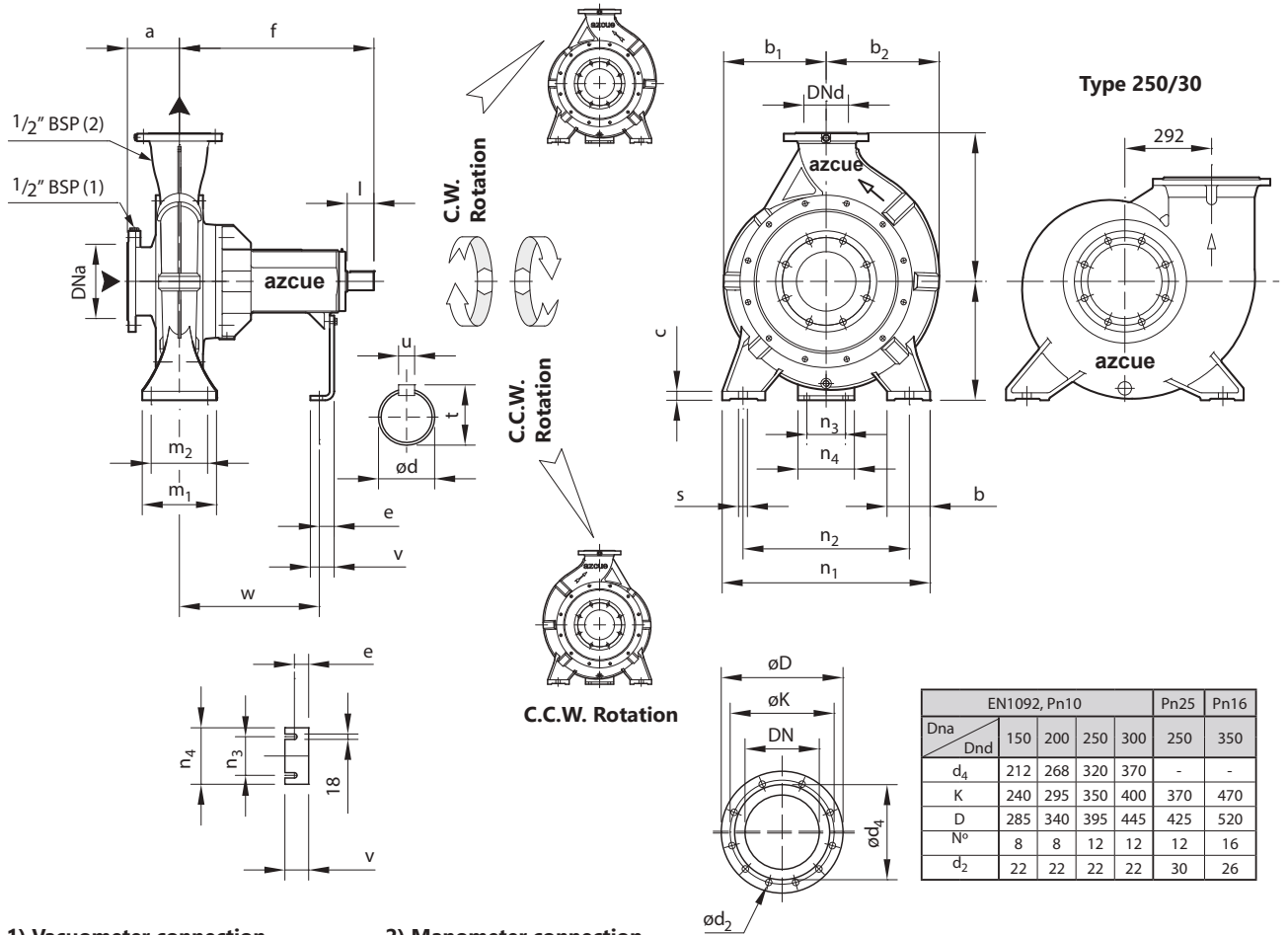
Type	DNa	DNd	a	f	h <sub>1</sub>	h <sub>2</sub>	b	b <sub>1</sub>	c	e	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	n <sub>4</sub>	j <sub>1</sub>	w	q	v	k	d	l	t	u	kg
100-50	125	100	235	618	300	400	140	540	25	150	190	250	580	450	245	205	220	435	325	110	55	42	105	45,1	12	190
125/50	150	125	242	625	300	480	140	595	25	150	190	250	580	440	245	205	215	435	325	110	50	42	105	45,1	12	280

Subject to alterations

Ref. 682-BOB-10050

## Dimensions

### Bareshaft Version



1) Vacuum connection

2) Manometer connection

Type	DNa	DNd	a	f	h <sub>1</sub>	h <sub>2</sub>	b	b <sub>1</sub>	b <sub>2</sub>	c	e	m <sub>1</sub>	m <sub>2</sub>	n <sub>1</sub>	n <sub>2</sub>	n <sub>3</sub>	n <sub>4</sub>	w	v	s	d	l	t	u	kg
150-51	200	150	175	655	400	500	145	345	380	30	48	250	190	700	560	130	190	473	80	30	60	90	64,2	18	390
200-34	250	200	175	658	400	475	145	264	336	30	48	250	190	700	560	130	190	474	80	30	60	90	64,2	18	300
200-40	250	200	180	660	400	525	145	300	380	30	48	250	190	700	560	130	190	489	80	30	60	90	64,2	18	350
200-51	250	200	174	665	400	575	145	345	401	30	48	250	190	800	660	130	190	483	80	30	60	90	64,2	18	420
250-30	250	250	220	658	400	350	145	345	-	30	48	250	190	800	660	130	190	476	80	30	60	90	64,2	18	470
250-34	300	250	245	635	400	525	145	281	373	30	48	250	190	700	560	130	190	453	80	30	60	90	64,2	18	425
* 250-41	300	250	180	705	400	600	145	321	404	30	48	250	190	800	660	130	190	526	80	30	60	90	64,2	18	465
250-55	350 Pn16	250 Pn25	128	681	470	580	145	364	480	25	15	250	200	800	660	100	190	603	60	30	70	100	74,6	20	597

\*Check availability  
 Subject to alterations

Ref. 613-BOB-15051

Subject to alterations



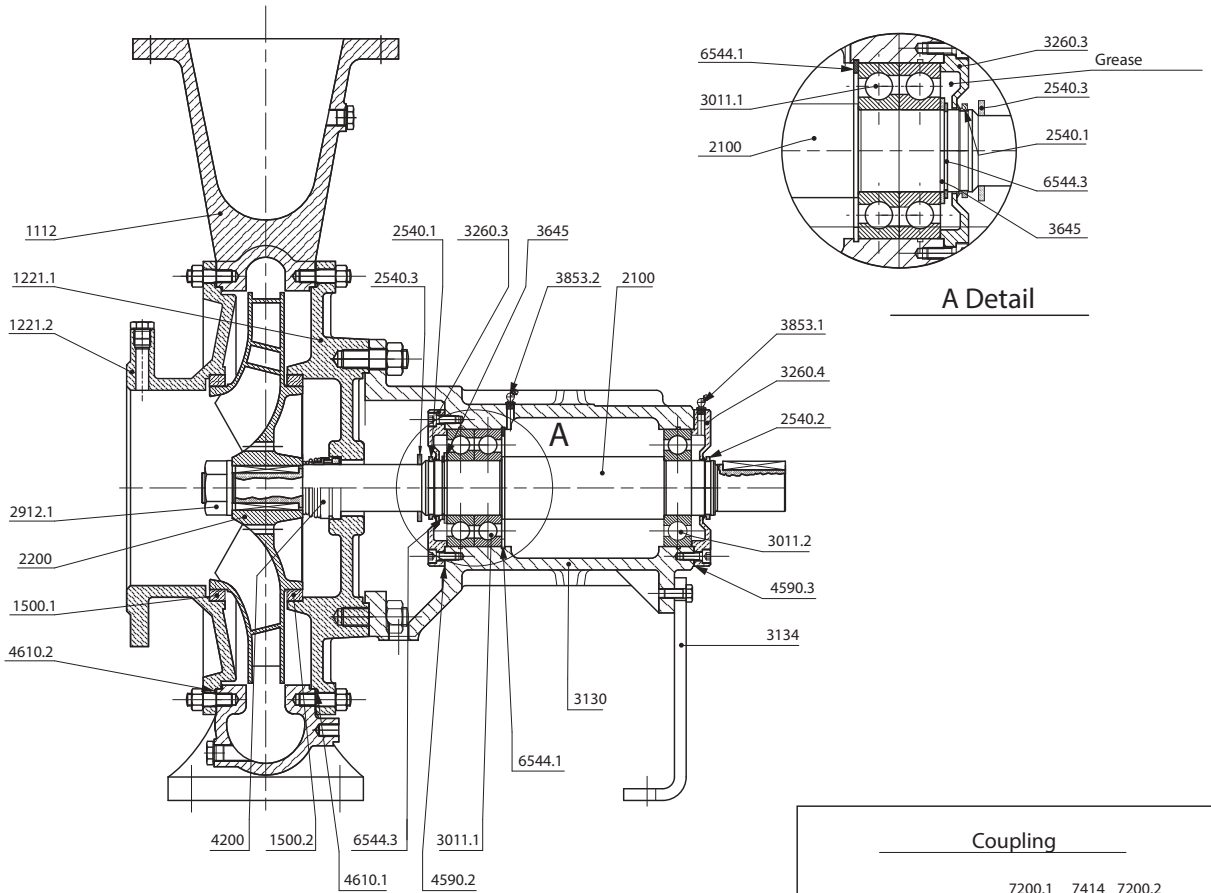
## Interchangeability

### BOB Series

Description		Volute casing	Casing cover	Shaft	Impeller	Ball bearings	Mechanical seal	Wear ring	Wear ring	Wear ring	Wear ring	O Ring	Impeller nut
Ref.		1112	1221.2	2100	2200	3011.1-2	4200	1500.1	1500.2	1500.3	1500.4	4610.1	2912
PUMP TYPE	100/50	1	1	1	1	1	1	1	1	2	2	1	1
	125/50	2	2	2	2	1	1	3	3	3	3	1	1
	150/51	3	3	3	3	2	2	4	4	-	-	-	2
	200/34	4	4	3	4	2	2	5	5	-	-	-	2
	200/40	5	5	3	5	2	2	5	5	-	-	-	2
	200/51	6	6	3	6	2	2	5	5	-	-	-	2
	250/30	7	7	3	7	2	2	5	6	-	-	-	2
	250/34	8	8	3	8	2	2	7	8	-	-	-	2
	250/41	9	9	3	9	2	2	9	10	-	-	-	2
	250/55	10	10	4	10	3	3	11	11	-	-	-	3

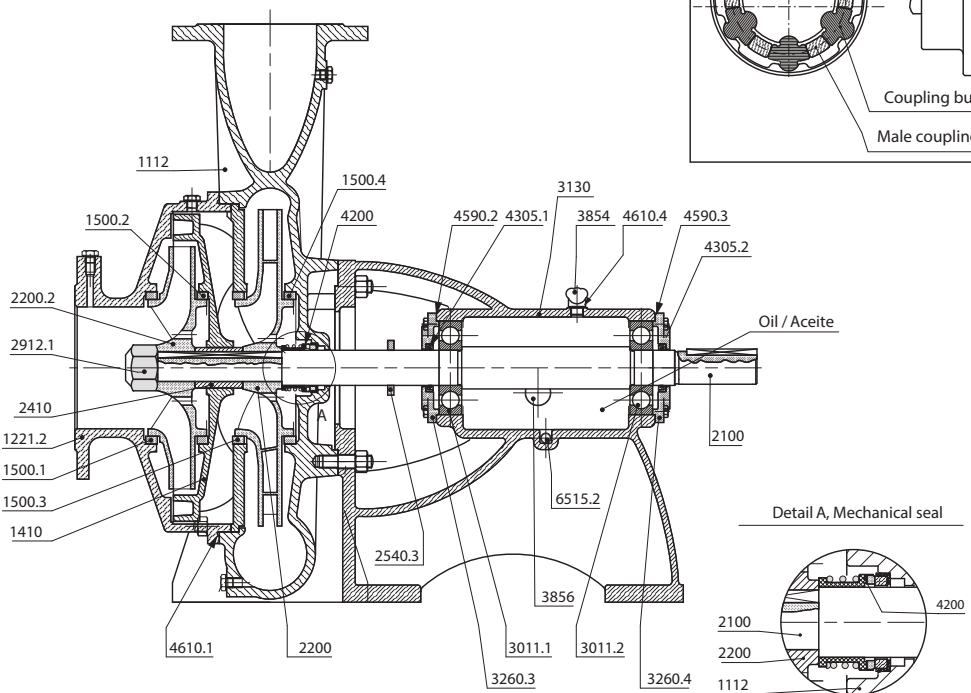
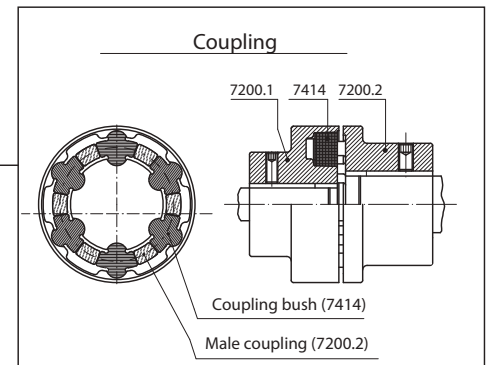
## Sectional Drawing

BOB Series



N. OVB-392-M

1 Stage



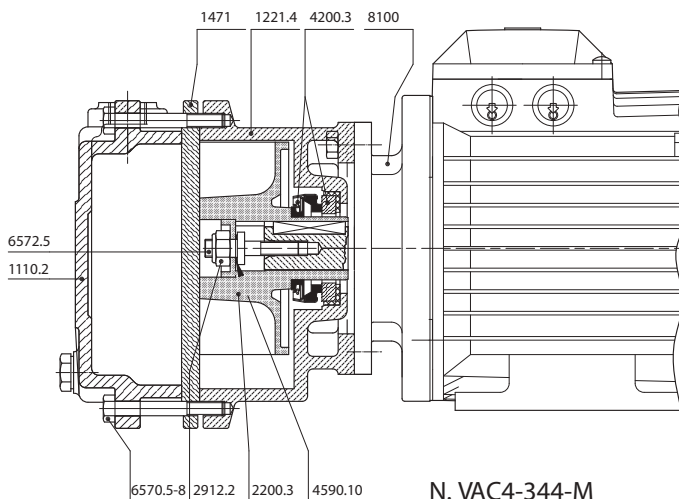
N. BOB-391-M

2 Stages (BOB 100/50, 125/50)

## Sectional Drawing

### BOB Series

Description	Ref.
Pump casing	1110.2
Volute casing	1112
Casing cover	1221.1
Casing cover	1221.2
Casing cover	1221.4
Diffuser	1410
Interstage plate	1471
Casing wear ring	1500.1
Casing wear ring	1500.2
Casing wear ring	1500.3
Casing wear ring	1500.4
Shaft	2100
Impeller	2200.1
Impeller	2200.2
Impeller	2200.3
Interstage sleeve	2410
Thrower	2540.1-2
Thrower	2540.3
Impeller nut	2912.1
Impeller nut	2912.2
Impeller nut	2912.3
Radial ball bearing	3011.1
Radial ball bearing	3011.2
Bearing bracket	3130
Support foot	3134
Bearing cover	3260.3-4
Disc spacer	3645
Grease nipple	3853.1-2
Oil Filter Plug	3854
Oil sight gauge	3856
Mechanical seal	4200
Mechanical seal	4200.3
Shaft seal ring	4305.1-2
Gasket	4590.2-3
Gasket	4590.10
O-ring	4610.1-2
O-ring	4610.4
Priming plug	6511.1-2
Drain plug	6515.2
Circlip	6544.1
Circlip	6544.3
Screw	6570.5-8
Stud	6572.5
Coupling half	7200.1
Coupling half	7200.2
Coupling bush	7414
Motor	8100



1. Ejector
2. Solenoid valve
3. Pneumatic valve

