

Progressing Cavity Pumps with CIP Capabilities

Versions in compliance with American 3-A Sanitary standards

SERIES ACNP/ACNBP



ACNP with optional stainless stator casing



ACNBP with optional stainless stator casing

This is a translation of the original technical instruction VM 681 D edition 2008/04.

The ACNBP and ACNP series of progressing cavity pumps are optimized for modern cleaning methods (CIP flushing), enabling internal flushing (while idled) for fully residual- and bacteria-free cleaning without disassembly.

The pump can be brought briefly into operation for complete cleaning and draining of the pump during the flushing process.

If using silicon stators with uniform elastomer wall thickness, the pump may remain in operation during the entire flushing process.

The pump was designed specifically to ensure that the inside spaces of the pump are completely flushed by the flow of the pumped liquid. The design avoids quiet zones without product flow, which could lead to the formation of deposits during pumping.

In addition to the specially designed internal pump spaces, all components that contact the pumped liquid, such as shaft seals and pin joints, are installed or designed to permit flawless cleaning during flushing.

Components that contact the product utilize selected materials and surface finishes for elevated cleanliness requirements.

These characteristics ensure that pumps of the ACNBP and ACNP series fulfill all requirements for CIP systems in accordance with the latest state of technology.

Use

Suitable for pumping low- to high-viscosity liquids, pure, neutral or aggressive liquids, liquids containing gases, liquids prone to foaming, including liquids with solid particles.

Main fields of application

Dairies, beverage industry, meat and fish processing, confectionaries, fruit and vegetable processing, other applications in the food industry, pharmaceutical industry, and cosmetics industry.

Function

Self-priming, rotating displacement pump. The pumping elements are the rotor and the fixed stator. These two parts contact each other at two points in their cross-section. Viewed along the length of the pumping elements, these points form two sealing lines. As the rotor turns, sealed chambers are created. The content of the chambers is moved continuously in the axial direction from the suction side to the pressure side of the pump. **Despite rotation of the rotor, no turbulence results. The uniform chamber volume ensures extremely gentle, low-pulsation pumping action.**

Structural design and details

The discharge casing, stator, suction casing and bracket (or bearing housing) are held together by corrosion-resistant, easily-loosened casing connection screws (clamp bolts).

The suction/pressure and flushing connections are oversized on all pump sizes.

The underside of the pressure branch is horizontal and free of dead spaces, permitting complete drainage of the pump.

The underside of the suction casings are equipped with a tangentially arranged flushing and drainage connection. This design achieves optimized flow during CIP flushing and permits complete drainage of the suction casing.

All metallic parts that come in contact with the pumped liquid are honed to extremely high quality; all external surface are polished.

The stator is vulcanized into a pipe or barrel casing (uniform elastomer wall thickness) and is equipped on both ends with vulcanized external collars that provide reliable sealing with the suction and discharge casings and avoid corrosion there.

An optional stainless casing protects the actual stator casing from corrosion coming from the outside.

The bearing for the drive shaft of ACNP is provided in a stainless bearing casing. Drive torque is transferred from the drive shaft via an easily-disassembled retainer pin to the stub shaft and from there via the universal joint to the rotor. Both ends of the universal joint shaft terminate in special pin joints. The pin joints are lubricated by the pumped product. They are easily rinsed or cleaned; or encapsulated by liquid-sealed collars.

Shaft seal

The shaft is sealed by a single-acting, rotational direction-dependent, dead-zone-free mechanical seal. The mechanical seal is arranged in the suction chamber so that it is completely flushed by pumped liquid. For this reason, cleaning capability is optional. An optional double-acting mechanical seal is available on the ACNP series.

Bearing of the ACNP series

The bearing of the driveshaft is particularly robust and maintenance free. The bearing is provided in the bearing housing in a radial bearing (groove ball bearing) and thrust bearing (double-row angular contact ball bearing) with lifetime lubrication.

Refer to page 4 for additional information.

Bearing of the ACNBP series

The bearing of the drive/stub shaft is provided in the reinforced bearings of the gear motors, which simultaneously absorb any axial forces.

Since all drives are delivered only with reinforced bearings, the customer can confidently run up the respective pumps within the permissible operational limits.

Drives on the ACNBP series

Explosion-protected or non-explosion-protected gear motors may be used as the drive. See page 11 for drive options. For specifications and dimensions, see the separate sales literature, sheet 19-54-0000-025-3.

Drives on the ACNP series

See page 11 for drive options.

Drives from any manufacturer may be used. Refer to the manufacturer's documentation for technical specifications and dimensions.

Technical data for ACNBP/ACNP

Refer to the performance graph on page 3 or the separate individual curves for data on pump capacities, permissible speed ranges, and required drive output.

Capacity	Q l/min	up to	480
Liquid temperature	t °C ①	up to	100/130
Discharge pressure			
single-stage, sizes 25 to 550	Δp bar	up to	6
single-stage, sizes 100 to 380	Δp bar ②	up to	12
two-stage, sizes 12 to 380	Δp bar ③	up to	12
Outlet pressure	p _d bar ③	up to	12
Achievable underpressure	p _s bar ④	up to	0.95
Viscosity	η mPa·s ④	up to	150.000
Solids proportion	Vol.% ④	up to	60

The provided performance specifications are meant only as a product/performance overview. Refer to the quotation and order confirmation for precise operational limits.

- ① The permissible liquid temperature is also dependent on the elastomers, the type of pumped liquid, and the drives.
- ② Stator with uniform elastomer □ wall thickness
- ③ Depends on rotational direction and inlet pressure
- ④ Depends on pump size/design type, speed, pumped liquid
- ⑤ **Size 12 available as ACNBP only.**

Permissible grain sizes and fiber lengths:

Size	12	25	50	100	200	380	550
Max. grain size mm	2	2,5	3	3,8	5	6,8	6,8
Max. fiber length mm	35	42	42	48	60	79	79

Note: Pump speed must be reduced as the proportion of solids and the grain size increase.

Installation

ACNBP and ACNP pumps are installed horizontally. Please inquire separately if vertical arrangement is desired.

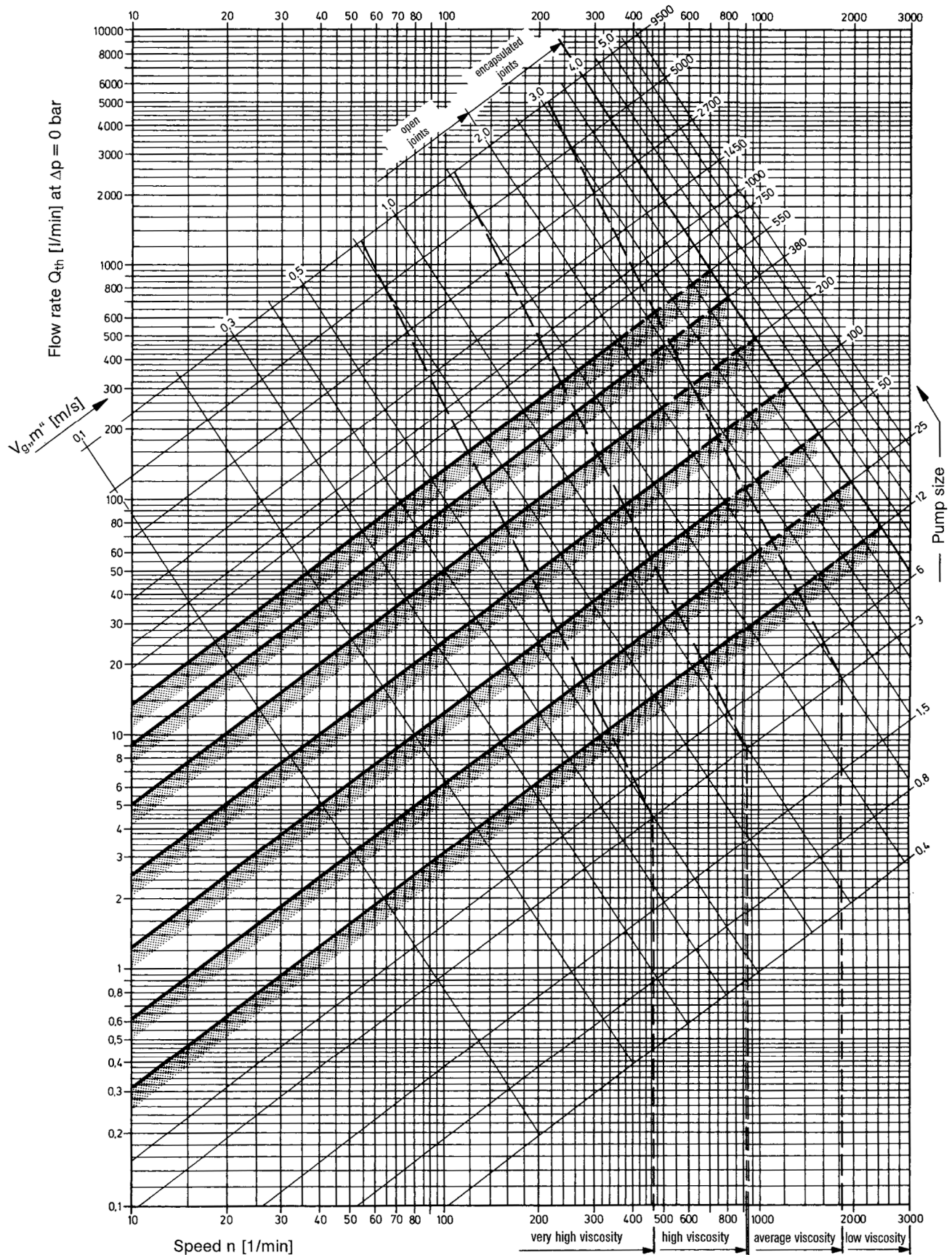
Pumps of the ACNP series and associated drives are bound together by means of an elastic coupling; they are mounted on a shared base plate; unit dimensions available upon request.

Overview of benefits of the ACNBP and ACNP series:

- CIP pumps (Cleaning in Place) with flushing connection.
- Open product-lubricated, flushable joint or joint encapsulated by liquid-sealed collars available.
- Standard dead-zone-free mechanical seal. The shaft seal is arranged in the suction casing so that it lies completely within the flow of pumped/flushing liquid.
- Pump made completely of stainless steel (including bracket or bearing housing).
- Stators in bright foodstuff design (differing material qualities) with uniform or non-uniform wall thickness.
- If using silicon stators with uniform elastomer wall thickness, the pump may remain in operation during the entire flushing process.
- Stators with uniform elastomer wall thickness provide:
 - Lower starting and operational torque.
 - Lower power requirement.
 - Quieter running and low-pulsation pumping.
 - Lower starting and operating torques with alternating medium temperatures.
 - Short pump length.
- Pressure casing is horizontal on the underside (asymmetrical). Suction casing with tangential flushing/drainage branch on the underside of the casing. This provides for flawless flushing and draining of the casing.
- Optional stainless pipe to cover stator.

Performance graph

For initial selection of the pump size and speed dependency of the desired capacity and type of pumped liquid. v_g "m" = average sliding speed of the rotor in the stator.



■ Sizes of series ACNP and ACNBP. Refer to the reverse side of this brochure or the individual brochures of the other series for data on the performance ranges not covered by the ACNP and ACNBP. See individual curves for precise performance data.

Type key

Material key

Construction type

Pump type

Position in type key

Series

Size

Number of stages

Bearing

Suction and discharge branch version

Branch position

Shaft seal type

Shaft type

Shaft seal version

Casing versions

Casing parts material

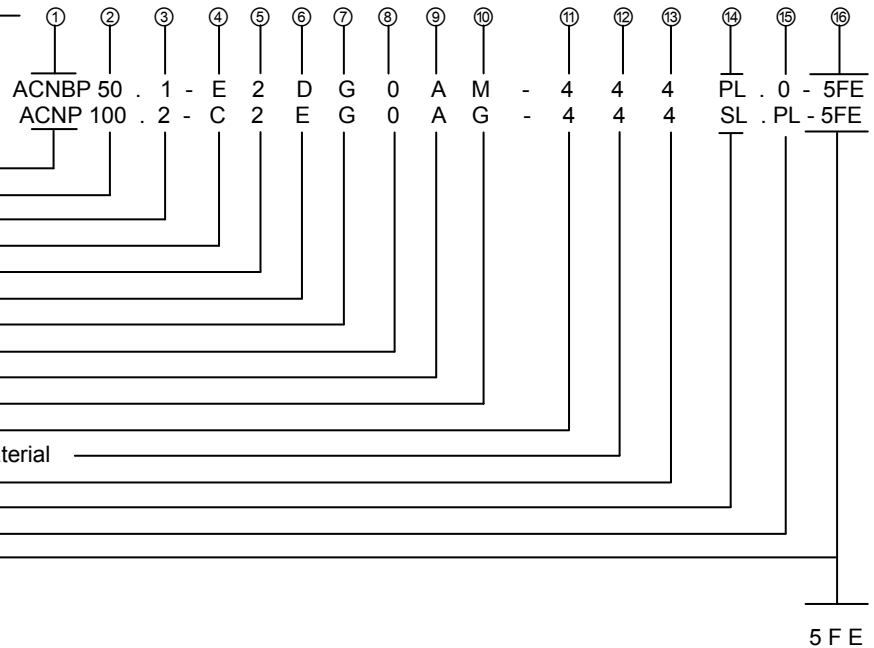
Stub shaft, universal joint shaft, fluid contact, material

Rotor material

Stator material

Universal joint collar material

Shaft seal material



Example: single-acting mechanical seal

Pairing of sliding materials

Springs and construction mat.

Secondary seals

Example: double-acting mechanical seal

Pairing of sliding materials, product side

Springs and construction mat.

Secondary seals, product side

Pairing of sliding materials, atmosphere side

Secondary seals, atmosphere side

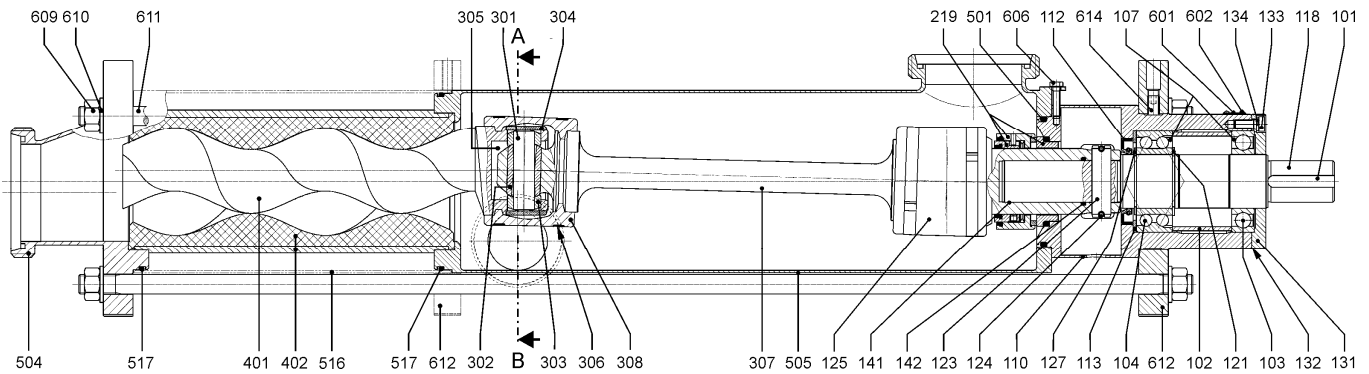
⑯
5 F V 2 V

Explanations for type key:

Position in type key	Designation	Meaning
①	Series	CIP version of ALLWEILER Progressing Cavity Pump
②	Size	Possible sizes: 12, 25, 50, 100, 200, 380, 550 (size 12 available only as ACNBP) The figures indicate the theoretical capacity in l/min. at n = 400 1/min and Δp = 0 bar.
③	Number of stages	1 = single-stage up to 6 bar (up to 12 bar, sizes 100-380 with stator with uniform elastomer wall thickness) (size 12 available only in two-stage) 2 = two stage up to 12 bar (size 550 available only as single stage)
④	Bearing	E = External bearing in drive unit C = Drive-side radial bearing with sealing washer, pump side open; Drive-side thrust bearing open, pump side with shaft seal ring Both bearings lifetime lubricated; Shaft unit consisting of drive shaft and stub shaft. This version suitable only for horizontal installation and available only in shaft type 0 (without shaft sleeve) X = Special bearing version
⑤	Suction and discharge branch version	2 = Threaded connectors according to dimensioned drawing pages 8, 9, 10 X = Special suction and/or pressure branch, for example: Connections for inch-based dimension systems like ISO 2852, IDF-Norm, ACME 3A, APV-RJT, Mâcon, SMS, Clamp (ISO 2853), Tri-Clamp

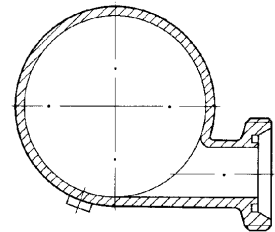
⑥	Branch position	D, E, F, G – See figures on page 10 for arrangement		
⑦	Shaft seal type	G = Mechanical seal		
⑧	Shaft version	0 = Shaft without shaft sleeve		
⑨	Shaft seal version	A = Mechanical seal, single acting, directionally independent, dead-zone-free, spring does not contact product, secondary seals made of elastomer		
		E = Mechanical seal, double acting, unbalanced, directionally independent, compound springs, secondary seals made of elastomer (available only on ACNP).		
		X = Special mechanical seal version		
⑩	Variations	Stators with non-uniform elastomer wall thickness (all qualities)		Stators with uniform elastomer wall thickness (all qualities)
		N M H T		D E F R
		Rotor with temperature play depending on the temperature of the pumped liquid.		Rotor with temperature play depending on the temperature of the pumped liquid.
		Y = Rotor ductile, hard chromed G = Stator with uniform elastomer wall thickness (available on sizes 100, 200, 380) K = Stainless stator casing X = other versions		
⑪	Material for casing parts contacting liquid	4 = 1.4404 X = Special materials		
⑫	Stub shaft universal joint shaft, in contact with liquid, material	4 = 1.4571 X = Special materials		
⑬	Rotor material	4 = 1.4571 X = Special materials		
⑭	Stator material	PL = Perbunan, light P = Perbunan N YL = Hypalon, light	Y = Hypalon SL = Silicon, light	X = Special materials, like plastics, elastomers, metal
⑮	Joint sleeve material (special variation)	PL = Perbunan, light P = Perbunan N YL = Hypalon, light Y = Hypalon	O = No joint sleeves, standard CIP joint	X = Special materials
⑯	Shaft seal material	Mechanical seal:		
		Pairing of sliding materials		Springs and construction mat.
		1st position when single seal 1st + 4th positions when double seal		2nd position
		2 = Cast CrMo/hard carbon 5 = Silicon carbide/silicon carbide highly wear resistant, corrosion resistant X = Special materials		F = 1.4571 X = Special materials
				E = EP rubber V = Viton TTV = Viton ① X = Special materials ① double PTFE shrouded

Sectional drawing of ACNP

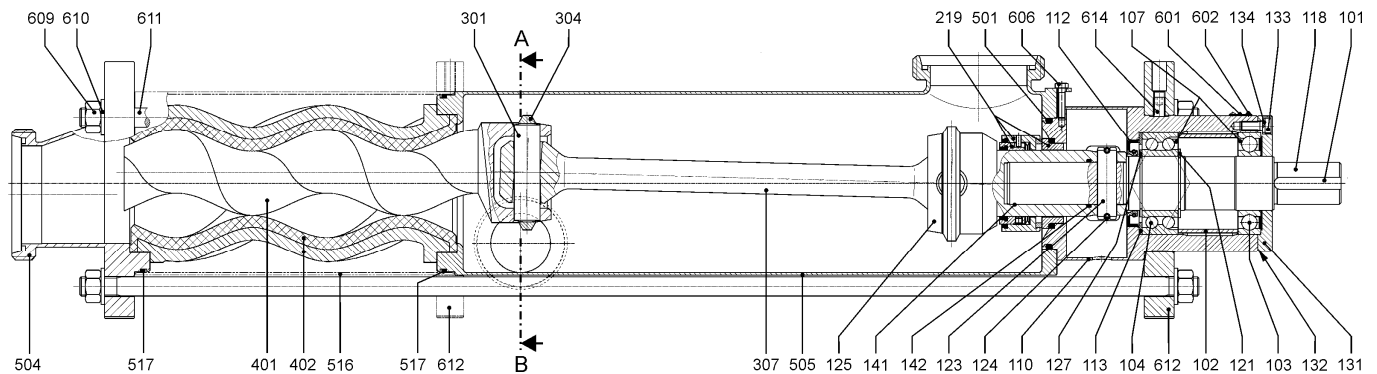


ACNP in basic version – joint is liquid-sealed encapsulated; stator with non-uniform elastomer wall thickness

Bearing: **C** (lifetime lubricated), stub shaft on retainer easily disassembled
 Shaft seal: **G0A** mechanical seal, single acting, directionally independent, free of dead zones
 spring does not contact product, O-ring seat for counterring in CIP version;
 permissible pressure at the shaft seal $p = -0.5$ to 12 bar
 Joint: Open, product-lubricated or liquid-sealed encapsulated
 Stator: With non-uniform elastomer wall thickness or with uniform elastomer wall thickness
 (sizes 100 to 380)

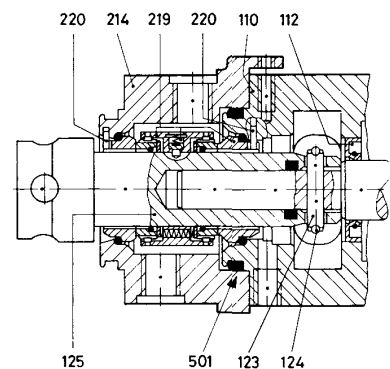


Cross-section A-B,

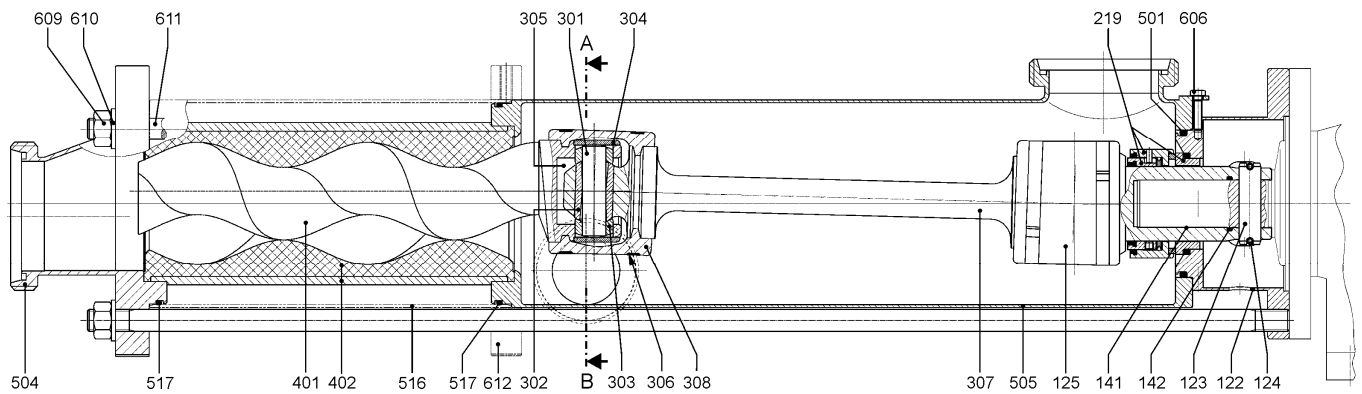


ACNP in basic version – joint open, product-lubricated; stator with uniform elastomer wall thickness

Shaft seal: **G0E** mechanical seal (available only on ACNP), double acting, unbalanced, directionally independent, multi-springs, permissible pressure at the shaft seal $p = -0.95$ to 12 bar

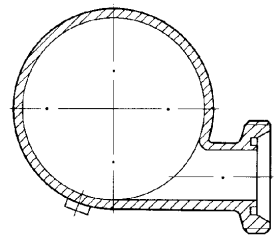


Sectional drawing of ACNBP

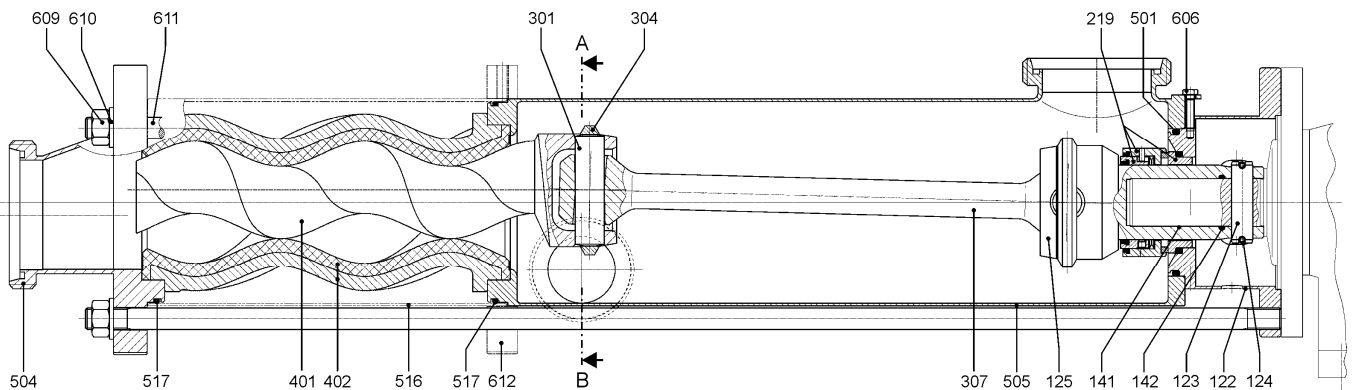


ACNBP in basic version – joint is liquid-sealed encapsulated; stator with non-uniform elastomer wall thickness

- Bearing:** E (external bearing in drive unit), stub shaft at retainer pin easily disassembled
- Shaft seal:** G0A mechanical seal, single acting, directionally independent, free of dead zones spring does not contact product, O-ring seat for counterring in CIP version; permissible pressure at the shaft seal $p = -0.5$ to 12 bar
- Joint:** Open, product-lubricated or liquid-sealed encapsulated
- Stator:** With non-uniform elastomer wall thickness or with uniform elastomer wall thickness (sizes 100 to 380)



Cross-section A-B,

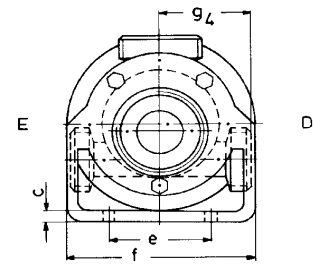
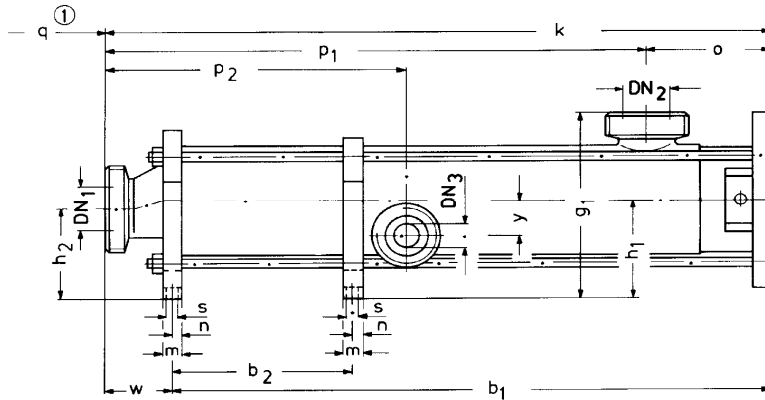


ACNBP in basic version – joint open, product-lubricated; stator with uniform elastomer wall thickness

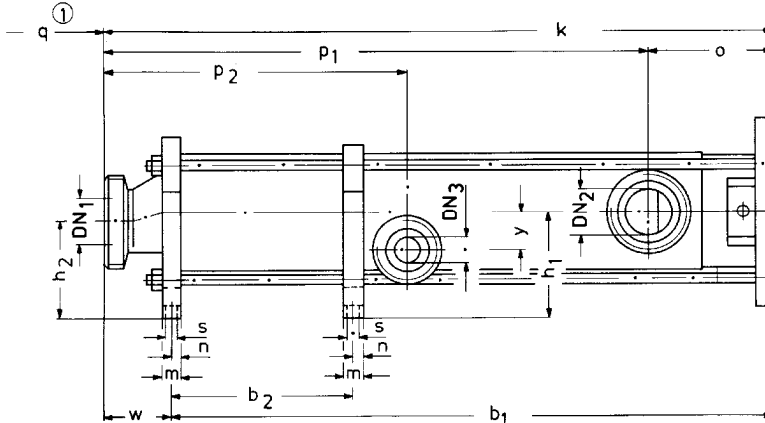
Part name	Part No.	Part name	Part No.	Part name	Part No.
Key	101	Machine screw	133	O-ring	501
Spacer sleeve	102	Spring ring	134	Discharge casing	504
Radial ball bearing	103	Lubrication paste	141	Suction casing	505
Thrust bearing	104	O-ring	142	Stator casing (optional)	516
Bearing grease	107	Mechanical seal housing	214	O-ring (optional)	517
Bearing housing	110	Mechanical seal	219	Nameplate	601
Shaft seal	112	Locking pin	220	Round head grooved pin	602
Spacer ring	113	Joint pin	301	Hexagon screw	606
Drive shaft	118	Joint bush	①302	Hexagon nut	609
Circlip	121	Bush for joint pin	303	Washer	610
Bracket	122	Joint sleeve	304	Clamp bolt	611
Retainer pin	123	Joint grease	305	Stand, pump-side	612
Circlip retainer pin	124	Joint clamp	306	Stand, drive-side	
Stub shaft	125	Universal joint shaft	307	Threaded pin	614
Circlip	127	Joint collar	308		
Bearing cover, drive side	131	Rotor	401		
Sealing strip	132	Stator	402		

① not present on size 12

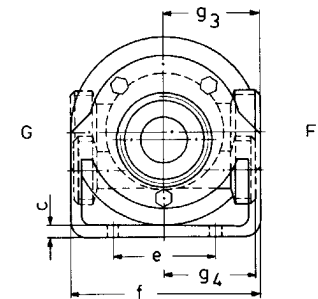
Pump dimensions, possible branch positions, weights for ACNBP



Pump dimensions for shaft seal version: G0A (single acting mechanical seal)



Branch position E or D
Casing **cannot** be rotated



Pump dimensions for shaft seal version: G0A (single acting mechanical seal)

Branch position F or G
Casing **cannot** be rotated

Dimensions in mm
Pitch of round thread in inch
Subject to change.

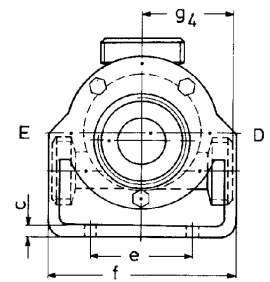
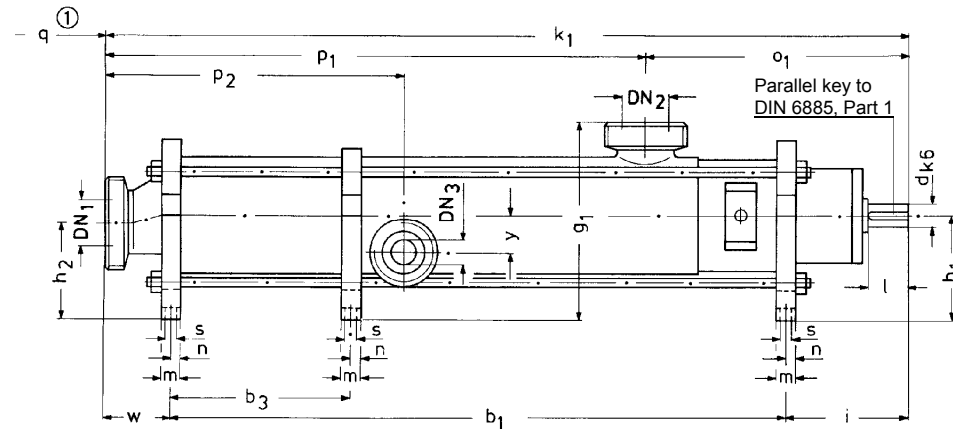
Direction of rotation: normally left, viewed from drive side, whereby DN₁ = discharge branch, DN₂ = suction branch, DN₃ = flushing connection
Directional changes possible, then DN₁ = suction branch, DN₂ = discharge branch

Size	Pump dimensions															
	b ₁	b ₂	c	e	f	g ₁	g ₃	g ₄	h ₁	h ₂	k	m	n	o	p ₁	p ₂
12.2	487,5	-	10	70	133	146	61	62	85	82	536	20	10	88	448	301,5
25.1	479	-	10	80	143	158	68	72	90	84	544	20	10	91	453	248
25.2	605	-	10	80	143	158	68	72	90	84	670	20	10	91	579	374
50.1	577	-	10	95	157	176	81	82	95	87	654	20	10	108	546	300
50.2	737	-	10	95	157	176	81	82	95	87	814	20	10	108	706	460
100.1	701	-	10	140	198	192	97	92	95	87,5	777,2	20	10	123	654,2	347,2
100.2	901	-	10	140	198	192	97	92	95	87,5	977,2	20	10	123	854,2	547,2
200.1	856	-	10	170	233	220	107	110	113	103,5	945,5	25	12,5	137	808,5	425,5
200.2	1108	-	10	170	233	220	107	110	113	103,5	1197,5	25	12,5	137	1060,5	677,5
380.1	1022	331	10	180	245	241	117	110	124	111,5	1132,5	25	12,5	159	973,5	507,5
380.2	1328	637	10	180	245	241	117	110	124	111,5	1438,5	25	12,5	159	1279,5	813,5
550.1	1176	485	10	180	245	241	117	110	124	111,5	1286,5	25	12,5	159	1127,5	661,5

Size	Pump dimensions				Suction/discharge connection		Flushing connection		Weight approx. kg
	q ①	s	w	y	DN ₁ DN ₂	Thread connector DIN 11 887-A	DN ₃	Thread connector DIN 11 887-A	
12.2	170	11	48.5	23	32	Rd 58 x 1/6	20	Rd 44 x 1/6	
25.1	230	11	65	27.5	40	Rd 65 x 1/6	25	Rd 52 x 1/6	
25.2	230	11	65	27.5	40	Rd 65 x 1/6	25	Rd 52 x 1/6	
50.1	290	11	77	34	50	Rd 78 x 1/6	32	Rd 58 x 1/6	
50.2	290	11	77	34	50	Rd 78 x 1/6	32	Rd 58 x 1/6	
100.1	370	11	76.2	43.5	65	Rd 95 x 1/6	40	Rd 65 x 1/6	
100.2	370	11	76.2	43.5	65	Rd 95 x 1/6	40	Rd 65 x 1/6	
200.1	450	14	89.5	50	80	Rd 110 x 1/4	50	Rd 78 x 1/6	
200.2	450	14	89.5	50	80	Rd 110 x 1/4	50	Rd 78 x 1/6	
380.1	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	
380.2	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	
550.1	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	

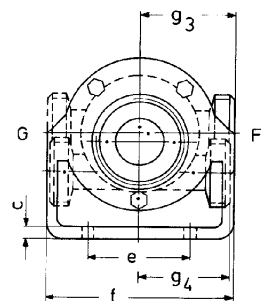
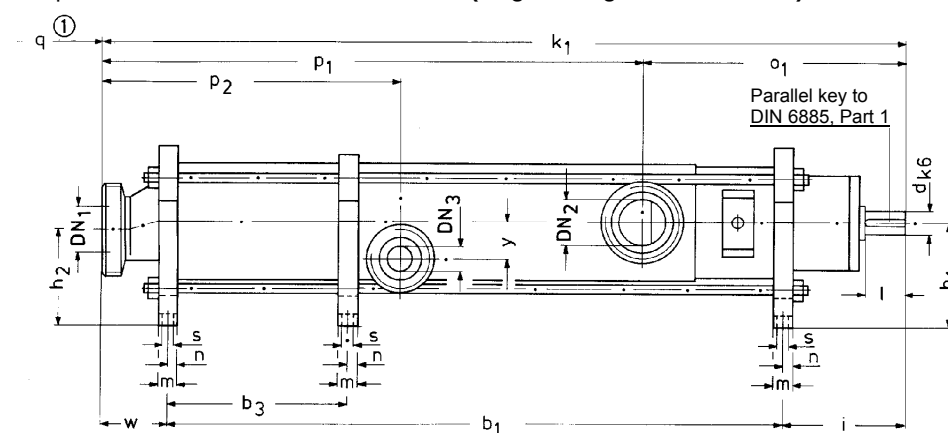
① Stator/suction casing removal dimensions

Pump dimensions, possible branch positions, weights for ACNP



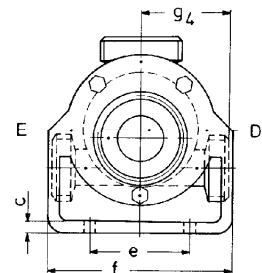
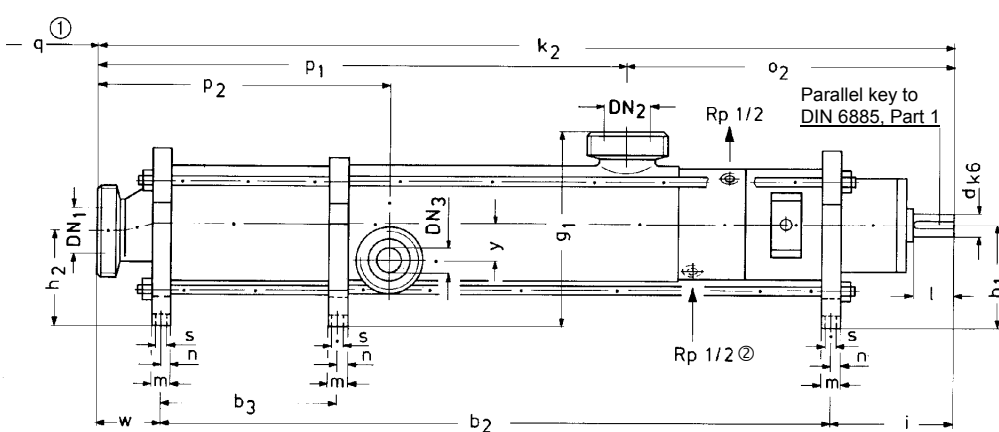
Branch position E or D
Suction casing **cannot** be rotated

Pump dimensions for shaft seal version: G0A (single acting mechanical seal)



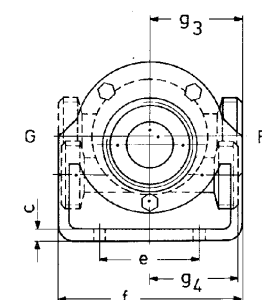
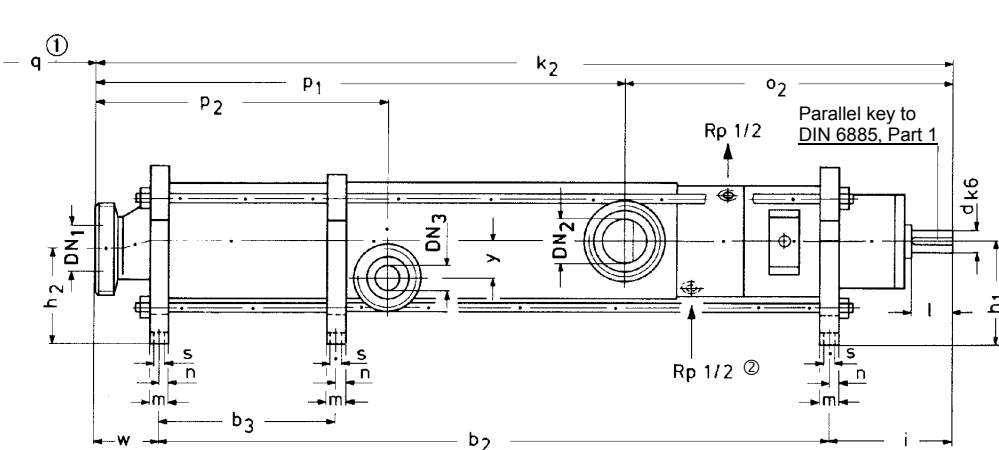
Branch position F or G
Suction casing **cannot** be rotated

Pump dimensions for shaft seal version: G0A (single acting mechanical seal)



Branch position E or D
Suction casing **cannot** be rotated

Pump dimensions for shaft seal version: G0E (double acting mechanical seal)



Branch position F or G
Suction casing **cannot** be rotated

② Cylindrical internal threads according to DIN 2999

Pump dimensions, weights for ACNP

Dimensions in mm

Pitch of round thread in inch

Subject to change.

Direction of rotation: normally left, viewed from drive side, whereby DN₁ = discharge branch, DN₂ = suction branch,

DN₃ = flushing connection

Directional changes possible, then DN₁ = suction branch, DN₂ = discharge branch

Size	Pump dimensions																			
	b ₁	b ₂	b ₃	c	d	e	f	g ₁	g ₃	g ₄	h ₁	h ₂	i	k ₁	k ₂	l	m	n	o ₁	o ₂
25.1	491	555	-	10	20	80	143	158	68	72	90	84	102	658	722	30	20	10	205	269
25.2	617	681	-	10	20	80	143	158	68	72	90	84	102	784	848	30	20	10	205	269
50.1	591	659	-	10	22	95	157	176	81	82	95	87	117	785	853	40	20	10	239	307
50.2	751	819	-	10	22	95	157	176	81	82	95	87	117	945	1013	40	20	10	239	307
100.1	712	781	-	10	28	140	198	192	97	92	95	87.5	142	730.2	999.2	50	20	10	276	345
100.2	912	981	-	10	28	140	198	192	97	92	95	87.5	142	1030.2	1199.2	50	20	10	276	345
200.1	870	941	-	10	35	170	233	220	107	110	113	103.5	153	1112.5	1183.5	56	25	12.5	304	375
200.2	1122	1193	-	10	35	170	233	220	107	110	113	103.5	153	1364.5	1435.5	56	25	12.5	304	375
380.1	1041	1124	331	10	42	180	245	241	117	110	124	111.5	168	1319.5	1402.5	60	25	12.5	346	429
380.2	1347	1430	637	10	42	180	245	241	117	110	124	111.5	168	1625.5	1708.5	60	25	12.5	346	429
550.1	1195	1278	485	10	42	180	245	241	117	110	124	111.5	168	1473.5	1556.5	60	25	12.5	346	429

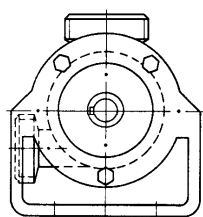
Size	Pump dimensions						Suction/discharge connection		Flushing connection		Weight approx. kg
	p ₁	p ₂	q ₁	s	w	y	DN ₁	Thread connector DN 11 887-A	DN ₃	Thread connector DIN 11 887-A	
25.1	453	248	230	11	65	27.5	40	Rd 65 x 1/6	25	Rd 52 x 1/6	
25.2	579	374	230	11	65	27.5	40	Rd 65 x 1/6	25	Rd 52 x 1/6	
50.1	546	300	290	11	77	34	50	Rd 78 x 1/6	32	Rd 58 x 1/6	
50.2	706	460	290	11	77	34	50	Rd 78 x 1/6	32	Rd 58 x 1/6	
100.1	654.2	347.2	370	11	76.2	43.5	65	Rd 95 x 1/6	40	Rd 65 x 1/6	
100.2	854.2	547.2	370	11	76.2	43.5	65	Rd 95 x 1/6	40	Rd 65 x 1/6	
200.1	808.5	425.5	450	14	89.5	50	80	Rd 110 x 1/4	50	Rd 78 x 1/6	
200.2	1060.5	677.5	450	14	89.5	50	80	Rd 110 x 1/4	50	Rd 78 x 1/6	
380.1	973.5	507.5	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	
380.2	1279.5	813.5	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	
550.1	1127.5	661.5	540	14	110.5	50	100	Rd 130 x 1/4	50	Rd 78 x 1/6	

① Stator/suction casing removal dimensions

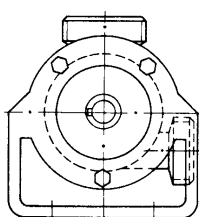
Branch positions viewed from drive

Not rotating

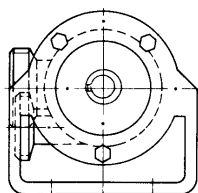
Version D



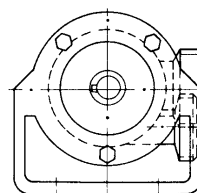
Version E



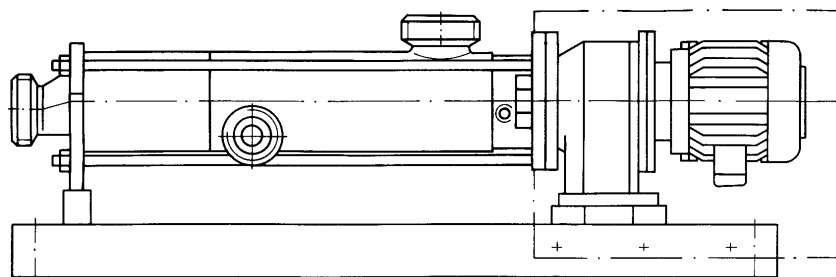
Version F



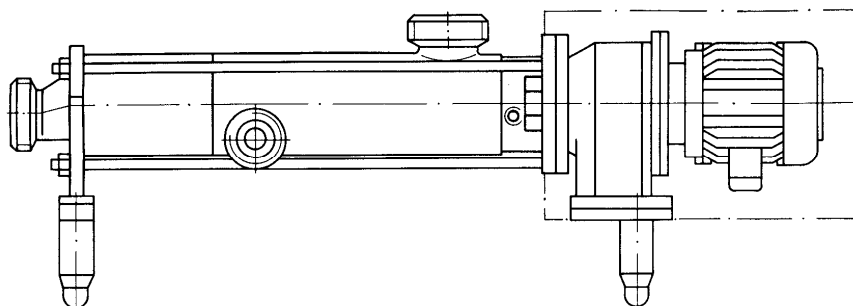
Version G



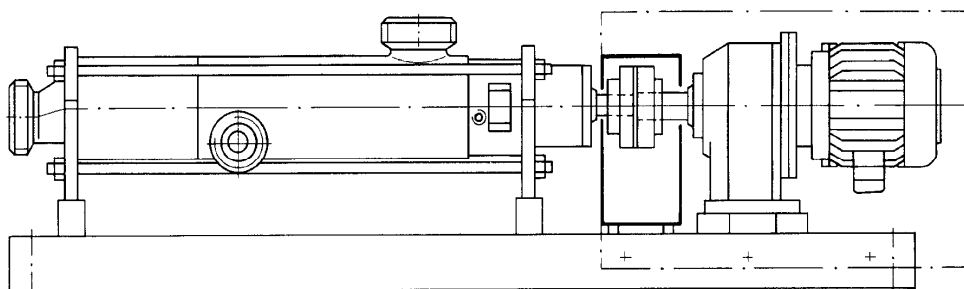
Drive and installation options



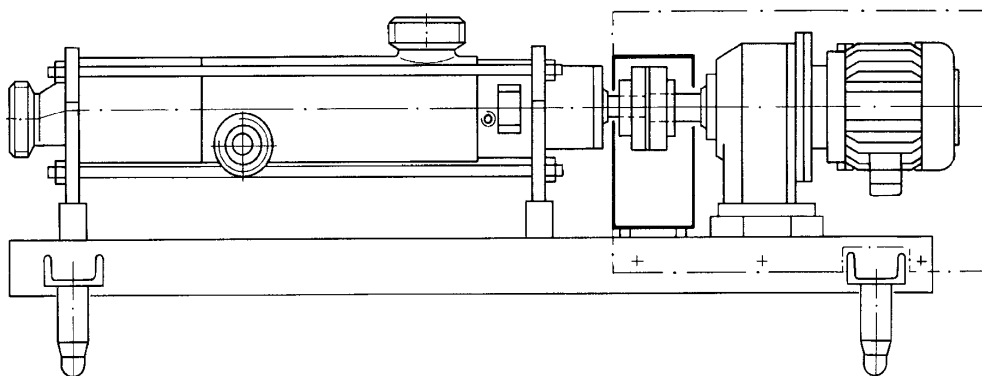
ACNBP with gear motor and base plate



ACNBP with gear motor and leveling feet



ACNP with elastic coupling, base plate, and gear motor



ACNP with elastic coupling, base plate with leveling feet, and gear motor

Other drives are possible.

Covering hood for drive available at additional cost.

Drawings show branch position D. See page 10 for other available branch position

Progressing cavity pump product line	Series	Number of stages	Max. capacity at p = 0 bar		Max. discharge pressure	Max. viscosity	Series	Number of stages	Max. capacity at p = 0 bar		Max. discharge pressure	Max. viscosity
			m³/h	l/min					m³/h	l/min		
	TECFLOW	1	186	3100	4	200.000	AEB.N-ZE	1.2	45	750	12	1.000.000
	AE.E-ID	1.2	450	7500	10	300.000	AEB.H-ZE	4	3.3	55	24	1.000.000
	AE.N-ID	1.2	290	4850	16	270.000	SEZP	1.2	21	350	10	1.000.000
	AE.H-ID	2.4	174	2900	24	270.000	SETP ①	1.2	140	2350	10	300.000
	AE.V-ID	2+2, 4+4	174	2900	48	270.000	SETBP	1.2	40	670	10	150.000
	AEB.E-IE	1.2	174	2900	6	300.000	SEFBP	1	40	670	6	150.000
	AEB.E-SE	1	54	900	10	150.000	SMP	1	40	670	6	150.000
	AEB2N-SE	2	1.92	32	12	20.000	SMP2	1	5.5	92	6	11.500
	AEB.N-IE	1.2	111	1850	12	270.000	AFP	1	2.8	47	6	50.000
	AEB2N-SE	2	1	17	12	20.000	ANP	2	2.5	42	12	20.000
	AEB4H-IE	4	12	200	24	270.000	ANBP	2	2.5	42	12	20.000
	AED.E-ID	1	720	12000	8	250.000	ASP	2	2.5	42	12	20.000
	AED.N-ID	2	450	7500	16	225.000	ASBP	2	2.5	42	12	20.000
	AEDB.E-IE	1	258	4300	6	250.000	ADP	3	0.6	10	12	20.000
	AEDB.N-IE	2	174	2900	12	225.000	ADBP	3	0.6	10	12	20.000
	AE.N-...RG	1.2.4	30	500	20	1.000.000	ACNP	1.2	29	480	12	150.000
	AE.N-ZD	1.2	102	1700	18	1.000.000	ACNBP	1.2	29	480	12	150000
	AE.H-ZD	1+1, 2, 2+2,	60	1000	36	1.000.000						

① available in special version for higher pressure

Peristaltic pump product line	Series	Max. capacity		Max. discharge pressure	Max. viscosity
		m³/h	l/min		
	ASL	2.4	40	4	100.000
	ASH	60	1000	15	100.000

Macerator product line	Series	Max. throughput volume	Static pressure
	AM...S-1	80 at 3% dry sub-	3
	ABM...S-1	80 at 3% dry sub-	3
	AM...I-1	160 at 3% dry sub-	-
	ABM...I-1	80 at 3% dry sub-	-

Accessories product line	Pump accessories:	
	Drives:	
	Power transferring parts:	
	Base plates:	
	Safety equipment:	
	System accessories:	

stator adjustment devices, electric heating units, bridge breakers.
 electric motors, gear motors, variable gearbox, reduction gearbox, combustion motors, pneumatic and hydraulic drives.
 couplings, V-belts, toothed belt drives, other transmission devices.
 standard and special versions, mobility equipment, assembly flanges.
 bypass lines with safety or control valve, dry-running protection systems (conductive, capacitive, thermal, etc.).
 electric, hydraulic, or pneumatic control devices; collector systems, dosing equipment, barrier fluid and circulation systems for shaft seals, fittings, flanges, hoses.

Subject to technical changes.