



Gaode Equipment CO., LTD.

(No.9, Building 14, Yard No.4, Fengqing Road, Jinshui District, Zhengzhou, Henan China)

HBT-E series electric concrete pump machine



1. Description of concrete pump machine:

Concrete pump is consist of pump, hydraulic system and pipeline, it could convey ready concrete under pressure through the pipeline continuously and it mainly used in the building, bridge and tunnel construction.

2. Application of concrete pump machine:

1) Conveying floor heating lightweight foamed cement, mortar, fine aggregate concrete



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- 2) Conveying refractory and insulation materials
- 3) Conveying greening soil in ecological environment construction
- 4) Conveying all kinds of engineering construction in the plain concrete, fiber concrete
- 5) Pressure grouting of foundation pile

3. Features of concrete pump machine:

1. For power system, domestic famous brand of motor is applied.
2. Using three pump system, oil hydraulic circuit work without interference on each other, small impact and high reliability.
3. With the function of anti-Pumping, it's conducive to timely eliminate blocking pipe failure, and can stop work for a short period of time.
4. The adopted advanced S pipe distributing valve can automatically compensate the wear gap with a good sealing property.
5. Adopt wear-resisting alloy glass-like plate and cutting ring, longer service life.
6. Long stroke material cylinder has prolonged the service life of material cylinder and piston.
7. The optimal designed hopper has better casing capability and higher work efficiency.
8. Automatic centralized lubrication systems can ensure a effective lubrication to the machine.
9. The humanized design of products makes the operation more convenient and the maintenance more simple.

4. System introduction:

I. Hydraulic system

1. The products adopts double-pump and double-circuit open hydraulic system. The pumping hydraulic circuit and S valve swing post hydraulic circuit work separately, which makes the system simple, component life extension, higher reliability, and is easy to fault judgment and ruled out.
2. In view of the weaknesses of big reversing impact of start system, technology is used to pumping hydraulic system to control pilot relief, which avoids the reversing impact and makes the main pumping hydraulic system more reliable and stable.
3. Pumping hydraulic system has safety overflow protection. At the same time, when system is over pressure, oil pump pressure automatically cuts off the interception device to make the main pump obtain more reliable protection.
4. Swinging oil-way adopts constant pressure pump to supply oil. It has great swinging strength and energy-saving function.
5. All pipe line adopt taper sealing or rectangle sealing, and pipe joint sealing is reliable.

Hydraulic System



- 1.Pump group
Hydraulic system supply oil by three separate way,
main oil pump adopt variable piston pump to make system stable,
and its output is adjustable and stop work when pressure is overhigh.



- 2.Oil filter and SDX-X
Adopting oil filter to make the oil clean and longer the hydraulic components life.
There is an SDX-X in the hydraulic system.
it can remove the pressure to make the maintenance safe.



- 3.Air cooling system+ Water cooling system
Main oil circuit adopt forced air cooling system





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II. Electric control system

The outstanding features of electric control system is advanced technology, easy operation and high reliability.

1. 90% of the electric elements are supplied by Mitsubishi Japan, which guarantees high reliability.
2. Compared with the domestic similar products, the electric control system is most simple, with the minimum quantity of components and highest reliability.
3. With wire remote control, it could be convenience to operate.
4. The adopted contactless commutation of proximity switch ensure the reversing reliable.





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III. Mechanical (mixing) distributing valve system

1. The design of the main force-summing element, such as hopper and S valve, adopt the mechanical engineering mechanics calculating program. Through this subdivision mesh finite element calculation to its stress state, structure system, the condition of stress concentration, the hopper and S valve have good structure steel level and manufacturability, which is useful to avoid the phenomenon of hopper distortion and S valve broken in the condition of high-rise pumping.
2. The agitator has unique structure, which totally separates the hydraulic motor and agitator bearing block. It will not influence the hydraulic motor even if there is seal abrasion and slurry leak. Meanwhile, using single motor can avoid the agitator's mixing torque out of sync caused by bi-motor under the condition of the concrete material abnormal.
3. The service life of wearing parts such as spectacle plate and cutting ring is long after continuous technical research. On the best pumping condition, it can pump 20000m³.

IV. Lubrication system

The lubrication system has concentrating automatic lubrication system; Pressure increment device and filter are fixed on output port of lubrication pump to ensure the lubrication system more reliable.

V. Cooling system

The big radiator equipment of forced cooling makes the working oil temperature of hydraulic system below 60° and ensures the host of the hydraulic system in a normal state.





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5. Technical data of concrete pump machine:

Model No.		HBT12-8E	HBT15-10E	HBT15-8E		HBT20-10E		HBT25-10E	
Max. theoretical concrete output (m³/h)		10-12	15-18	7	15	9	20	16	25
Max. theoretical concrete pumping pressure (Mpa)		8	10	8	4.5	10	5.5	10	5.5
Theoretical vertical conveying distance (m)		40-45	110	110		130		130	
Theoretical horizontal conveying distance (m)		150	300	300		350		350	
Max. Aggregate particles	Φ 76mm	10	12	25		25		25	
	Φ 89mm					30		30	
Slump (cm)		12-23	12-23	12-23		12-23		12-23	
Concrete tube conveying diameter (mm)		Φ 76	Φ 76	Φ 76		Φ 76/ Φ 89		Φ 76/ Φ 89	
Cylinder (pieces)		2	2	2		2		2	
Concrete cylinder diameter*route		Φ140×700	Φ140×700	Φ140×700		Φ 140×700		Φ 140×1000	
Oil tank volume (L)		100	100	120		180		220	
Filling height (mm)		950	950	950		1000		1000	
Hopper volume (m³)		0.3	0.3	0.34		0.35		0.35	



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Rated electric power	22	30	22KW	30KW	37KW
Overall dimension (LxWxH) (mm)	2300*1300*1410	2800*1300*1500	3380*1270*1245	3400*1420*1620	3770*1420*1620
Total weight (kg)	1200	1300	1480	1680	2100

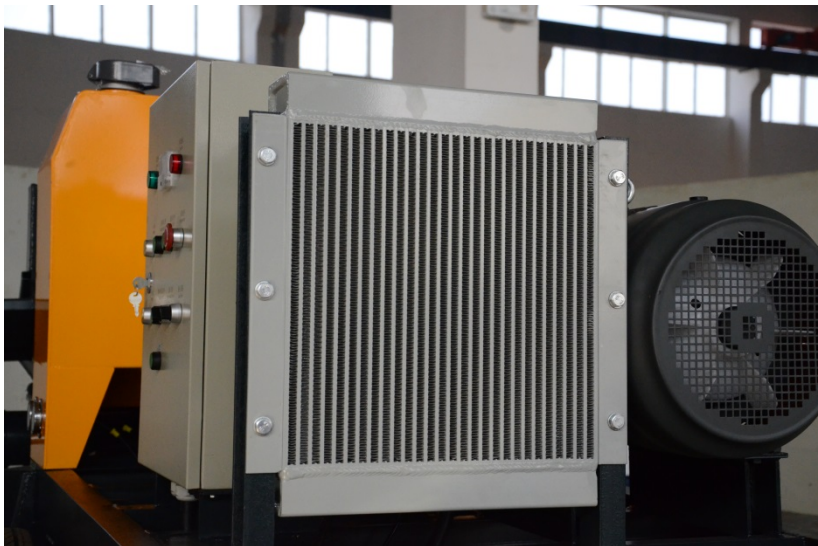
Model No.	HBT30-10E		HBT35-11E		HBT40-13E		HBT60-13E		HBT80-13E	
Max. theoretical concrete output (m ³ /h)	20	30	23	35	24	42	37	62	50	85
Max. theoretical concrete pumping pressure (Mpa)	10	5.5	11	6.8	13	6.8	13	6.8	13	6.8
Theoretical vertical conveying distance (m)	130		150		170		150		150	
Theoretical horizontal conveying distance (m)	350		400		450		400		400	
Max. Aggregate particles	φ 76mm	25								
	φ 89mm	30	30							
	φ 108mm		35	35						
	φ 133mm			40	40	40		40		
	φ 150mm				45	45		45		
Slump (cm)	12-23		12-23		12-23		12-23		12-23	
Concrete tube conveying diameter (mm)	φ 76/ φ 89		φ 89/ φ 108		φ 108/ φ 133		φ 133/ φ 150		φ 133/ φ 150	



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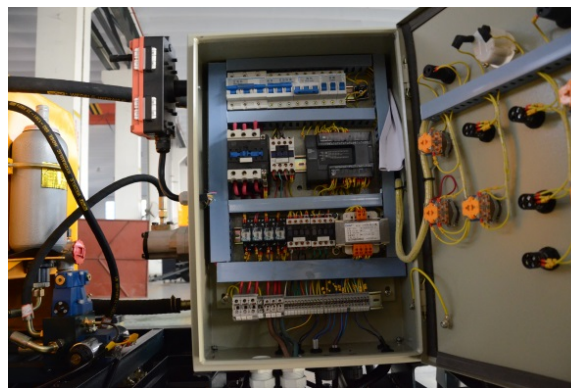
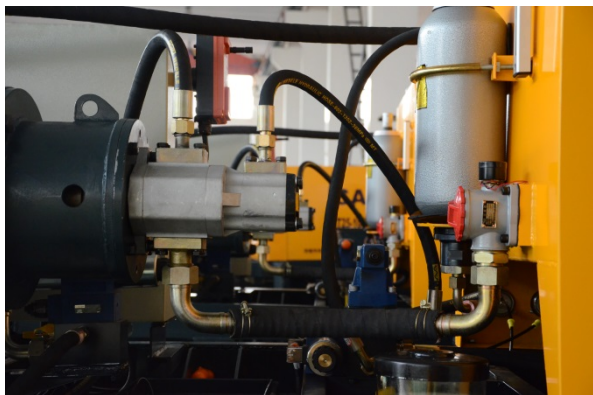
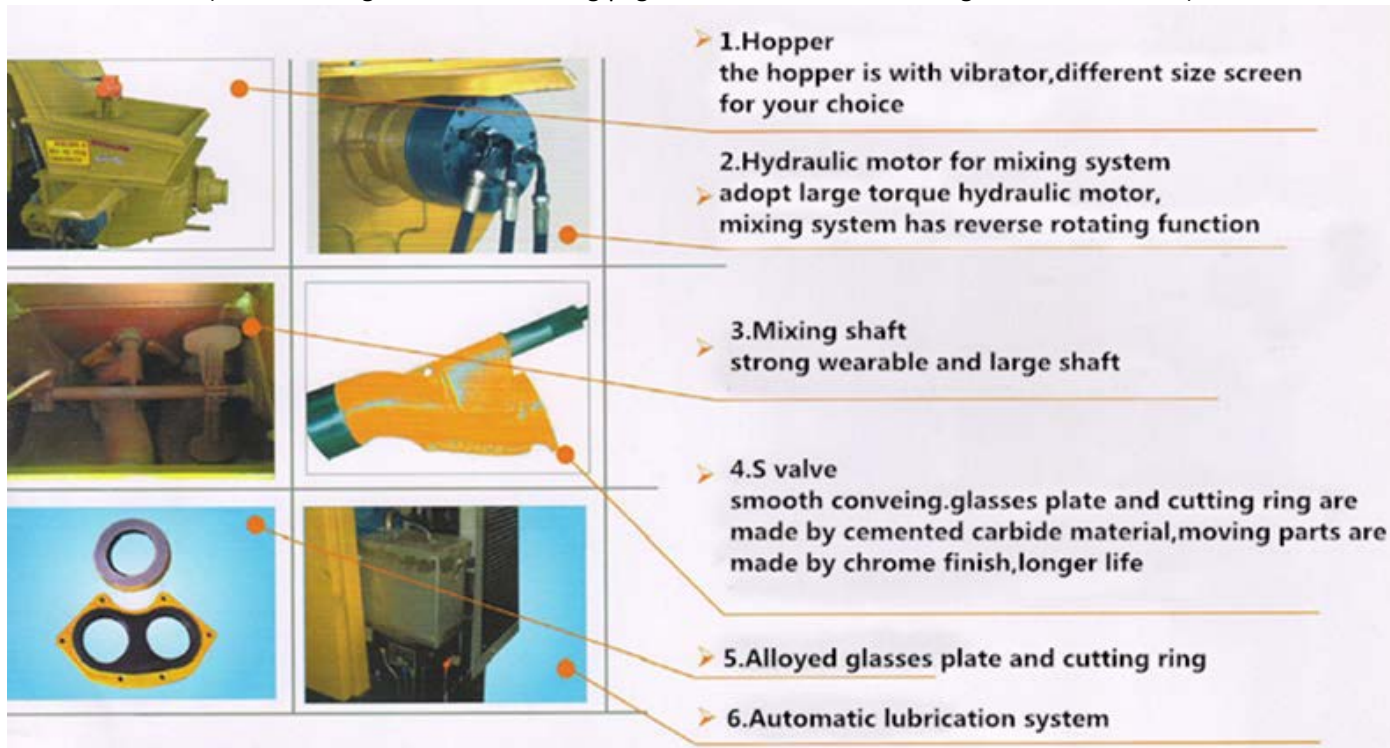
Cylinder (pieces)	2	2	2	2	2
Concrete cylinder diameter*route	Φ 140×1000	Φ 140×1000	Φ 180×1400	Φ200×1600	Φ 200×1800
Oil tank volume (L)	220	240	320	550	550
Filling height (mm)	1000	1100	1200	1400	1400
Hopper volume (m ³)	0.4	0.4	0.5	0.6	0.6
Rated electric power	45KW	45KW	55KW	90KW	110KW
Overall dimension (L×W×H) (mm)	3770*1420*1620	3990*1670*1650	4300*1670*1680	5400*1882*1965	5400*1882*1965
Total weight (kg)	2200	2900	3200	5200	5600





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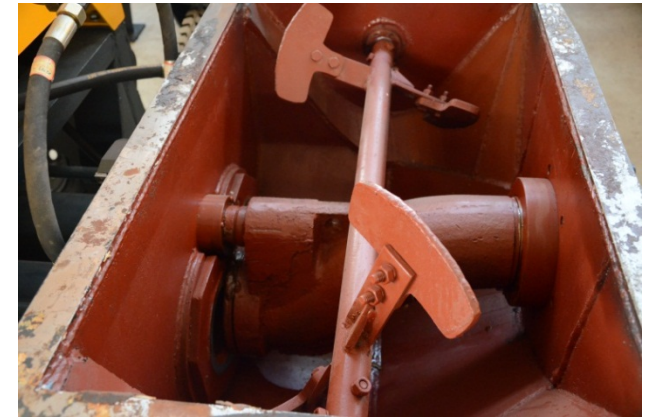
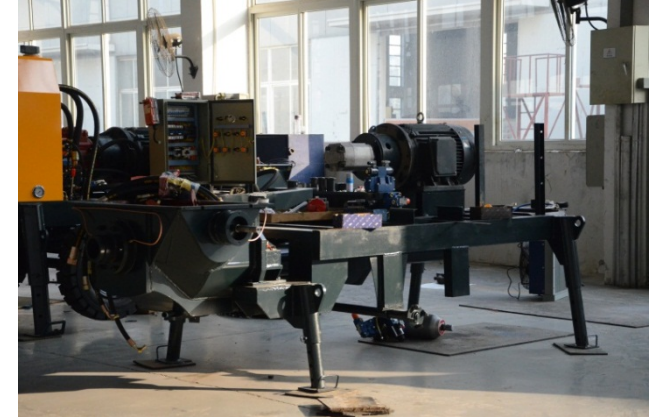
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5. Production of concrete pump machine:





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6.Delivery of concrete pump machine:





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7. Application of concrete pump machine:





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