HYDRAULIC OIL

We recommend the use of mineral-based oil with characteristics and physical chemical properties suitable for the use on mobile equipment and hydraulic systems.

Examples of the types can be used:
MINERAL BASE OIL type HL (DIN 51524 part 1)
MINERAL BASE OIL type HLP (DIN 51524 part 2)

Viscosity Class: It's described in accordance with ISO DIN standard, the values expressed in ISO-VG indicate that the medium viscosity of the fluid at 40°.
Fluid World for proper operation is recommending for all components a viscosity that can go from 15 cSt to 250 cSt.

CONTAMINATION CLASSES

One of the greater disfunction and failure causes in the hydraulic system is the elevated contamination of oil.

The contamination class is indicated through two scales:
- ISO 4406: The norm is expressed by means of 3 numbers, that will determine the quantity of solid particles in 1 ml of fluid larger than 4/6/14 microns.

- NAS 1638: The norm is expressed by means of 1 number, that represents the particle amount, of various dimensions, contained in 100 ml of fluid.

WORKING PRESSURE	NOMINAL FILTRATION	CONTAMINATION CLASSES
Suggested for valves working with a system preassure equal or higher than 250 bar (3625 psi)	10 µm	ISO 4406: 19/17/14 NAS 1638: 8
Suggested for valves working with a system preassure from 100 bar (1450psi) to 250 bar (3625 psi)	15 µm	ISO 4406: 20/18/15 NAS 1638: 9
Suggested for valves working with a system preassure lower than 100 bar (1450 psi)	25 µm	ISO 4406: 21/19/16 NAS 1638: 10

WORKING TEMPERATURE

Our products are designed to operate at a fluid temperatures between - 20° C to + 80° C while the ambient temperature range can go from - 30° C to + 60° C.

PRESSURE SETTING

All valves are setted at the standard values specified in the catalogue. In case it's necessary to modify the setting, to act without never exceed the pressure range indicated.

Fluid World Hydraulics Evolution
Technical Specifications

STORAGE

Our products have to be maintained protected in their original wrap or antipowder system, protected from the solar beams and from sources of heat.
Make sure that an ideal storage temperature between of -10° C and +50° C is available.

INTERNAL LEAKAGE

Generally, our products thanks to their design ensure a mechanical seal with low leakage. For the range of products offered, the leakage in extreme cases is not more than 20 drops/min referred to the maximum working pressure and with oil at a viscosity of 46 cSt with a temperature of 40° C.

DIAGRAMS AND FEATURES

All diagrams in this catalogue report performance curves obtained by use of mineral oil at ISO viscosity VG32 and at 40° C with a degree of cleanliness of the system conforms to ISO 4406 19/17/14.

SEALS

O-Ring: made out of butadiene/acrylonitri (BUNA-N) and are suitable for temperature between the -20° and the +90° C. The anti-extrusion rings are made lubrifon (PTFE) or NBR (BUNA-N).

ASSEMBLY CARTRIDGE VALVES

Each cartridge valve must be mounted in the recess indicated in the catalog and must be mounted following the installation torques .
In addition it is recommended to lubricate the seals to prevent corruption in the assembly .