

BENCOR (Pty) Ltd.

Metering valves



Throttles and restrictor check valves type ED and RD

Throttles, types ED, RD, and RDF, belong to the metering valve group. They are used in hydraulic circuits to control the flow of single and double acting actuators.

The two smaller sizes (types ED and RD) are a combination of slotted and annular gap design to improve adjustability. The larger sizes feature an annular gap design only. The restrictor check valves, type RDF, make use of an orifice for throttling.

A shim, which is very sensitive to the slightest flow, functions as the check valve in restrictor check valves, type RD and RDF. The type ED valves are pure throttles.



Nomenclature: Throttle valve
Restrictor check valve

Design: Individual valve for in-line installation

Adjustability: Manually adjustable
Tool adjustable

p_{max}: 500 bar

Q_{max}: 12...130 l/min

Basic types and general parameters

Basic type and size ¹⁾	Flow Q _{max} (l/min) ²⁾	Oper. pressure p _{max} (bar)	Tapped ports	Symbol
ED 11..				ED
RD 11..	12		G 1/4	
RDF 11/..				
ED 21..				RD
RD 21..	30		G 3/8	
RDF 21/..				
ED 31..				RDF
RD 31..	60	500	G 1/2	
RDF 31/..				
ED 41..				
RD 41..	80		G 3/4	
RDF 41/..				
ED 51..				
RD 51..	130		G 1	

¹⁾ The throttle diameter with Type RDF can be only altered by replacing the orifice. Depending on size, diameters between 0.6 and 4 mm are available.

²⁾ These figures correspond to completely opened throttle and represent a back pressure of approx. 50 bar (throttled direction of flow)

Order examples

ED 31 K
Throttle type ED, size 31, tool adjustable (K)

RD 11
Restrictor check valve type RD, size 11, throttle is manually adjustable

RDF 41/1,4
Restrictor check valve type RDF, size 41 with a throttle diameter of 1.4 mm