



# ZW 50Hz

Non-clogging Self-priming Sewage Pump



Stock code:300145



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E200801  
subject to amendments



Pumping Water Pumping Honor



## Company profile

Nanfang Pump Industry Co., Ltd (CNP), as a subsidiary of Nanfang Zhongjin Environment Co., Ltd, was founded in 1991, and listed on Shenzhen Stock Exchange on December 9, 2010 with stock code 300145.

In 2019, CNP's annual output exceeded 900,000 units/set with nearly 3 billion sales revenue, continuing to maintain high growth. As a national enterprise technology center, CNP has flagship ultra-high efficient product -new generation CDM (F) light vertical multistage centrifugal pump, MEI $\geq$  0.7. Same series high temperature pump products are developed in 2019 to satisfy high temperature applications. All light stainless steel pump product series grow stably. Advanced frequency conversion water supply equipment has been innovated to the 6th generation. Fire pump and diesel engine have obtained UL certification. TD in-line pump, NIS/NISO end suction pump, NSC split casing pump, WQ sewage pump, PQ stainless steel fountain submersible pump, BP silent tube pump, pool pump, non-blocking self-priming sewage pump, metering pump, oil pump and other pump products, can meet various application needs of different fields.

CNP has a complete sales network both in domestic and overseas market, exporting to over 60 countries and regions, maintaining long-term relationship with our clients. CNP pumps have been widely applied in various fields like water treatment, water supply and drainage, HVAC, industrial application, seawater desalination, energy and power etc.

CNP, a green water expert beside you.

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## Introduction

ZW series non-clogging self-priming sewage pump is a novel structure, developed on the basis of repeated research on similar technologies in China and abroad. The pump adopts an external mixing structure, and combines self-priming and non-clogging functions together through the unique design of pump body and impeller flow passage.

Compared with similar domestic products, ZW series pump has excellent self-priming performance and strong sewage discharge capacity, with simple structure and beautiful appearance. It has unique oil chamber structure to ensure the reliable operation of mechanical seal. ZW series pump has leading technical performance parameters, broad application market and great development prospects.

## Application

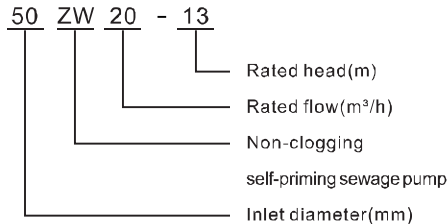
ZW series non-clogging self-priming sewage pump can be used to transport liquids containing suspended particles and fiber impurities, mainly used in the following industries.

Environmental protection: municipal sewage, sewage treatment

Industry: Paper, textile, dyes

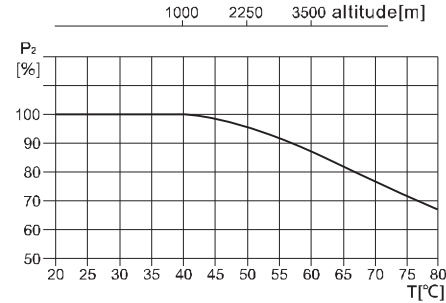
Agriculture: river pond farming, etc.

## Model Definition



## Maximum ambient temperature and altitude

When the pump is operating under ambient temperature higher than 40°C or altitude higher than 1000 meters, the motor output power will be reduced due to the low air density and poor cooling effect. Output motor power P2 needs to be increased when pump running under the above condition.



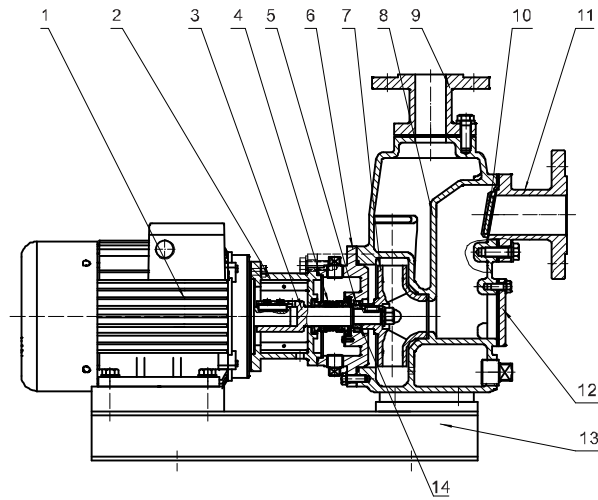
## Operating condition

1. Ambient temperature: ≤40°C, Liquid temperature: ≤40°C
2. Liquid pH range: 5-9
3. Liquid density: ≤1.2 × 10<sup>3</sup> kg/m<sup>3</sup>
4. Self-priming height: Should not exceed the self-priming height specified by the pump, the total length of the suction pipeline should not exceed 10 meters.
5. Passing capacity: The suspended particle diameter can not exceed 60% of the pump diameter, and fiber can not exceed 5 times bigger than the pump diameter.

## Product Range

Features	Model		ZW								
	10	15	20	25	30	40	65				
Rated flow[m <sup>3</sup> /h]	2.78	4.17	5.56	6.94	8.33	11.11	18.06				
Rated flow[l/s]	7 ~ 13	10.5 ~ 19.5	14 ~ 26	17.5 ~ 32.5	21 ~ 39	28 ~ 52	45.5 ~ 84.5				
Flow range[l/s]	1.94 ~ 3.61	2.92 ~ 5.42	3.89 ~ 7.22	4.86 ~ 9.03	5.83 ~ 10.83	7.78 ~ 14.44	12.64 ~ 23.47				
Max. pressure[bar]	3	2	2	4	2	3	3				
Motor power[kW]	1.5 ~ 3	2.2 ~ 3	2.2 ~ 3	5.5 ~ 7.5	4	4 ~ 7.5	11				
Max. self-priming height[m]	5	5	5.5	5	5	5	5				
Highest efficiency[%]	45	38	42.5	55	57	57	60				
DIN flange	DN30	DN40	DN50	DN40	DN50	DN40	DN50	DN65	DN65	DN80	DN80
Flange pressure level	PN10										

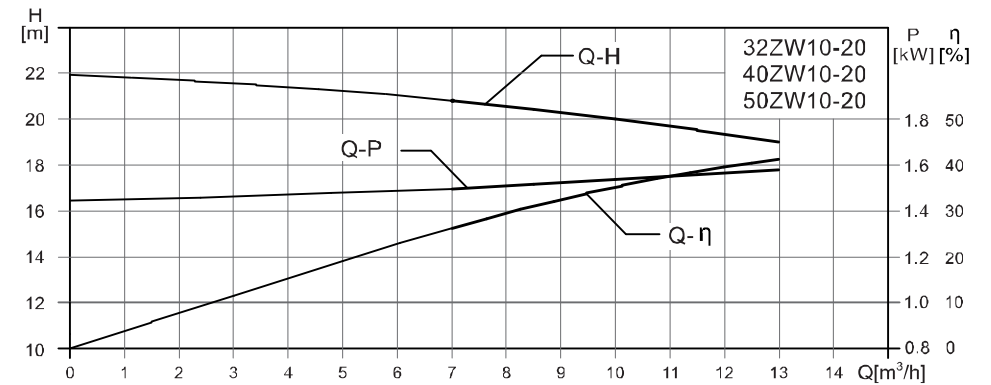
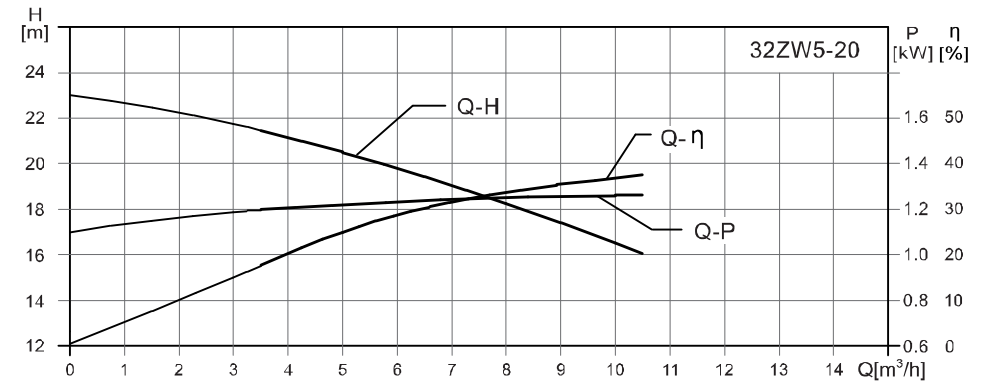
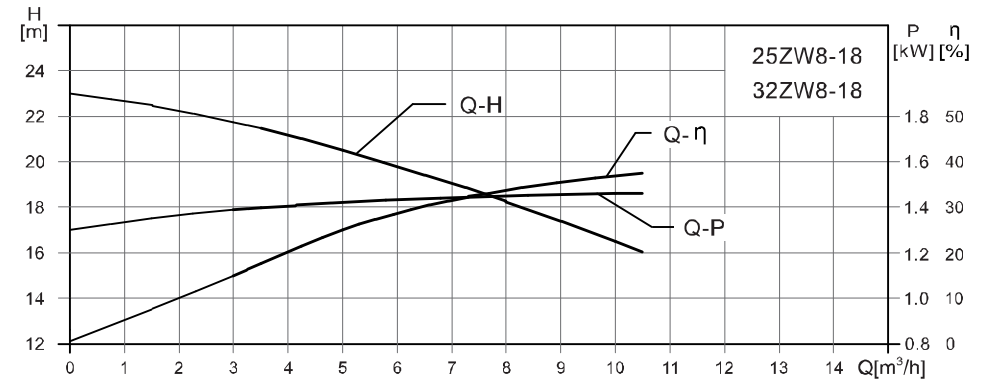
## Sectional Drawing



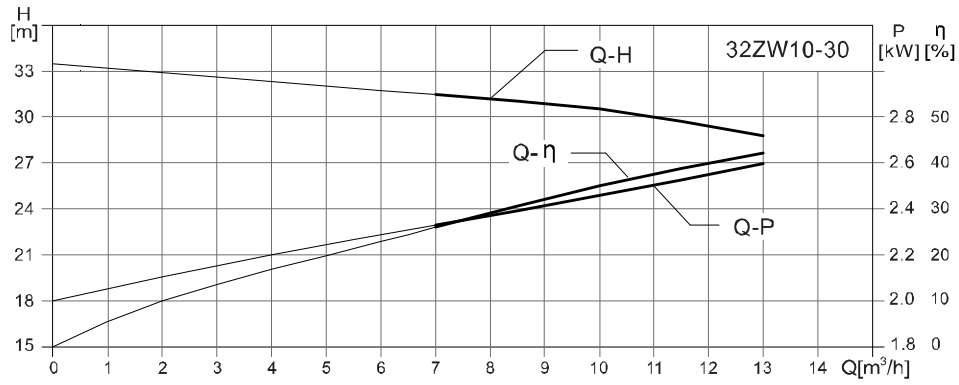
## Material List

Pos.	Designation	Material	AISI/ASTM
1	Motor		
2	Pump head	Cast iron	ASTM25B
3	Shaft	Stainless steel	ASTM420
4	Mechanical seal	SIC/SIC	
5	Skeleton oil seal (< 5.5kW)		
	Bearing (≥ 5.5kW)	WC	
6	Pump cover	Cast iron	ASTM25B
7	Impeller	Cast iron	ASTM25B
8	Pump body	Cast iron	ASTM25B
9	Outlet flange	Cast iron	ASTM25B
10	Inlet valve	NBR+Q235A	
11	Inlet flange	Cast iron	ASTM25B
12	Drain cover	Cast iron	ASTM25B
13	Base plate	Q235A	
14	Sleeve	Stainless steel (< 5kW)	
		WC (≥ 5kW)	

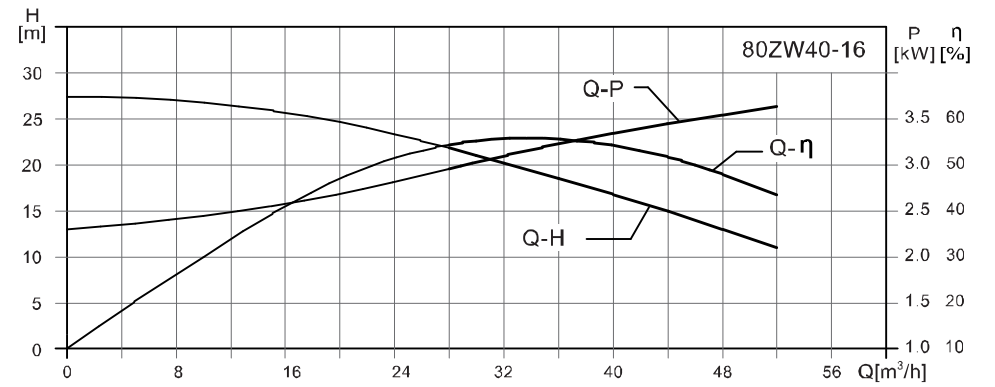
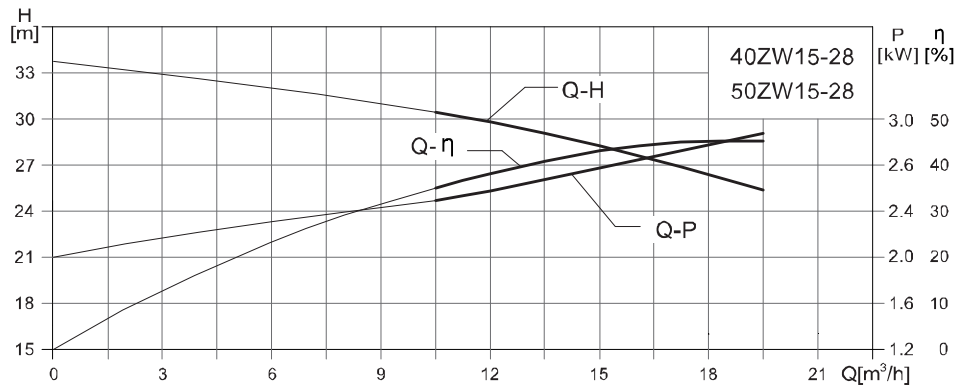
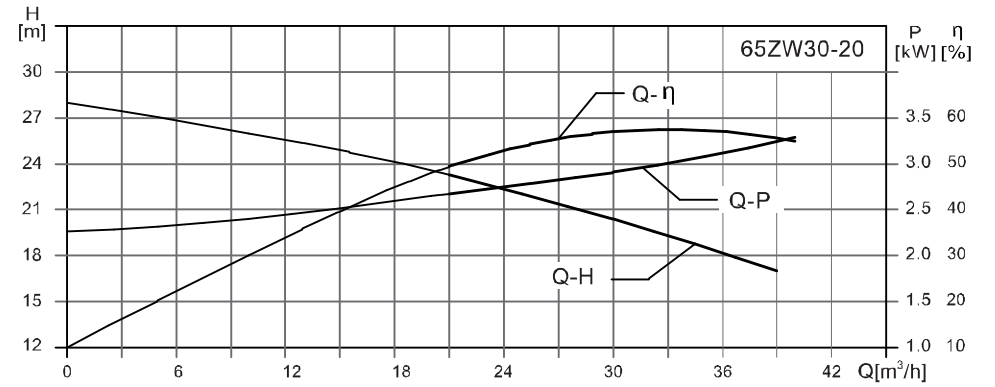
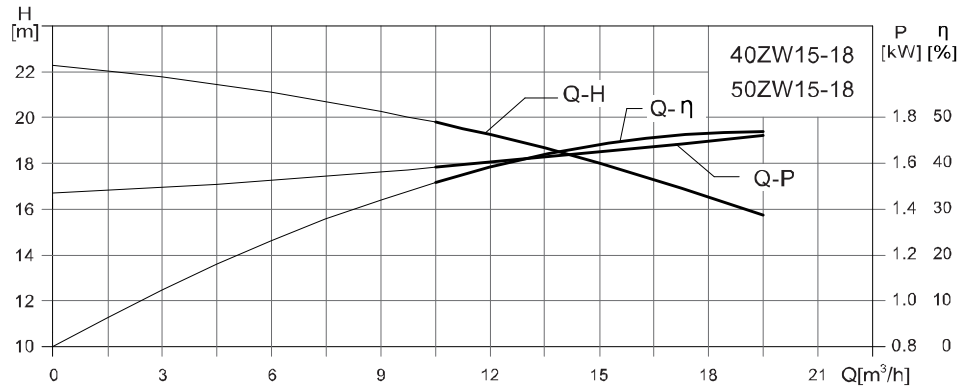
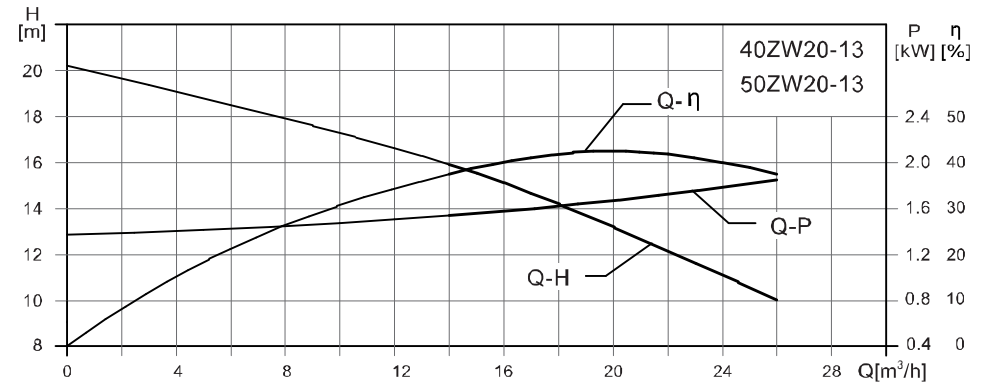
## Performance curve



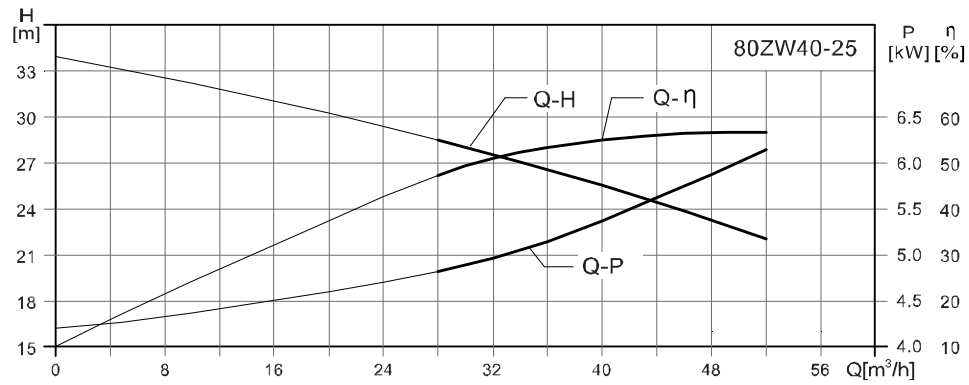
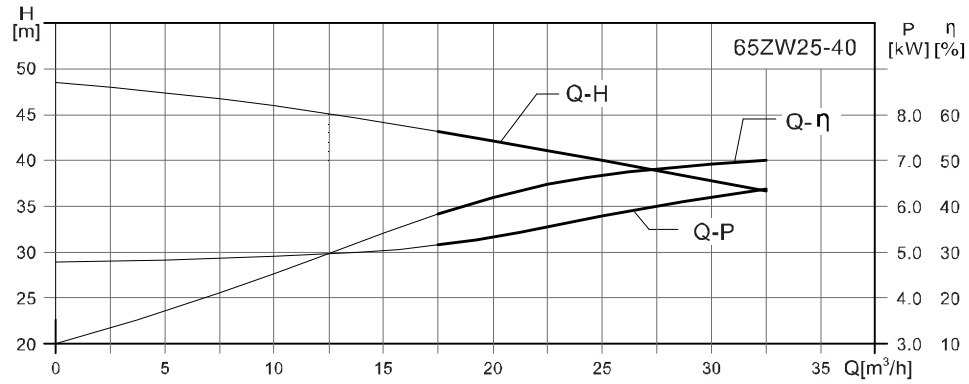
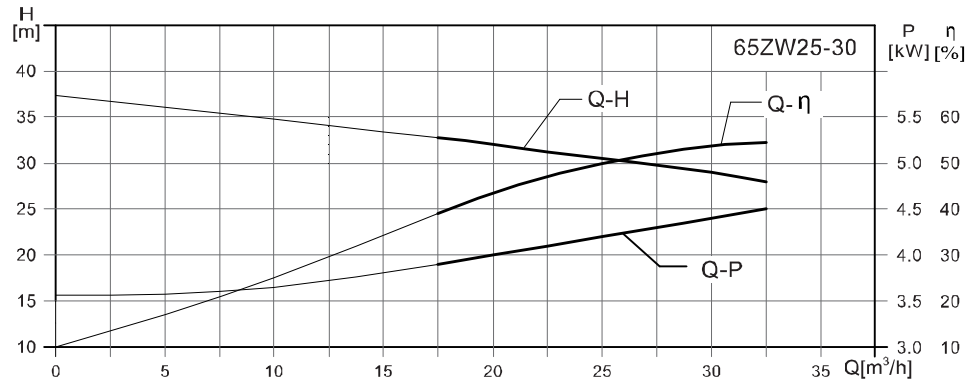
## Performance curve



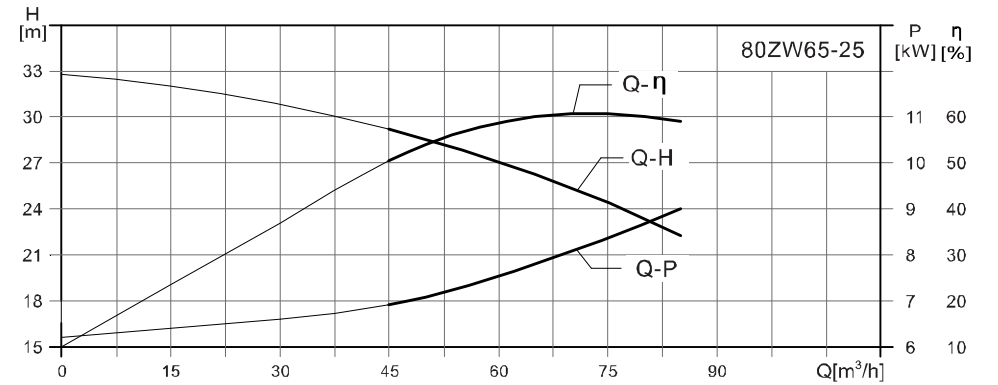
## Performance curve



## Performance curve



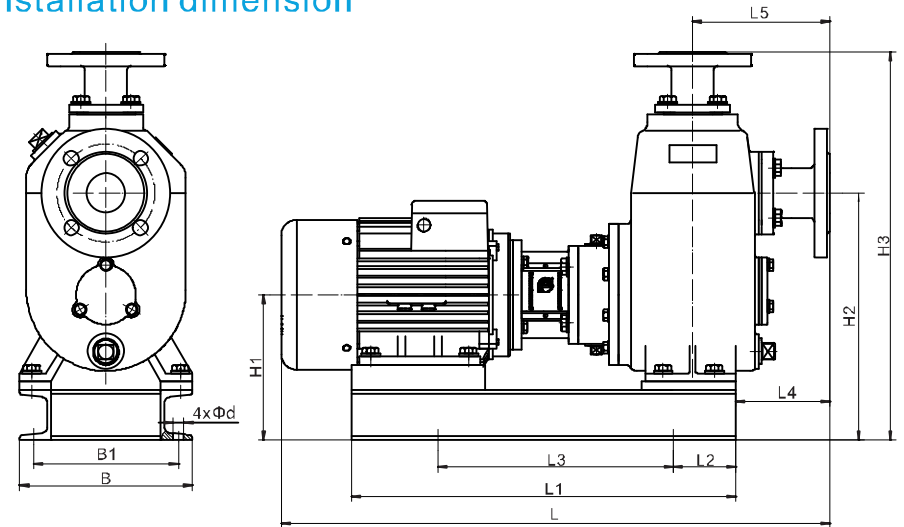
## Performance curve



## Technical data

Data Model	Inlet diameter (mm)	Outlet diameter (mm)	Flow (m <sup>3</sup> /h)	Head (m)	Power (kW)	Speed (r/min)	Pump efficiency (%)	Self-priming height(m)
25ZW8-18	25	25	8	18	1.5	2900	32	5
32ZW5-20	32	32	5	20	1.5	2900	32	5
32ZW8-18	32	32	8	18	1.5	2900	32	5
32ZW10-20	32	32	10	20	2.2	2900	35	5
32ZW10-30	32	32	10	30	3	2900	35	5
40ZW10-20	40	32	10	20	2.2	2900	35	5
40ZW15-18	40	32	15	18	2.2	2900	44	5
40ZW15-28	40	32	15	28	3	2900	43	5
40ZW20-13	40	32	20	13	2.2	2900	42.5	5.5
50ZW10-20	50	40	10	20	2.2	2900	35	5
50ZW15-18	50	40	15	18	2.2	2900	44	5
50ZW15-28	50	40	15	28	3	2900	43	5
50ZW20-13	50	40	20	13	2.2	2900	42.5	5.5
65ZW25-30	65	65	25	30	5.5	2900	50	5
65ZW25-40	65	65	25	40	7.5	2900	46	5
65ZW30-20	65	65	30	20	4	2900	57	5
80ZW40-16	80	65	40	16	4	2900	57	5
80ZW40-25	80	65	40	25	7.5	2900	56	5
80ZW65-25	80	65	65	25	11	2900	65	5

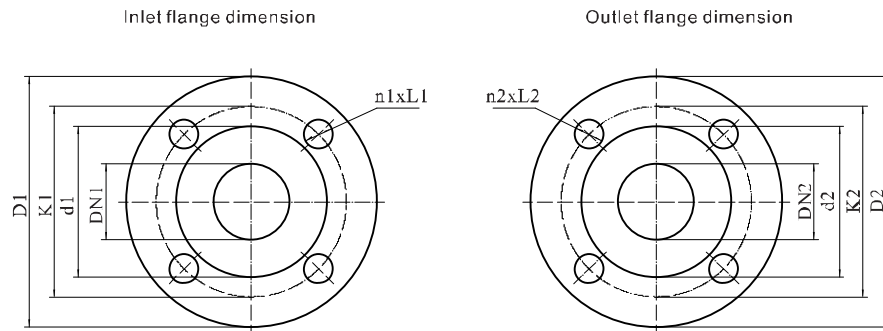
## Installation dimension



## Dimensions and weights

Model	Dimension (mm)												Weight (kg)
	L	L1	L2	L3	L4	L5	H1	H2	H3	B	B1	d	
25ZW8-18	700	490	85	300	115	175	185	315	495	220	185	14	62
32ZW5-20	700	490	85	300	115	175	185	315	495	220	185	14	65
32ZW8-18	700	490	85	300	115	175	185	315	495	220	185	14	65
32ZW10-20	700	490	85	300	115	175	185	315	495	220	185	14	68
32ZW10-30	770	540	95	350	125	185	205	375	560	220	185	14	85
40ZW10-20	700	490	85	300	115	175	185	315	495	220	185	14	70
40ZW15-18	700	490	85	300	115	175	185	315	495	220	185	14	68
40ZW15-28	770	540	95	350	125	185	205	375	560	220	185	14	86
40ZW20-13	700	490	85	300	115	175	185	315	495	220	185	14	70
50ZW10-20	700	490	85	300	115	175	185	315	495	220	185	14	72
50ZW15-18	700	490	85	300	115	175	185	315	495	220	185	14	70
50ZW15-28	770	540	95	350	125	185	205	375	560	220	185	14	87
50ZW20-13	700	490	85	300	115	175	185	315	495	220	185	14	72
65ZW25-30	900	630	105	420	120	195	245	405	630	280	250	14	102
65ZW25-40	880	630	105	420	115	190	245	395	610	280	250	14	105
65ZW30-20	815	580	80	420	125	200	225	385	600	235	205	14	95
80ZW40-16	815	580	80	420	125	200	225	385	600	235	205	14	96
80ZW40-25	900	630	105	420	120	195	245	405	630	280	250	14	105
80ZW65-25	1040	760	140	485	130	260	255	455	705	315	280	19	120

## Inlet and outlet flange dimension



Model	Inlet flange dimension ( mm )						Outlet flange dimension ( mm )					
	DN1	d1	K1	D1	n1	L1	DN2	d2	K2	D2	n2	L2
25ZW8-18	25	65	85	115	4	Φ14	25	65	85	115	4	Φ14
32ZW5-20	32	76	100	140	4	Φ19	32	76	100	140	4	Φ19
32ZW8-18	32	76	100	140	4	Φ19	32	76	100	140	4	Φ19
32ZW10-20	32	76	100	140	4	Φ19	32	76	100	140	4	Φ19
32ZW10-30	32	76	100	140	4	Φ19	32	76	100	140	4	Φ19
40ZW10-20	40	84	110	150	4	Φ19	32	76	100	140	4	Φ19
40ZW15-18	40	84	110	150	4	Φ19	32	76	100	140	4	Φ19
40ZW15-28	40	84	110	150	4	Φ19	32	76	100	140	4	Φ19
40ZW20-13	40	84	110	150	4	Φ19	32	76	100	140	4	Φ19
50ZW10-20	50	99	125	165	4	Φ19	40	84	110	150	4	Φ19
50ZW15-18	50	99	125	165	4	Φ19	40	84	110	150	4	Φ19
50ZW15-28	50	99	125	165	4	Φ19	40	84	110	150	4	Φ19
50ZW20-13	50	99	125	165	4	Φ19	40	84	110	150	4	Φ19
65ZW25-30	65	118	145	185	4	Φ19	65	118	145	185	4	Φ19
65ZW25-40	65	118	145	185	4	Φ19	65	118	145	185	4	Φ19
65ZW30-20	65	118	145	185	4	Φ19	65	118	145	185	4	Φ19
80ZW40-16	80	132	160	200	8	Φ19	65	118	145	185	4	Φ19
80ZW40-25	80	132	160	200	8	Φ19	65	118	145	185	4	Φ19
80ZW65-25	80	132	160	200	8	Φ19	65	118	145	185	4	Φ19