



Pump • Fire Fighting Units • Booster Set

ECO SNM

CLOSED COUPLED CENTRIFUGAL PUMPS



ECO SNM Rev.05.03.2024



Handled Liquids

Clean or slightly contaminated low viscosity liquids without solid & fibrous particles.

Technical Data

Discharge Flange _____ DN 32.....DN 200 mm

Capacity _____ up to 900 m³/h(*)

Head _____ up to 100 m(*)

Speed _____ up to 3600 rpm(*)

Design Temperature _____ -10 °C' to +140 °C(**)

Casing Pressure (Pmax) _____ 10 bar (16 bar)(**)

(Pmax: Suction Pressure + Shut off Head)

(*) Contact company for higher capacity and head values.

(**) The Material of pump differs according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

Design Features

- Horizontal / Vertical closed-coupled, volute casing, single stage, end suction centrifugal pump with closed impeller.

- Volute casing dimensions comply with EN 733.

- Complies EU547/2012 regulations.

- Suction and discharge flanges conform to EN 1092-2 / PN 16. In case of request, ANSI/ASME flanges can be supplied.

- Pumps are closed coupled with electric motors of IEC frame sizes with high efficiency class. (IE3-IE4)

- All impellers are balanced dynamically or statically according to ISO 1940 grade 6.3.

- Axial thrust is balanced by impeller balancing holes system.

- Direction of rotation is clockwise viewed from drive end.

- In case of request, wear ring can be supplied.

- The pump and motor have separate shafts connected by a rigid coupling or through slide fit shaft. Axial and radial forces are absorbed by electric motor bearings.

- Closed coupled pumps are lighter and smaller comparing to the norm centrifugal pumps of same hydraulic specifications.

- When the elbow is mounted on the suction of the pump, the name is changed to ECO SNM-V. In this case, the pump is always installed vertically.

- The electrical motor powers of ECO SNM-V pumps are limited because of its installation type.

Shaft Sealing

- Different mechanical seals are available according to customer request or liquid type.

Pump Designation

ECO SNM-V 100 - 250 - XXX

Pump Type _____

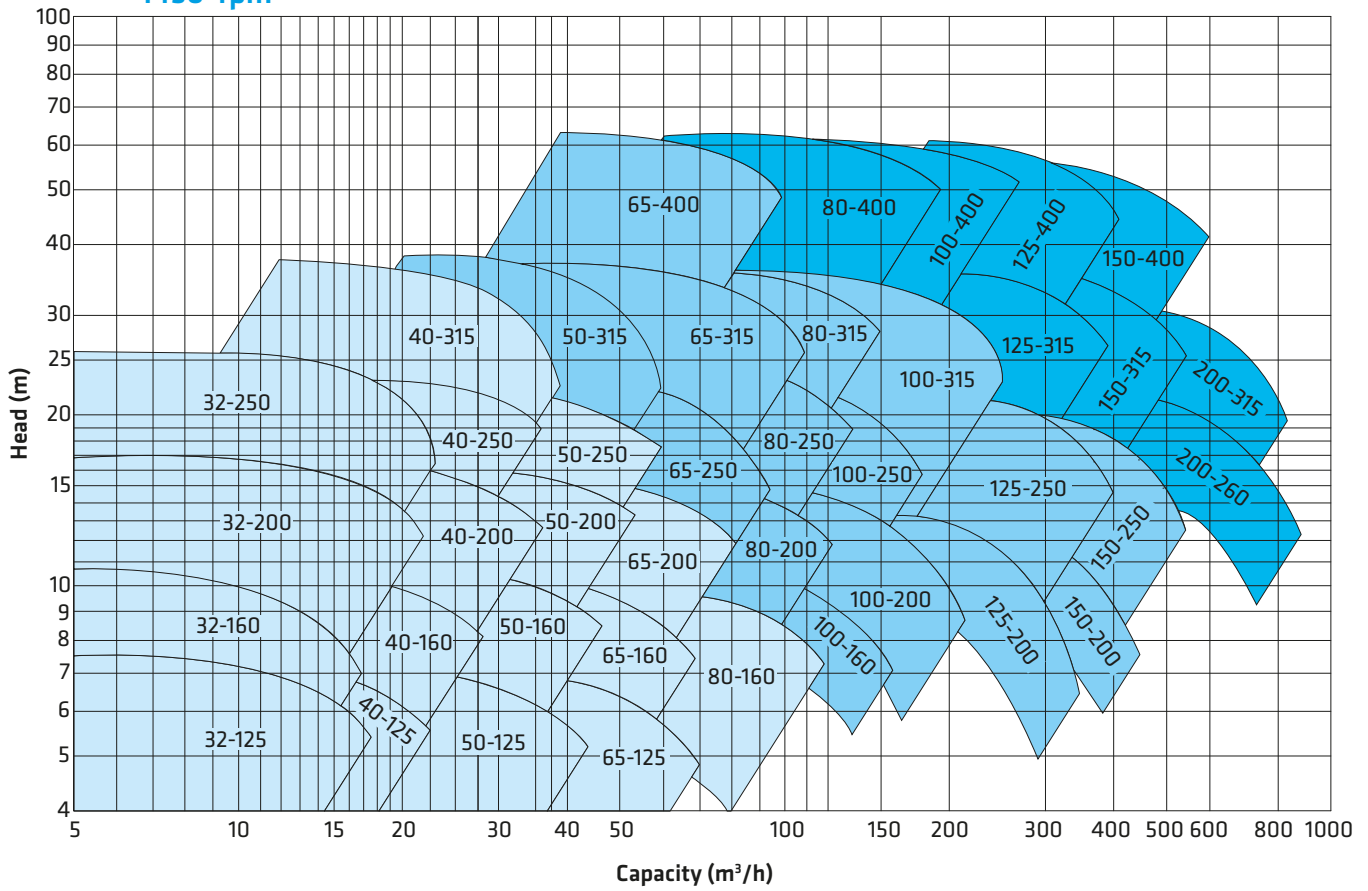
Vertical _____

Discharge Nozzle (DN-mm) _____

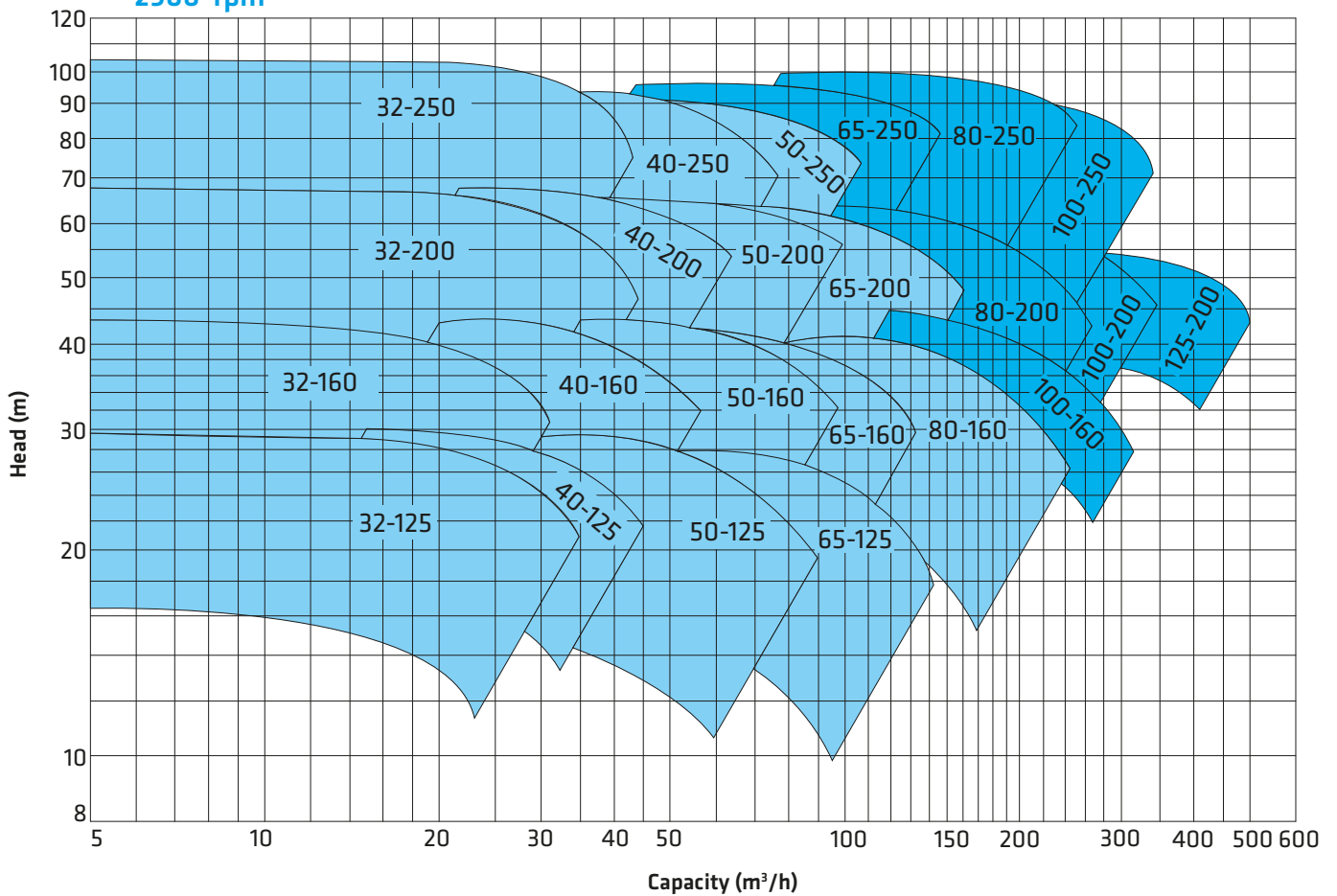
Nominal Impeller Diameter (mm) _____

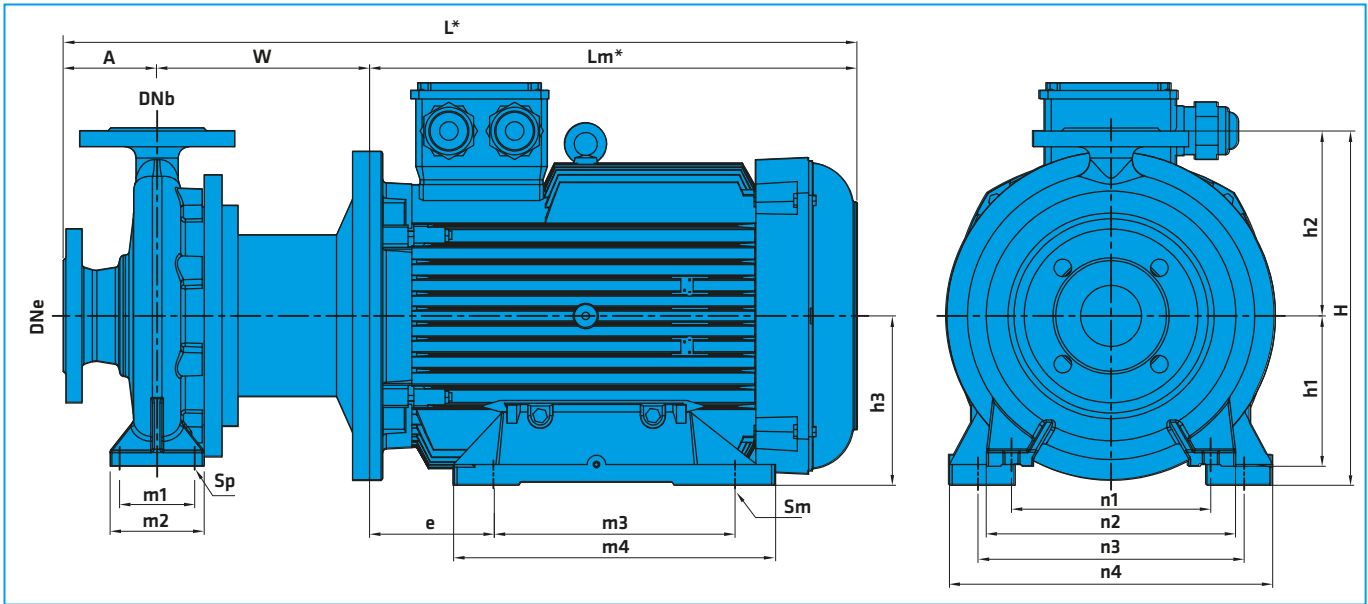
Special Application _____

1450 rpm



2900 rpm





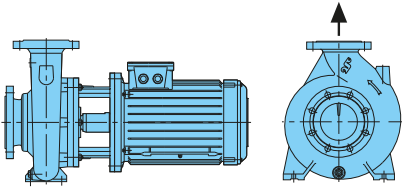
* Differs according to motor manufacturer.

2900 rpm (2 Pole Motor)

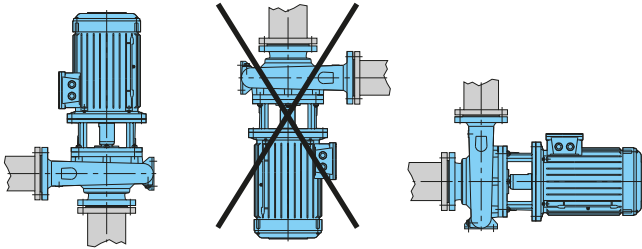
FORM	Pump Type	MOTOR		ECO SNM INSTALLATION DIMENSIONS (mm)																				
		kW	IEC	DNe	DNb	A	W	Lm*	L*	H	h1	h2	h3	e	m1	m2	m3	m4	n1	n2	n3	n4	Sp	Sm
F1	32-125	1,5	90L	50	32	80	156	266	503	252	112	140	90	56	70	100	125	158	140	190	140	190	14	10
F1	32-125	2,2	90L	50	32	80	156	266	503	252	112	140	90	56	70	100	125	158	140	190	140	190	14	10
F1	32-125	3	100L	50	32	80	179	292	551	252	112	140	100	63	70	100	140	178	140	190	160	192	14	12
F1	32-125	4	112M	50	32	80	179	336	595	252	112	140	112	70	70	100	140	176	140	190	190	220	14	12
F1	32-160	2,2	90L	50	32	80	156	267	503	292	132	160	90	56	70	100	125	158	190	240	140	190	14	10
F1	32-160	3	100L	50	32	80	179	292	551	292	132	160	100	63	70	100	140	178	190	240	160	192	14	12
F1	32-160	4	112M	50	32	80	179	336	595	292	132	160	112	70	70	100	140	176	190	240	190	220	14	12
F1	32-160	5,5	132S	50	32	80	189	360	629	292	132	160	132	89	70	100	140	180	190	240	216	252	14	12
F2	32-200	5,5	132S	50	32	80	189	360	629	340	160	180	132	89	70	100	140	180	190	240	216	252	14	12
F2	32-200	7,5	132M	50	32	80	189	396	665	340	160	180	132	89	70	100	178	218	190	240	216	252	14	12
F2	32-200	11	160M	50	32	80	226	466	772	340	160	180	160	108	70	100	210	311	190	240	254	298	14	15
F2	32-250	7,5	132M	50	32	100	189	396	685	405	180	225	132	89	95	125	178	218	250	320	216	252	14	12
F2	32-250	11	160M	50	32	100	226	466	792	405	180	225	160	108	95	125	210	311	250	320	254	298	14	15
F2	32-250	15	160L	50	32	100	226	466	792	405	180	225	160	108	95	125	210	311	250	320	254	298	14	15
F2	32-250	18,5	160L	50	32	100	226	466	792	405	180	225	160	108	95	125	210	311	250	320	254	298	14	15
F2	32-250	22	180M	50	32	100	226	519	845	405	180	225	180	121	95	125	241	343	250	320	279	344	14	15
F1	40-125	2,2	90L	65	40	80	156	267	503	252	112	140	90	56	70	100	125	158	160	210	140	190	14	10
F1	40-125	3	100L	65	40	80	179	292	551	252	112	140	100	63	70	100	140	178	160	210	160	192	14	12
F1	40-125	4	112M	65	40	80	179	335	594	252	112	140	112	70	70	100	140	176	160	210	190	220	14	12
F1	40-125	5,5	132S	65	40	80	189	360	629	252	112	140	132	89	70	100	140	180	160	210	216	252	14	12
F1	40-160	4	112M	65	40	80	179	336	595	292	132	160	112	70	70	100	140	176	190	240	190	220	14	12
F1	40-160	5,5	132S	65	40	80	189	361	629	292	132	160	132	89	70	100	140	180	190	240	216	252	14	12
F1	40-160	7,5	132M	65	40	80	189	396	665	292	132	160	132	89	70	100	178	218	190	240	216	252	14	12
F2	40-200	7,5	132M	65	40	100	189	396	685	340	160	180	132	89	70	100	178	218	212	265	216	252	14	12
F2	40-200	11	160M	65	40	100	226	466	792	340	160	180	160	108	70	100	210	311	212	265	254	298	14	15
F2	40-200	15	160L	65	40	100	226	466	792	340	160	180	160	108	70	100	210	311	212	265	254	298	14	15
F2	40-200	18,5	160L	65	40	100	226	466	792	340	160	180	160	108	70	100	210	311	212	265	254	298	14	15
F2	40-250	15	160L	65	40	100	226	466	792	405	180	225	160	108	70	125	210	311	250	320	254	298	14	15
F2	40-250	18,5	160L	65	40	100	226	466	792	405	180	225	160	108	70	125	210	311	250	320	254	298	14	15
F2	40-250	22	180M	65	40	100	226	519	845	405	180	225	180	121	70	125	241	343	250	320	279	344	14	15
F2	40-250	30	200L	65	40	100	226	555	881	425	180	225	200	133	70	125	305	365	250	320	318	388	14	19
F1	50-125	3	100L	65	50	100	179	292	571	292	132	160	100	63	70	100	140	178	190	240	160	192	14	12
F1	50-125	4	112M	65	50	100	179	336	615	292	132	160	112	70	70	100	140	176	190	240	190	220	14	12
F1	50-125	5,5	132S	65	50	100	189	361	650	292	132	160	132	89	70	100	140	180	190	240	216	252	14	12
F1	50-125	7,5	132M	65	50	100	189	396	685	292	132	160	132	89	70	100	178	218	190	240	216	252	14	12
F1	50-160	5,5	132S	65	50	100	189	360	649	340	160	180	132	89	70	100	140	180	212	265	216	252	14	12
F1	50-160	7,5	132M	65	50	100	189	396	685	340	160	180	132	89	70	100	178	218	212	265	216	252	14	12
F1	50-160	11	160M	65	50	100	226	466	792	340	160	180	160	108	70	100	210	311	212	265	254	298	14	15
F1	50-160	15	160L	65	50	100	226	466	792	340	160	180	160	108	70	100	210	311	212	265	254	298	14	15
F2	50-200	11	160M	65	50	100	226	466	792	360	160	200	160	108	70	100	210	311	212	265	254	298	14	15
F2	50-200	15	160L	65	50	100	226	466	792	360	160	200	160	108	70	100	210	311	212	265	254	298	14	15
F2	50-200	18,5	160L	65	50	100	226	466	792	360	160	200	160	108	70	100	210	311	212	265	254	298	14	15
F2	50-200	22	180L	65	50	100	226	519	845	380	160	200	180	121	70	100	241	343	212	265	279	344	14	15

Installation Arrangements

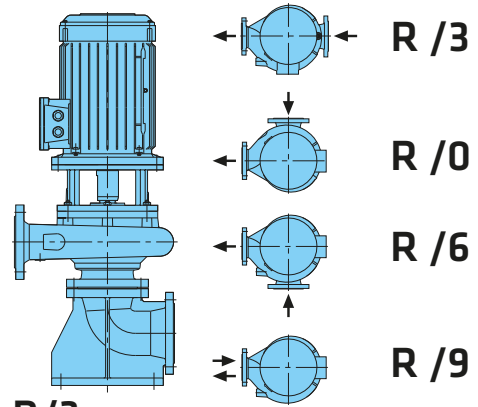
ECO SNM / ECO SNM-V pumps can be installed in different arrangements



Horizontal installation on ground
Horizontal position on a base plate



Installation on perpendicular pipes
•Between two perpendicular pipes in horizontal or vertical position. The axis of motor below the horizontal line is not admissible.



R/3
Suction Flange Position
Direction of Rotation (R)

Direction of rotation viewed from driver end: R : Right
Vertical installation on ground

- Vertical position by means of a special suction elbow with foot.
- Standard manufacturing is as in the drawings above (R/3). Suction elbow position can be adjusted for different positions.

ECO SNM-V Type Pumps

Pump Type	MOTOR		
	kW	IEC	rpm
32-125	0.37	71M	1450
32-125	0.55	80M	1450
32-125	1.5	90S	2900
32-125	2.2	90L	2900
32-125	3	100L	2900
32-125	4	112M	2900
32-160	0.37	71M	1450
32-160	0.55	80M	1450
32-160	0.75	80M	1450
32-160	2.2	90L	2900
32-160	3	100L	2900
32-160	4	112M	2900
32-160	5.5	132S	2900
32-200	0.75	80M	1450
32-200	1.1	90S	1450
32-200	1.5	90L	1450
32-250	1.1	90S	1450
32-250	1.5	90L	1450
32-250	2.2	100L	1450
32-250	3	100H	1450
40-125	0.37	71M	1450
40-125	0.55	80M	1450
40-125	2.2	90L	2900
40-125	3	100L	2900
40-125	4	112M	2900
40-125	5.5	132S	2900
40-160	0.55	80M	1450
40-160	0.75	80M	1450
40-160	1.1	90S	1450
40-160	4	112M	2900
40-160	5.5	132S	2900
40-160	7.5	132S	2900
40-200	1.1	80M	1450
40-200	1.5	90S	1450
40-200	2.2	100L	1450
40-250	2.2	100L	1450
40-250	3	100H	1450
40-250	4	112M	1450

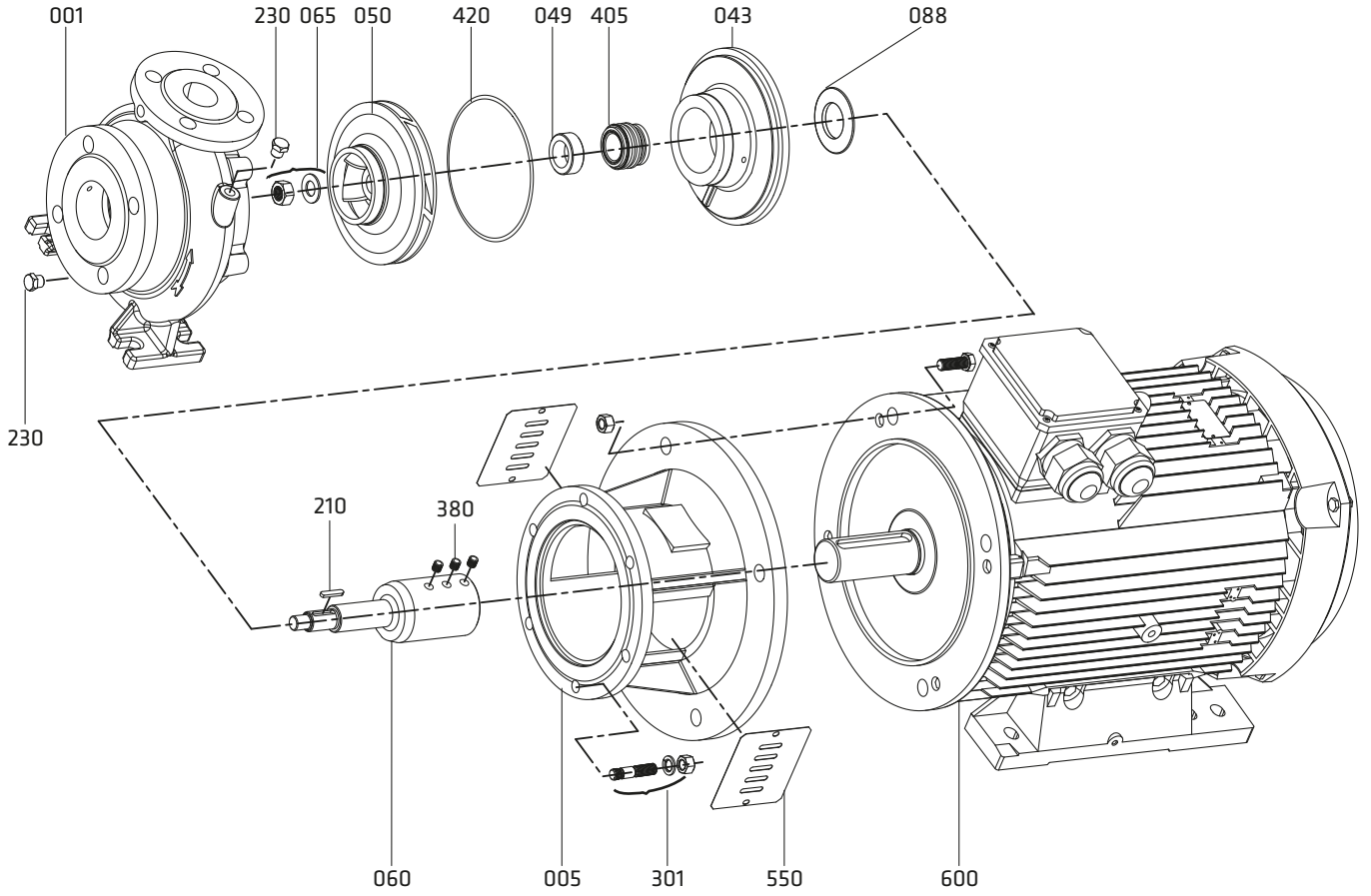
Pump Type	MOTOR		
	kW	IEC	rpm
50-125	0.55	80M	1450
50-125	0.75	80M	1450
50-125	1.1	80M	1450
50-125	3	100L	2900
50-125	4	112M	2900
50-125	5.5	132S	2900
50-125	7.5	132S	2900
50-160	0.75	80M	1450
50-160	1.1	90S	1450
50-160	1.5	90L	1450
50-160	2.2	100L	1450
50-160	5.5	132S	2900
50-160	7.5	132S	2900
50-160	11	160M	2900
50-160	15	160M	2900
50-200	1.1	90S	1450
50-200	1.5	90L	1450
50-200	2.2	100L	1450
50-200	3	100H	1450
50-250	2.2	100L	1450
50-250	3	100H	1450
50-250	4	112M	1450
50-250	5.5	132S	1450
65-125	0.55	80M	1450
65-125	0.75	80M	1450
65-125	1.1	90S	1450
65-125	1.5	90L	1450
65-125	4	112M	2900
65-125	5.5	132S	2900
65-125	7.5	132S	2900
65-125	11	160M	2900
65-160	1.1	90S	1450
65-160	1.5	90L	1450
65-160	2.2	100L	1450
65-160	7.5	132S	2900
65-160	11	160M	2900
65-160	15	160M	2900

Pump Type	MOTOR		
	kW	IEC	rpm
65-200	1.5	90S	1450
65-200	2.2	100L	1450
65-200	3	100H	1450
65-200	4	112M	1450
65-200	15	160M	2900
65-200	18.5	160L	2900
65-200	22	180M	2900
65-200	30	200L	2900
65-250	3	100H	1450
65-250	4	112M	1450
65-250	5.5	132S	1450
65-250	7.5	132M	1450
65-315	5.5	132S	1450
65-315	7.5	132M	1450
65-315	11	160M	1450
65-315	15	160H	1450
80-160	1.5	90L	1450
80-160	2.2	100L	1450
80-160	3	100H	1450
80-160	11	160M	2900
80-160	15	160M	2900
80-160	18.5	160H	2900
80-160	22	180M	2900
80-160	30	200L	2900
80-200	3	100H	1450
80-200	4	112M	1450
80-200	5.5	132S	1450
80-250	4	112M	1450
80-250	5.5	132S	1450
80-250	7.5	132M	1450
80-250	11	160M	1450
80-315	11	160M	1450
80-315	15	160H	1450
80-315	18.5	180M	1450
100-160	3	100H	1450
100-160	4	112M	1450
100-160	5.5	132S	1450

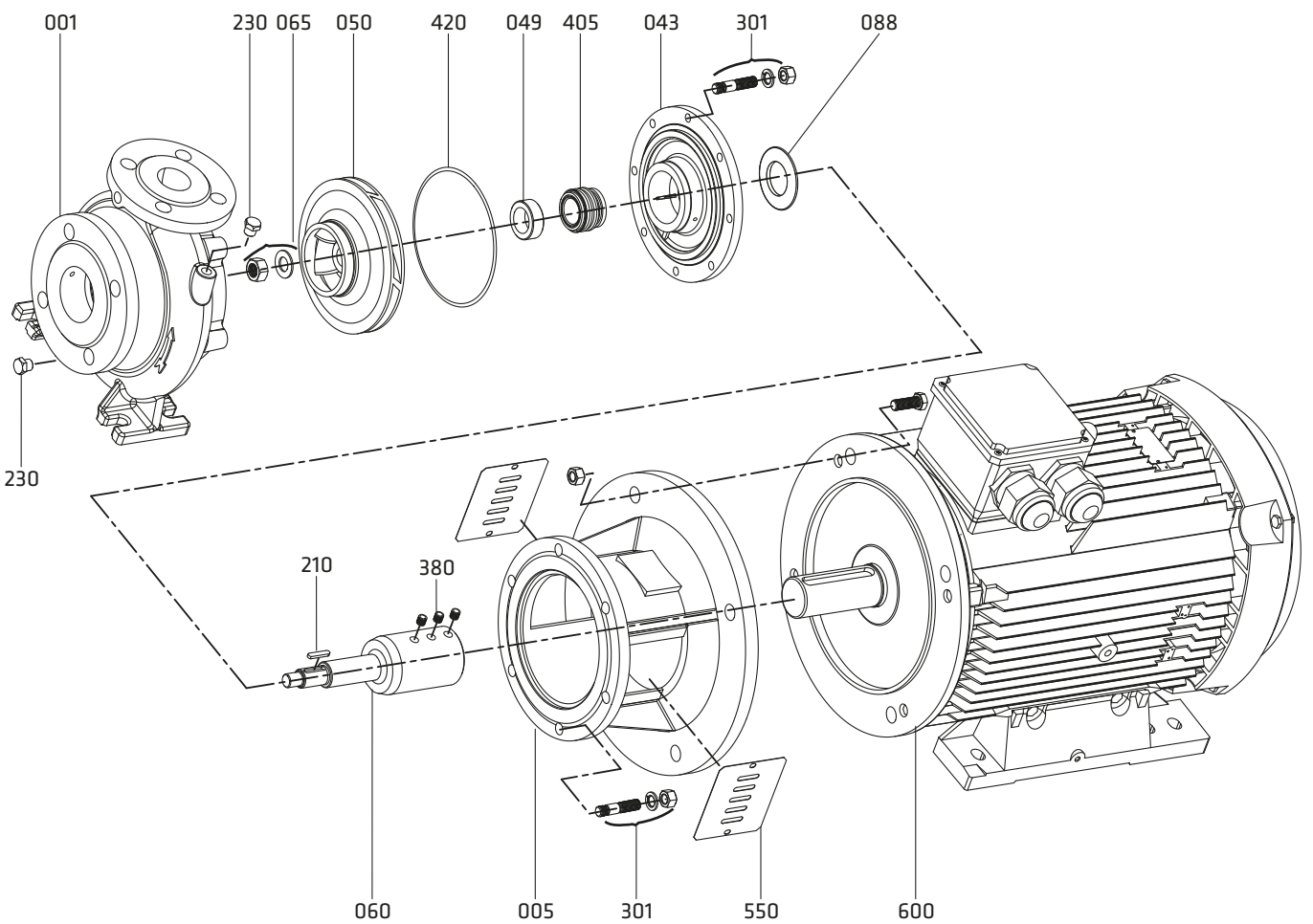
Pump Type	MOTOR		
	kW	IEC	rpm
100-200	4	112M	1450
100-200	5.5	132S	1450
100-200	7.5	132M	1450
100-250	5.5	132S	1450
100-250	7.5	132M	1450
100-250	11	160M	1450
100-250	15	160H	1450
100-315	15	160H	1450
100-315	18.5	180M	1450
100-315	22	180L	1450
100-315	30	200L	1450
125-200	5.5	132S	1450
125-200	7.5	132M	1450
125-200	11	160M	1450
125-250	15	160H	1450
125-250	18.5	180M	1450
125-250	22	180L	1450

Assembly Drawings

Form: F1 (Slide - Fit Shaft Application)



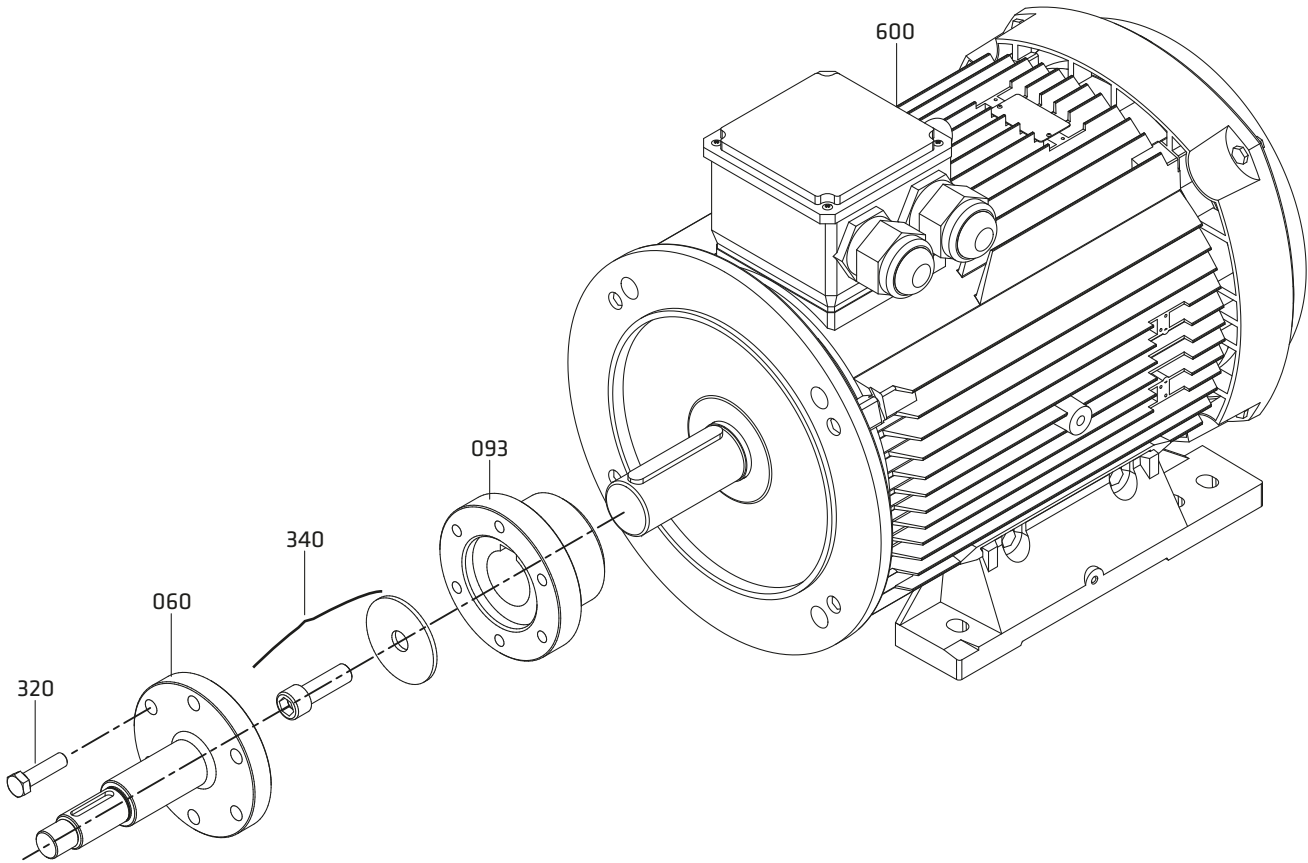
Form: F2 (Slide - Fit Shaft Application)



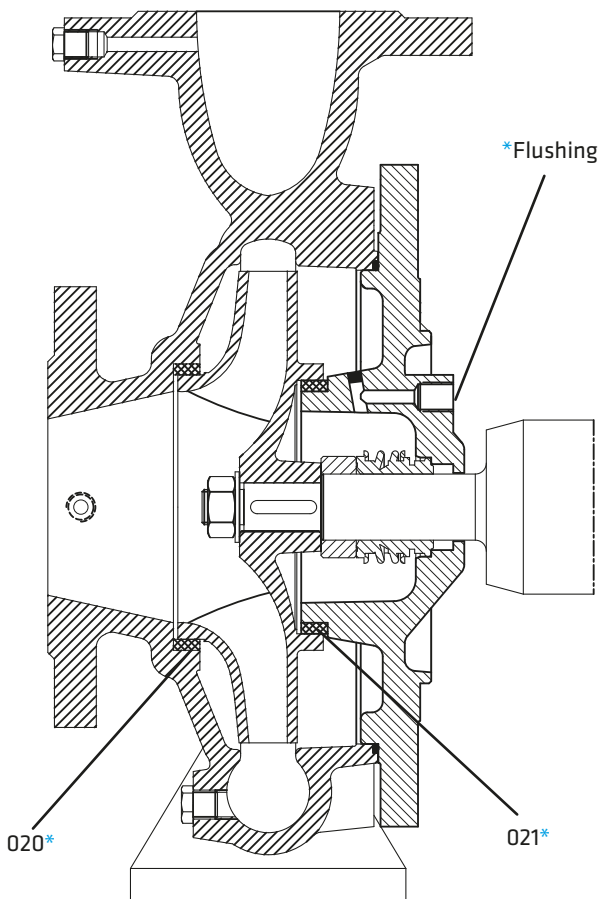
Rigid Coupling Application

For motor shaft diameters of Ø60 mm or bigger.

ECO SNM



Optional Applications



Part List

001	Volute Casing
005	Motor Pedestal
020*	Wear Ring (Casing)
021*	Wear Ring (Seal Cover)
043	Mechanical Seal Cover
049	Mechanical Seal Spacer Sleeve
050	Impeller
060	Shaft
065	Impeller Nut and Washer
088	Thrower
093	Rigid Coupling
210	Impeller Key
230	Screw
301	Stud, Washer and Nut
320	Screw
340	Allen Screw and Washer
380	Set Screw
405	Mechanical Seal
420	O-ring
550	Guard
600	Electric Motor

(*) Optional

Material Option

Part List	10	30	35	20	60	6L	70	7L	8M	7D	7S	8N	80	4C	4A	40	80	8T	60	7L	7E	7D	
	0.6025	0.7040	0.7043	1.0619	1.4308	1.4309	1.4408	1.4409	1.4500	1.4517	1.4469	1.4317	1.4008	2.1050.01	2.0975.01	2.1096.01	1.4021	1.4021+QT	1.4301	1.4404	1.4460	1.4462	
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○	○									
Mechanical Seal Cover	●	○	○	○	○	○	○	○	○	○	○	○	○	○									
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						○	
Shaft																	●	○	○	○			○
Bearing Housing	●	○	○	○	○	○	○	○															
Wear Ring	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○							
Mech. Seal Spacer Sleeve																	●	○	○	○			○
Mechanical Seal (*)	EN 12756																						

(*) Optional: Depending on customer requirement or request different types and brands of mechanical seals are applicable.

● Standard manufacturing

NOTE: Depends on the request, different than above casting and shaft material can be supplied.

○ Optional

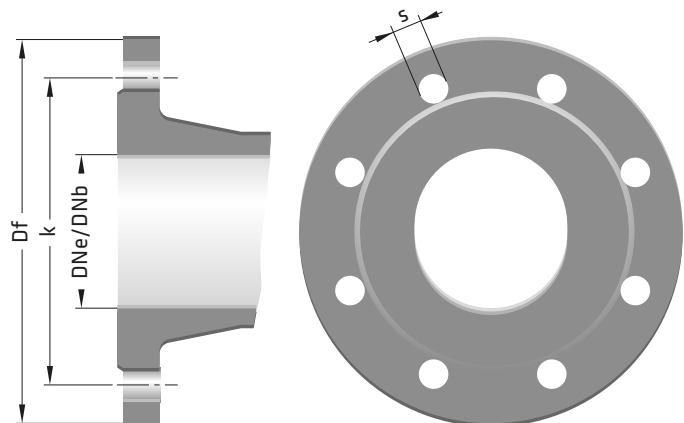
Material Equivalents

Description	DIN / EN	AISI / SAE / ASTM
Cast Iron	0.6025	A48 Class 40B
Nodular Cast Iron	0.7040	A536 60-40-18
Nodular Cast Iron	0.7043	A536 60-40-18
Cast Steel	1.0619	A216 WCB
Chrome Nickel Cast Steel	1.4308	A351 CF8
Chrome Nickel Cast Steel (low carbon)	1.4309	A351 CF3
Chrome Nickel Molybdenum Cast Steel	1.4408	A351 CF8M
Chrome Nickel Molybdenum Cast Steel (low carbon)	1.4409	A351 CF3M
Austenitic Cast Steel	1.4500	A351 CN7M
Austenitic - Ferritic Cast Steel (duplex)	1.4517	A890 CD4MCuN
Austenitic - Ferritic Cast Steel (super duplex)	1.4469	A890 CE3MN
Martenzitic Stainless Cast Steel	1.4317	A352 CA6NM
Martenzitic Stainless Cast Steel	1.4008	A217 CA15
Cast Bronze (tin alloy)	2.1050.01	B427 C90700
Cast Bronze (nickel alloy)	2.0975.01	B148 C95500
Cast Bronze (Leaded)	2.1096.01	B584 C83600
Chrome Steel	1.4021	A276 Type 420
Chrome Steel(heat treated)	1.4021	A276 Type 420+QT
Chrome Nickel Steel	1.4301	A276 Type 304
Chrome Nickel Steel (low carbon)	1.4404	A276 Type 316L
Duplex (austenitic-ferritic) Steel	1.4460	AISI 329
Duplex (austenitic-ferritic) Steel	1.4462	UNS S32205

Flange Dimensions

EN 1092-2

DNe/DNb	Suction & Discharge (PN 16)			
	Df	k	s	n
32	140	100	18	4
40	150	110	18	4
50	165	125	18	4
65	185	145	18	4
80	200	160	18	8
100	220	180	18	8
125	250	210	18	8
150	285	240	22	8
200	340	295	22	12
250	405	355	26	12



" n " number of holes