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OWNER'S MANUAL

QUANTUM-K

Manual abrasive metering valve

Clemco
International GmbH

Carl-Zeiss-Straße 21
83052 Bruckmühl
Germany

Tel.: +49 (0) 8062 – 90080
Mail: info@clemco.de
Web: www.clemco-international.com

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1 Scope of manual

These instructions cover the installation, operation, maintenance and replacements parts for Clemco's manual Quantum abrasive metering valve.

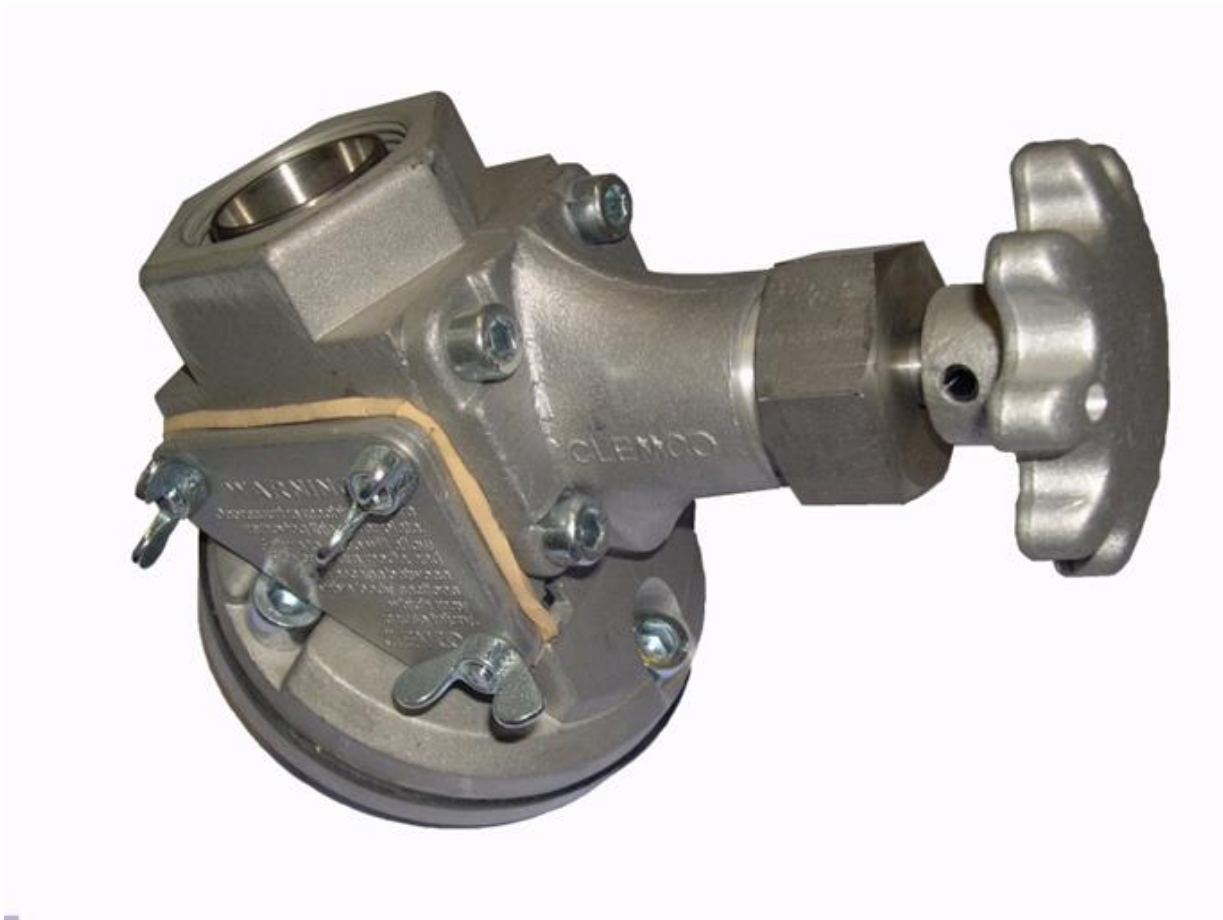
2 Application and restrictions

The manual metering valve adjusts abrasive flow by turning the metering knob. Once the abrasive flow is set the valve remains open at all times.

Abrasives: Various conventional types, e.g. steel grit, aluminium oxide, slag, glass beads

3 General description of the equipment and spare parts list

Figure 1 shows the components of the Quantum-K valve.



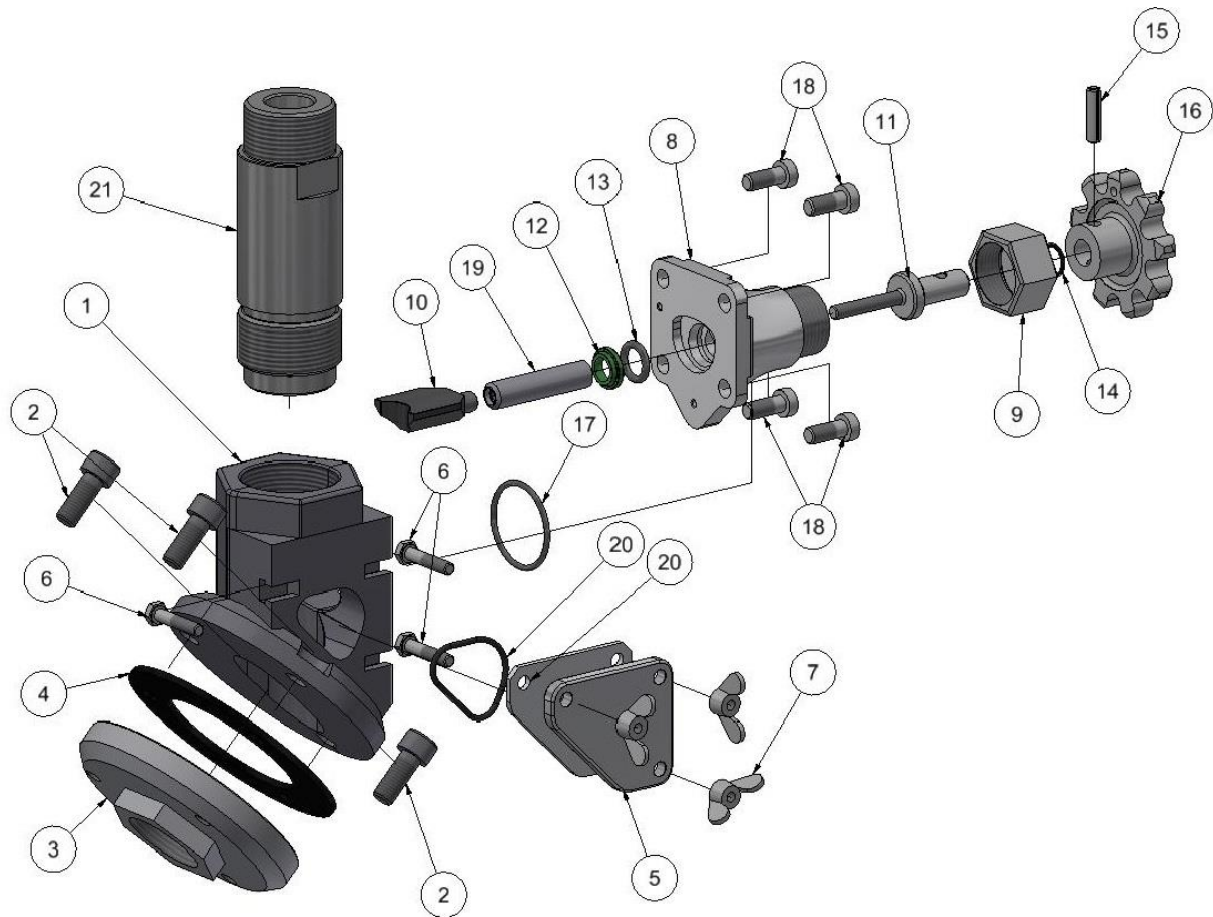


Figure 1: Spare parts list

Pos. No.:	Part no.:	Description	Pcs.
	22780D	QK-QUANTUM VALVE	
1	21314D	QK-ADAPTER FLANGE	1
2	24299D	SCREW M10X25 SOCKED HEAD	3
3	22621D	QK-OUTLET FLANGE	1
4	21322D	QK-LOWER FLANGE GASKET	1
5	22620D	QK-COVER	1
6	90395D	SCREW M 6 X 30MM	3
7	03113D	WING NUT M 6	3
8	22761D	QK-REAR HOUSING	1
9	24301D	QK-NUT (Stainless steel) WITH O-RING	1
10	22768D	QK-METERING PLATE KNOB ADJUST	1
11	22764D	QK-METERING SCREW	1
12	22624I	QK-FRONT WIPER SEAL	1
13	22609I	QK- O-RING	1
14	Part of 24301D	QK-O-RING (22765I)	1
15	12815I	QK-ROLL PIN	1
16	22766D	QK-ADJUSTMENT KNOB DRILL	1
17	22623I	QK-O-RING	2
18	90769D	SCREW M 8 X 16mm	4
19	22769D	QK- ADJUST SLEEVE (Stainless steel)	1
20	24300D	QK-COVER GASKET	1
21	24457D	QK-PIPE NIPPLE	1

Attention: Pos. 21 must be screwed till is tapped!

4 Operation

The Quantum-K valve is delivered ready for use. It is installed on the blast pot using the R 1 ¼" connection, as shown in Figure 2.

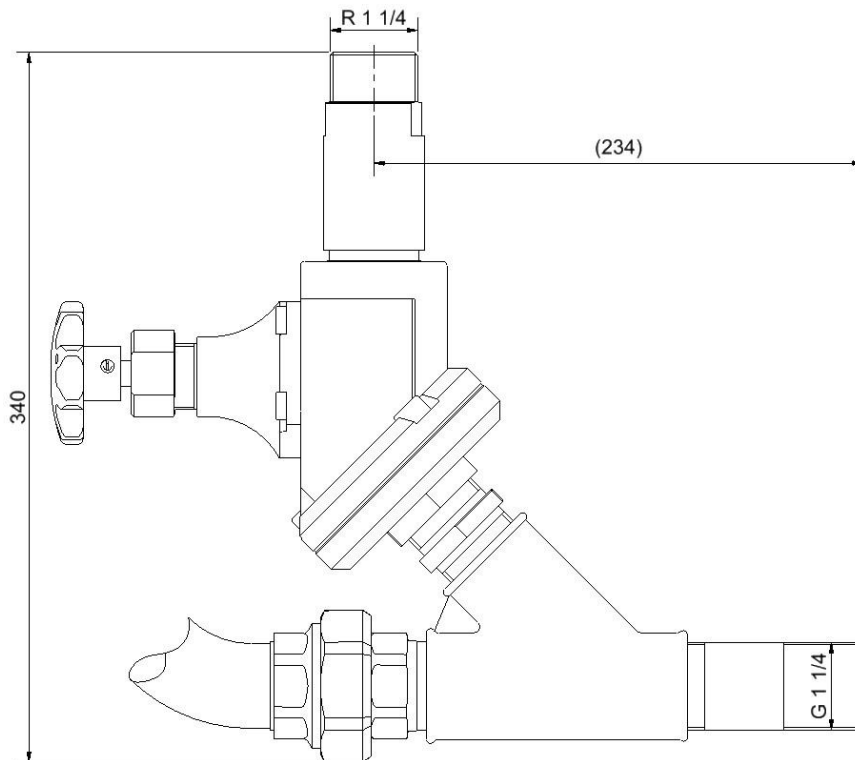


Figure 2:Installation on the pot

It can be put into operation only in combination with a blasting unit. Before using the machine, all personal involved with the blast machine operation must read the entire blast machine manual, including the yellow cover and all accessory manuals.

The following steps must be followed in order to operate the manual Quantum metering valve:

1. Start the blast operation
2. Turn the metering knob (see figure 1, Pos. 16)

By turning the adjustment knob, the flow of blasting media can be slowly opened or closed until an optimal mixture of air and blasting media flows out of the nozzle. (see figure 3)

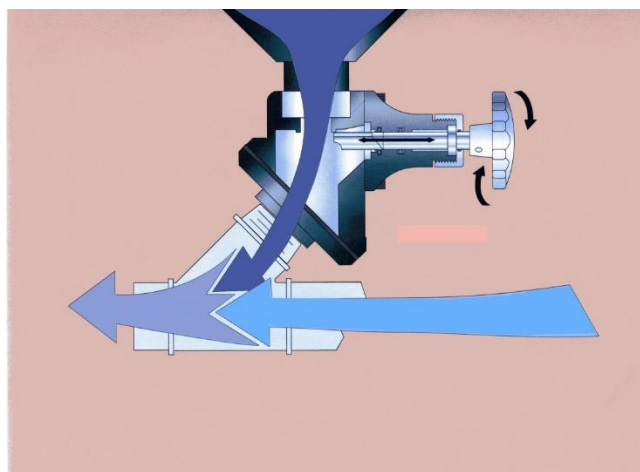


Figure 3:

5 Maintenance

Prior to maintenance, make sure that the air valve of the compressor is closed and the whole system is depressurized!

During operation all blast equipment is exposed to wear. In order to ensure safe operation and high efficiency the blast machines should be maintained regularly.

The wear is depending on several parameters (ex. abrasives, working pressure etc.)

The valve should be checked daily on visible damages in order to ensure airtight seals.

The metering function also should be checked daily.

Following steps should be followed in order to maintenance the valve in a mounted situation:

- Loosen the M6 wing nut (pos 7)

- Remove cover (pos. 5)

Check of the following parts is possible:

- Metering plate knob (pos.10) with adjust sleeve (pos.19)

- Adapter flange (pos.1)

- Sleeve mylarstop (pos.21)

6 Replacement of wear parts

During disassembling and reassembling of the Quantum –K valve for repair intention following work streams should be considered:

A Loosen the four screws M8x16 - (pos18) → Metering device lays open.

B Pull out the device consisting of rear housing (pos. 8) with mounted adjustment knob drill (pos. 16), metering plate (pos. 10) and adjusting stainless steel- sleeve (pos.19).

C Disjoin the metering plate (pos. 10) by unscrewing the adjust sleeve (pos.19).

D The mounting process of the valve will be effected in backwards sequence.

Note:

If necessary the valve can be disassembled on the place of installation in a mounted situation. Therefor the same steps as shown in § 6 (Replacement of wear parts) should be respected.