

Eccentric Screw Pumps

Series AE1+1H, AE2H, AE2+2H, AE4H, AE 2+2V, AE 4+4V

Design ID



Application

For handling liquid to highly viscous, neutral or aggressive, un-contaminated or abrasive liquids, liquids containing gases or which tend to froth, also containing fibres and solid matter.

In waste water and waste water treatment engineering, chemical and petrochemical industry, paper and cellulose industry, soap and fats industry, paint and lacquer industry, food and beverage industry, plastics industry, ceramics industry, agriculture, sugar industry and in shipbuilding.

Function

Self-priming, two-, four- or eight-stage, rotary positive displacement pump. Conveying elements are the rotating eccentric screw (rotor) and the fixed stator. In the cross-sectional plane, both are in contact with one another at two points forming two sealing lines along the length of the conveying elements. The contents of the sealed chambers which are formed as the rotor turns are displaced axially and with complete continuity from the suction to the delivery end of the pump. Despite rotor rotation, there is no turbulence. The constant chamber volume excludes squeezing, thus ensuring an extremely gentle low-pulsating delivery.

Structural design

By external casing connecting screws (clamping screws), the pressure casing, stator and suction casing are interconnected. The suction casings are designed particularly favourable to flow. The pump sizes 50 to 2700 with mechanical system H and the pump sizes 25 to 1450 with mechanical system V in cast iron design are provided with staggered holes for cleaning. The stator vulcanized into a tube or shell casing (even elastomer wall thickness) is provided with external collars vulcanized to it on both sides reliably sealing towards the suction casing and delivery casing and protecting the stator shell from corrosion.

Stators are supplied:

For series AE.H with uneven wall thickness:

two+two-stage for sizes 100, 200, 380, 750, 1450, 2700

four-stage for sizes 12, 25, 50, 100, 200, 380, 750, 1450

with even wall thickness:

single+single stage for size 2700

two-stage for sizes 100, 200, 380, 750, 1450

For series AE.V with uneven wall thickness:

four+four-stage for sizes 25, 50, 100, 200, 380, 750, 1450

with even wall thickness:

two+two-stage for sizes 100, 200, 380, 750, 1450

The exchangeable shaft sealing housing or mechanical seal housing (subsequent conversion to another sealing variant is possible) are arranged between the suction casing and bearing bracket. The sealing housings (shaft seals) are easily accessible as the complete bearing unit can be withdrawn from the driving shaft without any further pump dismounting.

Bearing of the driving spindle is effected in the bearing bracket. The torque of the drive is transmitted over the driving shaft and

the joint shaft onto the rotor. On both sides, the joint shaft ends in liquid-tight encapsulated bolt joints, which are designed particularly simple and sturdy properly taking the eccentric movement of the rotor.

Shaft seal

By uncooled, cooled or heated stuffing box or by uncooled or cooled maintenance-free unbalanced, single or double-acting mechanical seal.

Material pairing and design are adapted to the respective operating conditions. For further data, refer to pages 4, 5.

The stuffing box or mechanical seal housings of the various shaft sealing types are interchangeable within one size. The various mechanical seal housing parts form a modular construction system and, in case of conversion to a different mechanical seal design, can be easily combined with one another.

Installation spaces for mechanical seals according to DIN 24 960 (except for double mechanical seal).

For further data, refer to pages 4, 5, 6 and 7.

Technical data

Deliveries, admissible speed ranges and required drive powers are to be taken from the performance graph on page 3 and/or the separate individual characteristic curves.

				AE.H	AE.V
Delivery	Q	l/min	up to	2900	1900
Temperature of fluid pumped	t	°C ①	up to	150	
Delivery pressure	Δp	bar	up to	24	48
Pump outlet pressure	p _d	bar ③	up to	25	64
Attainable under-pressure	p _s	bar ②	up to	0,95	
Viscosity	η	mPa·s ②	up to	270.000	
Admissible solids content	Vol% ②		up to	60	

The mentioned performance data are to be considered as a product and performance abstract only. The particular operating limits can be taken from the quotation or order acknowledgement.

Max. admissible grain sizes and fibre lengths

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

Size		750	1450	2700
max. grain size	mm	9,5	14	20
max. fibre length	mm	98	130	210

Increasing solids content and increasing grain size require a reduction of the pump speed:

- ① depending upon the fluid to be pumped and the elastomers employed.
- ② depending upon the pump size/design, speed and fluid to be pumped.
- ③ depending on the direction of rotation, inlet pressure.

Drive

Driving possibilities see page 14.

Drives of any manufacturers can be employed. For the technical data and dimensions, please refer to the documents of the manufacturers.

Direction of rotation

Clockwise looking from the drive end is standard. Opposite direction of rotation is possible. For clockwise rotation the permissible pressure at the shaft seal and the permissible pressure of the suction casing, then discharge casing, (16 bar) must be considered.

Installation

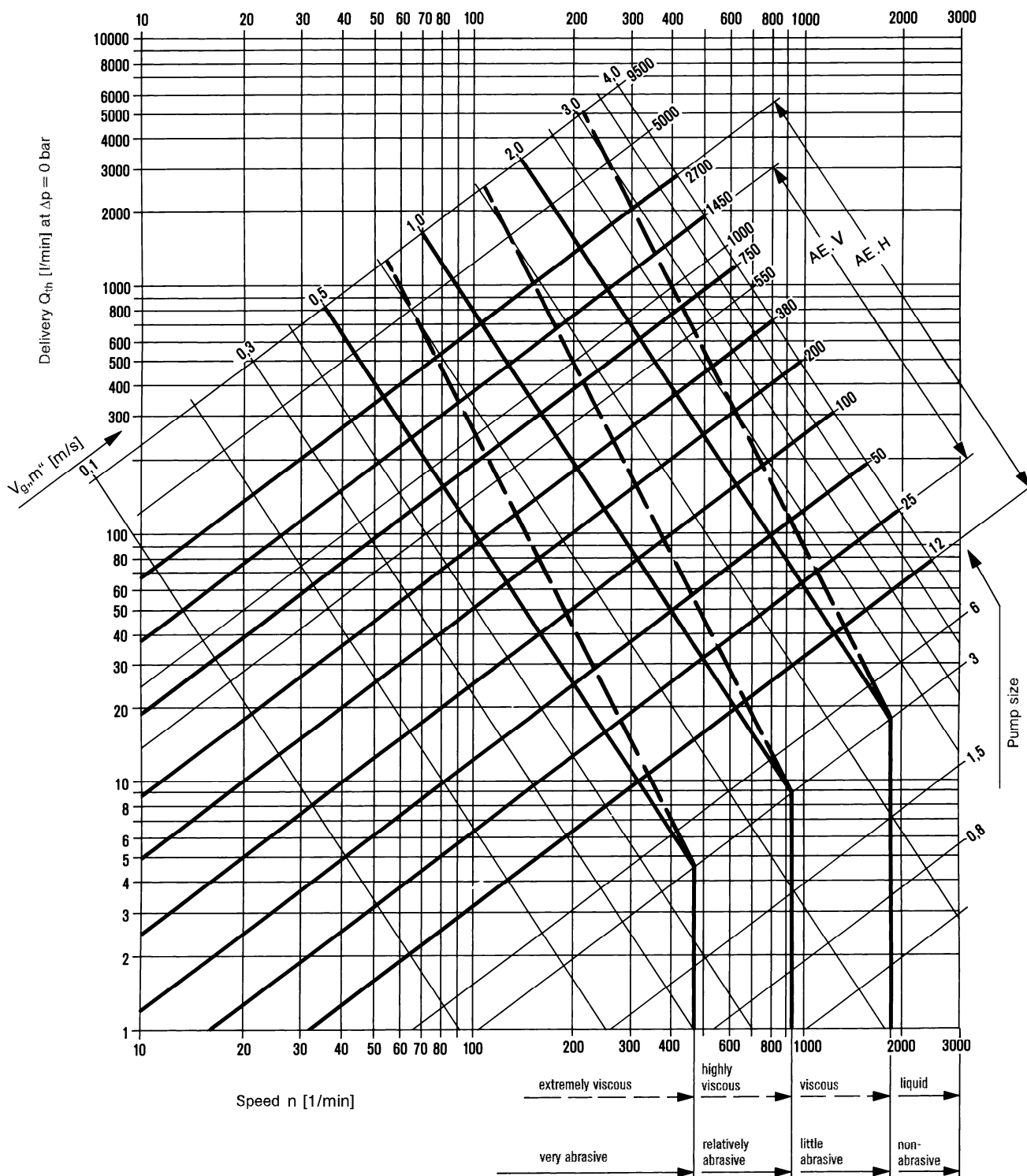
AE pumps may be installed horizontally or vertically. In case of vertical arrangement, "shaft shank downwards" is not admissible.

By means of a flexible coupling or a via gear (as a rule, V-belt drive), the pump and drive are connected with one another and mounted on a common base plate. For aggregate dimensions, please inquire.

Performance graph

For a rough selection of the pump size and speed as a function of the requested delivery and kind of fluid to be pumped.

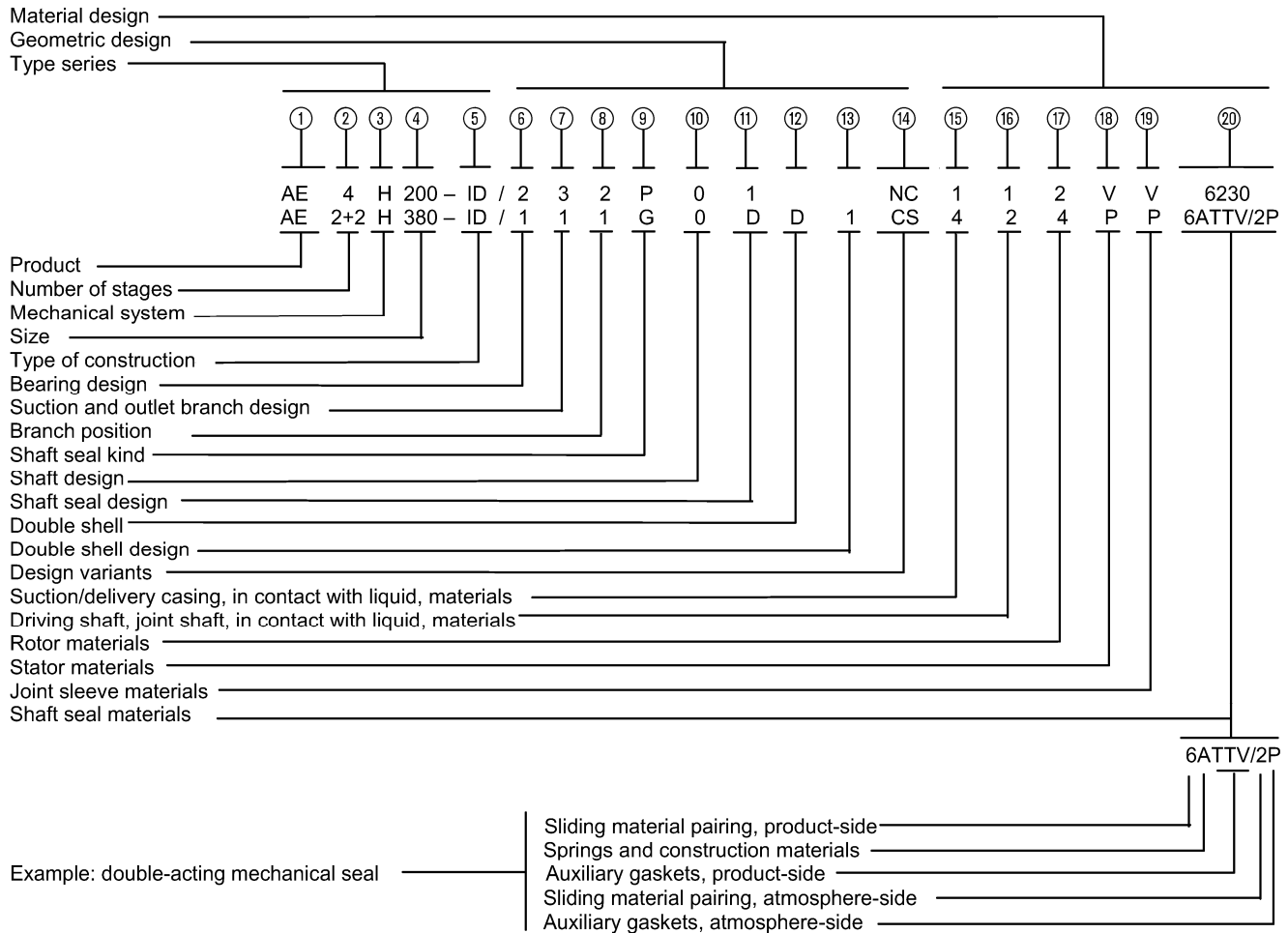
$V_{g,m}$ = available, mean sliding speed of the rotor in the stator.



Sizes of the series AE.H, AE.V. Data on the performance range not covered by AE.H, AE.V series are to be taken from the rear side of this brochure and/or the individual brochures of the other series.

For exact performance data, please refer to the individual characteristics.

Type code



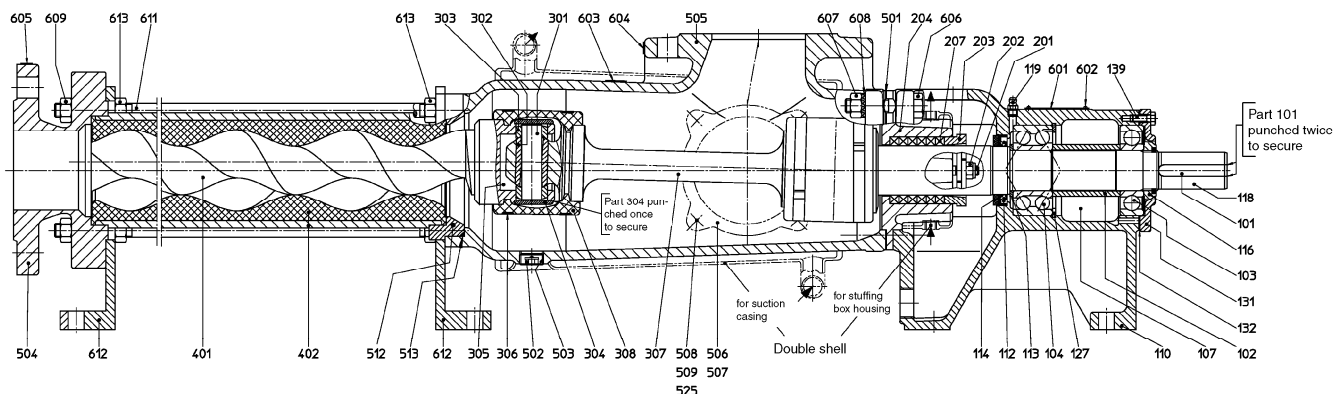
Explanations to the type code:

Position in type code	Designation	Design
①	Product	ALLWEILER eccentric screw pump
②	Number of stages: Series AE.H	1+1 = single-stage + single-stage up to delivery pressure Δp 24 bar (stator with even elastomer wall thickness), size 2700 2 = two-stage up to delivery pressure Δp 24 bar (stator with even elastomer wall thickness), sizes 100, 200, 380, 750, 1450
	Series AE.V	2 + 2 = two-stage + two-stage up to delivery pressure Δp 24 bar, sizes 100, 200, 380, 750, 1450, 2700 4 = four-stage up to delivery pressure Δp 24 bar, sizes 12, 25, 50, 100, 200, 380, 750, 1450 2 + 2 = two-stage + two-stage up to delivery pressure Δp 48 bar (stator with even elastomer wall thickness), sizes 100, 200, 380, 750, 1450 4 + 4 = four-stage + four-stage up to delivery pressure Δp 48 bar, sizes 25, 50, 100, 200, 380, 750, 1450
③	Mechanical system	H = rated for delivery pressure Δp 24 bar V = rated for delivery pressure Δp 48 bar
④	Size	Possible sizes series AE.H: 12, 25, 50, 100, 200, 380, 750, 1450, 2700 Possible sizes series AE.V: 25, 50, 100, 200, 380, 750, 1450 The numbers indicate the theoretic delivery in l/min with $n = 400$ 1/min and $\Delta p = 0$ bar.
⑤	Design	ID = Industrial design with internal bearing
⑥	Bearing design	1 = Hose-proof, radial bearing drive-side with sealing washer, axial bearing pump-side with shaft seal ring. Both bearings regreasable. For horizontal installation. 2 = Hose-proof, radial bearing on both sides with sealing washer, axial bearing pump-side with shaft seal-ring. Axial bearing regreasable, radial bearing lifetime-lubricated. For vertical installation with shaft shank upwards.
⑦	Suction and outlet branch design	1 = DIN-flanges 3 = ANSI-flanges X = Suction and/or delivery branch of special design according to dimensional sheet, pages 9, 10 and 11
⑧	Branch position	1, 2, 3, 4 For the arrangement, please refer to the representation, page 9. Arrangement 3 for size 12 not possible.
⑨	Shaft seal type	P = Stuffing box or other non-mechanical shaft seal G = Mechanical seal (mechanical shaft seal)
⑩	Shaft design	0 = Shaft without shaft sleeve 1 = Shaft with shaft sleeve (not possible with pump size 12)
⑪	Shaft seal design	Stuffing boxes P01/P11 = Stuffing box of normal design (without sealing chamber ring / without flushing ring) P02/P12 = Stuffing box with flushing ring P03/P13 = Stuffing box with internal sealing chamber ring P04/P14 = Stuffing box with external sealing chamber ring P0X/P1X = Non-mechanical shaft seal of special design

⑪	Shaft seal design (continued) X = design possible	Mechanical seals:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		for pump sizes series AE.V:					25	50	10	200	380	750	1450																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		for pump sizes series AE.H:					12	25	50	100	20	380	750	1450	2700																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Shaft diameter at the location of the shaft seal					25	30	35	43	53	60	75	90	110																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GOK	=	individual mechanical seal, DIN 24 960, design K, shape U			X	X	X	X	X	X	X	X	①																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GON	=	as above, however design N			X	X	X	X	X	X	X	X	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GOS	=	individual mechanical seal, DIN 24 960, design K, shape U, rotating part with integrated locking device and pump-sided throttling ring			X	X	X	X	X	X	X	X	①																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GOT	=	as above, however design N			X	X	X	X	-	X	X	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GOQ	=	individual mechanical seal, DIN 24 960, design K, shape U with quench			X	X	X	X	X	X	X	X	①																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		GOD	=	double mechanical seal			①	①	①	①	①	①	①	①	①																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		G0X	=	mechanical seal of special design																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
① for gasket design, please inquire.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
⑫	Double shell	D	=	Double shell for heating/cooling, available in stainless steel only. Connections as threaded nipples for liquid media. Maximum heating/cooling pressure 6 bar, maximum heating temperature + 150°C, maximum cooling temperature -40°C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
⑬	Double shell design	1	=	Suction casing with double shell																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		2	=	Stuffing box for P01/P11 with double shell																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		12	=	Suction and shaft sealing housing P01/P11 with double shell																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		X	=	Special design for other double shells																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
⑭	Design variants	Stator with uneven elastomer wall thickness (all qualities)					Stator with even elastomer wall thickness (all qualities)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		N M H T	}	Rotor with temperature play as a function of the temperature of the fluid pumped			D E F R	}	Rotor with temperature play as a function of the temperature of the fluid pumped																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
C	=	Rotor hard chromium-plated					W									=	Winding protection on joint shaft																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Y	=	Rotor ductile hard chromium-plated			G	=	Stator with even elastomer wall thickness																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		Z	=	Rotor metallically coated			L	=	Stator for thermic dry running protection																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		S	=	Worm on joint shaft			X	=	Other designs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
⑮	Suction and delivery casing in contact with fluid, materials	1	=	EN-GJL-250 / St.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		3	=	EN-GJL-250 / St., inside H-rubberized																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		4	=	1.4408/1.4571																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		A	=	1.4462																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		X	=	Special materials																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
⑯	Driving shaft, joint shaft in contact with liquid, materials	1	=	1.4021/1.4571/1.1191																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		2	=	1.4301/1.4571																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		4	=	1.4571																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		A	=	1.4462																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		X	=	Special materials, e.g. also for joint parts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
⑰	Rotor materials	2	=	1.4301			4	=	1.4571			A = 1.4462																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		3	=	1.2436/1.2379			X	=	Special materials, e.g. other metals, plastic materials																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
⑱	Stator materials	WB	=	Caoutchouc soft			YL	=	Chlorosulfonated polyethylene (CSM)			PE	=	Polyethylene																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		P	=	Acrylonitrile-butadiene rubbers (NBR)			V	=	Fluoroelastomer (FPM)			PT	=	Teflon glass fiber reinforced																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		PL	=	Acrylonitrile-butadiene rubbers (NBR)			HP	=	Acrylonitrile-butadiene rubbers, hydrated (HNBR)			E	=	EPDM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		N	=	Polychloroprene (N)			SL	=	Silicon bright			X	=	Special materials																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Y	=	Chlorosulfonated polyethylene (CSM)			PU	=	Polyurethan																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
⑲	Joint sleeve materials	P	=	Acrylonitrile-butadiene rubbers (NBR)			Y	=	Chlorosulfonated polyethylene (CSM)			X	=	Special materials																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		PL	=	Acrylonitrile-butadiene rubbers (NBR)			V	=	Fluoroelastomer (FPM)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		N	=	Polychloroprene (N)			B	=	Butyl caoutchouc																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
⑳	Shaft seal materials	Stuffing box:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		5846 = Ramie fiber with PTFE impregnation, asbestos-free																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		6426 = Aramid endless fibre with PTFE impregnation, asbestos-free																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		6230 = Graphite-incorporated PTFE with sliding agents, asbestos-free																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Mechanical seal:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Sliding material pairing					Spring and constr. materials				Auxiliary gaskets																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		1st point for single gasket 1st + 4th point for double gasket					2nd point				3rd point for single gasket 3rd + 5th points for double gasket																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		2	=	CrMo cast iron/hard carbon			A	=	1.4300			P	=	Acrylonitrile-butadiene rubbers (NBR)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		4	=	Ceramics/hard carbon			F	=	1.4571			E	=	EP-caoutchouc																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		5	=	Hard metal/hard metal, highly wear-resistant			L	=	Hastelloy B			S	=	Silicon caoutchouc																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
6	=	Silicon carbide/silicon carbide highly wear-resistant, corrosion-resistant			M	=	Hastelloy C4			N	=	Polychloroprene (N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
7	=	Silicon carbide/silicon carbide highly wear-resistant, highly corrosion-resistant			X	=	Special materials			V	=	Fluoroelastomer (FPM)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
X	=	Special materials												TTE	=	EP-caoutchouc ①																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Sectional drawing and component list

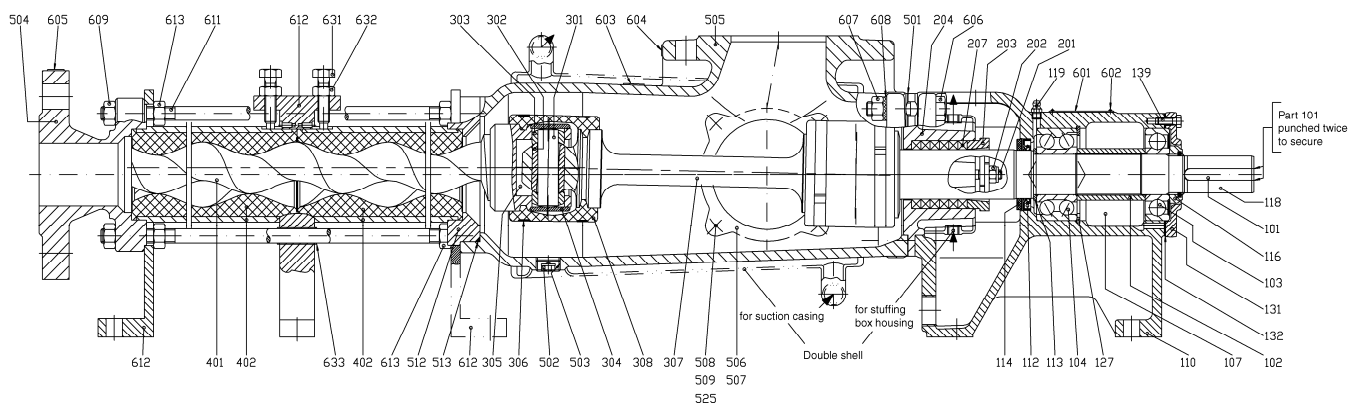
Series AE4H; design ID



Bearing 1: Hose-proof, radial bearing drive-side with sealing washer; axial bearing pump-side with shaft seal ring. Both bearings regreaseable. Only for horizontal installation.

Shaft seal P01: Due to particularly great packing length, versatile, admissible pressure at the shaft seal $p = -0,7$ to 16 bar.

Series AE2+2H, AE4+4V; design ID



Part No. Denomination

101	Key
102	Spacer sleeve
103	Groove ball bearing
104	Angular-contact ball bearing
107	Bearing grease
110	Bearing bracket
112	Shaft seal ring
113	Spacer ring
114	Thrower
115	O-ring
116	Bearing nut
118	Driving shaft
119	Lubricating nipple
127	Circlip
129	Shim ring
131	Bearing cover
132	Gasket
139	Hexagon screw
201	Stud bolt
202	Self-locking nut
203	Gland half
204	Shaft sealing housing
206	Shaft sleeve
207	Stuffing box packing
208	Flushing ring
209	Sealing chamber ring
212	Screw plug

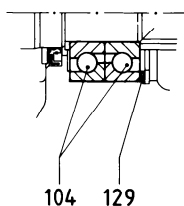
Part No. Denomination

213	Joint tape
214	Mechanical seal housing
215	Mechanical seal cover
218	O-ring
219	Mechanical seal
220	Locking pin
232	Shaft seal ring
234	Throttling ring
235	O-ring
236	Locking pin
245	Hexagon screw
251	Sealing compound
301	Joint bolt
302 ①	Joint bush
303	Bush for joint bolt
304	Joint sleeve
305	Joint oil
306	Joint clamp
307	Joint shaft
308	Joint collar
401	Rotor
402	Stator
403	Stator gasket outlet side
404	Stator gasket suction side
501	Gasket for suction casing
502	Screw plug
503	Sealing tape

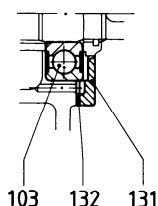
Part No. Denomination

504	Pressure casing
505	Suction casing
506	Suction casing cover
507	Gasket
508	Stud bolt
509	Hexagon nut
510	Fan-type lock washer
512	Reducer flange
513	O-ring
525	Washer
601	Type plate
602	Round head grooved pin
603	Information plate
Commissioning	
604	Information plate Suction
605	Information plate Pressure
606	Hexagon screw
607	Hexagon nut
608	Fan-type lock washer
609	Hexagon nut
611	Clamp bolt
612	Support
613	Hexagon screw
631	Fixing piece
632	Hexagon nut
633	Spacer

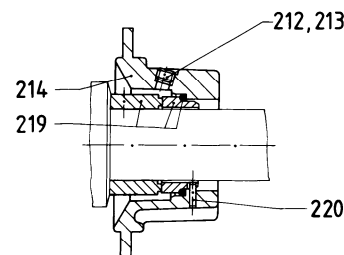
① not fitted to size 12



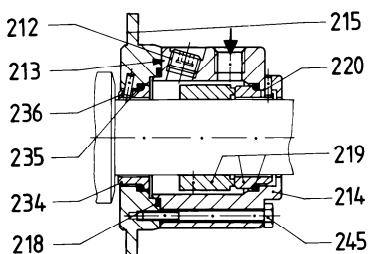
Bearing 1 AE.H: for size 380 and above
 AE.V: for size 200 and above
 and 2: Axial bearing with
 two-single-row angular
 contact ball bearings



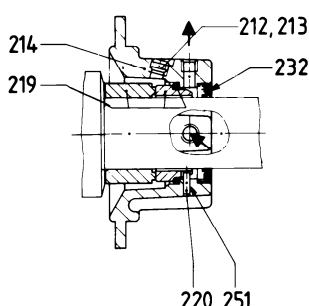
Radial bearing in case bearing 2
 (only for vertical installation with shaft
 shank upwards)



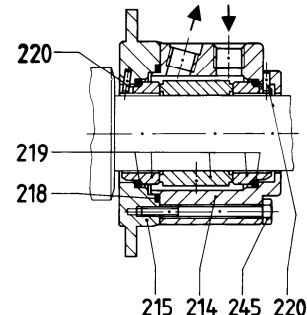
G0K/G0N Single mechanical seal,
 DIN 24 960, K/N design, U shape.
 For employment, please inquire.
 P = -0,5 to 16 bar



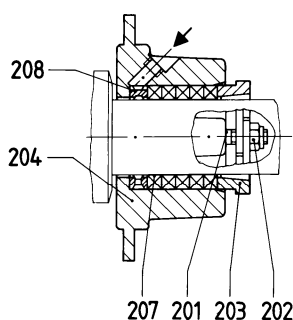
G0S/G0T Single mechanical seal,
 DIN 24 960, K/N design, U shape,
 rotating part with integrated
 locking device, with flushing liquid
 connection and pump-side
 throttling ring.
 For employment, please inquire,
 p= -0,5 to 16 bar



G0Q Single mechanical seal,
 DIN 24 960, K design, U shape
 with quench.
 For employment, please inquire,
 p= -0,5 to 16 bar

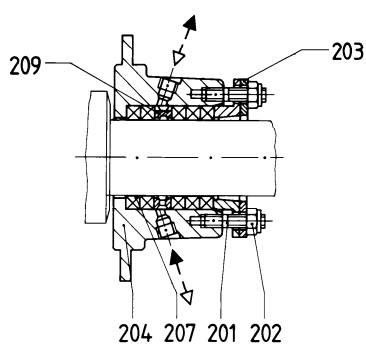


G0D Double mechanical seal,
 with sealing liquid connection.
 For employment, please inquire,
 p= -0,95 to 16 bar



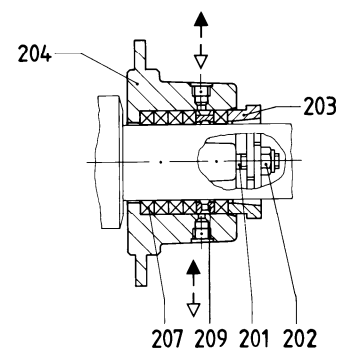
P02 Stuffing box with
 flushing ring

To be employed for very
 abrasive fluids pumped with
 external flushing
 p = -0,7 to 12 bar



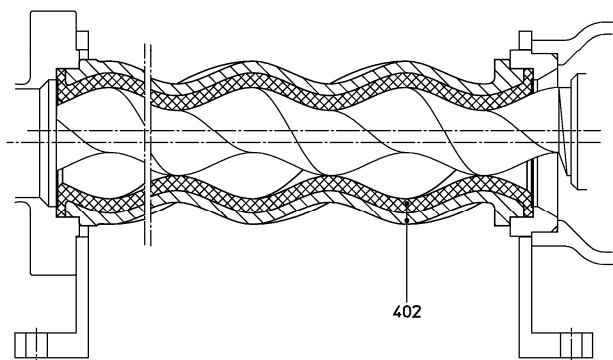
P03 Stuffing box with
 internal sealing
 chamber ring

To be employed for pure fluids
 with internal sealing or for
 abrasive fluids with external
 sealing
 p = -0,8 to 6,0 bar

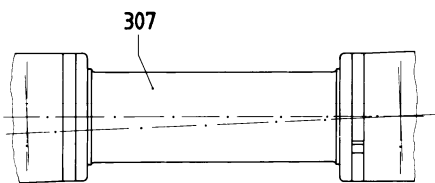


P04 Stuffing box with
 internal sealing
 chamber ring

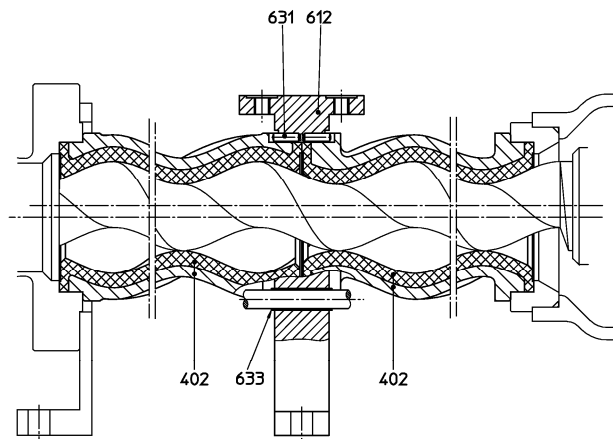
To be employed in case of
 incompatibility of the external sealing
 liquid with the fluid pumped or if
 air inlet is to be avoided
 p = -0,9 to 12 bar



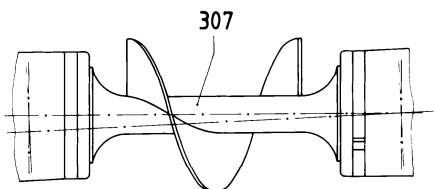
Stator with even elastomer wall thickness
Series AE2H



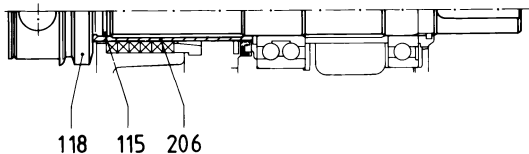
Winding protection on joint shaft



Stator with even elastomer wall thickness
Series AE1+1H, AE2+2V



Worm on joint shaft



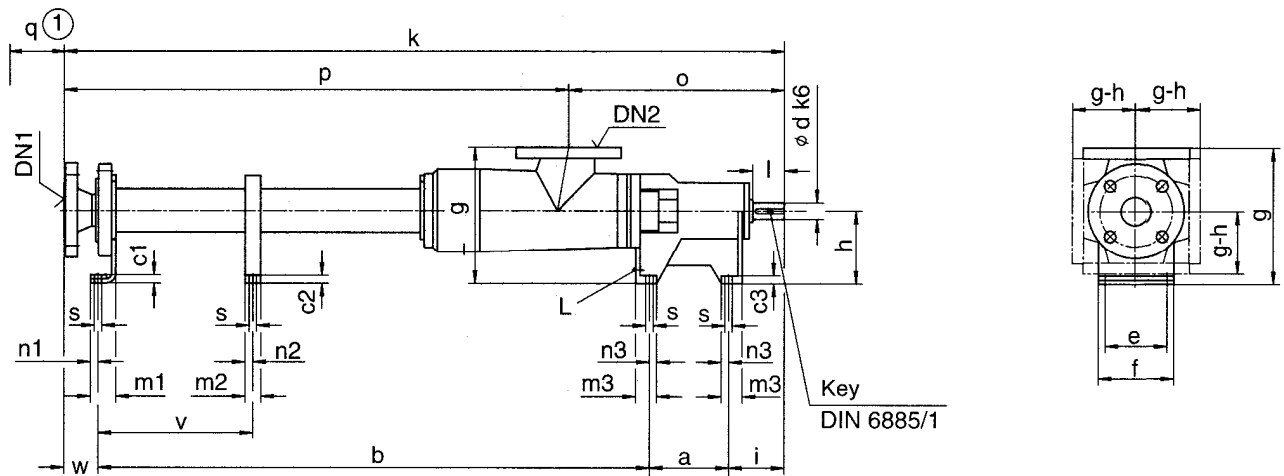
Shaft with sleeve from size 25
and above all stuffing boxes possible

Series AE1+1H, AE2H, AE2+2H, AE4H, AE2+2V, AE4+4V

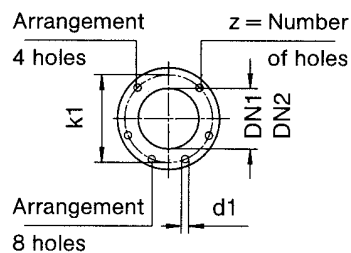
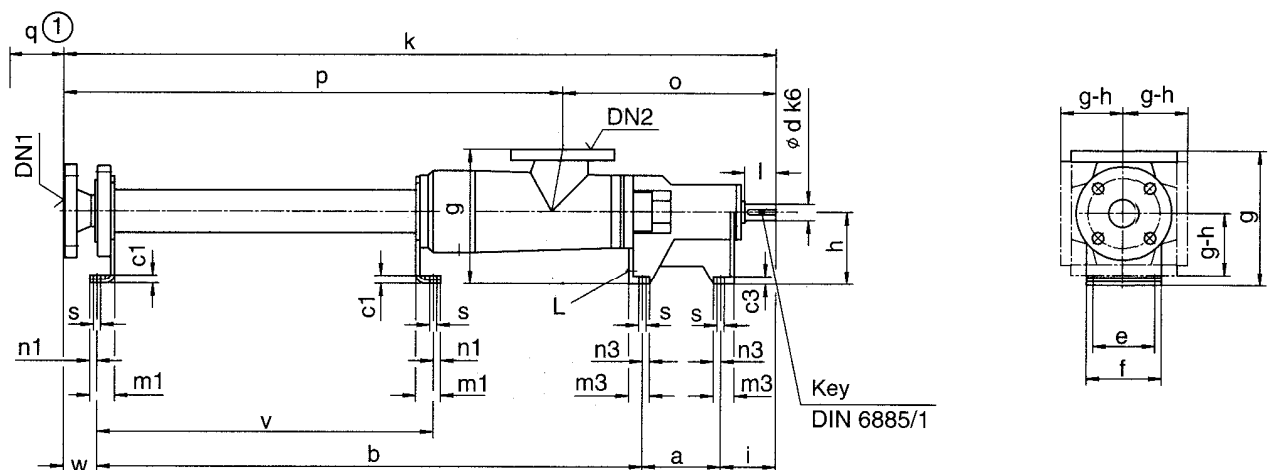
Design ID

Pump dimensions, auxiliary connections, possible branch positions, weights

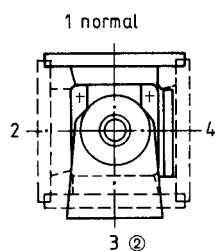
Series AE1+1H, AE2+2H; design ID



Series AE2H, AE4H; design ID



Possible branch positions as seen from the drive



© for size AE4H 12 not possible

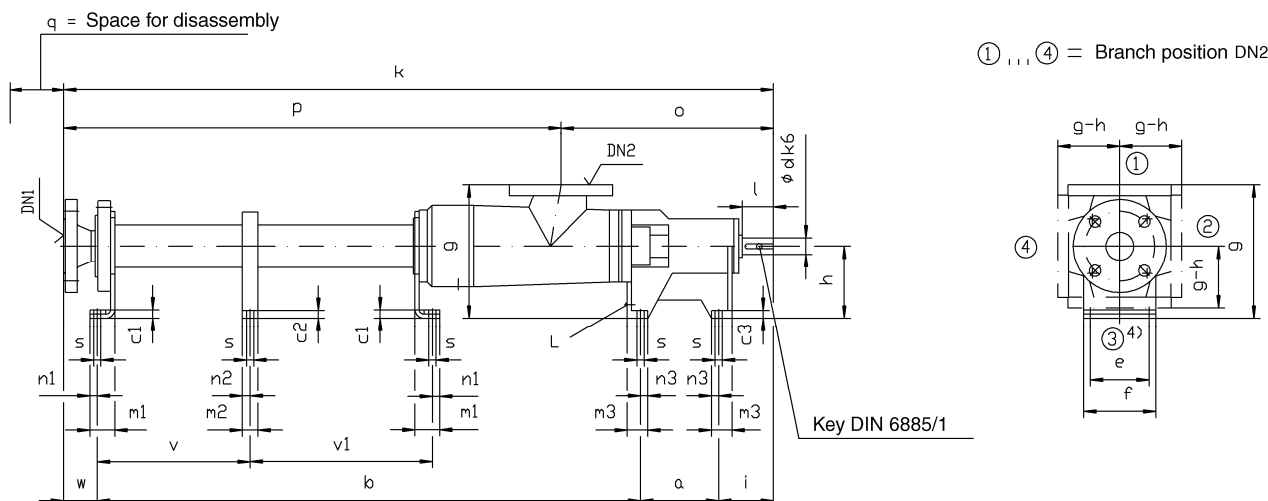
Dimensions in mm, nominal widths of ANSI flanges (DN) in inch. Subject to alterations.

Series Size		Pump dimensions																				max. mass kg		
		a	b	c ₁	c ₂	c ₃	d	e	f	h	i	l	m ₁	m ₂	m ₃	n ₁	n ₂	n ₃	o	q ①	s		L	v
AE4H	12-ID	114	668	8	-	10	18	75	95	90	65	30	42	-	30	11	-	11	273	360	9	Rp ¾	-	20
AE4H	25-ID	122	814	8	-	10	22	85	105	100	79	40	42	-	30	11	-	11	309	465	9	Rp ¾	-	30
AE4H	50-ID	140	1032	13	-	13	28	100	125	125	95	50	48	-	38	13	-	13	371	605	11,5	Rp ¾	-	52
AE2H	100-ID	151	859	16	-	15	32	114	140	140	106	60	48	-	40	14	-	14	411	360	14	Rp ¾	-	62
AE2+2H	100-ID	151	1277	16	15	15	32	114	140	140	106	60	48	35	40	14	17,5	14	411	360	14	Rp ¾	431	86
AE4H	100-ID	151	1259	16	-	15	32	114	140	140	106	60	48	-	40	14	-	14	411	760	14	Rp ¾	856	80
AE2H	200-ID	171	1047,5	16	-	16	42	132	168	160	118	65	50	-	50	19	-	19	479,5	465	18	Rp ¾	-	93
AE2+2H	200-ID	171	1573,5	16	16	16	42	132	168	160	118	65	50	40	50	19	20	19	479,5	470	18	Rp ¾	535	133
AE4H	200-ID	171	1551,5	16	-	16	42	132	168	160	118	65	50	-	50	19	-	19	479,5	950	18	Rp ¾	1058	123
AE2H	380-ID	190	1268,5	16	-	16	48	164	200	180	129,5	75	50	-	50	19	-	19	532	560	18	Rp ¾	-	155
AE2+2H	380-ID	190	1906,5	16	16	16	48	164	200	180	129,5	75	50	45	50	19	22,5	19	532	570	18	Rp ¾	644,5	226
AE4H	380-ID	190	1906,5	16	-	16	48	164	200	180	129,5	75	50	-	50	19	-	19	532	1210	18	Rp ¾	1303	210
AE2H	750-ID	220	1618	20	-	21	60	200	245	225	158	90	70	-	63	23	-	23	644	750	22	Rp 1	-	300
AE2+2H	750-ID	220	2448	20	21	21	60	200	245	225	158	90	70	45	63	23	22,5	23	644	980	22	Rp 1	850,5	414
AE4H	750-ID	220	2448	20	-	21	60	200	245	225	158	90	70	-	63	23	-	23	644	1600	22	Rp 1	1721	390
AE2H	1450-ID	266	2030	20	-	24	75	245	290	250	182	110	70	-	65	23	-	23	769	950	22	Rp 1	1103	498
AE2+2H	1450-ID	266	3076	20	24	24	75	245	290	250	182	110	70	50	65	23	25	23	769	950	22	Rp 1	1065	690
AE4H	1450-ID	266	3076	20	-	24	75	245	290	250	182	110	70	-	65	23	-	23	769	1990	22	Rp 1	2149	655
AE1+1H	2700-ID	320	2508	28	29	29	95	290	350	280	215	130	80	55	80	30	27,5	30	922	980	27	Rp 1	677	780
AE2+2H	2700-ID	320	3824	28	29	29	95	290	350	280	215	130	80	55	80	30	27,5	30	922	1220	27	Rp 1	1335	1030

Series Size		Companion dimensions for outlet branch													
		Flanges DIN 2501, PN 25 ③							Flanges ANSI B16.5 RF, Class 300 ④						
		DN ₁	d ₁	k ⑤	k ₁	p ⑥	w ⑦	z	DN ₁	d ₁	k ⑤	k ₁	p ⑥	w ⑦	z
AE4H	12-ID	32	18	886	100	613	39	4	1 ¼	19	908	98,4	635	61	4
AE4H	25-ID	40	18	1062	110	753	47	4	1 ½	22,2	1084	114,3	775	69	4
AE4H	50-ID	50	18	1315	125	944	48	4	2	19	1336,5	127	965,5	69,5	8
AE2H	100-ID	65	18	1171	145	760	55	8	2 ½	22,2	1195,2	149,5	784,2	79,2	8
AE2+2H	100-ID	65	18	1589	145	1178	55	8	2 ½	22,2	1613,2	149,2	1202,2	79,2	8
AE4H	100-ID	65	18	1571	145	1160	55	8	2 ½	22,2	1595,2	149,2	1184,2	79,2	8
AE2H	200-ID	80	18	1398,5	160	919	62	8	3	22,2	1418,5	168,3	939	82	8
AE2+2H	200-ID	80	18	1924,5	160	1445	62	8	3	22,2	1944,5	168,3	1465	82	8
AE4H	200-ID	80	18	1902,5	160	1423	62	8	3	22,2	1922,5	168,3	1443	82	8
AE2H	380-ID	100	22	1662	190	1130	74	8	4	22,2	1681	200	1149	93	8
AE2+2H	380-ID	100	22	2300	190	1768	74	8	4	22,2	2319	200	1787	93	8
AE4H	380-ID	100	22	2300	190	1768	74	8	4	22,2	2319	200	1787	93	8
AE2H	750-ID	125	26	2069	220	1425	73	8	5	22,2	2099,5	234,9	1455,5	103,5	8
AE2+2H	750-ID	125	26	2899	220	2255	73	8	5	22,2	2929,5	234,9	2285,5	103,5	8
AE4H	750-ID	125	26	2899	220	2255	73	8	5	22,2	2929,5	234,9	2285,5	103,5	8
AE2H	1450-ID	150	26	2555	250	1786	77	8	6	22,2	2577	269,9	1808	99	12
AE2+2H	1450-ID	150	26	3601	250	2832	77	8	6	22,2	3623	269,9	2854	99	12
AE4H	1450-ID	150	26	3601	250	2832	77	8	6	22,2	3623	269,9	2854	99	12
AE1+1H	2700-ID	200	26	3129	310	2207	86	12	8	25,4	3160	330,2	2238	117	12
AE2+2H	2700-ID	200	26	4445	310	3523	86	12	8	25,4	4476	330,2	3554	117	12

Series Size		Companion dimensions for suction branch														
		Flanges DIN 2501, PN 16 ⑥					Flanges ANSI B16.1, Class 125 ④					Flanges ANSI B16.5 RF, Class 150 ④				
		DN ₂	d ₁	g ⑤	k ₁	z	DN ₂	d ₁	g ⑤	k ₁	z	DN ₂	d ₁	g ⑤	k ₁	z
AE4H	12-ID	40	18	175	110	4	1 ½	15,9	172	98,4	4	1 ½	15,9	175	98,4	4
AE4H	25-ID	50	18	190	125	4	2	19	186	120,6	4	2	19	190	120,6	4
AE4H	50-ID	65	18	230	145	4	2 ½	19	229	139,7	4	2 ½	19	234	139,7	4
AE2H	100-ID	80	18	260	160	8	3	19	258	152,4	4	3	19	263	152,4	4
AE2+2H	100-ID	80	18	260	160	8	3	19	258	152,4	4	3	19	263	152,4	4
AE4H	100-ID	80	18	260	160	8	3	19	258	152,4	4	3	19	263	152,4	4
AE2H	200-ID	100	18	300	180	8	4	19	302	190,5	8	4	19	302	190,5	8
AE2+2H	200-ID	100	18	300	180	8	4	19	302	190,5	8	4	19	302	190,5	8
AE4H	200-ID	100	18	300	180	8	4	19	302	190,5	8	4	19	302	190,5	8
AE2H	380-ID	125	18	350	210	8	5	22,2	350	215,9	8	5	22,2	350	215,9	8
AE2+2H	380-ID	125	18	350	210	8	5	22,2	350	215,9	8	5	22,2	350	215,9	8
AE4H	380-ID	125	18	350	210	8	5	22,2	350	215,9	8	5	22,2	350	215,9	8
AE2H	750-ID	150	22	425	240	8	6	22,2	425	241,3	8	6	22,2	425	241,3	8
AE2+2H	750-ID	150	22	425	240	8	6	22,2	425	241,3	8	6	22,2	425	241,3	8
AE4H	750-ID	150	22	425	240	8	6	22,2	425	241,3	8	6	22,2	425	241,3	8
AE2H	1450-ID	200	22	485	295	12	8	22,2	485	298,4	8	8	22,2	485	298,4	8
AE2+2H	1450-ID	200	22	485	295	12	8	22,2	485	298,4	8	8	22,2	485	298,4	8
AE4H	1450-ID	200	22	485	295	12	8	22,2	485	298,4	8	8	22,2	485	298,4	8
AE1+1H	2700-ID	250	26	550	355	12	10	25,4	550	361,9	12	10	25,4	550	361,9	12
AE2+2H	2700-ID	250	26	550	355	12	10	25,4	550	361,9	12	10	25,4	550	361,9	12

Series AE2+2V, AE4+4V; design ID

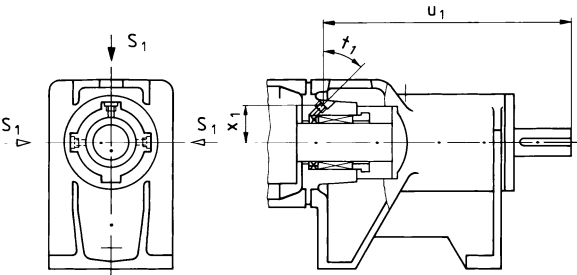


Series Size		Pump dimensions																							
		a	b	c1	c2	c3	d	e	f	h	i	l	m1	m2	m3	n1	n2	n3	o	q ①	s	v	v1	L	M ⑦
AE 4+4V	25-ID	140	1409	13	13	13	28	100	125	125	95	50	48	30	38	13	15	13	371	470	11,5	532	-	Rp½	-
AE 4+4V	50-ID	151	1748	16	15	15	32	114	140	140	106	60	48	30	40	14	15	14	411	600	14	668	-	Rp¾	-
AE 2+2V	100-ID	171	1361,5	16	16	16	42	132	168	160	118	65	50	35	50	19	17,5	19	479,5	385	18	429	-	Rp¾	-
AE 4+4V	100-ID	171	2161,5	16	16	16	42	132	168	160	118	65	50	35	50	19	17,5	19	479,5	745	18	829	-	Rp¾	-
AE 2+2V	200-ID	190	1687,5	16	16	16	48	164	200	180	130	75	50	40	50	19	20	19	532	495	18	535	-	Rp¾	-
AE 4+4V	200-ID	190	2695,5	16	16	16	48	164	200	180	130	75	50	40	50	19	20	19	532	950	18	1039	1053	Rp¾	-
AE 2+2V	380-ID	220	2066	20	21	21	60	200	245	225	158	90	70	45	63	23	22,5	23	644	550	22	659,5	-	Rp1	-
AE 4+4V	380-ID	220	3342	20	21	21	60	200	245	225	158	90	70	45	63	23	22,5	23	644	1190	22	1297,5	1317,5	Rp1	-
AE 2+2V	750-ID	266	2665	20	24	24	75	245	290	250	182	110	70	45	65	23	22,5	23	769	865	22	850,5	-	Rp1	-
AE 4+4V	750-ID	266	4325	20	24	24	75	245	290	250	182	110	70	45	65	23	22,5	23	769	1555	22	1680,5	1717,5	Rp1	-
AE 2+2V	1450-ID	320	3315	28	29	29	95	290	350	280	215	130	80	50	80	30	25	30	922	980	27	1069	-	Rp1	-
AE 4+4V	1450-ID	320	5407	28	29	29	95	290	350	280	215	130	80	50	80	30	25	30	922	1990	27	2115	2162	Rp1	-

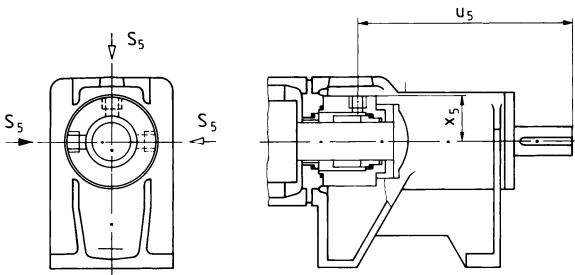
Series Size	Companion dimensions for outlet branch								Companion dimensions for suction branch							
	Flanges DIN 2501, PN 64 ②				Flanges ANSI B16.5, RF, Class 600 ④				Flanges DIN 2501, PN 16 ⑥				Flanges ANSI B16.1, Class 125 ④		Flanges ANSI B16.5, Class 150 ④	
	DN1	k ⑤	p ⑤	w ⑤	DN1	k ⑤	p ⑤	w ⑤	DN2	g ⑤	DN2	g ⑤	DN2	g ⑤	DN2	g ⑤
AE 4+4V 25-ID	40	1706	1335	62	1½"	1721,2	1350,2	77,2	65	230	2½"	229	2½"	234		
AE 4+4V 50-ID	50	2070	1659	65	2"	2087,5	1676,5	82,5	80	260	3"	258	3"	263		
AE 2+2V 100-ID	65	1722,5	1243	72	2½"	1737,5	1258	87	100	300	4"	302	4"	302		
AE 4+4V 100-ID	65	2522,5	2043	72	2½"	2537,5	2058	87	100	300	4"	302	4"	302		
AE 2+2V 200-ID	80	2087,5	1555	80	3"	2101,5	1569	94	125	350	5"	350	5"	350		
AE 4+4V 200-ID	80	3095,5	2563	80	3"	3109,5	2577	94	125	350	5"	350	5"	350		
AE 2+2V 380-ID	100	2524	1880	80	4"	2551	1907	107	150	425	6"	425	6"	425		
AE 4+4V 380-ID	100	3800	3156	80	4"	3827	3183	107	150	425	6"	425	6"	425		
AE 2+2V 750-ID	125	3203	2434	90	5"	3232	2463	119	200	485	8"	485	8"	485		
AE 4+4V 750-ID	125	4863	4094	90	5"	4892	4123	119	200	485	8"	485	8"	485		
AE 2+2V 1450-ID	150	3943	3021	93	6"	3967	3045	117	250	550	10"	550	10"	550		
AE 4+4V 1450-ID	150	6035	5113	93	6"	6059	5137	117	250	550	10"	550	10"	550		

- ① Stator dismantling dimensions ② Sealing surface DIN 2526 shape E ③ Sealing surface DIN 2526 shape C ④ Sealing surface: stock finish
 ⑤ for rubber-coating + 3 mm
 ⑥ up to DN 100 sealing surface DIN 2526 shape C, machined as shape A, from DN 125 sealing surface DIN 2526 shape A ⑦ maximal weight: kg

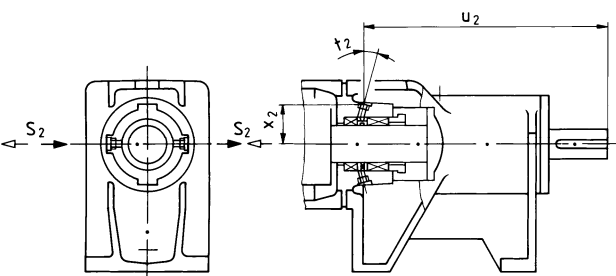
Arrangement of auxiliary connections for shaft seals



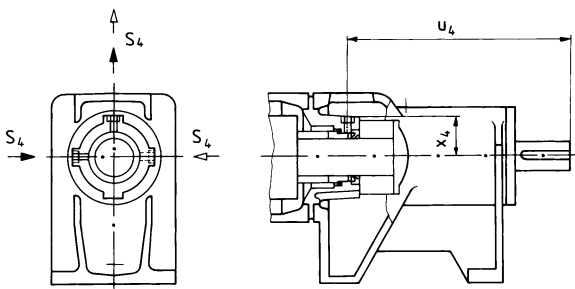
P02, P12 with flushing ring



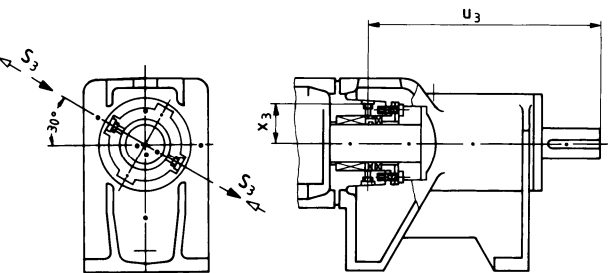
G0S/G0T with flushing connection



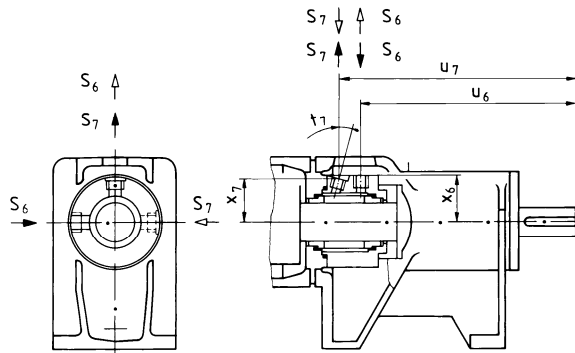
P03, P13 with internal sealing chamber ring



G0Q with quench connection



P04, P14 with external sealing chamber ring



G0D with sealing connection

Series AE1+1H, AE2H, AE2+2H, AE4H, AE2+2V, AE4+4V

Design ID



Series Size			Companion dimensions auxiliary connections for shaft seals											
			P02, P12 with flushing ring				P03, P13 with internal sealing chamber ring				P04, P14 with external sealing chamber ring			
			S ₁ ⑦	U ₁	X ₁	t ₁	S ₂ ⑦	U ₂	X ₂	t ₂	S ₃ ⑦	U ₃	X ₃	
	AE.H	12-ID	M 8 x 1	195,5	28	42°	M 8 x 1	188	30	20°	M 8 x	180,5	30,5	
	AE.H	25-ID	M 8 x 1	217	31,5	40°	M 8 x 1	211	32	20°	M 8 x	202,5	33,5	
AE.V	25-ID	AE.H	50-ID	Rp ½	255	38	42°	Rp ½	248	40	17°	Rp ½	236	39,5
AE.V	50-ID	AE.H	100-ID	Rp ½	279	42	42°	Rp ½	272	44	17°	Rp ½	261	43,5
AE.V	100-ID	AE.H	200-ID	Rp ½	316	52	42°	Rp ½	307	54	17°	Rp ½	292,5	54,5
AE.V	200-ID	AE.H	380-ID	Rp ½	349	56	35°	Rp ½	338,5	57	13°	Rp ½	322,5	58
AE.V	380-ID	AE.H	750-ID	Rp ¼	416	67	35°	Rp ¼	403	68,5	13°	Rp ¼	383	69,5
AE.V	750-ID	AE.H	1450-ID	Rp ¼	492	77	35°	Rp ¼	474,5	79	13°	Rp ¼	451	80
AE.V	1450-ID	AE.H	2700-ID	Rp ¼	588	94,5	35°	Rp ¼	568,5	97	13°	Rp ¼	542	97

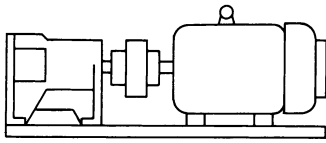
Series Size			Companion dimensions auxiliary connections for shaft seals												
			G0S/G0T, G1S/G1T with flushing connection			G0Q, G1Q with quench connection			G0D, G1D with sealing connection						
			S ₅ ⑦	U ₅	X ₅	S ₄ ⑦	U ₄	X ₄	S ₆ ⑦	S ₇ ⑦	U ₆	U ₇	X ₆	X ₇	t ₇
	AE.H	12-ID	Rp ¼	157	34	Rp ½	167	30,5	Rp ¼	Rp ¼	157	182,5	34	33	15°
	AE.H	25-ID	Rp ¼	179	38	Rp ½	187,5	30,5	Rp ¼	Rp ¼	179	204,5	38	36,5	15°
AE.V	25-ID	AE.H	50-ID	Rp ¼	220,5	41,5	Rp ½	230	33,5	Rp ¼	Rp ¼	220,5	245,5	41,5	15°
AE.V	50-ID	AE.H	100-ID	Rp ½	241	48,5	Rp ½	255	41	Rp ¾	Rp ¾	241	266	48,5	15°
AE.V	100-ID	AE.H	200-ID	Rp ¾	280	56	Rp ¾	287	54	Rp ¾	Rp ¾	280	305,5	56	20°
AE.V	200-ID	AE.H	380-ID	Rp ¾	297	61	Rp ¾	315,5	57,5	Rp ¾	Rp ¾	297	337,5	61	20°
AE.V	380-ID	AE.H	750-ID	Rp ¾	364	71,5	Rp ¾	375,5	68,5	Rp ¾	Rp ¾	364	406	71,5	22°
AE.V	750-ID	AE.H	1450-ID	Rp ¾	440,5	81	Rp ¾	446	79	Rp ¾	Rp ¾	440,5	479,5	81	20°
AE.V	1450-ID	AE.H	2700-ID	Rp ¾	527	98	Rp ¾	542	96	Rp ¾	Rp ¾	527	576	98	25°

⑦ Screw hole DIN 3852, shape Z

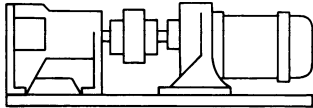
► Standard supply

▷ Possible supply, for these purposes, the sealing housing must be turned in case of designs P02/P12, G0S, G0T, G0Q, G0D.

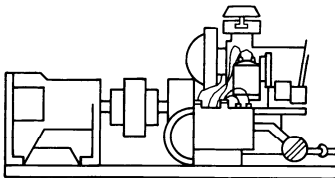
Driving possibilities AE.N ... -ZD, AE.H ... -ZD



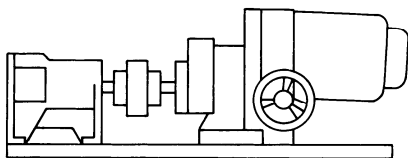
1 AE-ID with flexible coupling and motor



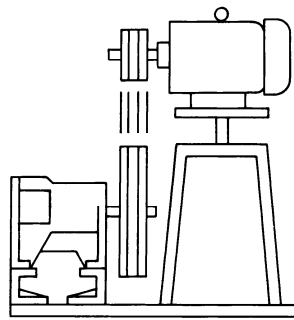
2 AE-ID with flexible coupling and geared motor



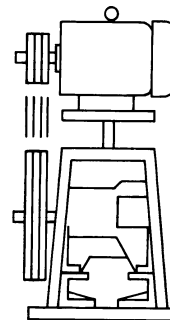
3 AE-ID with flexible coupling and combustion engine



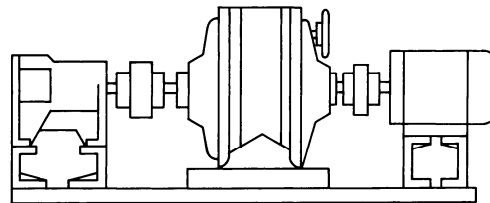
6 AE-ID with flexible coupling and infinitely variable gear



4 AE-ID with V-belt drive, rocker and motor arranged behind the pump



5 AE-ID with V-belt drive, rocker and motor, arranged above the pump



7 AE-ID with flexible coupling, gear or variable speed gear, flexible coupling and motor

Further driving variants (e.g. hydraulic or pneumatic drives) are possible.

Range of eccentric screw pumps	Series	Number of stages	Maximum output at $\Delta p = 0$ bar		Maximum delivery pressure	Maximum viscosity
			m ³ /h	l/min		
	TECFLOW	1	186	3100	4	200.000
	AE.E-ID	1,2	450	7500	10	300.000
	AE.N-ID	1,2	290	4850	16	270.000
	AE.H-ID	2,4	174	2900	24	270.000
	AE.V-ID	2+2, 4+4	174	2900	48	270.000
	AEB.E-IE	1,2	174	2900	6	300.000
	AEB.N-IE	1,2	111	1850	12	270.000
	AEB4H-IE	4	12	200	24	270.000
	AED.E-ID	1	720	12000	8	250.000
	AED.N-ID	2	450	7500	16	225.000
	AEDB.E-IE	1	258	4300	6	250.000
	AEDB.N-IE	2	174	2900	12	225.000
	AE.N...-RG	1,2,4	30	500	20	1.000.000
	AE.N-ZD	1,2	102	1700	18	1.000.000
	AE.H-ZD	1+1, 2, 2+2, 4	60	1000	36	1.000.000
	AEB.N-ZE	1,2	45	750	12	1.000.000
	AEB.H-ZE	4	3,3	55	24	1.000.000
	SEZP	1,2	21	350	10	1.000.000
	SSP	1,2	48	800	12	150.000
	SSBP	1,2	48	800	12	150.000
	SETP ①	1,2	140	2350	10	300.000
	SETBP	1,2	40	670	10	150.000
	SEFBP	1	40	670	6	150.000
	SMP	1	40	670	6	150.000
	SMP2	1	5,5	92	6	11.500
	AFP	1	2,8	47	6	50.000
	ANP	2	2,5	42	12	20.000
	ANBP	2	2,5	42	12	20.000
	ASP	2	2,5	42	12	20.000
	ASBP	2	2,5	42	12	20.000
	ADP	3	0,6	10	12	20.000
	ADBP	3	0,6	10	12	20.000
	ACNP	1,2	29	480	12	150.000
	ACNBP	1,2	29	480	12	150.000

① Special versions for higher pressures available.

Peristaltic range	Series	Maximum output		Maximum delivery pressure	Maximum viscosity
		m ³ /h	l/min		
	ASL	2,4	40	4	100.000
	ASH	60	1000	15	100.000

Macerator range	Series	Maximum throughput	Generated delivery head
		m ³ /h	m
	AM...S-1	80 at 3% solids	3
	ABM...S-1	80 at 3% solids	3
	AM...I-1	160 at 3% solids	-
	ABM...I-1	80 at 3% solids	-

Accessories

Pump accessories: Stator setting devices, electrical heaters, bridge breakers.

Drivers: Electric motors, geared motors, variable speed transmissions, reduction gearboxes, internal combustion engines, pneumatic and hydraulic drives.

Transmission components: Couplings, V-belt transmissions, toothed belt transmissions, other types of transmission.

Base plates: Standard and special versions, wheeled trolleys, mounting flanges.

Safety arrangements: Bypass lines with safety or regulating valves, systems to guard against dry running (conductive, capacitive, thermal etc.).

Other accessories: Electrical, hydraulic and pneumatic control arrangements, filter systems, metering equipment, seal liquid and circulating systems for shaft seals, valves, flanges, flexible pipes.

Subject to technical alterations.
