

# OWNER'S MANUAL

## SINGLE CHAMBER BLAST MACHINES ABSC-1440 / 1648 / 2048 / 2452 / 2460

### IMPORTANT WARNING FOR SAFER BLAST CLEANING

1. Use protective equipment: Abrasive-resistant clothing, safety shoes, leather gloves, ear protection, CE-approved air-fed helmet. Air for helmet must be supplied by a breathing air compressor or through a helmet air filter.
2. Check for possible silicosis hazards. Avoid dust.
3. Do not blast with damaged or worn equipment.
4. Point nozzle only at area being cleaned.
5. Use only proper dry and well-screened abrasives specifically intended for blasting.
6. Keep unprotected workers out of the blast area.
7. Before blasting:
  - Check fittings and hose for wear.
  - Safety-wire couplings together.
  - Check helmet filters and air supply.
  - Check pop-up valve for alignment.
  - Test remote controls.
  - Make sure blast machine is adequately grounded.
8. Do not weld on blast machine, this voids approval.
9. Do not substitute Airblast parts or modified equipment in any way.



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# SINGLE CHAMBER BLAST MACHINES

## ABSC-1440 / 1648 / 2048 / 2452 / 2460

**1.0 INTRODUCTION:** This manual covers the set-up, maintenance of the following pressure type of blast machines.

AIRBLAST model	CAPACITY	
	ltr.	lbs.
ABSC-1440	60	180
ABSC-1648	100	300
ABSC-2048	140	420
ABSC-2452	200	600
ABSC-2460	300	900

See page 4 for all basic components of the ABSC-Model single chamber blast machines.

## 2.0 OPERATION SET-UP

### 2.1 Set-up

The set-up procedure for manual controlled blasting (without the use of a remote control system) is as follows:

- Make sure that the compressor is located upwind from the blasting area. Start the compressor and bring it up to operating pressure and temperature before beginning the blast cleaning operation.
- Open the bleed-off and choke valves (handles in parallel position with piping).
- Close the air inlet valve at the abrasive valve.  
Closed valves:
  - sand valve : extreme position of handle to either side of the center of the valve.
  - grit valve : full clockwise position of the handle.
- Connect the compressed air line to the air inlet valve (minimum 1¼" ID air line for optimum blast cleaning performance).
- Connect the blast hose quick connect coupling to the machine quick coupling. Check condition and proper placing of the rubber coupling gaskets.
- Fill the concave head of the machine with abrasive. The abrasive will pass the filling port into the machine.
- Put on all protective clothing.

**2.2 Operation:** To blast clean, the machine tender:

- Puts pressure to the air line of the blast machine.
- Closes the bleed-off valve.
- Opens the air inlet valve, when the blasting operator signals that he is ready. This causes sealing of the filling port by the pop-up valve and the blast machine will pressurize. Only air will come out of the nozzle.
- Adjusts the abrasive valve for proper air/abrasive mixture. **General rule:** use as little abrasive as possible. The abrasive stream coming out of the blast nozzle should hardly discolor the air when seen against whatever lightsource.
- Closes the air inlet valve and quickly opens the bleed-off valve to stop blasting.

### 2.3 Shut-down

When shutting down for the day: empty the blast machine of all abrasive by removing the nozzle and putting the blast hose in a suitable waste container. Close the choke valve and put the handle of the abrasive valve in full open position. Then put pressure to the machine by opening the air inlet valve.

The blast machine should be covered if left out at site, in order to prevent moist abrasive to cause trouble when starting up blasting again.

**USE ONLY ABRASIVE SPECIFICALLY MEANT FOR BLASTING, NEVER USE UNSCREENED OR MOIST ABRASIVES.**

## 3.0 MAINTENANCE

### 3.1 Replacement of the Pop-up valve

Remove the inspection door assembly in order to get access to the Pop-up valve. Unscrew the Pop-up guide (page 2, item 20) by counter-clockwise turning. Remove both Pop-up valve and guide from the blast machine. Put the new Pop-up valve in the valve guide and then install them inside of the machine.

It is recommended to replace the inspection door gasket at the same time. Do not forget to tighten the inspection door assembly back onto the machine.

### 3.2 Replacement of the Pop-up O-ring

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## ABSC-1440 / 1648 / 2048 / 2452 / 2460

Put your fingers between the Pop-up O-ring and the retainer and slowly remove the old O-ring. If necessary, use a screwdriver. Push the new Pop-up O-ring through the filling port and fit it into the retainer. Pull up on the O-ring in order to get it into position.

### 4.0 TROUBLESHOOTING

#### 4.1 Blockages

If neither abrasives nor air comes out of the blast nozzle, first depressurize the machine and then check if the nozzle is clogged. If only air comes out and no abrasive, fully open the abrasive valve and then quickly open and close the choke valve. If this fails, depressurize the machine, remove the inspection door assembly and check the inside of the machine for foreign objects (paper, etc.).

#### 4.2 Abrasive surge

When starting up, surge of abrasive is normal

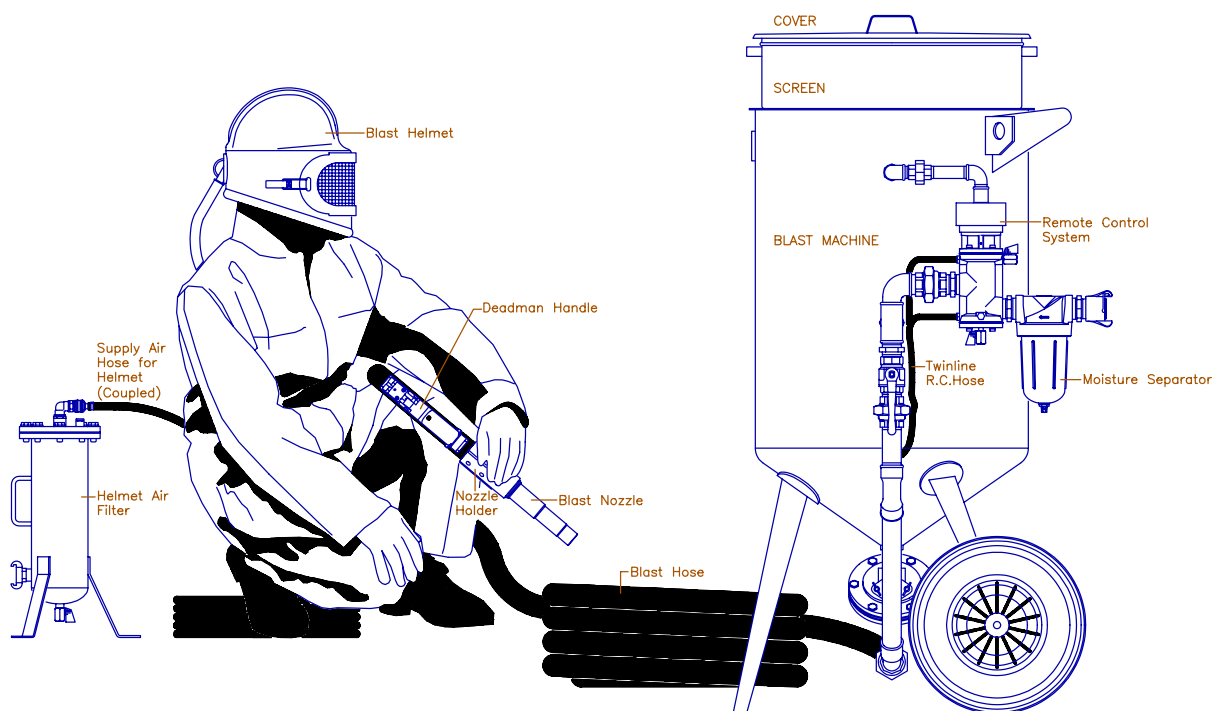
to some extent. However, if the abrasive surge should continue, the flow of abrasive can usually be stabilized by the quick opening and closing of the choke valve.

An intermittent abrasive flow is sometimes caused by an excess of moisture in the blasting system. This problem in practice can be solved by installing a moisture/water separator in the air line, closest to the machine as possible.

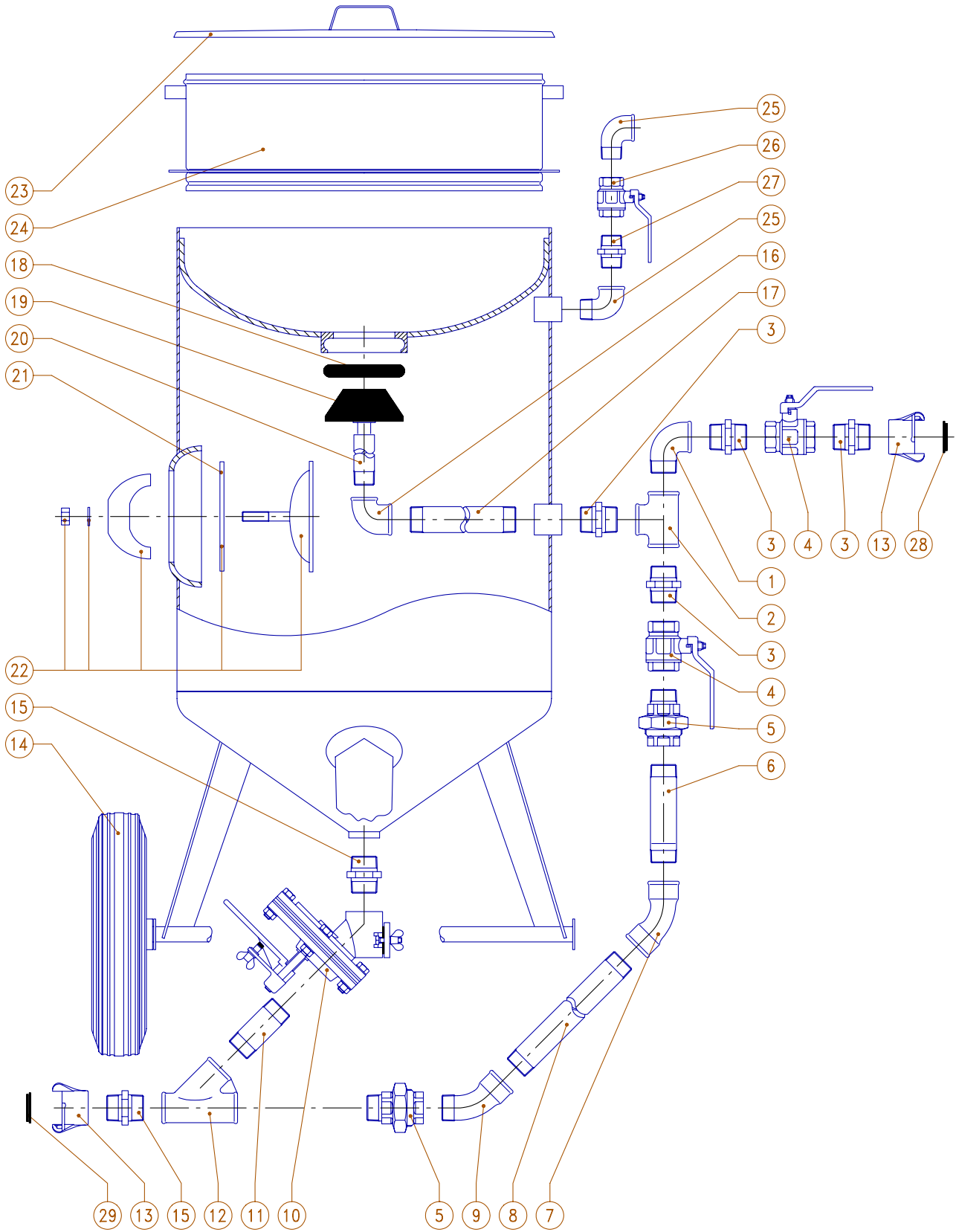
#### 4.3 Removal of moist abrasive

In order to remove moist abrasive from the system, the blast hose has to be disconnected and the rubber gasket in the quick coupling on the machine has to be removed. The next step is to close the choke valve and open the abrasive valve. Force out any moist abrasive by pressurizing the machine.

**See separate Instruction-Parts List for Remote Control Systems.**



# SINGLE CHAMBER BLAST MACHINES ABSC-1440 / 1648 / 2048 / 2452 / 2460



**SINGLE CHAMBER BLAST MACHINES**  
**ABSC-1440 / 1648 / 2048 / 2452 / 2460**

**5.0 SPARE PARTS**

ART.NR.	MODEL	DESCRIPTION				
01)	21996	Elbow 1¼"	FM	no.	92	(1)
02)	22116	T-piece 1¼"	FFF	no.	130	(1)
03)	22256	Hex nipple 1¼"	MM	no.	280	(4)
04)	11930	Air valve 1¼"				(2)
05)	22496	Union 1¼"	FM	no.	341	(2)
06)	10340	Pipe 1¼" for 2452 (200 L)				(1)
	10350	Pipe 1¼" for 1440 (60 L)				(1)
	10360	Pipe 1¼" for 1648 (100 L)				(1)
	10370	Pipe 1¼" for 2048 (140 L)				(1)
07)	21936	Elbow 1¼"	FM	no.	41	(1)
08)	13390	Pipe 1¼" for 2452 (200 L)				(1)
	13400	Pipe 1¼" for 1440 (60 L)				(1)
	13405	Pipe 1¼" for 1648 (100 L)				(1)
	13410	Pipe 1¼" for 2048 (140 L)				(1)
09)	21916	Elbow 1¼"	FM	no.	40	(1)
10)	60010	Abrasive valve 1¼"				(1)
11)	10460	Pipe 1¼" x 100 mm rubber lined				(1)
12)	10440	Y-piece 1¼" rubber lined				(1)
13)	21630	Coupling 1¼" incl. gasket				(2)
14)	10650	Wheel required for 1440 (60 L)				(2)
	10660	Wheel required for 1648 (100 L)				(2)
	10670	Wheel required for 2048 (140 L)				(2)
	10680	Wheel required for 2452 (200 L) and 2460 (300 L)				(2)
15)	10450	Hex nipple 1¼" rubber lined				(2)
16)	22596	Elbow 1¼" x 1"	FF	no.	90	(1)
17)	10270	Inner pipe 1¼" for 2452 (200 L) and 2460 (300 L)				(1)
	10280	Inner pipe 1¼" for 1440 (60 L)				(1)
	10290	Inner pipe 1¼" for 1648 (100 L)				(1)
	10300	Inner pipe 1¼" for 2048 (140 L)				(1)
18)	11920	Pop-up O-ring				(1)
19)	11880	Pop-up valve with shaft, flat				(1)
	11881	Pop-up valve with shaft, round				(1)
	11890	Pop-up valve only, flat				
	11891	Pop-up valve only, round				
	11900	Washer 21 mm				
	11910	Pipe ½" x 165 mm				
20)	10500	Pipe 1" for 2048 (140 L) and 2452 (200 L)				(1)
	10510	Pipe 1" for 1440 (60 L)				(1)
	10520	Pipe 1" for 1648 (100 L)				(1)
21)	10470	Inspection door gasket				(1)
22)	10480	Inspection door assy				(1)
23)	10570	Cover for 1440 (60 L)				(1)
	10580	Cover for 1648 (100 L)				(1)
	10590	Cover for 2452 (200 L) and 2460 (300 L)				(1)
	10600	Cover for 2048 (140 L)				(1)
24)	10530	Screen for 1440 (60 L)				(1)
	10540	Screen for 1648 (100 L)				(1)
	10550	Screen for 2452 (200 L) and 2460 (300 L)				(1)
	10560	Screen for 2048 (140 L)				(1)
25)	21995	Elbow 1"	FM	no.	92	(2)
26)	11130	Air valve 1"				(1)
27)	22255	Hex nipple 1"	MM	no.	280	(1)
28)	21650	Rubber coupling gasket				(2)

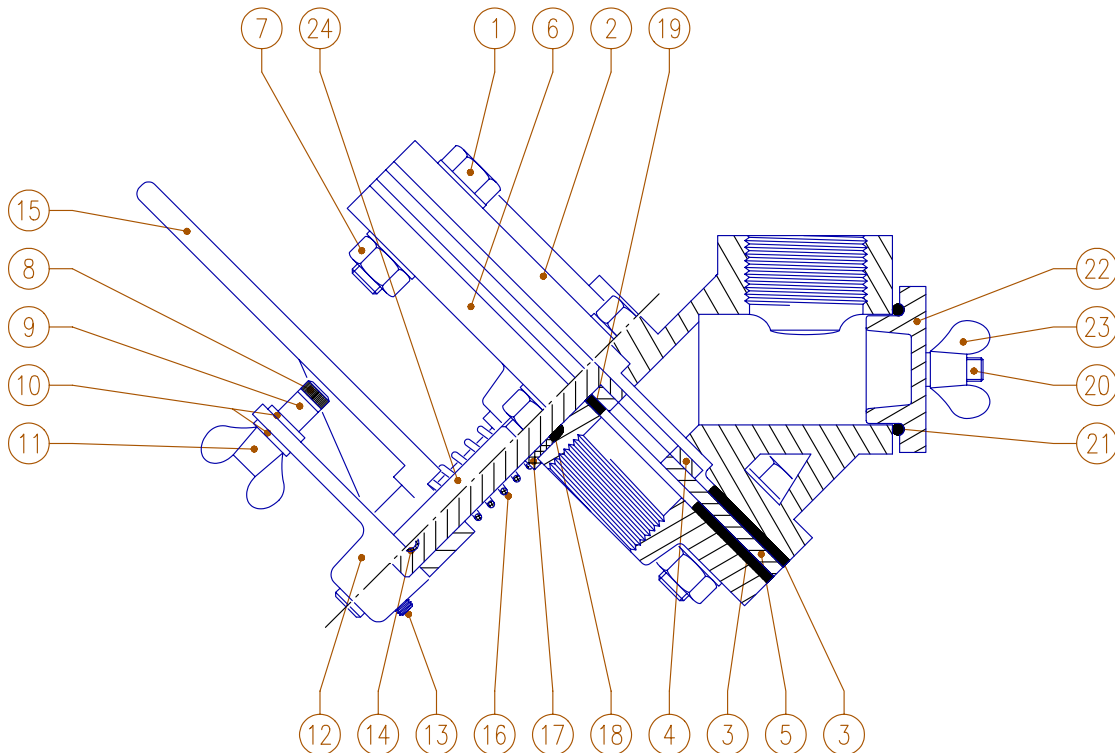
**All parts required in quantities shown ( )**

**SINGLE CHAMBER BLAST MACHINES**  
**ABSC-1440 / 1648 / 2048 / 2452 / 2460**

**6.0 SPARE PARTS**

ART.NR	MODEL	DESCRIPTION	
60010	FSV	1¼" Flat sand valve	
01) 60020		Bolt M12 x 45 mm	(4)
02) 60030	FSV-1	Upper body	(1)
03) 60040	FSV-5	Rubber gasket	(2)
04) 60050	FSV-4	Valve (stainless steel)	(1)
05) 60060	FSV-6	Disc (stainless steel)	(1)
06) 60070	FSV-7	Lower body	(1)
07) 60080		Nut M12	(8)
08) 60090	FSV-10	Head cap screw M6 x 25 mm	(1)
09) 60100	FSV-12	Handle bolt spacer	(1)
10) 60110		Washer 6 mm	(2)
11) 60120		Wing nut M6	(1)
12) 60130	FSV-14	Gauge unit	(1)
13) 60140		Set screw M6	(2)
14) 60150	FSV-13	Handle pin	(1)
15) 60160	FSV-9	Control handle	(1)
16) 60170	FSV-16	Compressing spring	(1)
17) 60180	FSV-18	Packing gland (brass)	(1)
18) 60190	FSV-19	Packing	(1)
19) 60200	FSV-20	Gasket	(1)
20) 60210	FSV-23	Inspection plate bolt M8 x 35 mm	(2)
21) 60220	FSV-21	O-ring	(1)
22) 60230	FSV-22	Inspection plate	(1)
23) 60240	FSV-24	Wing nut M8	(2)
24) 60250	FSV-17	FSV bolt	(2)

**All parts required in quantities shown ( )**





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