

Electrically driven pumps AXH Q/H.12

Pumps AXH Q/H.12 – are horizontal piston pumps with cam drive for pumping of fluids with high viscosity (mazuts, coal-tar resins, etc.) with viscosity of 0,02 – 100 Pa/s (20 – 100000 cP). Engine power in the tables is specified for fluid density of 1000 kg/m³. The pumps are characterized by high reliability due to low rotational frequency (see table “Specification”). Flow tube of the pumps is made of carbon steels. Sealing is represented by gland seal.

Range of flow rates is 5-500 m³/ hour and range of heads is 0,6-3,2 MPa. Minimal temperature of pumped fluid is up to -45°C, maximum is up to 150°C. By special order it is possible to manufacture pumps with temperature up to 300°C, and with water cooling (heating) jacket. Climate version and category of location - Y2 according to ГОСТ 15150-69.

Specification

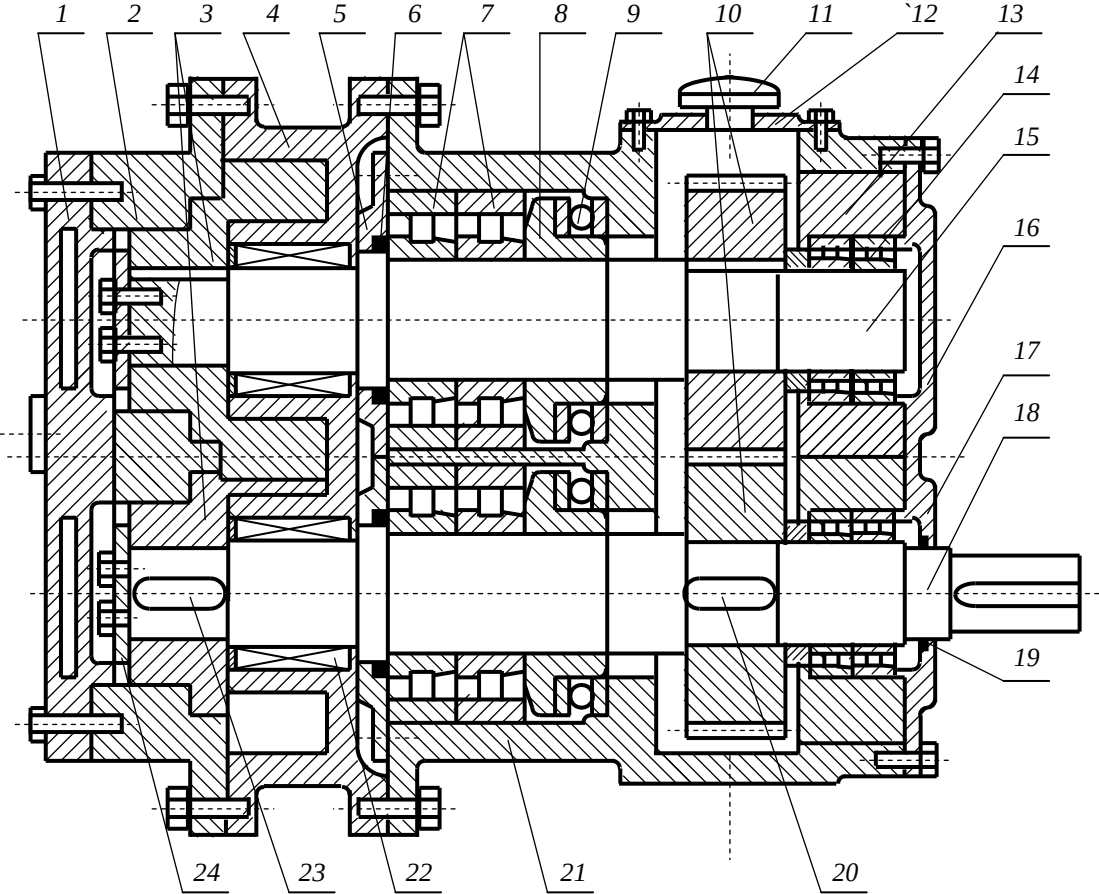
Model	Liquid consumption, Q m³/hour	Head H MPa	Viscosity, Pa s	Temperature, °C	Inlet diameter, mm	motors		Rate speed, r/min	Efficiency η %	Mass, kg					
						Type	N, kW								
AXH 5/0,6.12	5	0,6	0,02 100	150 300	50	100LA4	2,2	327	61	660					
AXH 8/0,6.12	8				65	100LB4	3			730					
AXH 10/0,6.12	10				80			112M4	4		130	64	925		
AXH 12,5/0,6.12	12,5					132M4	7,5			158	930				
AXH 20/0,6.12	20									100	160M4		11	209	1570
AXH 25/0,6.12	25				150			180M4	18,5			148		67	1600
AXH 36/0,6.12	36					200	180L4								22
AXH 50/0,6.12	50									200L4	30		148		
AXH 63/0,6.12	63				225S4			37	158			70		2350	
AXH 80/0,6.12	80					200	30							148	70
AXH 100/0,6.12	100									225S4	37		130		
AXH 125/0,6.12	125				225M4			45	148			73			
AXH 160/0,6.12	160					250M4	55							148	73
AXH 200/0,6.12	200									280S4	75		130		
AXH 250/0,6.12	250				280M4			90	148			73			
AXH 300/0,6.12	300					400	315S4							110	75
AXH 400/0,6.12	400									500	315M4		132		
AXH 500/0,6.12	500				7300										

Model	Liquid consumption, Q m^3 /hour	Head H MPa	Viscosity, Pa s	Temperature, t °C	motors		Rate speed, r/min	Efficiency η %	Mass, kg
					Type	N, kW			
AXH 5/1,0.12	5	1,0	0,02 100	150 300	112M4	4	327	61	700
AXH 8/1,0.12	8				132S4	5,5			750
AXH 10/1,0.12	10						130	64	
AXH 12,5/1,0.12	12,5				132M4	7,5	158		1000
AXH 20/1,0.12	20				160M4	11	209		1680
AXH 25/1,0.12	25				160L4	15	148	67	1700
AXH 36/1,0.12	36				180M4	18,5			1750
AXH 50/1,0.12	50				180L4	22		70	2320
AXH 63/1,0.12	63				200L4	30	158		2450
AXH 80/1,0.12	80				225S4	37	148		2950
AXH 100/1,0.12	100				225M4	45	130	73	3600
AXH 125/1,0.12	125				250M4	55	148		3680
AXH 160/1,0.12	160				280S4	75			5100
AXH 200/1,0.12	200				280M4	90			5350
AXH 250/1,0.12	250				315S4	110			5650
AXH 300/1,0.12	300				315M4	132	158		5850
AXH 400/1,0.12	400				315LA4	160	148	75	6490
AXH 500/1,0.12	500				355MA4	220			8100

Model	Liquid consumption, Q m ³ /hour	Head H MPa	Viscosity, Pa s	Temperature, °C	Motors		Rate speed, r/min	Efficiency η %	Mass, kg
					Type	N, kW			
AXH 5/1,6.12	5	1,6	0,02 100	150 300	132S4	5,5	158	59	900
AXH 8/1,6.12	8				132M4	7,5			1020
AXH 10/1,6.12	10				160M4	11			148
AXH 12,5/1,6.12	12,5						158	62	1050
AXH 20/1,6.12	20				180M4	18,5	238	1800	
AXH 25/1,6.12	25				180L4	22	158	65	1900
AXH 36/1,6.12	36				200L4	30			2100
AXH 50/1,6.12	50				225S4	37		68	3300
AXH 63/1,6.12	63				225M4	45	181		3500
AXH 80/1,6.12	80				250M4	55	158		430
AXH 100/1,6.12	100				280S4	75		71	4900
AXH 125/1,6.12	125				280M4	90	181		5100
AXH 160/1,6.12	160				315S4	110	158		5340
AXH 200/1,6.12	200				315M4	132			5560

Model	Liquid consumption, Q m ³ /hour	Head H MPa	Viscosity, Pa s	Temperature, °C	Motors		Rate speed, r/min	Efficiency η %	Mass, kg
					Type	N. kW			
AXH 5/2,5.12	5	2,5	0,02 100	150 300	132M4	7,5	181	57	1020
AXH 8/2,5.12	8				160L4	15	238		1050
AXH 10/2,5.12	10						181		1250
AXH 12,5/2,5.12	12,5				180M4	18,5	209	59	1300
AXH 20/2,5.12	20				200L4	30	181		2215
AXH 25/2,5.12	25				225S4	37	209	63	2400
AXH 36/2,5.12	36				225M4	45	181		2620
AXH 50/2,5.12	50				280S4	75		66	3700
AXH 80/2,5.12	80				315S4	110			5100
AXH 5/3,2.12	5	3,2	0,02 100	150 300			181	57	1050
AXH 8/3,2.12	8				160L4	15	238		1100
AXH 10/3,2.12	10				180M4	18,5	181		1320
AXH 12,5/3,2.12	12,5				200L4	30	209	59	1560
AXH 20/3,2.12	20				225S4	37	181		2250
AXH 25/3,2.12	25				225M4	45	209	63	2316
AXH 36/3,2.12	36				280S4	75	181		2600
AXH 50/3,2.12	50							66	3770
AXH 80/3,2.12	80				315M4	132			5700
AXH 36/4,0.12	36	4,0	0,02 100	150 300	280S4	75	209	63	3100
AXH 50/4,0.12	50				315S4	110	181	66	3770

Pump structure

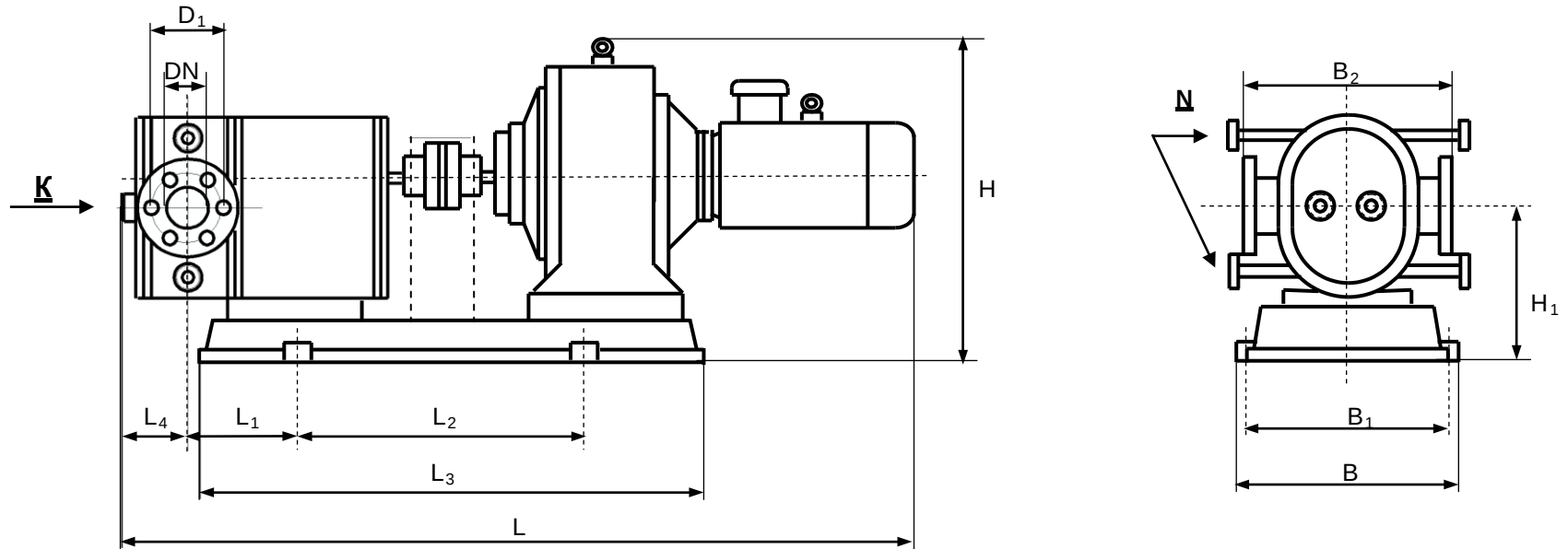


Specification of pump details

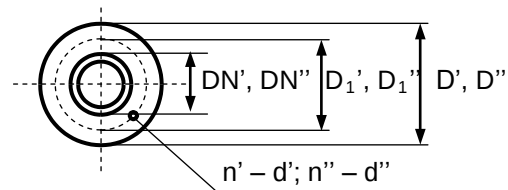
No.	Name	Q-ty
1	Lid with cavity for heating (cooling) liquid	1
2	Lid of rotors chamber	1
3	Top and down rotors	2
4	Casing of rotors chamber	1
5	Pad	2
6	Collar	2
7	Bearings	4
8	Thrust bushing	2
9	Thrust bearings	2
10	Gears	2
11	Plug of oil hole	1
12	Lid of oil chamber	1
13	Casing of back bearings	2
14	Back bearings	4
15	Top shaft	1
16	Lid of top shaft	1
17	Lid of down shaft	1
18	Down shaft	1
19	Collar	2
20	Dowel	2
21	Undercarriage	1
22	Gland packing	
23	Dowel	2
24	Pad	2

Mounting dimensions

Diameters of inlet and outlet fittings for pumped and heating (cooling) environments are the same

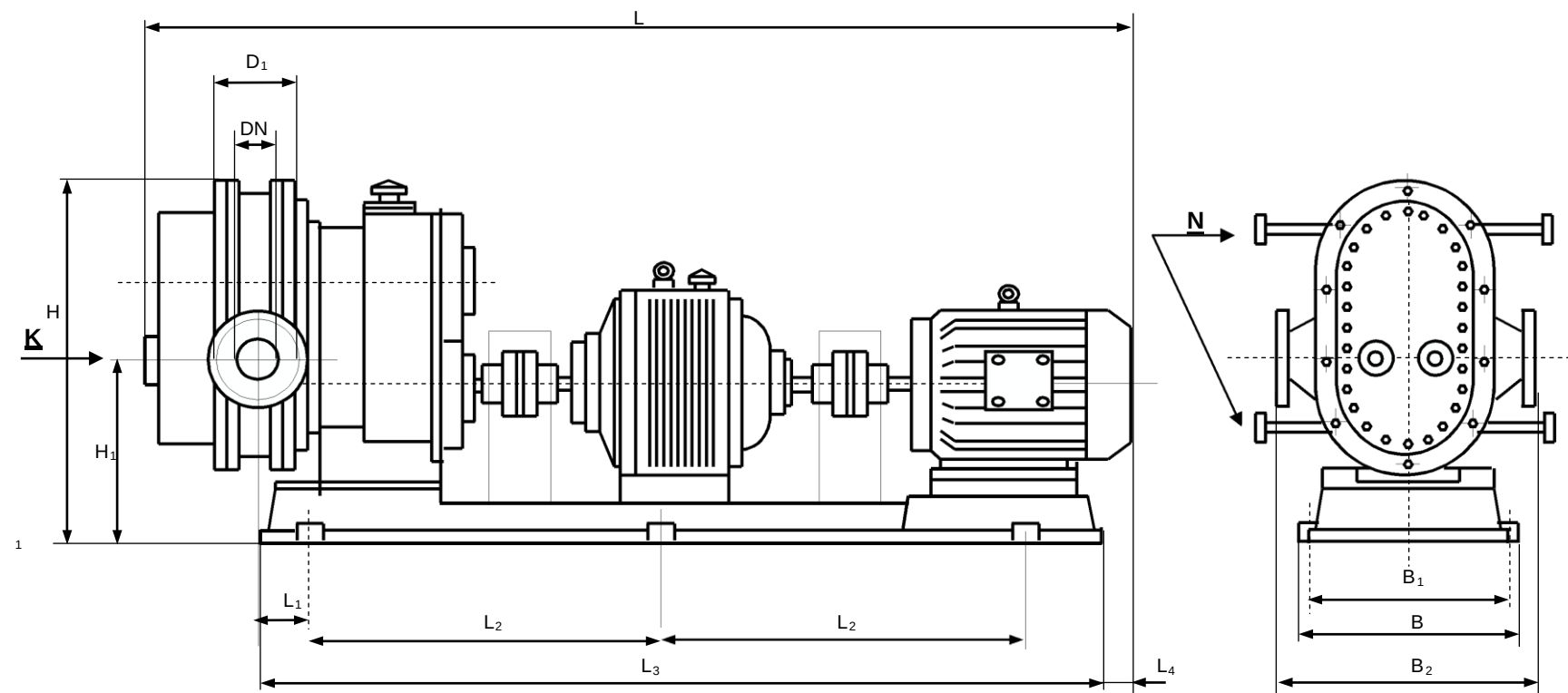


K (DN' , D_1' , D' , $n' - d'$); **N** (DN'' , D_1'' , D'' , $n'' - d''$)

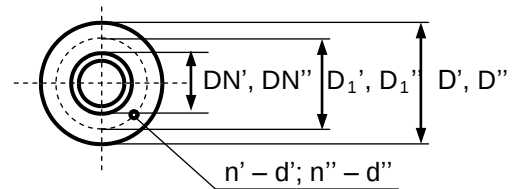


	DN' , DN''	D_1' , D_1''	D' , D''	$n' - d'$; $n'' - d''$
AXH 5/(0,6-1,0).12	20	60	80	4-12
AXH 8/(0,6-1,0).12		75	100	
AXH 8/(1,6-3,2).12				
AXH 10/(0,6-2,5).12	25	60	80	
AXH 12,5/(0,6-1,6).12				
AXH 20/(0,6-1,0).12				
AXH 25/(0,6-1,0).12				
AXH 36/0,6.12		75	100	

	DN	D ₁	n ₁ -d ₁	L	L ₁	L ₂	L ₃	L ₄	B	B ₁	B ₂	H	H ₁	n-d
AXH 5/(0,6-1,0).12	50	125	4-18	1658	190	707	1071	162	540	480	384	589	316	4-20
AXH 5/(1,6-3,2).12				1558	237	568	961	194	560		474	573	398	4-30
AXH 8/(0,6-1,0).12	65	145		1658	190	707	1071	162	540		384	589	316	4-20
AXH 8/(1,6-3,2).12	50	125	8-18	1708	237	568	961	194	560	480	474	573	398	4-30
AXH 10/(0,6-2,5).12	80	160		1748										
AXH 12,5/(0,6-1,6).12				1708										
AXH 20/(0,6-1,0).12														
AXH 25/(0,6-1,0).12	100	190	1970	260	660	1100	210	710	630	552	660			
AXH 36/0,6.12	150	250	8-26	2000			275					225		



K (DN' , D_1' , D' , $n' - d'$); **N** (DN'' , D_1'' , D'' , $n'' - d''$)



	DN', DN''	D ₁ ', D ₁ ''	D', D''	n' – d'; n'' – d''
AXH 5/(1,6-3,2).12	25	60	80	4-12
AXH 8/(1,6-3,2).12				
AXH 10/3,2.12				
AXH 12,5/(2,5-3,2).12				
AXH 20/(1,6-2,5).12				
AXH 20/3,2.12				
AXH 25/(1,6-3,2).12		75	100	4-12
AXH 36/(1,6-2,5).12				
AXH 50/(0,6-3,2).12		95	125	4-14
AXH 63/(0,6-1,6).12				
AXH 80/(0,6-3,2).12		75	100	4-12
AXH 100/(0,6-1,6).12				
AXH 125/(0,6-1,6).12				
AXH 200/(0,6-1,6).12				
AXH 300/(0,6-1,6).12		85	115	4-14
AXH 400/(0,6-1,6).12				
AXH 500/(0,6-1,6).12				

	DN	D ₁	n ₁ -d ₁	L	L ₁	L ₂	L ₃	L ₄	L	B	B ₁	B ₂	H	H ₁	n-d	
AXH 10/3,2.12	80	160	8-18	2183	238	690	1860	69		640	550	474	695	398	6-30	
AXH 12,5/2,5.12				2203				89								755
AXH 12,5/3,2.12				2183				69								
AXH 20/1,6.12				2258				144								
AXH 20/2,5.12				2556				800	2350				-25			
AXH 20/3,2.12	100	190		2287	322	700	2030	20		720	630	755	477			
AXH 25/1,6.12				2390				116		720	630	835				
AXH 25/2,5.12				2581		800	2350	0		850	750	930	572			
AXH 25/3,2.12				2317		700	2030	20		720	630	755	477			
AXH 36/1,0.12	150	250	8-26	2546	337	600	2350	-65		850	750		815	572		
AXH 36/1,6.12				2611				0					930			
AXH 36/2,5.12				2751				140					1015			
AXH 36/3,2.12				2480		715	2200	-26		740	650	600	726			470
AXH 50/0,6.12	2500	-6						855								
AXH 50/1,0.12	2759	348		912	2500	-25		810	730		940		519			
AXH 50/1,6.12	2930					140					726			470		
AXH 50/(2,5-3,2).12	2500					-6					740		650			835
AXH 63/0,6.12	2720	348		912	2500	-65		810	730		855					
AXH 63/1,0.12	2784					0					855					
AXH 63/1,6.12																

	DN	D ₁	n ₁ -d ₁	L	L ₁	L ₂	L ₃	L ₄	L	B	B ₁	B ₂	H	H ₁	n-d	
AXH 80/0,6.12	200	310	12-25	2830	162	880	2900	-91		850	750	850	925	633	6-30	
AXH 80/1,0.12				2870				-51					945			
AXH 80/1,6.12				2960				39					1000			
AXH 80/2,5.12				3540				238					1240			
AXH 80/3,2.12		320	12-30	3620		1000	3280	318		1000	900		1240	703		
AXH 100/0,6.12				2830				-91					925	633		
AXH 100/1,0.12		310	12-25	2895		880	2900	39		850	750		1014			
AXH 100/1,6.12				3035				114					1030			
AXH 125/0,6.12				2870				-51					950			
AXH 125/1,0.12				2960				39					1000			
AXH 125/1,6.12				3085				164					1030			
AXH 160/0,6.12	300	450	16-33	3034	220	1060	2790	-52		1000	900	900	1040	718		
AXH 160/1,0.12				3174				88					1125			
AXH 160/1,6.12				3611				180					1205			
AXH 200/0,6.12		310	12-26	3100			334	2790	13							1095
AXH 200/1,0.12				3224			334		138							1125
AXH 200/1,6.12				3691			366	3290	260						1205	
AXH 250/0,6.12				3416					-80						1045	
AXH 250/1,0.12				3676					180						1205	
AXH 300/0,6.12				3466					-30						1050	
AXH 300/1,0.12				3756					260						1205	
AXH 400/0,6.12				400			525	16-30	3776				416		3360	180
AXH 400/1,0.12	3930	270			1450											
AXH 500/0,6.12	500	650	20-33	4100	300	1150	3480	350		1200	1100	1080	1350	944		
AXH 500/1,0.12				4300			3600	480					1450			