



Pascal pump model X63

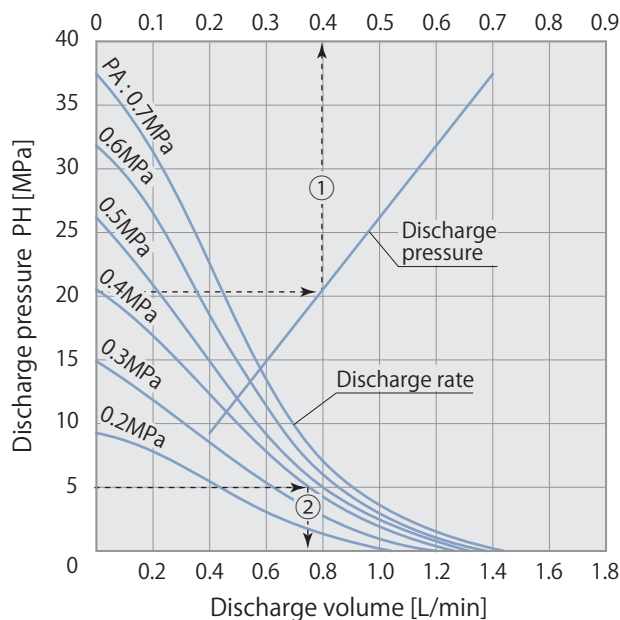
- Air-driven, compact, high performance hydraulic pump.
- Pascal pump is a compact but reliable hydraulic pump, which converts a compressed air force into high-pressure hydraulic power.
- Secure and high speed reciprocation of air and hydraulic piston generates a repetitive suction and discharge of air and oil. As the hydraulic pressure becomes close to the designated level, the reciprocation becomes slower. At the designated hydraulic pressure, the driving air force and hydraulic force become balanced to maintain the pressure.
- At the balanced condition, there is no air consumption so that there is no power loss or temperature rise compared to an electric pump. In the event of an air supply failure, the hydraulic pressure can be kept by the built-in check valve on the discharge side.
- If there is a decrease in the downstream holding pressure, the pump immediately reacts to start reciprocating to recover the pressure loss.

| Model               | X6308   | X6310   |  |
|---------------------|---|---|--|
| Control unit models | HCD2H-W HCD2H-S<br>HCSD-H2U HCSD-H2A<br>HCT-2 | HCD3H-W HCD3H-S<br>HCSD-H3U HCSD-H3A<br>HCT-3 | Air pressure range :0.2–0.7 MPa<br>Air consumption :0.4 Nm <sup>3</sup> /min<br>Operating noise :78±1 db (A)<br>Operating temperature :0–70 °C (No frozen) |
| Boosting ratio      | 58  | 37  |  |
| Mass                | 2.6 kg  |   |  |

**Performance diagram [Measured with operating oil ISO-VG32 at 20°C]**

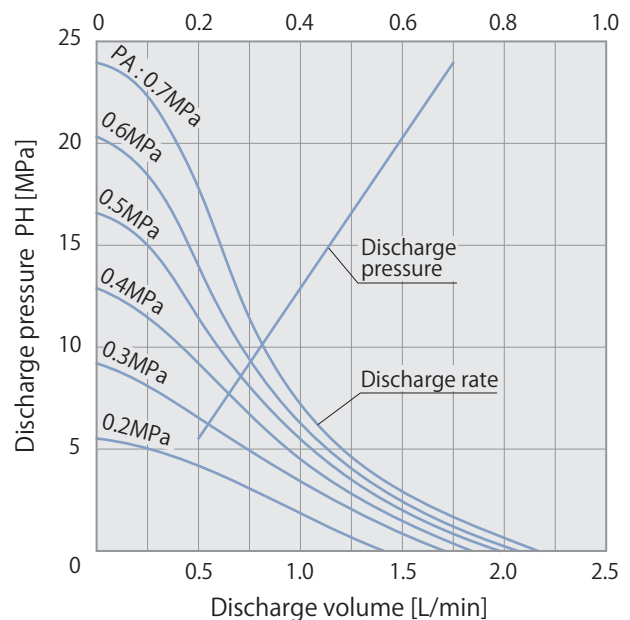
**X6308**

PH = 58 (PA-0.05)  
Air pressure PA [MPa]



**X6310**

PH = 37 (PA-0.05)  
Air pressure PA [MPa]



**1. How to read the discharge pressure (PH)\* [ex:X6308]**

\* :PH is the pump discharge pressure when cylinders are clamped and the circuit pressure is built up.

When 20 MPa is required for PH, the desired air pressure (PA) should be 0.4 MPa by following the chain line ①.

**2. How to read the discharge volume [ex:X6308]**

When 0.4 MPa air pressure (PA) is supplied, with discharge pressure at 5 MPa, the discharge volume should be 0.75 L/min by following the chain line ②. (Pump discharge pressure while cylinders are in action may vary according to the circuit structure.)