

HDP

High Shear Emulsifying Pump



Technical Parameters

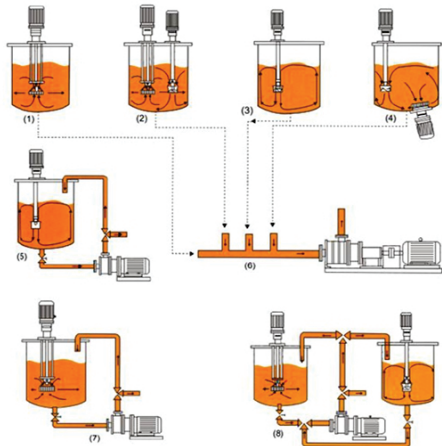
Mixing dissolving	Soluble solid or liquid blends together with liquid in the state of the molecule or the goué, Crystallization powderody, salt, sugar, ether sulfate, abrasive, hydrolysing colloid, CMC thixotropy, rubber natural and synthetic resin
Dispersed suspension	Insoluble solid or liquid forms finer particle blended solution or suspended solution Catalyst, flatting agent, pigment, graphite, paint coating, alumina, compound fertilizer, printing ink packing agent weedkiller, bactericide
Emulsification	Insoluble liquid together with liquid does not separate Cream, ice cream, animal oil, vegetable oil, protein, silicon oil, light oil, mineral oil, paraffin wax cream, rosin
Homogeneity	Make emulsification and suspended grain size finer with more even distribution Cream, flavouring, fruit juice, jam, condiment, cheese, fat milk, toothpaste, typing ink, enamel paint
Thick liquid	Cell's tissue, organic tissue, the animal and plant tissues
Chemical reaction	Nanometer material, inflating with higher speed, synthesization with higher speed
Extraction	The vortex extraction
Depolymerization	Nanometer powder, dough powder



High Shear Emulsifying Pump (HDP Series)



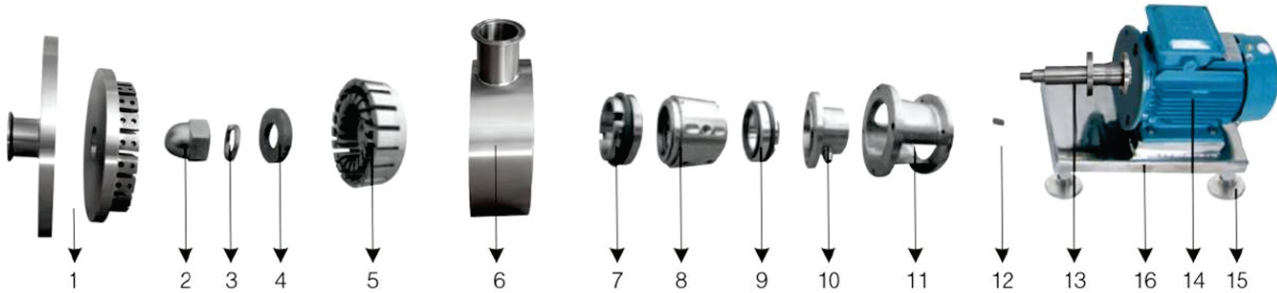
The HDP series is an in-line continuous production emulsified homogenizing pump consisting of stator and rotor. The treated material will be dispersed, sheared, refined, crushed, emulsified and mixed through 6-10 layers of rotor and stator, homogenization, etc. Compared with the traditional production process, the pump is simpler, more convenient and more optimized. It improves the production efficiency and quality of the material to be treated. Mainly used in food, beverage, pharmaceutical, health care, fine chemicals, coatings, pesticides, daily washing, paper and other industrial fields.



Operation Principle

High shear emulsifying pump is a high performance equipment used for continuous production or circulated treatment of fine material. In the small chamber, there are 1-3 sets of paired and clutched stators and rotors. Driven by a motor, the rotor revolves quickly and produces a strong axial suction force which intakes the material to the chamber. The machine disperses, shears and emulsifies the material in the shortest time, and the diameter range of the particles gets smaller so that fine and stable products are produced

Pipeline Higt Shear Dispersing Emulsifer

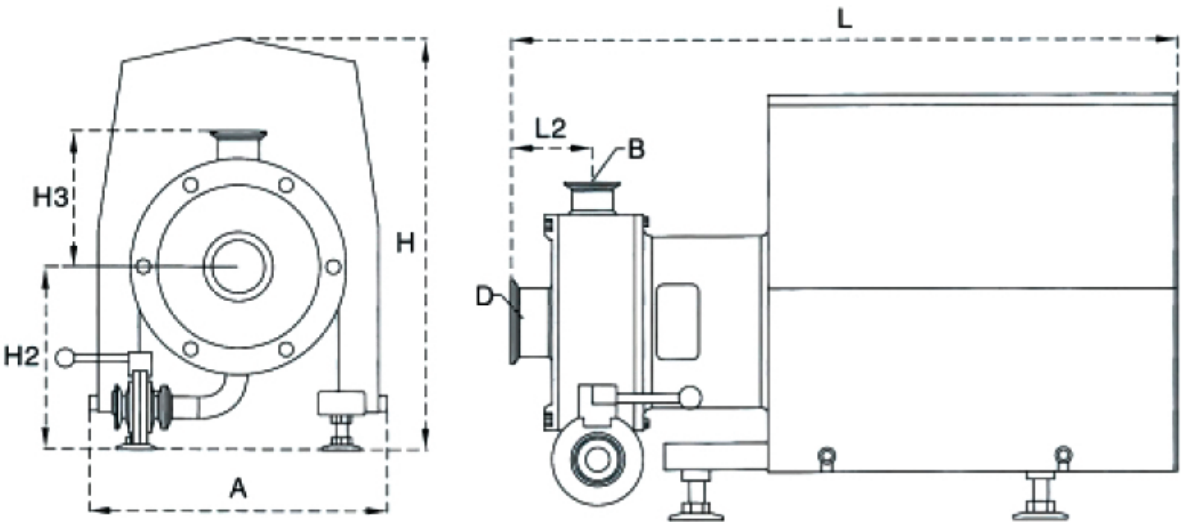


- 1.Stator 2.Screw cap 3.Flexible gasket 4.Flat gasket 5.Rotor 6.Pump cavity 7. Mechanical seal (stationary ring)
8.Mechanical seal (moving ring) 9.Mechanical seal (stationary ring) 10.Seal cool seat 11.Pump seat 12.Pin
13.Pump shaft 14.Motor 15.Support 16.Frame

Technical Parameters

MODEL	CAPACITY (M ³ /H)	ROTATION SPEED(RPM)	MOTOR POWER (KW)
HDP-10	0 - 1.6	2900	1.5
HDP-20	0 - 3.2	2900	2.2
HDP-30	0 - 4	2900	4.0
HDP-40	0 - 5.5	2900	5.5
HDP-50	0 - 8.5	2900	7.5
HDP-60	0 - 12.5	2900	11.0
HDP-70	0 - 18.5	1450	15.0
HDP-80	0 - 26	1450	22.0
HDP-90	0 - 36	1450	30.0
HDP-100	0 - 52	1450	45.0

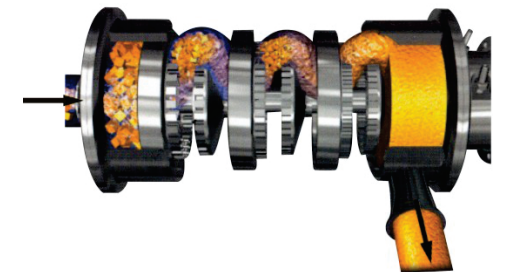
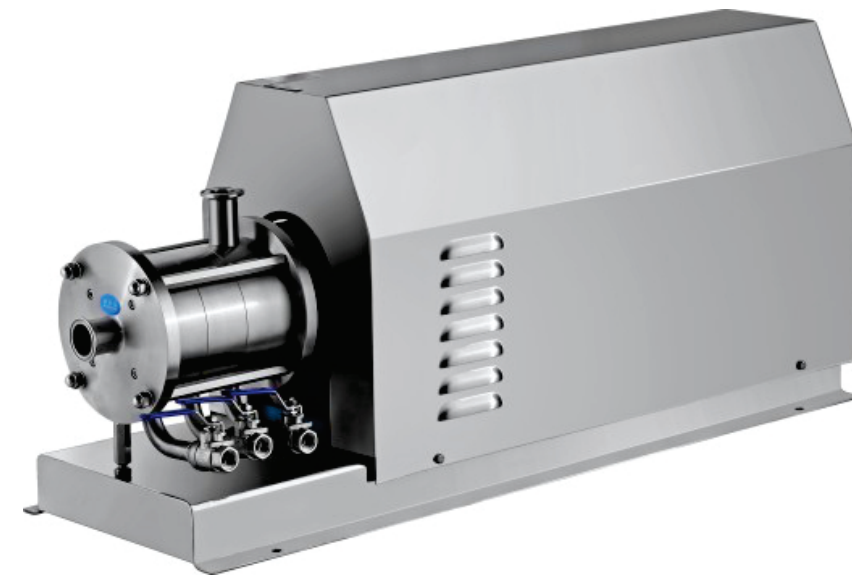
Note: the flow in the table refers to the data tested taking water as the medium. Outlet pressure of the listed type ≤ 0.2Mpa.
If a circulated procedure is adopted, intermittent high shear emulsifiers are recommended. If there is high temperature, high pressure, flammable, explosive or corrosive condition, the correct date should be provided by customers in order to customize the right producttype.
For mediums that flow slowly, pumps of matched flow rate should be equipped in the inlet.
The data in the table is subject to change without notice. See the actual products for the right data.



MODEL	L2	L	H	A	H2	H3	DΦ	BΦ
HDP-10	74	528	367	220	180	126.5	38	32
HDP-20	74	528	367	220	180	126.5	38	32
HDP-30	76	611	413	270	202	135	51	38
HDP-40	80	660	490	320	222	152.5	51	51
HDP-50	80	700	490	340	222	152.5	51	51
HDP-60	92	847	554	370	260	167.5	63.5	63.5
HDP-70	92	847	554	370	260	167.5	76.2	63.5
HDP-80	96.5	957	585	370	290	181	76.2	63.5
HDP-90	109	1035	650	430	310	186	89	76.2
HDP-100	115	1090	705	470	323	196	102	89

HDP3

3 Pipeline High Shear Emulsifying Pump



Technology Advantage

Three sets of stators and rotors are equipped in the working cavity. Driving shaft in the working cavity is an arm, electrical motor and the shaft in the bearing cabinet can be connected by spring coupling to improve the operation quality of the driving shaft. Seal form can be selected in different conditions. It is fit for middle-large scale online continuous production or circulated treatment production process.



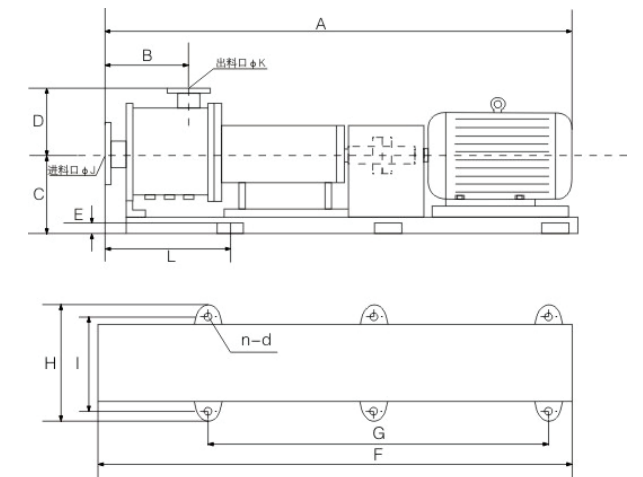
Coarse teeth
Beat, shatter, shear, dissolve, rough dispers



Middle teeth
Disperse, refine, solutize, emulsify



Fine teeth
Superfine disperse, emulsify, homogenize, pulpify



MODEL	MOTOR POWER (KW)	ROTATION SPEED (RPM)	A	B	C	D	E	F	G	H	I	J DN	K DN	L	CAPACITY (M ³ /H)	N - D
HDP3-100	4	2900	950	200	180	100	8	900	700	380	320	38	32	150	0 - 1.6	4 - Φ16
HDP3-200	5.5	2900	1070	230	232	155	10	1000	800	450	390	50	40	150	0 - 3.2	4 - Φ20
HDP3-300	7.5	2900	1315	245	260	170	12	1250	1050	505	445	65	50	150	0 - 4	4 - Φ20
HDP3-400	11	2900	1370	260	260	185	12	1300	1100	505	445	65	50	150	0 - 5.5	4 - Φ20
HDP3-500	18.5	2900	1430	300	280	220	15	1350	1150	550	480	65	50	155	0 - 8.5	4 - Φ20
HDP3-600	22	2900	1870	300	300	242	15	1800	1600	590	520	100	80	160	0 - 12.5	4 - Φ20
HDP3-800	30	1450	1980	300	350	280	15	1900	1700	710	630	125	100	165	0 - 18.5	4 - Φ24
HDP3-900	45	1450	2100	305	380	300	15	2000	1800	785	705	125	100	165	0 - 26	4 - Φ24

Notes: Flow listed on the table refers to the datas measured when the medium is water, the exit pressure $\leq 0.2\text{Mpa}$ of the model listed in the table. In conditions of high temperature, high pressure, flammability, explosion and erosion, relevant parameters must be provided clearly for selecting customization precisely.

For poor liquid medium, a pump which has a matching flow is suggested to feed at the inlet, input pressure $\leq 0.2\text{Mpa}$.

If the data in the table is modified, no further notification will be given, and the right parameters as per the provided sample.

