



# CASTLE PUMPS LTD

Your process delivered.

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



## Datasheet

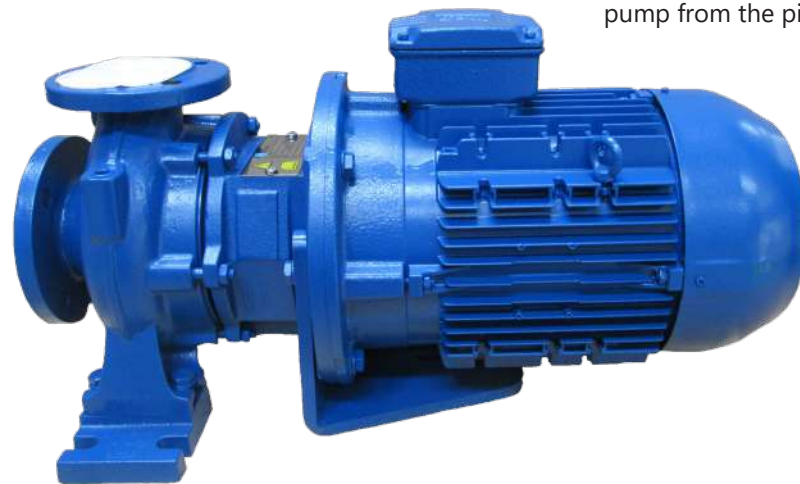
The pump is **manufactured in Spain** with materials from own foundry

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

**Wearing rings** to improve pump efficiency & provide clearance between the casing and impeller, preventing their wear, meaning only the less costly wear rings need replacing

**Interchangeable spare parts** with other Azcue models to reduce stock holding



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

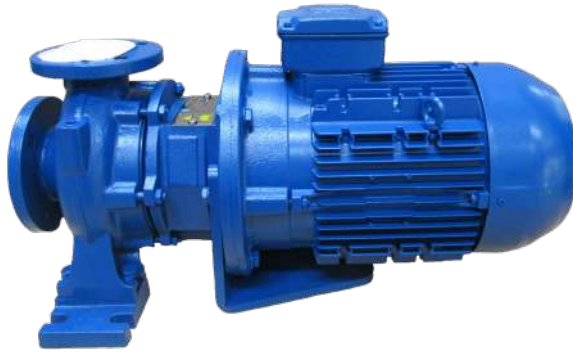
**Close coupled with lantern bracket** to separate the pump head and motor should the seal fail - preventing the fluid from entering the motor

Dimensions based on **DIN 24255** for easy retrofitting to existing pipework and replacing other DIN models

**Marine type approved** by all classification societies e.g. Lloyds/ABS

## Series **MN** Close Coupled Centrifugal Pump

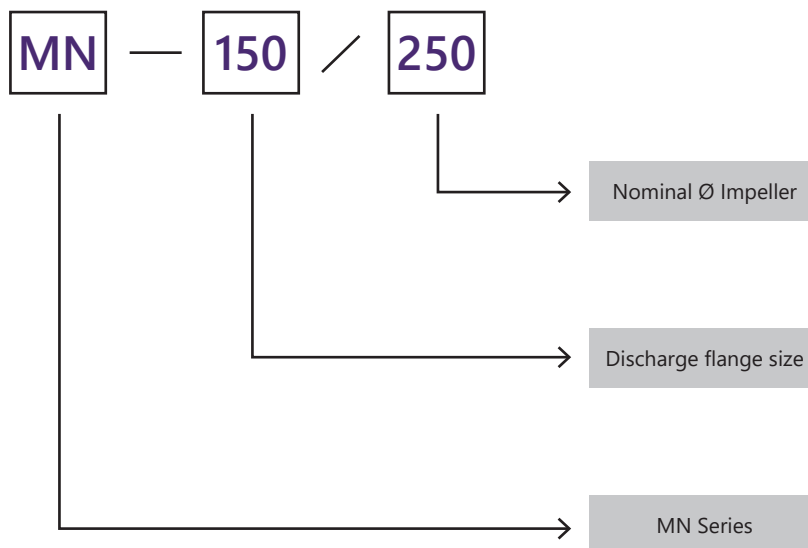
## MN Close Coupled Centrifugal Pump



### Performance:


Max Flow rate	500 m <sup>3</sup> /h
Max Pressure	100 M
Max Temperature	120°C
Sizes Available	DN32 - DN150 Outlet

### Description



### Close Coupled Centrifugal Pumps

#### Available options -

- ATEX approved 
- 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
- Boiler Feed
- Cargo
- Cooling
- Deck Washing
- Fuel Transfer
- Grey Water
- Irrigation
- Marine Fuel
- Pressure Booster
- Sea Water Cooling
- Sea Water Injection
- Sea Water Service
- Swimming Pool
- Waste Water
- Water Circulating
- Water Transfer

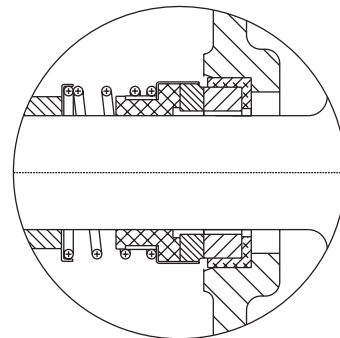
### Benefits -

- 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
- Close coupled with a lantern bracket to separate the pump head from the motor, so should the seal fail fluid is prevented from entering the motor and causing damage to this part
- Dimensions based on DIN 24255 for easy retrofitting to existing pipework and for replacing other DIN models within an installation
- 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
- Bearings are greased for life with long service intervals to reduce maintenance costs – bearings replaced at 25,000 hours
- 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
- Motors are tropicalized as standard for operation up to 45°C meaning the motor is designed continue operating during higher than average temperature
- ATEX approved version for hazardous environments



### Advantages -

- Low NSPH
- Simple assembly without alignment
- Easy dismantling
- Interchangeable acc / DIN 24255
- Motor IEC



Mechanical seal acc

**DIN 24960**

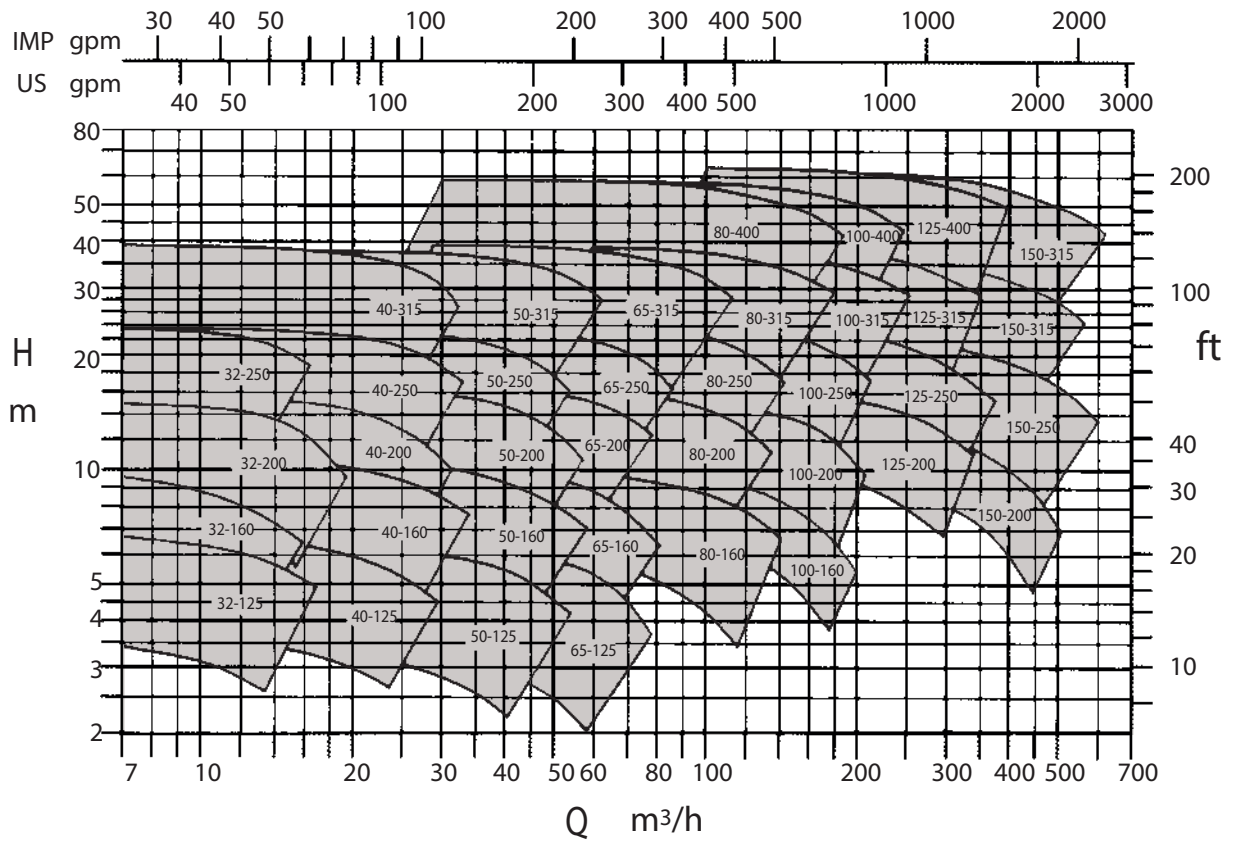
### Materials

Volute	Cast iron GG25 / Bronze G-Cusn5ZnPb (Rg5)	Bronze	G-CuSn10 G-CuAl10Ni G-CuSn10Zn(Rg10)	Stainless Steel	X5CrNiMo 18 10 Aisi-316
Impeller	Cast iron GG25 / Bronze G-Cusn5ZnPb (Rg5)	Bronze	G-CuSn10 G-CuAl10Ni G-CuSn10Zn(Rg10)	Stainless Steel	X5CrNiMo 18 10 Aisi-316
Shaft	Stainless Steel X-5CrNiMo 18 10 Aisi-316				
Wear rings	Bronze G-CuSn10Pb10	Cast iron GG-25		Stainless Steel	X5CrNiMo 18 10 Aisi-316

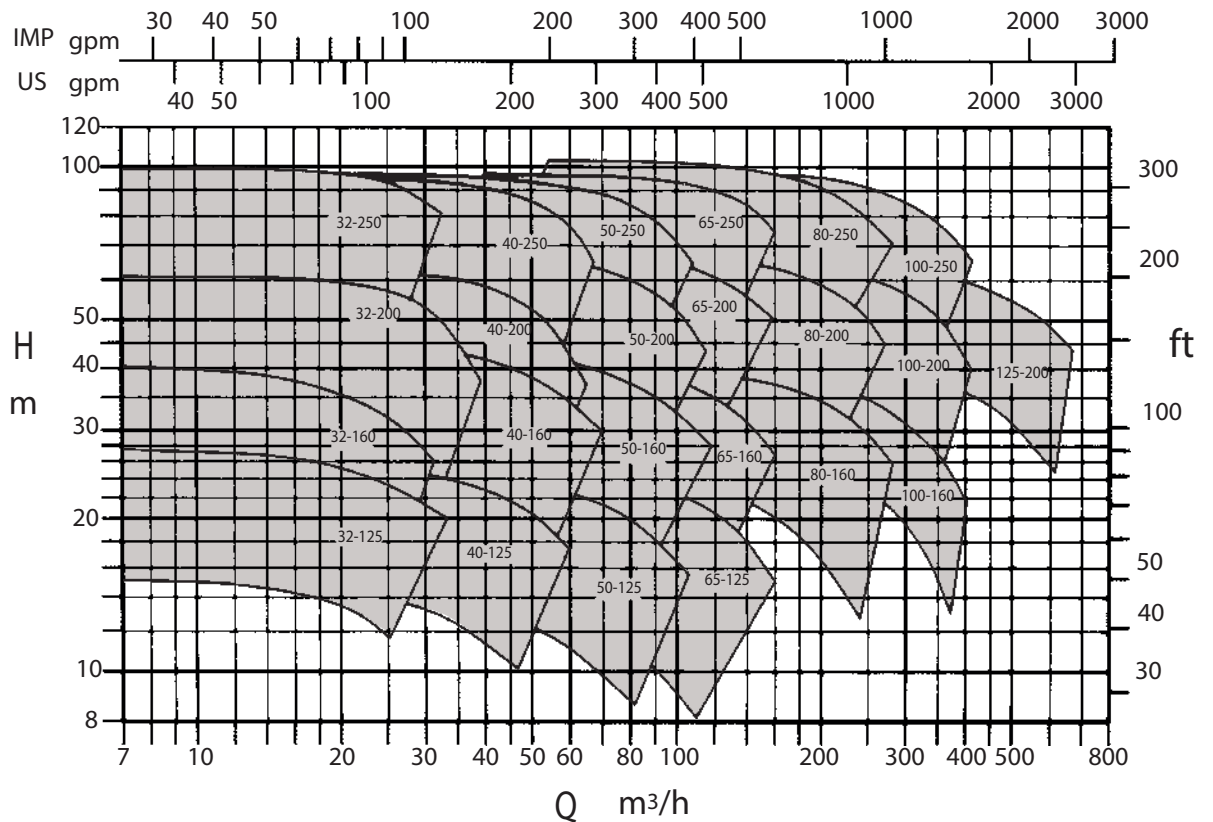


### Performance Curves - 50 Hz

1.450 Min<sup>-1</sup>



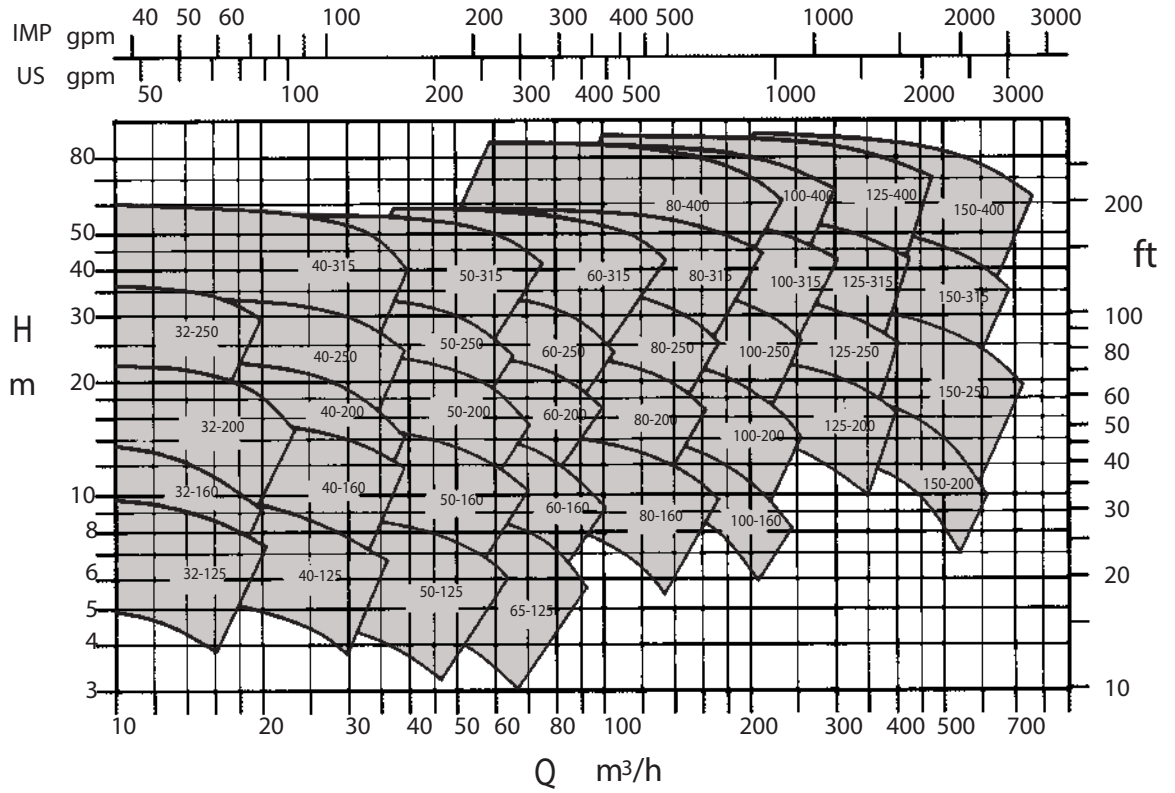
2.900 Min<sup>-1</sup>



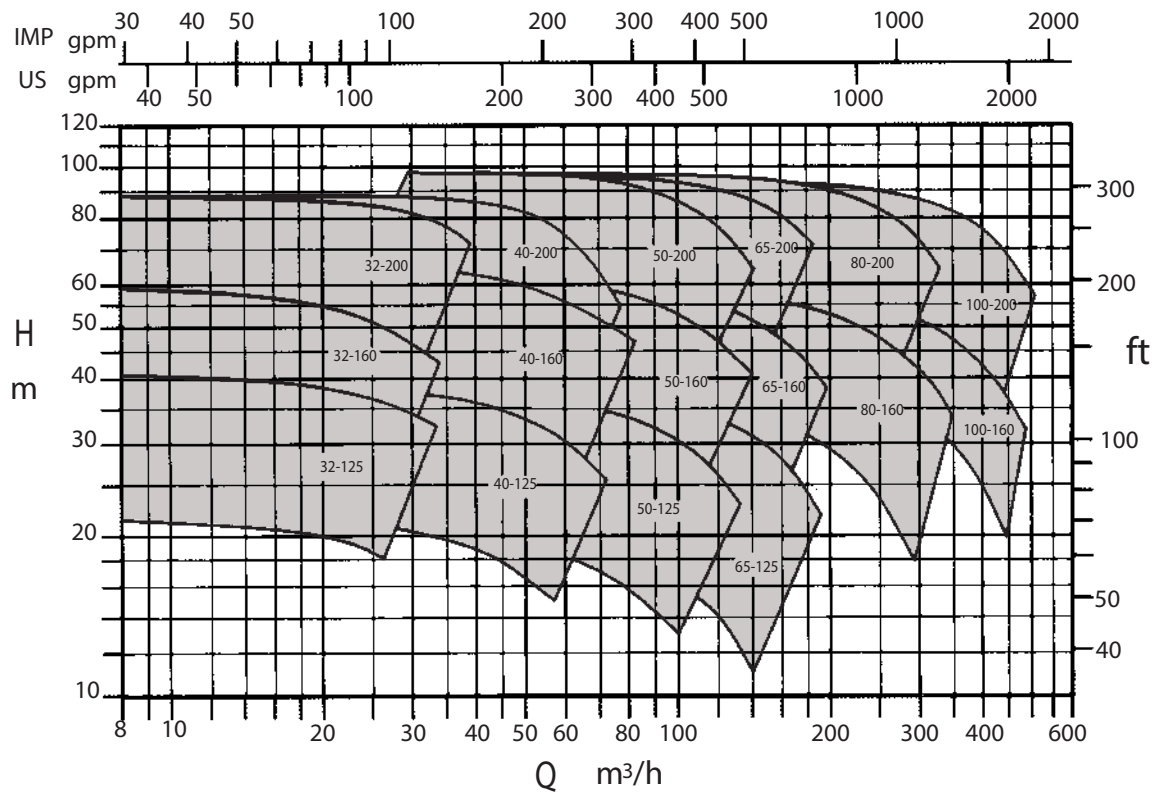


### Performance Curves - 60 Hz

1.750 Min<sup>-1</sup>



3.500 Min<sup>-1</sup>

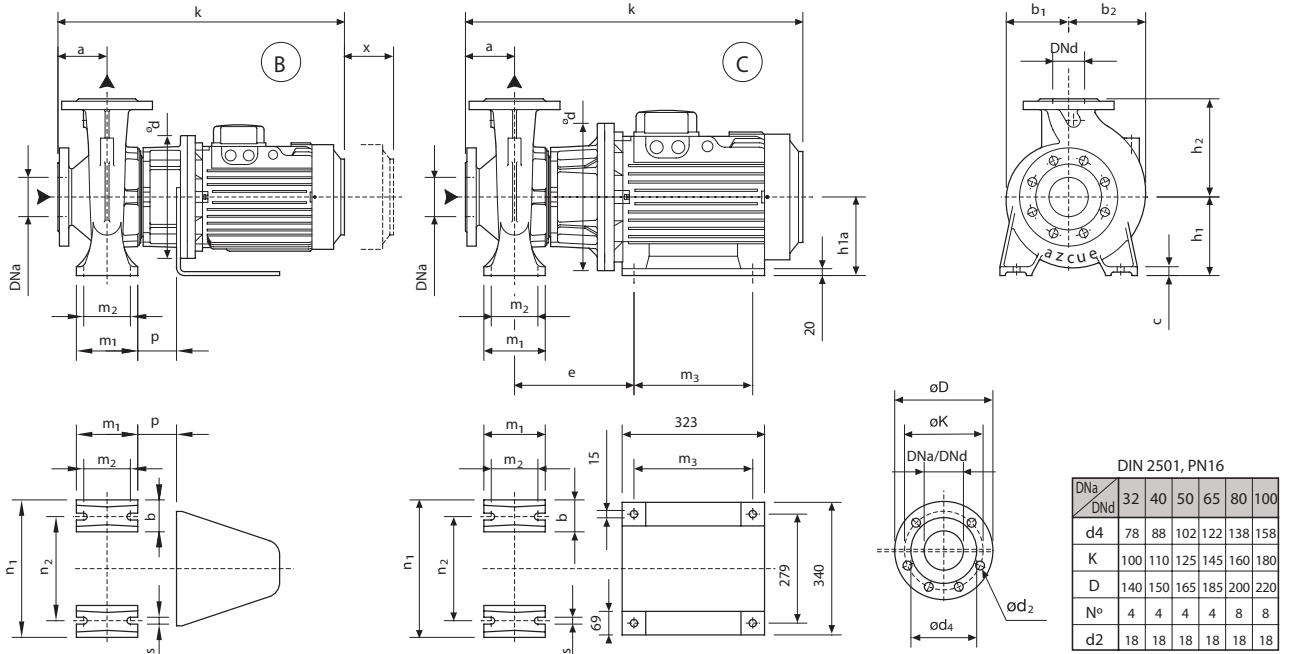




## Dimensions

### Close Coupled Version

2900 / 3500 r.p.m



type	Motor			DNa	DNd	a	e	h1	h2	h1a	b	b1	b2	c	m1	m2	m3	p	n1	n2	s	x	d	k	kg				
	KW	HP	Forma																										
32/125	1,1	1,5	B	50	32	80	-	112	140	-	50	115	115	18	100	70	-	-	190	140	14	100	200	470	40				
	1,5	2																								505	45		
	2,2	3																								555	62		
	3	4																								555	55		
32/160	4	5,5	B	50	32	80	-	162	160	-	100	115	125	18	100	70	-	-	90	340	290	14	100	250	555	60			
	2,2	3																									250	50	
	4	5,5																									300	65	
	5,5	7,5																									300	75	
32/200	4	5,5	B	50	32	80	-	160	180	-	50	125	145	18	100	70	-	-	90	240	190	14	100	250	555	65			
	5,5-7,5	7,5-10																									100	80	
	11-15	15-20																									100	80	
	18,5	25																									100	90	
32/250	5,5-7,5	7,5-10	B	50	32	100	-	210	225	-	115	170	175	18	125	95	-	-	100	420	365	14	100	350	850	125			
	11-15	15-20																									125	115	
	18,5	25																									125	135	
	22	30																									125	135	
40/125	2,2	3	B	65	40	80	-	112	140	-	50	110	115	18	100	70	-	-	210	160	14	100	200	505	50				
	3	4																								250	60		
	4	5,5																								250	65		
	5,5-7,5	7,5-10																								250	80		
40/160	4	5,5	B	65	40	80	-	162	160	-	100	110	135	18	100	70	-	-	90	340	290	14	100	250	555	65			
	5,5-7,5	7,5-10																									100	80	
	11	15																									100	80	
	18,5	25																									100	95	
40/200	5,5-7,5	7,5-10	B	65	40	100	-	160	180	-	50	140	155	18	100	70	-	-	110	340	290	14	100	350	830	120			
	11-15	15-20																									100	95	
	18,5	25																									100	95	
	22	30																									100	115	
40/250	11-15	15-20	B	65	40	100	-	210	225	-	115	165	180	18	125	95	-	-	100	420	365	14	100	350	850	145			
	18,5	25																									125	135	
	22	30																									125	155	
	3	4																									125	170	
50/125	3	4	B	65	50	100	-	162	160	-	100	115	130	18	100	70	-	-	90	340	290	14	100	250	575	60			
	4	5,5																									250	65	
	5,5-7,5	7,5-10																									250	80	
	11	15																									250	90	
50/160	5,5-7,5	7,5-10	B	65	50	100	-	160	180	-	50	120	150	18	100	70	-	-	110	340	290	14	100	350	850	110			
	11-15	15-20																									100	85	
	18,5	25																									100	95	
	22	30																									100	115	
50/200	11-15	15-20	B	65	50	100	-	190	200	-	100	140	170	18	100	70	-	-	110	365	312	14	100	350	850	150			
	18,5	25																									100	160	
	22	30																									100	160	
	3	4																									100	170	
50/250	15	20	B	65	50	100	-	210	225	-	115	170	185	18	125	95	-	-	100	420	365	14	100	350	850	130			
	18,5	25																									125	140	
	22	30																									125	140	
	3	4																									125	170	
65/125	4	5,5	B	80	65	100	-	160	180	-	65	120	150	18	125	95	-	-	80	280	212	14	100	250	575	70			
	5,5-7,5	7,5-10																									100	90	
	11-15	15-20																									100	90	
	18,5	25																									100	110	
65/160	7,5	10	B	80	65	100	-	160	200	-	65	130	155	18	125	95	-	-	100	380	327	14	100	350	850	135			
	11-15	15-20																									100	135	
	18,5	25																									100	160	
	22	30																									100	160	
65/200	15	20	B	80	65	100	-	210	225	-	115	155	180	18	125	95	-	-	100	420	365	14	140	350	850	135			
	18,5	25																									125	145	
	22	30																									125	145	
	3	4																									125	170	
65/250	18,5	25	B	80	65	100	-	335	180	225	180	65	155	180	18	125	95	241	-	320	250	14	140	350	895	165			
	22	30																									125	170	
	18,5	25																									125	170	
	375	200																									250	180	
80/160	15	20	B	100	80	125	-	210	225	-	115	140	180	18	125	95	-	-	100	420	365	14	140	350	870	150			
	18,5	25																									125	160	
	22	30																									125	160	
	3	4																									125	170	
80/200	18,5	25	B	100	80	125	-	335	180	225	180	65	140	180	18	125	95	-	-	135	360	280	19	140	350	910	160		
	22	30																										125	170
	18,5	25																										125	170
	375	180																										250	180
100/160	18,5	25	B	125	100	125	-	375	200	280	180	80	180	225	18	160	120	-	-	120	360	280	19	140	350	910	195		
	22	30																										125	170
	18,5	25																										125	170
	375	200																										280	180

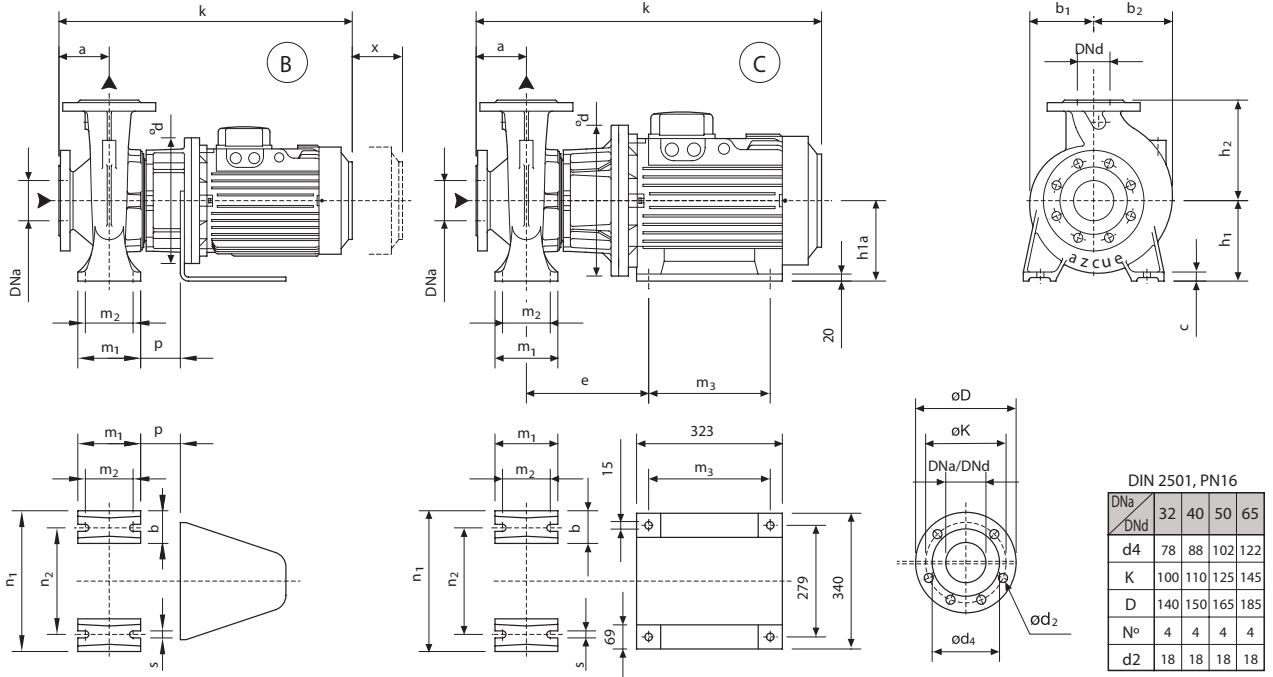
Subject to alterations

Ref. MN-061/1

## Dimensions

### Close Coupled Version

1450 / 1750 r.p.m



Type	Motor			DNa	DNd	a	e	h1	h2	h1a	b	b1	b2	c	m1	m2	m3	p	n1	n2	s	x	d	k	kg	
	KW	HP	Forma																							
32/125	0,37	0,5	B	50	32	80	-	112	140	-	50	115	115	18	100	70	-	-	190	140	14	100	200	445	35	
	0,55	0,75																						470	38	
	0,75	1																						40	40	
32/160	0,37	0,5	B	50	32	80	-	132	160	-	50	115	125	18	100	70	-	-	240	190	14	100	200	445	37	
	0,55	0,75																						470	40	
	0,75	1																						40	40	
32/200	0,75	1	B	50	32	80	-	160	180	-	50	125	145	18	100	70	-	-	240	190	14	100	200	505	42	
	1,1	1,5																						45	45	
	1,5	2																						40	40	
32/250	2,2	3	B	50	32	100	-	180	225	-	65	170	175	18	125	95	-	-	90	240	190	14	100	250	555	55
	1,1	1,5																							63	63
	1,5	2																							60	60
40/125	2,2-3	3-4	B	50	32	100	-	180	225	-	65	170	175	18	125	95	-	-	90	320	250	14	100	200	525	65
	0,37	0,5																							75	75
	0,55	0,75																							40	40
40/160	0,75	1	B	65	40	80	-	132	160	-	50	110	135	18	100	70	-	-	240	190	14	100	200	470	43	
	1,1	1,5																						45	45	
	1,5	2																						50	50	
40/200	2,2	3	B	65	40	100	-	160	160	-	100	110	135	18	100	70	-	90	240	190	14	100	250	555	60	
	0,75	1																						60	60	
	1,1	1,5																						57	57	
40/250	1,5	2	B	65	40	100	-	160	180	-	50	140	155	18	100	70	-	-	265	212	14	100	200	525	60	
	2,2-3	3-4																						70	70	
	4	5,5																						80	80	
40/315	3	4	B	65	40	125	-	225	250	-	65	195	205	18	125	95	-	-	115	345	280	14	100	250	640	110
	4	5,5																							110	110
	5,5	7,5																							120	120
50/125	7,5	10	B	65	40	125	-	225	250	-	65	195	205	18	125	95	-	-	135	345	280	14	100	300	740	130
	11	15																							130	130
	11	15																							160	160
50/160	0,37	0,5	B	65	50	100	-	132	160	-	50	115	130	18	100	70	-	-	240	190	14	100	200	490	50	
	0,55	0,75																						47	47	
	0,75	1																						50	50	
50/200	1,1	1,5	B	65	50	100	-	160	180	-	50	120	150	18	100	70	-	-	265	212	14	100	200	490	50	
	1,5	2																						55	55	
	2,2	3																						60	60	
50/250	2,2-3	3-4	B	65	50	100	-	160	200	-	50	140	170	18	100	70	-	90	265	212	14	100	250	575	70	
	4	5,5																						70	70	
	5,5	7,5																						75	75	
50/315	4	5,5	B	65	50	100	-	180	225	-	65	170	185	18	125	95	-	80	320	250	14	100	300	670	100	
	5,5	7,5																						85	85	
	7,5	10																						100	100	
	11	15	B	65	50	125	-	225	280	-	65	200	215	18	125	95	-	115	345	280	14	100	250	640	120	
	350	910																						140	140	
	350	910																						170	170	

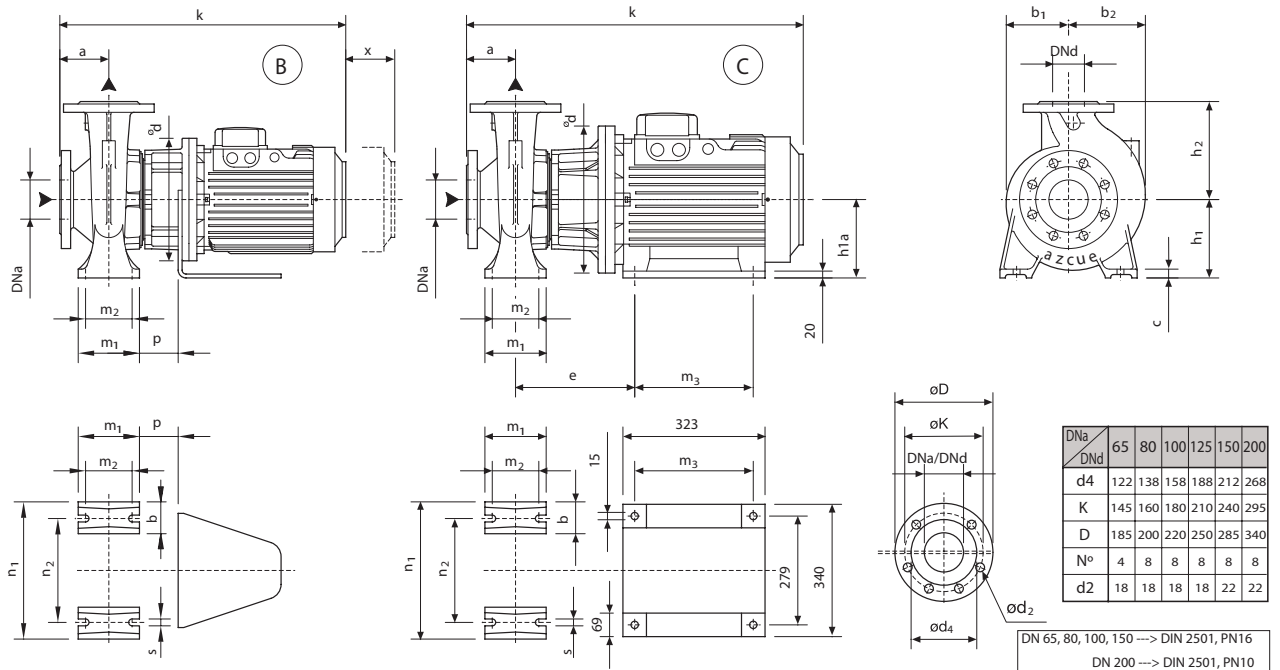
Subject to alterations

Ref. MN-061/2

## Dimensions

### Close Coupled Version

1450 / 1750 r.p.m



Type	Motor		Forma	DNa	DNd	a	e	h1	h2	h1a	b	b1	b2	c	m1	m2	m3	p	n1	n2	s	x	d	k	kg	
	KW	HP																								
65/125	0,55	0,7	B	80	65	100	-	160	180	-	65	120	150	18	125	95	-	-	280	212	14	100	200	490	47	
	0,75	1																						525	50	
	1,1	1,5																						525	52	
	1,5	2																						525	55	
65/160	1,1	1,5	B	80	65	100	-	160	200	-	65	130	155	18	125	95	-	-	280	212	14	100	200	575	70	
	1,5	2																						525	52	
	2,2-3	3-4																						525	55	
	2,2-3	3-4																						525	55	
65/200	2,2-3	3-4	B	80	65	100	-	180	225	-	65	155	180	18	125	95	-	-	80	320	250	14	140	250	575	75
	4	5,5																							670	90
	5,5	7,5																							670	95
	3	4																							670	90
65/250	4	5,5	B	80	65	100	-	200	250	-	80	180	200	20	160	120	-	-	100	360	280	19	140	250	615	100
	5,5	7,5																							710	120
	7,5	10																							710	120
	7,5	10																							710	120
65/315	7,5	10	B	80	65	125	-	225	280	-	80	210	230	20	160	120	-	-	120	400	315	19	140	300	735	135
	11	15																							910	165
	15	20																							910	185
	1,5	2																							910	185
80/160	2,2-3	3-4	B	100	80	125	-	180	225	-	65	140	180	18	125	95	-	-	80	320	250	14	140	250	600	65
	4	5,5																							600	75
	3	4																							600	80
	4	5,5																							600	80
80/200	4	5,5	B	100	80	125	-	180	250	-	65	160	190	18	125	95	-	-	115	345	280	14	140	250	640	90
	5,5	7,5																							735	100
	7,5	10																							735	110
	11	15																							735	110
80/250	7,5	10	B	100	80	125	-	200	280	-	80	185	210	18	160	120	-	-	95	400	315	19	140	250	640	120
	11	15																							735	125
	15	20																							735	135
	4	5,5																							735	125
80/315	11	15	B	100	80	125	-	250	315	-	80	220	245	20	160	120	-	-	115	400	315	19	140	350	910	190
	15	20																							910	205
	3	4																							910	115
	4	5,5																							910	115
100/160	3	4	B	125	100	125	-	200	280	-	80	180	225	18	160	120	-	-	95	360	280	19	140	250	640	120
	4	5,5																							735	125
	5,5	7,5																							735	125
	7,5	10																							735	125
100/200	7,5	10	B	125	100	125	-	200	280	-	80	175	215	18	160	120	-	-	95	360	280	19	140	250	640	115
	11	15																							735	120
	15	20																							735	125
	4	5,5																							735	120
100/250	11	15	B	125	100	140	-	225	280	-	80	190	220	18	160	120	-	-	115	400	315	19	140	350	925	185
	15	20																							925	200
	7,5	10																							925	185
	11	15																							925	185
100/315	15	20	B	125	100	140	-	250	315	-	80	225	255	18	160	120	-	-	115	400	315	19	140	350	925	185
	7,5	10																							925	200
	11	15																							925	185
	15	20																							925	200
125/200	15	20	B	150	125	140	-	250	315	-	80	195	245	20	160	120	-	-	115	400	315	19	140	350	925	185
	11	15																							925	200
	15	20																							925	185
	15	20																							925	200
125/250	11	15	B	150	125	140	-	250	355	-	80	225	275	20	160	120	-	-	115	400	315	19	140	350	925	205
	15	20																							925	225
	11	15																							925	225
	15	20																							925	225
150/200	11	15	B	200	150	160	-	280	400	-	100	240	315	20	200	150	-	-	95	550	450	24	140	350	945	255
	15	20																							945	275
	11	15																							945	275
	15	20																							945	275
150/250	11	15	B	200	150	160	-	280	400	-	100	230	300	20	200	150	-	-	95	500	400	24	180	350	945	255
	15	20																							945	275
	11	15																							945	275
	15	20																							945	275

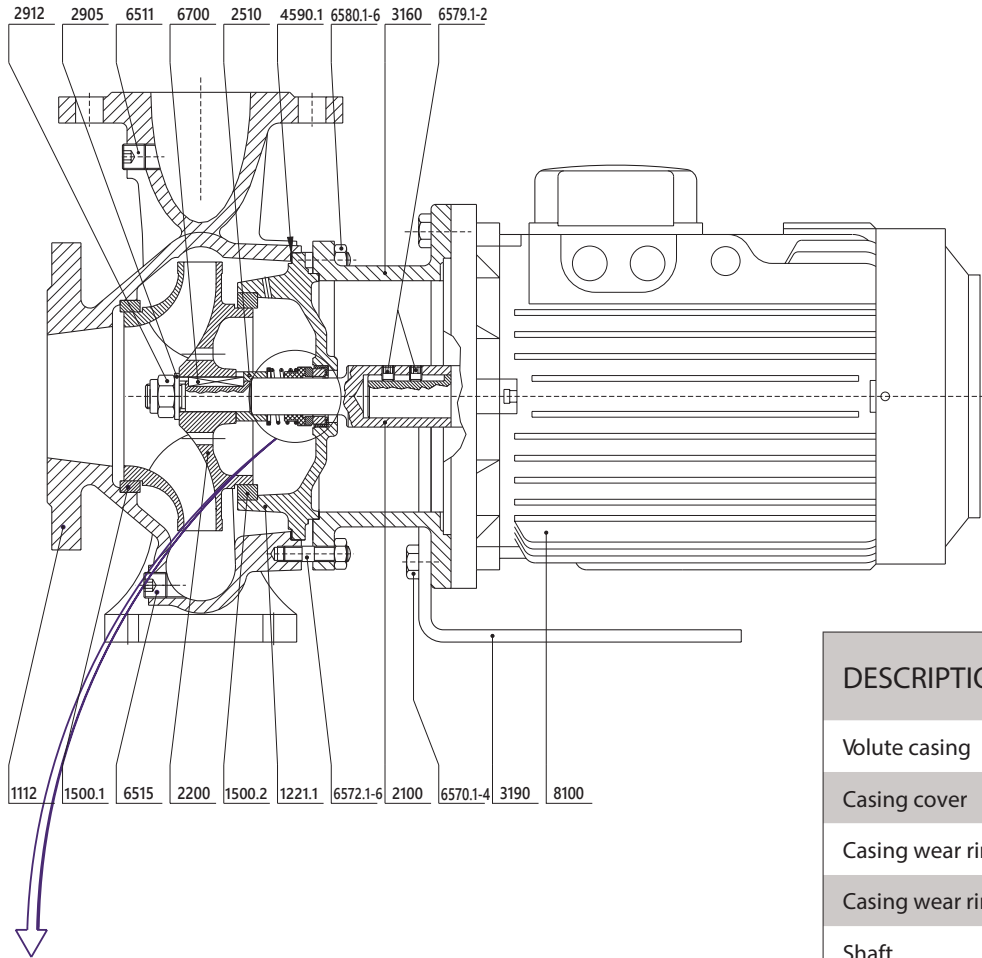
Subject to alterations

Ref. MN-061/3

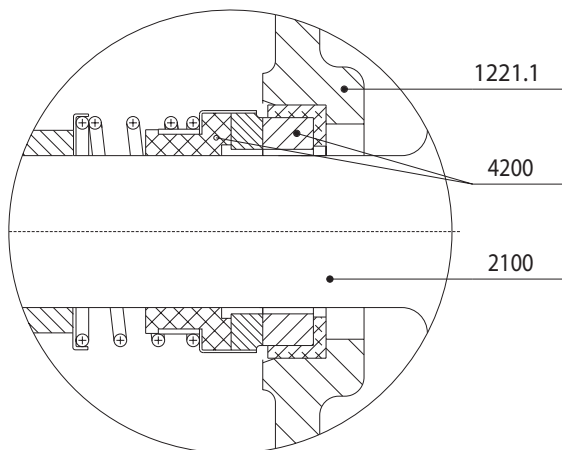


## Sectional Drawing

MN Series



Mechanical seal detail



**N°0AN-311-M**

DESCRIPTION	Ref.
Volute casing	1112
Casing cover	1221.1
Casing wear ring	1500.1
Casing wear ring	1500.2
Shaft	2100
Impeller	2200
Spacer ring	2510
Washer	2905
Impeller nut	2912
Motor stool	3160
Foot	3190
Mechanical seal	4200
Gasket	4590.1
Priming plug	6511
Drain plug	6515
Screw	6570.1-4
Stud	6572.1-6
Socket head cap screw	6579.1-2
Nut	6580.1-6
Key	6700
Motor	8100

## Interchangeability

### MN Series

Denomination	Casing	Casing cover	Shaft	Impeller	Motor stool	Mechanical seal	Cover wear ring	Volute wear ring	Gasket	Impeller nut
Reference	1112	1221.1	2100	2200	3160	4200	1500.1	1500.2	4590.1	2912
PUMP TYPE	32/125	1	1	1	1	1	1	2	1	1
	32/160	2	1	1	2	1	1	2	1	1
	32/200	3	2	1	3	1	1	2	2	1
	32/250	4	3	1	4	1	1	3	3	1
	40/125	5	1	1	5	1	1	4	2	1
	40/160	6	1	1	6	1	1	4	2	1
	40/200	7	2	1	7	1	1	4	2	2
	40/250	8	3	1	8	1	1	4	3	3
	40/315	9	4	2	9	2	2	5	6	4
	50/125	10	1	1	10	1	1	2	2	1
	50/160	11	1	1	11	1	1	2	2	1
	50/200	12	2	1	12	1	1	2	2	2
	50/250	13	3	1	13	1	1	2	3	3
	50/315	14	5	2	14	2	2	7	8	4
	65/125	15	1	1	15	1	1	7	2	1
	65/160	16	6	1	16	1	1	7	9	1
	65/200	17	7	1	17	1	1	7	9	2
	65/250	18	8	2	18	2	2	9	8	3
	65/315	19	5	2	19	2	2	9	8	4
	80/160	20	6	1	20	1	1	6	9	1
	80/200	21	9	2	21	2	2	6	8	2
	80/250	22	8	2	22	2	2	6	8	3
	80/315	23	5	2	23	2	2	6	8	4
	80/400	24	12	3	24	3	3	10	11	5
	100/160	25	9	2	25	2	2	12	8	2
	100/200	26	9	2	26	2	2	12	8	2
	100/250	27	8	2	27	2	2	12	8	3
	100/315	28	5	2	28	2	2	12	8	4
	100/400	29	12	3	29	3	3	12	11	5
	125/200	30	9	2	30	2	2	11	13	2
	125/250	31	10	2	31	2	2	11	13	3
	125/315	32	11	3	32	3	3	11	11	4
	125/400	33	12	3	33	3	3	11	11	5
	150/200	34	9	2	34	2	2	14	11	2
	150/250	35	10	2	35	2	2	15	11	3
	150/315	36	11	3	36	3	3	15	11	4
	150/400	37	12	3	37	3	3	15	11	5

■ MN series has different shafts & motor stool for the same pump type, depending on the different motors.