



**Gaode Equipment CO., LTD.**  
(No.9, Building 14, Yard No.4, Fengqing Road, Jinshui District, Zhengzhou, Henan China)

## **HBT-D series diesel concrete pump machine**



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### **1. Description of diesel concrete pump machine:**

In order to meet the demand of open country and other no power supply constructions, we research and developed the diesel engine concrete pump. Our concrete pump is set of mechanical, electrical and hydraulic technology as one, with reliable performance of smooth operation and strong pumping capability. The diesel engine is with advanced high quality, low emission, low fuel consumption, meet the advanced standard. Reliability and stability is guaranteed by automatic engine regulation.

### **2. Application of concrete pump machine:**

- 1) Convey floor heating lightweight foamed cement, mortar, fine aggregate concrete.
- 2) Convey all kinds of engineering construction in the plain concrete, fiber concrete.
- 3) Conveying or injection of refractory and thermal insulation material;
- 4).Conveying or jet of greening soil on the construction of ecological environment;
- 5). Conveying or injection of plain concrete and fiber concrete for all kinds of engineering construction;
- 6) Pressure grouting of all kinds of foundation pile.

### **3. Features of concrete pump machine:**

1. Intelligent power control system to regulate the engine speed automatically, for smooth and efficient operation
2. Plunger pump with constant power, to ensure the efficiency of main engine
3. High delivery pressure for demand of high-rise and long distance projects
4. Good sealing S-valve, installed with floating wear resistant ring
5. High-quality wear resistant alloy components for long service-life
6. Air cooling system, without dependence of external water
7. PLC system to ensure best control performance
8. With re-pumping function to smooth construction of better accessibility
9. Equipped with wireless remote controller, easy to operate



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### 4. System introduction:

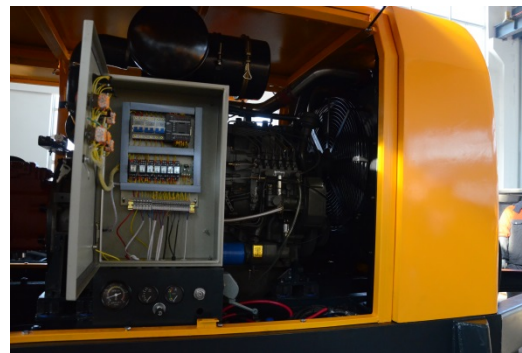
#### I. Hydraulic system

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.

#### 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 20000m<sup>3</sup>.

### 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.		HBT20-10D		HBT30-10D		HBT40-11D		HBT60-11D		HBT80-11D	
Max. theoretical concrete output (m³/h)		12	21	16	30	23	48	27	55	48	80
Max. theoretical concrete pumping pressure (Mpa)		10	5.5	10	5.5	11	5.3	9.3	4.7	11	6.4
Theoretical vertical conveying distance (m)		130		130		150		130		150	
Theoretical horizontal conveying distance (m)		350		350		400		350		400	
Max. Aggregate particles	Φ 76mm	25									
	Φ 89mm	30		30							
	Φ 108mm			35		35					
	Φ 133mm					40		40		40	
	Φ 150mm							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	
Cylinder (pieces)		2		2		2		2		2	
Concrete cylinder diameter*route		Φ140×1000		Φ140×1000		Φ 180×1400		Φ200×1600		Φ 200×1800	
Hydraulic oil tank volume (L)		180		180		320		460		460	

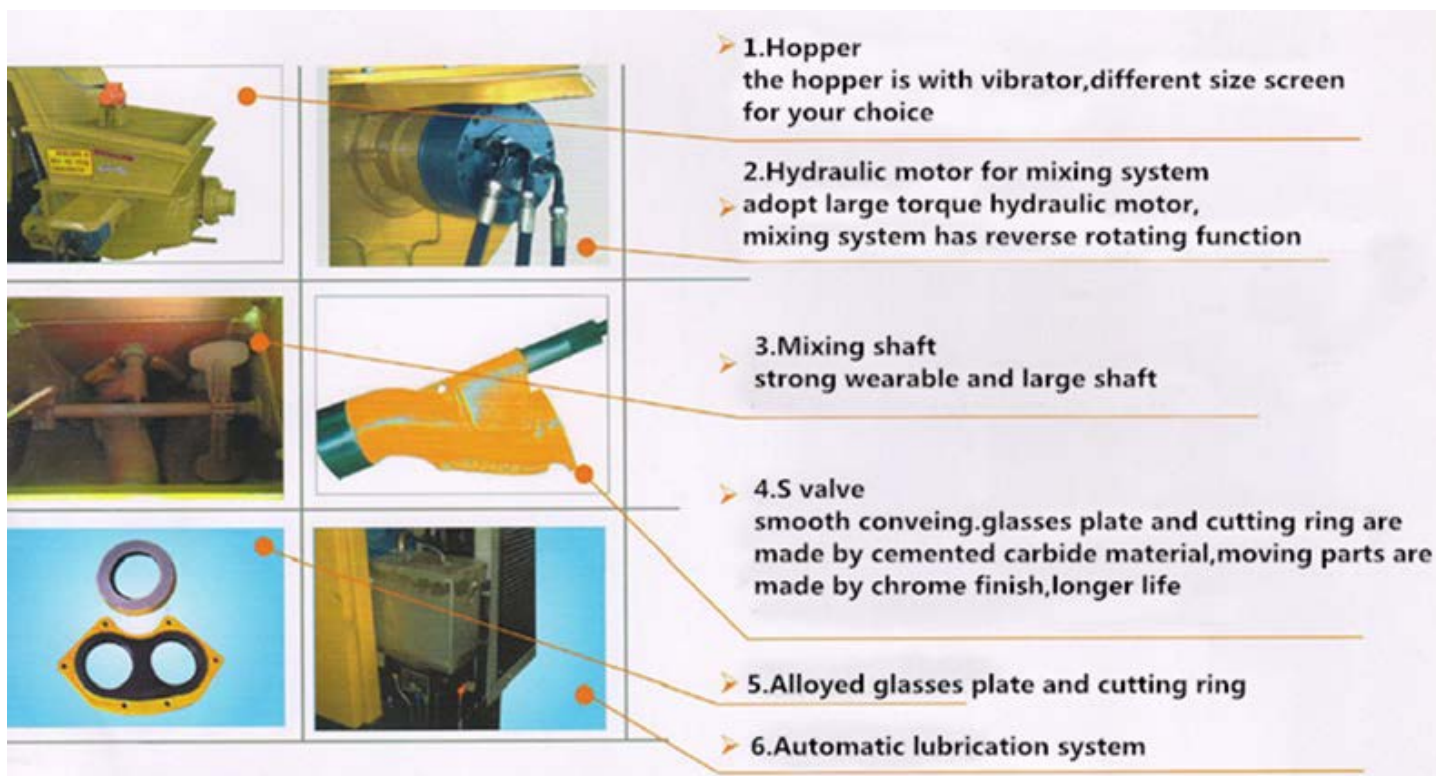




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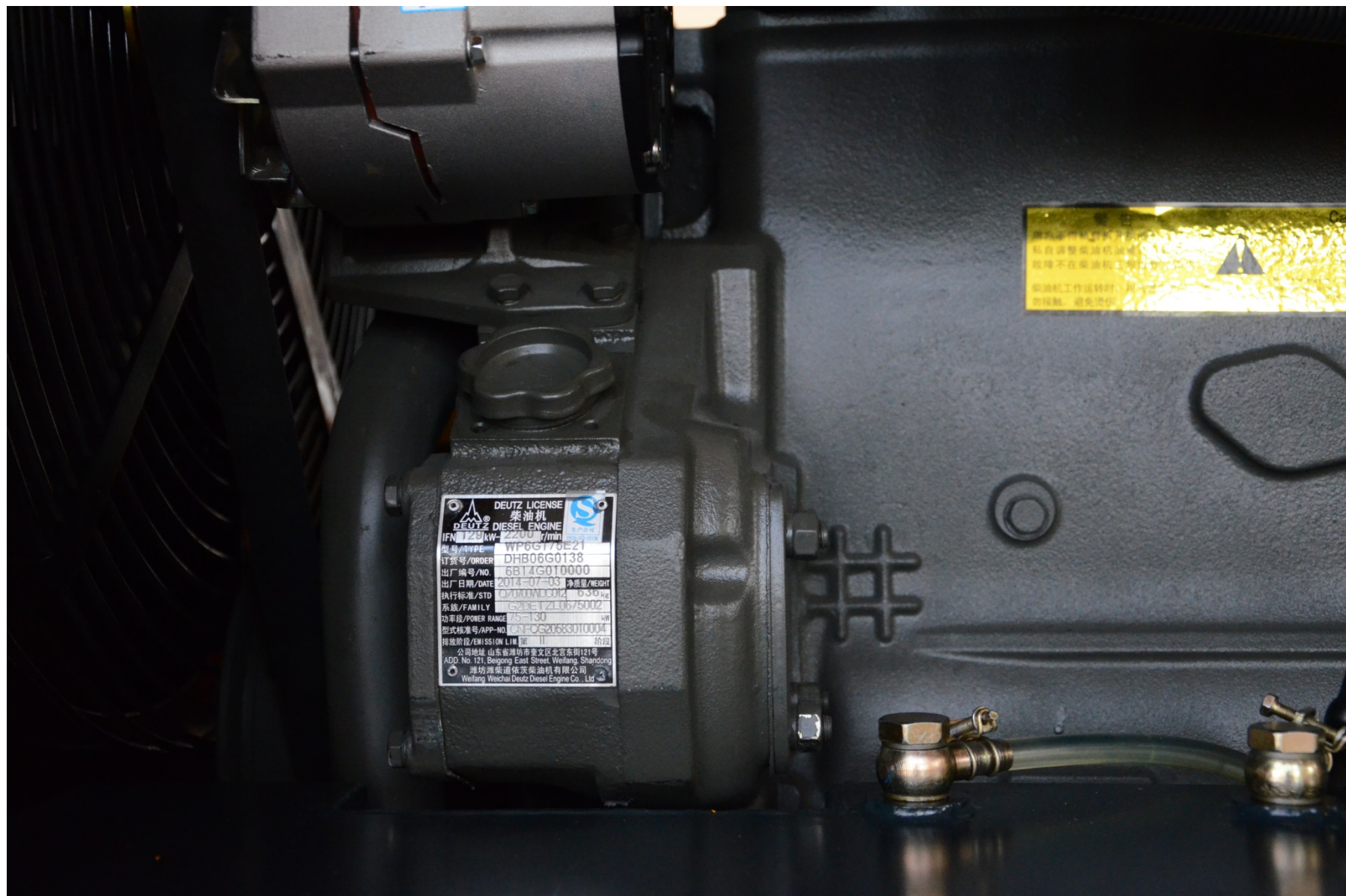
Filling height (mm)	1100	1100	1200	1400	1400
Hopper volume (m³)	0.35	0.45	0.5	0.6	0.6
Rated diesel power	40KW	46KW	66KW	112KW	161KW
Overall dimension (LxWxH) (mm)	4300*1670*1680	4300*1670*1680	4850*1670*2070	5100*2160*2600	5860*2230*2600
Total weight (kg)	2500	3100	3360	6000	6600





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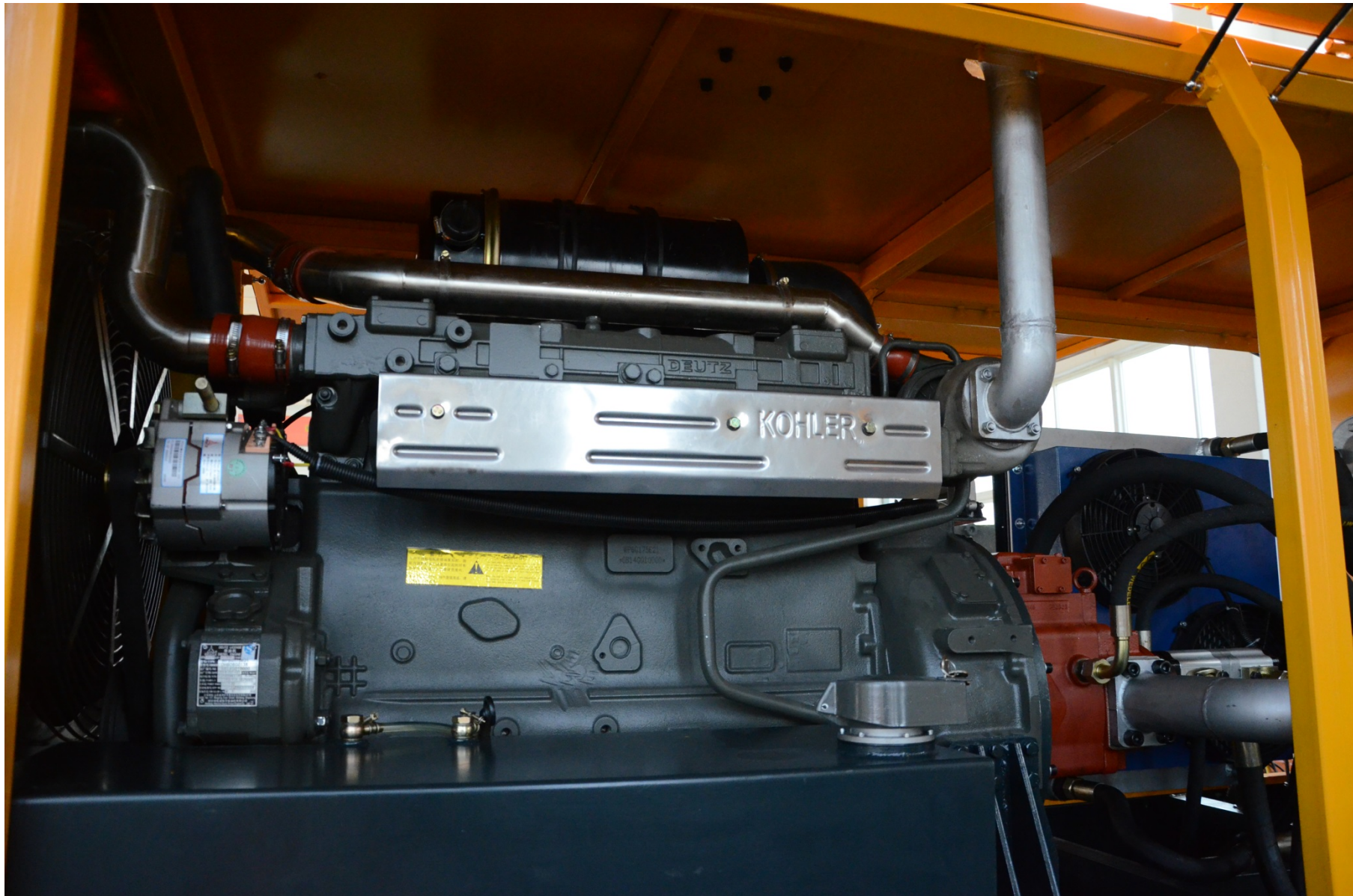






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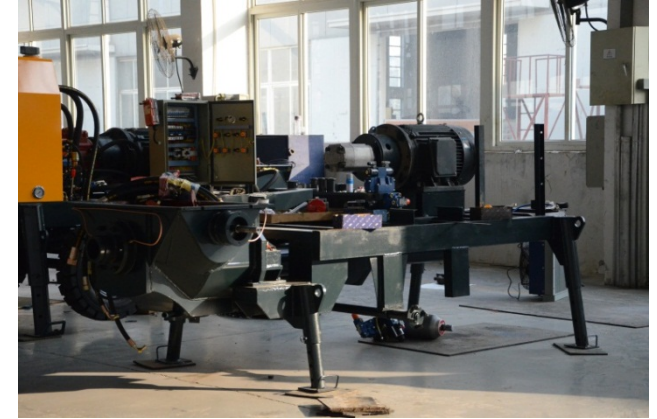




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### 5. Production of concrete pump machine:





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### 6.Delivery of concrete pump machine:







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### 7. Application of concrete pump machine:





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