WEBER-HYDRAULIK

Measurement parameters and standards

Valid for WEBER-HYDRAULIK valve manifolds and hydraulic systems*

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Measurement and test conditions

- Unless otherwise specified, all measurements are performed using mineral hydraulic oil in accordance with DIN 51524, type HLPD 32
- Oil temperature 35°C ± 3°C
- Viscosity class ISO VG 32 cSt
- Purity class (DIN EN ISO 4406) 17/15/12

Applied standards

- Hydraulic fluid power: DIN EN ISO 4413
- Hydraulic fluids: DIN 51524
- Filtration: ISO 4406

Tolerances and test parameters

The characteristics of hydraulic valves always depend on the operating and test conditions, particularly pressure, flow rate, temperature, oil viscosity, measurement method, etc. The relevant behavior (characteristic curves) is provided in the data sheets and catalogs for the individual valves/valve manifolds.

Typical test tolerances (supplier-side setting values may differ individually) are listed below:

Adjustable pressure valves (especially pressure limiting valves)	Nominal pressure ± 5 bar or ± 5% depending on what is higher, flow at 6 l/min
Non-adjustable pressure valves (especially pressure limiting valves)	Nominal pressure ± 10 bar or ± 10% depending on what is higher, flow at 6 l/min
Flow rate control valves	Nominal flow rate ± 10% **
Counterbalance valves	Flow rate = 0.0 l/min at nominal pressure - 10% Flow rate => 0.1 l/min at nominal pressure + 10% Leak test at nominal pressure - 25%
Hydraulic accumulator gas pre-tension	Nominal value ± 5 bar or ± 5% depending on what is higher, at 20°C gas temperature (hydraulically checked)
Nozzles	Nominal diameter ± 0.02 mm (each hydraulic test defined individually)

* Valid for products produced at the Wörth an der Isar location
** Δp is individual due to the hydraulic switching and the test layout