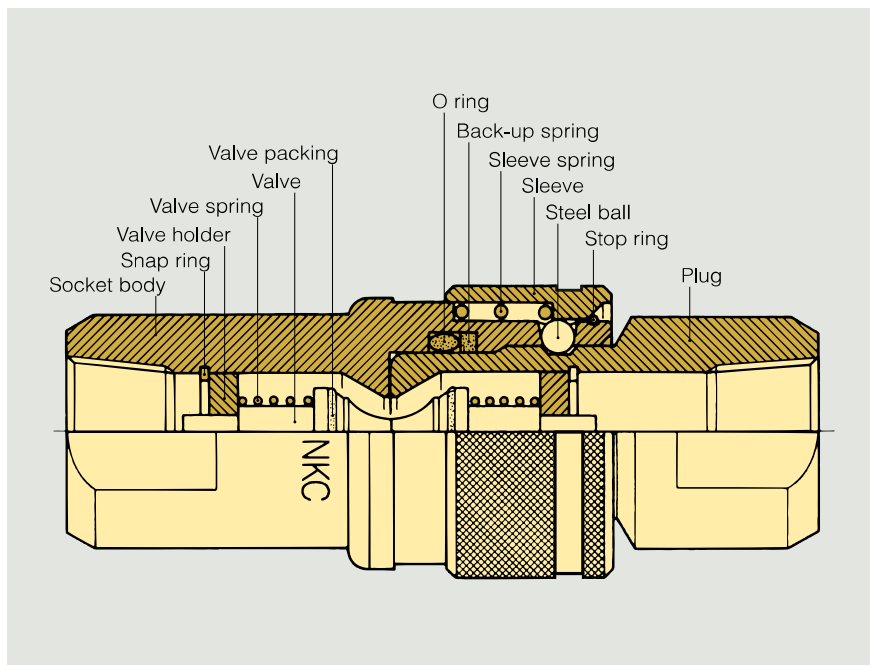


# HP Series

**For high pressure,  
Twin valve type**

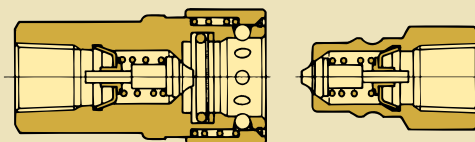


## Features

- Both the socket and plug of this twin valve coupling incorporate a shutoff valve. The moment the socket and plug are disconnected, the valves on the socket and plug sides contact the mating seat sections to completely seal the socket and plug sides.
- The body is made of S45C steel and hardened to ensure high durability and a high resistance to abrasion.
- This series has been designed for use under high pressure and is highly resistant to vibration and impact. It is ideal for pressurized gas pipes and machinery that uses high oil pressure.
- Due to low pressure loss, this series is ideally suited for highly pressurized oil and gas pipes.

## When disconnecting

When the sleeve of the socket is moved to the socket side, the steel ball can move freely in the outer circumferential direction. The plug is disconnected from the socket by the reaction forces of the socket and plug valve springs. The moment the plug is disconnected, the valves on the socket and plug sides contact the mating seat sections to stop the fluid from flowing.



## When connecting

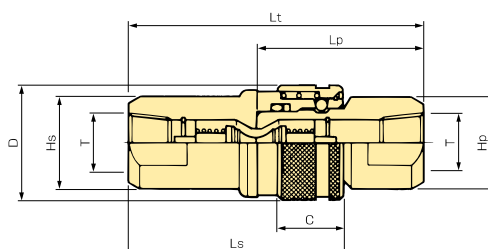
When the plug is inserted while the sleeve remains on the socket side, the sleeve is returned to its former position by the force of the sleeve spring. The steel ball locks in place to ensure connection. At this time, the valve on the socket side and that on the plug side push against each other to open the passage and to allow fluid to flow. The O ring and back-up ring completely prevent fluid leakage.

## Specification

| Model                                                         | HP-2                                     | HP-3 | HP-4 | HP-6 | HP-8 |
|---------------------------------------------------------------|------------------------------------------|------|------|------|------|
| Nominal diameter                                              | 1/4"                                     | 3/8" | 1/2" | 3/4" | 1"   |
| Material of socket / plug body                                | Steel/S45C(Zinc plated)                  |      |      |      |      |
| Connection method (type)                                      | Only female thread(both socket and plug) |      |      |      |      |
| Working pressure MPa<br>(Max.working pressure)                | 21.0<br>(31.5)                           |      |      |      |      |
| O ring, Valve packing material :<br>Working temperature range | NBR : -20°C~ +80°C                       |      |      |      |      |
| Applicable fluid                                              | Hydraulic oil                            |      |      |      |      |
| Use                                                           | Hydraulic machine                        |      |      |      |      |

## Notes

- Note that sockets can be connected to plugs only when their nominal diameters are the same.
- A female thread is used for connection. Do not over-tighten the mating male thread.
- Foreign matter, if allowed to adhere or enter, may cause leakage. Do not allow any pieces of the seal tape to enter the coupling.



## Model HP (Female thread)

| Model | Thread size<br>T<br>(Rc) | Socket(S)      |                  |      |      |         | Model | Plug(P)        |                |         | Assemblg<br>length<br>Lt.(mm) |
|-------|--------------------------|----------------|------------------|------|------|---------|-------|----------------|----------------|---------|-------------------------------|
|       |                          | Dimensions(mm) |                  |      |      | Mass(g) |       | Dimensions(mm) |                | Mass(g) |                               |
|       |                          | Ls             | Hs(φ/Face width) | D(φ) | C    |         |       | Lp             | Hp(Face width) |         |                               |
| HP-2S | 1/4"                     | 49             | 24/19            | 28   | 15.5 | 135     | HP-2P | 33             | 19             | 45      | 68                            |
| HP-3S | 3/8"                     | 60             | 28.5/23          | 33.5 | 17   | 220     | HP-3P | 38             | 23             | 70      | 80                            |
| HP-4S | 1/2"                     | 72             | 38.5/35          | 43   | 23   | 480     | HP-4P | 45             | 29             | 140     | 93                            |
| HP-6S | 3/4"                     | 72             | 38.5/35          | 43   | 23   | 450     | HP-6P | 48             | 32             | 145     | 100                           |
| HP-8S | 1"                       | 93             | 52/46            | 58   | 26   | 1050    | HP-8P | 61             | 41             | 330     | 120                           |