

F

MODULES

YUKEN's Modular Valves are stack type valves, and require no piping. They not only rationalise system build, but they also meet the technical requirements for a variety of hydraulic systems. Stacking systems is a new era in hydraulics.

The valves have standardized mounting surface conforming to ISO 4401 and optimum thickness for each size. Any hydraulic circuits can be easily composed by stacking the valves with mounting bolts. The valves can be used widely for hydraulic systems for various industries such as machine tools, special purpose machines, ships and steel mill equipment.

Valve Type	Max. Operating Pressure MPa (PSI)	Maximum Flow		Page
		L/min	U.S.GPM	
005 Series Modular Valves	25 (3630)	005		517
01 Series Modular Valves	31.5 (4570)	01	01*	535
03 Series Modular Valves	25 (3630)	03	03*	577
06 Series Modular Valves	25 (3630)	06		619
10 Series Modular Valves	25 (3630)	10		633

★ Maximum Flow for Throttle and Check Modular Valves.

Hydraulic Fluids

Fluid Types

Any type of hydraulic fluid listed in the table below can be used.

Petroleum Base Oils	Use fluids equivalent to ISO VG 32 or VG 46.
Synthetic Fluids	Use phosphate ester or polyol ester fluids. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used.
Water-containing Fluids	Use water-glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult your Yuken representatives in advance.

Recommended Fluid Viscosity and Temperature

Use hydraulic fluids which satisfy the both recommended viscosity and oil temperatures given in the table below.

Name	Viscosity	Temperature
005 Series Modular Valves	15 - 200 mm ² /s (77 - 900 SSU)	-15 - +60°C (5 - 140°F)
01 Series Modular Valves 03 Series Modular Valves 06 Series Modular Valves 10 Series Modular Valves	15 - 400 mm ² /s (77 - 1800 SSU)	-15 - +70°C (5 - 160°F)

Control of Contamination

Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valve.

Name	Contamination	Nominal Filtration
005 Series Modular Valves	Within NAS1638 - Grade 11	20 μm or less
01 Series Modular Valves 03 Series Modular Valves 06 Series Modular Valves 10 Series Modular Valves	Within NAS1638 - Grade 12	20 μm or less