



PUMP OVERVIEW



GANZ-HYDRODINAMIC MACHINES & ARMATURES LIMITED

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Introduction of Ganz-Hydrodynamyc Machines and Armatures Ltd.

Our company derives from famous machineries in Hungary.

The Ganz factory was founded in 1844 at the beginning of the Hungarian industrialization by Ábrahám Ganz, a Swiss foundryman.

Following to several years of successful production and development, its name became "Ganz Wagon- and Machinery Works", which company produced machines for the railway traffic, the energy sector, the urbanization, waterworks and water-supply systems - thus playing an important role in building the infrastructure of the country.

At the beginning of the 20th century 60-80% of the company's products were supplied for export. That time the main products were electric machines, agricultural machines, steam-locomotives, pumps and railway carriages.

Above company's legal successor, the "Ganz-MÁVAG" company was founded in 1959 by the fusion of the more than 100 year old "Ganz Wagon- and Machinery Works" and the "MÁVAG Locomotive- and Machinery Works" companies.

In 1967 "Ganz-MÁVAG" company established a subsidiary, called "Ganz Kiskunhalas Machinery Works". This company produced and exported pumps, armatures, compressors and aggregates to several countries.

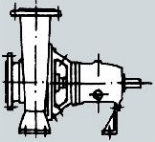
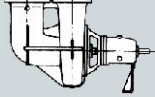
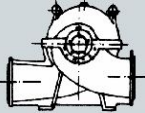
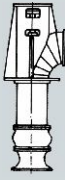

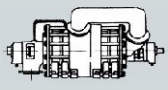
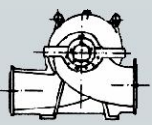
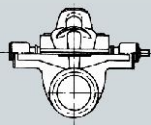
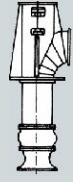
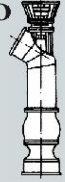
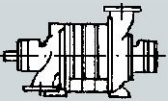
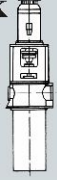

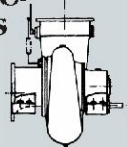
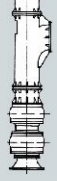
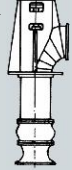
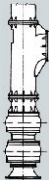
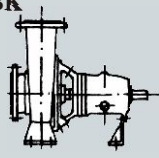
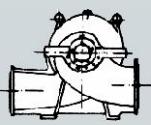
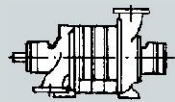
"Ganz Kiskunhalas Machinery Works" company disintegrated in 1994 and following to that pump's and armatures production was continued in minor volume locally.

Meanwhile, to satisfy the need of the industry for the same pump and armature manufacturing profile, the "Hydrodynamyc Machines and Armatures Ltd." was established in 1998, in Kiskunhalas within the locality and manufacturing facilities of the original "Ganz" works. The firm set himself the task to continue the production and developing the pump products line based on the knowledge of the local specialists to fulfil the market's need for pumps of special kind. The firm had bought the production right of the Ganz pumps and modified his name to "Ganz-Hydrodynamyc Machines and Armatures Ltd." in 2003. At the same time the firm got the duty to serve and repair Ganz pumps, which had been made and installed earlier, helping his business partners by this way, too.

Our products manufacturing require high technical level of production, as well as a lot of engineering experience, continuous product development, and flexibility in deliveries. We mainly produce customized and small-series products. Accordingly our firm has machines for universal use and has very qualified engineers and workers and a very flexible administrative system to satisfy all of the customer's demands. To save money for our business partners, we attach great importance in the process of product development to the interchangeability of the component parts within our products' family.

Ganz-Hydrodynamyc Machines and Armatures Ltd. is available with complete sphere of pumping station equipment supply for our customers' kind satisfaction.

Endre Balogh
Managing Director

Commercial water, industrial water and general water supply	Industrial and district heating hot water supply	Industrial and power plant cooling water supply	Waste water treatment and storm water pumping	Unloading internal water and irrigation water supply	Dewatering in mines
BK 	Bf 	D 	ML-MK CL-CK 	USN 	EBG 
D 	Df 	ML-MK CL-CK 		AGRO 	
TGT 	TNKK 	TNKK 		AGRO-FIL-S 	
		TL 		ML-MK CL-CK 	
				TL 	
				BK 	
				D 	
				TGT 	

Product sheet

BK Pumps

Applications

These pumps are used mainly in the industrial water systems, commercial water systems and in the agricultural irrigation plants.

The mediums transported may be clean cold water, warm water at maximum 100°C, or industrial water, slightly contaminated.

Maximum drift content: 5 g/dm³. Grain size: max. 0,1 mm.

The pump is useful transporting such liquids too, where the viscosity does not differ from the viscosity of the water significantly.

Construction

The construction of these pumps by the position of the shaft may be: horizontal or vertical arrangement with single entry, one stage, scroll-cased with overhanging bearings.

The pump consist of two parts: one is the casted scroll case together with the suction nozzle, equipped with scroll plates, and the other part is the rotor supported by ball bearings in the bearing housing.

In the case of vertical shaft arrangement there are two main parts: one is the bottom side of the frame together with the bent supply tube, the other one is the upper part of the frame together with the rotor, bearings and the scroll case.

These type of pumps have the advantage that the complete rotor, together with the bearing housing, distance insert, and scroll case cover (including the stuffing box), is removable without dismantling the scroll case, the pipeline, the back supporting feet and the driving motor.

To make possible the displacement in axial direction, there is a removable coupling insert between the pump and the motor coupling (this part is not an accessory).

Sealing-

Stuffing box with teflon packing or mechanical seal, the last one can be cooled.

Bearings-

Deep groove, single-row, radial ball bearings. If it is necessary the oil can be cooled by a cooling coil placed in the oil chamber. When the shaft is in vertical position the lower bearing is a doublerow self-aligning ball, or roller bearing. The bearings are grease lubricated, the upper one has a lubricator.

Main materials-

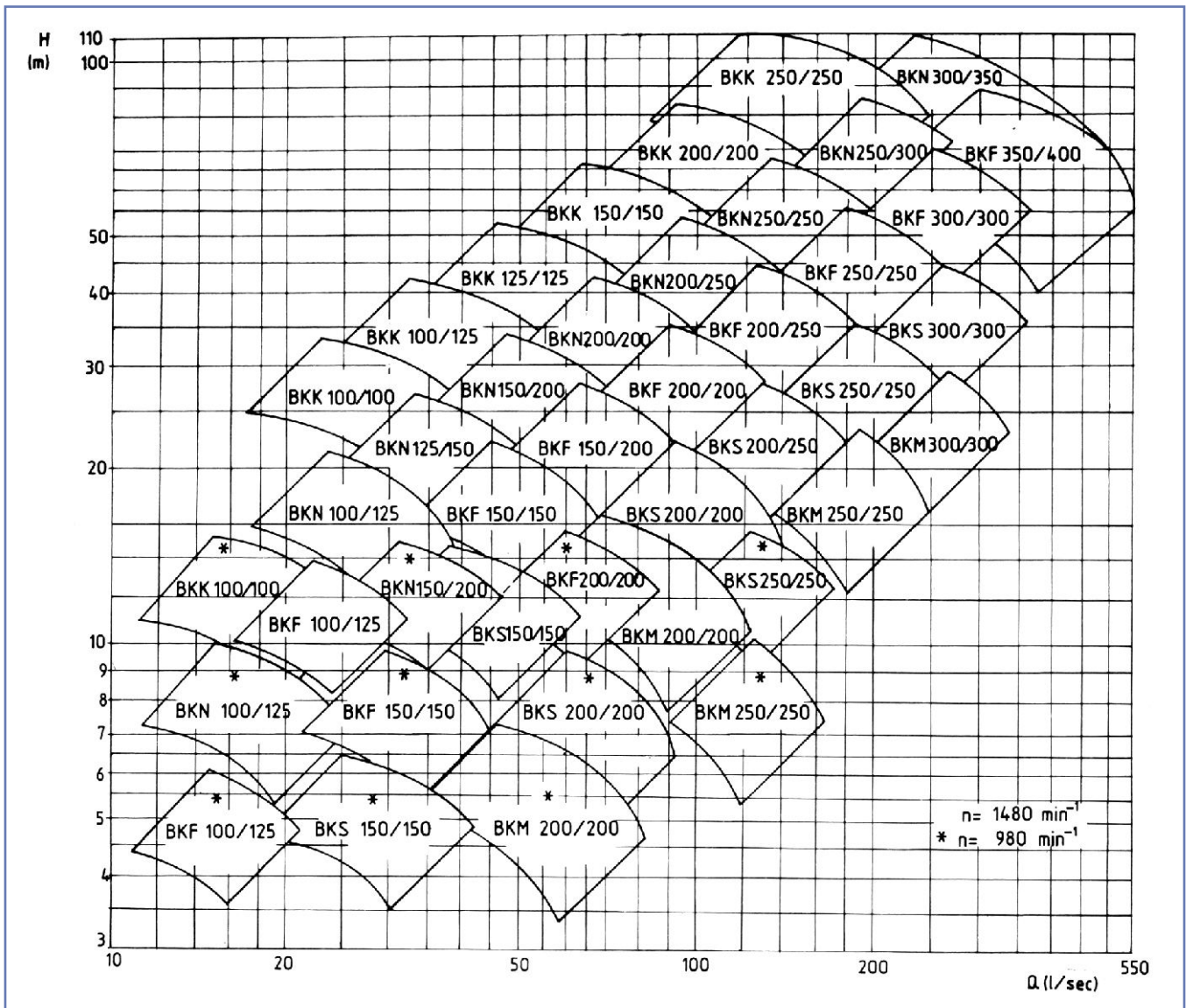
Impeller, blade ring, basic sleeve and water seal ring: bronze,

The scroll case, the cover with stuffing box, bearing housing, bearing covers: cast iron,

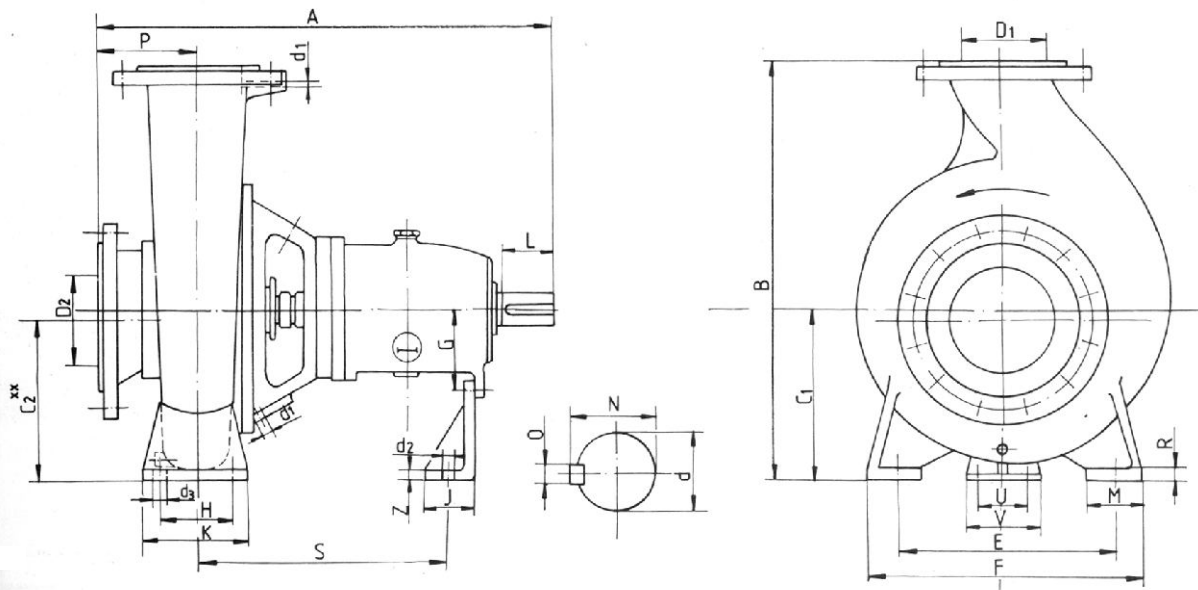
Shaft: carbon steel,

Shaft sleeve: stainless steel.

BK Pumps-Hydraulic Coverage



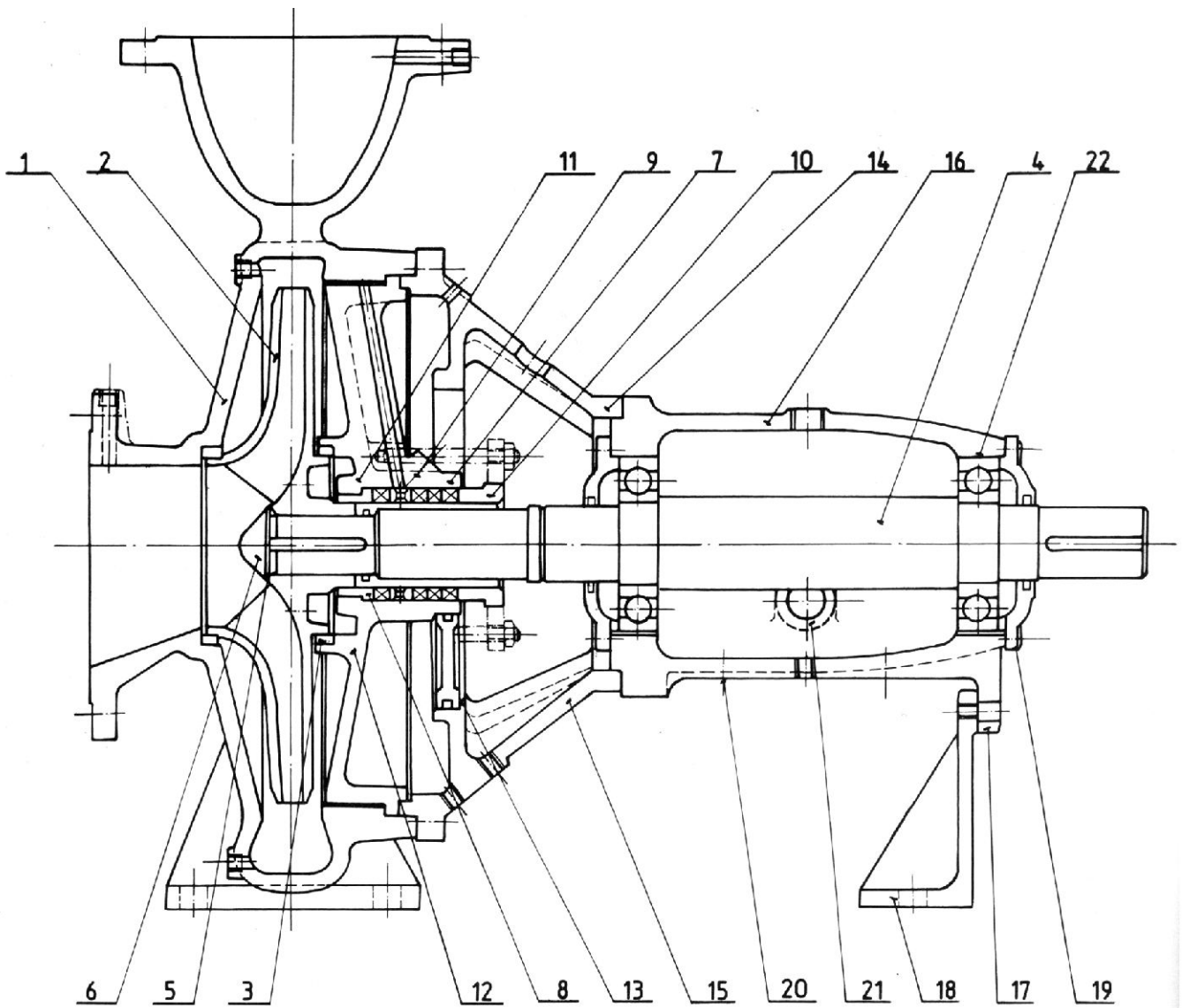
BK Pump Outlines



Type	A	B	C ₁	C ₂ **	D ₁	D ₂	d	d ₁	d ₂	d ₃	E	F	H	J	K	L	M	N	O	P	S	U	V
1. Bearing support																							
BKK 100/100	670	565	250	250	100	100	42	C3/8"	18	18	315	400	120	76	160	80	80	45,5	12	140	365	70	110
BKN 100/125	670	565	250	250	100	125	42	C3/8"	18	18	315	400	120	76	160	80	80	45,5	12	140	365	70	110
BKN 125/150	670	605	250	250	125	150	42	C3/8"	18	18	315	400	120	76	160	80	80	45,5	12	140	365	70	110
BKF 100/1125	670	505	225	225	100	125	42	C3/8"	18	18	315	400	120	76	160	80	80	45,5	12	140	365	70	110
BKF 150/150	690	630	250	250	150	150	42	C3/8"	18	23	400	500	150	76	200	80	100	45,5	12	160	365	70	110
BKS 150/150	670	565	250	250	150	150	42	C3/8"	18	18	315	400	120	76	160	80	80	45,5	12	140	365	70	110
BKM 200/200	690	735	315	315	200	200	42	C3/8"	18	23	480	600	190	76	250	80	120	45,5	12	160	365	70	110
2. Bearing support																							
BKK 100/125	810	605	250	250	100	125	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	140	485	90	140
BKK 125/125	830	680	280	280	125	125	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	160	485	90	140
BKK 150/150	850	765	315	315	150	150	55	C3/8"	23	23	480	600	190	95	250	80	120	60	16	180	485	90	140
BKN 150/2000	830	680	280	263	150	200	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	160	485	90	140
BKN 200/200	850	765	315	315	200	200	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	180	485	90	140
BKF 150/200	830	680	280	280	150	200	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	160	485	90	140
BKF 200/200	850	765	315	315	200	200	55	C3/8"	23	23	480	600	190	95	250	80	120	60	16	180	485	90	140
BKS 200/200	830	715	315	315	200	200	55	C3/8"	23	23	400	500	150	95	200	80	100	60	16	160	485	90	140
BKS 200/250	850	805	355	355	200	250	55	C3/8"	23	23	480	600	190	95	250	80	120	60	16	180	485	90	140
BKM 250/250	850	900	400	400	250	250	55	C3/8"	23	23	630	750	190	95	250	80	120	60	16	180	485	90	140
3. Bearing support																							
BKK 200/200	1040	855	355	344	200	200	70	C3/8"	27	27	480	600	190	110	250	105	120	76	20	200	615	110	170
BKK 250/250	1070	1025	425	389	250	250	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	230	615	110	170
BKN 200/250	1020	855	355	333	200	250	70	C3/8"	27	27	480	600	190	110	250	105	120	76	20	180	615	110	170
BKN 250/250	1040	960	400	400	250	250	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	200	615	110	170
BKN 250/300	1040	1055	425	406	250	300	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	200	615	110	170
BKN 300/350	1350	1200	500	471,5	300	350	90	C3/8"	27	27	755	900	230	150	300	170	145	95	25	250	770	120	180
BKF 200/250	1020	855	355	344	200	250	70	C3/8"	27	27	480	600	190	110	250	105	120	76	20	180	615	110	170
BKF 250/250	1040	1000	400	400	250	250	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	200	615	110	170
BKF 300/300	1040	1095	425	425	300	300	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	200	615	100	170
BKF 350/350	1170	1250	500	500	350	350	70	C3/8"	27	27	755	900	230	150	300	105	145	74,9	20	300	625	120	180
BKF 350/400	1390	1250	500	500	350	400	90	C3/8"	27	27	755	900	230	150	300	170	145	95	25	300	770	120	180
BKS 250/250	1020	900	400	400	250	250	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	180	615	110	170
BKS 300/300	1040	960	400	400	300	300	70	C3/8"	27	27	630	750	190	110	250	105	120	76	20	200	615	110	170
BKM 300/300	1040	1050	450	450	300	300	70	C3/8"	27	27	755	900	230	100	300	105	145	76	20	200	615	110	170

Dimensions in mm. Flanges to NP 10.

BK Section



- | | | |
|---------------------|---------------------------------|------------------------------|
| 1. Casing | 9. Lantern ring | 17. Bearing housing (cooled) |
| 2. Impeller | 10. Stuffing gland | 18. Foot |
| 3. Casing wear ring | 11. Stuffing box cover | 19. Bearing cover |
| 4. Shaft | 12. Stuffing box cover (cooled) | 20. Connection to oil cover |
| 5. Locking plate | 13. Cover of cooler | 21. Oil window |
| 6. Shaft screw | 14. Distance piece | 22. Ball bearing |
| 7. Shaft sleeve | 15. Distance piece (cooled) | |
| 8. Neck bush | 16. Bearing housing | |

D Pumps

Applications

These pumps are used mainly in the industrial and commercial water systems in pressure booster stations, in agricultural irrigation plants and in fire-fighting water systems.

The transported mediums are: clean cold water, warm water at maximum 80°C, or industrial water, slightly contaminated without larger solid parts.

Maximum drift content: 200-300 mg/dm³.

The pump is also useful for transporting such, non corrosive liquids, where the viscosity does not differ from the viscosity of the water significantly.

Construction

By the position of the shaft the construction may be horizontal or vertical arrangement with double-entry, one stage, scroll cased pump.

The arrangement of the suction nozzle may be horizontal or vertical. The position of the discharge nozzle is horizontal.

The scroll case is casted, and consist of two parts. The suction-, and the discharge nozzles, the bearing brackets, and the feet of the pump are on the lower case part.

In the case of type Dv pumps the suction and the discharge nozzles are in horizontal position.

Sealing-

Stuffing box with teflon packing or mechanical seal, the last one can be cooled.

Bearings-

Grease lubricated, one side, double-row, self-aligning ball or roller bearings, on the other side two angular-contact bearings built in facing one to the other.

In the case of pump, type Dv at the upper side there is a self-aligning roller thrust bearing, at the bottom side there is a self-aligning bearing, or a water lubricated rubber bearing.

The bearing blocks are coolable.

Main materials-

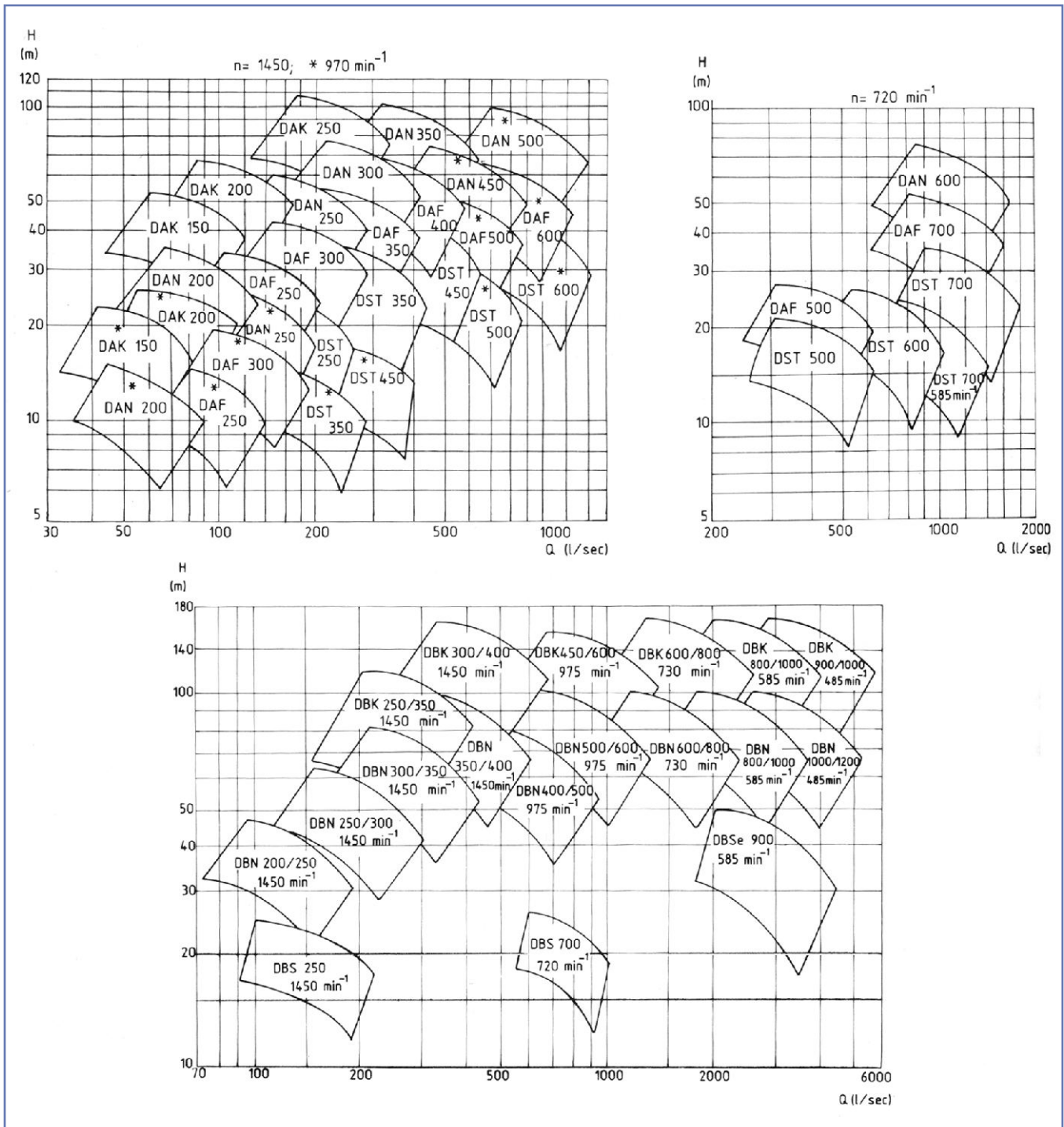
Impeller, blade ring, basic sleeve and water seal ring: bronze.

Scroll case: cast iron,

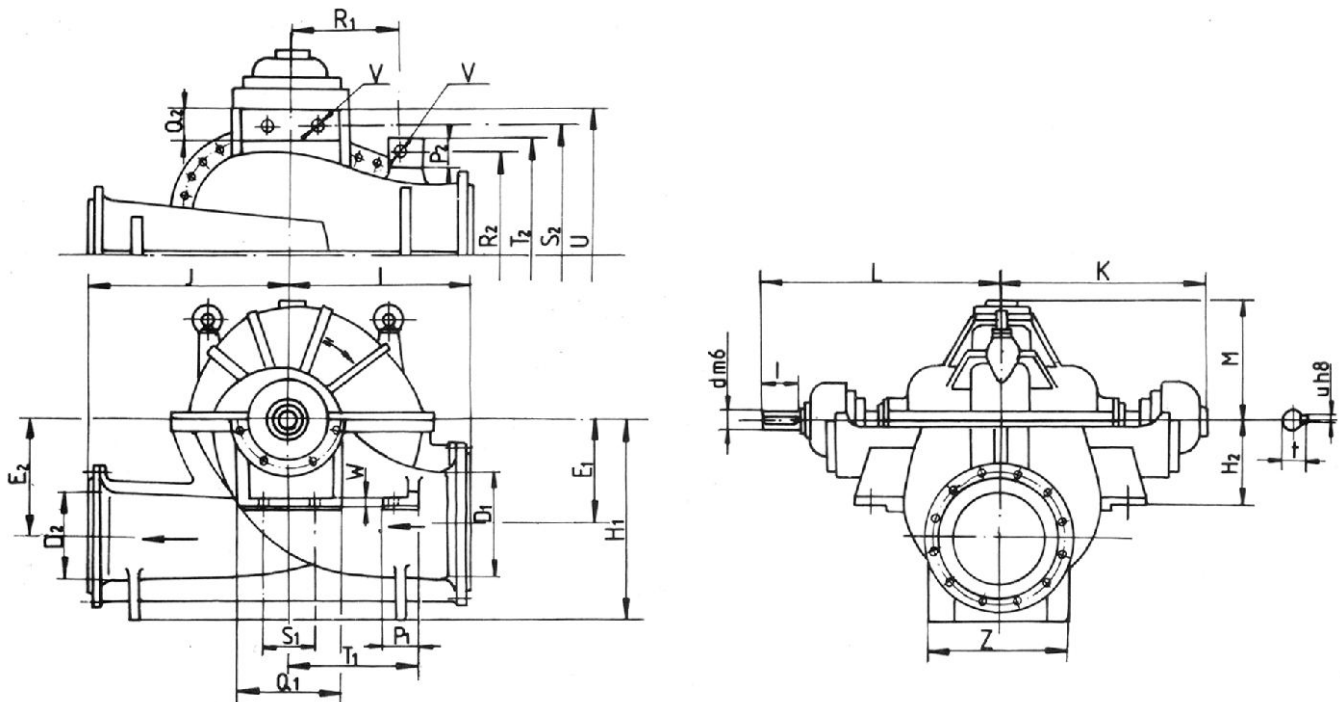
Shaft: carbon steel.

Shaft sleeve: stainless steel.

D Pumps-Hydraulic Coverage



Outline Drawing of Double Suction, Split-Cased, Horizontal Shaft Centrifugal Pumps

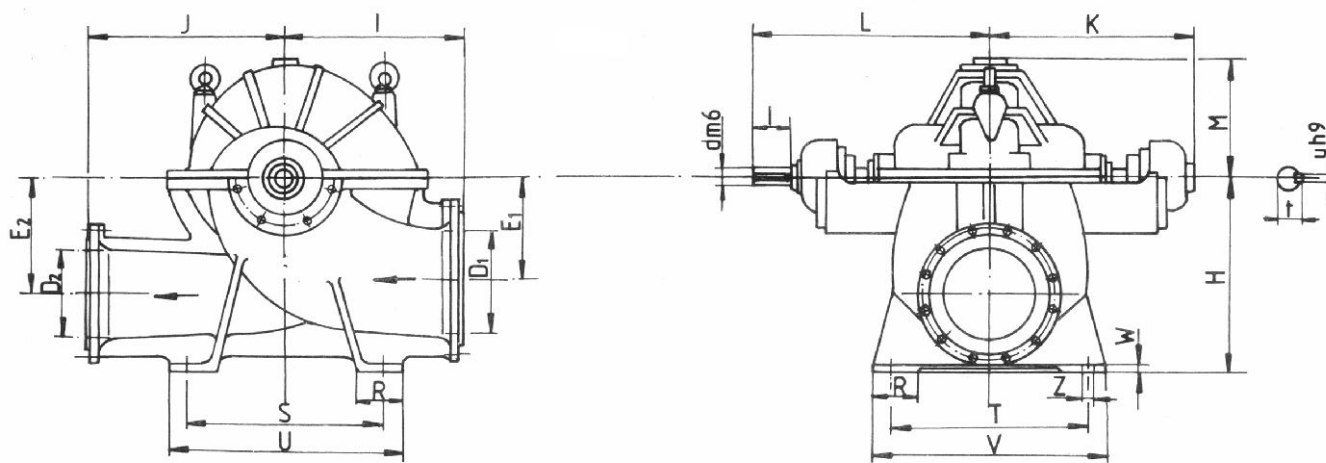


Type	D ₁	D ₂	E ₁	E ₂	H	I	J	K	L	M
DAK 150	200	150	225	255	415	365	725	383	475	270
DAK 200	250	200	255	285	490	410	1000	404	500	300
DAK 250	350	250	320	360	600	520	1175	565	690	450
DBK;s 450	400	300	410	410	750	720	900	750	905	525
DAN 200	250	200	210	255	430	370	462	404	500	268
DAN 250	300	250	285	330	540	485	545	495	600	328
DAN 300	350	300	310	380	640	550	685	565	690	380
DAN 350	400	350	355	430	700	625	780	625	745	432
DAF 250	300	250	220	265	500	450	550	475	580	271
DAF 300	350	300	250	300	560	500	730	495	600	320
DAF 350	400	350	300	335	600	570	900	565	690	345
DAF 400	500	400	330	375	680	640	1020	625	745	385
DST 350	400	350	330	335	625	540	770	495	600	335
DST 450	500	450	375	370	730	610	1000	580	690	384

Type	R	S	T	U	V	W	Z	d	l	t	u
DAK 150	100	400	400	500	500	25	25	40	75	43,5	12
DAK 200	120	550	550	650	650	28	30	40	75	43,5	12
DAK 250	120	660	660	750	750	30	25	65	100	70	18
DBK;s 300	200	800	700	1000	850	45	33	80	170	85	22
DAN 200	100	400	400	500	500	25	23	40	75	43,5	12
DAN 250	120	550	550	650	650	28	30	52	85	57	16
DAN 300	120	660	660	750	750	30	25	65	100	70	18
DAF 250	150	750	750	850	850	40	27	72	100	78	20
DAF 300	120	500	500	600	600	28	30	52	85	57	16
DAF 350	120	550	550	650	650	28	30	52	85	57	16
DAF 400	150	675	675	775	775	30	27	65	100	70	18
DST 350	170	750	750	850	850	40	27	72	100	78	20
DST 450	120	660	660	750	750	30	24	52	85	57	16
DAN 450	150	750	750	850	850	30	26	65	100	70	18

Dimensions in mm. Flanges to NP 10.

Outline Drawing of Double Suction, Split-Cased, Horizontal Shaft Centrifugal Pump

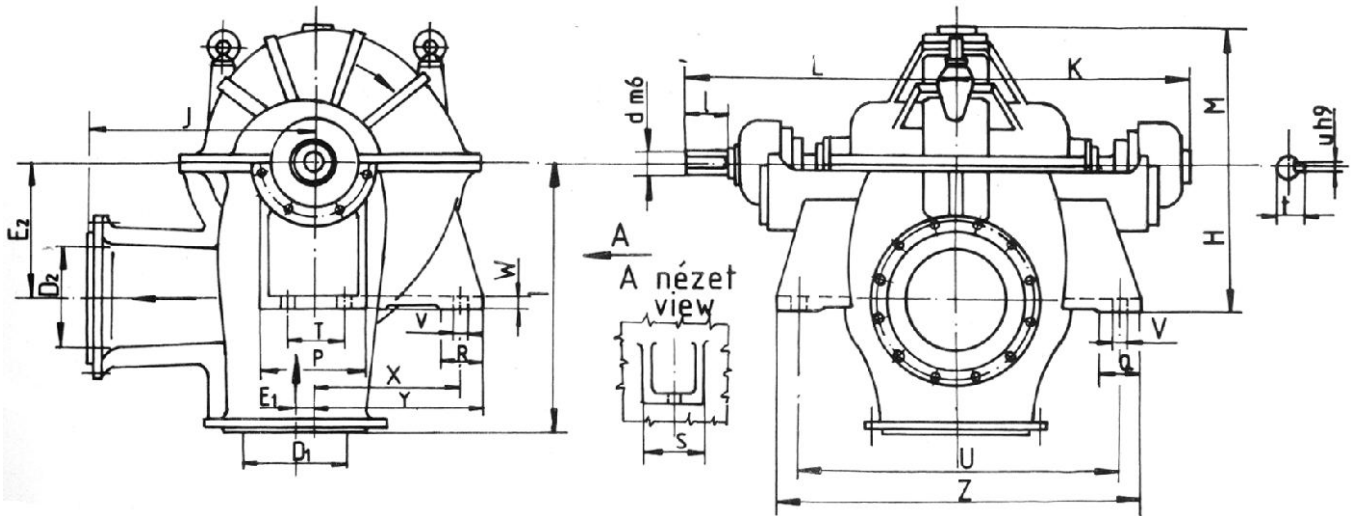


Type	D ₁	D ₂	E ₁	E ₂	H ₁	H ₂	I	J	K	L	M	P ₁	P ₂	Q ₁	Q ₂
DAN 450	500	450	460	560	860	450	810	1100	800	1000	585	200	100	400	150
DAN 500	600	500	525	635	-	500	920	1200	1000	1220	620	-	-	500	-
DAN 600	700	600	620	750	1090	600	1090	1480	1055	1310	832	200	100	550	150
DAF 500	600	500	410	490	-	550	830	1170	800	1000	495	200	100	400	150
DAF 600	700	600	455	550	-	450	930	1320	845	1045	555	200	100	450	140
DAF 700	800	700	550	665	-	750	1125	1805	1055	1310	920	-	-	625	-
DST 500	600	500	475	475	880	510	770	1000	655	775	482	200	100	350	150
DST 600	700	600	560	560	1080	600	900	1300	800	1000	600	200	110	380	200

Type	R ₁	R ₂	S ₁	S ₂	T ₁	T ₂	U	V	W	Z	d	l	t	u
DAN 450	500	500	500	500	500	500	500	500	500	500	500	500	500	500
DAN 500	370	950	-	-	-	750	-	-	-	-	110	200	-	-
DAN 600	810	1060	320	1500	940	1160	1600	33	50	860	118	230	127	32
DAF 500	530	950	250	1300	660	1050	1400	33	35	600	90	170	97	24
DAF 600	600	1000	300	1480	720	1100	1600	33	35	-	90	170	97	24
DAF 700	625	1050	-	-	-	-	-	-	-	-	118	230	-	-
DST 500	650	1000	180	1200	760	1100	1300	30	50	600	72	100	78	20
DST 600	775	1100	180	1400	895	1200	1600	33	30	700	90	170	97	24

Dimensions in mm. Flanges to NP 10.

Outline Drawing of Double Suction, Split-Cased, Vertical Suction Branch Centrifugal Pumps

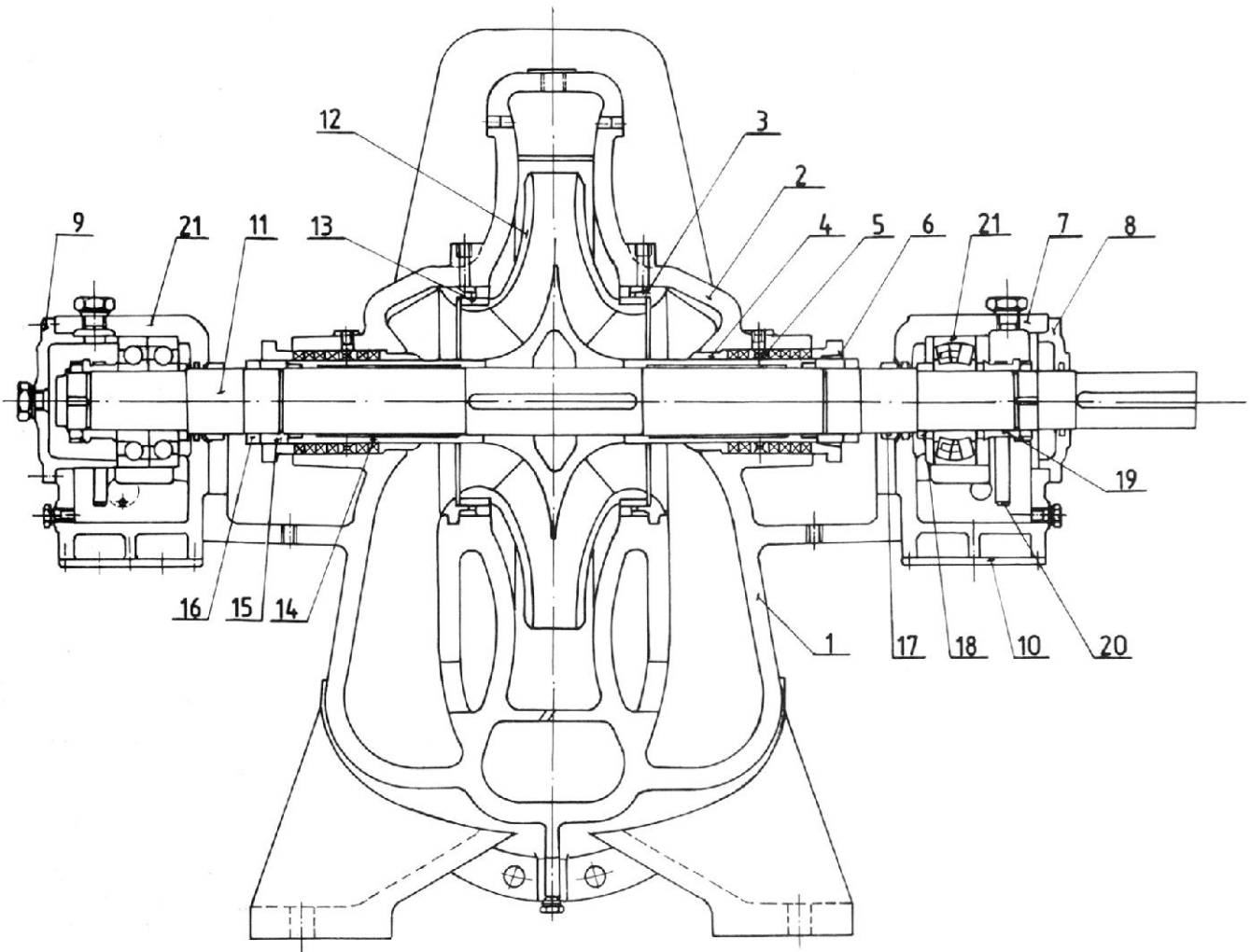


Type	D ₁	D ₂	E ₁	E ₂	H	I	J	K	L	M	P	Q
DAK 150	200	150	35	255	270	460	725	383	475	285	190	70
DAK 200	250	200	39	285	310	520	1000	404	500	300	190	80
DAK 250	350	250	49,5	360	400	650	1175	565	690	440	280	100
DAN 200	250	200	37,5	255	270	490	462	404	500	268	190	80
DAN 250	300	250	15	330	350	640	545	495	600	330	250	100
DAN 300	350	300	55,4	380	400	725	685	565	690	380	280	120
DAN 350	400	350	63	430	355	830	780	625	745	432	320	100
DAN 450	500	450	82	560	450	1080	615	1000	1000	450	400	150
DAN 500	600	500	94	635								
DAN 600	700	600	111	750	600	1450	1480	1055	1310	832	550	150
DAF 250	300	250	40	265	300	550	550	475	580	271	250	120
DAF 300	350	300	45	300								
DAF 350	400	350	50	335	380	695	900	565	690	346	315	150
DAF 400	500	400	57	375	355	780	1020	625	745	385	320	100
DAF 500	600	500	74	490	555	1020	1170	800	1000	495	465	225
DAF 600	700	600	83	550	450	1140	1320	845	1045	555	450	140
DAF 700	800	700	100	665								
DST 350	400	350	48	335	350	685	770	495	600	350	230	100
DST 450	500	450	54	370	400	765	1000	580	690	384	300	100
DST 500	600	500	68,4	475	510	980	1000	655	775	482	350	150
DST 600	700	600	80	560	600	1150	1300	800	1000	600	380	200
DST 700	800	700	95,9	670	600	1370	1400	1055	1310	714	500	200

Type	R	S	T	U	V	W	X	Y	Z	d	l	t	u
DAK 150	80	100	80	480	25	25	275	310	550	40	75	43,5	12
DAK 200	80	100	80	580	25	25	310	350	650	40	75	43,5	12
DAK 250	100	150	150	700	27	30	400	450	800	65	100	70	18
DAN 200	80	100	80	530	25	28	265	300	600	40	75	43,5	12
DAN 250	100	130	140	350	30	28	350	400	400	52	85	57	16
DAN 300	100	180	150	800	27	30	400	450	900	65	100	70	18
DAN 350	100	170	200	900	27	35	450	500	1000	72	100	78	20
DAN 450	180	250	250	1200	36	35	600	660	1300	90	170	97	24
DAN 500													
DAN 600	150	300	320	1500	33	50	800	850	1600	118	230	127	32
DAF 250	120	150	140	700	30	28	300	350	800	52	85	57	16
DAF 300													
DAF 350	140	200	170	900	27	30	395	455	1000	65	100	70	18
DAF 400	100	170	200	900	27	35	150	500	1000	72	100	78	20
DAF 500	205	250	300	1350	36	35	600	650	1450	90	170	97	24
DAF 600	140	250	300	1480	33	35	665	725	1600	90	170	97	24
DAF 700													
DST 350	100	150	100	850	27	28	370	420	950	52	85	57	16
DST 450	100	180	150	1000	27	30	500	550	1100	65	100	70	18
DST 500	150	200	180	1200	30	35	530	600	1300	72	100	78	20
DST 600	200	250	180	1400	33	30	620	700	1600	90	170	97	24
DST 700	200	360	250	1700	33	30	850	950	1900	105	200	113	28

Dimensions in mm. Flanges to NP 10.

D Pump Section



- | | | |
|-----------------------|----------------------|----------------------|
| 1. Casing half, lower | 8. Bearing cover I. | 15. Shaft nut |
| 2. Casing half, upper | 9. Bearing cover II. | 16. Lock nut |
| 3. Casing wear ring | 10. Cooling cover | 17. Labyrinth ring |
| 4. Neck bush | 11. Shaft | 18. Shoulder ring |
| 5. Lantern ring | 12. Impeller | 19. Distance sleeve |
| 6. Stuffing gland | 13. Impeller ring | 20. Lubrication ring |
| 7. Bearing housing | 14. Shaft sleeve | 21. Bearing |

Bf Pumps

Applications

These pumps are used mainly as recirculating pumps in the systems of the industrial and district heating plants.

The transportable mediums are hot water up to 200 °C, or industrial water slightly contaminated, without larger solid pieces.

Maximum drift content: 5 g/dm³. Grain size: max. 0,1 mm.

Construction

The construction of the pump by the position of the shaft is horizontal arrangement with single inlet port, one stage, scroll cased pump with overhanging bearings. Building these pumps into systems under pressure, these pumps are suitable to circulate hot water up to 25 bar suction side pressure.

The pump consist of two parts: one is the scroll case moulded together with the suction port and equipped with scroll plates, the other part is the rotor, supported by ball-bearings in the bearing housing.

Sealing-

Stuffing box with teflon packing, or mechanical seal, the last one is coolable.

Bearings-

Deep groove ball bearings at the impeller's side, on the clutch-side there are two angular-contact bearings built in facing one to the other. If it is necessary the oil can be cooled by a cooling coil placed in the oil chamber.

Main materials-

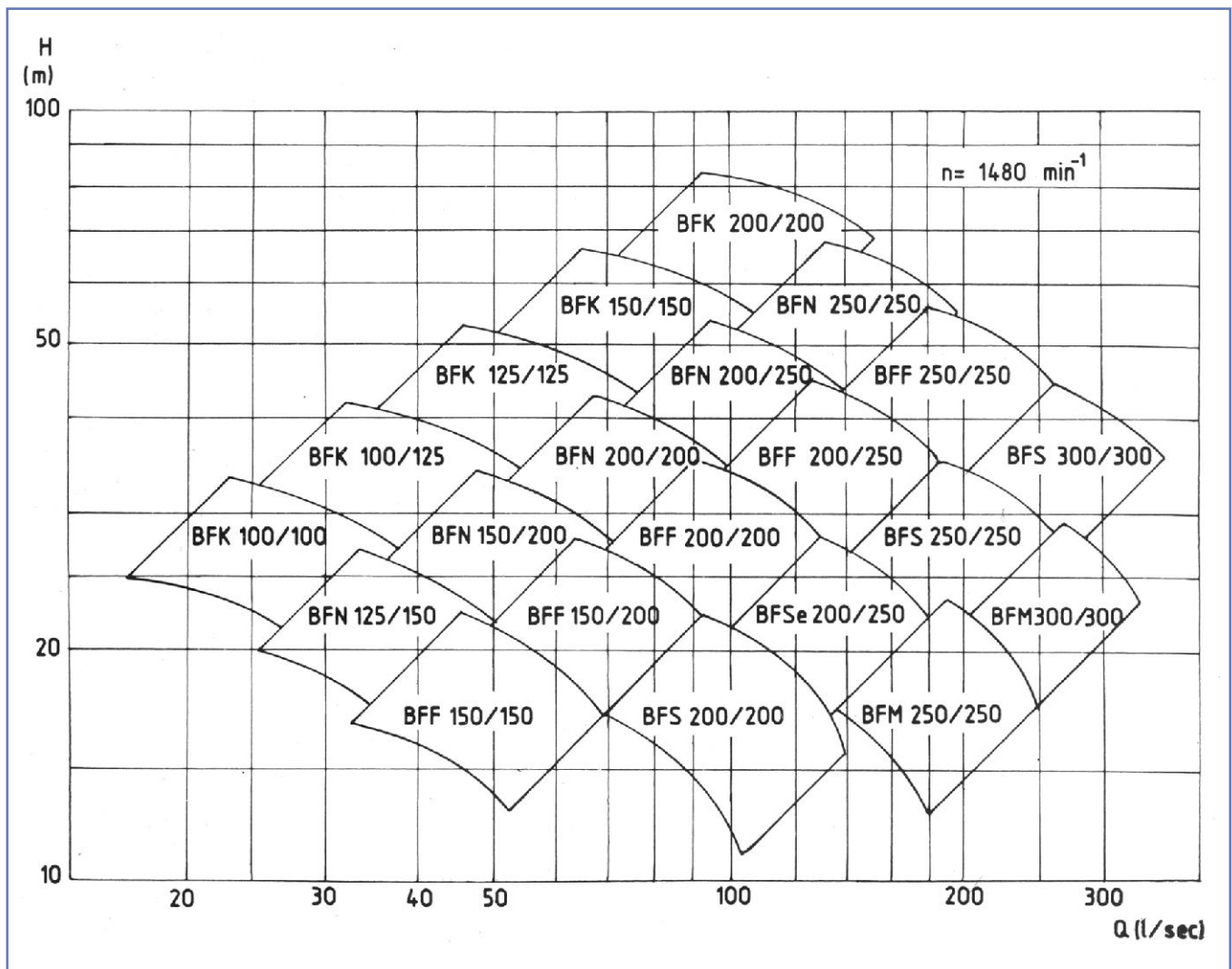
Impeller, blade ring, basic sleeve and water-lock ring are made of bronze,

The scroll case, scroll cover with stuffing box: cast iron,

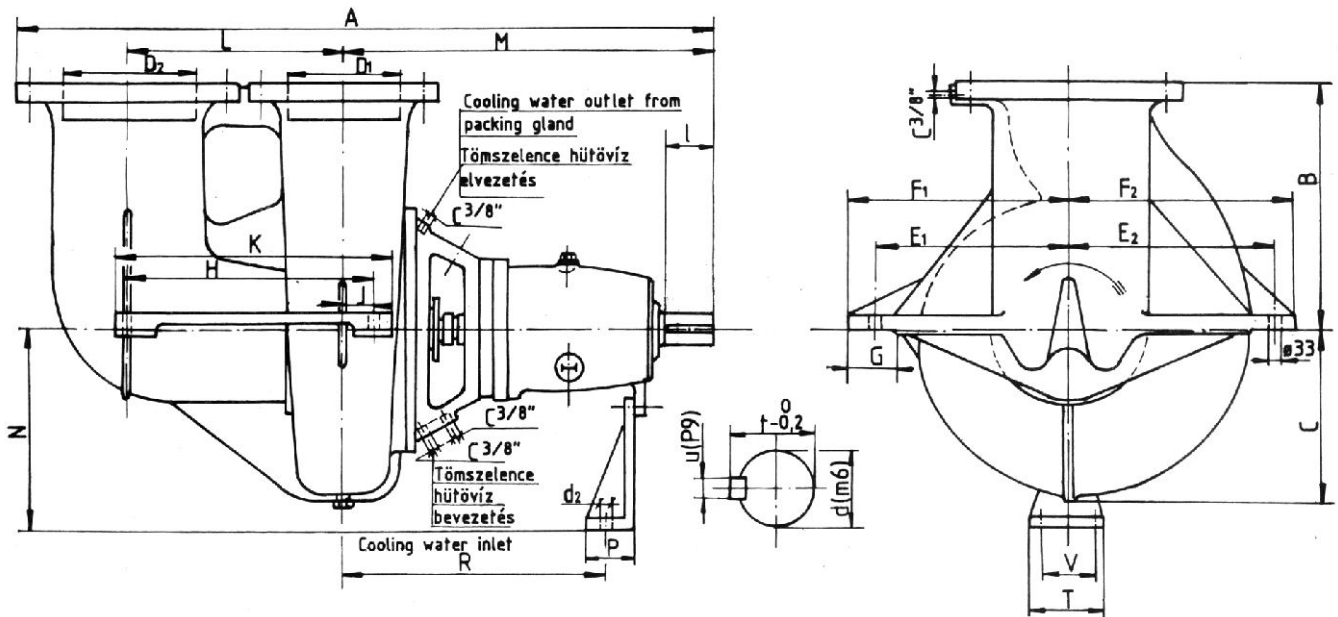
The shaft: carbon steel,

The shaft sleeve: stainless steel.

Bf-Hydraulic Coverage

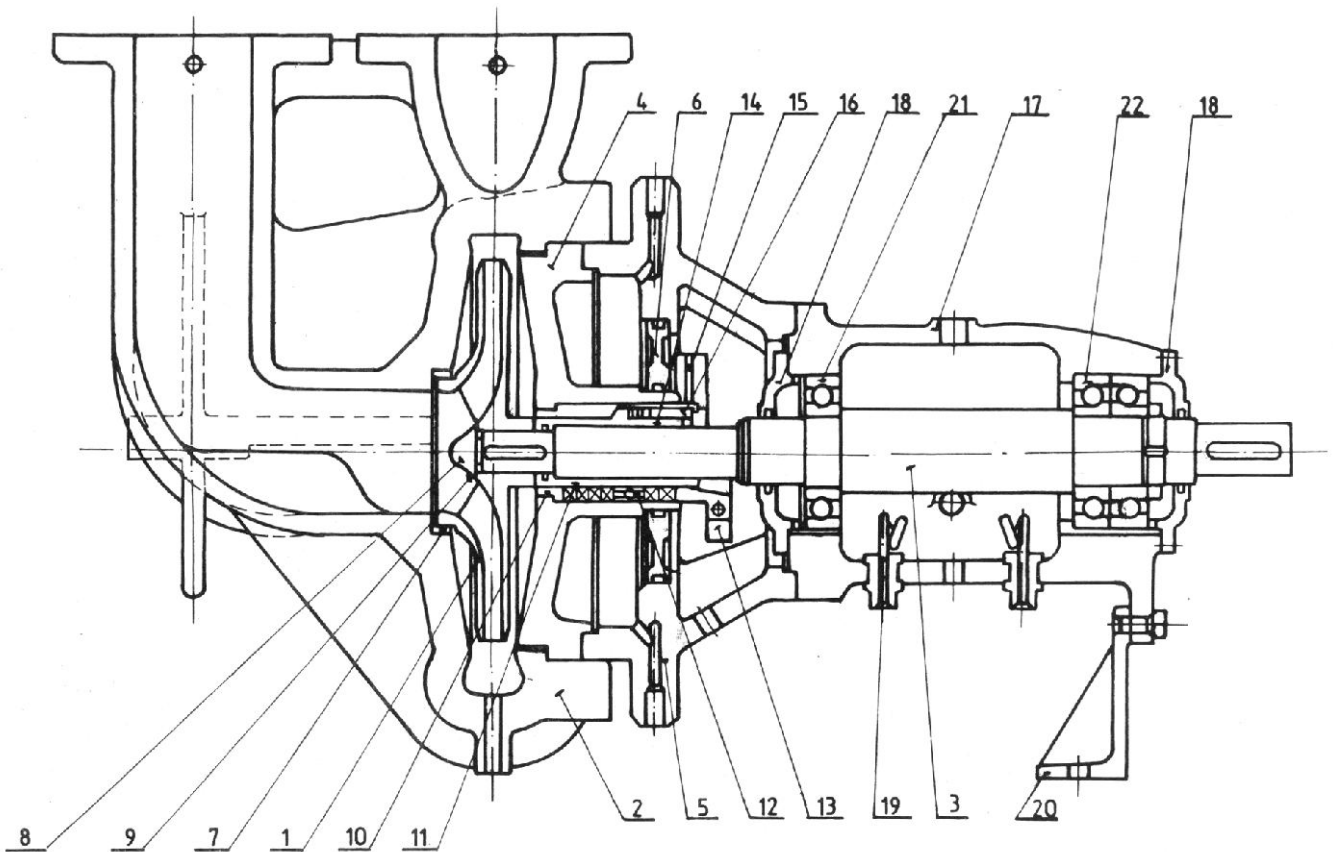


Bf Pump Outlines



Type	A	B	C	D ₁	D ₂	E ₁	E ₂	F ₁	F ₂	G	H	J	K	L	M	N	P	R	d ₂	T	V	d	l	u	t	
1. Bearing support																										
BFK 100/100	1055	350	275	100	100	290	330	340	380	100	310	55	410	255	680	275	76	503	18	110	70	45	80	14	48,8	
BFN 125/150	1155	355	275	125	150	290	330	340	380	100	380	80	480	300	680	275	76	503	18	110	70	45	80	14	48,8	
BFF 150/150	1180	380	280	150	150	290	330	340	380	100	380	55	480	325	680	275	76	503	18	110	70	45	80	14	48,8	
2. Bearing support																										
BFK 100/125	1225	400	300	100	125	320	370	370	420	100	325	55	425	270	820	305	95	608	23	140	90	55	90	16	59,3	
BFK 125/125	1240	400	320	125	125	360	430	410	480	100	345	60	445	285	820	380	95	608	23	140	90	55	90	16	59,3	
BFK 150/150	1295	450	355	150	150	360	430	410	480	110	385	60	485	325	820	380	95	608	23	140	90	55	90	16	59,3	
BFN 150/200	1360	425	320	150	200	320	370	370	420	100	410	60	510	350	820	305	95	608	23	140	90	55	90	16	59,3	
BFN 200/200	1410	450	355	200	200	360	430	410	480	100	480	80	580	400	820	380	95	608	23	140	90	55	90	16	59,3	
BFF 150/200	1360	400	325	150	200	320	370	370	420	100	410	60	510	350	820	305	95	608	23	140	90	55	90	16	59,3	
BFF 200/200	1410	480	355	200	200	360	430	410	480	100	480	80	580	400	820	380	95	608	23	140	90	55	90	16	59,3	
BFS 200/200	1410	400	345	200	200	360	430	410	420	100	480	80	580	400	820	380	95	608	23	140	90	55	90	16	59,3	
BFS _e 200/250	1470	480	375	200	250	360	430	410	480	100	480	55	580	425	820	380	95	608	23	140	90	55	90	16	59,3	
BFM 250/250	1520	500	435	250	250	430	530	490	590	120	540	65	660	475	820	425	95	608	23	140	90	55	90	16	59,3	
3. Bearing support																										
BFK 200/200	1590	500	420	200	200	420	490	480	550	120	460	60	580	400	1000	420	110	727	27	170	110	75	110	20	79,9	
BFN 200/250	1650	500	400	200	250	380	440	430	490	100	480	55	580	425	1000	375	110	727	27	170	110	75	110	20	79,9	
BFN 250/250	1700	560	440	250	250	420	490	480	550	120	540	65	660	475	1000	420	110	727	27	170	110	75	110	20	79,9	
BFF 200/250	1650	500	405	200	250	380	440	430	490	100	480	55	580	425	1000	375	110	727	27	170	110	75	110	20	79,9	
BFF 250/250	1700	600	445	250	250	420	490	480	550	120	540	65	660	475	1000	420	110	727	27	170	110	75	110	20	79,9	
BFS 250/250	1700	525	430	250	250	420	490	480	550	120	540	65	660	475	1000	420	110	727	27	170	110	75	110	20	79,9	
BFS 300/300	1800	560	460	300	300	460	580	520	640	120	600	60	720	540	1000	470	110	727	27	170	110	75	110	20	79,9	
BFM 300/300	1800	600	480	300	300	460	580	520	640	120	600	60	720	540	1000	470	110	727	27	170	110	75	110	20	79,9	

Bf section



- | | | |
|-----------------------|-----------------------|----------------------------------|
| 1. Impeller | 9. Locking plate | 17. Bearing housing |
| 2. Casing | 10. Neck bush | 18. Bearing cover |
| 3. Shaft | 11. Shaft sleeve | 19. Cooling coil |
| 4. Stuffing box cover | 12. Lantern ring | 20. Foot |
| 5. Distance piece | 13. Stuffing gland | 21. Ball-bearing |
| 6. Cooling cover | 14. Shaft sleeve | 22. Angular contact ball bearing |
| 7. Casing wear ring | 15. Cover | |
| 8. Impeller nut | 16. Mechanical sleeve | |

Df Pumps

Applications

These pumps are used mainly as recirculating pumps in the heat plants systems.

The medium transported is clean hot water at 150-200 °C, or industrial water slightly contaminated, without larger solid parts.

Maximum drift content: 200-300 mg/dm³.

The pump is useful also for transporting such, corrosive liquid, that's viscosity does not differ from the viscosity of the water significantly.

Construction

This type is a horizontal shaft, double entry, one stage, scroll-case pump, for transporting hot water.

The medium to be transported comes in by a horizontal suction nozzle and goes out by a horizontally positioned discharge nozzle. The pump's case contains the double suction areas and the scroll case consisting of two parts casting devided at the axis plane. The suction and the discharge nozzles and two bearing brackets and the foot of the pump are on the bottom side of the case.

Sealing-

Stuffing box with teflon packing or mechanical seal. The last one can be cooled.

Bearings-

Oil lubricated bearings. On one side there is a double-row, self-aligning, ball-, or roller bearing, on the other side there are two „back-to-back” mounted angular contact bearings. The bearing frame is coolable.

Main materials-

Impeller: bronze or stainless steel,

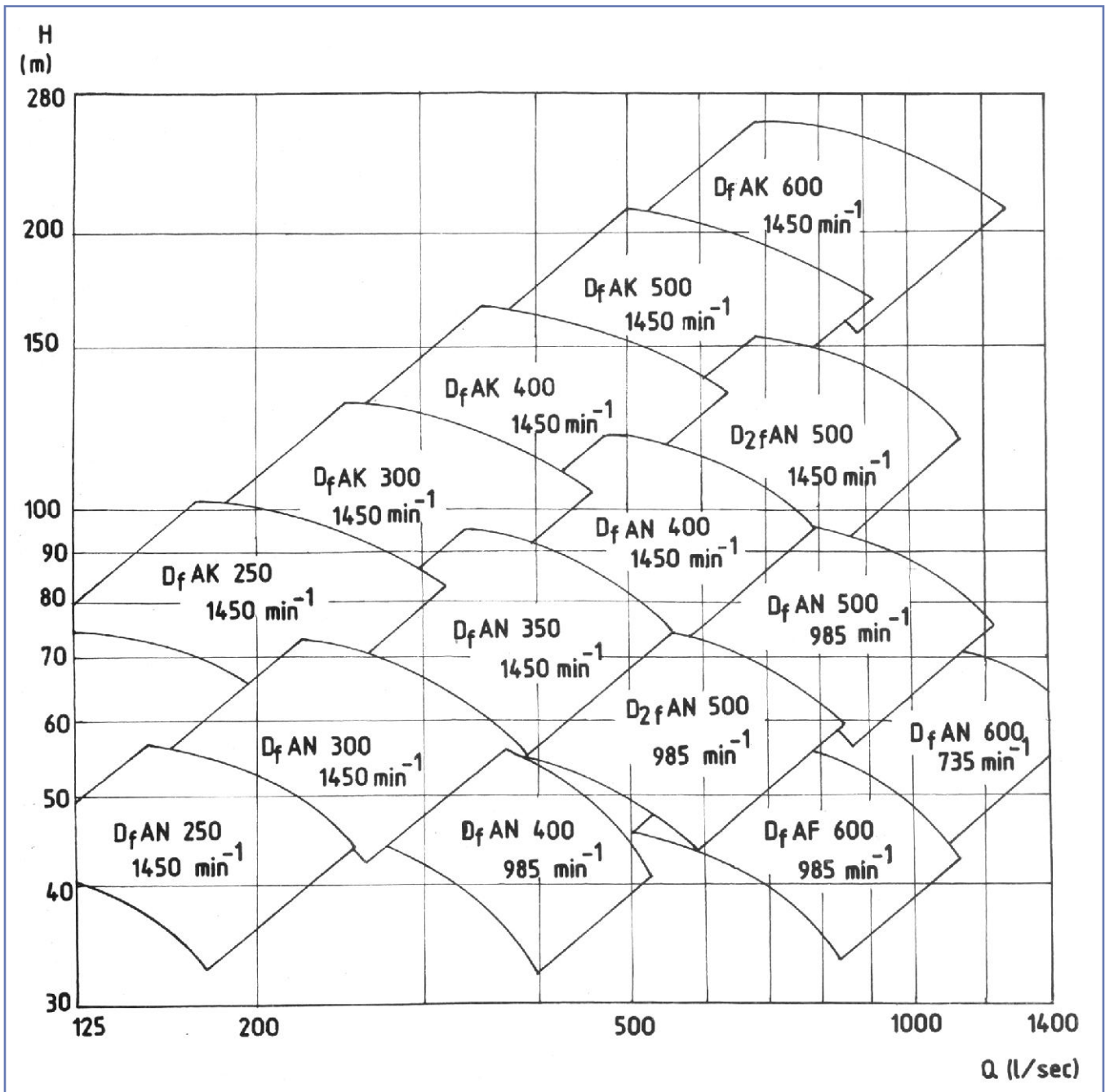
Blade-ring, bush, waterlock-ring: bronze,

The scroll case: cast steel,

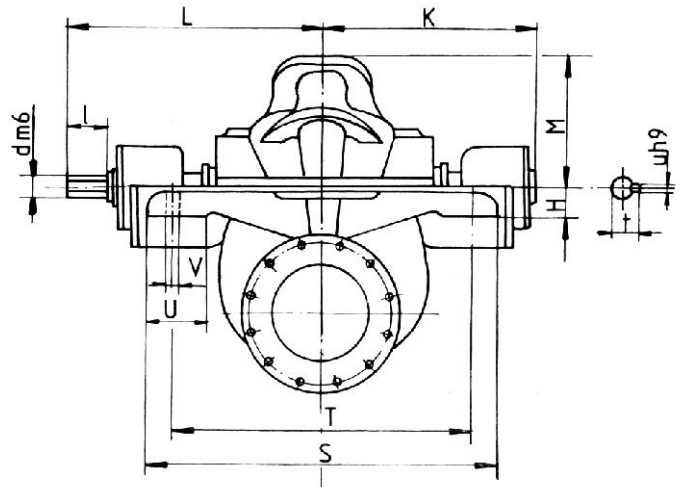
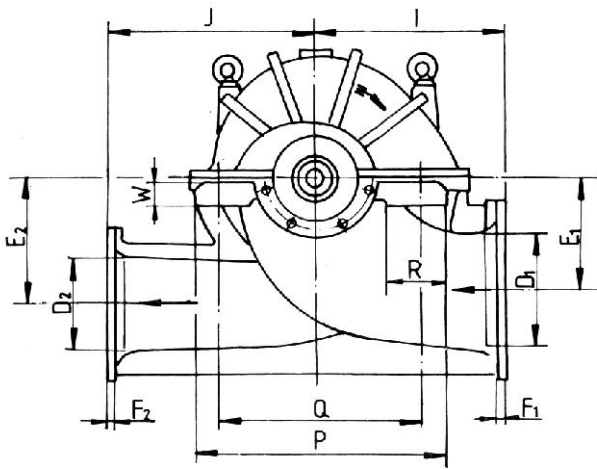
The shaft: carbon steel,

The shaft sleeve: stainless steel.

Df-Hydraulic Coverage



Df Pump Outlines

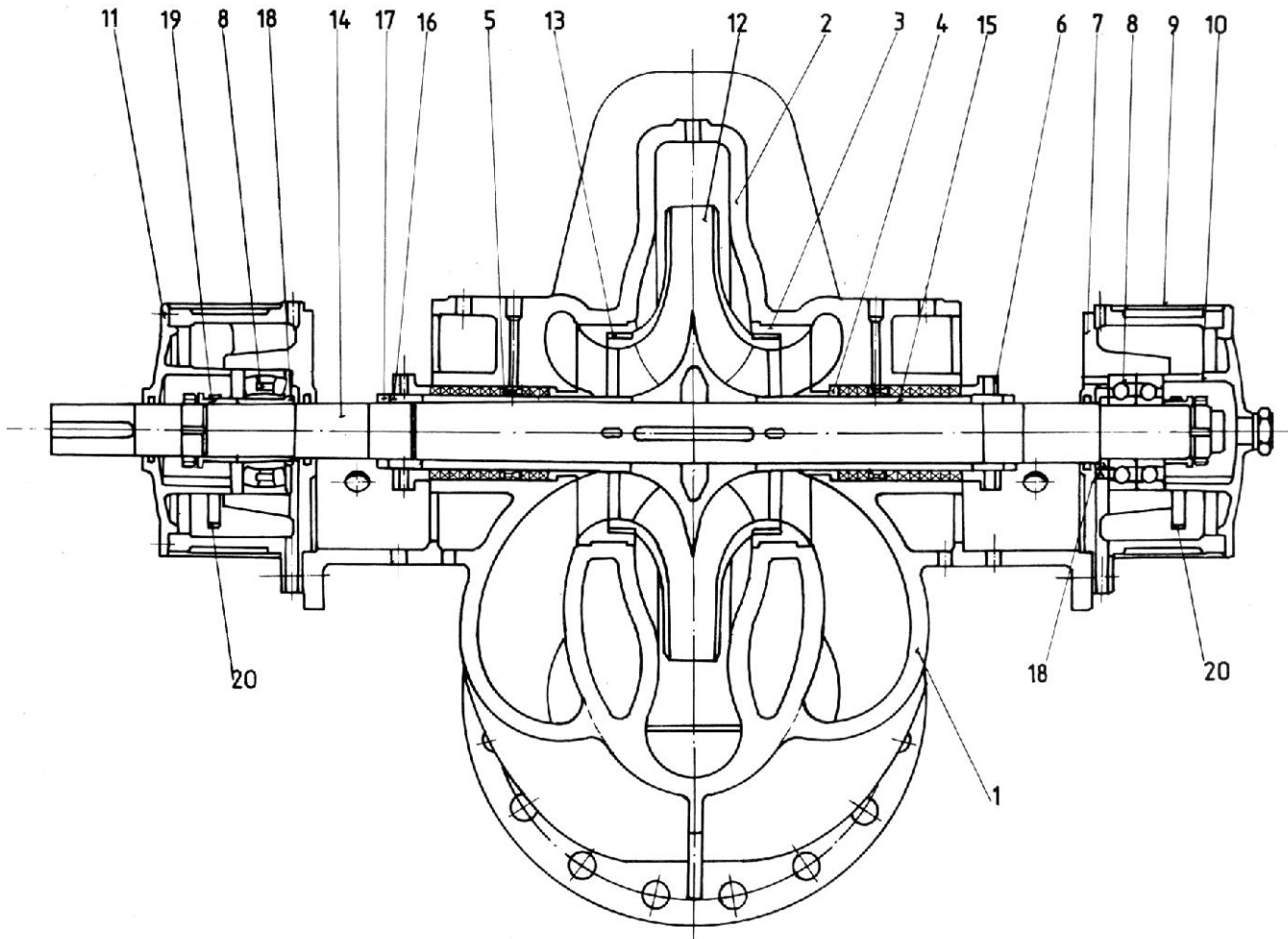


Type	D ₁	D ₂	E ₁	E ₂	H	I	J	K	L	M
DfAK 250	350	250	320	360	120	520	1175	690	775	381
DfAK 300	350	300	345	390	120	570	1200	683	785	470
DfAK 400	400	400	400	455	60	650	1200	684	1030	540
DfAK 500	500	500	450	520	60	730	1700	955	1150	620
DfAK 600	600	600	505	585	60	825	1900	1040	1275	700
DfAN 250										
DfAN 300	350	300	310	380	120	550	685	715	800	380
DfAN 350	400	350	355	430	120	625	780	722	825	480
DfAN 400	500	400	430	485	60	700	880	884	1030	540
D ₂ fAN 500	600	500	500	550	60	925	1155	990	1150	614
DfAN 500	600	500	525	635	60	925	1155	1032	1200	715
DfAN 600										
DfAF 600										

Type	P	Q	R	S	T	U	V	W	d	l	t	u
DfAK 250	700	600	130	940	840	110	33	107	60	100	65	18
DfAK 300	750	650	130	910	810	110	33	105	65	120	70	18
DfAK 400	1060	880	180	1180	1000	180	39	55	85	150	92	24
DfAK 500									100	170	118	28
DfAK 600									115	200	136	32
DfAN 250												
DfAN 300	700	600	130	990	840	130	33	107	60	100	65	18
DfAN 350	750	650	130	990	890	110	33	105	65	120	70	18
DfAN 400	1060	880	180	1180	1000	180	39	55	85	150	92	24
D ₂ fAN 500	1200	1000	200	1420	1220	200	42	55	100	170	108	28
DfAN 500	1200	1000	200	1420	1220	200	42	55	100	170	108	28
DfAN 600												
DfAF 600												

Dimensions in mm. Flanges to NP 25.

Df-section



- | | | |
|----------------------|-----------------------|----------------------|
| 1. Casing half lower | 8. Bearing | 15. Shaft sleeve |
| 2. Casing half upper | 9. Cooling coat | 16. Shaft nut |
| 3. Casing wear ring | 10. Bearing cover I. | 17. Lock nut |
| 4. Neck bush | 11. Bearing cover II. | 18. Shoulder ring |
| 5. Lantern ring | 12. Impeller | 19. Distance sleeve |
| 6. Stuffing gland | 13. Impeller ring | 20. Lubrication ring |
| 7. Bearing housing | 14. Shaft | |

TNKK Pumps

Applications

These pumps are used mainly as hot well pumps in power plants.

The transported medium is clean, could water, warm water up to 80 °C or industrial water, slightly contaminated without larger solid parts.

Maximum drift content: 200-300 mg/dm³.

The pump is also useful for transporting such a liquids, that viscosity does not differ from the viscosity of the water significantly.

Construction

This pump is a vertical shaft, multi stage pump with guide wheel.

The suction and the discharge nozzles are horizontal. After the suction nozzle the water goes to a suction vessel concealed under the floor plate, where is the pump's head. By this way the Static Suction Head is ensured.

The pump's head is hanging on the uprise-pipe. The uprise-pipe is supported by the floor plate. In the casing that contains the suction and the discharge nozzles there are the stuffing box and the thrust bearing too, furthermore the casing holds the motor's frame together with the electric motor.

Sealing-

Stuffing box with teflon packing, or mechanical seal.

Bearings-

In the centre of the suction eye there is a sliding bearing made of teflon. In the motor shamble there is a deep groove ball bearing and a self-aligning thrust roller bearing to balance the axial forces. Both of them are oil lubricated. The bearing housing is coolable.

Main materials-

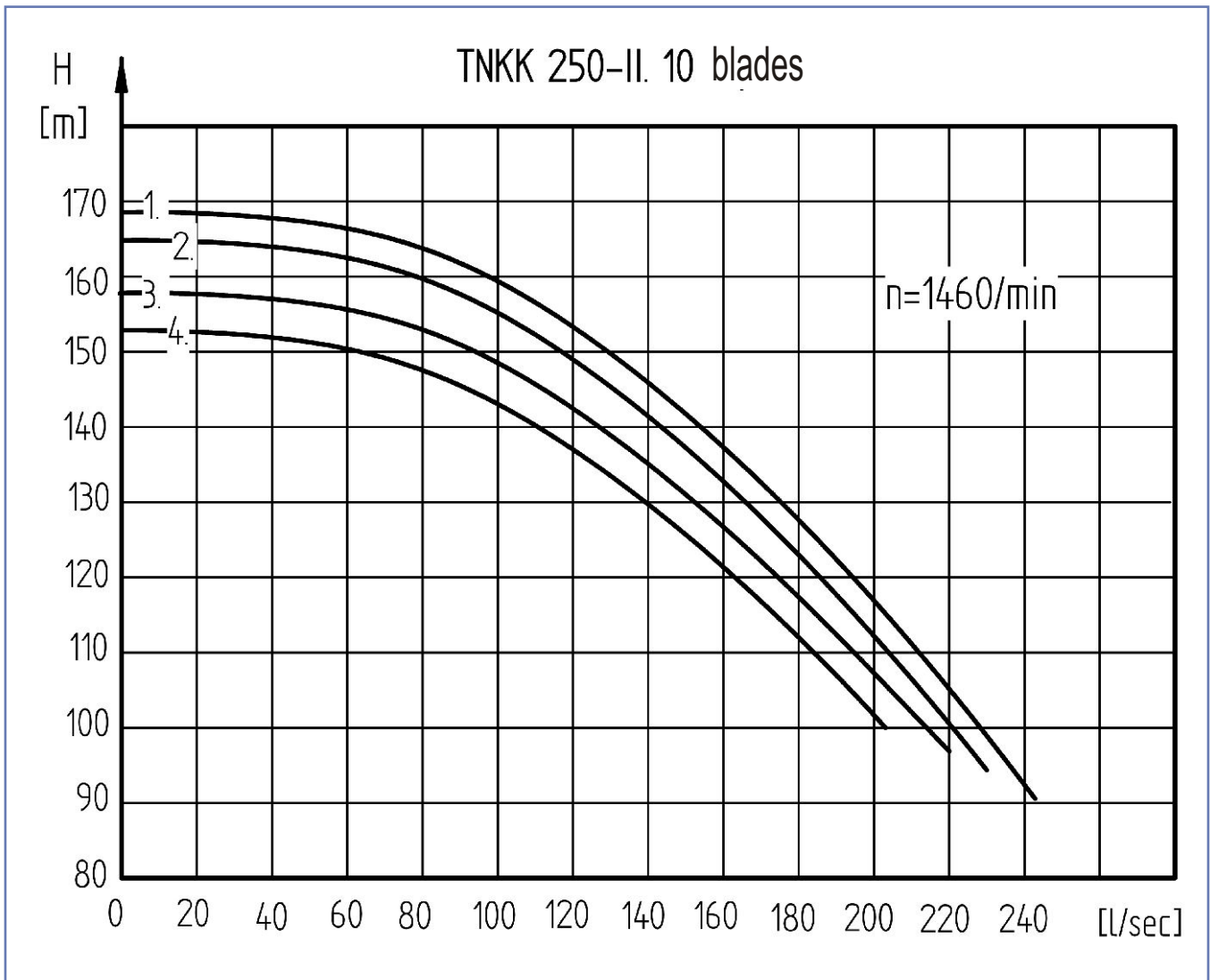
Impeller, throttle sleeve, basic sleeve: bronze,

Blade-ring, shaft sleeve: stainless steel,

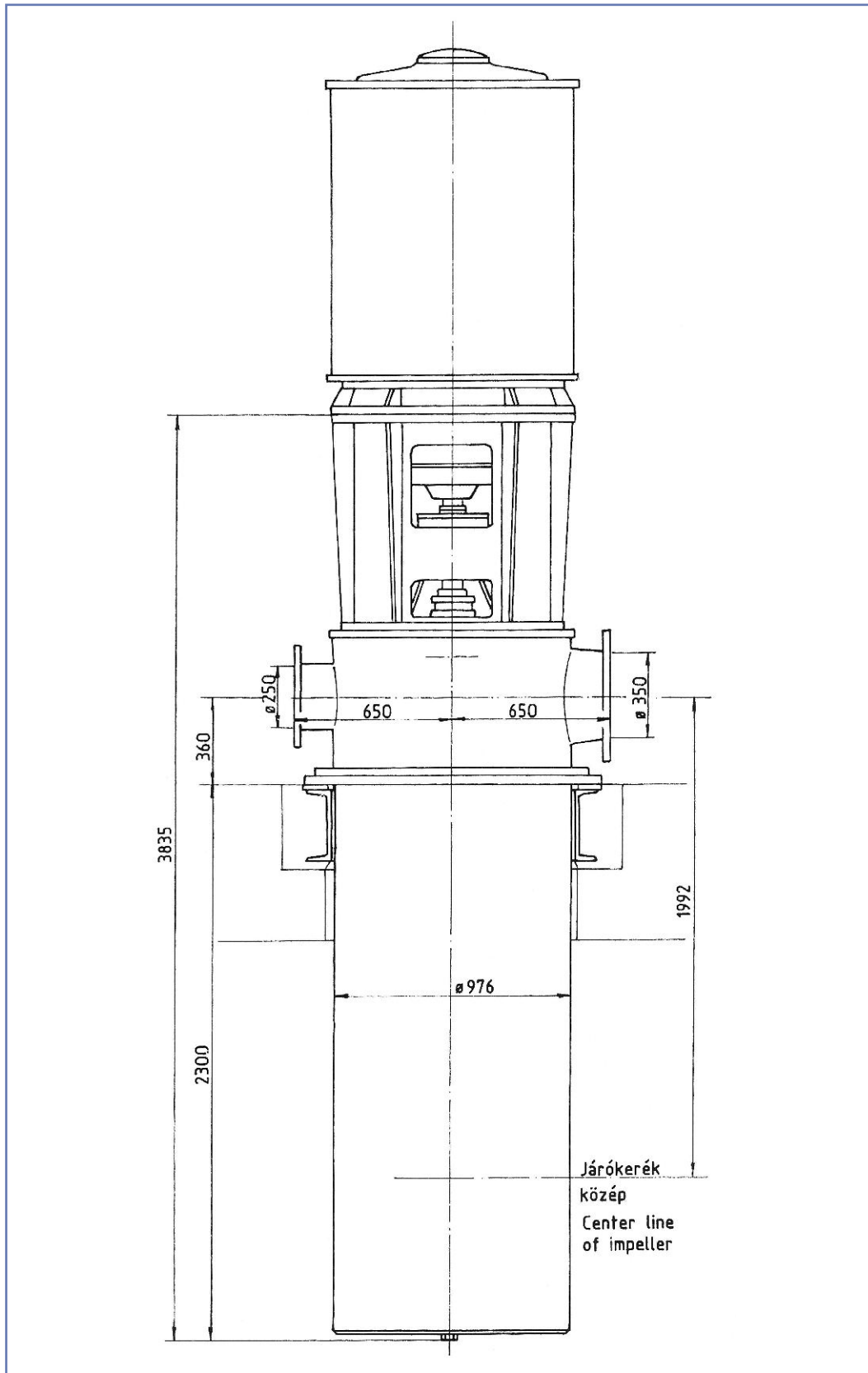
Delivery chamber, spacers, guiding inserts, stuffing box, bearing housing: cast iron,

Shaft: carbon steel.

TNKK Performance Curve

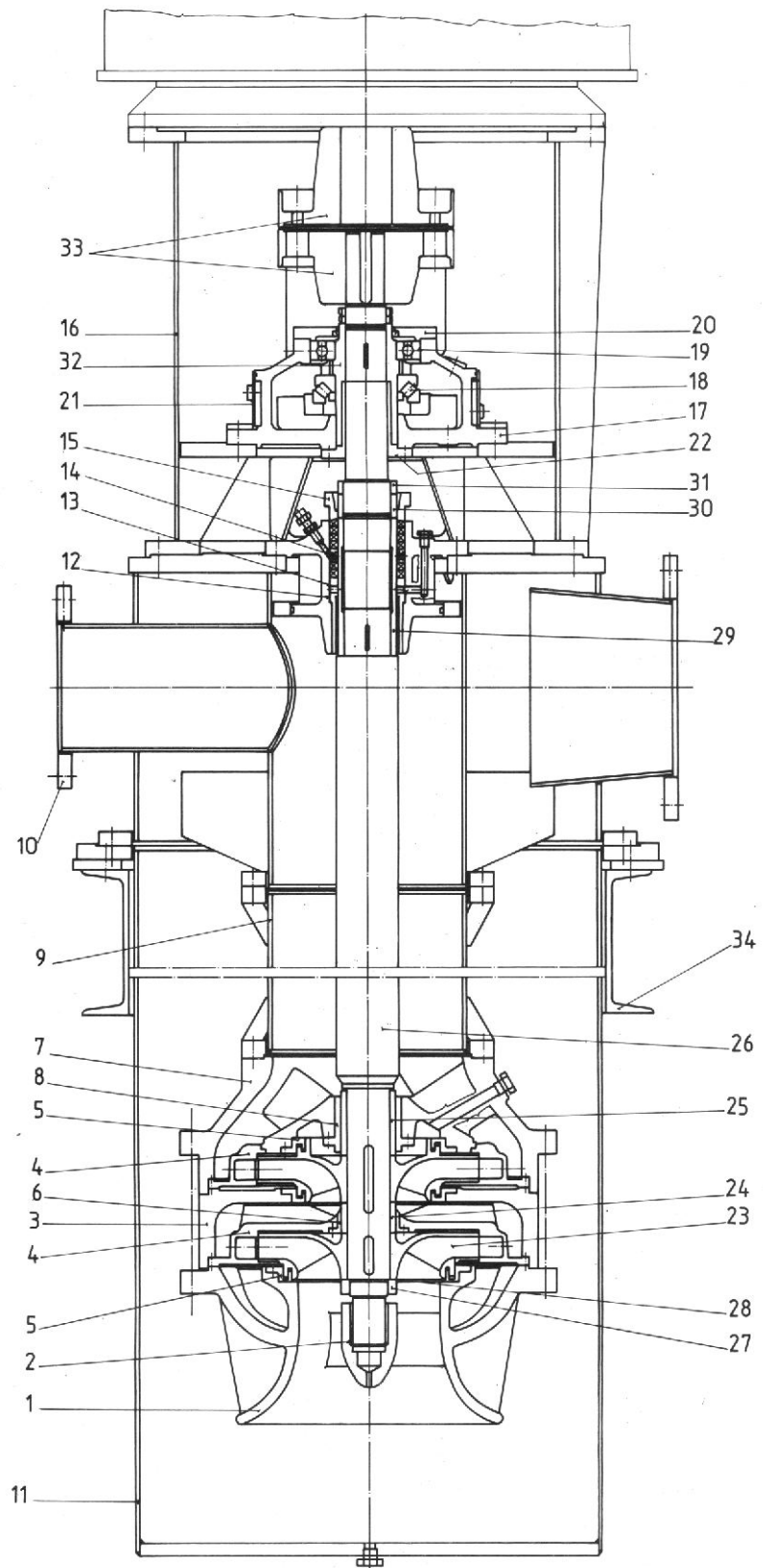


TNKK Pump Outlines



TNKK-Section

1. Suction bell
2. Bearing bushing
3. Distance piece
4. Guiding wheel
5. Casing wear ring
6. Interstage bush
7. Delivery casing
8. Neck bush
9. Column pipe
10. Delivery casing
11. Suction vessel
12. Stuffing box
13. Neck bush
14. Lantern ring
15. Stuffing gland
16. Motor stool
17. Thrust bearing housing
18. Thrust bearing
19. Guide bearing
20. Bearing housing cover
21. Cooling coat
22. Oil retaining tube
23. Impeller
24. Interstage sleeve
25. Distance sleeve
26. Shaft
27. Shaft sleeve nut
28. Locking plate
29. Shaft sleeve
30. Shaft sleeve nut
31. Lock nut
32. Bearing bell
33. Coupling
34. Base frame



M Pumps

Applications

These type of pumps are widely used for cooling water supply in water works, industrial plants and power plants as well as drainage and irrigation for higher altitude.

The transportable medium may be chemically neutral clean water at maximum 40-45 °C and alluvial water without larger solid parts.

Maximum drift content: 600 mg/dm³, but this value may go up to 3000 mg/dm³, in the case of rubber bearing lubricated by clean water from outside.

Construction

These are one stage, vertical shaft, guide wheel, semi-axial flow pumps. Type ML-are welded, type MN-are moulded by execution. In the case of type MK it is possible to pull out the inner parts.

The pumps are made in three forms, as follows:

Form-A: the support of the pump is under the discharge nozzle, the electric motor placed directly on the discharge nozzle.

Form-B: the support of the pump is under the discharge nozzle, the electric motor placed on a separate floor.

Form-C: the pump is hanged on the floor, where the electric motor is placed on.

Sealing-

Stuffing box with teflon packing.

Bearings-

The thrust bearing is an axial self-aligning roller bearing running in oil bath with switchable water cooling if it is necessary. The one or more guide bearings are rubber sliding bearings lubricated by the transported water, or bronze sliding bearings lubricated by grease, supplied from a separate electric motor driven lubricator.

Main materials-

Impeller: bronze or stainless steel,

Basic busch: bronze,

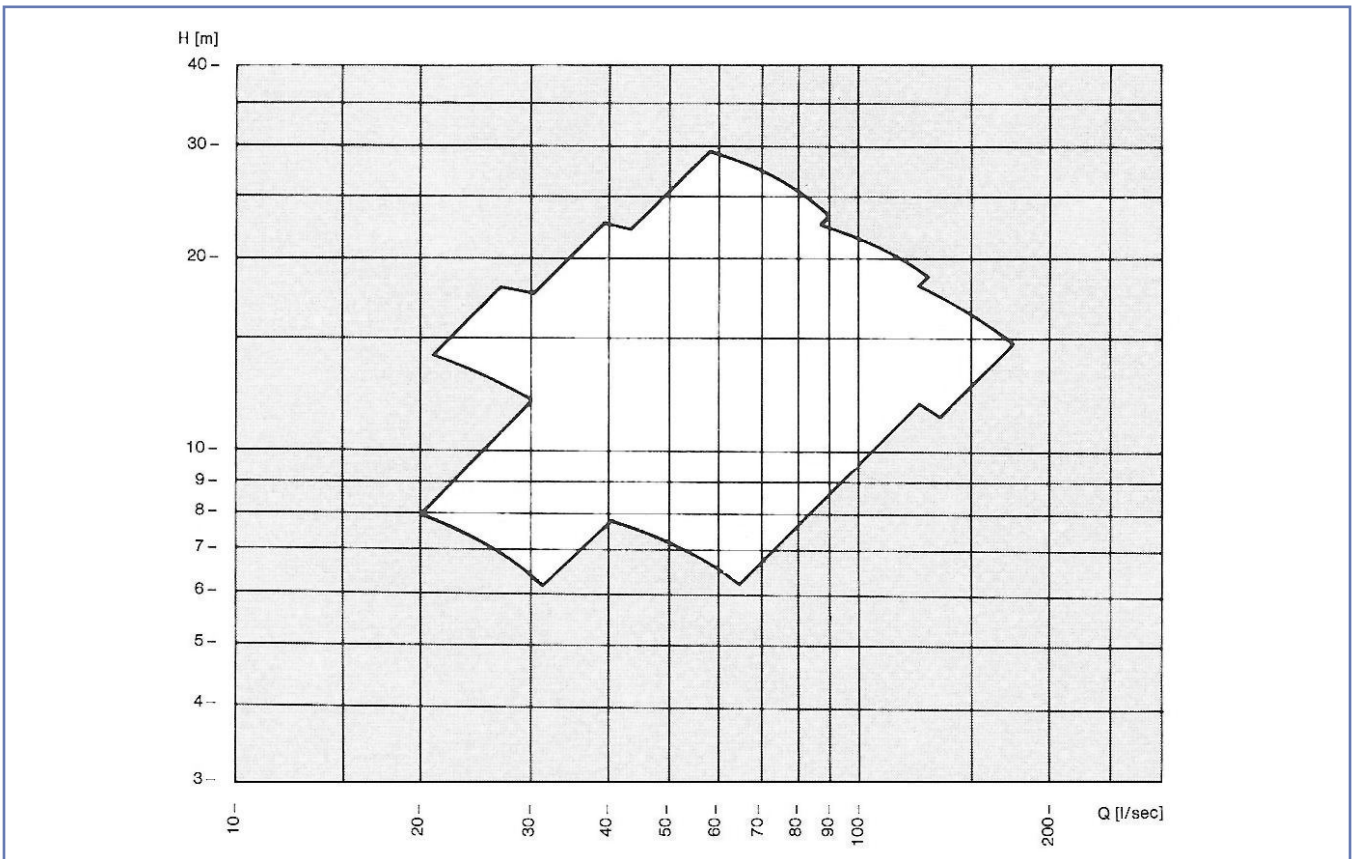
Stuffing box: cast steel,

Case, insert ring: cast iron,

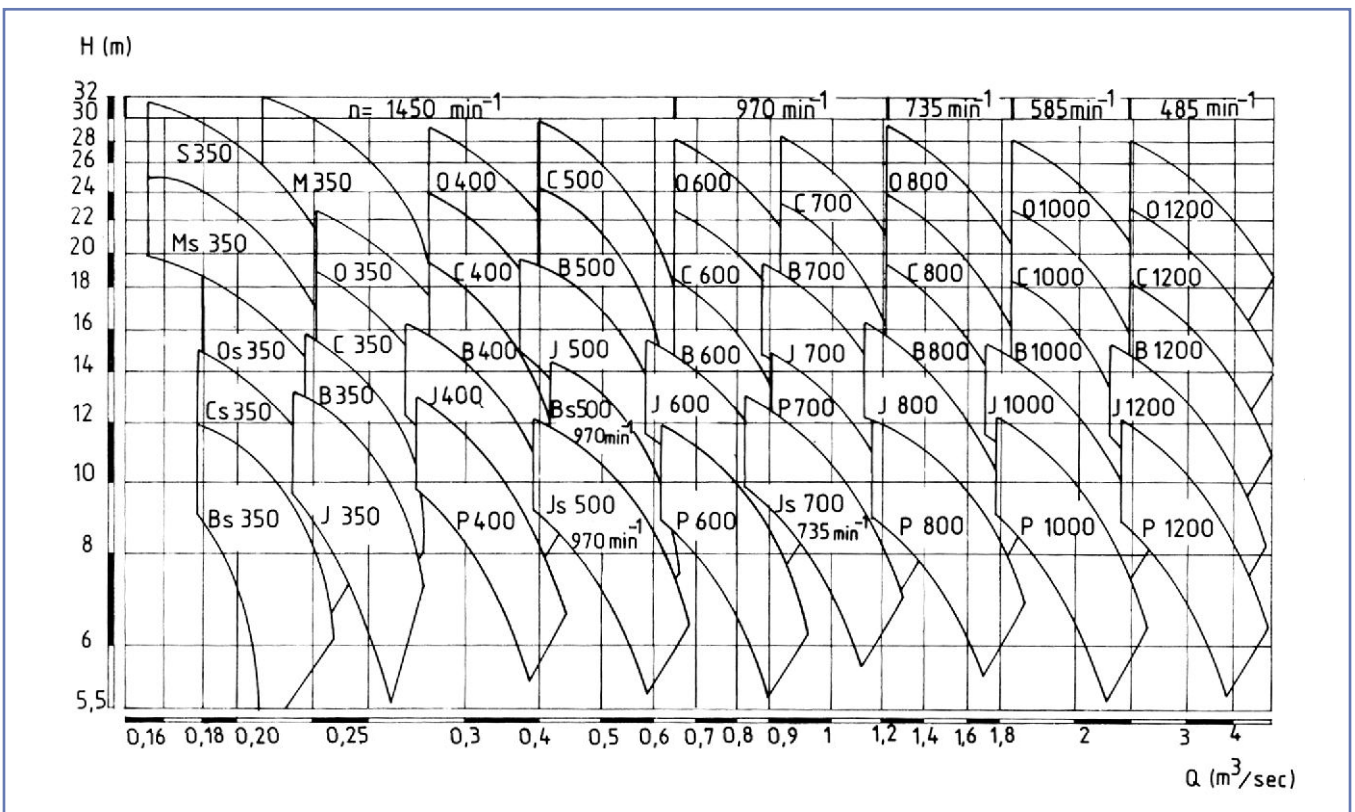
Shaft, stand -pipe: carbon steel,

Shaft sleeve:stainless steel.

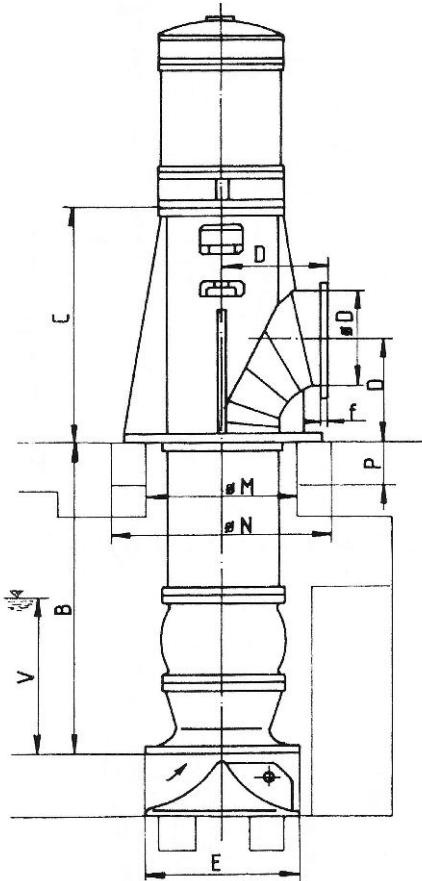
MN Hydraulic Coverage



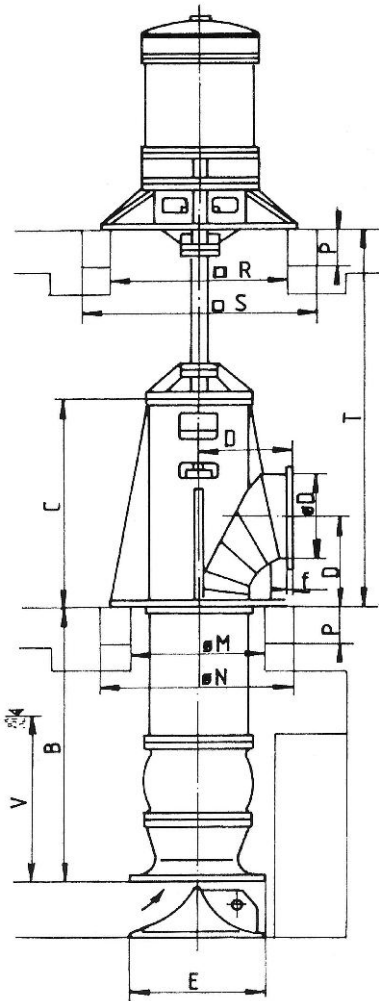
ML-MK Hydraulic Coverage



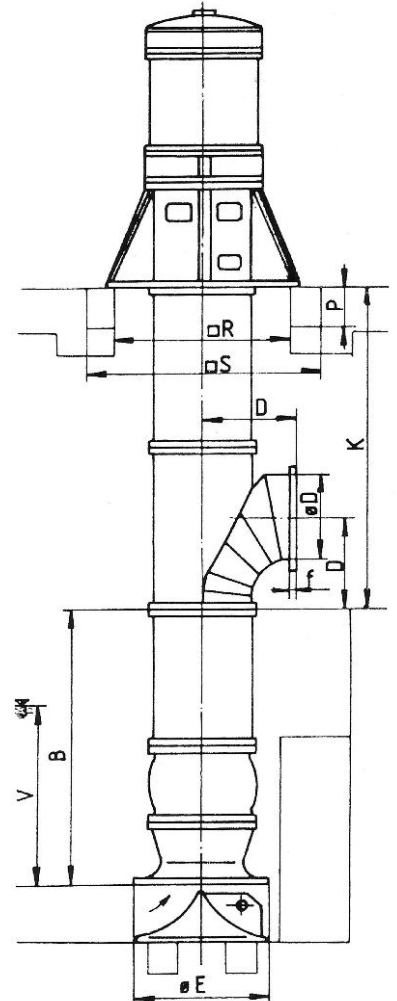
M Pumps



Construction: „A”



Construction: „B”



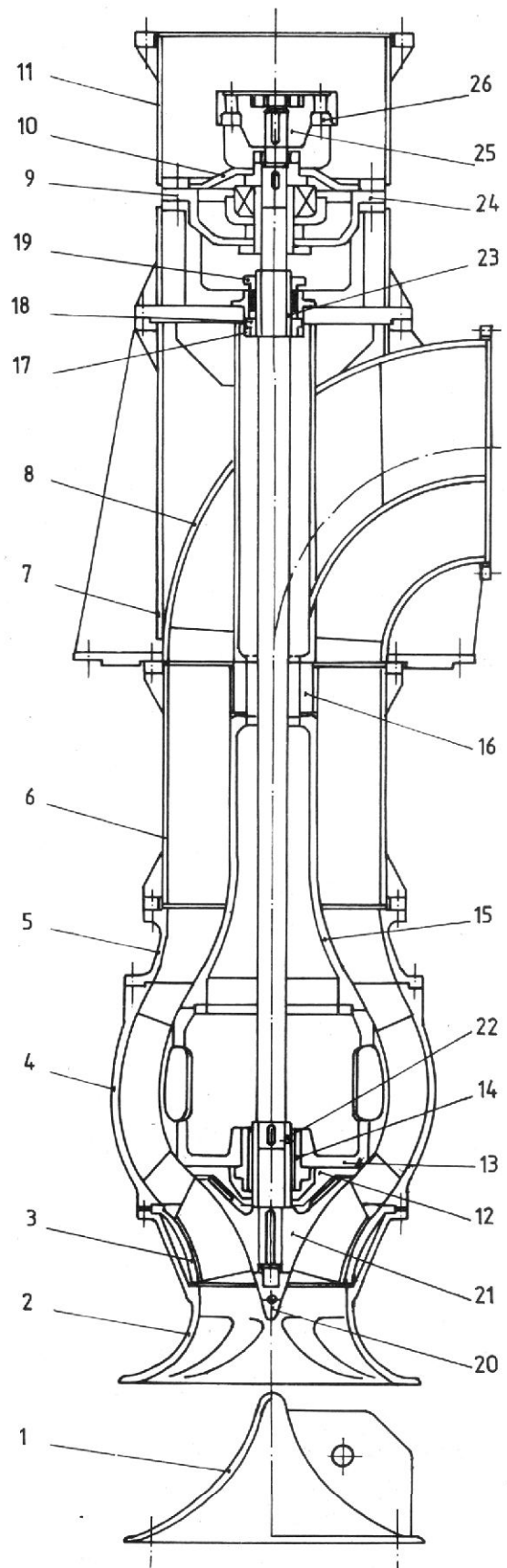
Construction: „C”

D	Pump						Floor				
	A	Bmin	C	E	Tmin	Vmin	M	N	P	R	S
400	300	700	1400	600	1400	700	650	1100	200	900	1300
500	400	700	1550	800	1550	800	850	1300	200	1100	1500
600	450	1000	1750	900	1750	900	1000	1400	200	1300	1700
700	500	1200	1900	1000	1900	1000	1100	1500	250	1400	1800
800	600	1400	2100	1200	2100	1200	1300	1700	250	1600	2000
1000	750	1600	2450	1500	2450	1500	1600	2000	300	2000	2400
1200	900	1900	2800	1800	2800	1800	1900	2300	300	2300	2700

Dimensions in mm.

ML-MK Section

1. Suction cone
2. Suction bell
3. Insert for suction cone
4. Guide vanes casing
5. Distance piece
6. Tube
7. Delivery elbow
8. Guide plate
9. Thrust bearing casing
10. Bearing casing cover
11. Motor stool
12. Wearing plate
13. Guide bearing casing
14. Guide bearing
15. Protecting tube
16. Protecting tube extension
17. Stuffing box casing
18. Neck bush
19. Stuffing box
20. Shaft end nut
21. Impeller
22. Protecting sleeve
23. Protecting sleeve
24. Bearing bell
25. Coupling
26. Shaft



TL Pumps

Applications

These type of pumps are mainly used in the agriculture for irrigation and inner-water pumping.

The transportable medium is clean water, chemically neutral at maximum 40-45 °C, or alluvial water without larger solid parts.

Construction

This pump is a two stage, guide wheel pump with vertical shaft.

The pump is placed on two levels: the discharge nozzle together with the stuffing box and the thrust bearing are on the bottom level. Here is the support of the hanging pipe, that goes down to the flaw. In the flaw, at the end of the hanging pipe is placed the pump-head. If it is necessary there may be placed neck bearings in the hanging pipe. The electric motor and it's frame are on the upper level.

Sealing-

Stuffing box with teflon packing or mechanical seal.

Bearings-

The thrust bearing is an axial, self-aligning, roller-bearing in oil bath, the guide bearings are sliding bearings lubricated by grease.

Main materials-

Impeller,shaft sleeve: stainless steel,

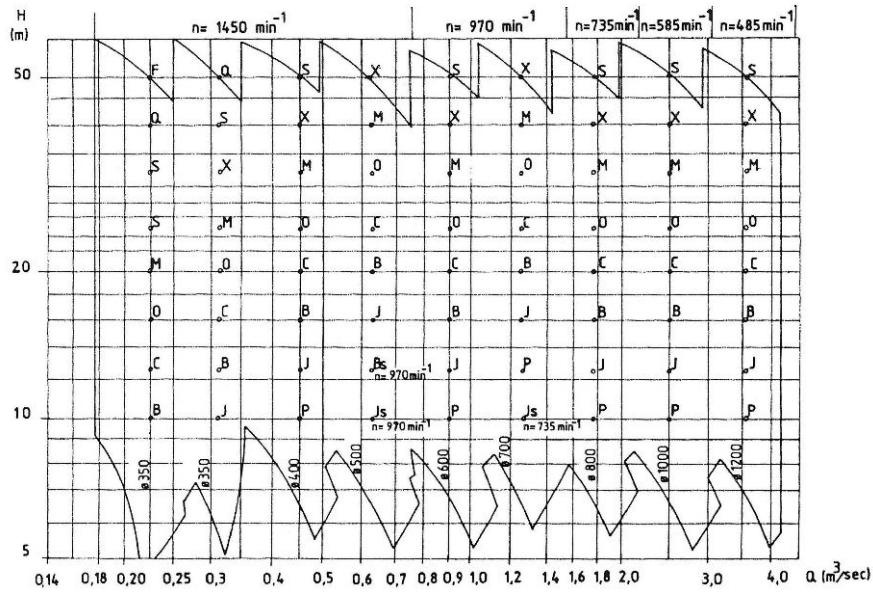
Casing: carbon steel,

Shaft: carbon steel or alloy steel,

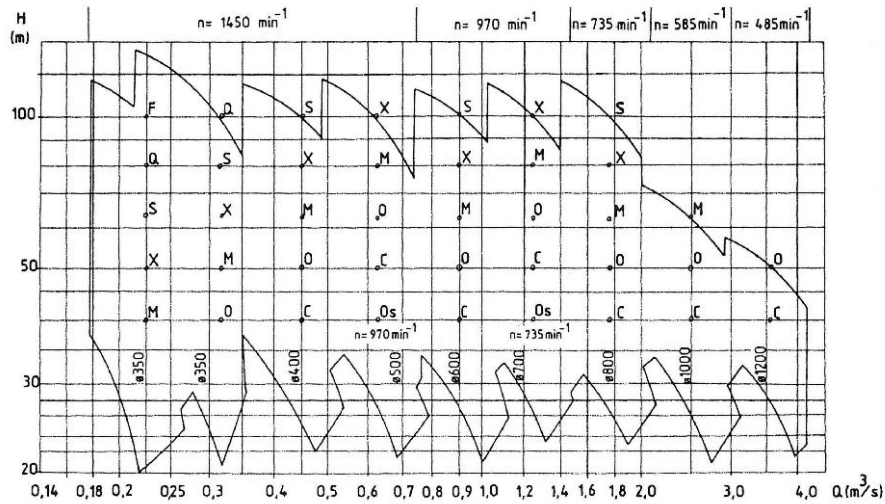
Blade ring: bronze.

TL-Pumps, Hydraulic Coverage

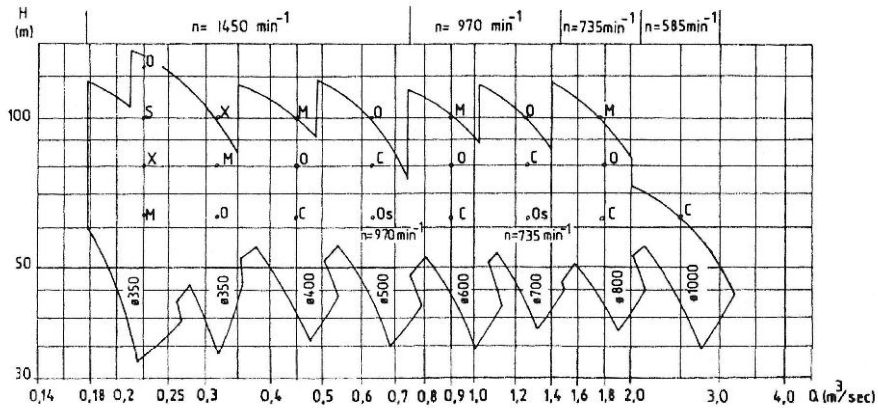
One-stage



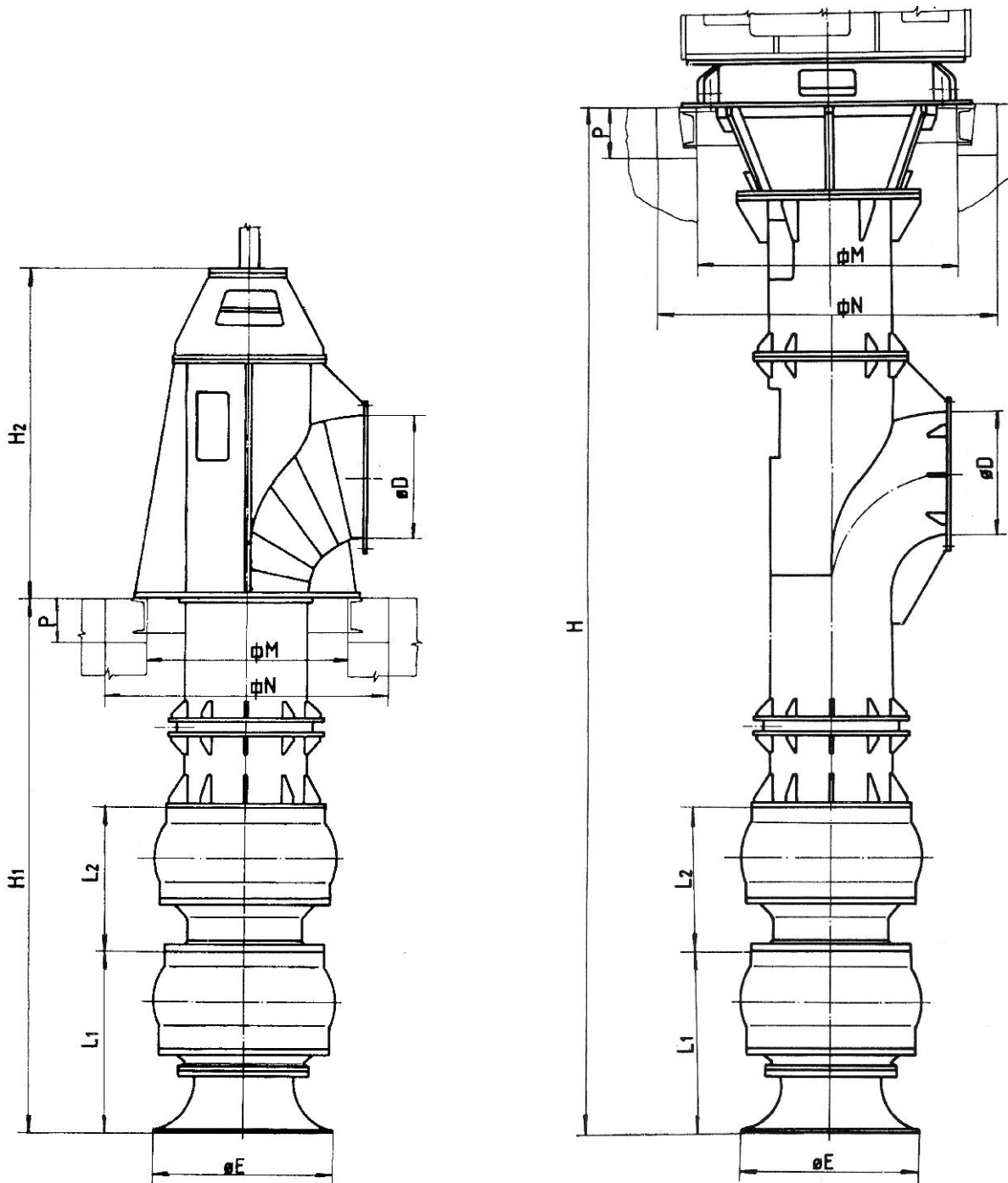
Two-stages



Three-stages



TL Pump Outlines

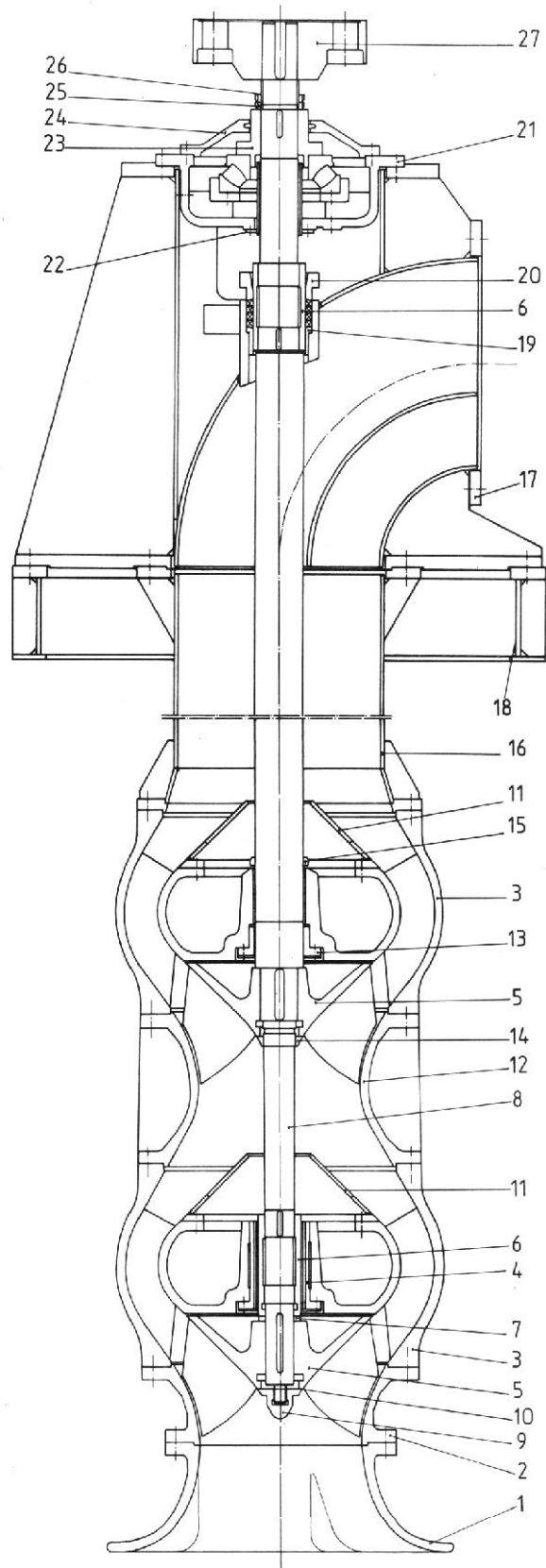


Type	D	Hmin	H1min	H2min	L1	L2	E	M	N	P
TL350	350	-	1300	1100	670	610	600	650	1100	200
TL600	600	3800	1800	1750	870	870	900	1000	1400	200

Dimensions in mm.

TL Section

1. Suction bell
2. Impeller housing
3. Guide vanes casing
4. Rubber bearing
5. Impeller
6. Shaft sleeve
7. Adjusting ring
8. Shaft
9. Shaft screw
10. Locking plate
11. Guide cone
12. Intermediate piece
13. Bush
14. Shaft nut
15. Thrower
16. Tube
17. Delivery elbow
18. Immuring ring
19. Ground bush
20. Stuffing box
21. Thrust bearing housing
22. Oil retaining tube
23. Bearing bell
24. Thrust bearing cover
25. Shaft nut
26. Lock nut
27. Coupling half



C Pumps

Applications

These type of pumps are widely used for cooling water supply in water works, industrial plants and power plants as well as drainage, and irrigation.

The transportable medium may be chemically neutral clean water at maximum 40-45 °C and alluvial water without larger solid parts.

Maximum drift content: 600mg/dm³, but this value may go up to 3000 mg/dm³, in the case of rubber bearing lubricated by clear water from outside.

Construction

This is an axial flow pump with one stage, vertical shaft and guide wheel.

The symbol of the type consist of three letters and numbers. The meaning of the letters in the first position are as follows: „C” axial, with fix blading, „K” adjustable while working.

The second letter is „L”, for all cases, and means a light-duty construction.

The third letter refers to hydraulic.

The pumps have three versions in construction:

Construction „A”: Supporting the pump under the discharge elbow, the driving electric motor is placed on directly at the discharge elbow.

Construction „B”: Supporting the pump under the discharge elbow, the electric motor is placed on separate floor.

Construction „C”: The pump is hanged on the floor where the electric motor is placed on.

Sealing-

Stuffing box with teflon sealing.

Bearings-

The thrust bearing is an axial self-aligning roller bearing running in oil bath with switchable water cooling if it is necessary. The one or more guide bearings are rubber sliding bearings lubricated by the transported water, or bronze sliding bearings lubricated by grease, supplied from a separate electric motor driven lubricator.

Main materials-

Impeller: stainless steel,

Basic busch and impeller's hub: bronze,

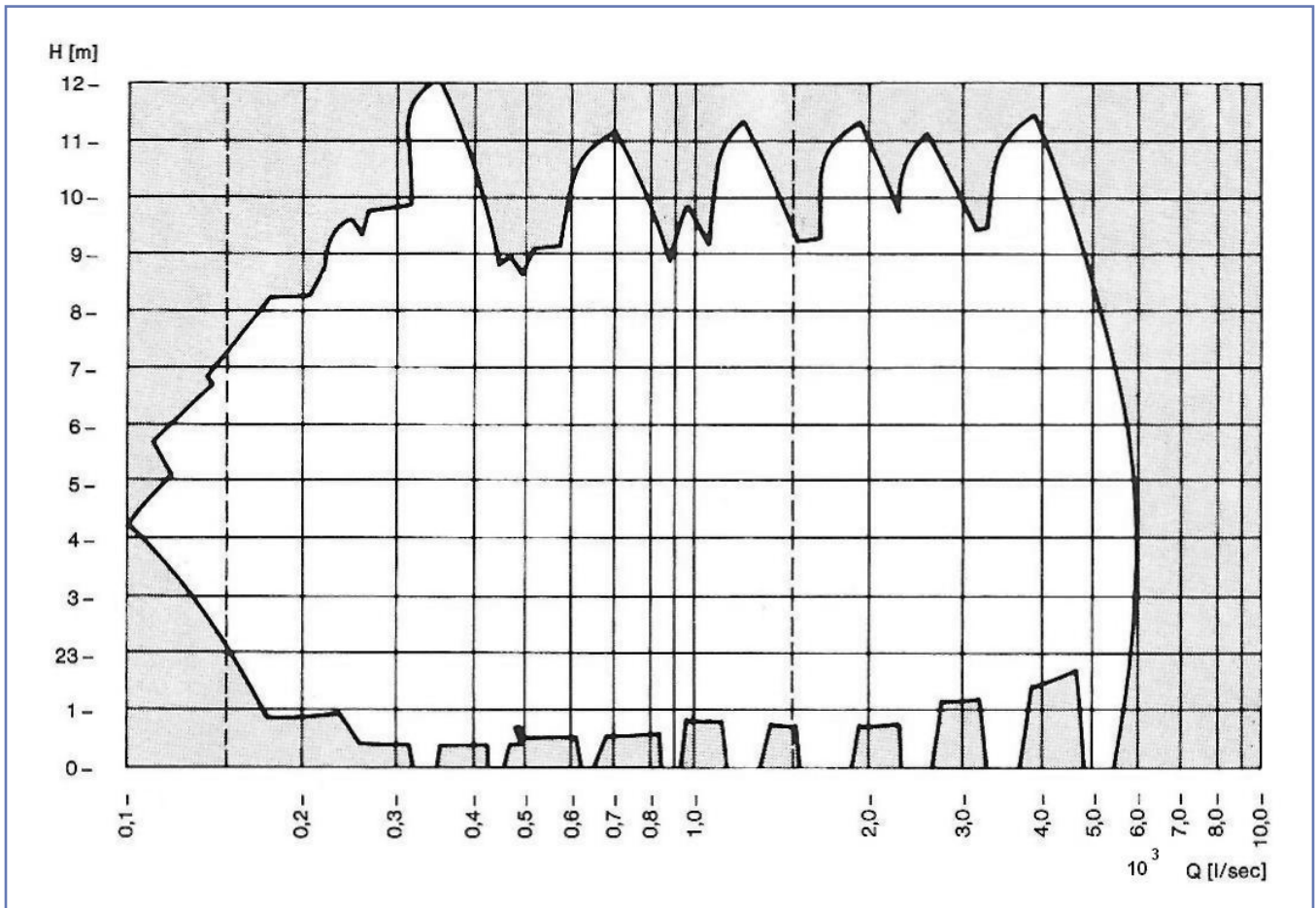
Stuffing box: cast steel,

Case, insert ring: cast iron,

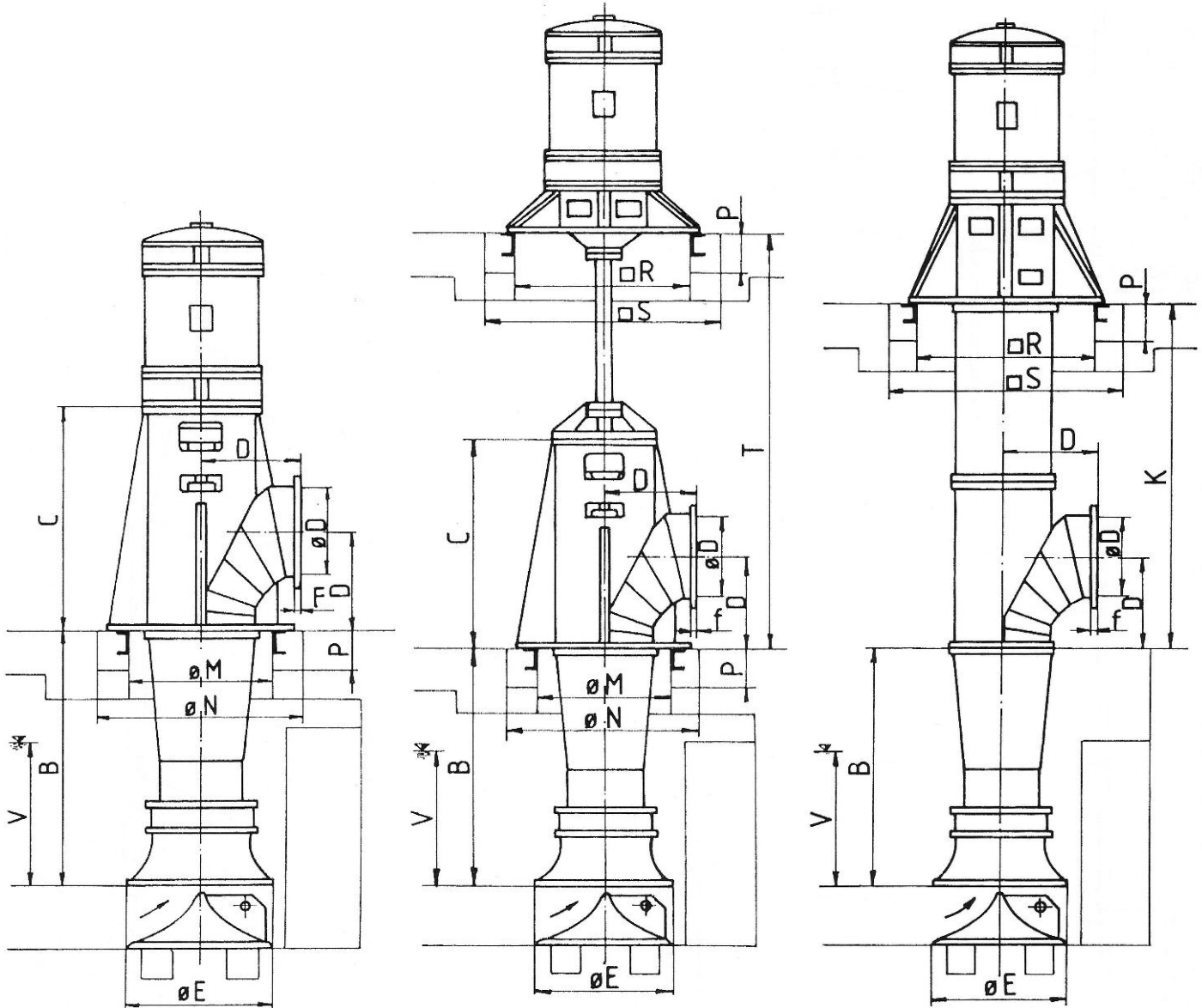
Shaft, stand-pipe: carbon steel,

Shaft sleeve: stainless steel.

CL Hydraulic Coverage



CL Pumps



Construction: „A”

Construction: „B”

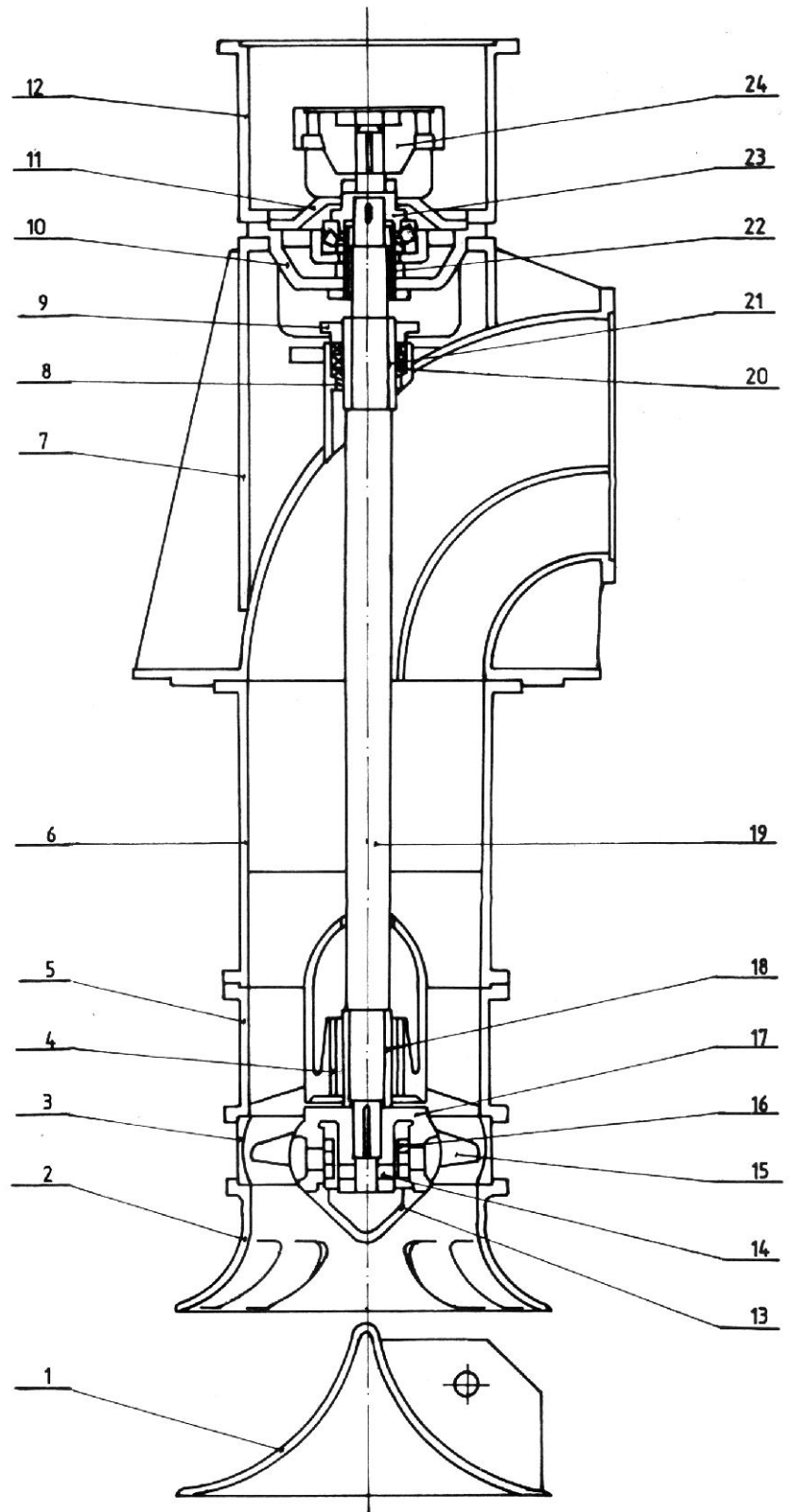
Construction: „C”

D	Pump						Floor				
	A	Bmin	C	E	Tmin	Vmin	M	N	P	R	S
400	300	700	1400	600	1400	700	650	1100	200	900	1300
500	400	700	1550	800	1550	800	850	1300	200	1100	1500
600	450	1000	1750	900	1750	900	1000	1400	200	1300	1700
700	500	1200	1900	1000	1900	1000	1100	1500	250	1400	1800
800	600	1400	2100	1200	2100	1200	1300	1700	250	1600	2000
1000	750	1600	2450	1500	2450	1500	1600	2000	300	2000	2400
1200	900	1900	2800	1800	2800	1800	1900	2300	300	2300	2700

Dimensions in mm.

CL Section

1. Suction cone
2. Suction bell
3. Impeller ring
4. Guide bearing casing
5. Guide vanes casing
6. Tube
7. Delivery elbow
8. Neck bush
9. Stuffing box
10. Thrust bearing casing
11. Thrust bearing cover
12. Motor stool
13. Cover
14. Shaft nut
15. Blade
16. Fixing plate
17. Impeller hub
18. Shaft sleeve
19. Shaft
20. Packing
21. Shaft sleeve
22. Oil retaining tube
23. Bearing bell
24. Coupling



USN Pumps

Applications

This type of pumps are used mainly in the agriculture at the pressure stations of the raining plants.

The transportable medium is clean water, chemically neutral at maximum 40 °C, or alluvial water without larger solid parts.

Maximum drift content: 1 g/dm³. The pump is useful transporting such liquids too, where the viscosity does not differ from the viscosity of the water significantly.

Construction

Features: vertical shaft, single inlet, scroll cased pumps with an adapter-stage in the downstream water. This stage consist of the suction nozzle, the impeller, and the guiding blades. The upper stage of the pump consist of the impeller and the scroll-case. The length of the stand-pipe between the adaptor and the scroll case depends on the circumstances of installing.

Sealing-

Stuffing-box with graphite cord packing.

Bearings-

The thrust bearing is an axial self-aligning roller bearing running in oil bath with switchable water cooling, if it is necessary.

In the adaptor there is rubber sliding bearing lubricated by the transported water. In the stand-pipe there is bronze sliding bearing lubricated by grease, supplied by a separate electric motor driven lubricator.

Main materials-

Impeller: bronze,

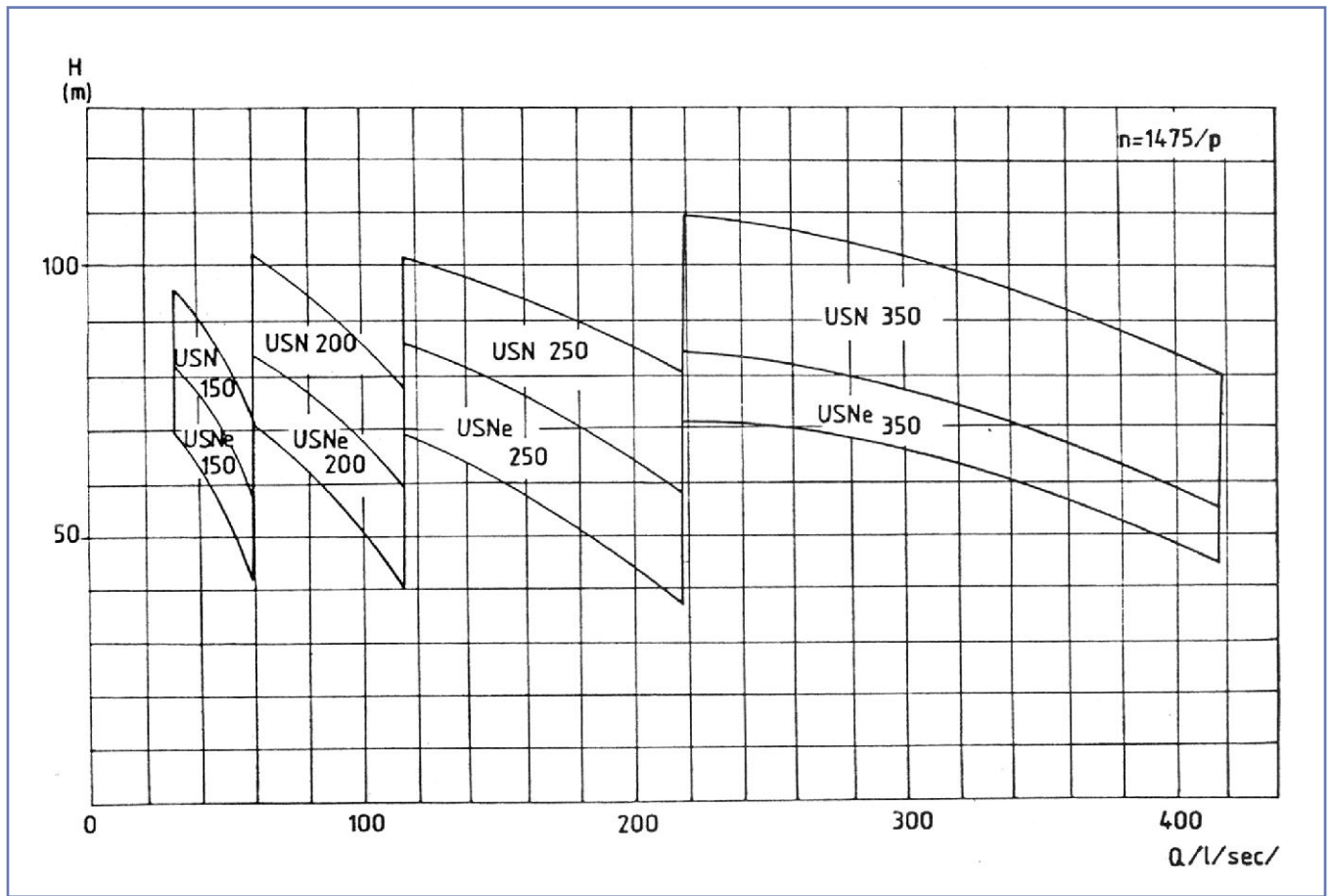
Blade ring, suction tube insert: bronze or stainless steel,

Case: cast iron,

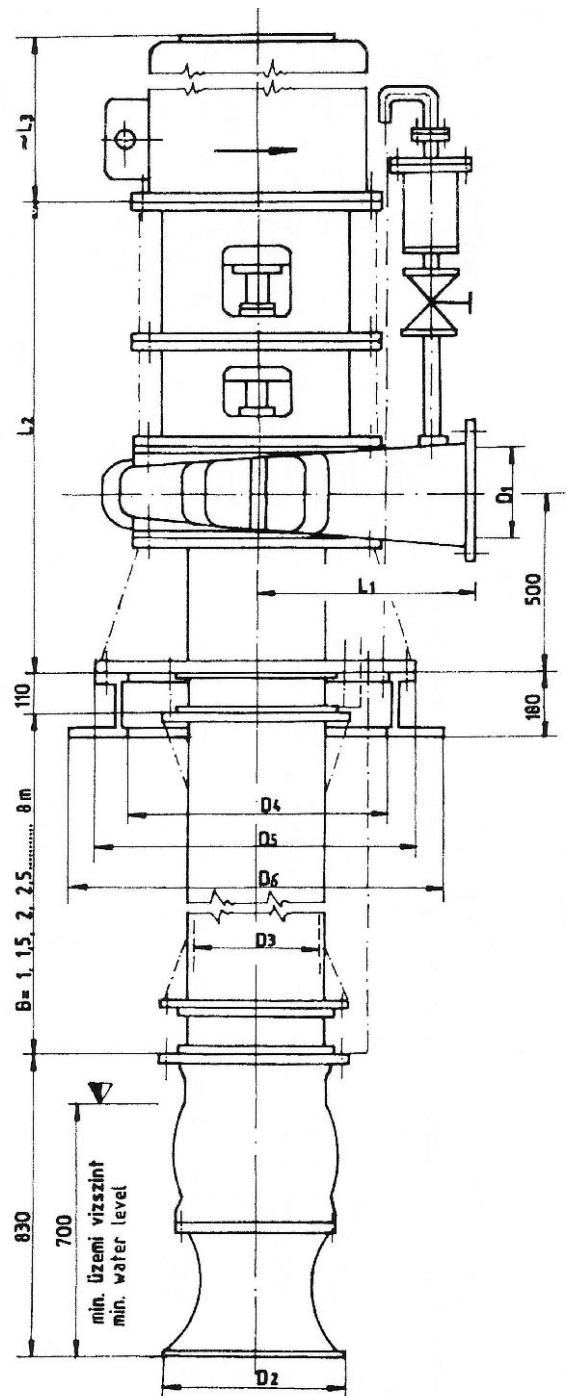
Shaft, stand-pipe: carbon steel,

Shaft sleeve:stainless steel.

USN Hydraulic Coverage



USN Pumps Outlines

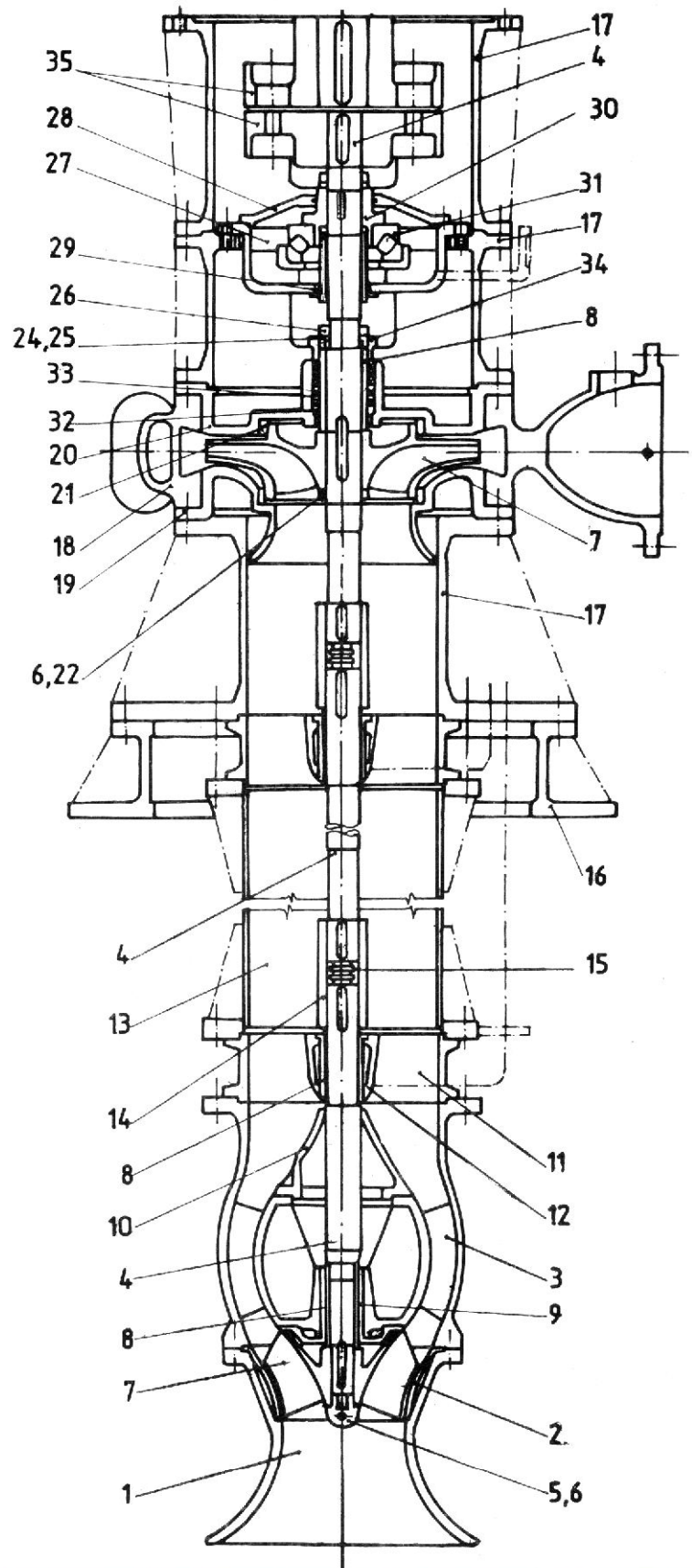


Type	USN 150	USN 200	USN 250	USN 300
D1	150	200	250	350
D2	300	400	500	570
D3	200	300	350	450
D4	600	700	700	850
D5	750	850	850	1000
D6	900	1000	1000	1200
L1	500	580	580	670
L2	1165	1295	1300	1400
L3	700-860	800-940	900-1400	1150-1560

Dimensions in mm.

USN Section

1. Suction bell
2. Insert for suction cone
3. Guide vanes casing
4. Shaft
5. Impeller screw
6. Locking plate
7. Impeller
8. Shaft sleeve
9. Guide bearing (rubber)
10. Guide extension
11. Bearing spider
12. Bearing
13. Tube
14. Coupling sleeve
15. Nipple
16. Immuring ring
17. Support
18. Casing
19. Suction cover
20. Stuffing box cover
21. Casing wear ring
22. Adjusting nut
23. Press ring
24. Lock nut
25. Shaft nut
26. Thrust bearing casing
27. Thrust bearing cover
28. Oil retaining tube
29. Centering sleeve for bearing
30. Thrust bearing
31. Neck bush
32. Lantern ring
33. Stuffing gland
34. Coupling



AGRO Pumps

Applications

These pumps are used mainly in the agriculture, in the irrigating and drainage plants.

The transportable medium may be chemically neutral clean water at maximum 40 °C, or alluvial water without larger solid parts.

Maximum drift content: 600 mg/dm³.

Construction

This is a vertical shaft, one stage, semi-axial flow pump with guide wheel, driven by a diesel engine.

The semi-axial suction head is in the vertical position stand pipe, under the water level.

The discharge nozzle is slanting. The pump is connected to the horizontal shaft engine by a bevel gear drive.

The engine and the pump are mounted on a welded, common basic frame.

Packing-

Stuffing box with teflon packing.

Bearings-

The thrust bearing is an axial self-aligning roller bearing running in oil bath. The guide bearing next to the thrust bearing is an oil lubricated self-aligning double-row roller bearing. In the pump head there is rubber sliding bearing lubricated by the transported water.

Main materials-

Impeller, bearing block, stuffing box, basic sleeve, gearbox case: cast iron,

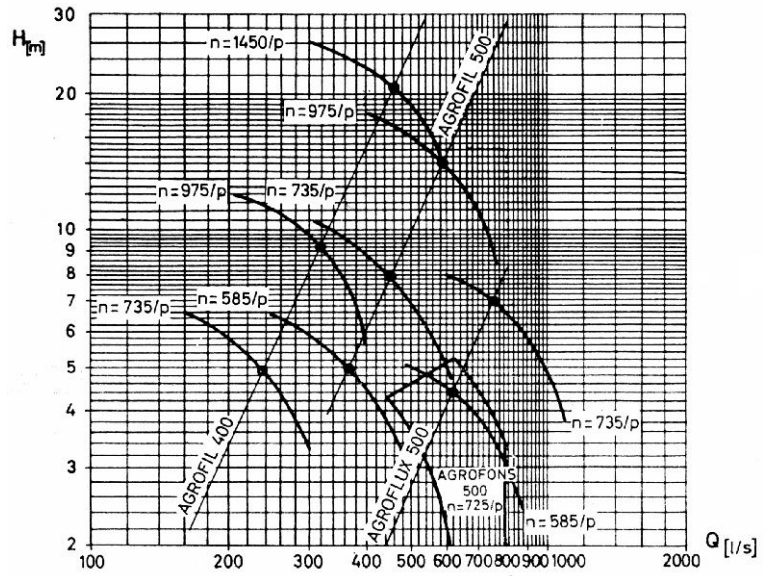
Discharge elbow, basic frame, stand pipe: carbon steel,

Shaft sleeve: stainless steel,

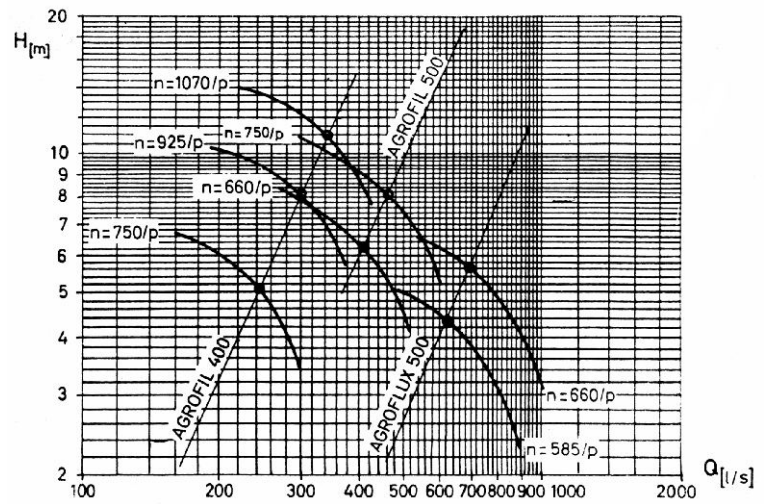
Shaft, gears: alloy steel.

AGRO Pumps Performance Curves

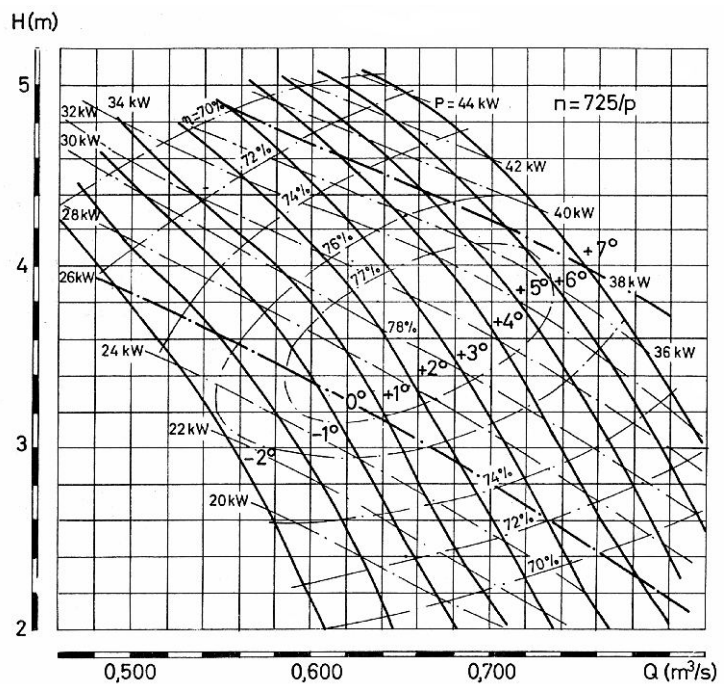
AGRO-E



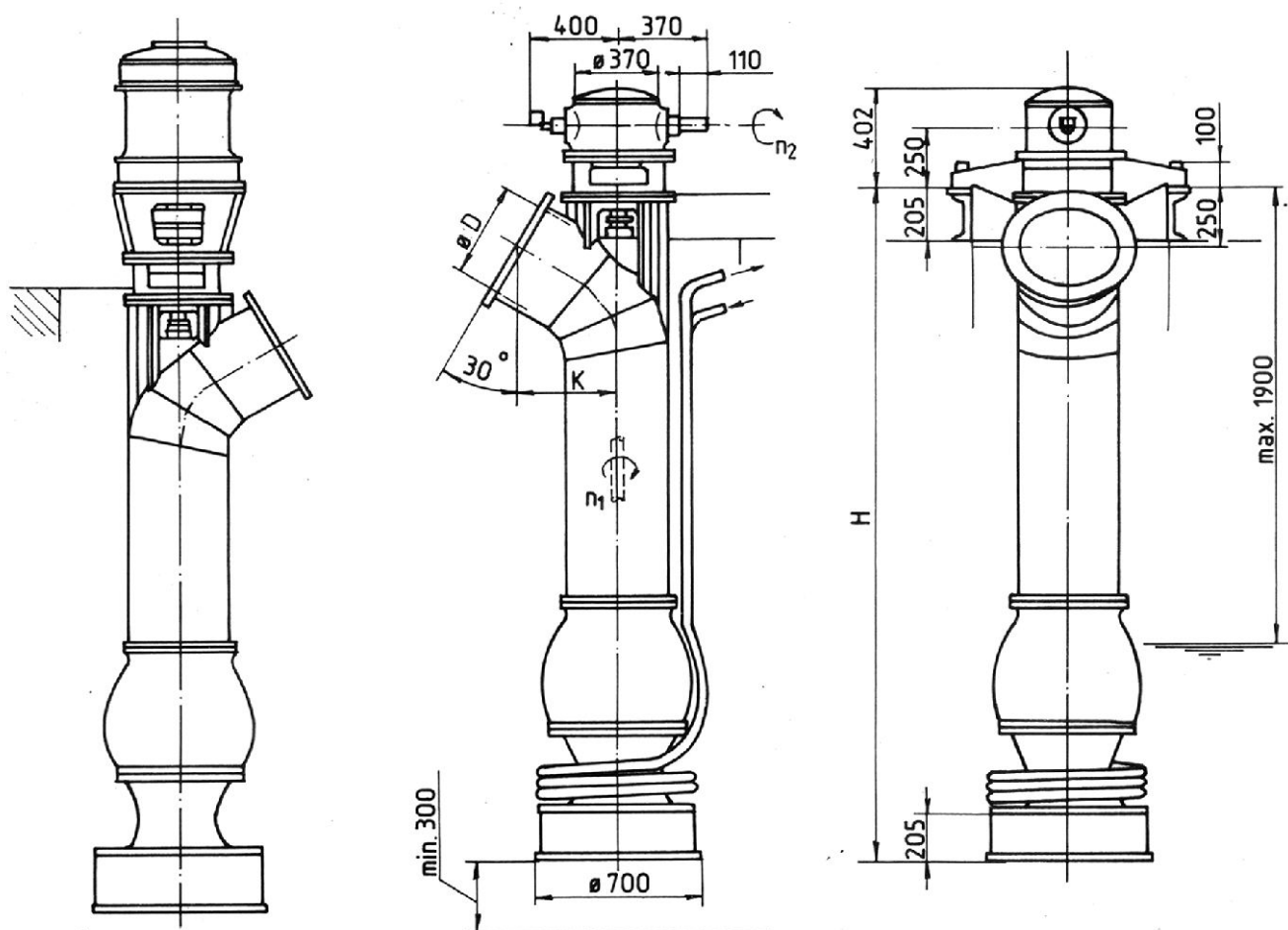
AGRO-D



AGROFONS 500



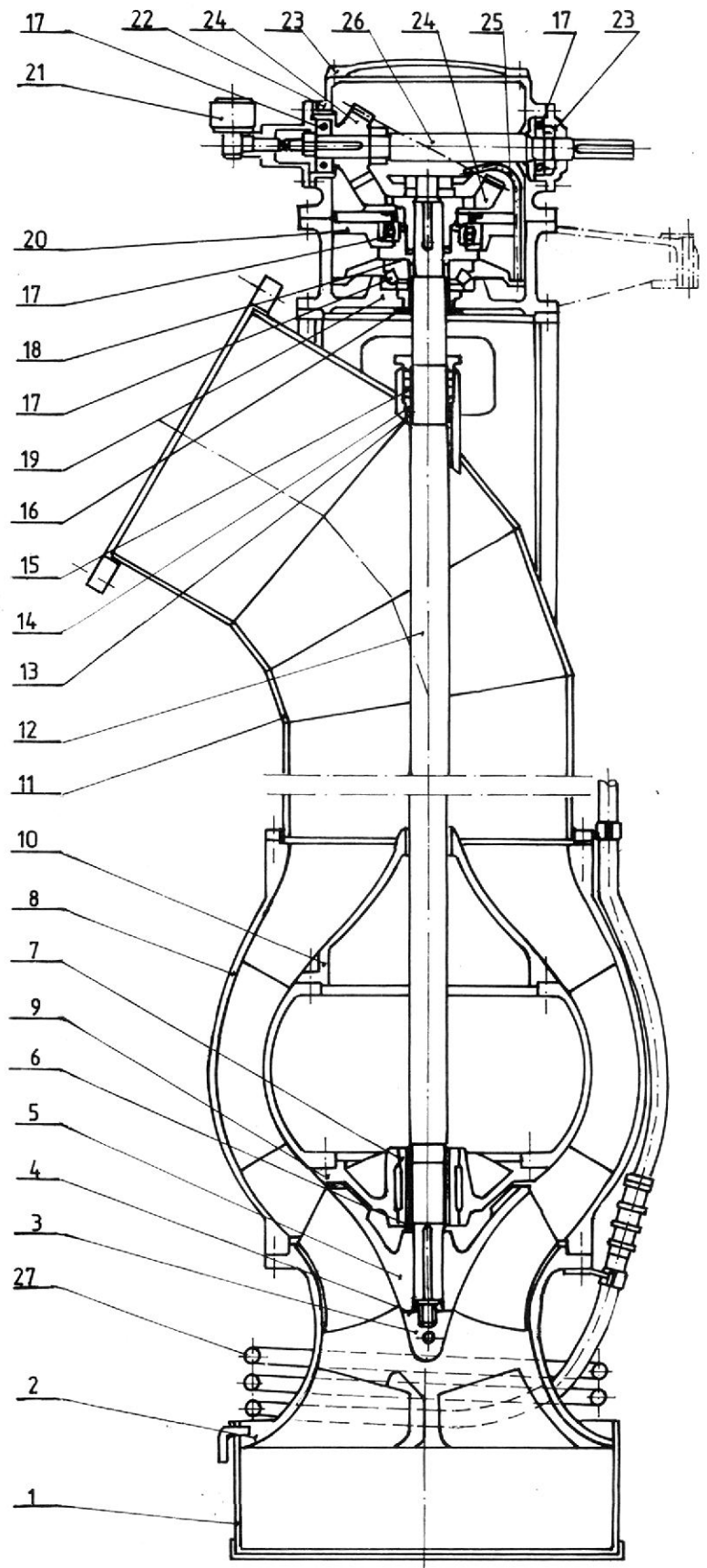
AGRO Pumps Outlines



Type	A	B	C
AGROFIL 400	400	430	2620
AGROFIL 500	500	450	2878
AGROFLUX	500	450	2878

AGRO Section

1. Filter
2. Suction bell
3. Impeller screw
4. Locking plate
5. Impeller
6. Shaft sleeve
7. Guide bearing (rubber)
8. Gard vanes casing
9. Bearing housing
10. Guide cone
11. Delivery elbow
12. Shaft
13. Shaft sleeve
14. Neck bush
15. Stuffing gland
16. Oil retaining tube
17. Rolling bearing
18. Bell
19. Thrust bearing housing
20. Guide bearing housing
21. Revolution counter
22. Gear box
23. Cover
24. Berel gear
25. Oil tube (Lubrication tube)
26. Transmission shaft
27. Cooling tube



AGROFIL-S Pumps

Applications

These pumps are used mainly for drainage, but they can be used all in such cases too, when quick installation and starting up is needed, and the place of installation is far away from the built up energy sources.

The transportable medium may be chemically neutral clean water at maximum 40-45 °C or alluvial water without larger solid parts.

Maximum drift content: 1 g/dm³.

Construction

This is a horizontal shaft, one stage, semi-axial flow, scroll-case pump, driven by a diesel engine.

The suction nozzle is horizontal, the discharge nozzle is rotatable between vertical, and horizontal position adapting to the pipeline system.

In the discharge nozzle there is a tilting register movable by a handwheel. The pump is connected to the engine by an one-stage gearbox and a rubber disc clutch. The last one ensures large possibility of movement and the ability of easy disconnection of the pump from the engine if it is necessary. At starting the venturi air ejector priming system, operated by the exhaust gases of the engine deaerates the scroll case. The pump and the engine are placed on a common basic frame. This common basic frame is placed on a wide, structural steel skid base. This is why the unit can operate safely on a soaked thoroughly ground too.

Sealing-

Stuffing box with teflon packing or mechanical seal.

Bearings-

The gearbox and the pump have oil lubricated bearings.

Main materials-

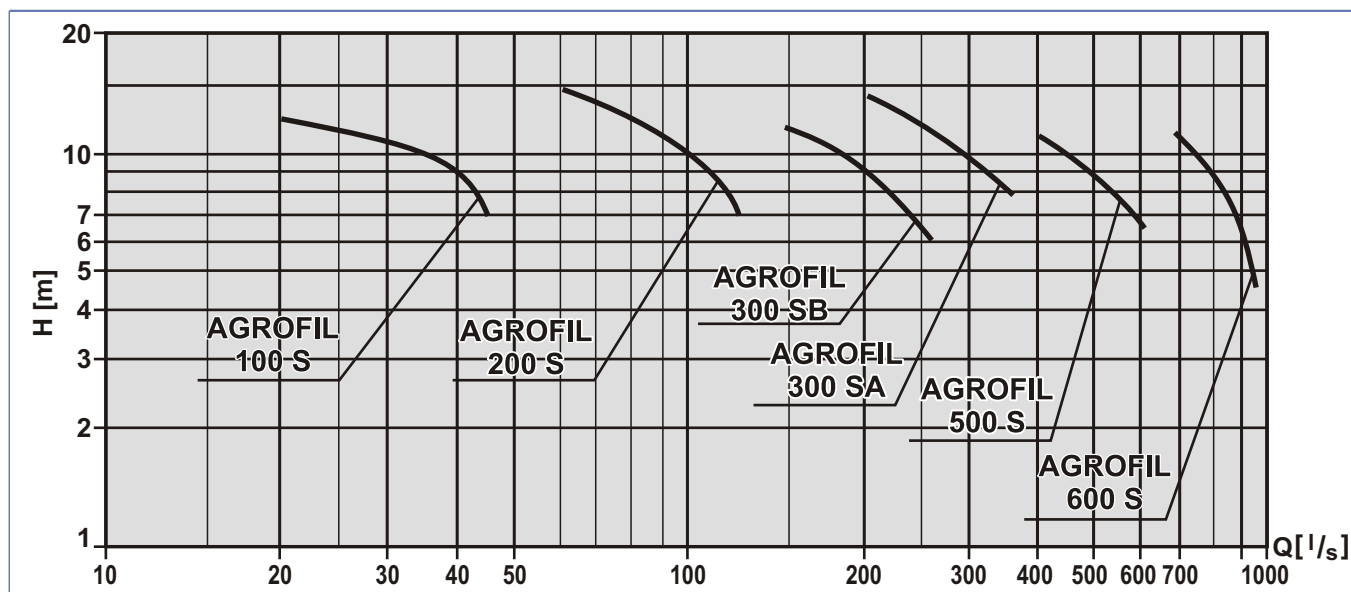
Impeller, pressure cover: cast iron,

Suction pipe, scroll case, gearbox case: cast aluminium,

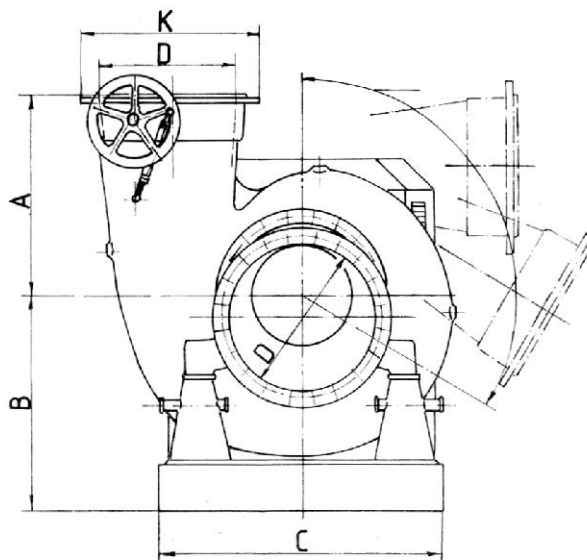
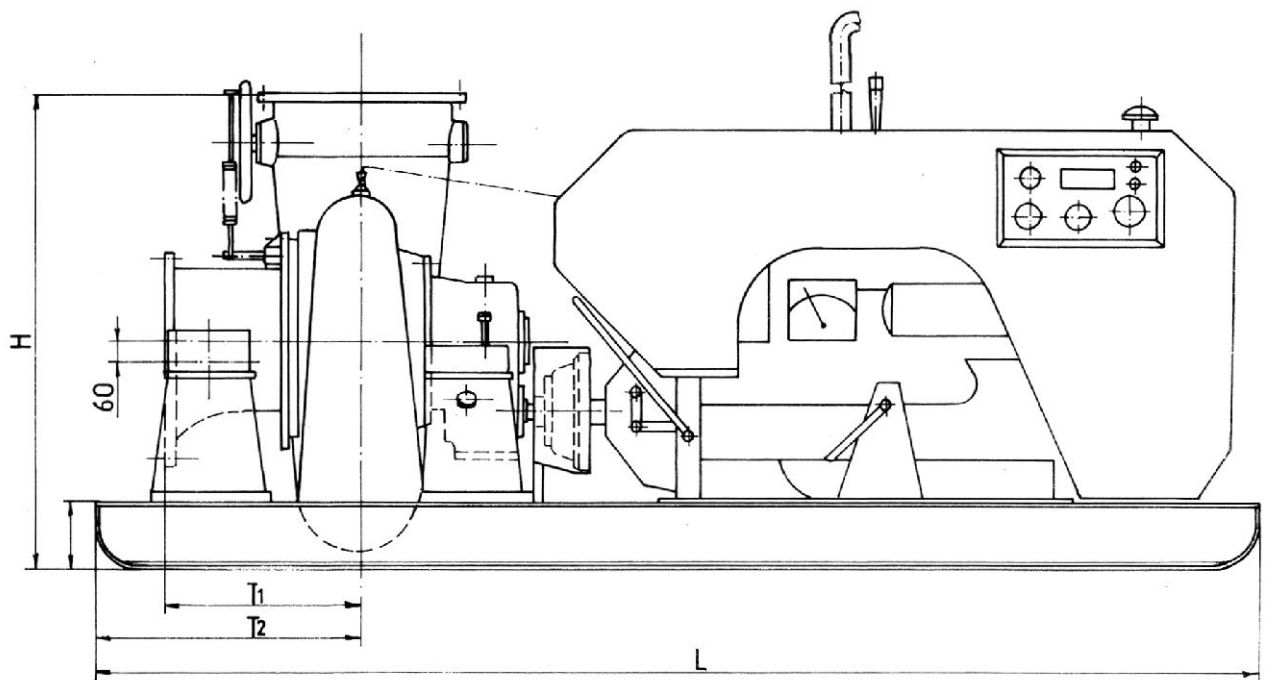
Skid, frame, tilting register: carbon steel,

Shaft, gears: alloy steel.

AGROFIL-S Pumps Performance Curves

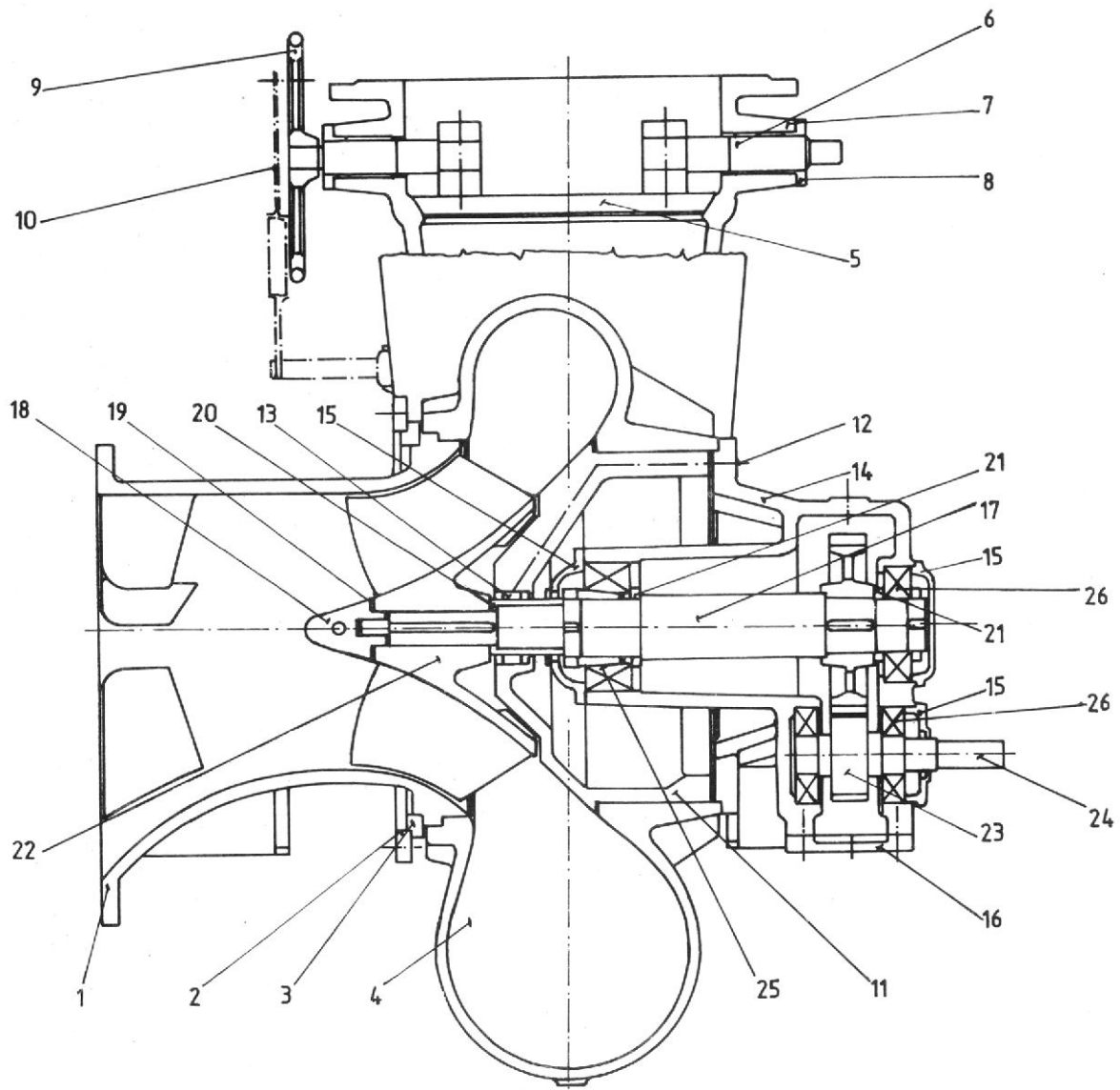


AGROFIL-S Pumps Outlines



Type	A	B	C	D	E	F	G	H	I	J	K	L	a	b	c	d
AGROFIL 100	695	430	315	375	220	375	205	100	155	15	70	65	180	300	128	230
AGROFIL 200	1100	685	500	600	350	600	325	160	250	25	70	105	285	460	202	350
AGROFIL 300	1700	1000	750	850	450	920	500	240	390	40	100	125	440	710	313	540
AGROFIL 300	1700	1000	750	850	450	920	500	240	390	40	100	125	440	710	313	540
AGROFIL 500	2700	1600	1200	1400	700	1430	800	380	600	60	170	200	680	1100	484	840
AGROFIL 600	2950	1680	1400	1500	1150	1795	960	445	765	82,5	205	200	935	1210	580	-

AGROFIL-S Section



- | | | |
|------------------------|-----------------------------------|--------------------------------|
| 1. Suction pipe | 10. Locking equipment with spring | 18. Shaft end nut |
| 2. Press flange | 11. Housing cover | 19. Locking plate |
| 3. Split ring | 12. Greasing pipe | 20. Shaft sleeve |
| 4. Casing | 13. Greasing ring | 21. Distance ring |
| 5. Flap valve disc | 14. Housing | 22. Impeller |
| 6. Flap valve | 15. Bearing cover | 23. Gear |
| 7. Guide bearing | 16. Cover | 24. Gear shaft |
| 8. Guide bearing cover | 17. Shaft | 25. Self aligning ball bearing |
| 9. Hand wheel | | 26. Ball bearing |

EBG Pumps

Applications

These pumps are used in industrial plants, mines, and water works.

The transportable medium may be: clean, cold water, warm water at maximum 80 °C, slightly contaminated industrial water and settled subterranean water.

The pump is useful for transporting such liquids too, where the viscosity does not differ from the viscosity of the water significantly.

Construction

The features of these pumps are: horizontal shaft, counterflow, multi-stage, split case.

The pump has two groups of impellers, one setted against the other, so the axial powers equalize each other.

The two stage-groups are connected to each other by a passage pipe placed on the right, or the left side of the pump.

The pump is building up from sections square with the shaft. The feet together with the distance pieces form units. The suction nozzle can be rotated every 45° depending on the circumstances of installing.

Sealing-

Stuffing box with teflon packing, or mechanical sealing.

Bearings-

Bearings are at two places: ball-, or roller bearing, and self-aligning thrust ball-bearing or roller-bearing to take the axial load.

Main materials-

Impeller: cast iron or bronze,

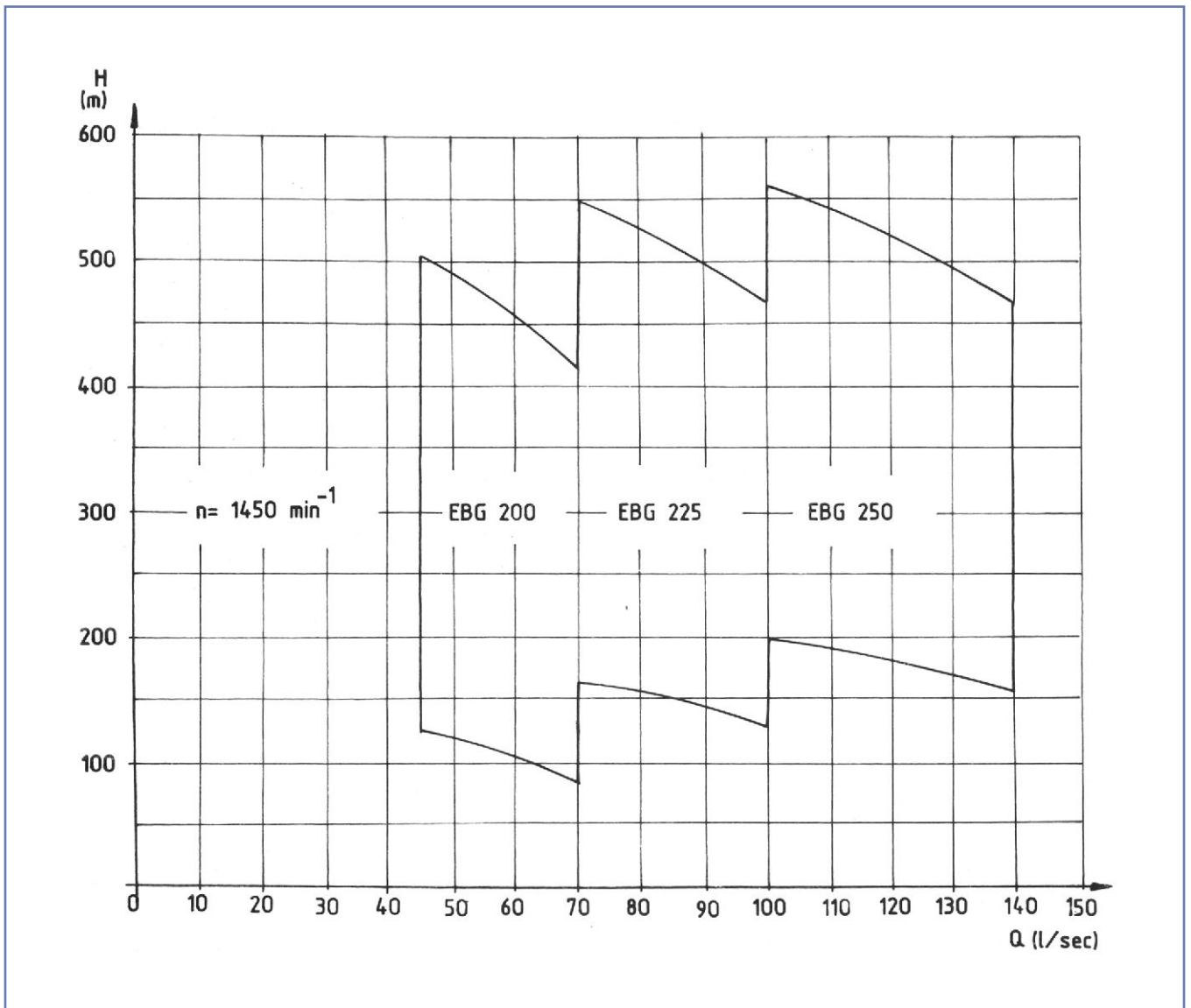
Blade ring, basic sleeve, stuffing box: bronze, or stainless steel,

Case: cast steel,

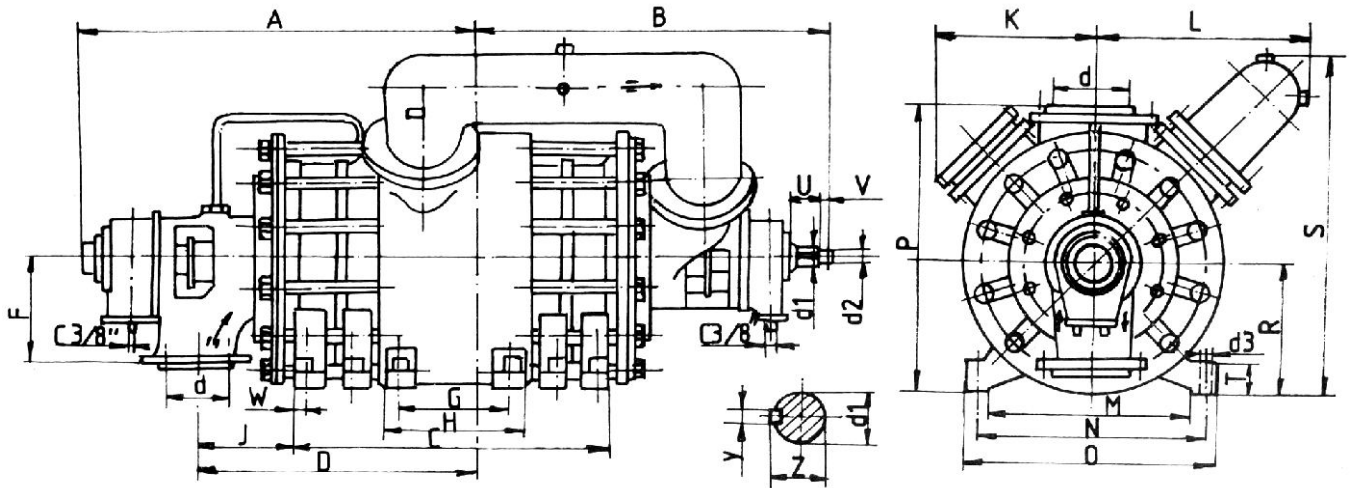
Shaft: carbon steel,

Shaft sleeve: stainless steel.

EBG Hydraulic Coverage



EBG Pumps Outlines



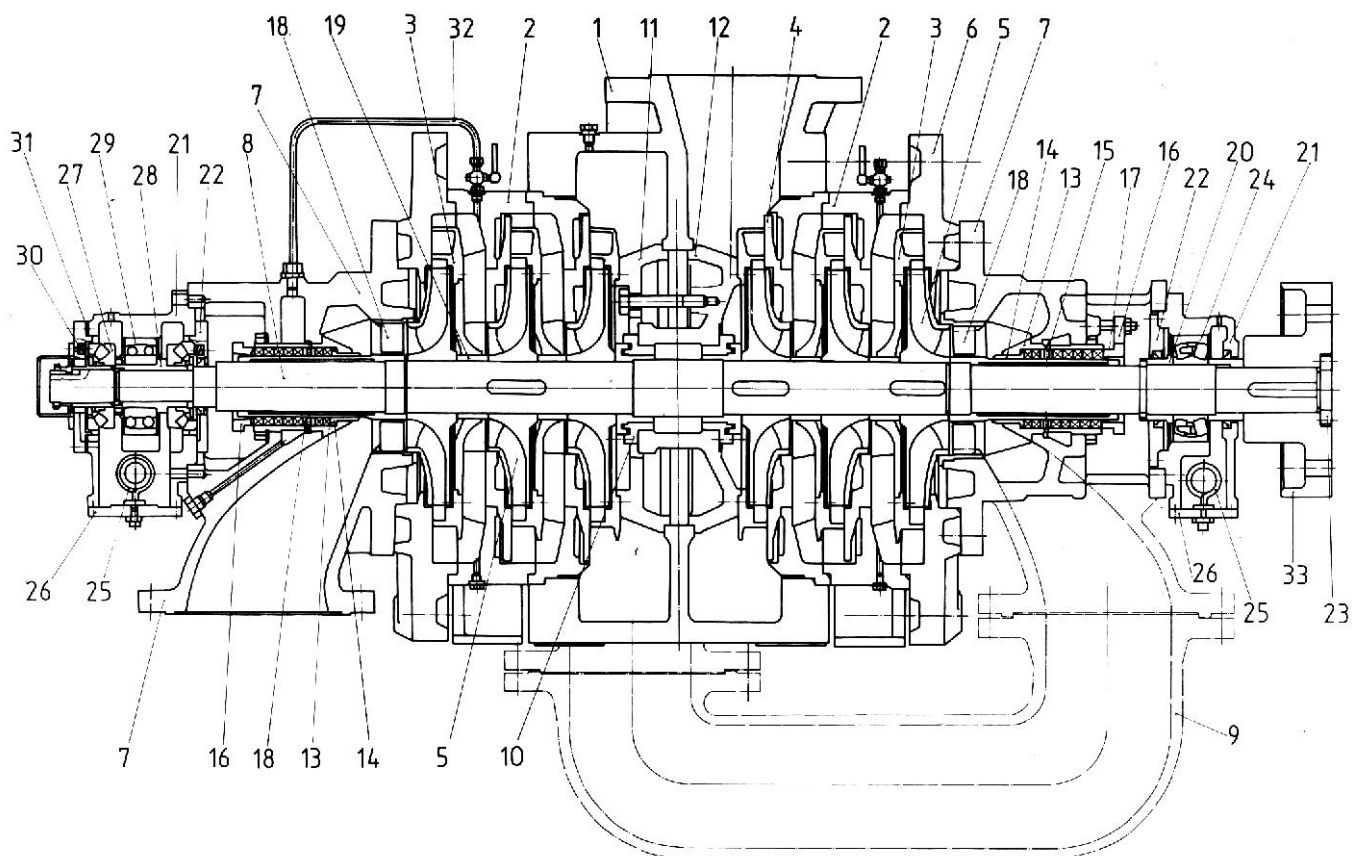
Type	F	G	H	J*	K	L	M	N	O	P	R	S	T	U	V	d	d ₁	d ₂	d _s	y	z	w
EBG 200	335	345	450	309 (315)	500	635	570	680	750	860	380	1015	90	115	25	200	72	LH 60x2	22	20	78	35
EBG 225	575	370	490	338 (343)	546	695	650	770	850	1165	435	1130	100	118	25	250	82	LH 68x2	26	24	89	40
EBG 250	430	395	530	373 (377)	585	770	700	845	920	1085	485	1255	110	133	27	250	92	LH 75x2	26	24	99	50

	EBG 200					EBG 225				EBG 250		
	IV	VI	VIII	X	XII	IV	VI	VIII	X	IV	VI	VIII
A	1005	1123	1241	1359	1477	1047,5	1182,5	1317,5	1452,5	1149	1302	1455
B	837	955	1073	1191	1309	871,5	1006,5	1141,5	1276,5	978	1131	1284
C	450	698	934	1170	1406	490	770	1040	1310	530	844	1150
D	630	748	866	984	1102	683	818	953	1088	744	897	1050

Flanges

Suction branch	Discharge branch
MSZ 2934 NNY 40 neck according to MSZ 2994 For EBG 225 MSZ 2895 NNY 40 neck according to MSZ 2994	MSZ 2935 NNY 64 with protrusion according to MSZ 2994

EBG Section



- | | | |
|------------------------------|---------------------|----------------------------------|
| 1. Delivery casing | 12. Cover insert | 23. Shaft nut |
| 2. Diffuser with guide vanes | 13. Stuffing box | 24. Rolling bearing |
| 3. Guiding wheel | 14. Neck bush | 25. Cooling coil |
| 4. Profil disc | 15. Lantern ring | 26. Cover of oil chamber |
| 5. Impeller | 16. Stuffing gland | 27. Thrust bearing |
| 6. Suction cover | 17. Shaft sleeve | 28. Centering sleeve for bearing |
| 7. Suction casing | 18. Entry impeller | 29. Ball bearing |
| 8. Shaft | 19. Distance sleeve | 30. Spring |
| 9. Interstage crossover | 20. Shoulder ring | 31. Adjusting ring |
| 10. Labirynth packing | 21. Bearing housing | 32. Lubrication pipe |
| 11. Insert plate | 22. Bearing cover | 33. Coupling half |

TGT Pumps

Applications

These pumps are used in pressure booster stations at water works, industrial and agricultural plants.

The transportable medium may be: clean cold water, or warm water up to 90 °C.

Maximum drift content of the transportable medium may be maximum 15 mg/dm³.

The pump is useful for transporting such not corrosive liquids too, where the viscosity does not differ from the viscosity of the water significantly.

Construction

The features of these type pumps are: horizontal shaft, multi-stage, guide wheel centrifugal pumps.

The case of the pump is fitted together from sections, square with the shaft, and these sections are butted to each other by screw up bolts.

The pump stands on feet casted in one the distance pieces, and the suction and the discharge nozzles of the pump can be rotated every 45°.

Each pump of the TGT serie can be assembled with two different types of impellers, making a wide product range possible.

Sealing-

Stuffing-box with teflon packing or mechanical seal.

Bearings-

At the suction side of the pump, the shaft is supported by a roller bearing in the bearing block that is casted in one the suction nozzle. The other end of the shaft is supported by ball-, and roller bearings placed in the bearing block fixed by bolts in the pressure cover.

The bearings are oil lubricated. The oil chambers, the stuffing box and the mechanical seal are coolable by water.

Main materials-

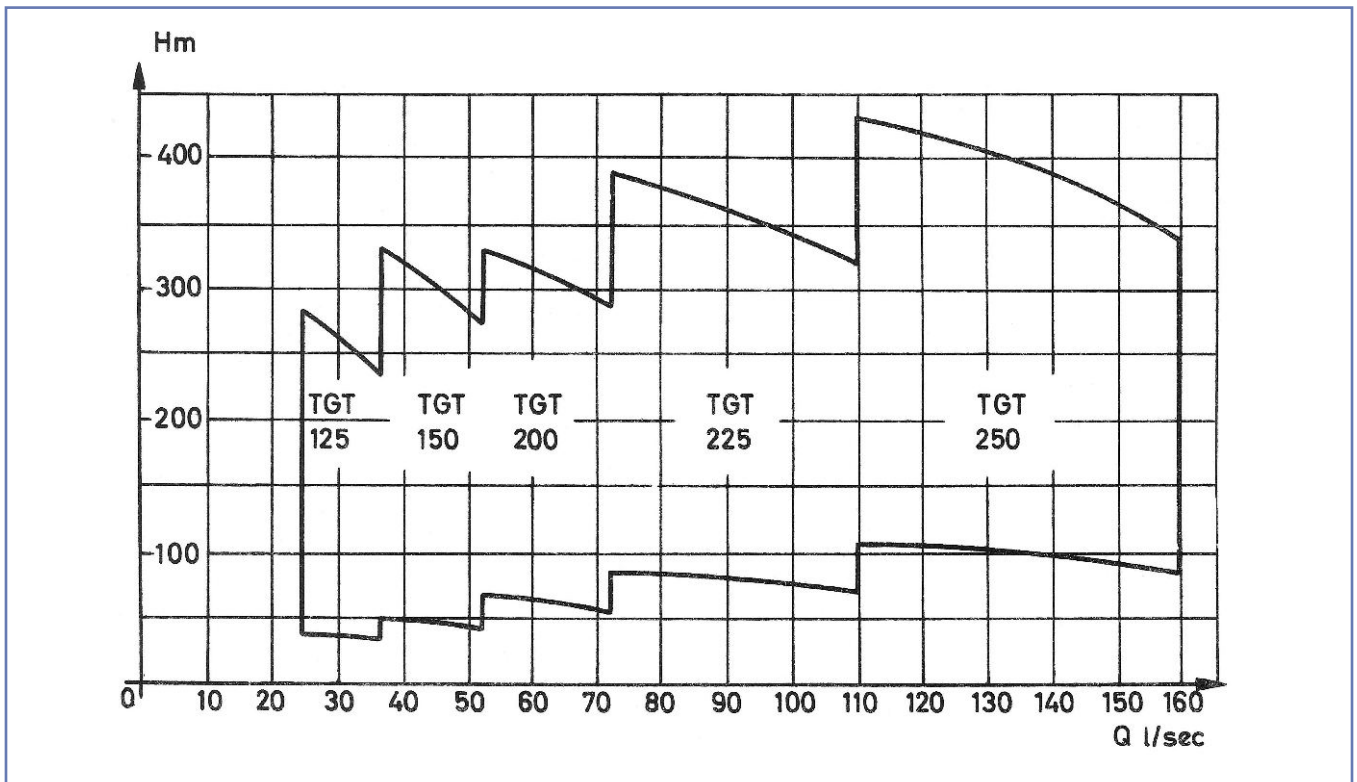
Impellers, guide wheels, shaft sleeves, bushes:bronze,

Pump's case: cast iron,

Shaft: carbon steel,

Suction cover,pressure cover:cast steel.

TGT Hydraulic Coverage



TGT Section

