



# RJC Lineshaft Turbine Pump

# Lineshaft Turbine Pump



## Product Introduction

### ■ Background

The lineshaft turbine pump is developed on advanced hydraulic model and brand new design by using multiple of American technologies, comply with ANSI Standard, reached to the new level.

### ■ Product Features

- 1、Advanced hydraulic model and structure design, Ashland process for core, Epoxy coated in blade passage of impeller, reasonable material selection, excellent product performance, long service life.
- 2、High efficiency, higher 2~8%, than Local J、JD、JC Pump, with flat efficiency curve wide area for high efficiency add 10~20% separation range, significant energy saving effort.
- 3、The sand throwing apparatus, a labyrinth structure make the sand can not enter the bearing.
- 4、Impeller and motor shaft is supported copper bearing, shaft runout control within America standard 0.13mm, smooth running, low noise.
- 5、Pump seat has beautiful appearance, convenient repair window, is easy to replace packing.
- 6、Compared with the same domestic flow pump, the working parts of small diameter about 1 inches, renovation can significantly save the user cost and suitable for pumping well.

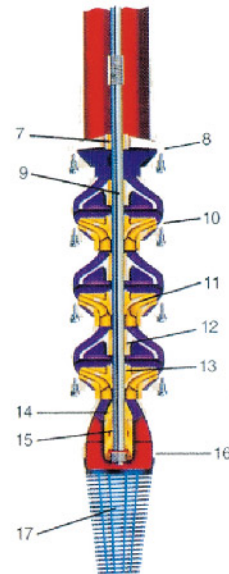
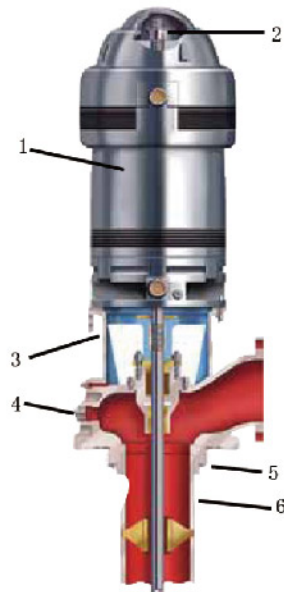
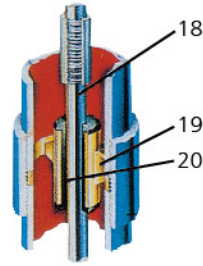
### ■ The Scope Of Application

Water plants, hydropower station (maintenance, leakage pumps), coal power plant (general industry fire pump and so on), agricultural irrigation, fire protection, the municipal industry.  $Q \leq 2400\text{m}^3/\text{h}$ ,  $\leq 300\text{m}$ .

# Lineshaft Turbine Pump

## The internal structure

1. Motor: Turbine pump motor (YLB), or the solid shaft to withstand the axial force of Y series motor.
2. Adjusting Nut: Permits exact impeller adjustment for maximum performance.
3. Discharge Head : Heavy-duty head provided, accessibility to service packing box.
4. Prelubricated Connection.
5. Inlet Flange: Two.
6. Upper pipe: Flange connect is easy to connect inlet .
7. Discharge Bowl Bearing.
8. Discharge Bowl: Flange connection.
9. Impeller Shaft: Oversized high strength polished stainless steel.
10. Intermediate Bowl: Waterways smooth, minimum loss, maximum efficiency.
11. Impeller: Design for maximum efficiency precision balanced for smooth operation.
12. Intermediate Bowl bearing : Bronze or rubber, long life and stable operation.
13. Lock Collets
14. Sand Collar: Protect suction bowl bearing, eliminate possible sand build up.
15. Suction Bowl Bearing: Bronze grease packed for long trouble free life.
16. Suction Bowl: Contoured for smooth flow entrance.
17. Tall pipe/strainer: Cut to desired length for best suction conditions, Strainer provides protection from large solids.
18. Lineshaft
19. Bearing Retainer
20. Lineshaft Bearing: Fluted designed to flush sand quickly.



The water outlet in the pump is above the seat base

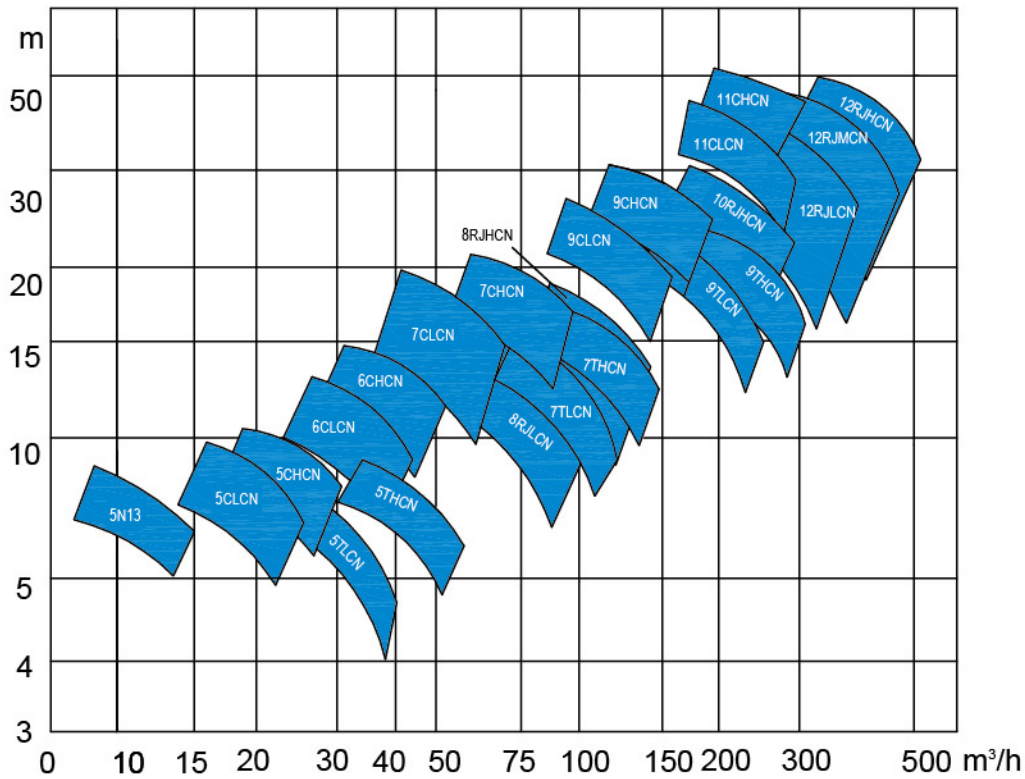
## Materials configuration sheet

Part Name	Standard Package
Pump Seat	HT250/Q235-A
Column Pipe	Q235-A
Holder	HT250
Lineshaft bearing	Rubber
Lineshaft / Motor shaft	45#Steel
Packing bearing	ZCuZn16Si4
Discharge Bowl	HT250
Intermediate Bowl	HT250
Suction Bowl	HT250
Bowl Bearing	Rubber
Suction / Discharge bearing	Tin bronze
Impeller	304
Impeller Shaft	2Cr13
Sand Collar	ZCuZn16Si4
Strainer	Q235-A
Coupling	45#Steel

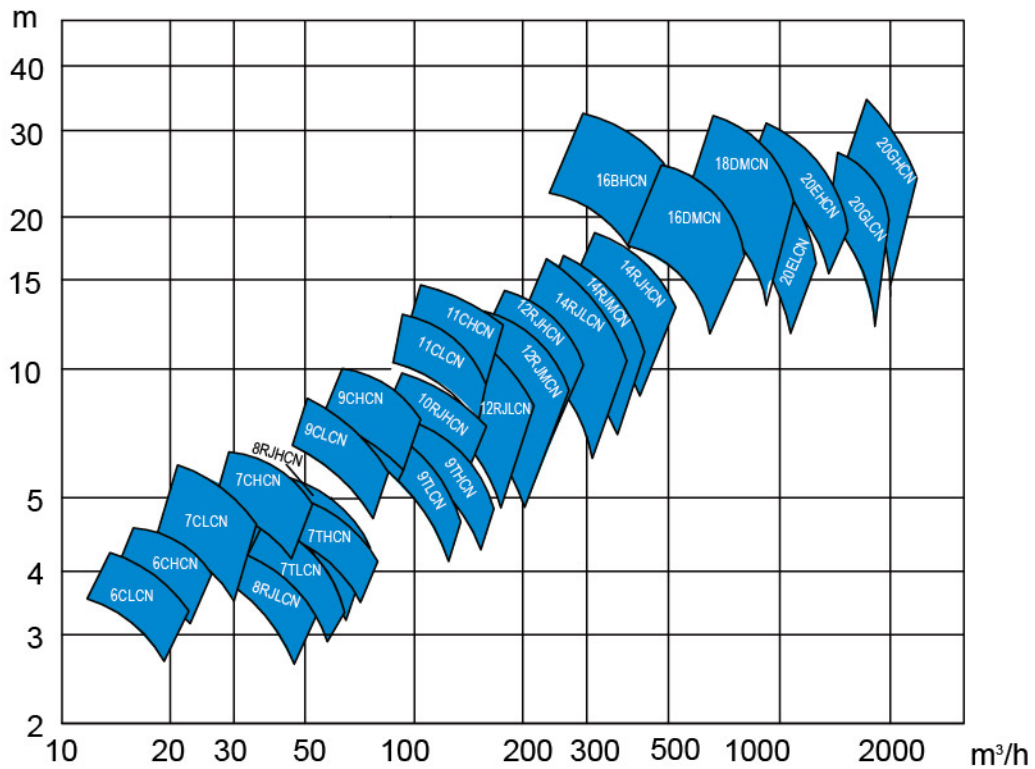
Note: the structure diagram is for reference only, the specific details please contact xylem companies and local offices.

# Performance Curves

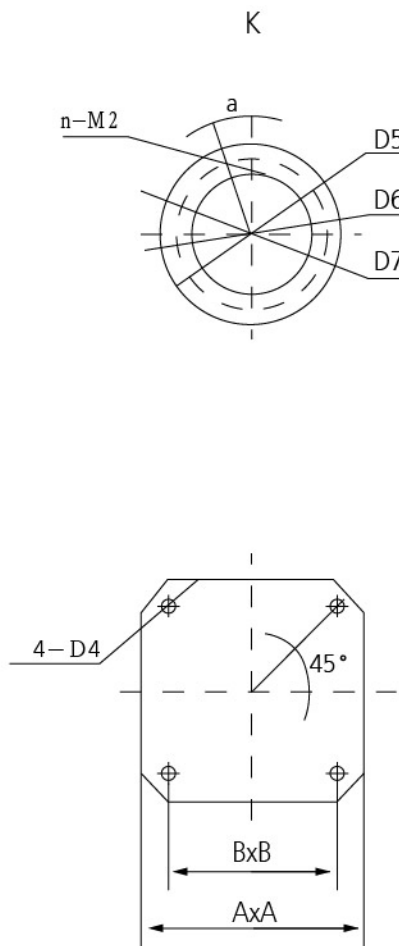
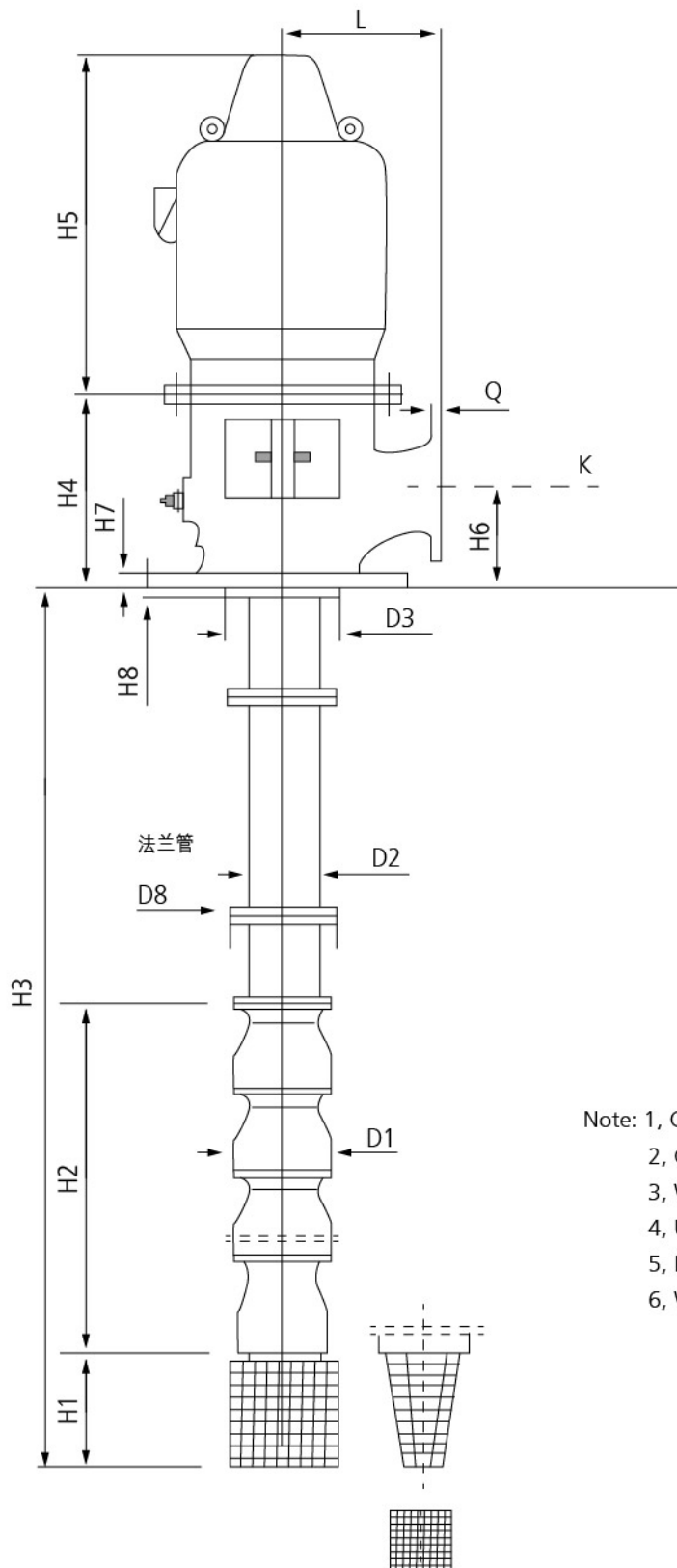
2P/2940RPM



4P/1475RPM



# Dimensions



- Note: 1, Customer can order the stages less than the numbers shown in the book;  
 2, Customer can order the performance out of the book;  
 3, We retain for further improvement to this series pump  
 4, Unit is mm;  
 5, Dimensions H1, H2, H3, H5, for reference only;  
 6, We don't inform the user if we adjust the dimension.



# Hydraulic Performance Table

PumpType	Flow Rate m³/h	Head m			Stage l	Speed r/mi	Power kW	Efficiency %	Weight Kg
11CMCN	111	57	51	42	4	1460	37	80	2670
		71	63	52	5		55		3440
		85	76	62	6		55		3950
	145	99	89	73	7		75		4600
		114	101	83	8		75		5350
		128	114	94	9		90		6100
	181	142	127	104	10		90		6850
		60	54	45	4		37		2700
		75	67	56	5		55		3470
	11CHCN	123	90	81	67		6		1460
106			94	78	7	75	4630		
121			107	89	8	75	5380		
160		136	121	100	9	90	6130		
		201	136	121	100	9	90	6130	
12RJLCN	125	39	35	29	3	1460	22	80	2050
		52	46	38	4		30		2840
		65	58	48	5		37		3610
		78	69	57	6		45		4120
	160	91	81	67	7		55		4770
		104	92	76	8		75		5520
		117	104	86	9		75		6270
		130	115	95	10		75		7020
	200	143	127	105	11		90		7770
		156	138	114	12		90		8500
		27	24	19	2		18.5		1470
		130	40	36	28		3		30
54	48		38	4	37	2840			
67	60		47	5	45	3610			
185	81		72	57	6	55	4120		
	94		84	66	7	75	4770		
235	108	96	76	8	75	5520			
	121	108	85	9	90	6270			
	135	120	95	10	90	7020			
	29	27	22	2	22	1470			
	154	44	41	34	3	37	2050		
59		54	45	4	45	2840			
220		74	68	57	5	55	3610		
		89	81	68	6	75	4130		
264		104	95	79	7	90	4795		
	119	108	91	8	90	5815			
	35	30	23	2	37	2262			
14RJLCN	300	53	45	35	3	55	80	2810	
		70	60	46	4	75		3507	
		88	75	58	5	90		4332	
	370	105	90	69	6	110		5235	
		123	105	81	7	132		6135	
270	19	16	12	1	30	1400			
14RJMCN	370	38	32	23	2	55	80	2262	
		57	48	35	3	75		2810	
		76	64	46	4	90		3507	
	460	95	80	58	5	110		4332	
		114	96	69	6	132		5235	
21	18	14	1	37	1400				
14RJHCN	41	36	29	2	55	80	2262		
	62	54	43	3	90		2930		
	83	72	58	4	110		3507		
	104	90	73	5	132		4452		
16BHCN	290	35	30	25	1	55	80	3000	
		70	60	50	2	110		5470	
		105	90	75	3	150		7900	
	540	140	120	100	4	200		10100	
		175	150	125	5	250		12770	
29	27	18	1	55	2768				
16DMCN	400	58	54	35	2	110	81	5080	
		87	81	53	3	180		7384	
		116	108	70	4	225		9292	
	850	145	135	88	5	280		14940	
		34	30	24	1	110		4782	
18DMCN	600	68	60	48	2	225	82	7618	
		102	90	72	3	315		12355	
		136	120	96	4	400		14865	
	1100	170	150	120	5	520*		17980	
		32	26.5	20	1	110		3772	
20ELCN	1000	64	53	40	2	225	83	7538	
		96	79.5	60	3	350		11880	
		128	106	80	4	450		15020	
	1750	800	36	30	19	1		150	3932
1250		72	60	37	2	280	9875		
1750		108	90	56	3	400	12400		
144	120	74	4	560*	15605				

PumpType	Flow Rate m³/h	Head m			Stage l	Speed r/mi	Power kW	Efficiency %	Weight Kg
20GLCN	1250	31.5	27.0	20.5	1	1475	185	80	5500
		63.0	54.0	41.0	2		350		10600
	1900								
20GHCN	1500	36	31	23	1	1475	250	80	6350
		72	62	46	2		500*		12430
	2300								

Note: \* with 6KV or 10KV high voltage motor.

Special instructions:

As technology continues to progress, product specifications may change at any time, without notice.

# Installation Dimensions

Model	total amount of string mm	Speed r/min	Power KW	A	B	D1	D2	D3	D4	D5	D6	D7	D8	H1	H2					
5N13	12	2940	5.5-7.5	355	251.4	150	89	190	19	102	186	228	147	306	460 + (m-1)*110					
			11-15	508	382			280		155	235	280								
5CLCN	6	2940	5.5-7.5	355	251.4	150	89	190	19	102	186	228	147	200	245 + (m-1)*118					
			11-15	508	382			280		155	235	280								
			18.5-22																	
5CHCN	6	2940	5.5-7.5	355	251.4	150	89	190	19	102	186	228	147	200	245 + (m-1)*118					
			11-15	508	382			280		155	235	280								
			18.5-22																	
5TLCN	6	2940	5.5-7.5	355	251.4	150	89	190	19	102	186	228	147	200	250 + (m-1)*123					
			11-15	508	382			280		155	235	280								
			18.5-22																	
5THCN	6	2940	5.5-7.5	355	251.4	150	89	190	19	102	186	228	147	200	250 + (m-1)*123					
			11-15	508	382			280		155	235	280								
			18.5-22																	
6CLCN	8	2940	11-15	508	382	150	114	280	19	155	235	280	190	200	257.3 + (m-1)*130.3					
			18.5-22																	
			30																	
6CHCN	8	2940	11-15	508	382	150	114	280	19	155	235	280	190	200	257.3 + (m-1)*130.3					
			18.5-22																	
			30																	
7CLCN	9	2940	11-15	508	382	181	159	280	19	155	235	280	245	365	311.5 + (m-1)*162					
			18.5-22																	
			30-37																	
7CHCN	9	2940	11-15	508	382	181	159	280	19	155	235	280	245	365	311.5 + (m-1)*162					
			18.5-22																	
			30-37																	
7TLCN	9	2940	11-15	508	382	181	159	280	19	155	235	280	245	365	326.8 + (m-1)*180					
			18.5-22																	
			30-37																	
7THCN	9	2940	11-15	508	382	181	159	280	19	155	235	280	245	365	326.8 + (m-1)*180					
			18.5-22																	
			30-37																	
8RJLCN	10	2940	11-15	508	382	190.5	159	280	19	155	235	280	245	426	324 + (m-1)*165					
			18.5-22																	
			30-37																	
8RJHCN	10	2940	11-15	508	382	190.5	159	280	19	155	235	280	245	426	324 + (m-1)*165					
			18.5-22																	
			30-37																	
9CLCN	10	1475	11-15	508	382	228	159	280	19	155	235	280	245	360	438.2 + (m-1)*203.2					
			18.5-22												292					
			30-37																	



H3	H4	H5	H6	H7	H8	L	M1	M2	n	Q	$\alpha$	Size				Water filter maximum diameter
												A1	A2	A3	A4	
Adjust according to the well depth	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	
	394	807	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	-
	394	807 850	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	-
	394	807 850	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	-
	394	807 850	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	-
	394	807 850	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	343	573	127	14	16	228	M16*300	M12	6	19.3	30°	260	610	710	200	-
	394	807 850	171.5	25.4	20	305		M16	8	25	22.5°	380	760	860	260	
	394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-
	454	955														
	394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-
	454	955														
	394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-
	454	955														
	394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-
	454	955														
394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
454	955															
394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
454	955															
394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
454	955															
394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
454	955															
394	807 850	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
454	955															

# Installation Dimensions

Model	total amount of string mm	Speed r/min	Power KW	A	B	D1	D2	D3	D4	D5	D6	D7	D8	H1	H2
<b>9CHCN</b>	<b>10</b>	<b>1475</b>	11-15	508	382	228	159	280	<b>19</b>	155	235	280	<b>245</b>	<b>360</b>	438.2 + (m-1)*203.2
			18.5-22					292							
			30-45												
<b>9TLCN</b>	<b>12</b>	<b>1475</b>	11-15	508	382	228	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>360</b>	463 + (m-1)*228
			18.5-22					292							
			30-37												
<b>9THCN</b>	<b>12</b>	<b>1475</b>	11-15	508	382	228	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>360</b>	463 + (m-1)*228
			18.5-22					292							
			30-45												
<b>10RJHCN</b>	<b>10</b>	<b>1475</b>	11-15	508	382	242	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>426</b>	460.5 + (m-1)*213.4
			18.5-22					292							
			30-45												
			55					320							
<b>11CLCN</b>	<b>12</b>	<b>1475</b>	11-15	508	382	280	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>405</b>	508.3 + (m-1)*251
			18.5-22					292							
			30-45												
			55-75					320							
<b>11CMCN</b>	<b>12</b>	<b>1475</b>	11-15	508	382	280	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>405</b>	508.3 + (m-1)*251
			18.5-22					292							
			30-45												
			55-90					320							
<b>11CHCN</b>	<b>12</b>	<b>1475</b>	11-15	508	382	280	194	280	<b>19</b>	155	235	280	<b>280</b>	<b>405</b>	508.3 + (m-1)*251
			18.5-22					292							
			30-45												
			55-90					320							
<b>12RJLCN</b>	<b>14</b>	<b>1475</b>	18.5-22	508	382	295	194	292	<b>19</b>	155	235	280	<b>280</b>	<b>540</b>	508 + (m-1)*244
			30-45					320							
			55-90												
<b>12RJMCN</b>	<b>14</b>	<b>1475</b>	18.5-22	508	382	295	194	292	<b>19</b>	155	235	280	<b>280</b>	<b>540</b>	508 + (m-1)*244
			30-45					320							
			55-90												
<b>12RJHCN</b>	<b>12</b>	<b>1475</b>	18.5-22	508	382	295	194	292	<b>19</b>	155	235	280	<b>280</b>	<b>540</b>	508 + (m-1)*244
			30-45					320							
			55-90												
<b>14RJLCN</b>	<b>12</b>	<b>1475</b>	30-45	560	408	346	219	405	<b>19</b>	257	350	395	<b>310</b>	<b>479</b>	556 + (m-1)*292.1
			55-90												
			110-132												

H3	H4	H5	H6	H7	H8	L	M1	M2	n	Q	$\alpha$	Size				Water filter maximum diameter	
												A1	A2	A3	A4		
Adjust according to the well depth	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	565	1175	190.5	38		330											
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	565	1175	190.5	38		330											
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	565	1175	190.5	38		330											
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
	565	1175	190.5	38		330											
	394	807	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-	
	454	850 955															
565	1175	190.5	38		330												
454	850 955	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-		
565	1175																
454	850 955	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-		
565	1175																
454	850 955	171.5	25.4	20	305	M16*300	M16	8	25	22.5°	380	760	860	260	-		
565	1175																
470	955 1175 1225	245	40	25.4	355	M16*300	M20	12	28	15°	500	1000	1140	260	-		

# Installation Dimensions

Model	total amount of string mm	Speed r/min	Power KW	A	B	D1	D2	D3	D4	D5	D6	D7	D8	H1	H2
<b>14RJMCN</b>	<b>12</b>	<b>1475</b>	30 -45	560	408	<b>346</b>	<b>219</b>	<b>405</b>	19	257	350	395	<b>310</b>	<b>479</b>	556 + (m-1)*292.1
			55 -90												
			110 -132												
<b>14RJHCN</b>	<b>12</b>	<b>1475</b>	30 -45	560	408	<b>346</b>	<b>219</b>	<b>405</b>	19	257	350	395	<b>310</b>	<b>479</b>	556 + (m-1)*292.1
			55 -90												
			110 -132												
<b>16BHCH</b>	<b>22</b>	<b>1475</b>	30 -45	560	408	<b>430</b>	<b>325</b>	<b>410</b>	19	257	350	395	<b>410</b>	<b>427</b>	615.6 + (m-1)*355.6
			55 -90												
			110 -150	800	650				28	250	355	405			
			200 -250												
<b>16DMCN</b>	<b>20</b>	<b>1475</b>	30 -45	560	408	<b>430</b>	<b>325</b>	<b>410</b>	19	257	350	395	<b>410</b>	<b>427</b>	661 + (m-1)*387.5
			55 -90												
			110 -150												
			185	800	650				28	250	355	405			
			225												
			280												
<b>18DMCN</b>	<b>20</b>	<b>1475</b>	110	1050	940	<b>520</b>	<b>402</b>	<b>495</b>	46	400	515	565	<b>495</b>	<b>500</b>	731 + (m-1)*426
			225												
			315												
			400												
			450												
<b>20ELCN</b>	<b>20</b>	<b>1475</b>	110	1050	940	<b>600</b>	<b>402</b>	<b>495</b>	46	400	515	565	<b>495</b>	<b>500</b>	774.7 + (m-1)*457.2
			225												
			315								515	565			
			450												
<b>20EHCN</b>	<b>17</b>	<b>1475</b>	150	1050	940	<b>600</b>	<b>402</b>	<b>495</b>	46	400	515	565	<b>495</b>	<b>500</b>	774.7 + (m-1)*457.2
			280												
			400								515	565			
			450												
<b>20GLCN</b>	<b>22</b>	<b>1475</b>	185	1050	940	<b>670</b>	<b>480</b>	<b>615</b>	46	457	550	595	<b>615</b>	<b>500</b>	858 + (m-1)*546
			355								565	615			
<b>20GHCH</b>	<b>22</b>	<b>1475</b>	260	1050	940	<b>670</b>	<b>480</b>	<b>615</b>	46	457	565	615	<b>615</b>	<b>500</b>	858 + (m-1)*546
			500*								585	640			

Note: the power with "\*" motor adopts high voltage (6KV or 10KV) motor."

M is stage.

Constantly updated products, relates to the size change will not be issued to the customer change notice details please consult factory.

H3	H4	H5	H6	H7	H8	L	M1	M2	n	Q	$\alpha$	Size				Water filter maximum diameter
												A1	A2	A3	A4	
Adjust according to the well depth	470	955	245	40	25.4	355	M16*300	M20	12	28	15°	500	1000	1140	260	-
		1175														
		1225														
	470	955	245	40	25.4	355	M16*300	M20	12	28	15°	500	1000	1140	260	-
		1175														
		1225														
	470	955	245	40	28	355	M16*300	M20	12	28	15°					460
		1175														
	1225															
	800	1412				500	M24*400	M24								
	470	955	245	40	28	355	M16*300	M20	12	28	15°					460
		1175														
		1225														
	1110	1412				500	M24*400	M24								
	1110	1600	395			610	M42*630	M27	20	42	9°					
	1100	1200	395	40	26	610	M42*630	M20	16	28	11.25°					535
		1412														
	1110	1600														
	1110	1200	395	40	26	610	M42*630	M20	16	28	11.25°					600
		1412														
1110	1600															
1110	1200	395	40	26	610	M42*630	M20	16	28	11.25°					600	
	1412															
1110	1600															
1110	1200	395	40	30	610	M42*630	M20	16	28	11.25°					640	
	1400															
2390																
1110	1455	395	40	30	610	M42*630	M24	20	30	9°					640	
	1400															
2390																

Xylem (XYL) is a leading global water technology provider, enabling customers to transport, treat, test and efficiently use water in public utility, residential and commercial building services, industrial and agricultural settings. The company does business in more than 150 countries through a number of market-leading product brands, and its people bring broad applications expertise with a strong focus on finding local solutions to the world's most challenging water and wastewater problems. Xylem is headquartered in Rye Brook, N.Y., with 2013 revenues of \$3.8 billion and more than 12,500 employees worldwide. Xylem was named to the Dow Jones Sustainability World Index for the last two years for advancing sustainable business practices and solutions worldwide.

The name Xylem is derived from classical Greek and is the tissue that transports water in plants, highlighting the engineering efficiency of our water-centric business by linking it with the best water transportation of all -- that which occurs in nature. For more information, please visit us at [www.xylem.com](http://www.xylem.com)

