



**Hodge Clemco Ltd**

# Remote Control Valve

Date of Issue: 13.02.03 TS.OM 219A

# Owner's Manual

Hodge Clemco Ltd  
Orgreave Drive  
Sheffield  
S13 9NR  
Tel: 0114 254 8811  
Fax: 0114 254 0250

# Machinery Directive

(89/392/EEC amended by 91/368/EEC, 93/44/EEC and 93/68/EEC)

## EC DECLARATION OF CONFORMITY

We HODGE CLEMCO LTD declare that the supplied equipment, when installed and used in accordance with the owner's manual provided, conforms with the essential health and safety requirements of the above Directive(s)



Engineering Manager



Managing Director

### **Maintenance Inspection Contract**

In response to numerous requests we are now able to offer a Maintenance Inspection Contract for your Clemco Equipment

These requests have been made by customers who appreciate the benefits of regular inspection; servicing on a planned basis. The remedial work which follows a breakdown or worse, the need for early equipment replacement due to accelerated wear may easily exceed the cost of a Maintenance Inspection Contract. If you would like further details please contact our Customer Service Department on

0114 254 8811

## **GENERAL MAINTENANCE, DISMANTLING AND ASSEMBLING INSTRUCTIONS OF THE RMS-2000 RECOVA REMOTE CONTROL SYSTEM**

**NOTE: These instructions are to be used in conjunction with the Owner's Manual appropriate to the blast cleaning machine.**

**Note: For operations where the inlet valve & exhaust are mounted separately refer to section 4 for exploded drawings & parts list.**

### **1. INTRODUCTION**

The exclusive RMS-2000 recova valve incorporates two valves in one body, the lower for compressed air inlet control and the upper for controlling the exhaust outlet of the abrasive blast cleaning machine.

A constant source of compressed air is supplied to the inlet, fitting (R or 1) on the pneumatic deadman handle via a minimum 1/4" i.d. flexible air hose from the fitting marked '1' on the lower part of the RMS-2000 body. The air supply is returned from the outlet fitting (Yor 2) on the deadman handle to the fitting marked '2' on the upper part of the RMS-2000 body by a second 1/4" i.d. air hose.

**Note: The RMS2000 system can also be controlled by an electric deadman handle. Refer to manufacturer's instructions for setting up and operation**

Activation of the two valves is achieved simultaneously on closing the deadman handle lever. Deactivation takes place immediately on release of the handle or by opening the safety petcock on the RMS-2000 valve body.(Opposite port numbered '2')

It is a feature of this system that the air exhausted from the abrasive blast cleaning machine does not pass through the working parts of the valve, thus any wear caused by airborne particles of abrasive is restricted to the rubber diaphragm (RMS-2004).

The valve is designed for easy maintenance with the use of only a few tools.

### **2. MAINTENANCE SCHEDULE**

**WARNING: ENSURE THAT THE COMPRESSED AIR SUPPLY TO THE BLAST MACHINE IS TURNED OFF AND THE BLAST MACHINE AND ALL AIR LINES ARE PURGED OF PRESSURE BEFORE ANY MAINTENANCE WORK IS CARRIED OUT. FOR ADDITIONAL SAFETY DISCONNECT THE COMPRESSED AIR SUPPLY HOSE FROM THE BLAST MACHINE AND ENSURE THAT THE AIR SUPPLY CANNOT BE ACCIDENTALLY TURNED ON AT SOURCE.**

#### **Daily Check:**

- (1) Open draincock on bottom cover, observe if water is present, (if water is present check condition of water separator). Close draincock.
- (2) Ensure that the rubber insert in the deadman handle is in position and in good condition. Renew as required.
- (3) Check that the control air hoses and connectors are air tight on the deadman handle and RMS-2000 valve.

**NOTE: If electric deadman handle is incorporated, refer to manufacturer's instructions.**

### **3. DISMANTLING AND ASSEMBLING INSTRUCTIONS**

- (a) Disconnect the control air hoses from adaptors at ports marked '1' & '2'
- (b) Disconnect water separator and inlet nipple.
- (c) Remove RMS-2000 valve and silencer from the abrasive blast cleaning machine, by releasing the two unions which connect it to the fixed pipework of the machine.
- (d) Remove the top elbow and associated pipework and silencer assembly from the exhaust manifold (RMS-2003).
- (e) Using the 6mm allen key, remove the socket cap screws (FAS M8 40A), lift off the exhaust manifold (RMS-2003) and inspect the component for excessive wear. Renew exhaust manifold if necessary.
- (f) Remove and inspect condition of rubber diaphragm (RMS-2004). If the surface shows signs of wear, fit a new diaphragm.
- (g) Carefully remove the exhaust cylinder (RMS-2005) from the valve housing (RMS-2010).
- (h) To remove exhaust piston (RMS-2002) from sleeve piston (RMS-2006), secure the piston by locating the peg spanner (RM 34) into the two dimples provided, and unscrew socket cap screw (RMS-2007). The surface of the cylinder and pistons can now be cleaned and examined for scoring.
- (i) To remove bottom cover (RMS-2012) unscrew socket cap screws (FAS M8 35A) using the 6mm allen key.
- (j) The internal sub-assembly can now be dismantled by locating the peg spanner (RM-34) into the two dimples provided and unscrewing the socket cap screw (FAS M10 42A) with the 6mm allen key.
- (k) Ensure that all parts are clean and dry before reassembling.
- (l) Fit new rubber 'U' seals (RMS-2008).
- (m) Inspect associated pipework & fittings for signs of wear and replace as necessary.
- (n) Inspect and clean out the silencer and replace parts as necessary.
- (o) The valve can now be re-assembled by reversing the dismantling procedure.  
**NB. Fit new bottom cover gasket if original is damaged.**
- (p) Ensure that the two breather holes in the valve body (RMS-2010) and exhaust cylinder (RMS-2005) are not blocked for this will cause a malfunction of the valve.

***IMPORTANT: DO NOT OVER-TIGHTEN NIPPLES OR LUBRICATE VALVE.***

## **4.0 VALVE WITH REMOTE EXHAUST OPERATION/MAINTENANCE**

### **4.1 INTRODUCTION**

Flexibility of design allows for the exhaust section to be remotely mounted from the main valve body by incorporating the following additional parts:-

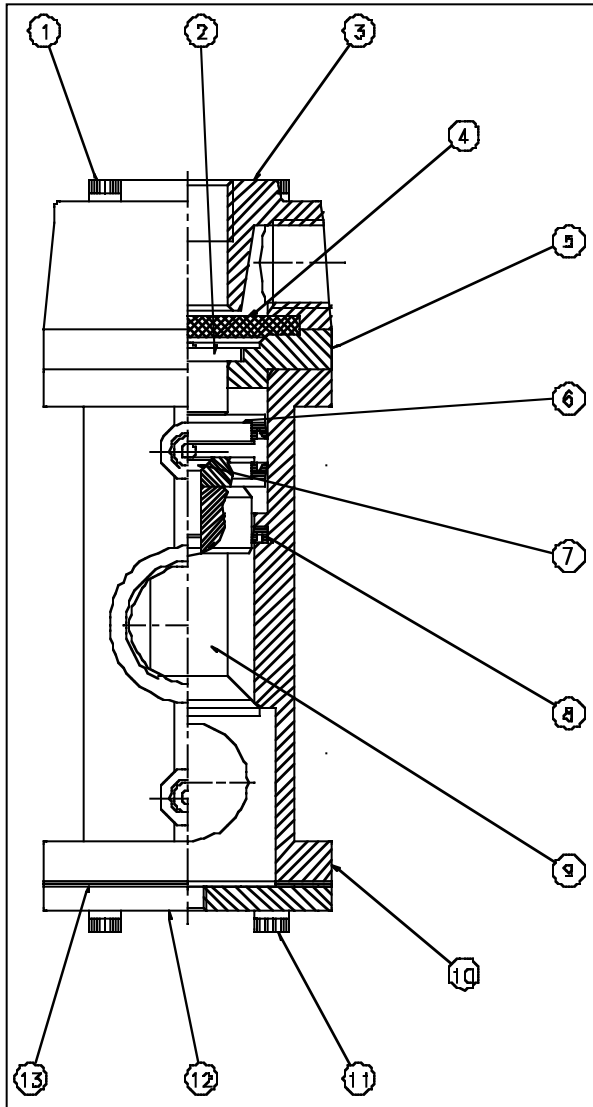
1 x RMS 2013	Gasket
1 x RMS 2014	Exhaust valve bottom cover (special)
4 x FAS M8 35A	M8 x 30 long Allen cap screw

Activation of the two valves is achieved simultaneously on closing the deadman handle lever. Deactivation takes place immediately on release of the handle or by opening the safety petcock on the RMS-2000 valve body (Opposite fitting numbered '2').

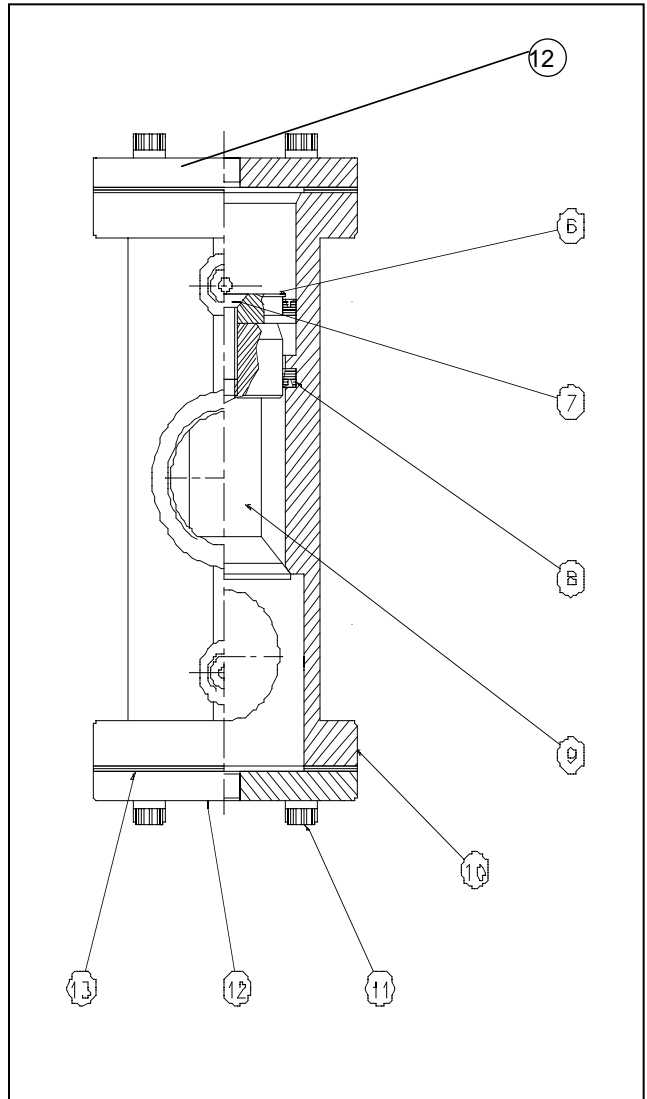
## 4.2 DISMANTLING AND ASSEMBLING INSTRUCTIONS

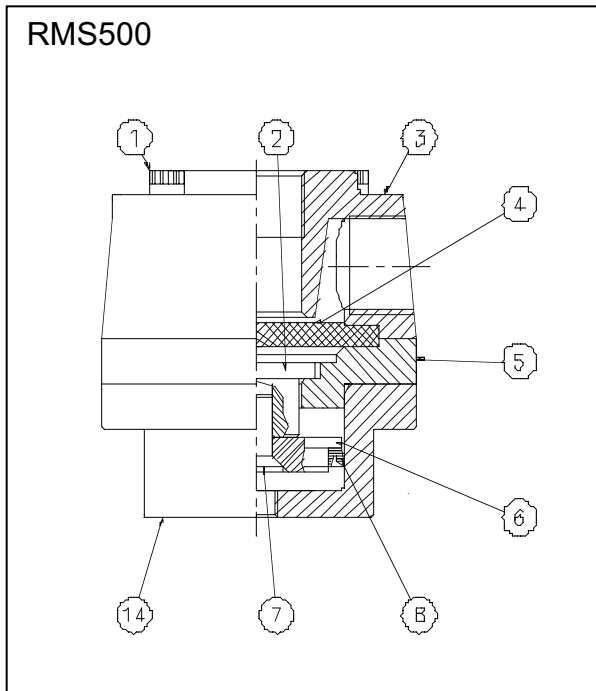
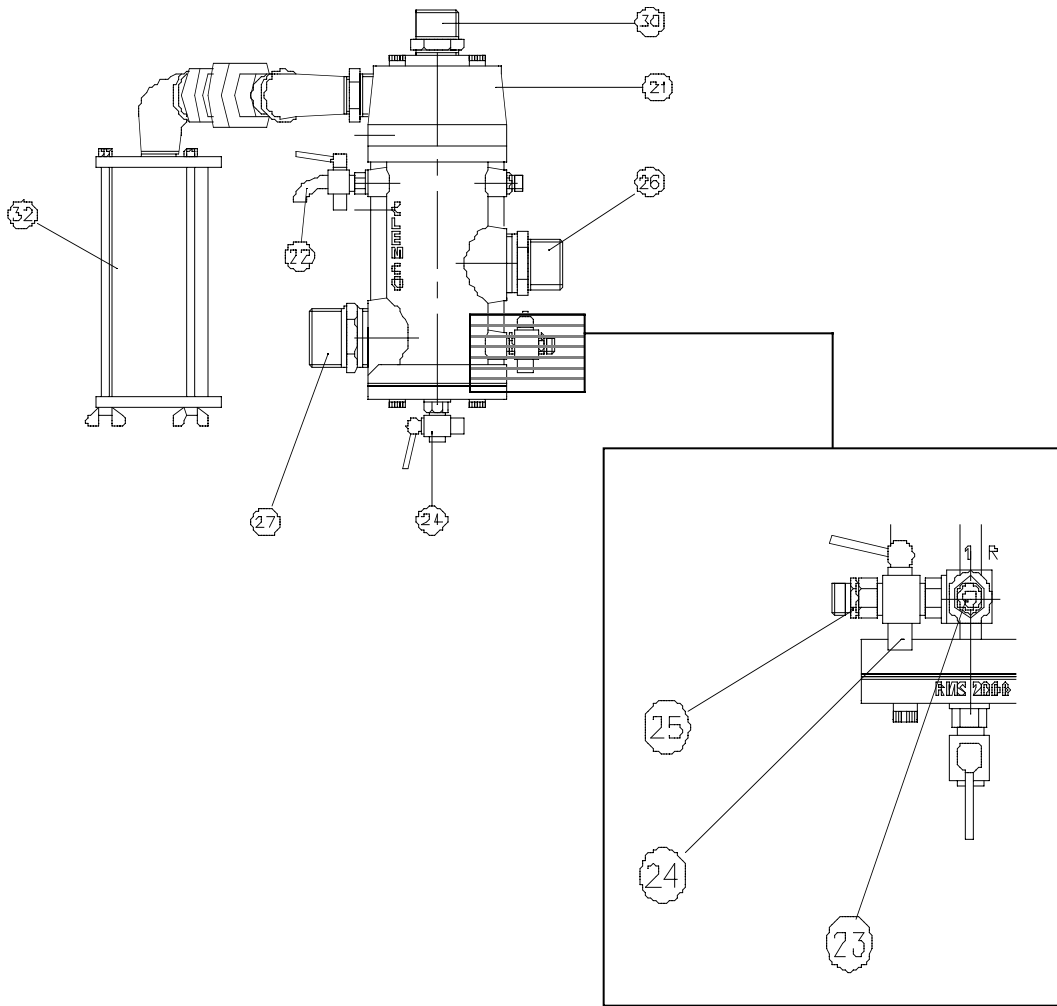
- a) Disconnect the control air hoses from the adaptor at position marked '1' on the inlet valve (RMS-1500) and from position marked '2' on the separated exhaust section (RMS-500).
- (b) Remove the water separator and inlet nipple from the valve body (RMS-1500).
- (c) Remove the inlet valve (RMS-1500) and the exhaust valve (RMS-500) from the blast cleaning machine by releasing the pipework unions.
- (d) Remove the top elbow silencer and associated fittings from the exhaust valve.
- (e) Using the 6mm allen key remove the socket cap screws (FAS M8 40A) from the exhaust valve, lift off the exhaust manifold (RMS-2003) from exhaust cylinder and inspect it for excessive wear. Renew if necessary.
- (f) Remove and inspect condition of rubber diaphragm (RMS-2004).
- g) Carefully remove the exhaust cylinder (RMS-2005) from the special bottom cover (RMS-2014).
- (h) To remove exhaust piston (RMS-2002) from sleeve piston (RMS-2006), secure the piston by locating the peg spanner (RM-34) into the two dimples provided, and unscrew socket cap screw (FAS M10 42A). The surface of the cylinder and pistons can now be cleaned and examined for scoring.
- (i) To remove bottom covers (RMS-1012) and gaskets (RMS-2013) from both ends of the inlet valve (RMS-1500) unscrew socket cap screws (FAS M8 35A) using the 6mm allen key.
- (j) The internal sub-assembly can now be dismantled by locating the peg spanner (RM-34) into the two dimples provided and unscrewing the socket cap screw (FAS M10 42A) with the 6mm allen key.
- (k) Ensure that all parts are clean and dry before reassembling.
- (l) Fit new rubber 'U' seals (RMS-2008).
- m) Inspect associated pipework & fittings for signs of wear and replace as necessary.
- (n) Inspect and clean out the silencer and replace parts as necessary.
- (o) The inlet valve and exhaust valve can now be reassembled by reversing the dismantling procedures.  
**NB. Fit new bottom cover gaskets to the inlet valve if originals are damaged.**
- P) Ensure that the breather hole in the inlet valve body and the one in the exhaust valve exhaust cylinder are not blocked. A blockage will cause malfunction.

RMS2000



RMS1500





## Parts Identification List

1	FAS M8 40A	M8 X 80 LONG ALLEN CAP SCREW	4
2	RMS 2002	DIAPHRAGM PISTON	1
3	RMS 2003	EXHAUST MANIFOLD	1
* 4	RMS 2004	DIAPHRAGM	1
5	RMS 2005	EXHAUST CYLINDER	1
6	RMS 2006	U SLEEVE PISTON	2
7	FAS M10 42A	M10 X 25 LONG CONTERSUNK	2
* 8	RMS 2008	U SEAL	3
9	RMS 2009	INLET PISTON	1
10	RMS 2010	VALVE HOUSING	1
11	FAS M8 35A	M8 30 LONG ALLEN CAP SCREW	4
12	RMS 2012	BOTTOM COVER	1
*13	RMS 2013	BOTTOM GASKET	1
14	RMS 2014	EXHAUST VALVE BOTTOM COVER (SPECIAL)	1
21	RMS 2000MV	1.1/2" RECOVA VALVE	1
22	RM 9	1/4" PETCOCK	1
23	KB 25	1/4" MALE/1/4" MALE 1/4"FEMALE, DROP BRASS TEE	1
24	MF 2	1/4" TAP	2
25	RM 23	1/4" NIPPLE	2
26	P 3GF	1.1/2" X 1.1/4" REDUCING NIPPLE	1
27	P 62	1.1/2" NIPPLE	1
28	P 169	ELBOW 45° - 3/4" M/F	1
29	P 98	1" X 3/4" REDUCING NIPPLE	1
30	P 3	1" NIPPLE	1
31	RMS 2000E	1.1/2" RECOVA VALVE	1
32	RMS 110	SILENCER ASSEMBLY	1
33	RM 33	3/4" M/F ELBOW	1
34	RM 34	3/4" M/F FIXED UNION	1
35	RM 11A	3/4" NIPPLE	1
*	AK 2	6MM ALLEN KEY	1
*	RM 34	PEG SPANNER	1

\* Included in RMS 2000 RK Repair Kit

Silencer and core Part No. RMS-110

## Parts Identification List

RMS - 120	CORE
RMS - 121	NUT
RMS - 121A	WING NUT
RMS - 122	BOTTOM COVER
RMS - 123	STUD BOLT
RMS - 124	TOP COVER

