

Hydraulic Equipment Piping Joint Type

Screw connection type

The screw connection type refers to the type of connection where pipes are connected to hydraulic equipment using threads on the connection ports.

There are two types of thread, "parallel thread pipe" and "taper thread pipe".

● Example of threads used

| Thread type | Name | Standard | Example indication |
|-----------------|---|-------------------|---|
| Parallel thread | Parallel thread pipe | JIS B 0202 (1982) | G $\frac{3}{4}$ A (Parallel male screw) G $\frac{3}{4}$ B (Parallel male screw) G $\frac{3}{4}$ (Parallel female screw) |
| | Unified fine thread | JIS B 0208 (1973) | $\frac{7}{16}$ -20UNF-2B |
| Taper thread | Taper thread pipe | JIS B 0203 (1982) | R $\frac{3}{4}$ (Tapered male screw) Rc $\frac{3}{4}$ (Tapered female screw) Rp $\frac{3}{4}$ (Parallel female screw) |
| | American standard taper thread pipe | ANSI | NPT $\frac{3}{8}$ |
| | Dry seal type American standard taper thread pipe | ANSI | NPTF $\frac{1}{16}$ |

● Sealing on threads

| Thread type | Seal type | Remarks |
|-----------------|------------------------------|---|
| Parallel thread | O-ring seal | JIS B 2351 (1990) "Bite type tube fitting for 25 MPa {250 kgf/cm ² } hydraulic pressure" includes the parallel threaded O-ring boss and edge seal types. |
| | | SAE J 514 "UNF threaded O-ring boss" |
| | Molded packing (bonded seal) | Bonded seal from Ihara Science Corporation is recommended. |
| Taper thread | Sealing tape, liquid seal | |

Flange connection type

The flange connection type refers to the type of connection where pipes are connected to hydraulic equipment using flanges.

● JIS B 2291 (1994) Pipe flange for 21 MPa {210 kgf/cm²} hydraulic pressure

| Piping shape | Bolt type | O-ring groove | Type code |
|------------------------|------------------------------|---------------|-----------|
| Straight pipe line | Hexagon bolt | Provided | SHA |
| | | Not provided | SHB |
| | Hexagon socket head cap bolt | Provided | SSA |
| | | Not provided | SSB |
| Right-angled pipe line | Hexagon socket head cap bolt | Provided | LSA |

● SAE J 518 (with four bolts) split flange

- Standard-pressure series
- High-pressure series

(Daikin's pumps conform to the standard-pressure series.)

Gasket mount type

The gasket mount type refers to the type of connection where pipes are connected to sub-plates or manifolds with gasket seals using multiple bolts.