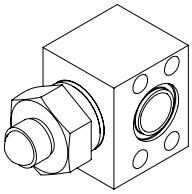
INDIVIDUAL HYDRAULICS



Throttling Check Valve SAE 3/4" Adjustable

446.063.211.9

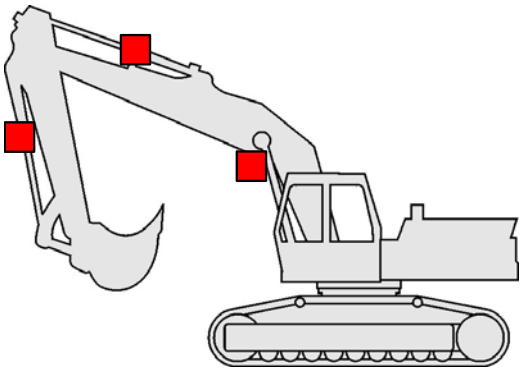
1 General

WESSEL throttling check valves are used to regulate the speed of cylinders.

1.1 Applications

Throttling check valves are flanged directly on the cylinder connection and are adjustable depending on the application (speed regulation or preventing cavitation).

1.2 Mounting Location (Recommendation)



WESSEL throttling check valves are flanged directly on the cylinder side to be restricted.

2 Function

The oil is fed to the cylinder via a check valve. (A-B)

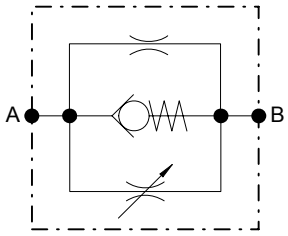
The speed regulation from B to A is performed via an adjusting spindle. Depending on the spindle setting, radial bore holes are released or closed and thus achieve the desired restriction of the volume flow.

A permanently open bypass orifice prevents the throttling check valve from closing completely.

3 Characteristics

- Low pressure loss during lifting
- Adjustable restriction during lowering
- Compact construction
- Direct installation on the cylinder

4 Hydraulic Diagram



Connections:

A	From the control unit
B	To the cylinder

5 Technical Data

5.1 General

Installation position:	Any
Weight:	2.24 kg
Maximum input pressure:	420 bar
Adjustable volume flow for the attachment:	Adjustable
Connections:	
A	SAE ¾" check valve function
B	SAE ¾" throttled return

5.2 Hydraulics

Input flow:	250 l/min
Hydraulic fluid:	Mineral oil (HL, HLP) conforming with DIN 51524, other fluids upon request
Hydraulic fluid temperature range:	-20 – +80 °C
Environmental temperature:	< +50 °C
Viscosity range:	2.8 – 500 mm^2/s
Contamination grade:	Filtering conforming with NAS 1638, class 9, with minimum retention rate $\beta_{10} \geq 75$

5.3 Standards

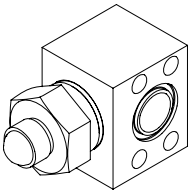
The following standards are to be observed because of the surface temperatures on the throttling check valve:

- EN 563
  Temperatures on surfaces that can be touched.
- EN 982
  Safety-technical requirements for fluid-technical systems and their components.

6 Installation

General Information

- Observe all installation and safety information of the construction machine manufacturer.



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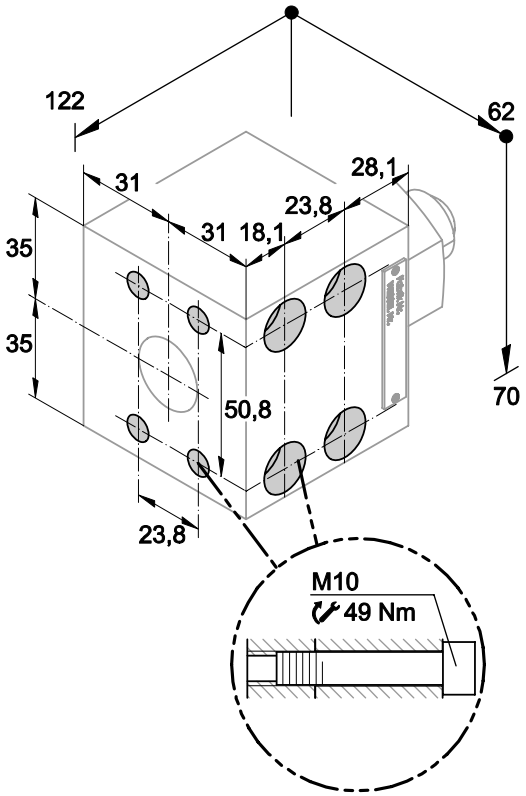
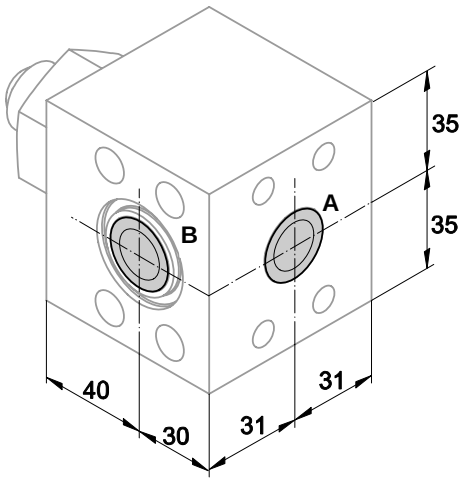
- Only technically permitted changes are to be made on the construction machine.
- The user has to ensure that the device is suitable for the respective application.
- Application exclusively for the range of application specified by the manufacturer.
- Before installation or deinstallation, the hydraulic system is to be depressurized.
- Settings are to be made by qualified personnel only.
- Opening is only to be performed with the approval of the manufacturer, otherwise the warranty is invalidated.
- No responsibility is taken for the correctness of these installation recommendations, the functionality and the technical details of the construction machine must be checked.

6.1 Installation

- Bolt onto cylinder with 4 clamp bolts.
- Seals and flange surface must not be damaged.



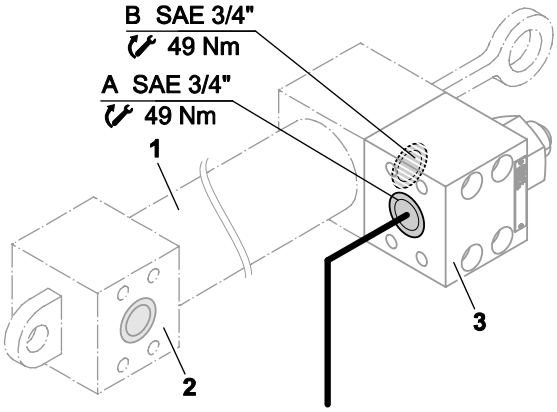
6.2 Connection Dimensions



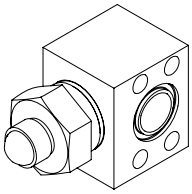
6.3 Connection Recommendations

CAREFUL

Hydraulic hoses are not to come into contact with the throttling check valve because otherwise they are subject to thermal damaging.
Ensure that standards EN 563 and EN 982 are observed.



1 Cylinder
2 Supply, ground side
3 Throttling check valve, rod side

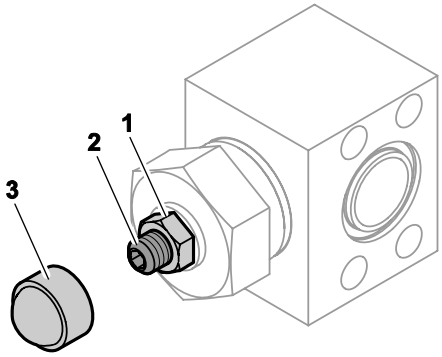


7 Settings

7.1 Volume Flow

ATTENTION

The throttling check valve heats up during operation. Contact with the unit can cause burns.



a. Remove the protective cap (3).
b. Undo the counter-nut (1).
c. Volume flow

   Increase: Turn the adjustment spindle (2) to the left to the desired restrictor position.

   Decrease: Turn the adjustment spindle (2) to the right to the desired restrictor position.
d. Tighten the counter-nut (2).
e. Position the protective cap (3).

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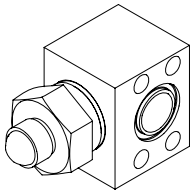

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