

BEDU
≡ POMPEN ≡

**Closed - open -
channel**

Vortex impeller

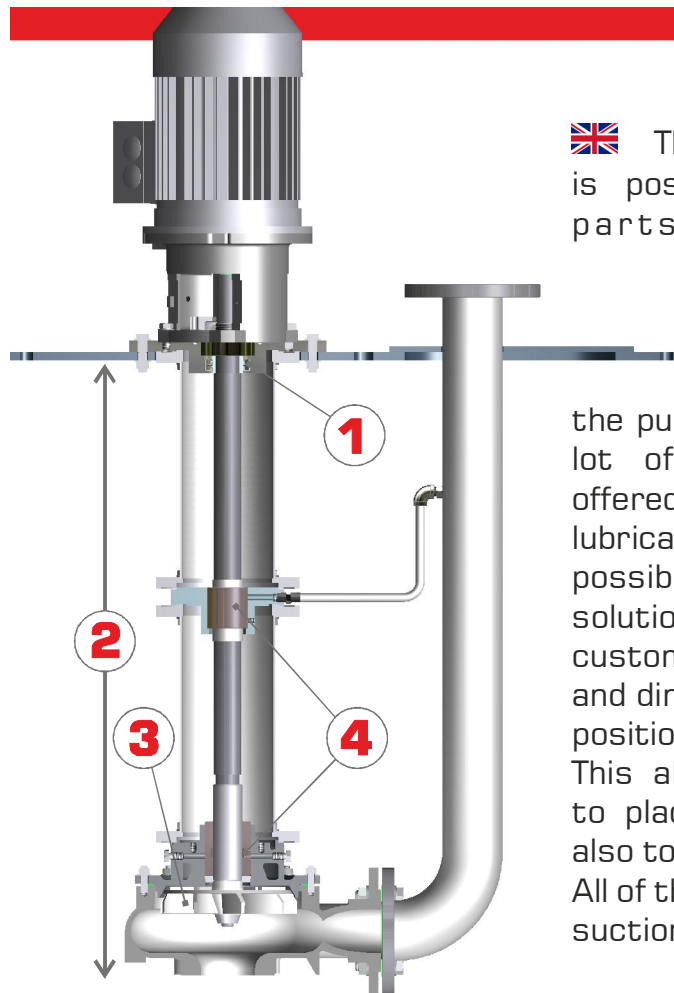
RDV-RGV-RNV-RBV-RCV

VERTICAL



made for your process

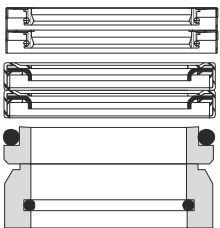
Vertical



🇬🇧 The vertical construction is possible for all hydraulic parts

: in this way is always possible to use the right impeller according to the pumped liquid. There are a lot of different systems, offered for bearing bushes lubrication, so is everytime possible to find the right solution. The possibility to customize base-plate shape and dimentions, discharge pipe position and column lenght. This allows designers and user to place these pumps easily, also to replace existing pumps. All of them can be supplied with suction stainer and tail pipe.

1 - SEAL



🇬🇧 Seal: with grease lubricated radial rings, with PTFE LIP SEALS or with self-lubricated mechanical seal.

2 - LENGHT

🇬🇧 Pump lenght: from 0,4 to 6 meters.

Check the technical catalogue in order to know how many intermediate bearings are necessary.

- MATERIALS

🇬🇧 Materials:

- Standard execution in CAST IRON or AISI 316 SS (welded parts in AISI 316L). Bearing bushes in bronze, rubber, special PTFE, silicon carbide.
- Executions on demand: SAF 2205, SAF 2507, AISI 904L, SANICRO 28.
- Further special alloys are available according to technical dept.'s approval

3 - IMPELLERS



Closed impeller:

- Clean liquids.
- Low NPSH



Open impeller:

- Liquids also containing not abrasive solid matters or gas.
- Adjustable wearing plate



Multi-channel impeller:

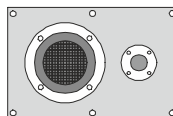
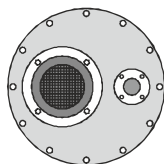
- Liquids containing slightly abrasive solid matters also a bit abrasive.
- Free passage of solid matters larger than the open impeller.
- Efficiency similar to a closed impeller.



Vortex impeller:

- Solids passage up to 90% of the discharge port size.
- Delicate solids transfer.
- Abrasive liquids containing even filamentous parts.

- BASE

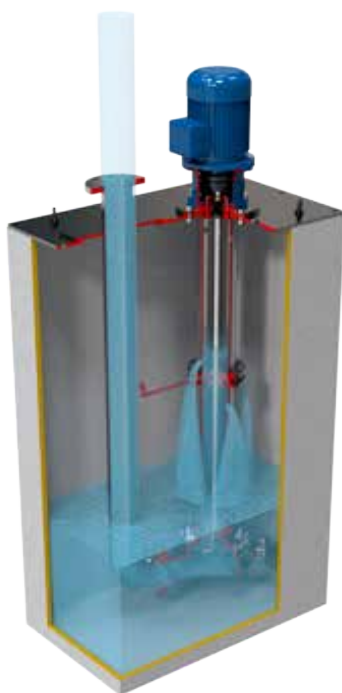


Base:

- Rectangular as standard also with dimensions different from the catalogue..
- Circular and PN 6 interaxis drilled. Same thickness of the standard rectangular base.
- On demand according to customer's needs.

4 - BEARING and LUBRICATION

«A» execution :



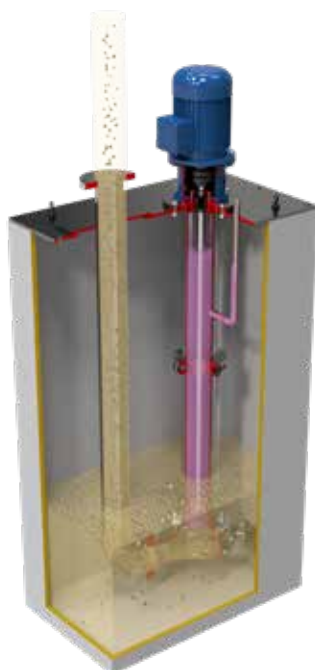
Lubrication with the pumped liquid:
 LENGHT < 2 m - single bearing bush at the bottom: the liquid can also contain solid parts, but they must not be abrasive for the bearing bush. LENGHT > 2 m - execution with intermediate bearings: the liquid must be clean because suspended solids could clog the intermediate lubrication pipes.

«B» execution :



Lubrication by external flushing liquid: For dirty, abrasive or sticky liquids. bearing bushes are lubricated by 2 BAR clean liquid. This solution allows to work also without liquid in the sump and with tail pipe. The flushing liquid is pumped together with the main one.

«E» execution:

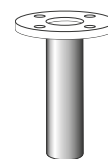


Lubrication into the column:
 For aggressive liquids containing solids. A MECHANICAL SEAL is placed between the casing and the column, which is used as a tank. Before startup it must be filled with antifreeze solution. The level can be controlled by a deep-stick or an electric device.

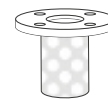
ACCESSORIES



Level control



Suction tail pipe



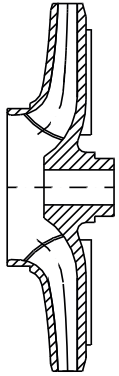
Strainer

BEARING BUSHES

Standard bearing bushes are made of Rubber or bronze for cast iron pumps and in RULON for AISI 316SS pumps. Are also available in silicium carbide or other materials.



Closed Impeller



Centrifugal pump with closed impeller suitable to convey clean liquids or containing a small percentage of solid materials in suspensions.

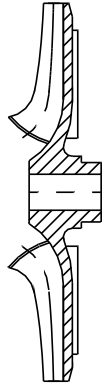
RDV

Capacity : up to 500 m³/h
Total head : up to 145 mwc
Materials : standard CF8M (AISI 316)
: on request Hastelloy, SAF, Sanicro, materials with high hardness (200-600 HB)

RNV

Capacity : up to 480 m³/h
Total head : up to 97 mwc
Materials : Cast iron G200

Open Impeller

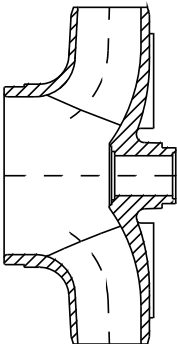


Centrifugal pump with open impeller suitable to convey liquids containing solid materials (lint free) in suspensions.

RGV

Capacity : up to 360 m³/h
Total head : up to 100 mwc
Materials : standard CF8M (AISI 316)
: on request Hastelloy, SAF, Sanicro, materials with high hardness (200-600 HB)

Channel Impeller

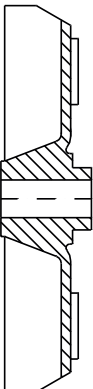


Centrifugal pump with channel impeller suitable to convey dirty liquids containing suspended foreign bodies without lints.

RBV

Capacity : up to 1400 m³/h
Total head : up to 55 mwc
Materials : standard Cast iron G250, CF8M (AISI 316)
: on request Hastelloy, SAF, Sanicro, materials with high hardness (200-600 HB)

Vortex Impeller



Centrifugal pump with a special shaped impeller placed in the back side of the casing. Most of the liquid flow through the pump without touching the impeller directly. For this reason is possible to convey every liquids without the clogging the pump.

RCV

Capacity : up to 900 m³/h
Total head : up to 60 mwc
Materials : standard Cast iron G250 (impeller GS400), CF8M (AISI 316)
: on request Hastelloy, SAF, Sanicro, materials with high hardness (200-600 HB)

RCV 8020A 4B30 C 250 1

1 Pump type:

RDV - RNV
RGV
RBV
RCV

With closed impeller.
With open impeller.
With channel impeller.
With vortex impeller.

2 Pump size

3 Impeller trim:

"A" maximum diameter; "B" 1° trim; "C" 2° trim etc...
AR = intermediate trim (between A and B)

4 Motor polarity:

2 = 2 poles electric motor
4 = 4 poles electric motor
6 = 6 poles electric motor

5 Electric motor power:

A - 0.25 0.75 kW
B - 1.1 9.2 kW
C - 11 90 kW
D - 110 400 kW

KW	0.25	0.37	0.55	0.75
Cod.	A25	A37	A55	A75

KW	1.1	1.5	2.2	3.0	4.0	5.5	7.5	9.2
Cod.	B11	B15	B22	B30	B40	B55	B75	B92

KW	11	15	18.5	22	30	37	45	55	75	90
Cod.	C11	C15	C18	C22	C30	C37	C45	C55	C75	C90

KW	110	132	160	200	225	250	280	315	355	400
Cod.	D11	D13	D16	D20	D22	D25	D28	D31	D35	D40

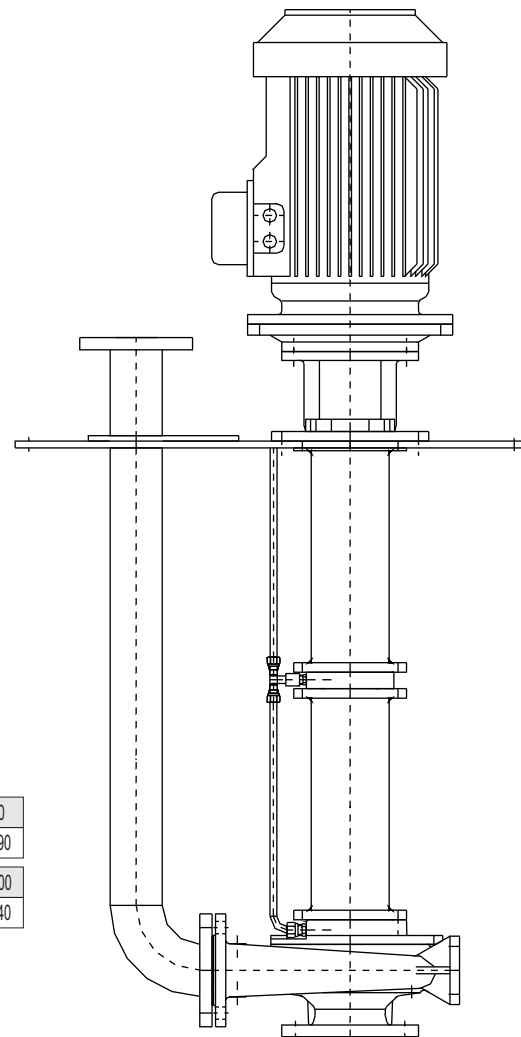
6 Flushing type:

Execution A-B-E

7 Pump length [cm].

- 080 = 80 cm
- 100 = 100 cm

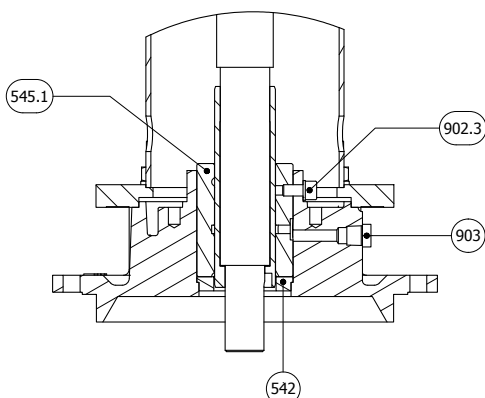
The supplied pump final length has +/- 2.5 cm tolerance.



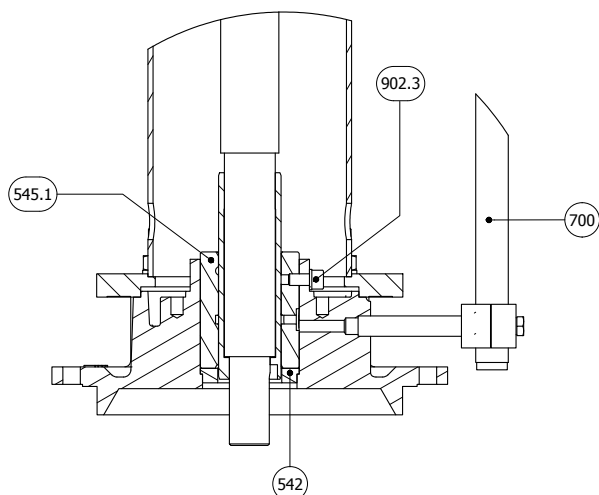
8

<i>Materials</i>					
Cod.	Casing	Cover	Impeller	Shaft	Sleeve
0	G250	G250	G250/GS400	AISI 316L	AISI 316L
1	G250	G250	G250/GS400	C45	AISI 420
2	G250	G250	CF8M (AISI 316)	AISI 316L	AISI 316L
3	CF8M (AISI 316)	CF8M (AISI 316)	CF8M (AISI 316)	AISI 316L	AISI 316L
S	On request	On request	On request	On request	On request

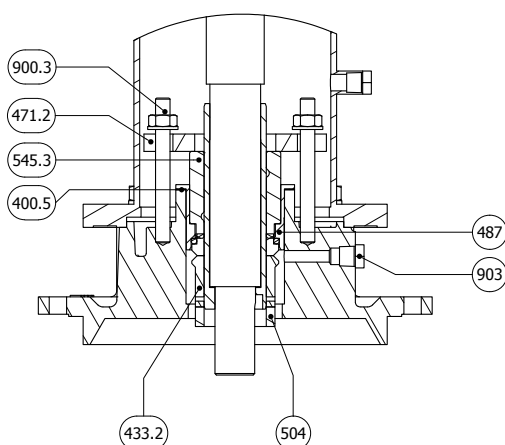
«A» execution:



«B» execution:



«E» execution:



N.	DESCRIPTION
102	Casing
161	Casing cover
210	Shaft
210.1	Shaft
230	Impeller
260	Impeller hub
320.2	Ball bearing
344	Lantern bracket
350	Bearing housing
360	Bearing cover
360.4	Spacer ball bearing
383	Bearing housing
400.1	Casing gasket
400.4	Sleeve gasket
400.9	Discharge flange gasket
420.1	Bearing cover seal D.S.
420.2	Bearing cover seal N.D.S.
502.1	Wear ring (only for RDV)
524	Shaft sleeve
545.2	Bearing bush
560	Pin
636	Grease nipple
636.1	Extension grease nipple
711	Discharge pipe
712	Support column
712.1	Support column
801	Electric motor
852	Coupling
861.1	Half coupling pump side
861.2	Half coupling motor side
861.3	Coupling elastomer
893	Plate
900.1	Stud with nut
900.2	Stud with nut
901.2	Hex head screw
901.3	Hex head screw
901.4	Hex head screw
901.5	Hex head screw
901.6	Hex head screw
901.7	Hex head screw
901.10	Hex head screw
903.3	Drain plug
903.4	Manometer plug
904.2	Locking screw
923	Bearing nut
940.1	Impeller key
940.2	Coupling key

N.	DESCRIPTION
400.5	Seal plate gasket
433.2	Mechanical seal N.D.S.
471.2	Packing gland
487	Seal seat ring

N.	DESCRIPTION
545.1	Bearing bush
545.3	Bearing bush
700	Pipe
900.3	Stud with nut

Pumps group 1

960 RPM		1450 RPM		2950 RPM	
Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.
2000	0	2000	0	2000	0
3900	1	3200	1	2400	1
5700	2	4800	2	3500	2
6000	3	6000	3	4600	3
				6000	4

Pumps group 2 and 2/3

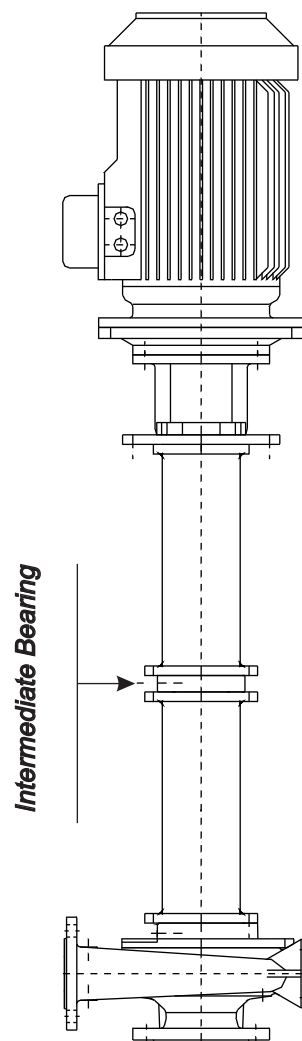
960 RPM		1450 RPM		2950 RPM	
Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.
2000	0	2000	0	1500	0
3900	1	3500	1	2500	1
5900	2	5100	2	3700	2
6000	3	6000	3	4700	3
				6000	4

Pumps group 3

960 RPM		1450 RPM		2950 RPM	
Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.
2100	0	2100	0	1700	0
4000	1	4000	1	3100	1
6000	2	6000	2	4500	2
				6000	3

Pumps group 4

960 RPM		1450 RPM			
Pump lenght until:	Bearing n.	Pump lenght until:	Bearing n.		
2200	0	2200	0		
4100	1	4100	1		
6000	2	6000	2		

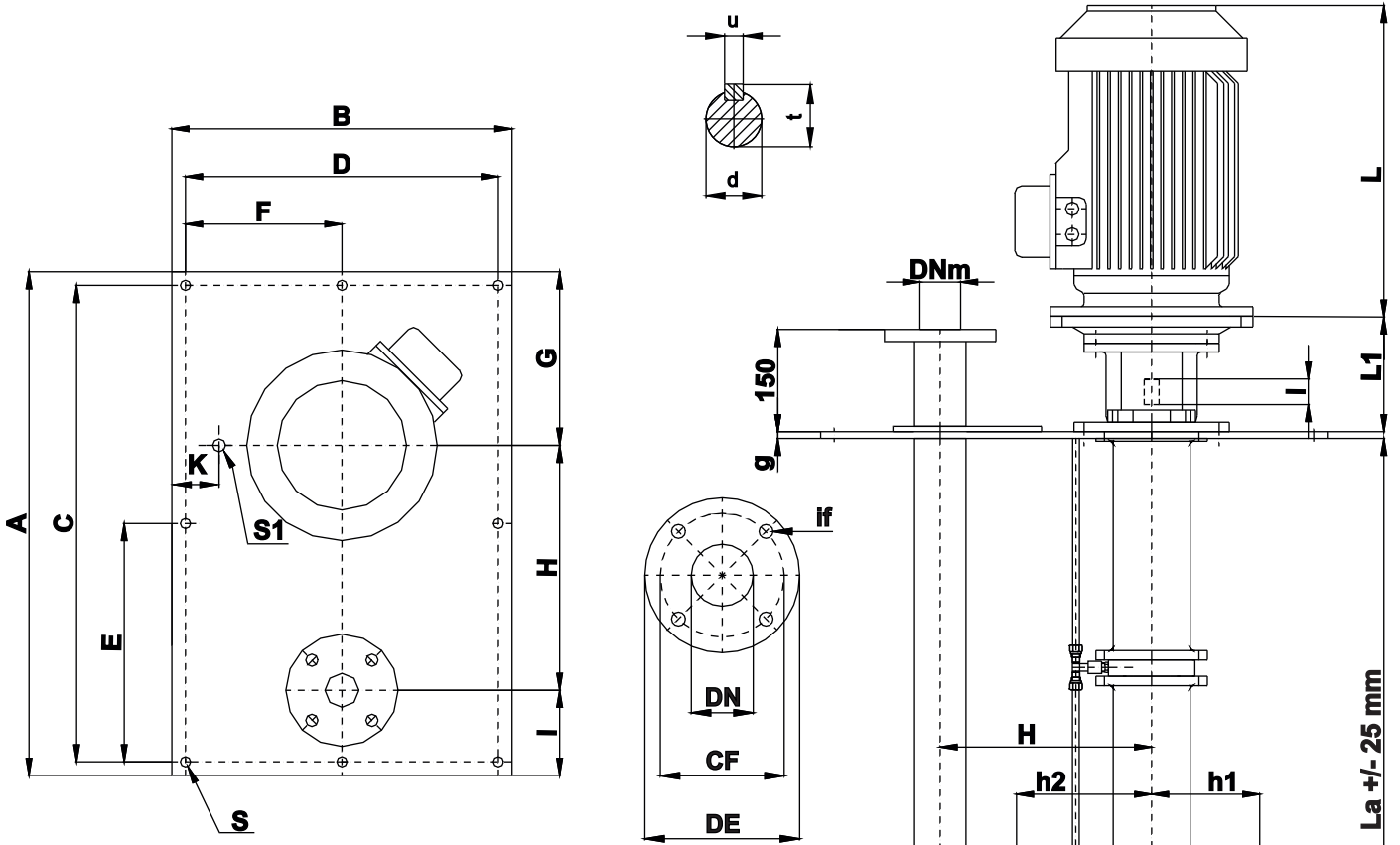


On request pump longer than 6000 mm

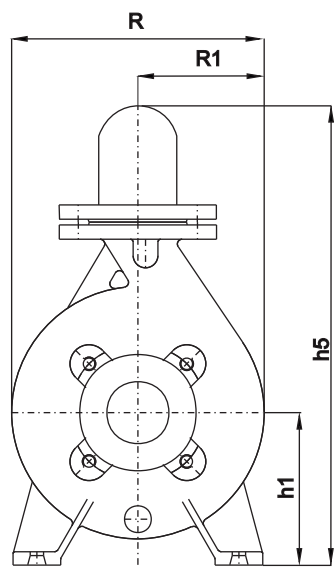


OVERALL DIMENSIONS

RBV
RCV



Electric motor					
Size IEC	Power in kW			Weight [kg]	(a)
	2 Poles	4 Poles	6 Poles		
80	0.75	0.55	0.37	259	8
80	1.1	0.75	0.55	259	9
90 S	1.5	1.1	0.75	264	13
90 L	2.2	1.5	1.1	304	15
100 L	3	2.2	1.5	337	19
100 L	-	3	-	337	22
112 M	4	4	2.2	377	28
132 S	5.5	5.5	3	393	40
132 S	7.5	-	-	393	45
132 M	-	7.5	4	431	53
132 M	9.2	9.2	5.5	431	57
160 M	11	-	7.5	538	73
160 M	15	11	-	538	82
160 L	18.5	15	11	538	90
180 M	22	18.5	-	538	100
180 L	-	22	15	613	122
200 L	30	30	18.5	613	130
200 L	37	-	22	613	148
225 S	-	37	-	690	207
225 M	45	45	30	690	230
250 M	55	55	37	690	264
280 S	75	75	45	819	362
280M	90	90	55	819	427

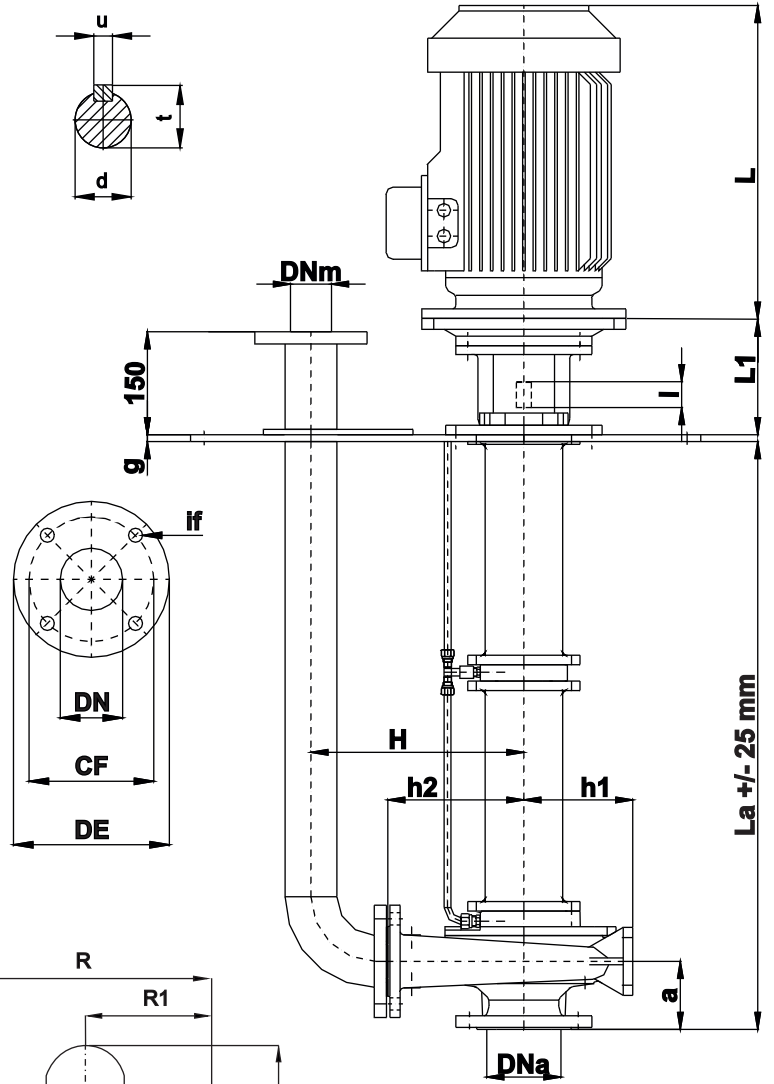
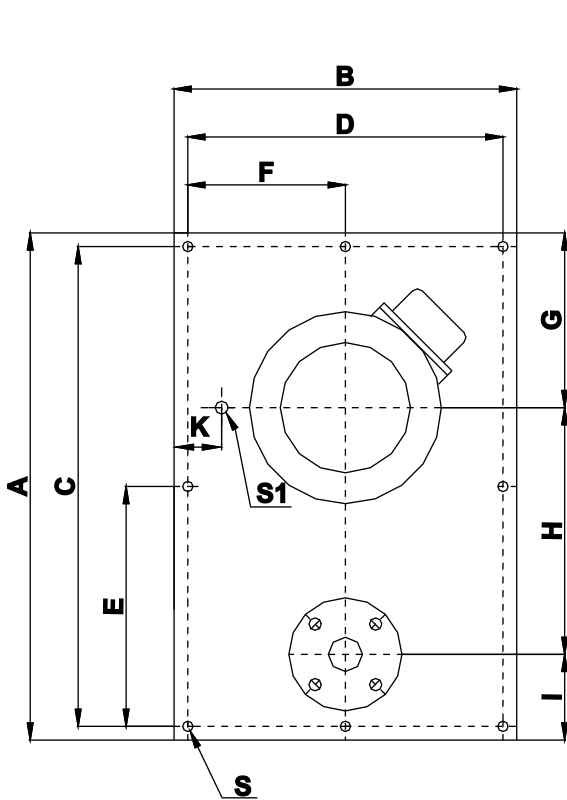


Lantern bracket				
Size IEC	Length L1 [mm]			
	GR 1	GR 2	GR 3	GR 4
80 / 90	131	-	-	-
100 / 112	151	177	-	-
132	171	197	-	-
160 / 180	201	227	263	270
200	-	227	263	270
225 2 poli	-	-	263	270
225 4-8 poli	-	257	293	300
250	-	293	293	300
280	-	293	293	300

Flanges Dimension EN 1092-1/2 PN 16											
DN	32	40	50	65	80	100	125	150	200	250	300
CF	100	110	125	145	160	180	210	240	295	350	400
DE	140	150	165	185	200	220	250	285	340	395	445
if	18	18	18	18	18	18	18	22	22	22	22
zf	4	4	4	4	8	8	8	8	12	12	12

Dimensions and weights are subject to variations.

(a) Not binding dimension that can change according to motor brand



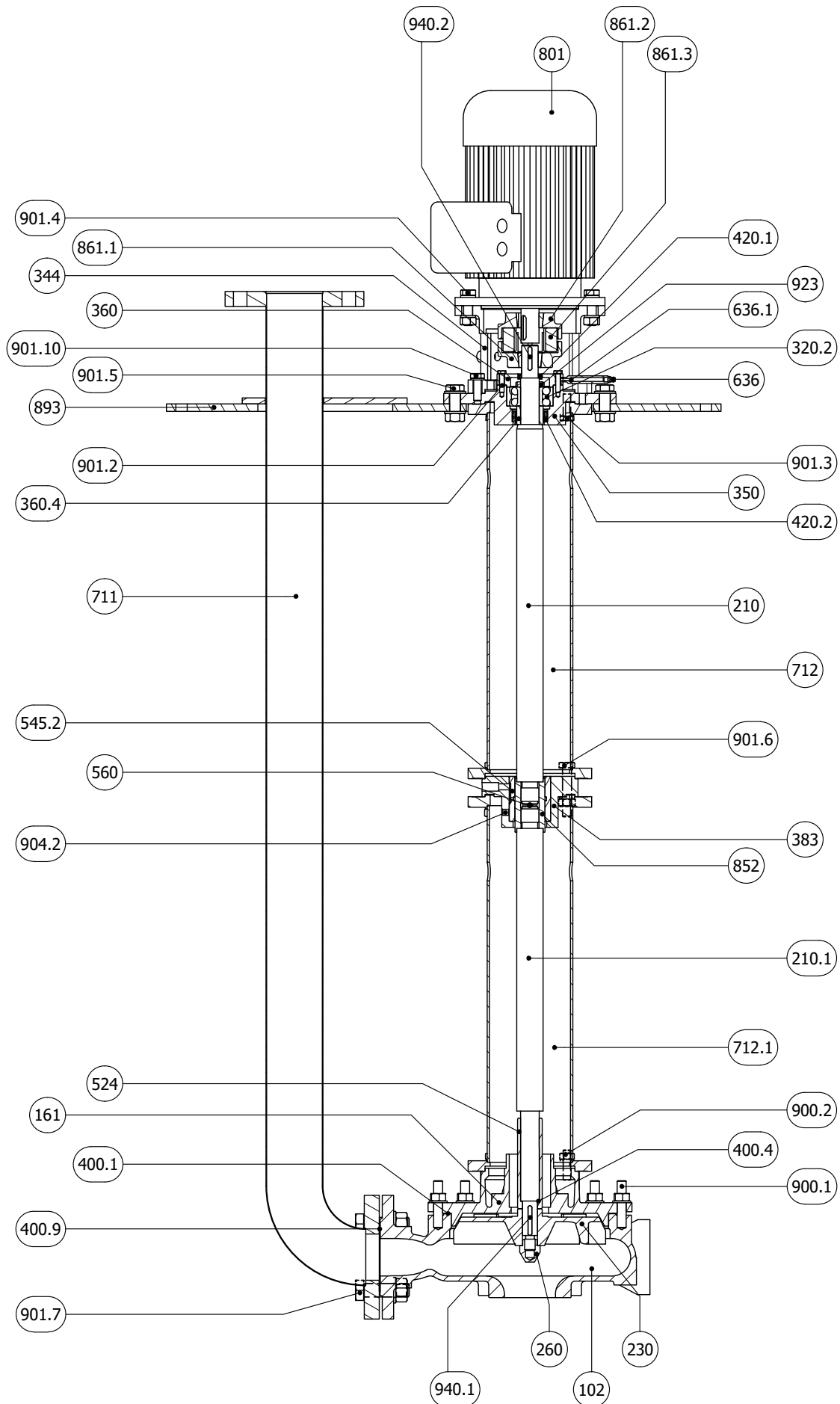
Electric motor					
Size IEC	Power in kW			^(a) [mm]	^(a) Weight [kg]
	2 Poles	4 Poles	6 Poles		
80	0.75	0.55	0.37	259	8
80	1.1	0.75	0.55	259	9
90 S	1.5	1.1	0.75	264	13
90 L	2.2	1.5	1.1	304	15
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100 L	-	3	-	337	22
112 M	4	4	2.2	377	28
132 S	5.5	5.5	3	393	40
132 S	7.5	-	-	393	45
132 M	-	7.5	4	431	53
132 M	9.2	9.2	5.5	431	57
160 M	11	-	7.5	538	73
160 M	15	11	-	538	82
160 L	18.5	15	11	538	90
180 M	22	18.5	-	538	100
180 L	-	22	15	613	122
200 L	30	30	18.5	613	130
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225 S	-	37	-	690	207
225 M	45	45	30	690	230
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Lantern bracket			
Size IEC	Length L1 [mm]		
	GR 1	GR 2	GR 3
80 / 90	131	-	-
100 / 112	151	177	-
132	171	197	-
160 / 180	201	227	263
200	-	227	263
225 2 poles	-	-	263
225 4-8 poles	-	257	293
250	-	293	293
280	-	293	293

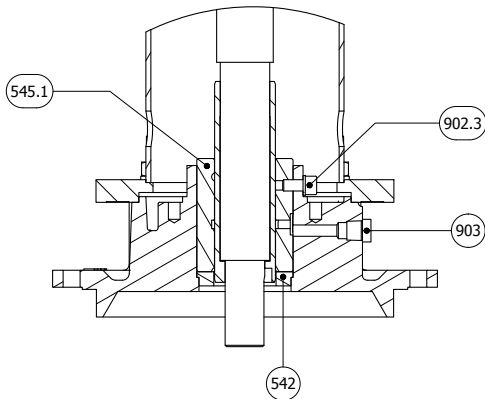
Flanges Dimension EN1092-1 PN 16								
DN	32	40	50	65	80	100	125	150
CF	100	110	125	145	160	180	210	240
DE	140	150	165	185	200	220	250	285
if	18	18	18	18	18	18	18	22
zf	4	4	4	4	8	8	8	8

Dimensions and weights are subject to variations.

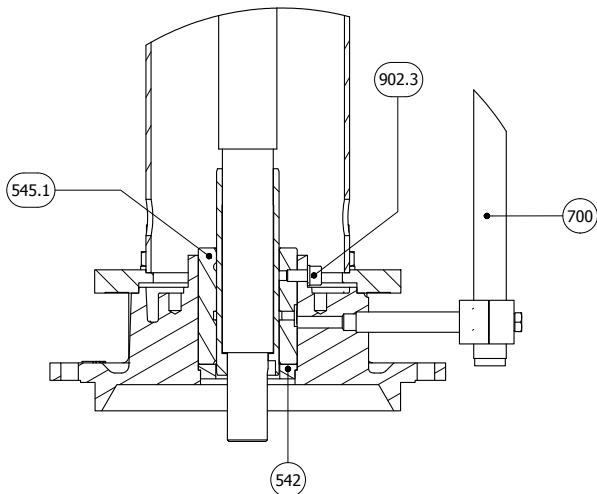
^(a)Not binding dimension that can change according to motor brand



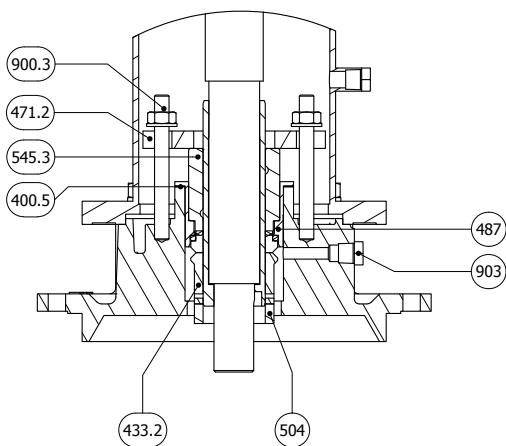
«A» execution:



«B» execution:



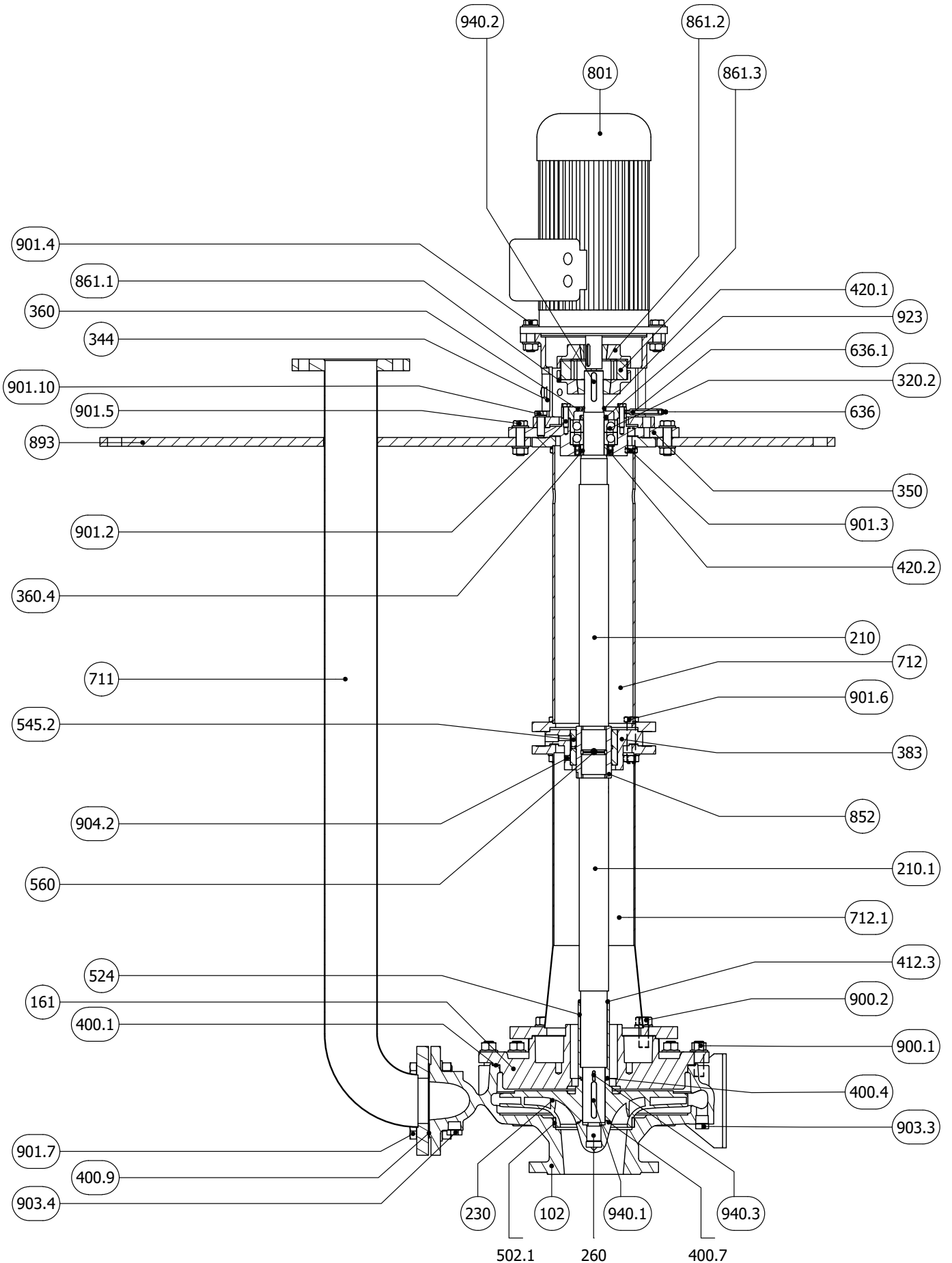
«E» execution:



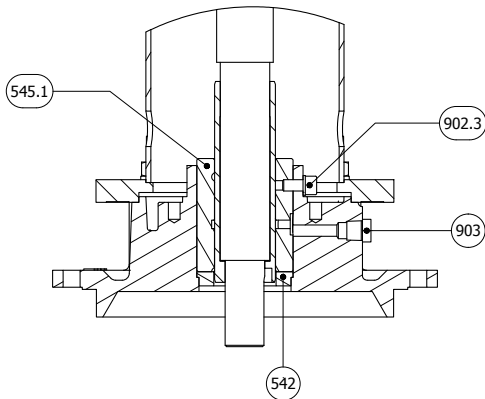
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161	Casing cover
210	Shaft
210.1	Shaft
230	Impeller
260	Impeller hub
320.2	Ball bearing
344	Lantern bracket
350	Bearing housing
360	Bearing cover
360.4	Spacer ball bearing
383	Bearing housing
400.1	Casing gasket
400.4	Sleeve gasket
400.9	Discharge flange gasket
420.1	Bearing cover seal D.S.
420.2	Bearing cover seal N.D.S.
524	Shaft sleeve
545.2	Bearing bush
560	Pin
636	Grease nipple
636.1	Extension grease nipple
711	Discharge pipe
712	Support column
712.1	Support column
801	Electric motor
852	Coupling
861.1	Half coupling pump side
861.2	Half coupling motor side
861.3	Coupling elastomer
893	Plate
900.1	Stud with nut
900.2	Stud with nut
901.2	Hex head screw
901.3	Hex head screw
901.4	Hex head screw
901.5	Hex head screw
901.6	Hex head screw
901.7	Hex head screw
901.10	Hex head screw
904.2	Locking screw
923	Bearing nut
940.1	Impeller key
940.2	Coupling key

N.	DESCRIPTION
400.5	Seal plate gasket
433.2	Mechanical seal N.D.S.
471.2	Packing gland
487	Seal seat ring
504	Spacer
542	Bottom sleeve

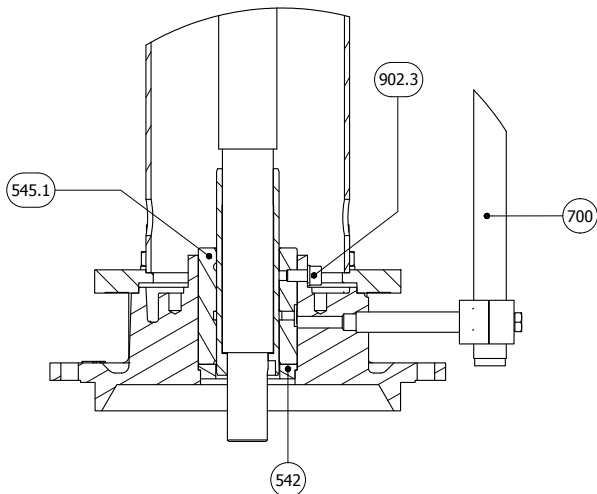
N.	DESCRIPTION
545.1	Bearing bush
545.3	Bearing bush
700	Pipe
900.3	Stud with nut
902.3	Socket head screw
903	Plug



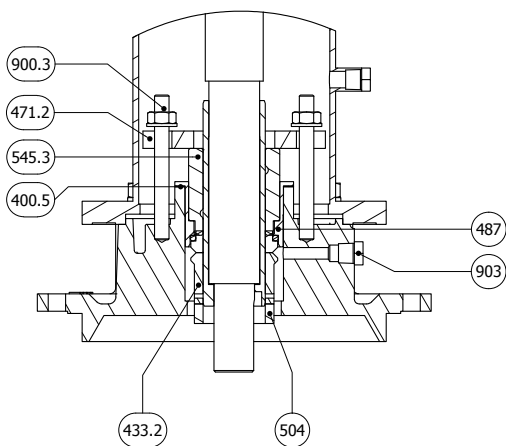
«A» execution:



«B» execution:



«E» execution:

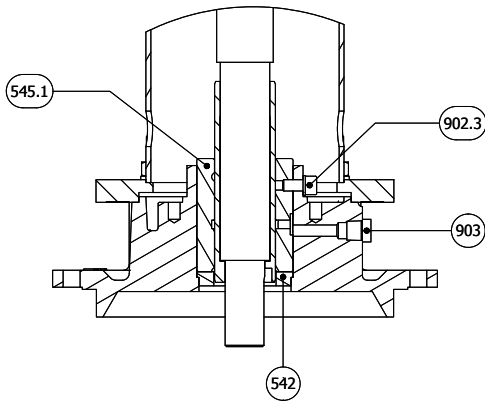


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383	Bearing housing
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400.4	Sleeve gasket
400.7	Hub gasket
400.9	Discharge flange gasket
412.3	O-ring shaft sleeve
420.1	Bearing cover seal D.S.
420.2	Bearing cover seal N.D.S.
502.1	Wear ring (only for RDV)
524	Shaft sleeve
545.2	Bearing bush
560	Pin
636	Grease nipple
636.1	Extension grease nipple
711	Discharge pipe
712	Support column
712.1	Support column
801	Electric motor
852	Coupling
861.1	Half coupling pump side
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861.3	Coupling elastomer
893	Plate
900.1	Stud with nut
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901.5	Hex head screw
901.6	Hex head screw
901.7	Hex head screw
901.10	Hex head screw
903.3	Drain plug
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940.1	Impeller key
940.2	Coupling key
940.3	Sleeve key

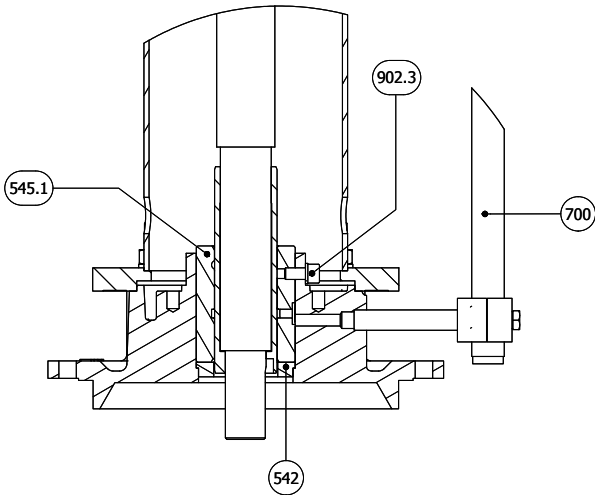
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504	Spacer
542	Bottom sleeve

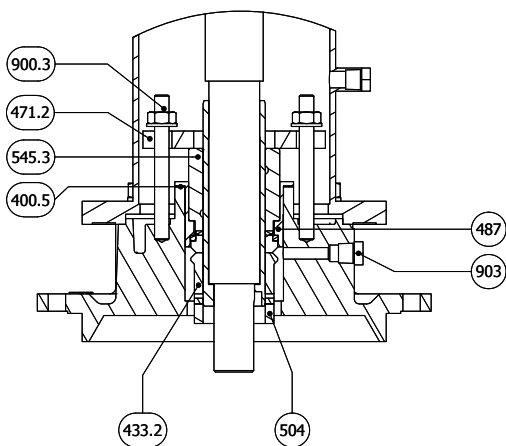
«A» execution:



«B» execution:



«E» execution:



N.	DESCRIZIONE	DESCRIPTION
102		Casing
135		Wear plate
161		Casing cover
210		Shaft
210.1		Shaft
230		Impeller
260		Impeller hub
320.2		Ball bearing
344		Lantern bracket
350		Bearing housing
360		Bearing cover
360.4		Spacer ball bearing
383		Bearing housing
400.1		Casing gasket
400.4		Sleeve gasket
400.6		Wear plate gasket
400.9		Discharge flange gasket
420.1		Bearing cover seal D.S.
420.2		Bearing cover seal N.D.S.
524		Shaft sleeve
545.2		Bearing bush
560		Pin
636		Grease nipple
636.1		Extension grease nipple
711		Discharge pipe
712		Support column
712.1		Support column
801		Electric motor
852		Coupling
861.1		Half coupling pump side
861.2		Half coupling motor side
861.3		Coupling elastomer
893		Plate
900.1		Stud with nut
900.2		Stud with nut
900.5		Stud with nut
901.2		Hex head screw
901.3		Hex head screw
901.4		Hex head screw
901.5		Hex head screw
901.6		Hex head screw
901.7		Hex head screw
901.8		Hex head screw
901.10		Hex head screw
903.3		Drain plug
903.4		Manometer plug
904.2		Locking screw
923		Bearing nut
940.1		Impeller key
940.2		Coupling key

N.	DESCRIPTION
400.5	Seal plate gasket
433.2	Mechanical seal N.D.S.
471.2	Packing gland
487	Seal seat ring
504	Spacer
542	Bottom sleeve

N.	DESCRIPTION
545.1	Bearing bush
545.3	Bearing bush
700	Pipe
900.3	Stud with nut
902.3	Socket head screw
903	Plug



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