



Pump • Fire Fighting Units • Booster Set

# ECO SNT EN 733 NORM PUMPS



ECO SNT Rev.05.03.2024

## Handled Liquids

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

## Technical Data

Discharge Flange \_\_\_\_\_ DN 32.....DN 250 mm

Capacity \_\_\_\_\_ up to 1200 m<sup>3</sup>/h(\*)

Head \_\_\_\_\_ up to 160 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 , radially split volute casing type , single stage, end suction centrifugal pump with closed impeller.

•Dimensionally complies with EN 733.

•Complies EU547/2012 regulations.

•In addition to 29 basic sizes conforming with EN 733, there are 17 additional sizes. Dimensions of additional sizes may differ from other suppliers.

## Pump Designation

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

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

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

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



•ECO SNT 40-315, 50-315, 65-315, 80-315, 100-315, 125-250 pumps are given with 3000 rpm only for fire fighting application.

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

•Due to the back-pull-out design, the complete bearing assembly including impeller and casing cover can be dismantled without removing the volute casing from the piping system. With spacer coupling application, also possible to take out the rotor group without dismantling the electric motor.

•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 and/or shaft sleeve can be supplied.

•Bearings of ECO SNT type pumps are normally non-maintenance, "life time grease lubricated" ball bearings. In case of demand, oil lubrication or re-greasable bearing can be supplied.

•Oil lubrication bearings are used in pumps with 65 mm shaft end

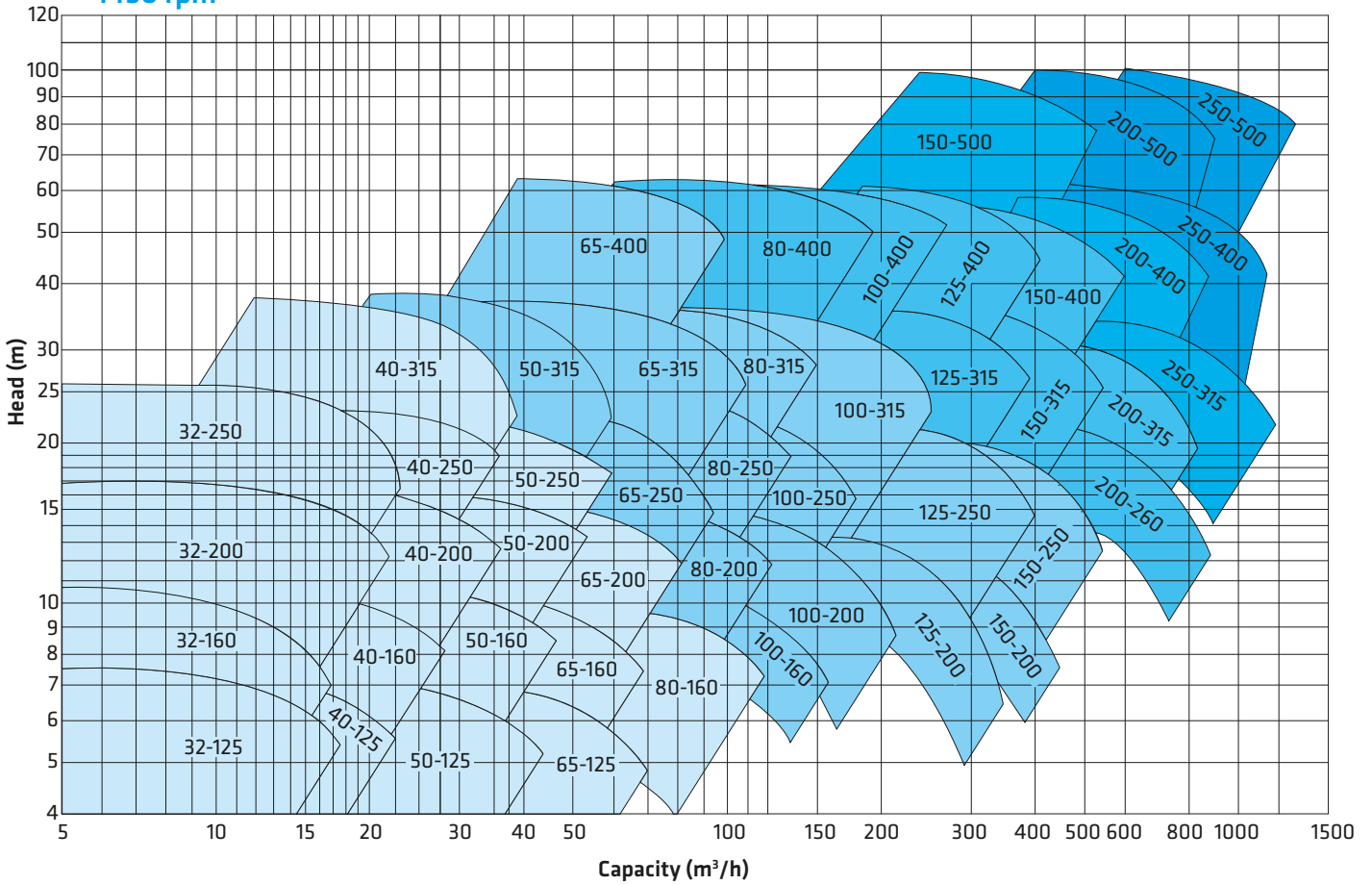
## Shaft Sealing

•In standard production, soft packed stuffing boxes are used.

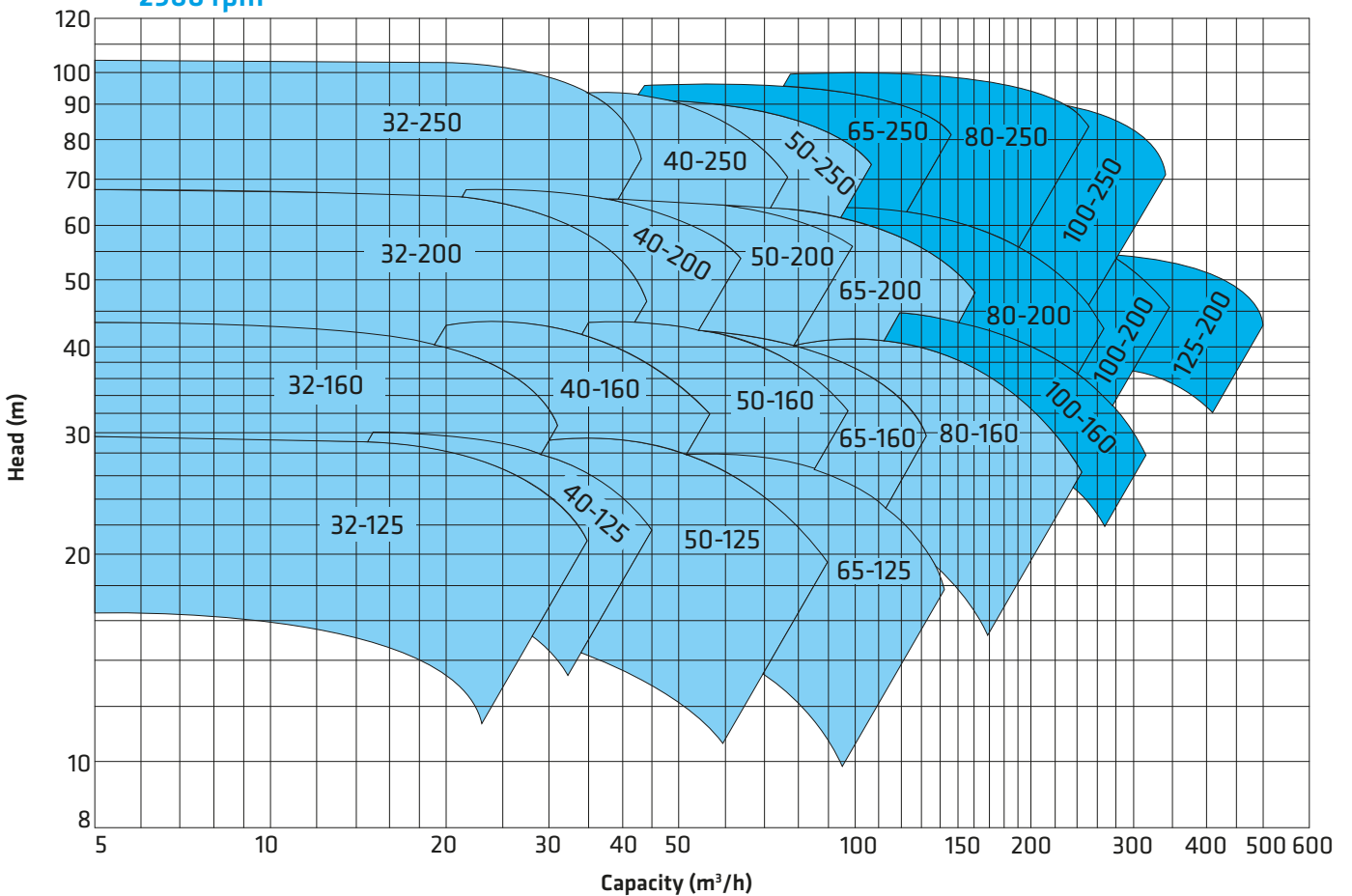
•Depending on customer request, mechanical seals are available. In this case, pump shaft is always stainless steel.

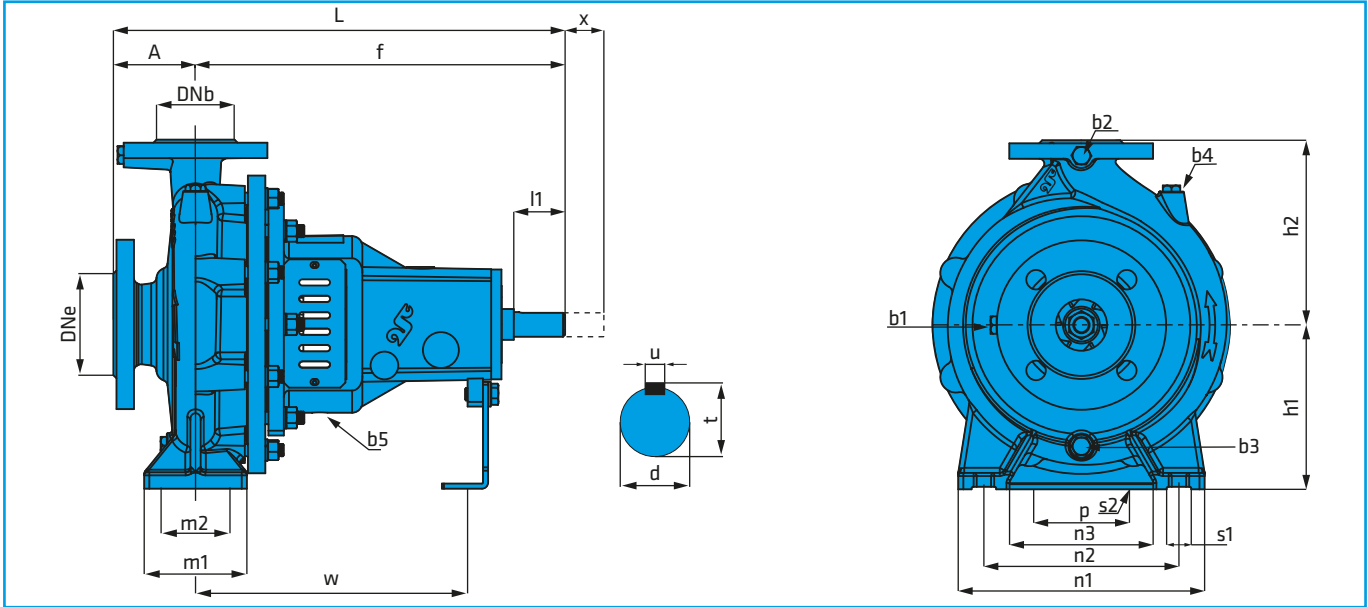
# ECO SNT 100 - 250 - XXX

1450 rpm



2900 rpm

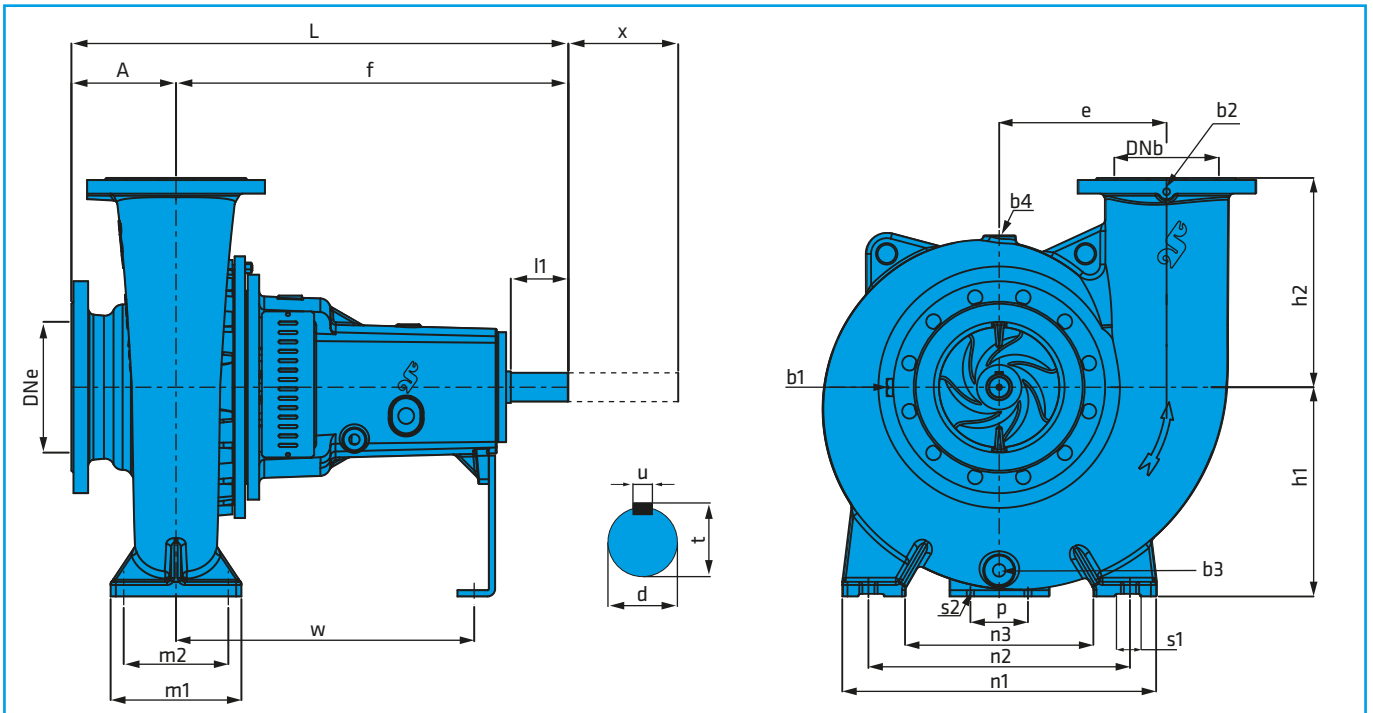




Pump Types		Form	Overall Dimensions							Foot Dimensions							Shaft End				Support Connections					Weight	Space		
EN 733	Other		DNe	DNb	A	f	L	h1	h2	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u	b1	b2	b3	b4	b5	(kg)	x(*)
32-125		F1	50	32	80	360	440	112	140	100	70	190	140	90	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	30	100
32-160		F1	50	32	80	360	440	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	33	100
32-200		F2	50	32	80	360	440	160	180	100	70	240	190	140	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	42	100
	32-250	F2	50	32	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	50	100
40-125		F1	65	40	80	360	440	112	140	100	70	210	160	110	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	33	100
40-160		F1	65	40	80	360	440	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	35	100
40-200		F2	65	40	100	360	460	160	180	100	70	265	212	165	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	43	100
40-250		F2	65	40	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	52	100
	40-315	F2	65	40	100	360	460	200	250	125	95	345	280	190	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	64	100
50-125		F1	65	50	100	360	460	132	160	100	70	240	190	140	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	36	100
50-160		F1	65	50	100	360	460	160	180	100	70	265	212	165	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	37	100
50-200		F2	65	50	100	360	460	160	200	100	70	265	212	165	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	46	100
50-250		F2	65	50	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	1/4"	1/4"	1/4"	1/4"	3/8"	52	100
	50-315	F2	65	50	125	470	595	225	280	125	95	345	280	190	19	110	14	340	32	80	35	10	1/4"	1/4"	1/4"	1/4"	3/8"	84	100
65-125		F1	80	65	100	360	460	160	180	125	95	280	212	150	14	110	14	260	24	50	27	8	1/4"	1/4"	3/8"	3/8"	3/8"	42	100
65-160		F1	80	65	100	360	460	160	200	125	95	280	212	150	14	110	14	260	24	50	27	8	1/4"	1/4"	3/8"	3/8"	3/8"	42	100
65-200		F2	80	65	100	360	460	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	1/4"	1/4"	3/8"	3/8"	3/8"	50	140
65-250		F2	80	65	100	470	570	200	250	160	120	360	280	200	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	73	140
65-315		F2	80	65	125	470	595	225	280	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	91	140
	65-400	F2	100	65	125	470	595	260	355	160	120	435	355	275	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	109	140
80-160		F1	100	80	125	360	485	180	225	125	95	320	250	190	14	110	14	260	24	50	27	8	1/4"	1/4"	3/8"	3/8"	3/8"	47	140
80-200		F1	100	80	125	470	595	180	250	125	95	345	280	215	14	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	62	140
80-250		F2	100	80	125	470	595	200	280	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	77	140
80-315		F2	100	80	125	470	595	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	101	140
	80-400	F2	100	80	125	530	655	280	355	160	120	435	355	275	19	110	14	360	42	110	45	12	1/4"	1/4"	3/8"	3/8"	3/8"	158	140
	100-160	F1	125	100	125	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	69	140
100-200		F1	125	100	125	470	595	200	280	160	120	360	280	200	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	74	140
100-250		F2	125	100	140	470	610	225	280	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	86	140
100-315		F2	125	100	140	470	610	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	3/8"	3/8"	3/8"	111	140
100-400		F2	125	100	140	530	670	280	355	200	150	500	400	300	23	110	14	360	42	110	45	12	1/4"	1/4"	3/8"	3/8"	3/8"	174	140
	125-200	F1	150	125	140	470	610	250	315	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	1/2"	1/2"	3/8"	90	140
125-250		F2	150	125	140	470	610	250	355	160	120	400	315	240	19	110	14	340	32	80	35	10	1/4"	1/4"	1/2"	1/2"	3/8"	97	140
125-315		F1	150	125	140	530	670	280	355	200	150	500	400	300	23	110	14	360	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	159	140
125-400		F2	150	125	140	530	670	315	400	200	150	500	400	300	23	110	14	360	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	188	140
	150-200	F1	200	150	160	470	630	280	355	200	150	500	400	300	23	110	14	340	32	80	35	10	1/4"	1/4"	1/2"	1/2"	3/8"	116	140
	150-250	F2	200	150	160	470	630	280	375	200	150	500	400	300	23	110	14	340	32	80	35	10	1/4"	1/4"	1/2"	1/2"	3/8"	132	140
150-315		F1	200	150	160	530	690	280	400	200	150	550	450	350	23	110	14	360	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	168	140
150-400		F2	200	150	160	530	690	315	450	200	150	550	450	350	23	110	14	360	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	201	140
	200-260	F1	250	200	200	560	760	315	450	250	200	600	500	360	23	110	14	390	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	244	250
	200-315	F1	250	200	200	545	745	315	450	250	200	600	500	360	23	110	14	375	42	110	45	12	1/4"	1/4"	1/2"	1/2"	3/8"	220	200
	250-315	F1	250	250	250	750	1000	355	525	300	240	660	550	400	27	110	14	570	55	110	59	16	1/4"	1/4"	1/2"	1/2"	1/2"	371	250

(\*) Gap necessary for the withdrawal of the pump rotor from the driven end without the need for dismantling the motor and pipework (spacer coupling application)

(\*\*) b1, b2 and b4 holes are not drilled in ductile iron, cast steel and stainless steel volute casings.

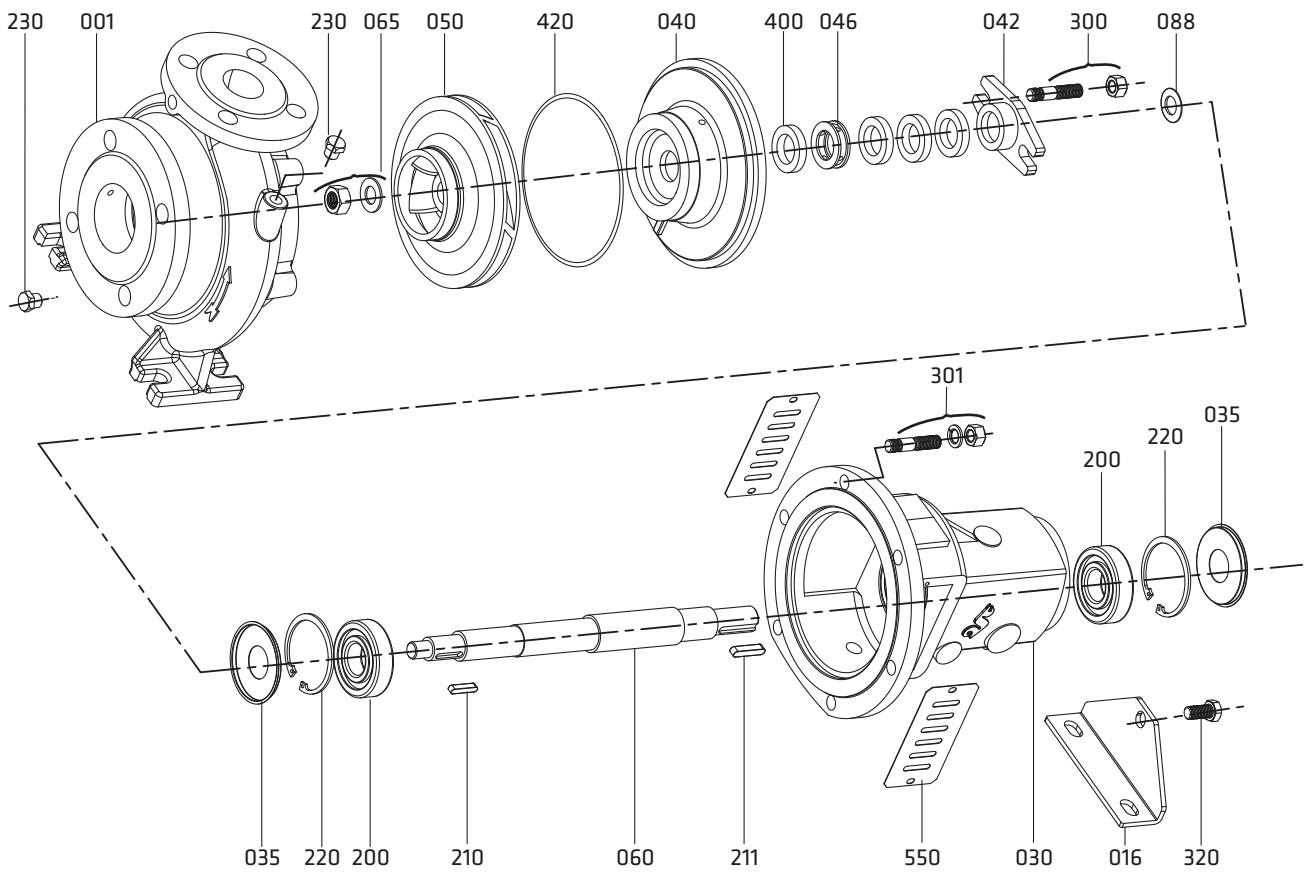


		DIMENSIONS (mm)																	Weight (kg)	Space x(*)							
Pump Types	Form	Overall Dimensions							Foot Dimensions							Shaft End					Support Connections						
		DNe	DNb	A	f	L	h1	h2	e	m1	m2	n1	n2	n3	s1	p	s2	w	d	l1	t	u	b1	b2	b3	b4	b5
150-500	F2	200	150	200	750	950	400	450	350	250	200	720	600	435	27	140	20	560	55	110	59	16	1/4"	1/4"	3/4"	3/4"	1/2"
200-400	F2	250	200	200	750	950	400	400	320	250	200	600	500	360	23	140	20	560	55	110	59	16	1/4"	1/4"	3/4"	3/4"	1/2"
200-500	F2	250	200	200	800	1000	450	475	370	300	200	720	600	435	27	140	20	560	65	140	69	18	1/4"	1/4"	3/4"	3/4"	1/2"
250-400	F2	300	250	230	800	1030	450	480	350	300	240	720	600	435	27	140	20	560	65	140	69	18	1/4"	1/4"	3/4"	3/4"	1/2"
250-500	F2	300	250	225	800	1025	475	500	400	300	240	720	600	435	27	140	20	560	65	140	69	18	1/4"	1/4"	3/4"	3/4"	1/2"

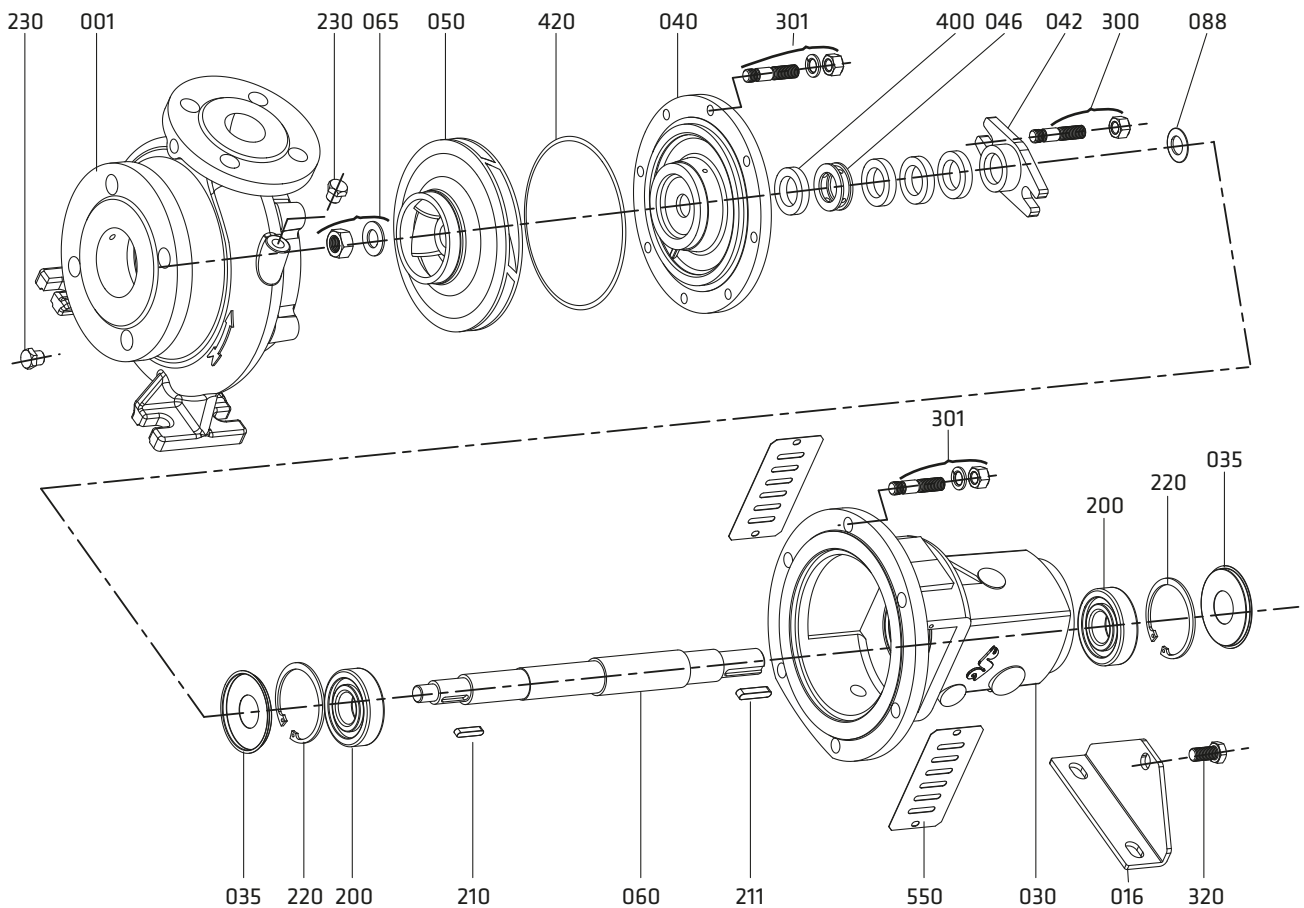
(\*) Gap necessary for the withdrawal of the pump rotor from the driven end without the need for dismantling the motor and pipework (spacer coupling application)

(\*) b1, b2 and b4 holes are not drilled in ductile iron, cast steel and stainless steel volute casings.

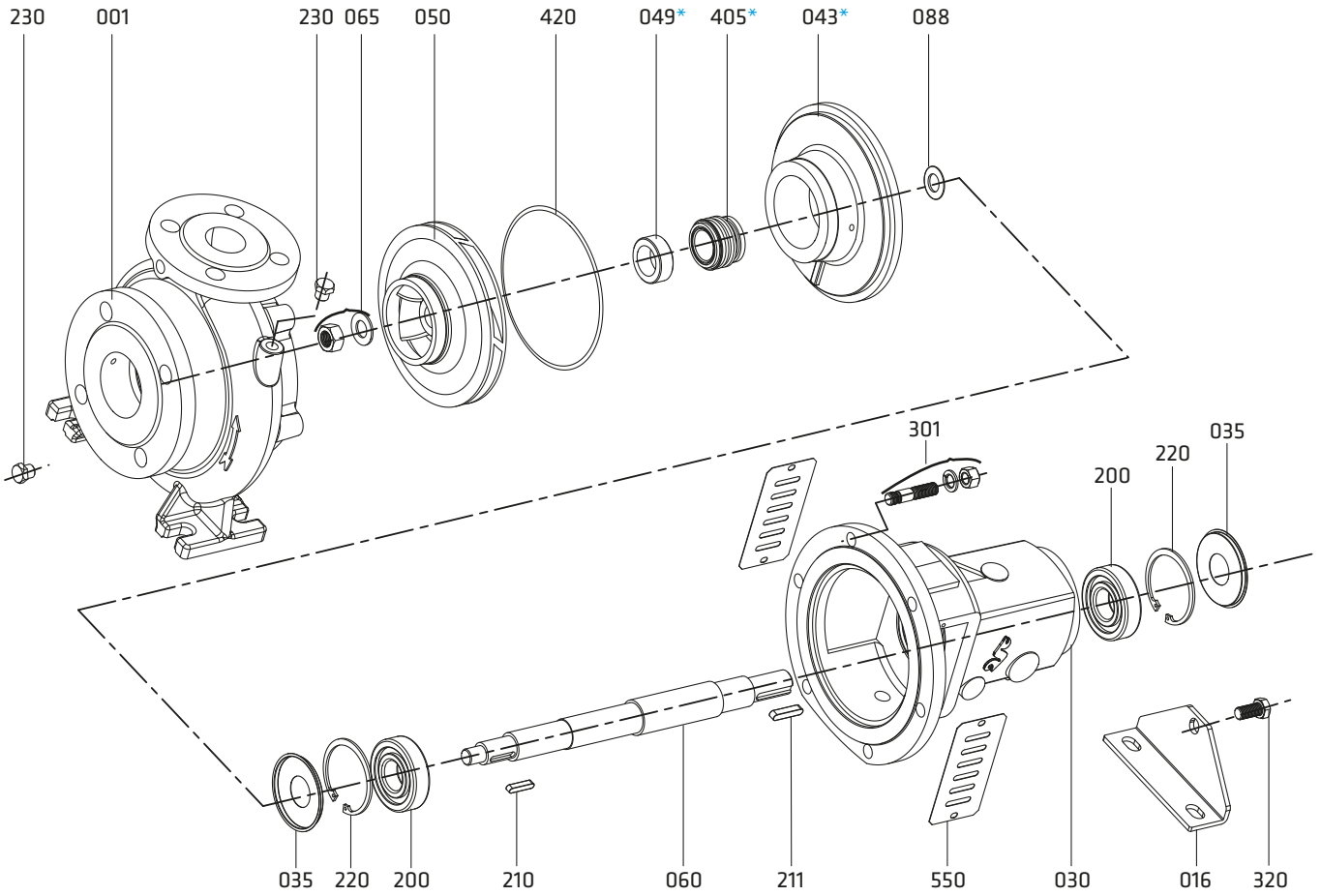
Form: F1 (Soft Packing Seal Pump)



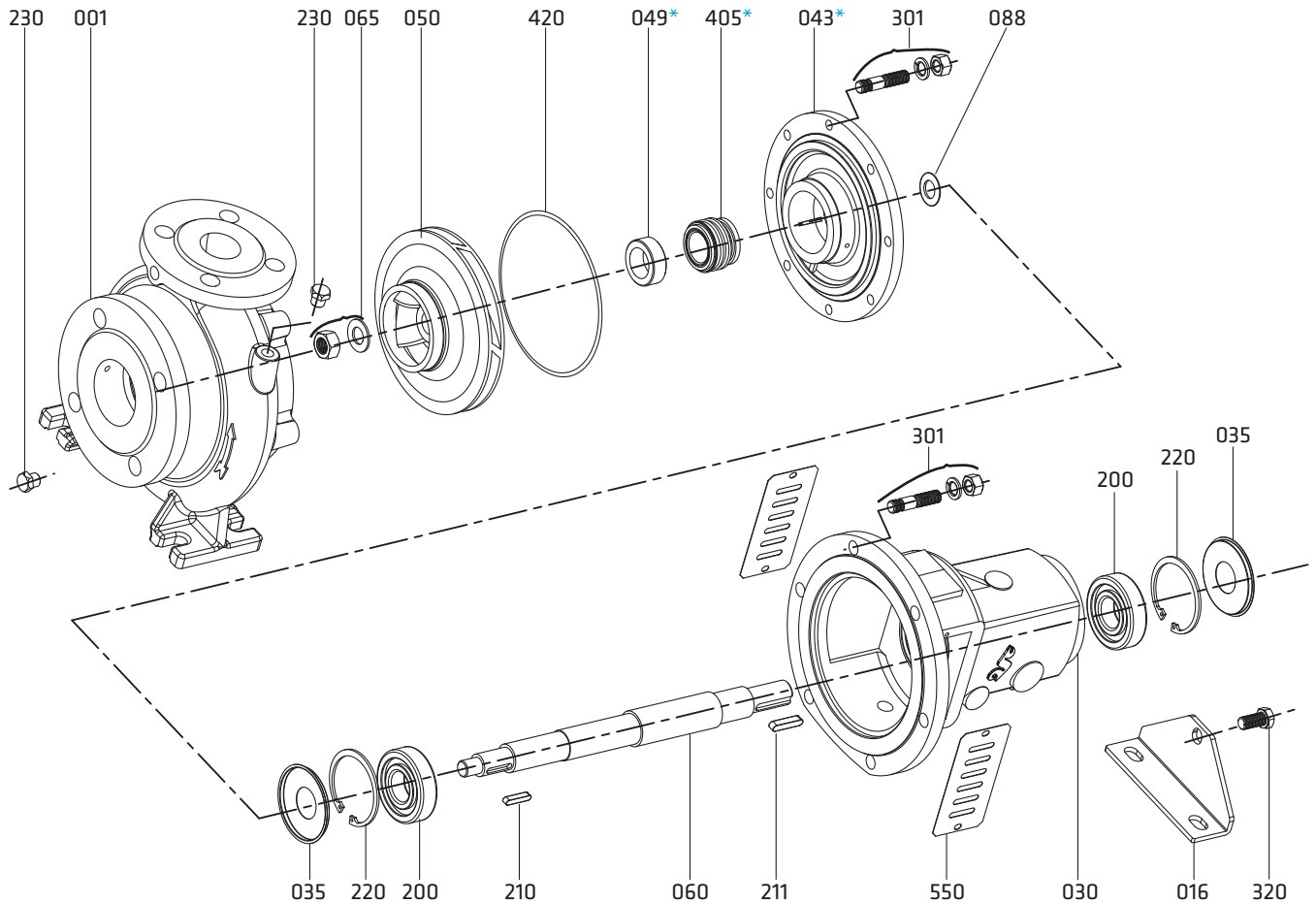
Form: F2 (Soft Packing Seal Pump)



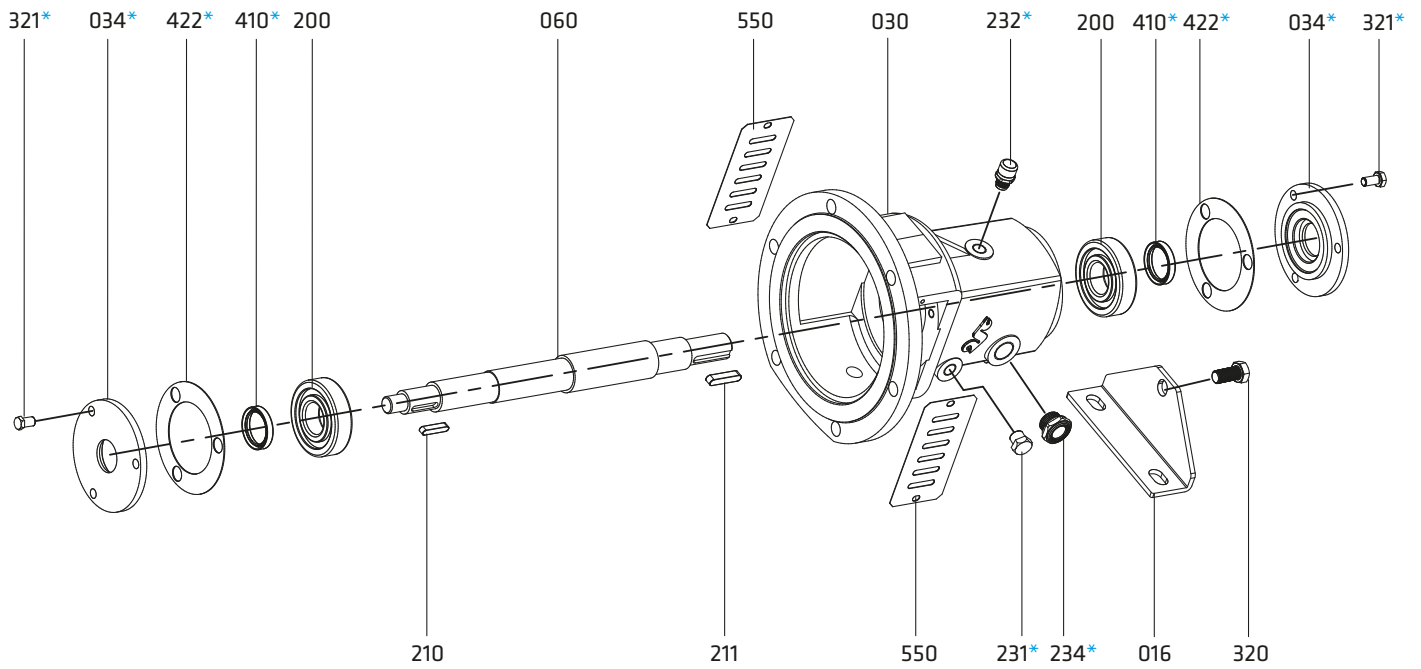
Form: F1 (Mechanical Seal Pump)



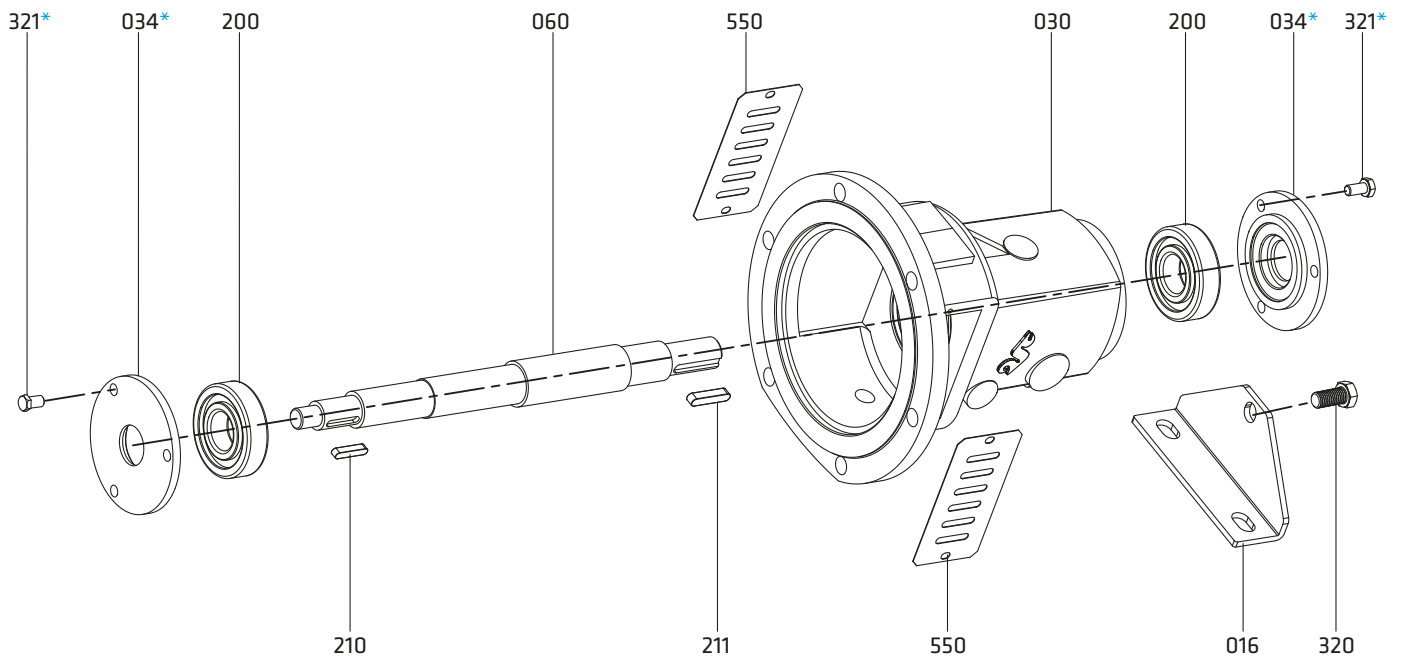
Form: F2 (Mechanical Seal Pump)



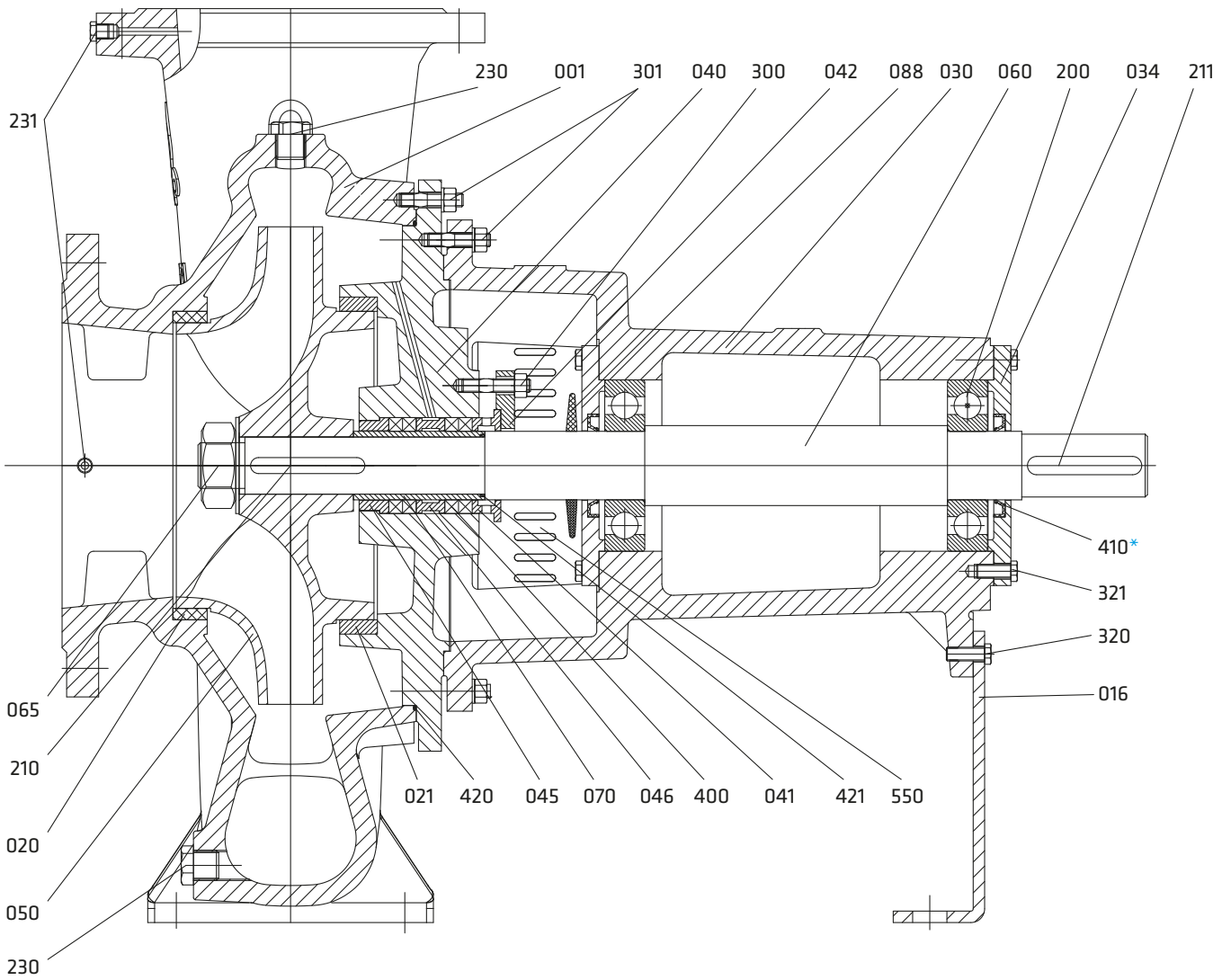
Oil Lubrication Bearing Housing



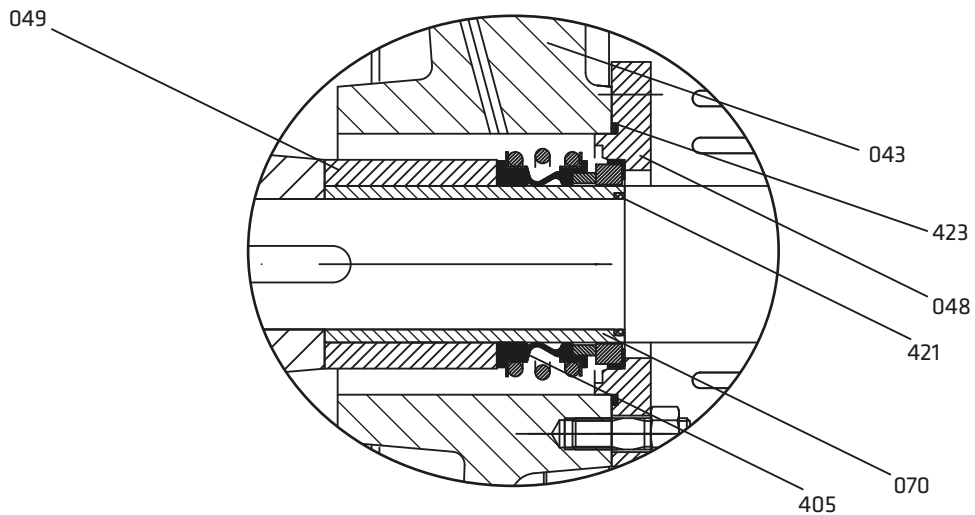
Re-greasable Bearing Housing



Cross Section of ECO SNT 150-500, 200-400, 200-500, 250-315, 250-400 and 250-500

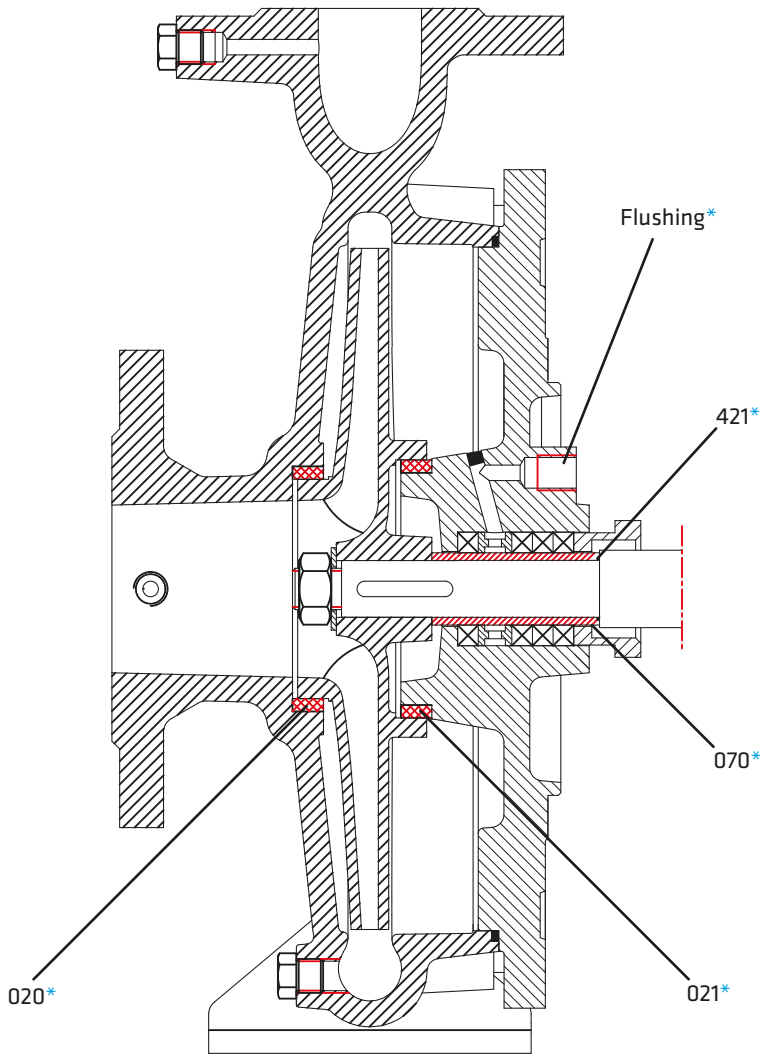


ECO SNT 150-500, 200-400, 200-500, 250-315, 250-400 and 250-500 for mechanical sealing application





## Optional Applications



## Part List

001	Volute Casing
016	Support Foot
020*	Wear Ring (Casing)
021*	Wear Ring (Seal Cover)
030	Bearing Housing
034*	Bearing Cover (GG)
035	Bearing Cover (St)
040	Soft Packing Seal Cover
041	Gland Sleeve
045	Sleeve
042	Gland
043*	Mechanical Seal Cover
046	Lantern Ring
048	Cover
049*	Mechanical Seal Spacer Sleeve
050	Impeller
060	Shaft
065	Impeller Nut and Washer
070*	Shaft Sleeve
088	Thrower
200	Ball Bearing
210	Impeller Key
211	Coupling Key
220	Circlip
230	Screw
231*	Screw
232*	Oil Filling Plug and Breather
234*	Oil Level Indicator
300	Gland Stud and Nut
301	Stud, Washer and Nut
320	Screw
321*	Screw
400	Soft Packing
405*	Mechanical Seal
410*	Lip Seal
420	O-ring
421*	O-ring
422*	Gasket
423	O-ring
550	Guard

(\*) Optional

Part List	10	30	35	20	60	6L	70	7L	8M	7D	7S	8N	80	4C	4A	40	20	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	1.0503	1.4021	1.4021+QT	1.4301	1.4404	1.4460	1.4462	
Volute Casing	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○									
Seal Cover (Mech. or Soft)	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○									
Impeller	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○							○	
Shaft																	●	○	○	○	○			○
Bearing House	●	○	○	○	○	○	○	○																
Wear Ring	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○								
Shaft 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	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
Carbon Steel	1.0503	C45	AISI 1045
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

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
300	460	410	26	12

“ n “ number of holes