



Precise Hydraulic Power System of The Great Leap Forward

ENERGY SAVING • POWER SAVING • NEW REVOLUTION

Machine-changing Instance



Hydraulic Servo System Specification Table

Model No.	Maximum flow L / min	Maximum pressure kg / cm ²
CRS1-20 / 20-32 / XX-380-A1	70	140
CRS1-25 / 25-40 / XX-380-A1	88	
CRS1-30 / 30-50 / XX-380-A1	110	
CRS1-40 / 40-64 / XX-380-A1	140	
CRS1-50 / 50-80 / XX-380-A1	176	
CRS1-50 / 50-50 / 40-380-A1	198	
CRS1-60 / 60-100 / XX-380-A1	220	
CRS1-80 / 75-64 / 50-380-A1	250	
CRS1-80 / 100-100 / 32-380-A1	290	
CRS1-100 / 100-100 / 50-380-A1	330	
CRS1-100 / 100-100 / 64-380-A1	360	
CRS1-130 / 125-100 / 80-380-A1	396	
CRS1-130 / 150-100 / 100-380-A1	440	

※ The above specifications are for reference only, it can be adjusted for customization according to customer demands.



Product Feature Description



1. High-performance Internal Gear Pump

- (1) High pressure: the highest reaches 300 kgf / cm².
- (2) Small noise: being fully consistent with the work environment requirements for low volume.
- (3) Low pulse and running smoothly.
- (4) Radial and axial pressure compensation with ultra-high efficiency.
- (5) Excellent suction with a wide range of hydraulic oil viscosity.
- (6) Wide flow range: from 3.5 c.c to 125 c.c in the single pump.
- (7) It can be used in the link of multi-pump and applied in multi-loop.
- (8) Optional Eckerle and Voith high pressure internal gear pump imported from Germany.



2. Permanent Magnet Synchronous Servo Motor

- (1) Three-phase industrial independent fan specially designed to avoid steering problems.
- (2) Silo body design to reinforce steel and reduce motor distortion.
- (3) Perfect dynamic balancing properties.
- (4) With the motor up to the IP54 protection class and the H-class insulation.
- (5) Using the special bearing to ensure long service life.
- (6) Magnet through magnetization, baking, and testing, to strictly control quality.
- (7) Built-in feedback interface and temperature protection contact.
- (8) The electric hopper can choose to use the DD motor.
- (9) In accordance with the needs, the induction servo motor can be chosen.



3. ABB Drive

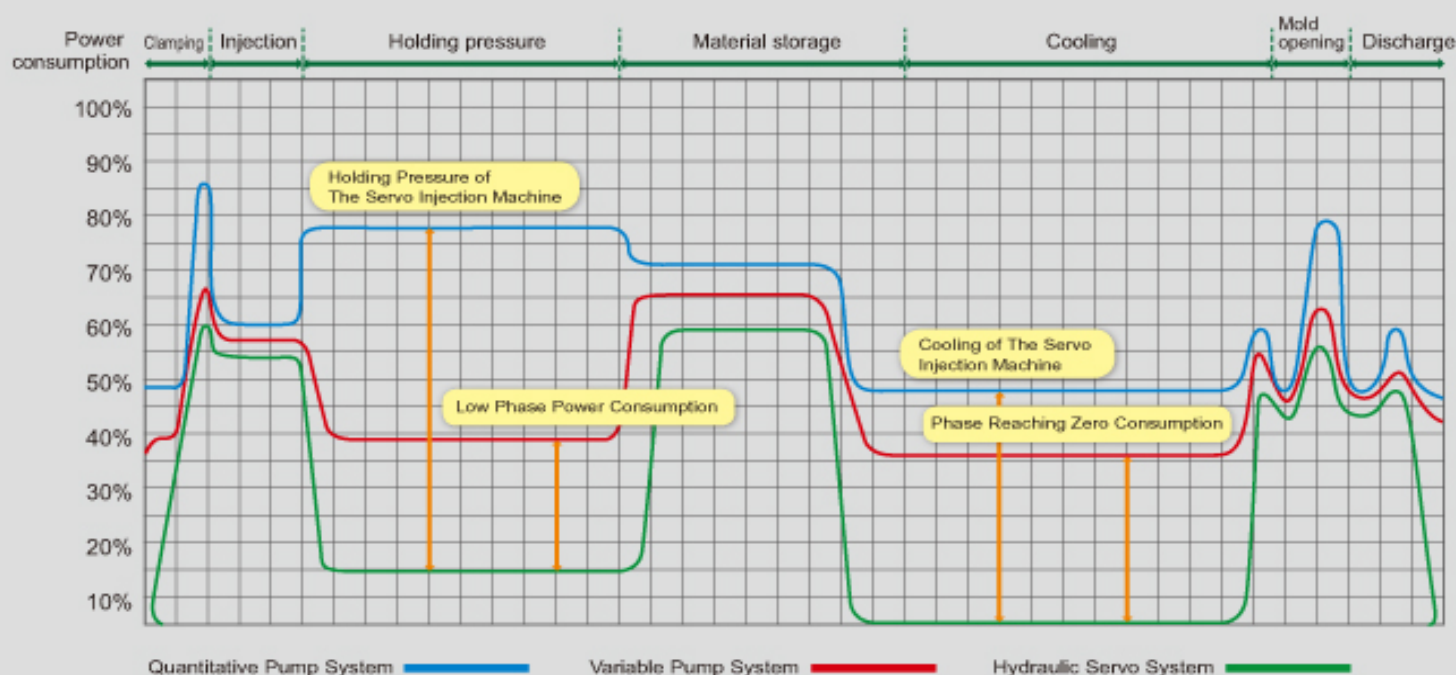
- (1) The inverter has excellent lightweight appearance and consistent design.
- (2) Strong brake function.
- (3) Built-in simple internal PLC programming function can replace the small PLC.
- (4) It can control traditional asynchronous motors, asynchronous servo motors, and permanent magnet synchronous motor, with high compatibility.
- (5) Direct Torque Control (DTC): precise, dynamic and static speed and torque control to reduce the vibration generated by rotation to minimum and also inhibit noise.
- (6) A variety of optional expansion cards.
- (7) Independent pluggable memory unit for easy replacement.
- (8) In accordance with the needs, the Taiwan-made drive can be chosen.



The Advantages of The Hydraulic Servo System

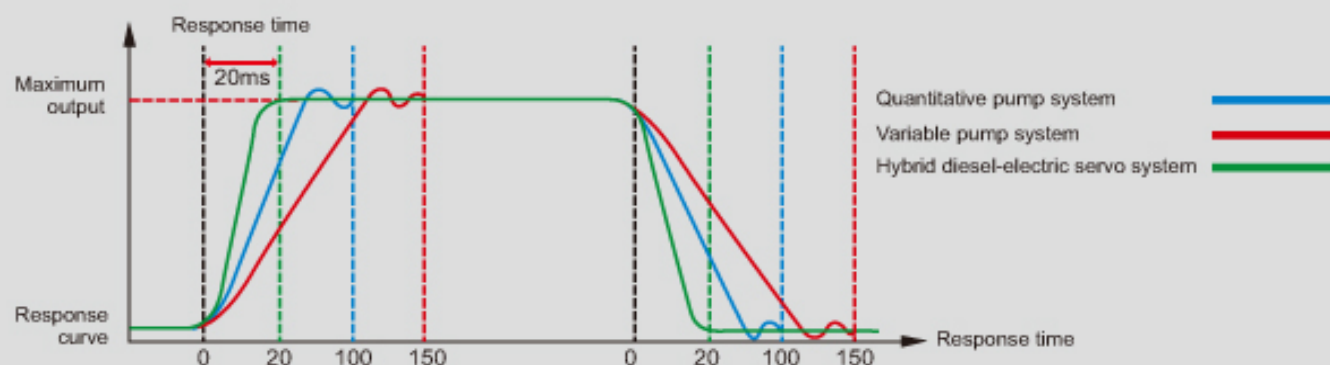
1. Effective Energy Savings

In the comparison of three systems, the hydraulic servo system combines with the drive, by the instructions sent by the host controller, according to the actual needs, making the motor output torque and speed without unnecessary waste and with the best effect.



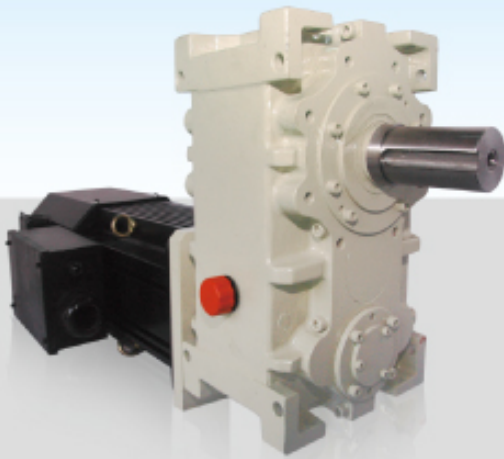
2. High Response and Precision

Its synchronous motor adopts magnet design, with small surge current and high motor efficiency, without slip problems. Through the excellent driving characteristics of the ABB drives, there are an effective control, high response, and high precision, making machine action achieve the requirements of stability and high reproducibility.



3. Low Loss, High Efficiency, and Low Noise

Since in synchronous motor design, silicon steel sheets are adopted so that in operation, the system can reduce iron losses, exciting noises in drive control, and energy loss, making the motor produce less heat and the bearing life can effectively extend.



Electric Material-storage System

In the case of rising energy costs, the energy saving issue has been more and more regarded, by which industrial machinery application changes also followed. In the case of needing large torque, the hydraulic motor is no longer the only one which can be used and the electric material-storage system becomes another new option, with the composition divided into two kinds:

1. Reducer + permanent magnet synchronous servo motor + drive
2. Direct drive DD motor + drive

The system has the following advantages:

1. The original hydraulic system specifications can be reduced in selection.
2. Energy consumption only occurs in action, making the machine more energy-efficient.
3. Due to independent material storage, the machine can do two actions simultaneously so that the production cycle can be shortened.
4. Precise and stable speed control.



Complete Machine-changing Supporting Programs and Application Examples In Industry

Machine-changing Processes

Customers suggest the demand

Obtain the following information in the site:

1. Machine specifications confirmed
2. Circuit diagrams obtained
3. Circuit diagram obtained
4. Measured data

Evaluation & Quote

Starting production after confirmation

1. Electrical box planning
2. Distribution test
3. PLC integration

Time confirmation of changing machine generally takes 1 to 2 days to completion
Acceptance testing

Evaluation & Quote



Electric Material Storage System Specification Table (With Reducer)

Model No.	Torque N-m	Maximum speed rpm
CRS1-22 / 22-112 / 8-380-DA	700	300
CRS1-30 / 30-112 / 8-380-DA	930	308
CRS1-37 / 37-125 / 8-380-DA	1316	270
CRS1-45 / 45-140 / 10-380-DA	2212	188
CRS1-75 / 75-160 / 10-380-DA	3066	223
CRS1-100 / 110-180 / 12-380-DA	5656	148
CRS1-120 / 132-200 / 12-380-DA	7000	170
CRS1-175 / 200-225 / 12-380-DA	10038	170
CRS1-160 / 200-225 / 16-380-DA	11998	130
CRS1-200 / 200-250 / 20-380-DA	18000	110
CRS1-266 / 315-280 / 20-380-DA	24000	90
CRS1-333 / 355-320 / 20-380-DA	29400	90
CRS1-400 / 450-320 / 20-380-DA	36400	99

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