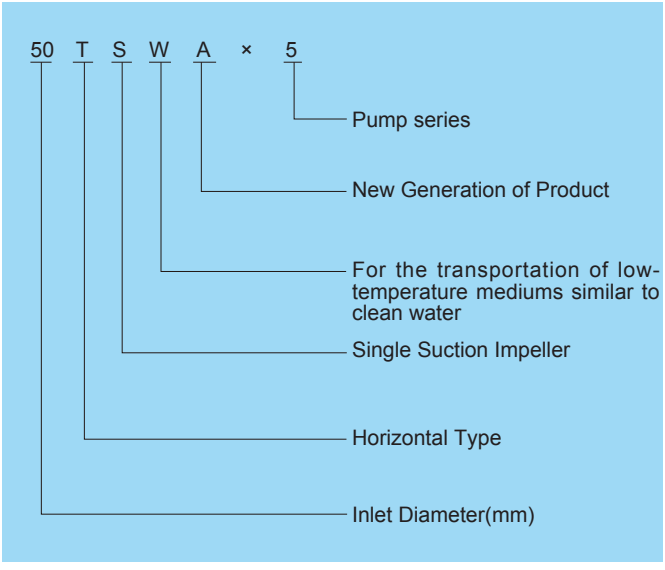
TSWA SERIES HORIZONTAL MULTI-STAGE CENTRIFUGAL PUMP

PRODUCT PROFILE

TSWA series horizontal multi-stage centrifugal pump is used for the transportation of clean water without solid granules and liquid similar to water respecting physiochemical properties. They are mainly used in water supply for high buildings, fire fighting and spraying. In addition, they are applicable for water supply and discharge in factories and mines. The flow extent of liquid transportation ranges from 15~190m^2/h, head extent from 18~270m, power extent from 2.2~185KW, and caliber extent from Φ40~Φ150mm.

The medium service temperature for TSWA type exceeds 80°C.

TYPE MEANING



PRODUCT FEATURES

1. Compact structure, small volume, elegant outline, little space occupation and saving of construction expenses.
2. The rotor part of pump is supported by the rolling bearings at the two ends for balanced operation.
3. With horizontal direction at pump inlet and upward vertical direction at pump outlet to simplify pipeline.
4. Pump's motor is horizontally structured for the convenience of servicing.

APPLICABILITY

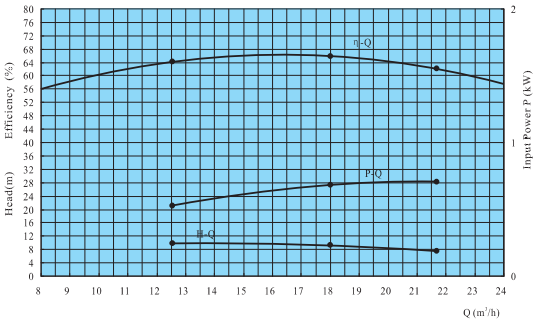
Mainly used in drinking water supply for the high-level buildings, pressure-keeping for fire-fighting water supply, water supply for self spraying and pouring, etc, as well as water supply and drainage in industry and mining, long-distance water transport, all kinds of equipments match-up and water supply for production technology, etc.

SERVICE CONDITIONS

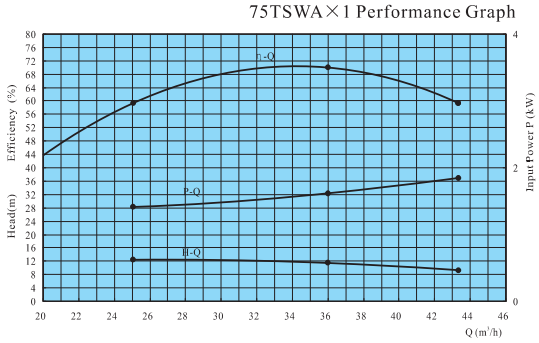
1. The medium applied should be similar with water, with movement adhesive limit < 15mm^2/s and without hard grains and corrosive nature.
2. The working environment should be less than 1000 meters above sea level. If it is beyond this level, please inform us when placing the order so that we can provide you the more suitable products.
3. The temperature range of applicable medium is -15°C ~ I05°C.
4. The Max.system' working pressure: ≤2.5Mpao.
5. The surrounding temperature should be less than 40°C while the relative humidity should be less than 95%.

PERFORMANCE CURVE (PERFORMANCE CURVE OF FIRST-STAGE IMPELLER n=1450r/min)

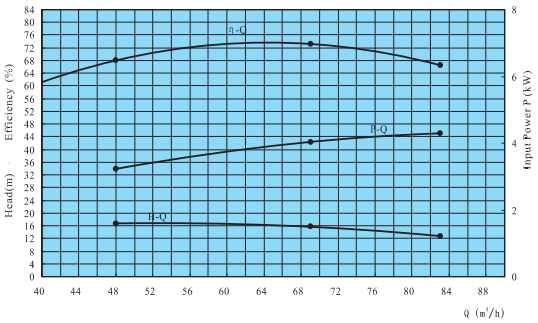
50TSWA×1 Performance Graph



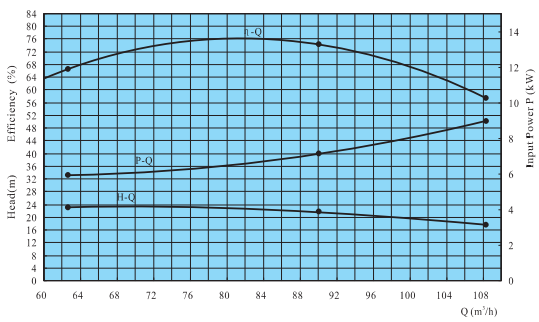
75TSWA×1 Performance Graph



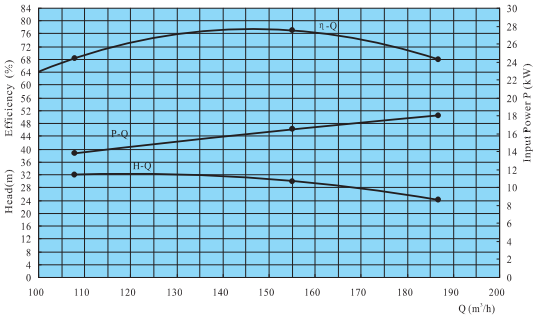
100TSWA×1 Performance Graph



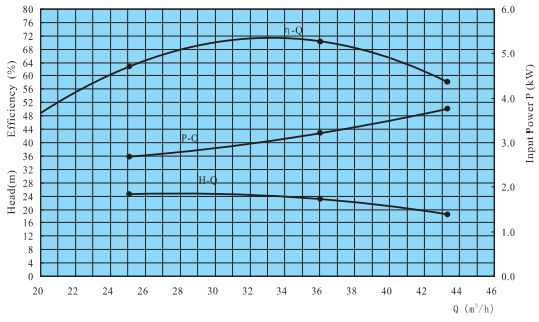
125TSWA×1 Performance Graph



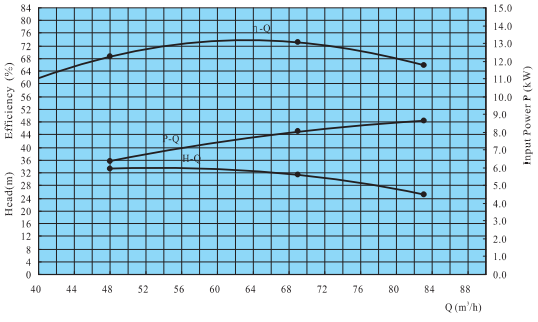
150TSWA×1 Performance Graph



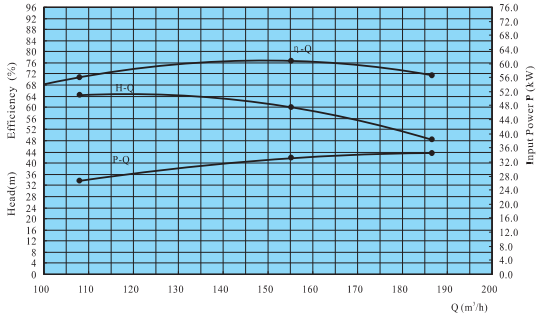
75TSWA×1 Performance Graph



100TSWA×1 Performance Graph



150TSWA×1 Performance Graph



PERFORMANCE PARAMETERS AND OUTLINE DIMENSIONS

Type	Series	Q (m³/h) Discharge	Head (m)	Rotary Speed (r/min)	kW Power	Efficiency η(%)	Outline and Installation Dimensions									Weight Kg
							L	L1	L2	L3	L4	L5	H3	B1	B2	
50TSWA	2	15 18 22	20.0 18.4 16.8	1450	2.2	64 66 65	1087	160	145	901	600	33	480	335	430	233
	3	15 18 22	30.0 27.6 25.2		3	64 66 65	1152	225	210	901	600	98	480	335	430	272
	4	15 18 22	40.0 36.8 33.6		4	64 66 65	1237	290	275	974	640	128	480	375	430	291
	5	15 18 22	50.0 46.0 42.0		5.5	64 66 65	1377	355	340	1153	740	132	490	430	430	330
	6	15 18 22	60.0 55.2 50.4		5.5	64 66 65	1442	420	405	1153	740	197	490	430	430	346
	7	15 18 22	70.0 64.4 58.8		7.5	64 66 65	1547	485	470	1321	840	197	490	430	430	363
	8	15 18 22	80.0 73.6 67.2		7.5	64 66 65	1612	550	535	1321	840	262	490	430	430	430
	9	15 18 22	90.0 82.8 75.6		7.5	64 66 65	1677	615	600	1386	860	297	490	430	430	446
	10	15 18 22	100 92.0 84.0		11	64 66 65	1827	680	665	1593	900	362	490	430	430	513
	11	15 18 22	110.0 101.2 92.4		11	64 66 65	1892	745	730	1593	900	427	490	430	430	529
	12	15 18 22	120.0 110.4 100.8		11	64 66 65	1957	810	795	1658	920	462	490	430	430	545
75TSWA	2	30 36 42	25.0 23.0 20.0	1450	5.5	68 70 68	1241	177	180	1046	690	89	535	410	475	277
	3	30 36 42	37.5 34.5 30.0		7.5	68 70 68	1361	257	260	1046	690	128	545	410	475	303
	4	30 36 42	50.0 46.0 40.0		11	68 70 68	1526	337	340	1284	830	171	545	475	475	353
	5	30 36 42	62.5 57.5 50.0		11	68 70 68	1606	417	420	1284	830	211	545	475	475	434
	6	30 36 42	75.0 69.0 60.0		15	68 70 68	1731	497	500	1488	980	245	545	475	475	477
	7	30 36 42	87.5 80.5 70.0		15	68 70 68	1811	577	580	1488	980	245	545	475	475	515
	8	30 36 42	100.0 92.0 80.0		18.5	68 70 68	1916	657	660	1653	1150	239	560	480	480	541
	9	30 36 42	112.5 103.5 90.0		18.5	68 70 68	1996	737	740	1653	1150	239	560	480	480	583
100TSWA	2	62 69 80	32.4 31.2 28.0	1450	11	71.5 73 71	1575	255	200	1322	900	100	610	505	505	410
	3	62 69 80	48.6 46.8 42.0		15	71.5 73 71	1720	355	300	1322	900	149	610	505	505	455
	4	62 69 80	64.8 62.4 56.0		22	71.5 73 71	1885	455	400	1463	975	200	610	505	505	547
	5	62 69 80	81.0 78.0 70.0		30	71.5 73 71	2050	555	500	1701	1240	202	620	525	525	604
	6	62 69 80	97.2 93.6 84.0		30	71.5 73 71	2150	655	600	1701	1240	157	620	525	525	683
	7	62 69 80	113.4 109.2 98.0		37	71.5 73 71	2295	755	700	1959	1450	198	630	565	565	728
	8	62 69 80	129.6 124.8 112.0		45	71.5 73 71	2420	855	800	1959	1450	199	640	565	565	850
	9	62 69 80	145.8 140.4 126.0		45	71.5 73 71	2520	955	900	2059	1550	199	640	565	565	911

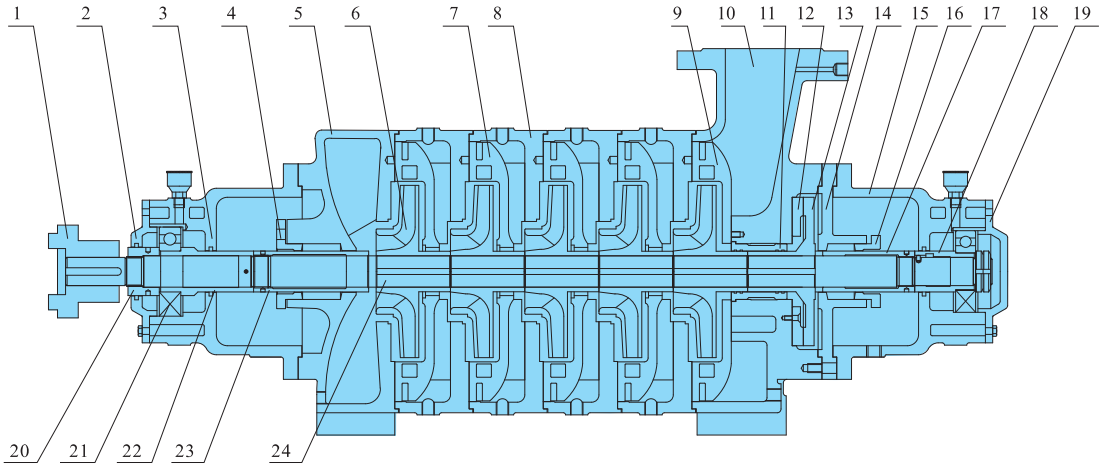
PERFORMANCE PARAMETERS AND OUTLINE DIMENSIONS

Type	Series	Q (m³/h) Discharge	Head (m)	Rotary Speed (r/min)	kW Power	Efficiency η(%)	Outline and Installation Dimensions									Weight Kg
							L	L1	L2	L3	L4	L5	H3	B1	B2	
125TSWA	2	72 90 108	46.0 43.2 40.0	1450	22	70 74 75	1827	325	225	1387	975	109	700	495	565	672
	3	72 90 108	46.0 43.2 40.0		30	70 74 75	2017	450	350	1549	1060	176	700	565	565	739
	4	72 90 108	46.0 43.2 40.0		45	70 74 75	2212	575	475	1728	1170	225	710	565	565	832
	5	72 90 108	46.0 43.2 40.0		55	70 74 75	2422	700	600	1924	1270	299	725	620	620	1016
	6	72 90 108	46.0 43.2 40.0		75	70 74 75	2617	825	725	2243	1430	262	755	675	570	1217
	7	72 90 108	46.0 43.2 40.0		75	70 74 75	2742	950	850	2243	1430	422	755	675	570	1409
	8	72 90 108	46.0 43.2 40.0		90	70 74 75	2917	1075	975	2419	1520	483	755	675	570	1476
	9	72 90 108	46.0 43.2 40.0		90	70 74 75	3042	1200	1100	2544	1580	548	755	675	570	1559
150TSWA	2	119 155 191	65 60 55	1450	45	72 77 78	1964	315	237	1437	1000	80	720	720	575	685
	3	119 155 191	97 90 82		75	72 77 78	2234	430	352	1735	1165	148	735	735	675	755
	4	119 155 191	130 120 109		90	72 77 78	2399	545	467	1922	1260	215	745	745	675	755
	5	119 155 191	162 150 137		110	72 77 78	2664	660	582	2129	1470	212	780	780	765	845
	6	119 155 191	194 180 164		132	72 77 78	2829	775	697	/	/	/	/	/	/	/
	7	119 155 191	227 210 192		132	72 77 78	2944	890	812	/	/	/	/	/	/	/
	8	119 155 191	259 240 219		185	72 77 78	3019	1005	927	/	/	/	/	/	/	/
	9	119 155 191	292 270 246		200	72 77 78	3224	1120	1042	/	/	/	/	/	/	/

PERFORMANCE PARAMETERS AND OUTLINE DIMENSIONS

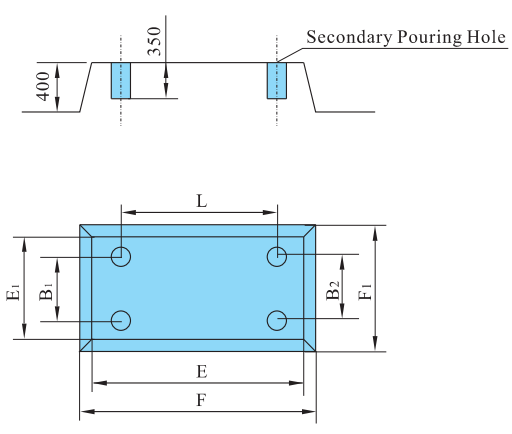
Type	Inlet Flange				Outlet Flange				Installation Dimension			Bottom Disc Bolt-hole
	Djn	Dj	Dj2	n-Φdj	Dcn	Dc	Dc2	n-Φdc	B	H1	H2	n-Φb
50TSWA	50	160	125	4-Φ18	50	160	125	4-Φ18	210	190	210	25
75TSWA	80	195	160	4-Φ18	80	195	160	4-Φ18	250	205	250	
100TSWA	100	230	190	8-Φ23	100	230	190	8-Φ23	310	220	300	30
125TSWA	125	270	220	8-Φ25	125	270	220	8-Φ25	350	260	350	
150TSWA	150	280	240	8-Φ23	150	300	250	8-Φ25	350	280	350	

SKETCH MAP OF STRUCTRUE

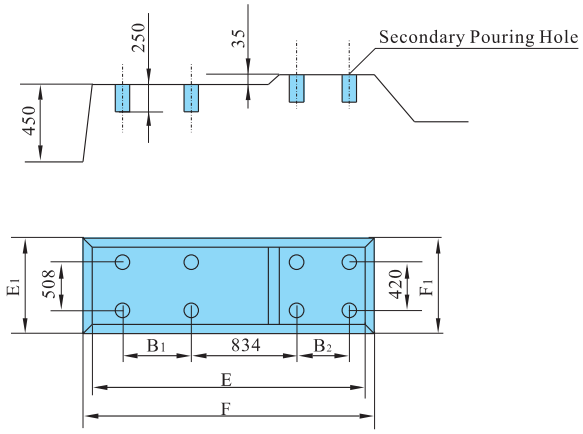


Serial number	Name	Material	Serial number	Name	Material	Serial number	Name	Material	Serial number	Name	Material
1	Clutch	HT200	7	Guide Vane	HT200	13	Balance Disc	HT200	19	Right Bearing Gland	HT200
2	Left Bearing Gland	HT200	8	Stage Casing	HT200	14	Filling Body	HT200	20	Left Bearing Gland	Q235
3	Left Bearing Carrier	HT200	9	Last-stage Guide Vane	HT200	15	Right Bearing Carrier	HT200	21	Bearing	Tin Bronze
4	Left Packing Gland	HT200	10	Discharge Casing	HT200	16	Right Packing Gland	HT200	22	Left Bearing Bushing	Q235
5	Suction Casing	HT200	11	Balance Sleeve	HT200	17	Right Packing Shaft Sleeve	Q235	23	Left Packing Shaft Sleeve	Q235
6	Impeller	HT200	12	Balance Ring	HT200	18	Right Bearing Bushing	Q235	24	Shaft	45 or 2Cr13

SKETCH MAP OF BASIC INSTALLATION DIMENSIONS



Basic Graph with Base



Basic Graph without Base (Only for150TSWA×6-9)

BASIC DIMENSIONS

Type	Series	Basic dimensions						
		L	B_1	B_2	E	F	E_1	F_1
50TSWA	2	600	335	430	1100	1150	700	750
	3	600	335	430	1100	1150	700	750
	4	640	375	430	1170	1220	700	750
	5	740	430	430	1350	1400	700	750
	6	740	430	430	1350	1400	700	750
	7	840	430	430	1520	1570	700	750
	8	840	430	430	1520	1570	700	750
	9	860	430	430	1600	1650	700	750
	10	900	430	430	1800	1850	700	750
	11	900	430	430	1800	1850	700	750
	12	920	430	430	1900	1950	700	750
75TSWA	2	690	410	475	1250	1300	750	800
	3	690	410	475	1250	1300	750	800
	4	830	475	475	1500	1550	750	800
	5	830	475	475	1500	1550	750	800
	6	980	475	475	1700	1750	750	800
	7	980	475	475	1700	1750	7750	800
	8	1150	480	480	1850	1900	750	800
	9	1150	480	480	1850	1900	750	800
	10	1250	480	480	2050	2100	750	800
	11	1250	480	480	2050	2100	750	800
100TSWA	2	900	505	505	1520	1570	800	850
	3	900	505	505	1520	1570	800	850
	4	975	505	505	1660	1710	800	850
100TSWA	5	1240	525	525	1900	1950	800	850
	6	1240	525	525	1900	1950	800	850
	7	1450	565	565	2160	2210	850	900
	8	1450	565	565	2160	2210	850	900
	9	1550	565	565	2260	2310	850	900
	10	1650	600	600	2450	2500	900	950
125TSWA	2	975	495	565	1600	1650	850	900
	3	1060	565	565	1750	1800	850	900
	4	1170	565	565	1950	2000	850	900
	5	1270	620	620	2150	2200	900	950
	6	1430	675	570	2450	2500	950	1000
	7	1430	675	570	2450	2500	950	1000
	8	1520	675	570	2650	2700	950	1000
	9	1580	675	570	2750	2800	950	1000
	10	1600	675	570	2900	2950	950	1000
150TSWA	2	1000	675	605	1650	1700	900	950
	3	1165	675	610	1950	2000	950	1000
	4	1260	675	610	2150	2200	950	1000
	5	1470	675	620	2350	2400	1050	1100
	6	1150	457	697	2450	2500	1050	1100
	7	1250	457	812	2550	2600	1050	1100
	8	1350	508	927	2700	2750	1050	1100
	9	1500	508	1042	2800	2850	1050	1100