

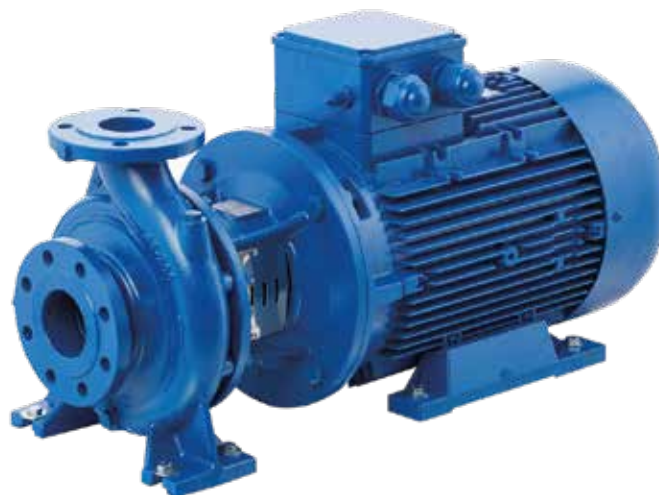


Pump • Fire Fighting Units • Booster Set

# ECO SNM CLOSED COUPLED CENTRIFUGAL PUMPS



ECO SNM Rev.11 09.2021



## Handled Liquids

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

## Technical Data

Discharge Flange \_\_\_\_\_ DN 32.....DN 150 mm

Capacity \_\_\_\_\_ up to 600 m<sup>3</sup>/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. The flanges are according to EN 1092-1 / PN 16 for steel or stainless steel casing. In case of request, ANSI/ASME flanges can be supplied.

## Pump Designation

Pump Type \_\_\_\_\_

Vertical \_\_\_\_\_

Discharge Nozzle (DN-mm) \_\_\_\_\_

Nominal Impeller Diameter (mm) \_\_\_\_\_

Special Application \_\_\_\_\_

# ECO SNM-V 100 - 250 - XXX

•Pumps are closed coupled with electric motors of IEC frame sizes with high efficiency class.

•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.

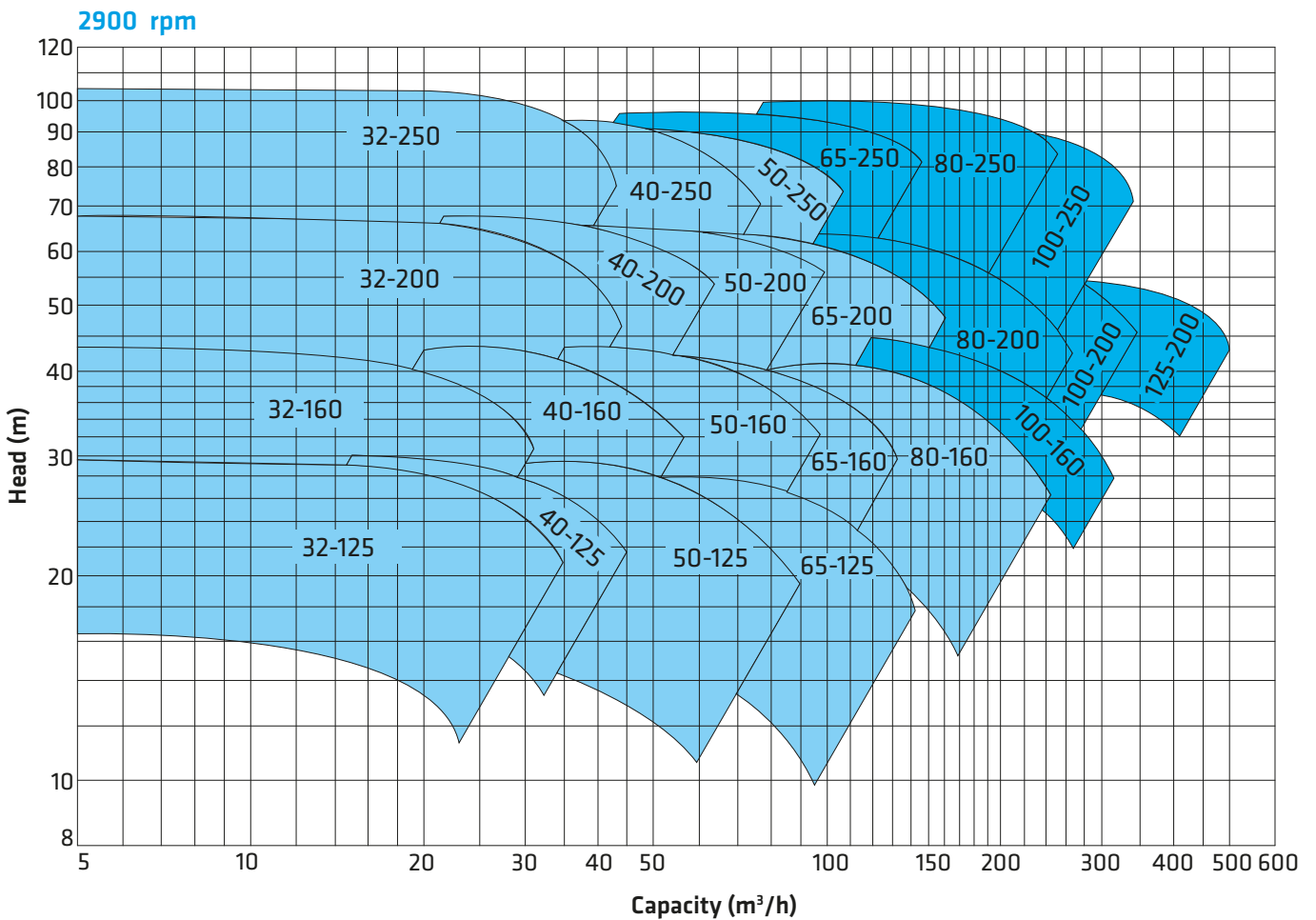
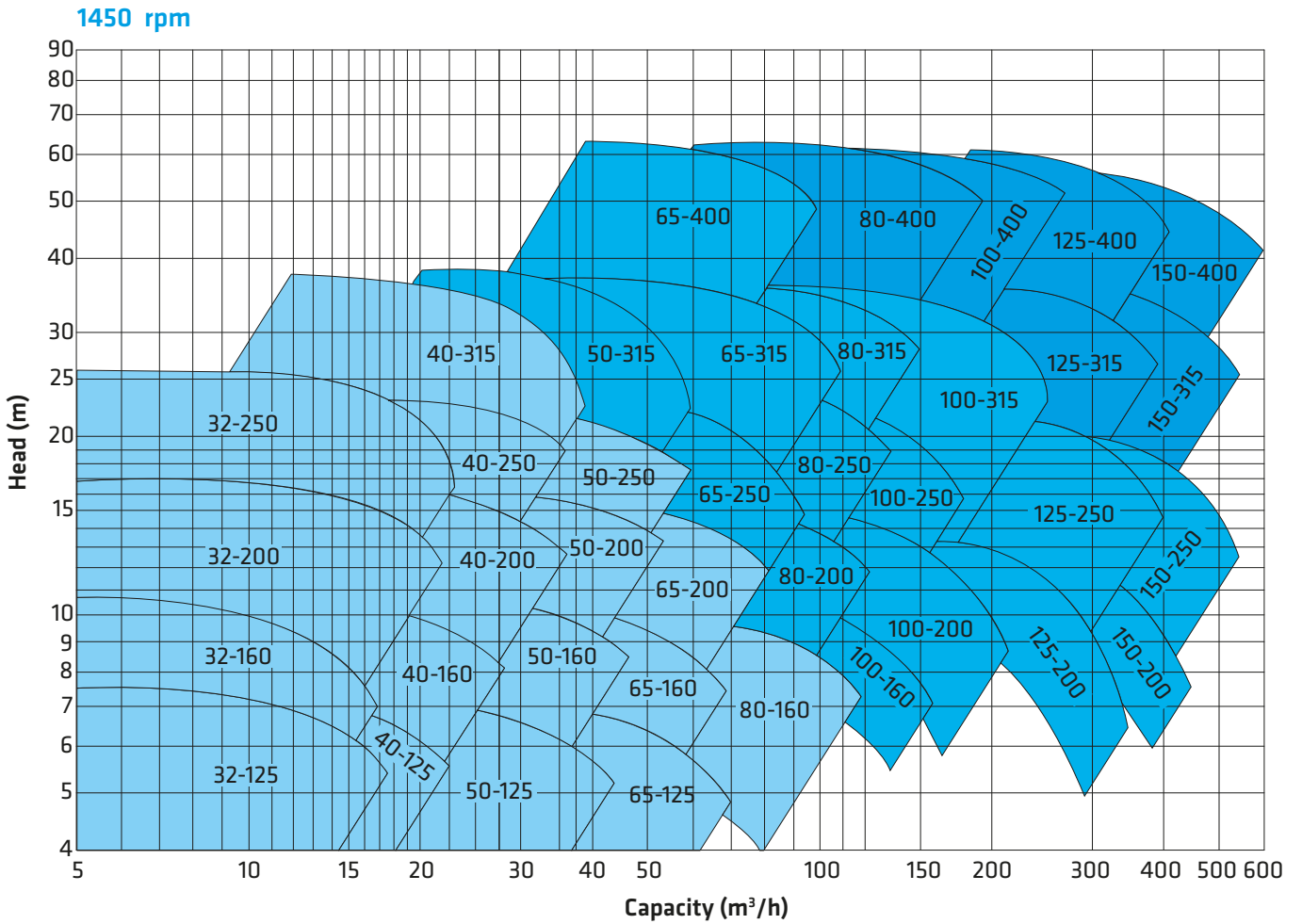
•When the elbow is mounted on the suction of the pump, the name is changed to ECO SNM-V. In this case, the pump is always installed vertically.

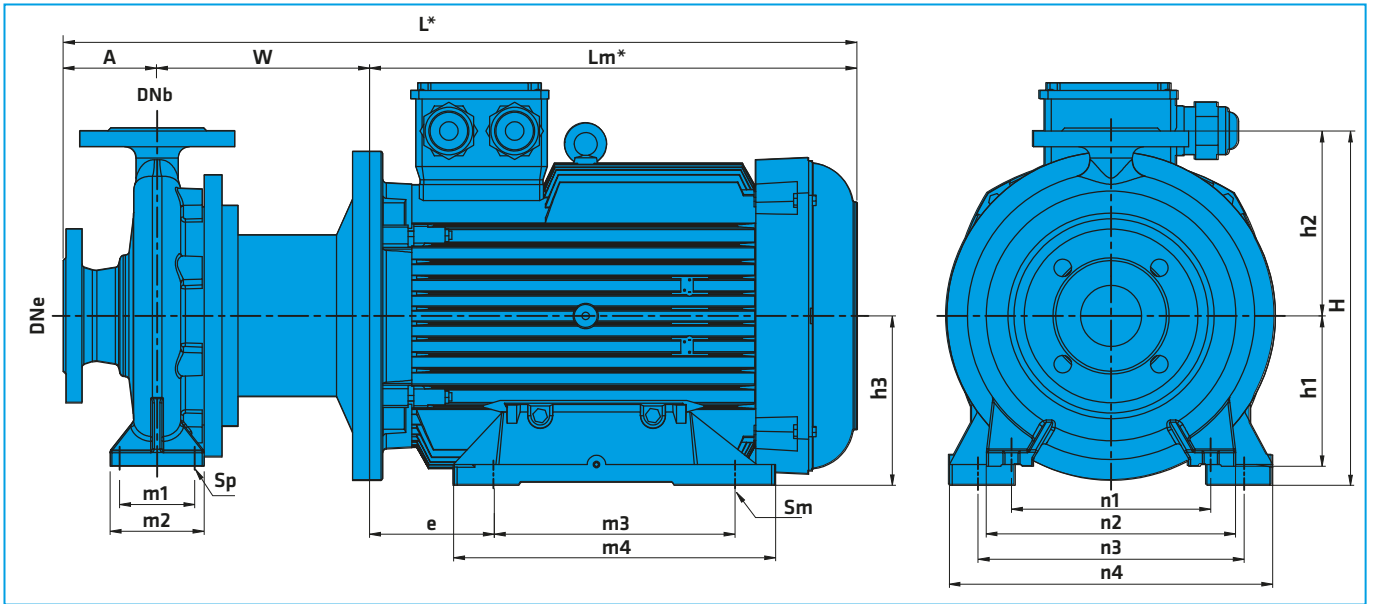
•The electrical motor powers of ECO SNM-V pumps are limited because of its installation type.

•For ECO SNM and ECO SNM-V drawings, please look at below address [www.standartpompa.com](http://www.standartpompa.com).

## Shaft Sealing

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





\* 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	336	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





1450 rpm (4 Pole Motor)

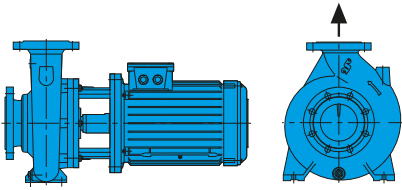
FORM	Pump Type	MOTOR		ECO SNM INSTALLATION DIMENSIONS (mm)																				
		kW	IEC	DNe	DNb	A	W	Lm*	L*	H	h1	h2	h3	e	m1	m2	m3	m4	n1	n2	n3	n4	Sp	Sm
F2	100-250	5,5	132M	125	100	140	214	396	750	505	225	280	132	89	120	160	178	218	315	400	216	252	19	12
F2	100-250	7,5	132M	125	100	140	214	396	750	505	225	280	132	89	120	160	178	218	315	400	216	252	19	12
F2	100-250	11	160M	125	100	140	244	466	850	505	225	280	160	108	120	160	254	311	315	400	254	298	19	15
F2	100-250	15	160L	125	100	140	244	466	850	505	225	280	160	108	120	160	254	311	315	400	254	298	19	15
F2	100-315	15	160L	125	100	140	244	466	850	565	250	315	160	108	120	160	254	311	315	400	254	298	19	15
F2	100-315	18,5	180M	125	100	140	244	519	903	565	250	315	180	121	120	160	279	343	315	400	279	344	19	15
F2	100-315	22	180L	125	100	140	244	519	903	565	250	315	180	121	120	160	279	343	315	400	279	344	19	15
F2	100-315	30	200L	125	100	140	246	555	941	565	250	315	200	133	120	160	305	365	315	400	318	388	19	19
F2	100-400	22	180L	125	100	140	245	519	904	635	280	355	180	121	150	200	279	343	400	500	279	344	19	15
F2	100-400	30	200L	125	100	140	245	555	940	635	280	355	200	133	150	200	305	365	400	500	318	388	19	19
F2	100-400	37	225M	125	100	140	305	625	1070	635	280	355	200	133	150	200	305	365	400	500	318	388	19	19
F2	100-400	45	225M	125	100	140	305	625	1070	635	280	355	225	149	150	200	311	383	400	500	356	442	19	19
F2	100-400	55	250M	125	100	140	305	746	1195	635	280	355	250	168	150	200	349	421	400	500	406	506	19	24
F2	100-400	75	280M	125	100	140	305	885	1330	635	280	355	280	190	150	200	419	498	400	500	457	554	19	24
F2	100-400	90	280M	125	100	140	305	885	1330	635	280	355	280	190	150	200	419	498	400	500	457	554	19	24
F1	125-200	7,5	132M	150	125	140	214	396	750	565	250	315	132	89	120	160	178	218	315	400	216	252	19	12
F1	125-200	11	160M	150	125	140	244	466	850	565	250	315	160	108	120	160	254	311	315	400	254	298	19	15
F2	125-250	15	160L	150	125	140	244	466	850	605	250	355	160	108	120	160	254	311	315	400	254	298	19	15
F2	125-250	18,5	180M	150	125	140	244	519	903	605	250	355	180	121	120	160	279	343	315	400	279	344	19	15
F2	125-250	22	180L	150	125	140	244	519	903	605	250	355	180	121	120	160	279	343	315	400	279	344	19	15
F1	125-315	11	160M	150	125	140	256	466	862	635	280	355	160	108	150	220	254	311	400	500	254	298	23	15
F1	125-315	15	160L	150	125	140	256	466	862	635	280	355	160	108	150	220	254	311	400	500	254	298	23	15
F1	125-315	18,5	180M	150	125	140	256	519	915	635	280	355	180	121	150	220	279	343	400	500	279	344	23	15
F1	125-315	22	180L	150	125	140	256	519	915	635	280	355	180	121	150	220	279	343	400	500	279	344	23	15
F1	125-315	30	200L	150	125	140	256	555	951	635	280	355	200	133	150	220	305	365	400	500	318	388	23	19
F1	125-315	37	225M	150	125	140	316	625	1081	635	280	355	225	149	150	220	305	365	400	500	356	442	23	19
F1	125-315	45	225M	150	125	140	316	625	1081	635	280	355	225	149	150	220	305	365	400	500	356	442	23	19
F2	125-400	37	225M	150	125	140	316	625	1081	715	315	400	225	149	150	200	311	383	400	500	356	442	23	19
F2	125-400	45	225M	150	125	140	316	625	1081	715	315	400	225	149	150	200	311	383	400	500	356	442	23	19
F2	125-400	55	250M	150	125	140	316	753	1209	715	315	400	250	168	150	200	349	409	400	500	406	506	23	24
F2	125-400	75	280M	150	125	140	316	869	1325	715	315	400	280	180	150	200	419	501	400	500	457	554	23	24
F2	125-400	90	280M	150	125	140	316	869	1325	715	315	400	280	180	150	200	419	501	400	500	457	554	23	24
F1	150-200	11	160M	200	150	160	244	466	870	635	280	355	160	108	150	200	254	311	400	500	254	298	23	15
F1	150-200	15	160L	200	150	160	244	466	870	635	280	355	160	108	150	200	254	311	400	500	254	298	23	15
F2	150-250	15	160L	200	150	160	244	466	870	655	280	375	160	108	150	200	254	311	400	500	254	298	23	15
F2	150-250	18,5	180M	200	150	160	244	519	923	655	280	375	180	121	150	200	279	343	400	500	279	344	23	15
F2	150-250	22	180L	200	150	160	244	519	923	655	280	375	180	121	150	200	279	343	400	500	279	344	23	15
F2	150-250	30	200L	200	150	160	246	555	961	655	280	375	200	133	150	200	305	365	400	500	318	388	23	19
F1	150-315	18,5	180M	200	150	160	258	753	1229	680	280	400	180	168	150	200	349	409	450	550	279	344	23	24
F1	150-315	22	180L	200	150	160	258	753	1229	680	280	400	180	168	150	200	349	409	450	550	279	344	23	24
F1	150-315	30	200L	200	150	160	258	555	971	680	280	400	200	133	150	200	305	365	450	550	318	388	23	19
F1	150-315	37	225M	200	150	160	318	625	1101	680	280	400	225	149	150	200	311	383	450	550	356	442	23	19
F1	150-315	45	225M	200	150	160	318	625	1101	680	280	400	225	149	150	200	311	383	450	550	356	442	23	19
F1	150-315	55	250M	200	150	160	318	753	1229	680	280	400	250	168	150	200	349	409	450	550	406	506	23	24
F2	150-400	45	225M	200	150	160	315	625	1101	765	315	450	225	149	150	200	311	383	450	550	356	442	23	19
F2	150-400	55	250M	200	150	160	315	746	1222	765	315	450	250	168	150	200	349	421	450	550	406	506	23	24
F2	150-400	75	280M	200	150	160	315	885	1361	765	315	450	280	190	150	200	419	498	450	550	457	554	23	24
F2	150-400	90	280M	200	150	160	315	885	1361	765	315	450	280	190	150	200	419	498	450	550	457	554	23	24

NOTE: Dimensions may change according to motor brand and rights reserved to change without notice.

## Installation Arrangements

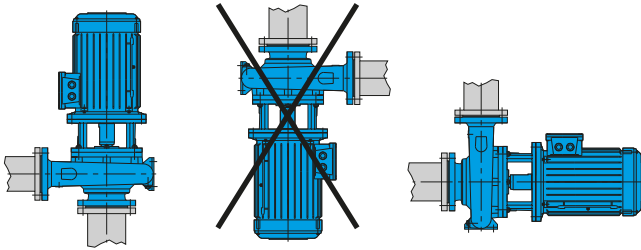
ECO SNM

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



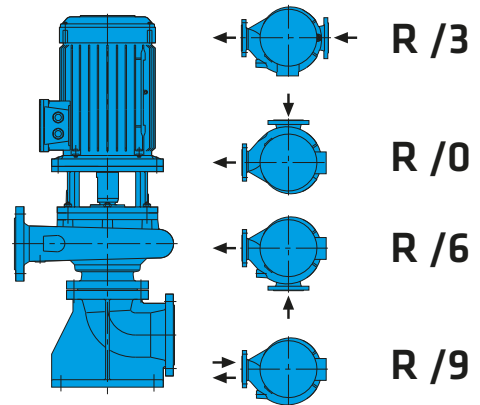
### Horizontal installation on ground

Horizontal position on a base plate

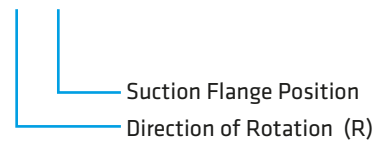


### Installation on perpendicular pipes

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



R/3



Direction of rotation viewed from driver end: R : Right

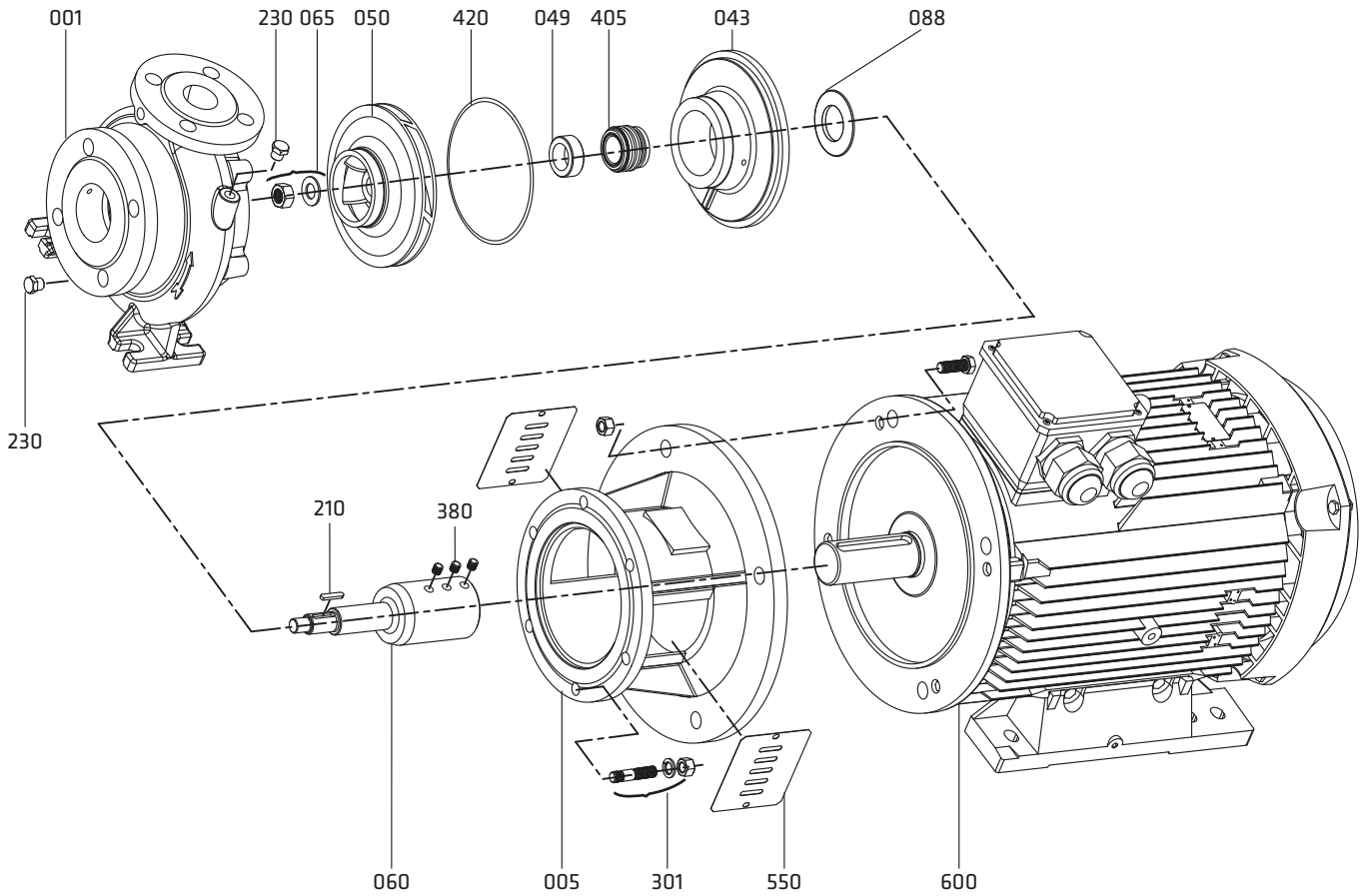
### Vertical installation on ground

- Vertical position by means of a special suction elbow with foot.

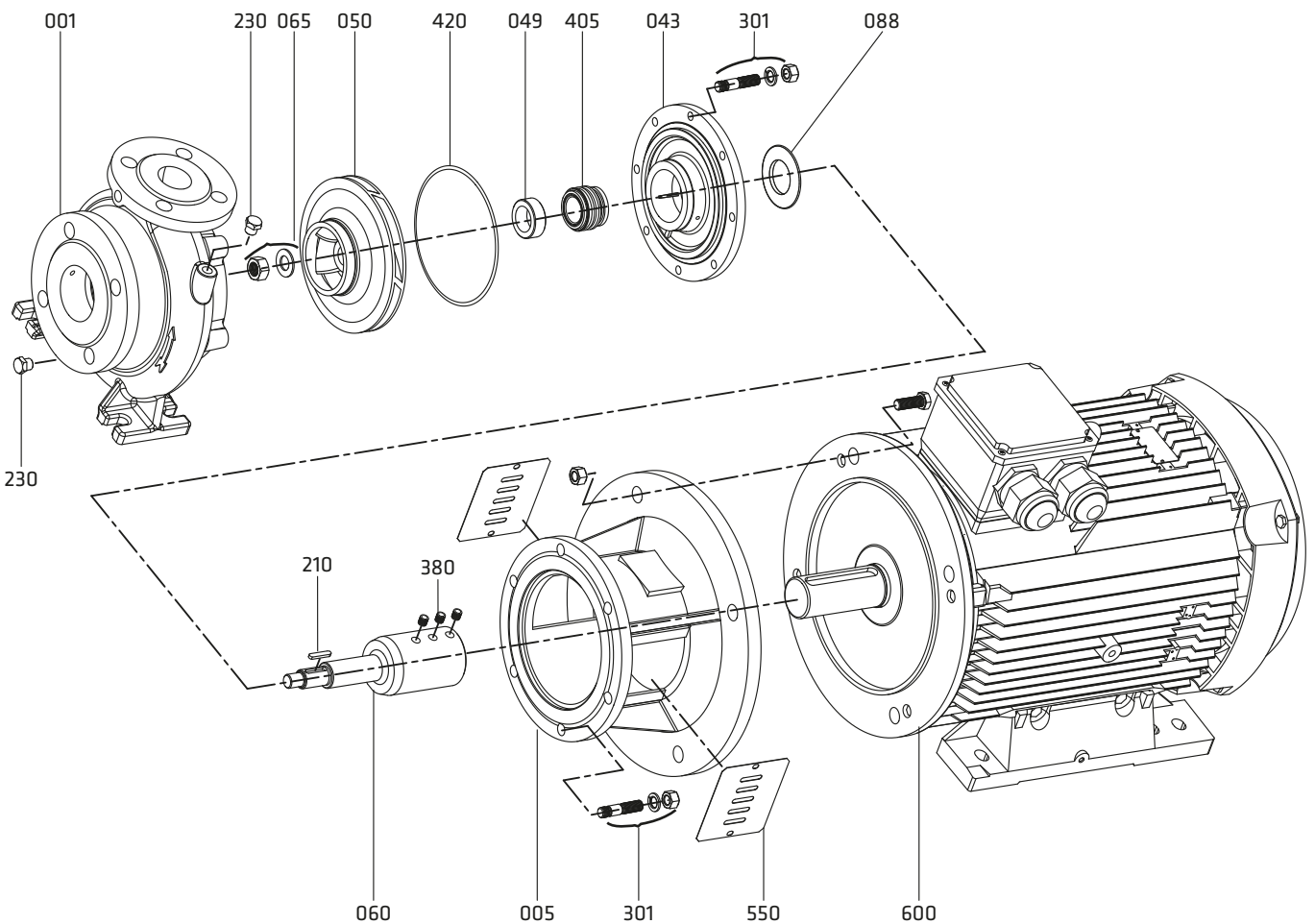
- Standard manufacturing is as in the drawings above (R/3). Suction elbow position can be adjusted for different positions.

Assembly Drawings

Form: F1 (Slide - fit shaft application)



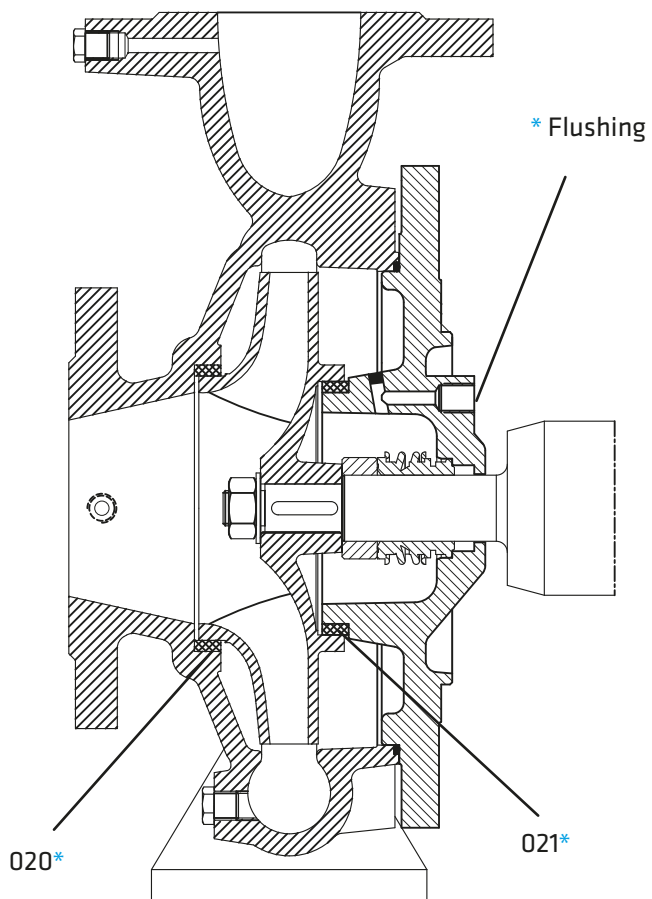
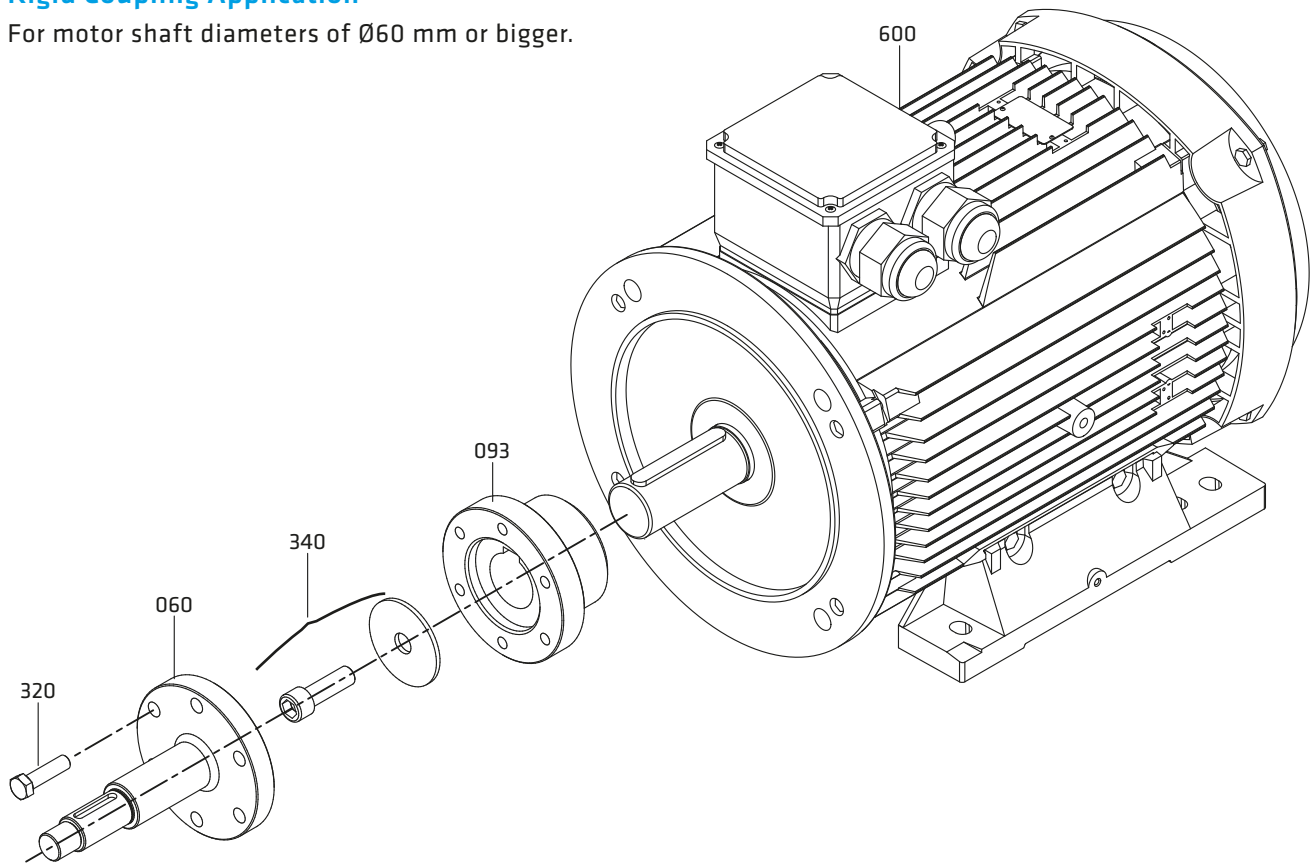
Form: F2 (Slide - fit shaft application)





**Rigid Coupling Application**

For motor shaft diameters of Ø60 mm or bigger.



**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

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.

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

● Standard manufacturing  
○ Optional

## Material Equivalents

Description	DIN / EN		AISI / SAE / ASTM
Cast Iron	0.6025	EN-GJL-250 (GG25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG40)	A536 60-40-18
Nodular Cast Iron	0.7043	EN-GJS-400-18-LT (GGG40.3)	A536 60-40-18
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Chrome Nickel Cast Steel	1.4308	GX5CrNi19-10	A351 CF8
Chrome Nickel Cast Steel (low carbon)	1.4309	GX2CrNi19-11	A351 CF3
Chrome Nickel Molybdenum Cast Steel	1.4408	GX5CrNiMo19-11-2	A351 CF8M
Chrome Nickel Molybdenum Cast Steel (low carbon)	1.4409	GX2CrNiMo19-11-2	A351 CF3M
Austenitic Cast Steel	1.4500	GX7NiCrMoCuNb25-20	A351 CN7M
Austenitic - Ferritic Cast Steel (duplex)	1.4517	GX2CrNiMoCuN25-6-3-3	A890 CD4MCuN
Austenitic - Ferritic Cast Steel (super duplex)	1.4469	GX2CrNiMoN26-7-4	A890 CE3MN
Martenzitic Stainless Cast Steel	1.4317	GX4CrNi13-4	A352 CA6NM
Martenzitic Stainless Cast Steel	1.4008	GX7CrNiMo12-1	A217 CA15
Cast Bronze (tin alloy)	2.1050.01	G-CuSn10	B427 C90700
Cast Bronze (nickel alloy)	2.0975.01	G-CuAl10Ni	B148 C95500
Cast Bronze (Leaded)	2.1096.01	G-CuSn5ZnPb	B584 C83600
Chrome Steel	1.4021	X20Cr13	A276 Type 420
Chrome Steel(heat treated)	1.4021	X20Cr13	A276 Type 420+QT
Chrome Nickel Steel	1.4301	X5CrNi18-10	A276 Type 304
Chrome Nickel Steel (low carbon)	1.4404	X2CrNiMo17-12-2	A276 Type 316L
Duplex (austenitic-ferritic) Steel	1.4460	X3CrNiMoN27-5-2	AISI 329
Duplex (austenitic-ferritic) Steel	1.4462	X2CrNiMoN22-5-3	UNS S32205

## Flange Dimensions

EN 1092 - 2	DNe/DNb	Suction & Discharge (PN 16)			
		Df	k	s	n
	32	140	100	19	4
	40	150	110	19	4
	50	165	125	19	4
	65	185	145	19	4
	80	200	160	19	8
	100	220	180	19	8
	125	250	210	19	8
	150	285	240	23	8
	200	340	295	23	12

" n " number of holes

