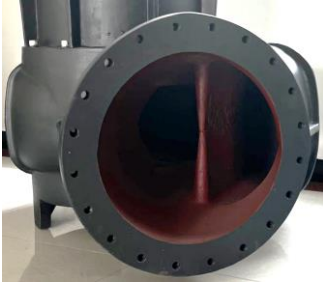




双涡壳潜水排污泵  
Double volute submersible sewage pump



## Summary



The pump body of the double volute pump is equipped with a spiral shaped pressure chamber. The pressure chamber of the pump is connected to a spiral flow channel, with a protruding tongue on the upper side of the channel.

A partition is set in the middle of the channel along the axial direction of the channel, and the partition extends in a spiral shape towards the pressure chamber.

The pressure chamber of the pump is equipped with blades, a connecting line between the lower end of the partition and the rotation center of the blades, and a connecting line between the partition and the rotation center of the blades, Their included angle is 160-180 °.

A first cavity is formed between the partition and the blades, and a second cavity is formed between the blades and the inner wall of the pump casing. The first cavity and the second cavity are symmetrical.

**Efficiency improvement by~3%.**

**The radial force acting on the shaft and impeller is balanced, the occurrence of turbulent flow, eddy current and backflow phenomenon in the pump is greatly reduced, and the flow performance is improved.**

**The double volute design balances radial thrust and runs extremely smoothly, extending the service life of bearings and mechanical seal of pump by over 8 years.**

## Features

Large channel anti-clogging impeller, which can effectively pass solid particles with a diameter of **25-125 mm**.

The motor is equipped with a water-jacketed by circulating water cooling system, which can ensure the reliable operation of pump in in the **non-submerged (dry)** state (above 15KW)

The unique motor **anti-condensation** device can automatically dehumidify the motor to ensure that the motor insulation is guaranteed to be above 300 Ω in a high temperature environment, so that the motor can run normally and reliably.

## Conditions of usage

The highest temperature of the media shall not exceed 60°C

The pH value of the media:5~9

The density of the media shall not exceed 1250kg/m<sup>3</sup>

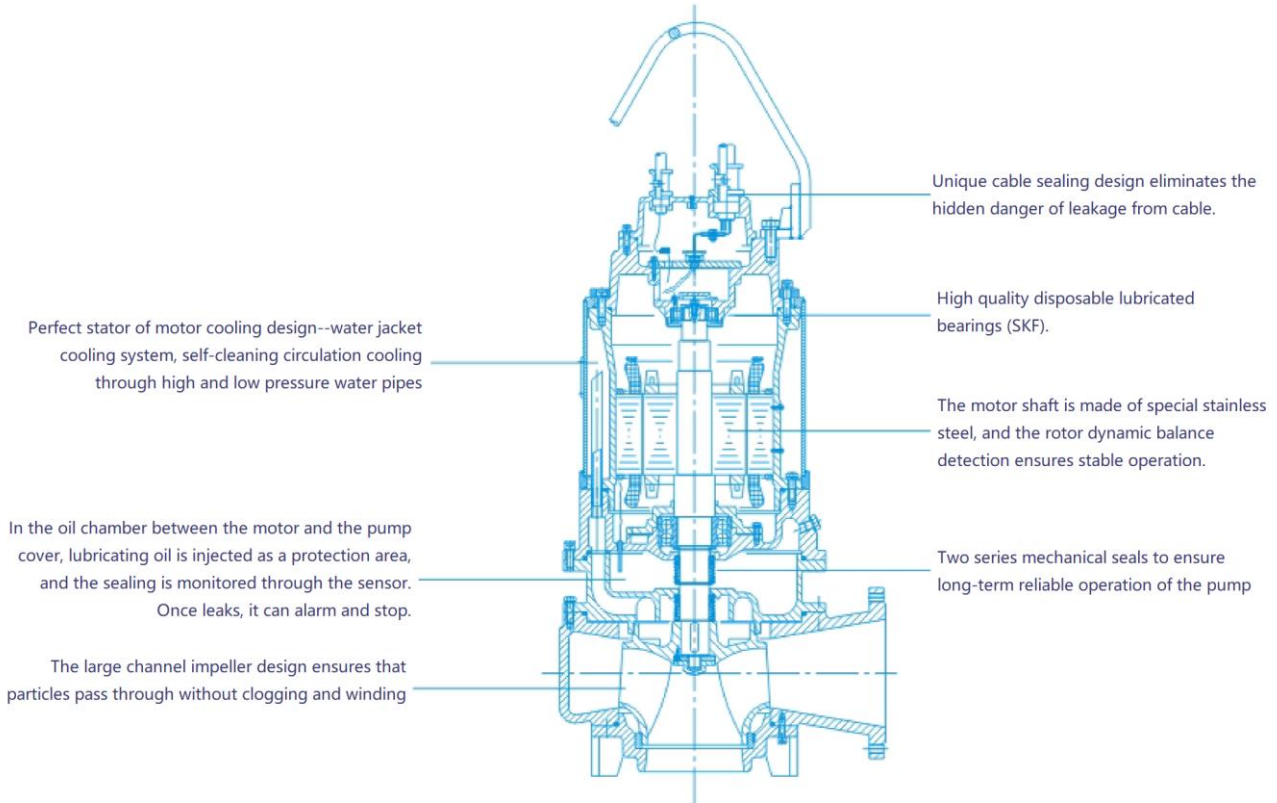
The depth of submersion shall not exceed 20m.

The electric power supply: 380V50Hz

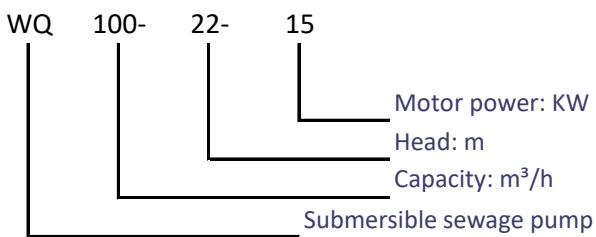
The motor: F/H class insulation and in accordance withIP68, continuous operating in 24hr.



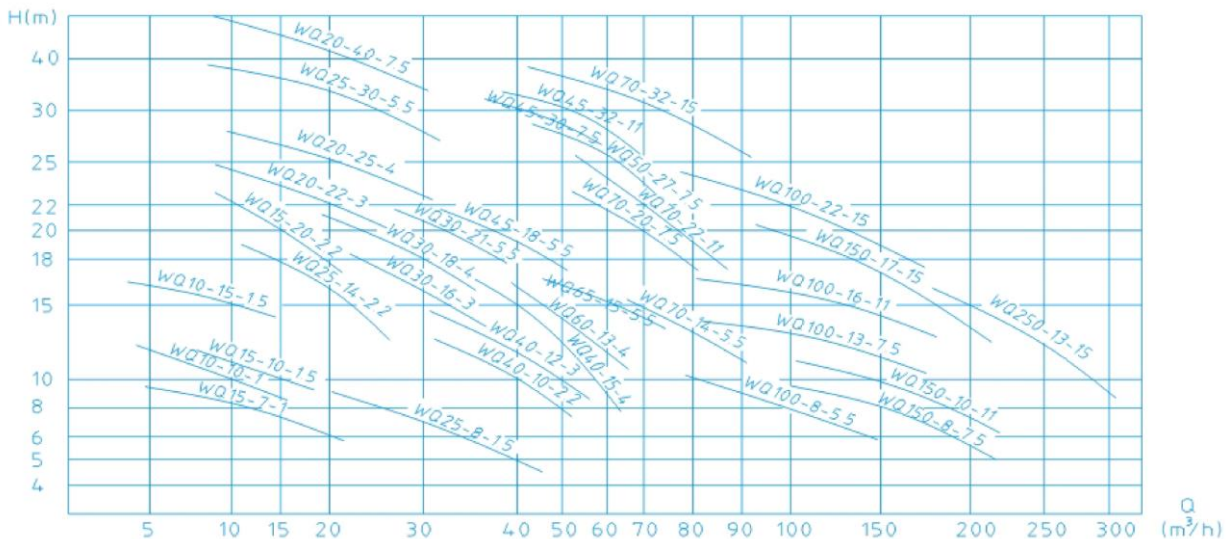
## Construction

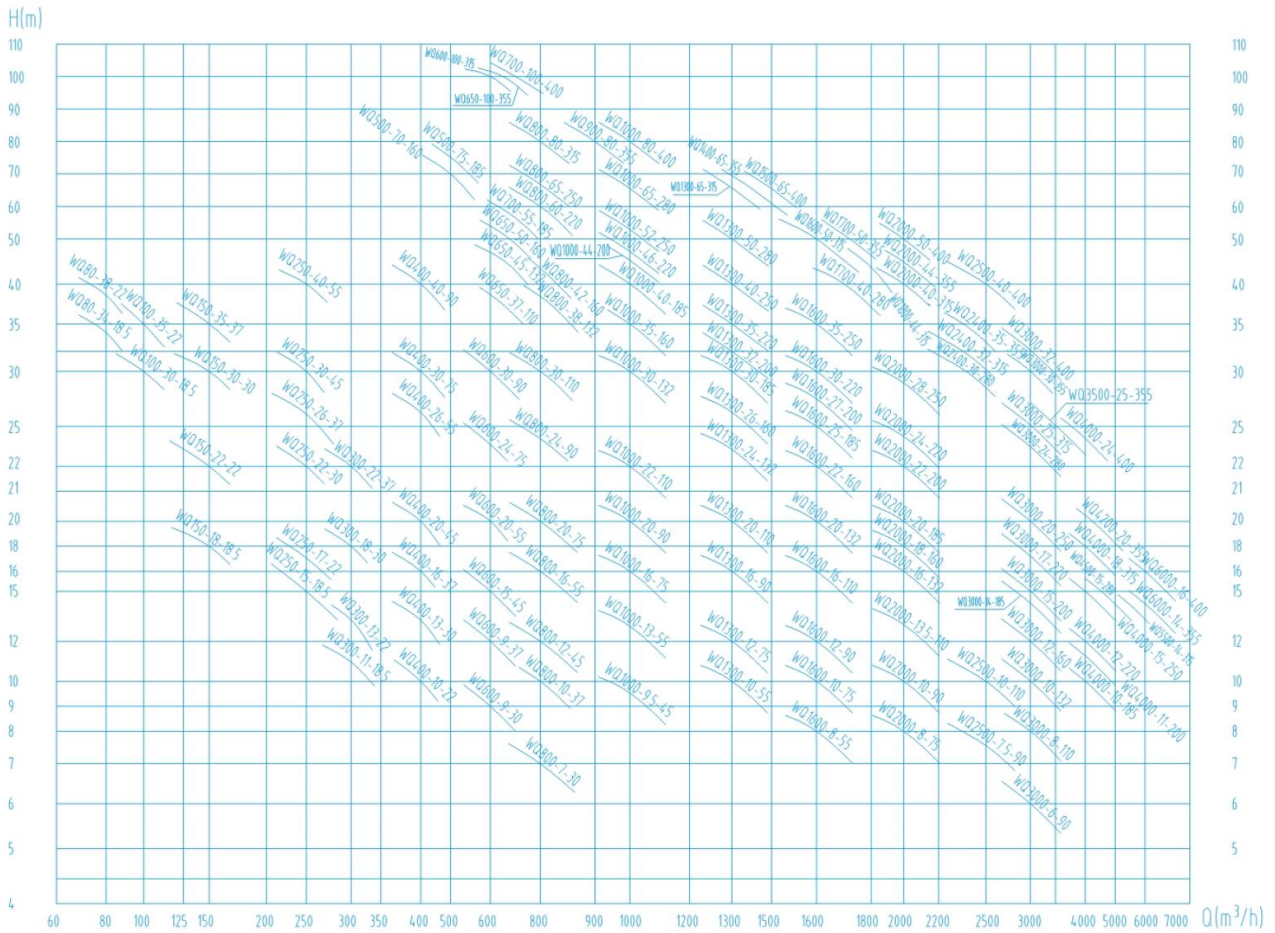


## Model directions



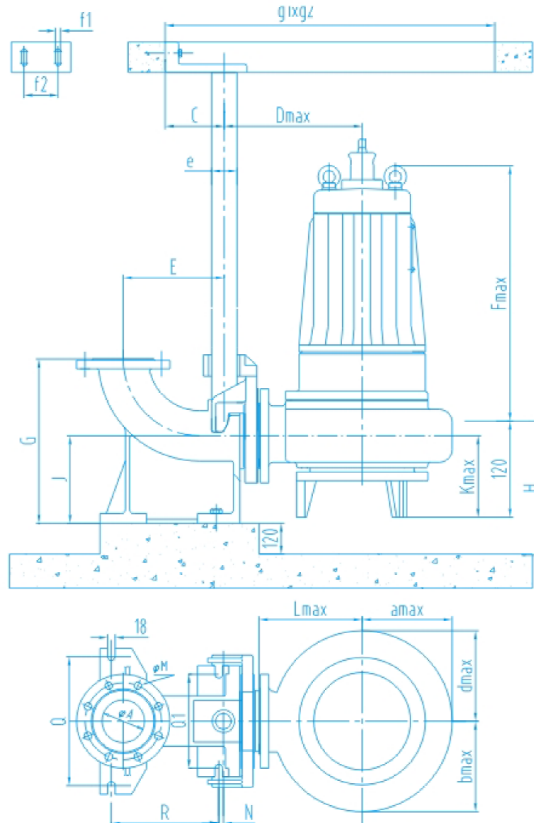
## Performance chart





### Installation System

	50GAK	65GAK	80GAK	100GAK	150GAK
A	50	65	80	100	150
C	85	105	105	105	105
Dmax	185	217	220	326	336
E	138	235	235	238	310
Fmax	4.38	4.35	4.38	7.05	7.60
G	24.8	300	300	385	4.35
H	200	200	200	250	250
J	150	150	150	205	235
Lmax	125	150	154	240	248
M	8-φ18	8-φ18	8-φ18	8-φ18	8-φ18
N	19	26	26	26	35
Q/Q1	220/180	300/220	300/250	300/220	330/250
g1/g2	500/500	500/500	500/500	700/500	700/500
R	138	255	255	250	310
amax	107	126	126	155	205
bmax	107	126	126	200	230
dmax	107	126	126	155	180
Kmax	76	86	100	185	185
f/f1	12/160	12/210	12/210	12/210	12/210
e	φ4.8	φ4.8	φ4.8	φ60	φ60



## Technical parameter

Without water-cooled jackets

Pump model	Capacity m <sup>3</sup> /h	Head m	Speed r/min	Eff. η %	Motor power KW	Dia. mm	Auto-setter model	Pass particles φ mm	Weight kg
WQ 10-10-1	10	10	2900	44	1	50	50GAK	25	29
WQ 15-7-1	15	7	2900	47		50	50GAK	25	29
WQ 10-15-1.5	10	15	2900	44	1.5	50	50GAK	25	32
WQ 15-10-1.5	15	10	2900	47		50	50GAK	25	32
WQ 25-8-1.5	25	8	2900	51		50	50GAK	25	32
WQ 15-20-2.2	15	20	2900	47	2.2	65	65GAK	40	45
WQ 25-14-2.2	25	14	2900	51		65	65GAK	40	45
WQ 40-10-2.2	40	10	2900	54		65	65GAK	40	45
WQ 20-22-3	20	22	2900	49	3	65	65GAK	40	45
WQ 30-16-3	30	16	2900	53		65	65GAK	40	45
WQ 40-12-3	40	12	2900	54		65	65GAK	40	45
WQ 20-25-4	20	25	2900	49	4	65	65GAK	40	75
WQ 30-18-4	30	18	2900	52		65	65GAK	40	75
WQ 40-15-4	40	15	2900	54		65	65GAK	40	75
WQ 60-13-4	60	13	2900	57		65	65GAK	40	75
WQ 160-4-4	160	4	980	58		150	150GAK	50	170
WQ 25-30-5.5	25	30	1470	52	5.5	100	M132 100GAK	50	175
WQ30-21-5.5	30	21	1470	52.4		100	M132 100GAK	50	175
WQ45-18-5.5	45	18	1470	55		100	M112g 100GA	50	175
WQ65-15-5.5	65	15	1470	55		100	M112g 100GA	50	175
WQ70-15-7.5	70	15	1470	57.9		100	M112g 100GA	50	175
WQ100-8-5.5	100	8	1470	59.8		150	150GAK	50	175
WQ-20-40-7.5	20	40	2900	51.5	7.5	80	80GAK	40	200
WQ30-25-7.5	30	25	1470	52.5		100	M132 100GAK	50	200
WQ45-25-7.5	45	25	1470	55		100	M132 100GAK	50	200
WQ70-15-7.5	70	15	1470	57.9		100	M112g 100GA	50	200
WQ100-13-7.5	100	13	1470	59.8		100	M112g 100GA	70	200
WQ150-8-7.5	150	8	1470	62		150	150GAK	70	200
WQ250-9-11	250	9	1470	63	11	200	200GAK	70	280
WQ350-5-11	350	5	1470	65		200	200GAK	70	280
WQ70-32-15	70	32	1470	57.9	15	100	100GAK	70	280
WQ100-22-15	100	22	1470	59.8		100	100GAK	70	280
WQ150-17-15	150	17	1470	62		150	150GAK	70	280
WQ250-13-15	250	13	1470	65		150	150GAK	70	280
WQ300-8-15	300	8	1470	70		200	200GAK	70	280
WQ400-6-15	400	6	1470	70		200	200GAK	70	280
WQ550-6-15	550	6	1470	75		250	250GAK	70	280

\* These models do not with water-cooled jackets.

## Technical parameter

With water-cooled jackets

Pump model	Capacity m <sup>3</sup> /h	Head m	Speed r/min	Eff. η %	Motor power KW	Dia. mm	Auto-setter model	Pass particles φ mm	Weight kg
WQ80-34-18.5	80	34	1470	63.5	18.5	100	100GA	50	400
WQ100-30-18.5	100	30	1470	64.8		100	100GA	50	400
WQ150-18-18.5	150	18	1470	67		150	150GA	70	400
WQ250-15-18.5	250	15	1470	67		150	150GA	70	400
WQ300-11-18.5	300	11	1470	70.5		150	150GA	70	400
WQ400-9-18.5	400	9	1470	72		200	200GA	100	450
WQ80-38-22	80	38	1470	63.5	22	100	100GA	50	450
WQ100-35-22	100	35	1470	64.8		100	100GA	50	450
WQ150-22-22	150	22	1470	67		150	150GA	70	450
WQ250-17-22	250	17	1470	70		150	150GA	70	450
WQ300-13-22	300	13	1470	70.5		150	150GA	70	450
WQ400-10-22	400	10	1470	72		200	200GA	100	450
WQ600-7-22	600	7	1470	75	250	250GA	100	450	
WQ150-30-30	150	30	980	67	30	150	150GA	70	750
WQ250-22-30	250	22	980	70		150	150GA	70	750
WQ300-18-30	300	18	980	70.5		150	150GA	70	750
WQ400-13-30	400	13	980	72		250	250GA	100	750
WQ600-9-30	600	9	980	74		250	250GA	100	750
WQ800-7-30	800	7	980	75		250	250GA	100	750
WQ150-35-37	150	35	1470	67	37	150	150GA	70	750
WQ250-26-37	250	26	1470	70		150	150GA	70	750
WQ300-22-37	300	22	1470	70.5		150	150GA	70	750
WQ400-16-37	400	16	1470	70.5		150	150GA	70	750
WQ600-12-37	600	12	1470	74		250	250GA	100	750
WQ800-10-37	800	10	1470	75		250	250GA	100	750
WQ250-30-45	250	30	1470	70	45	150	150GA	70	750
WQ300-27-45	300	27	1470	70.5		150	150GA	70	750
WQ400-20-45	400	20	1470	72		150	150GA	70	750
WQ600-15-45	600	15	1470	74		250	250GA	100	750
WQ800-12-45	800	12	1470	75		250	250GA	100	750
WQ1100-9-45	1100	9	1470	76		250	300GAK	125	800
WQ600-20-55	600	20	980	74	55	300	300GA	100	1500
WQ800-16-55	800	16	980	75		300	300GA	100	1500
WQ1000-13-56	1000	13	980	76		300	300GA	100	1500
WQ1200-11-65	1200	11	980	77.5	65	350	350GA	125	1400
WQ1300-11-65	1300	11	980	77.5		350	350GA	125	1400
WQ1450-11-75	1450	11	1470	78	75	350	350GA	125	1400
WQ1600-10-75	1600	10	1470	78		350	350GA	125	1400

## Technical parameter

With water-cooled jackets

WQ400-30-75	400	30	1470	63.5	75	300	300GA	70	1550
WQ600-24-75	600	24	740	74		300	300GA	125	1550
WQ800—20-75	800	20	740	75		300	300GA	125	1550
WQ1000-16-75	1000	16	740	76		300	300GA	125	1550
WQ1300-12-75	1300	12	1470	77.5		400	400GA	125	2300
WQ1600-10-75	1600	10	1470	78		400	400GA	125	2300
WQ2000-8-75	2000	8	1470	79		400	400GA	125	2300
WQ400-40-90	400	40	1470	63.5	90	300	300GA	70	1600
WQ600-30-90	600	30	1470	70		300	300GA	70	1600
WQ800-24-90	800	24	1470	75		300	300GA	125	1600
WQ1000-20-90	1000	20	1470	76		300	300GA	125	1600
WQ1300-16-90	1300	16	1300	77.5		300	300GA	125	1600
WQ1600-12-90	1600	12	1600	78		400	400GA	125	2300
WQ2000-10-90	2000	10	2000	79		400	400GA	125	2300
WQ2500-7.5-90	2500	7.5	2500	80	110	500	500GA	125	2500
WQ3000-6-90	3000	6	3000	81		500	500GA	125	2500
WQ650-37-110	650	37	1470	74.3		250	250GA	100	2100
WQ800-30-110	800	30	1470	75		250	250GA	100	2100
WQ1000-22-110	1000	22	1470	76		250	250GA	100	2100
wQ1300-20-110	1300	20	980	77.5		400	400GA	125	2300
wQ1600-16-110	1600	16	980	78		400	400GA	125	2300
WQ2000-13.5-110	2000	13.5	980	79	132	400	400GA	125	2300
WQ2500-10-110	2500	10	740	80		500	500GA	125	2500
WQ3000-8-110	3000	8	740	81		500	500GA	125	2500
WQ4000-6-110	4000	6	740	81.5		500	500GA	125	2500
WQ650-45-132	650	45	1470	75		250	250GA	100	2100
WQ800-38-132	800	38	1470	76		250	250GA	100	2100
wQ1000-30-132	1000	30	1470	77.5		250	250GA	100	2100
WQ1300-24-132	1300	24	980	78	160	400	400GA	125	2300
wQ1600-20-132	1600	20	980	79		400	400GA	125	2300
wQ2000-16-132	2000	16	980	80		400	400GA	125	2300
WQ2500-13-132	2500	13	740	81		500	500GA	125	2500
wQ3000-10-132	3000	10	740	74		500	500GA	125	3450
WQ650-50-160	650	50	1470	74.3		250	250GA	100	2100
WQ800-42-160	800	42	1470	75		250	250GA	100	2100
WQ1000-35-160	1000	35	1470	76	160	250	250GA	100	2100
WQ1300-26-160	1300	26	980	77.5		400	400GA	125	3550
WQ1600-22-160	1600	22	980	77.5		400	400GA	125	3550
WQ2000-18-160	2000	18	980	79		400	400GA	125	3550
WQ2500-14.5-160	2500	14.5	740	80		500	500GA	125	3800

## Technical parameter

With water-cooled jackets

WQ3000-13-160	3000	13	740	81	160	500	500GA	125	3800	
WQ500-70-185	500	70	1470	70	185	300	300GA	60	3900	
WQ700-55-185	700	55	1470	74		300	300GA	60	3900	
WQ1000-40-185	1000	40	1470	80		400	400GA	125	3900	
WQ1300-30-185	1300	30	980	77		400	400GA	125	3900	
WQ1600-25-185	1600	25	980	79		400	400GA	125	3900	
WQ2000-20-185	2000	20	980	79		500	500GA	125	3900	
WQ3000-14-185	3000	14	980	80		500	500GA	125	3900	
WQ4000-10-185	4000	10	740	79		600	600GA	180	3900	
WQ500-75-200	500	75	1470	70		200	300	250GA	60	3950
WQ700-60-200	700	60	1470	74			300	250GA	60	3950
WQ1000-44-200	1000	44	1470	80	400		250GA	125	3950	
WQ1300-32-200	1300	32	980	77	400		400GA	125	4100	
WQ1600-27-200	1600	27	980	79	400		400GA	125	4100	
WQ2000-22-200	2000	22	980	79	500		400GA	125	4100	
WQ3000-15-200	3000	15	980	80	500		500GA	125	4100	
WQ4000-11-200	4000	11	740	79	600		600GA	180	4400	
WQ600m75-220	600	75	1470	72	220	300	300GA	60	4200	
WQ800m60-220	800	60	1470	74		300	300GA	60	4200	
WQ1000-46-220	1000	46	1470	76		300	300GA	125	4200	
WQ130035-220	1300	35	980	77		400	400GA	125	4200	
WQ1600-30-220	1600	30	980	79		400	400GA	125	4200	
WQ2000-24-220	2000	24	980	79		500	500GA	125	4200	
WQ3000-17-220	3000	17	980	80		500	500GA	125	4200	
WQ4000-12-220	4000	12	740	80		600	600GA	180	4200	
WQ600-80-250	600	80	1470	72	250	300	300GA	60	4250	
WQ800-65-250	800	65	1470	74		300	350GA	60	4250	
WQ1000-52-250	1000	52	980	76		300	350GA	125	4250	
WQ1300-40-250	1300	40	980	77		400	400GA	125	4250	
WQ1600-35-250	1600	35	980	79		400	400GA	125	4250	
WQ2000-28-250	2000	28	980	79		500	500GA	125	4250	
WQ3000-20-250	3000	20	980	81		500	500GA	125	4250	
WQ4000-15-250	4000	15	740	80		600	600GA	180	4250	
WQ700-80-280	700	80	1470	72	280	300	300GA	60	5200	
WQ1000-65-280	1000	65	1470	80		400	400GA	125	5200	
WQ1300-50-280	1300	50	980	81		400	400GA	100	5200	
WQ1700-40-280	1700	40	980	81		500	500GA	100	5200	
WQ2400-30-280	2400	60	980	81		500	500GA	100	5200	
WQ3000-24-280	3000	24	980	82		500	500GA	125	5200	
WQ3600-20-280	4500	20	740	82		600	600GA	180	5200	

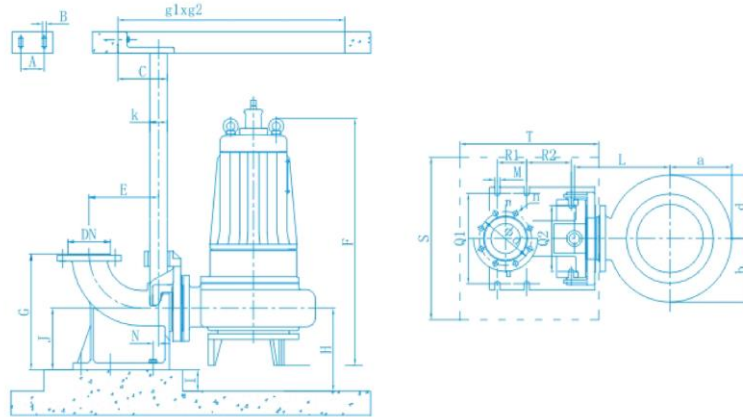
## Technical parameter

With water-cooled jackets

WQ4500-15-280	2000	15	740	80	280	600	600GA	180	5200											
WQ600-100-315	600	100	1470	70		315	300	300GA	60	6500										
WQ800-80-315	800	80	1470	75			315	300	300GA	60	6500									
WQ1300-65-315	1300	65	1470	81				315	400	400GA	100	6300								
WQ1600-50-315	1600	50	980	80					315	400	400GA	100	6500							
WQ1800-44-315	1800	44	980	80						315	500	500GA	100	5700						
WQ2000-40-315	2000	40	980	82							315	500	500GA	125	5700					
WQ2400-32-315	2400	32	980	80								315	500	500GA	125	6300				
WQ3000-25-315	3000	25	980	80									315	500	500GA	125	5700			
WQ3800-20-315	3800	20	740	82										315	600	600GA	180	5700		
WQ4200-18-315	4200	18	740	81											315	600	600GA	180	6500	
WQ5500-14-315	5500	14	740	81												315	300	600GA	180	6500
WQ650-100-355	650	100	1470	70													355	300	300GA	60
WQ900-80-355	900	80	1470	75	355													300	300GA	60
WQ1400-65-355	1400	65	1470	81		355												400	400GA	125
WQ1700-50-355	1700	50	980	80			355											400	400GA	125
WQ2000-44-355	2000	44	980	81				355										500	500GA	125
wQ2200-40-360	2200	40	980	81					355									500	500GA	125
WQ2400-35-355	2400	35	980	80						355								500	500GA	180
WQ3000-30-355	3000	30	980	82							355							500	500GA	60
WQ3500-25-355	3500	25	740	80								355						600	600GA	180
WQ4200-20-355	4200	20	740	81									355					600	600GA	180
WQ6000-14-355	6000	14	740	81										355				600	600GA	180
WQ700-100-400	700	100	1470	70											400			400	300GA	60
WQ1000-80-400	1000	80	1470	75												400		400	400GA	60
WQ1500-65-400	1500	65	980	79													400	500	400GA	125
WQ2000-50-400	2000	50	980	80	400													500	500GA	125
WQ2500-40-400	2500	40	980	81		400												500	500GA	125
WQ3200-32-400	3200	32	980	82			400											500	500GA	125
WQ4000-24-400	4000	24	740	81				400										600	600GA	180



List of installation dimensions



Dia. mm	DN100	DN150				DN200					DN250			
Base model	M180	M160	M180	M225	M250	M160	M180	M225	M250	M280	M225	M250	M280	M315
Pool opening size(min)	1150 x900	1200 x900	1270 x900	1350 x1000	1400 x1000	1300 x950	1300 x950	1350 x1050	1400 x1000	1500 x1200	1500 x1150	1600 x1200	1600 x1200	1700 x1300
DN	100	150	150	150	150	200	200	200	200	200	250	250	250	250
A	210	210	210	210	210	230	230	230	230	230	270	270	270	270
B	12	12	12	12	12	14	14	14	14	14	18	18	18	18
C	105	105	105	105	105	140	140	140	140	140	155	155	155	155
E	238	310	310	310	310	343	343	343	343	343	400	400	400	400
F(max)	2070	1470	2050	2510	2685	2140	2130	2520	2685	3100	2550	3150	3150	3540
L(max)	386	438	508	506	538	490	505	477	553	553	561	641	641	639
a (max)	243	225	243	305	270	265	243	305	270	370	308	375	375	360
b(max)	243	225	243	305	270	296	247	325	270	370	350	420	420	430
d (max)	243	225	243	305	270	213	213	305	270	370	305	370	370	310
G	385	435	435	435	435	545	545	545	515	545	680	680	680	680
H	450	570	570	665	650	640	640	690	700	740	730	830	830	970
I	100	160	180	230	240	180	180	230	240	250	230	250	250	400
J	205	235	235	235	235	305	305	305	305	305	357	357	357	357
K	60	60	60	60	60	60	60	60	60	60	76	76	76	76
M	4-18	4-20	4-20	4-20	4-20	4-20	4-20	4-20	4-20	4-20	4-26	4-26	4-26	4-26
N	13	35	35	35	35	16	16	16	16	16	22	22	22	22
Q1	300	330	330	330	330	410	410	410	410	410	500	500	500	500
Q2	220	230	230	230	230	410	410	410	410	410	500	500	500	500
R1	250	310	310	310	310	420	420	420	420	420	470	170	170	470
R2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S	450	450	650	650	650	680	680	680	680	680	800	800	800	800
T	450	600	850	850	850	900	900	900	900	900	1200	1200	1200	1200
n	8 - φ18	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22	8 - φ22
φ d	φ180	φ240	φ240	φ240	φ240	φ295	φ295	φ295	φ295	φ295	φ350	φ350	φ350	φ350
0*	463	619	620	690	741	679	679	686	741	839	762	879	879	853
H1*	605	718	764	806	847	825	832	818	847	1021	904	1068	1068	1037
P(max)	1555	1530	1715	2175	2425	1175	1780	2185	2425	2850	2270	2895	2895	3220
U	180	200	200	230	245	230	230	230	245	295	25	295	295	295
V(max)	300	350	420	418	450	387	402	374	450	450	445	525	525	525
W	260	271	271	303	333	303	303	303	333	360	333	360	360	360
□X	350	380	380	400	500	400	400	400	500	680	500	680	680	680
r	0	0	0	0	0	0	0	0	0	0	0	0	0	0
□Y	450	490	490	500	600	500	500	500	600	800	600	800	800	800
e	4 - φ26	4 - φ26	4 - φ26	4-426	4-φ28	4 - φ26	4 - φ26	4 - φ26	4 - φ26	4 - φ28	4 - φ28	4 - φ32	4 - φ32	4 - φ32
DN2	100	150	150	200	250	200	200	200	250	300	250	300	300	300