

OWNER'S MANUAL

Remote Control Valves

RMS 2000, 1500, 500

Clemco
International GmbH

Carl-Zeiss-Straße 21
83052 Bruckmühl
Germany

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

TABLE OF CONTENTS

1 SCOPE OF MANUAL.....	3
2 APPLICATIONS AND RESTRICTIONS.....	3
3 GENERAL DESCRIPTION.....	3
4 HOW THE SYSTEM WORKS	3
5 DISMANTLING AND ASSEMBLING OF THE REMOTE CONTROL VALVE	4
5.1 RMS 2000	4
5.2 RMS 1500 and RMS 500.....	5
6 MAINTENANCE	5
7 REPLACEMENT PARTS	6
7.1 RMS 2000	6
7.2 RMS 1500	7
7.3 RMS 500	8

1 Scope of manual

This owner's manual covers operation and maintenance of the remote control valve RMS 2000, the inlet valve RMS 1500 and the outlet valve RMS 500.

2 Applications and restrictions

The RMS 1500 / 2000 remote control valve is only to be used to pressurize and depressurize blast pots.

It is not designed for direct contact with abrasives; small amounts of dust result in wear but do not limit the function.

A **minimum working pressure** of **3bar** is necessary for reliable operation of the valve.

The **maximum working pressure** is **12bar**.

3 General description

A remote control system consists of:

- Remote control valve RMS 2000.
- Silencer.
- Remote control hoses.
- Deadman handle, for example RLX-II.
- Electric panel to transform electric signals into pneumatic signals (electric remote controls).

The remote control valve RMS 2000 incorporates an inlet and an outlet valve in one body. For special applications it is possible to separate the valve in an inlet valve RMS-1500 and an outlet valve RMS-500.

4 How the system works

When the blast machine is connected to an air supply line, compressed air is guided to the deadman handle through the brown remote control hose connected to fitting 24 in figure 1. When the deadman handle is depressed, the air is guided back to the remote control valve through the yellow remote control hose (fitting 24 in figure 1), and the inlet piston (No. 9, figure 3) is moved downward, so that compressed air is allowed to enter the pot. The same time the diaphragm piston (No. 4, figure 4) is pressed against the diaphragm (No. 3, figure 4) and seals the outlet port of the pot. The blast process starts. When the deadman handle is released, the control air is exhausted through the yellow remote control hose and the deadman handle. The inlet piston (No. 9, figure 3) is forced upward and the inlet port of the pot is sealed. The diaphragm (No. 3, figure 4) is opened through the air pressure of the pot and the pot is depressurized.

5 Dismantling and assembling of the remote control valve

5.1 RMS 2000

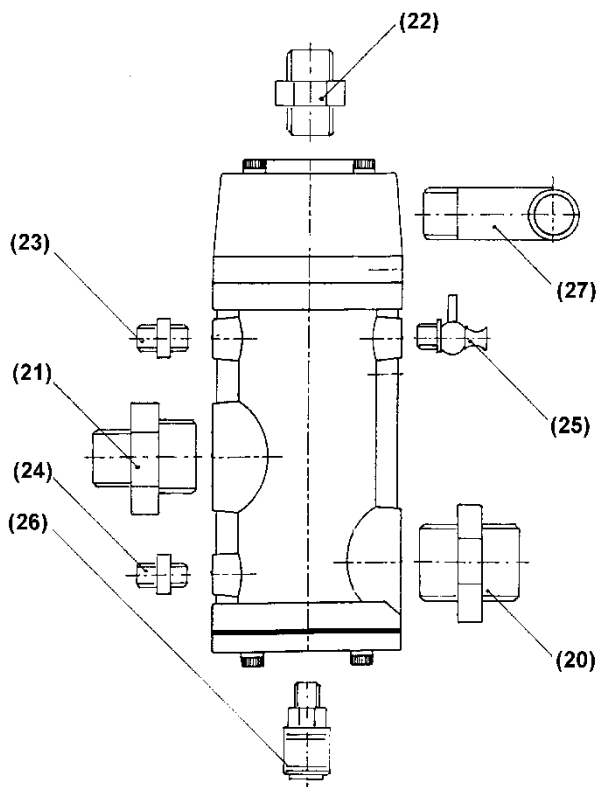


Figure 1: RMS 2000 with fittings.

(1) <i>Remove the remote control valve from the blast machine.</i>	<ul style="list-style-type: none"> – Disconnect the brown and the yellow remote control hose from the connections No. 23 and 24. – Remove the complete remote control valve with accessory parts from the blast machine.
(2) <i>Remove accessory parts.</i>	<p>Not necessary in every case:</p> <ul style="list-style-type: none"> ⇒ Moisture separator. ⇒ Silencer ⇒ Fittings.
(3) <i>Dismantle the components of the valve.</i>	<ul style="list-style-type: none"> – Remove screws from the outlet valve (RMS 500) with an Allen key (6 mm). – Remove the body of the outlet valve (RMS 2003). – Check for wear and replace worn parts. – Remove diaphragm (RMS 2004) and check for wear.

	<ul style="list-style-type: none"> – Carefully remove the guide (RMS 2005) from the valve body (RMS 2010). The diaphragm piston (RMS 2002) and the U-seal piston are also removed. – Remove the diaphragm piston (RMS 2002) from the U-seal piston (RMS 2006) with the piston spanner and loosen the screw (RMS 2007). – Check and clean the piston. – Remove the bottom cover (RMS 2012) through loosening the four screws (RMS 2011). – Check the bottom gasket (RMS 2013) for wear. – The inner unit (piston and the U-seal piston) can be removed by holding it in position with the piston tensioner and loosening the screw (RMS 2007) with the Allen key.
(4) Assembly.	<ul style="list-style-type: none"> – In reversed order. – Clean all parts before assembling them. – Always use new U-seals (RMS 2008). – Check the piping and the silencer for wear, before assembling the remote control valve in reversed order.

5.2 RMS 1500 and RMS 500

Same procedure as described for the RMS-2000.

6 Maintenance

The diaphragm (item 3, figure 4) of the outlet valve has to be checked for wear every **6 months** or **300 working hours**. The outlet valve has to be disassembled.

7 Replacement parts

7.1 RMS 2000

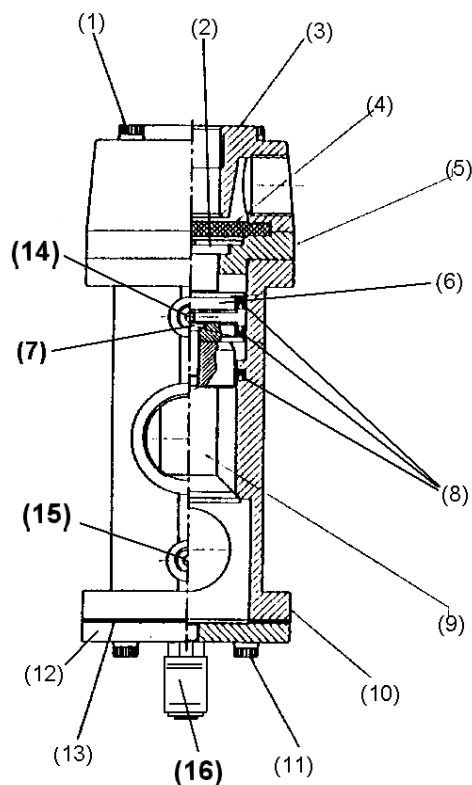


Figure 2: Replacement parts RMS 2000.

No.	Stock No.	Model	Description
(-)	100012	RMS-2000 B	Remote control valve 1½" with silencer
(-)	99928D	RMS-2000 C	Remote control valve 1½" without assessories
(1)	100013	RMS-2001	Screw M8 x 80 mm
(2)	100014	RMS-2002	Piston, diaphragm
(3)	100015	RMS-2003	Body, outlet valve
(4)	100016	RMS-2004	Diaphragm x
(5)	100017	RMS-2005	Guide, diaphragm piston
(6)	100018	RMS-2006	U-seal piston
(7)	100019	RMS-2007	Screw M10 x 25 mm
(8)	100020	RMS-2008	U-seal (3 pcs.) x
(9)	100021	RMS-2009	Inlet piston
(10)	100022	RMS-2010	Valve body
(11)	100023	RMS-2011	Screw M8 x 30 mm
(12)	100076	RMS-2012	Bottom cover
(13)	100025	RMS-2013	Bottom gasket x
(14)	02808D	¼"	Hexagon nipple, brass
(15)	02808D	¼"	Hexagon nipple, brass

(16)	94258D	¼"	Coupling
(-)	01993I	¼"	Pet cock
(-)	100026	RMS-2015	Allen key
(-)	100027	RMS-2016	Piston spanner
(-)	90060D		Gasket kit = x
(-)	90050D		Piping kit for RMS 2000

7.2 RMS 1500

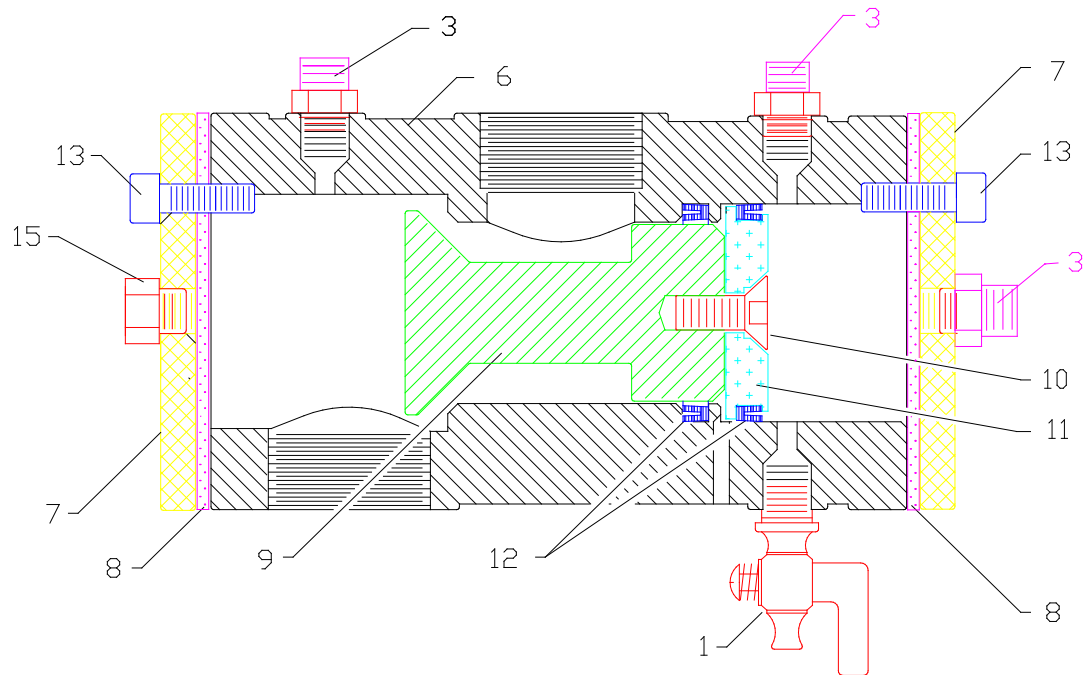


Figure 3: Replacement parts RMS 1500.

No.	Stock No.	Modell	Description
(-)	100028	RMS-1500	Inlet valve complete
(-)	100026	RMS-2015	Allen key
(-)	100027		Piston spanner
(1)	01993I	¼"	Pet cock
(3)	02808D	¼" x ¼"	Hexagon nipple, brass
(6)	100022	RMS-2010	Valve body
(7)	100076	RMS-2012	Bottom cover
(8)	100025	RMS-2013	Bottom gasket
(9)	100021	RMS-2009	Inlet piston
(10)	100019	RMS-2007	Screw M10 x 25 mm
(11)	100018	RMS-2006	U-seal piston
(12)	100020	RMS-2008	U-seal gasket
(13)	100023	RMS-2011	Screw M8 x 30 mm
(15)	01950D	¼"	Plug

7.3 RMS 500

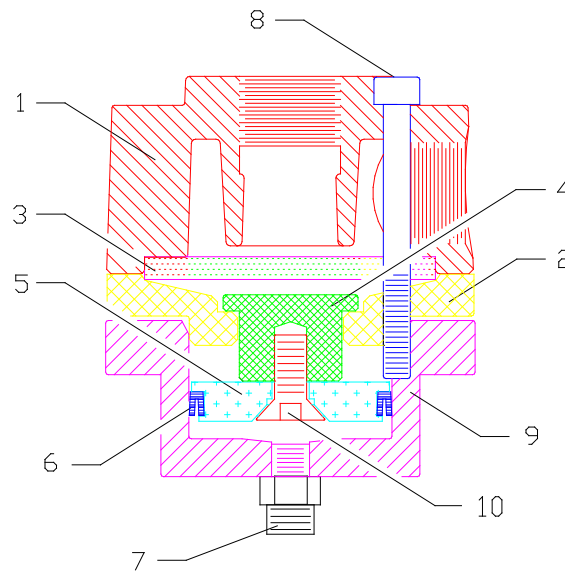


Figure 4: Replacement parts RMS 500

No.	Stock No.	Model	Description
(-)	100030	RMS-500	Outlet valve
(-)	90611D	RMS-500 A	Outlet valve with silencer
(-)	90477D	1" x 1"	Hexagon nipple No. 28
(-)	90548D	1"	Bend No. 1A
(-)	100026	RMS-2015	Allen key
(-)	100027	RMS-2016	Piston spanner
(1)	100015	RMS-2003	Body, outlet valve
(2)	100017	RMS-2005	Guide, diaphragm piston
(3)	100016	RMS-2004	Diaphragm
(4)	100014	RMS-2002	Piston, diaphragm
(5)	100018	RMS-2006	U-seal piston
(6)	100020	RMS-2008	U-seal
(7)	02808D	¼"	Hexagon nipple, brass
(8)	100013	RMS-2001	Screw M8 x 80 mm
(9)	100032	RMS-2014	Special cover for RMS-500
(10)	100019	RMS-2007	Screw M10 x 25 mm