

TECHNICAL CATALOGUE **COMPRESSOR - MSV 6/30 - MSV 12/175 - MSV 18/250** **1 STAGE - 120 psig** **OIL FREE**

BEGINNING OF PRODUCTION - MSV 6/30 - JANUARY/1985 - MSV 12/175 - OCTOBER/1999 - MSV 18/250 - JANUARY/2005

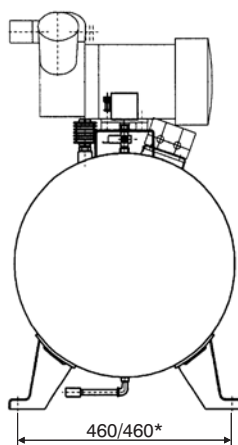
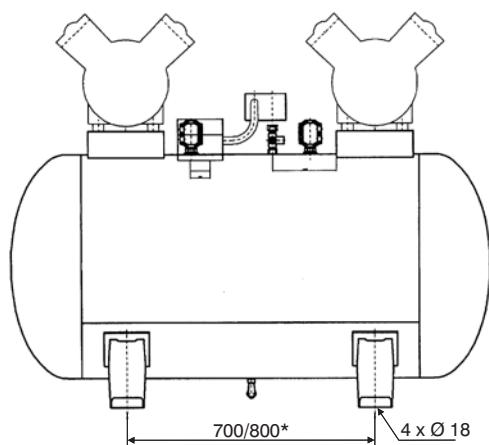
TECHNICAL DATA

 MODELS	 DISPLACEMENT		 MAXIMUM PRESSURE		 TANK		 rpm	 ELECTRIC MOTOR - D56 NEMA FRAME THERMALLY PROTECTED						 WEIGHT WITHOUT CABINET (kg)	 DIMENSIONS			 PAINTING				
								Volume (ℓ)	Filling Up Time	hp	kW	Poles	Hz		Single Phase (V)	Current (A)	A		L	C		
	cfm	l/min	psig	bar																		
MSV 6/30	5,0	141	120	8,3	29	3'50"	1,445	1	0,75	4	50	110/220	110 - 14 220 - 7	42	630	460	500	PUMP (WHITE) TANK (WHITE IN POWDER)				
	6,0	170				3'10"	1,730				60											
MSV 12/175	10	282			178	10'15"	1,445	2x1	2 x 0,75		50		110 - 2 x 14 220 - 2 x 7						109	880	520	1,080
	12	340				11'50"	1,730	60														
MSV 18/250	15	424			261	10'15"	1,445	3x1	3 x 0,75		50	220	220- 3 x 7						150	850	550	1,550
	18	509				8'15"	1,730	60														

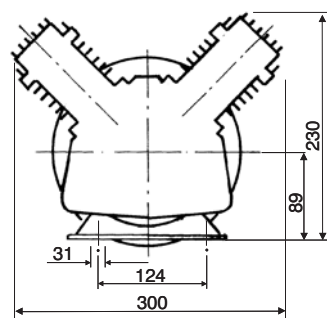
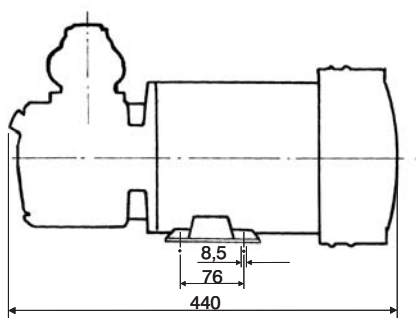
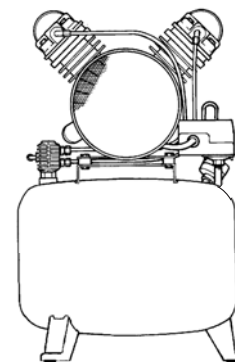
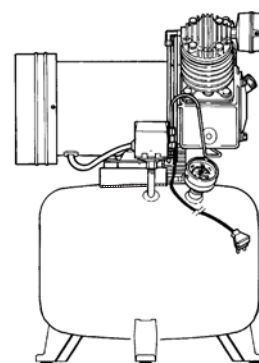
ACOUSTIC CABINET DIMENSIONS FOR MSV 6/30: HEIGHT = 810 / WIDTH = 600 / LENGTH = 530 [mm] / WEIGHT [30 Kg]

COMPRESSOR NOISE LEVEL: MSV 6/30 - 78 dB (A) WITHOUT CABINET AND 61 dB (A) WITH CABINET, MSV 12/175 (84 dB (A) WITHOUT CABINET) AND MSV 18/250 (85 dB (A) WITHOUT CABINET).

NOTE: UNTIL 02/2006 THE 175 LITERS TANK FOOT DIMENSIONS WERE 550 x 470 x 4 Ø 16 (mm)



* MSV 18/250 TANK DIMENSIONS.



AIR COMPRESSOR'S PARTS

No.	CODE			DENOMINATION	QUANTITY		
	MSV 6/30	MSV 12/175	MSV 18/250		MSV 6/30	MSV 12/175	MSV 18/250
1	022.0170-0	-	022.0170-0	1/4" safety valve	01	-	01
2	-	022.0164-0	-	1/8" safety valve	-	01	-
3	003.0013-6	-	003.0013-6	1/4" cross-head	01	-	01
4	-	022.0161-0	-	1/4" conector	-	01	-
5	011.0114-0	011.0116-0	011.0114-0	Pressure gauge	01	01	01
6	003.0270-0	-	-	1/4" x 45 double nipple	01	-	-
7	003.0408-0	-	-	1/4" x 66** double nipple	01	-	-
8	-	-	003.0174-4	1/4" double nipple	-	-	02
9	022.0186-0	022.0186-0	-	Pressure regulator	01	01	-
9.1	BE108022	BE108022	-	Scale	01	01	-
10	003.0077-2	003.0077-2	-	Hose nozzle	01	01	-
11	003.0005-5	-	-	NPT 1/8" x 1/4" elbow	01	-	-
12	709.0717-8	709.1178-0	709.1178-0	Pulsation damper	01	02	03
13	709.0717-8	-	-	Pulsation damper**	01	-	-
14	003.0191-4	-	-	1/4" straight connection flex.**	01	-	-
15	022.0059-7	022.0059-7	022.0059-7	Check valve	01	02	03
16	830.0529-7	830.0529-7	830.0529-7	Check valve kit	01	02	03
17	003.0047-0	003.0047-0	003.0047-0	1/4" x 3/8" straight connection	02	04	06
18	830.0601-3	830.0601-3	830.0601-3	3/8" ring (kit with 10 pieces)	01	01	01
19	830.0871-0	-	-	Rubber foot (kit)	01	-	-
20	809.1058-0	-	-	Rubber foot with screw and nut (kit with 3 pcs)	01	-	-
22	25003694A /1	25003719A /1	25003826A /1	Tank	01	01	01
23	-	003.0031-4	003.0415-0	Inspection plug	-	02	01
24	-	-	003.0411-0	2" x 1/2" Reduction bushing	-	-	01
25	-	-	023.0339-0	O'ring	-	-	02
26	-	-	830.1193-0	Vibration buffer (kit with 4 pieces)	-	-	01
27	022.0031-7	022.0031-7	-	1/8" drain	01	01	-
28	022.0207-0 (1)	022.0206-0 (2)	022.0206-0 (2)	1/4" x 85(1) - 1/4" x 135 (2) drain	01	01	01
29	022.0208-0	-	-	1/4" x 85 drain with bushing 1/4" x 3/4"	01	-	-
30	709.0282-6	709.1246-0	709.1246-0	Drain hose	01	01	01
31	003.0392-0	003.0392-0	-	1/8" x 1/8" x 100mm Drain pipe	01	01	-
32	003.0393-0	003.0393-0	-	1/4" x 1/8" elbow	01	01	-
33	012.0003-8	012.0034-8	012.0034-8	Pressure switch 1 way	01	01	01
34	012.0715-0	-	-	Pressure switch 4 way**	01	-	-
35	012.0323-0 (13,5)	-	012.0322-0 (3/4")	Strain relief**	01	-	01
36	012.0031-3	-	-	Electric cable with plug 2P + G	01	-	-
37	-	012.0483-0	012.0483-0	Electric cable without plug	-	01	01
38	*	-	-	3 x 1,5 mm ² (2m) electric cable	01	-	-
39	*	-	-	3 x 1,5 mm ² (0,7m) electric cable	01	-	-
40	-	012.0482-0	012.0750-0	Box connection	-	01	01
41	*	*	*	1/2" x 200 flex. pipe	01	02	01
42	-	-	*	1/2" x 260 flex. pipe	-	-	01
43	-	*	*	1/2" x 420 flex. pipe	-	01	01
44	-	-	*	1/2" x 500 flex. pipe	-	-	01
45	-	028.0219-0	028.0219-0	Tube (relief) with 280mm	01	02	01
46	028.0243-0	-	028.0243-0	Tube (relief) with 480mm	-	-	01
47	-	-	028.0245-0	Tube (relief) with 400mm	-	-	01
48	830.0235-2	-	-	1/4" plastic tube (relief) (kit)	01	-	-
49	830.0599-8	-	-	1/4" ring (kit with 10 pieces)	01	-	-
50	021.0057-0	021.0057-0	021.0057-0	Nut for flex. pipe (kit with 10 pieces)	01	01	01
51	-	830.0338-3	830.0338-3	Rubber pad (kit with 4 pieces)	-	02	03
52	830.0965-0	-	-	Rubber pad (kit with 4 pieces)	01	-	-
53	see price list	see price list	see price list	Bare pump 50 Hz	01	02	03
54	see price list	see price list	see price list	Bare pump 60 Hz	01	02	03
55	003.0004-7	003.0004-7	003.0004-7	NPT 1/4" x 3/8" elbow	02	04	06
56	830.0266-2	830.0266-2	830.0266-2	Aftercooler (kit)	01	02	03
57	809.0817-0/E	-	-	110V cabinet (optional)	01	-	-
58	809.0818-0/E	-	-	220V cabinet (optional)	01	-	-
59	60396001	-	-	Fan	01	-	-
60	60394005	-	-	On/Off switch	01	-	-
61	003.0258-0	003.0258-0	003.0258-0	1/8" Twin tee flex.	-	01	02
62	003.0028-4	003.0028-4	003.0028-4	1/4" plug	01	02	03
63	003.0171-0	003.0171-0	-	NPT 1/8" x 1/4" elbow flex.	01	01	-

* Part available in the market (not sold by Schulz S.A.)

** New assembly configuration with pressure switch 4 ways since tank serial number "E 028900".

Note: - Products manufactured until February 1997, the rubber foot (19) code is 830.0474-6.

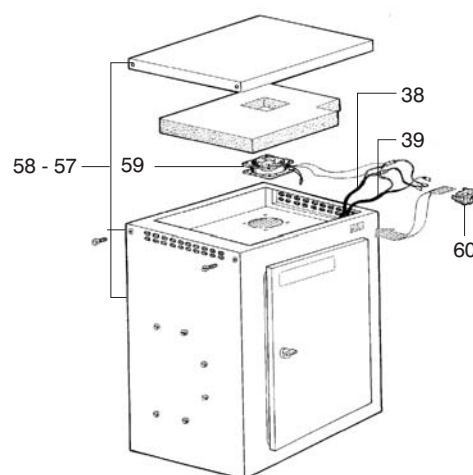
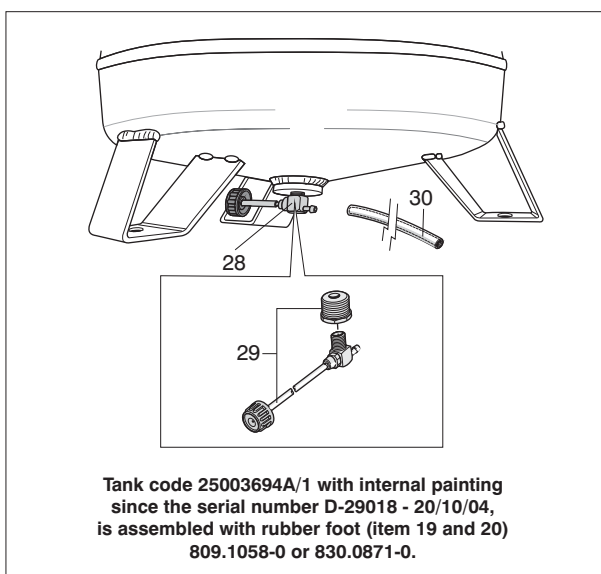
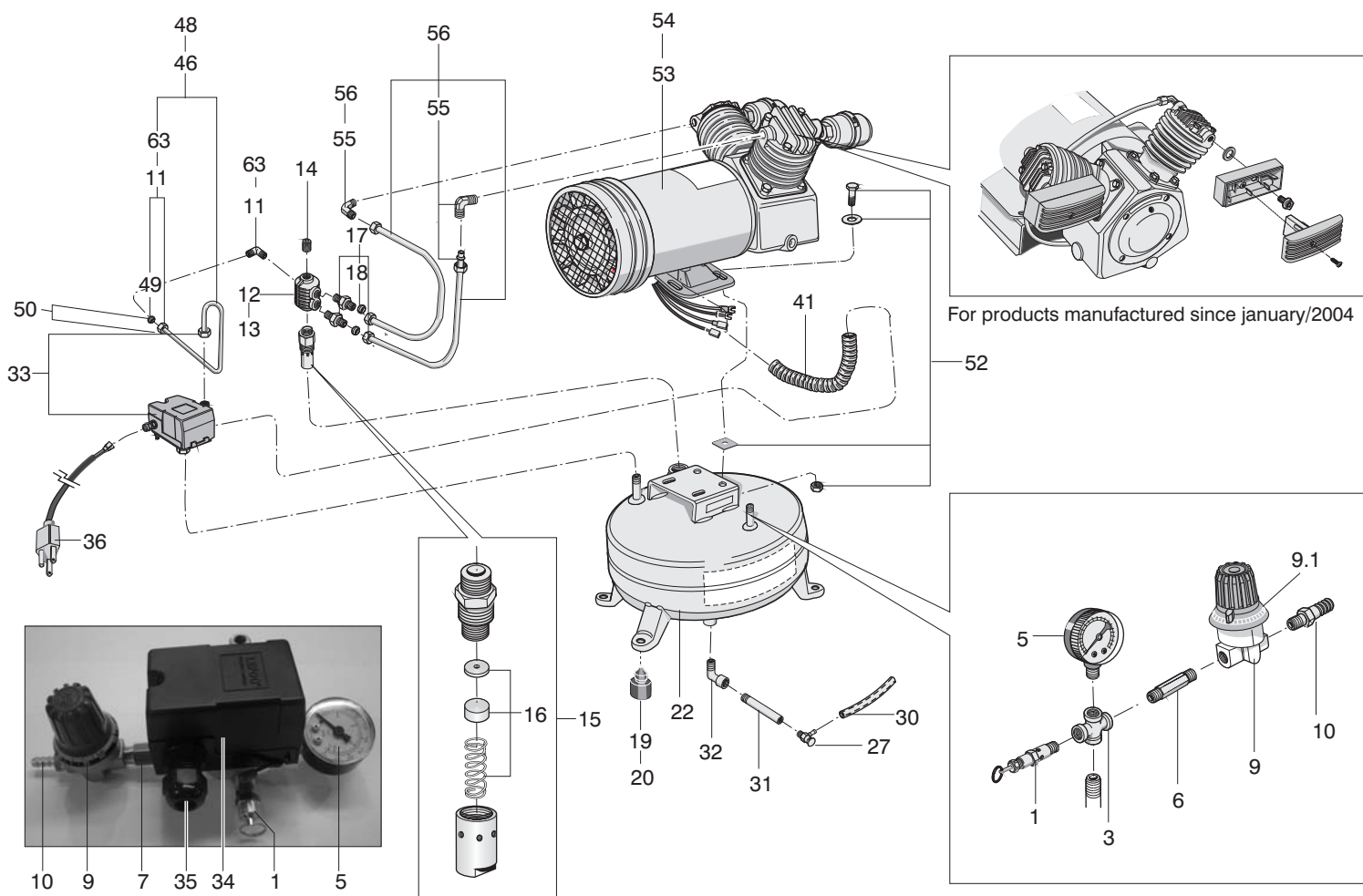
- The items 11 and 48 were assembled until September 2003.

- The item 27 is adaptable in the tanks with water drain assembly in the superior part.

- The tank code 25003694A/1 is sold with the components 1 and 29.

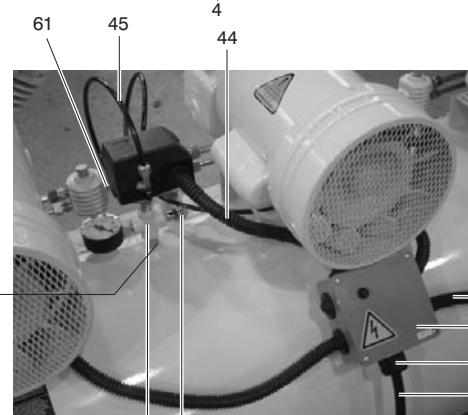
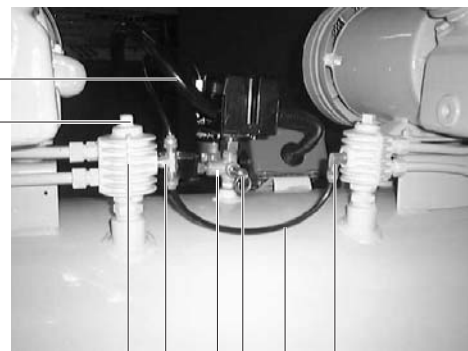
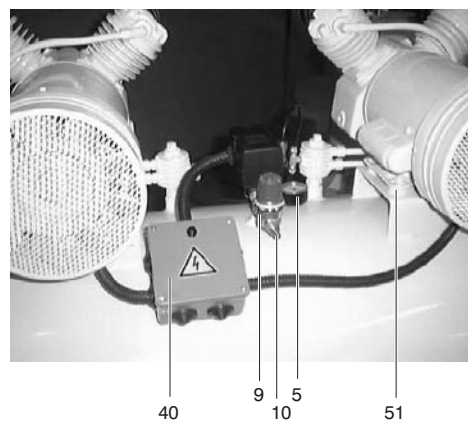
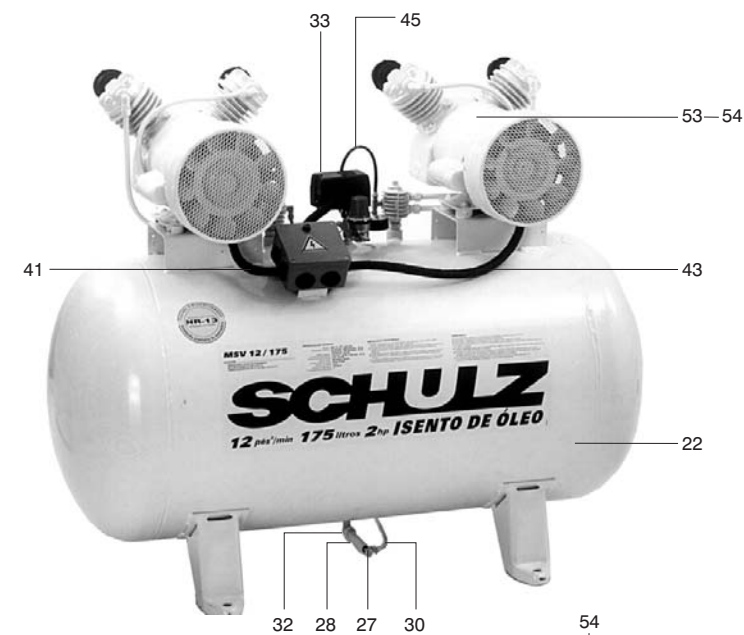
- The tank code 25003719A/1 is sold with the components 2, 4 and 28 and the tank code 25003826A/1 with the components 1, 3 and 8.

MSV 6/30



Remark: To inspect/change the fan voltage, the same is accessed opening the cabinet door. The compressed air hose is connected in the hose nozzle (item 10) through the same hole of the electric cable, situated in the back part of the new version cabinet.

Note: The items 1 to 63 indicates in the drawings are described in the table of page 02.

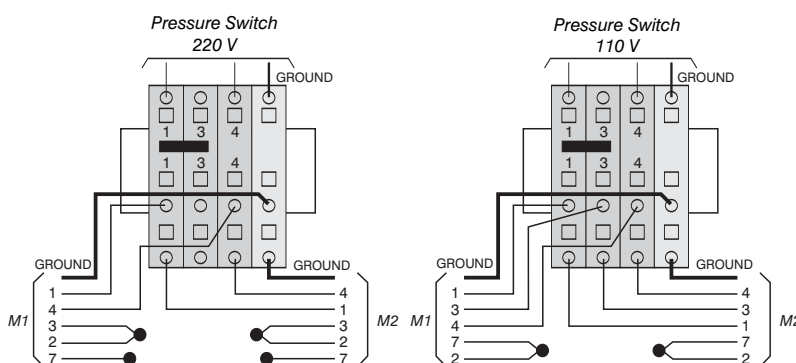


110 V	220 V
3 1 L1 → 2 7 4 L2 →	1 L1 → 2 3 7 4 L2 →

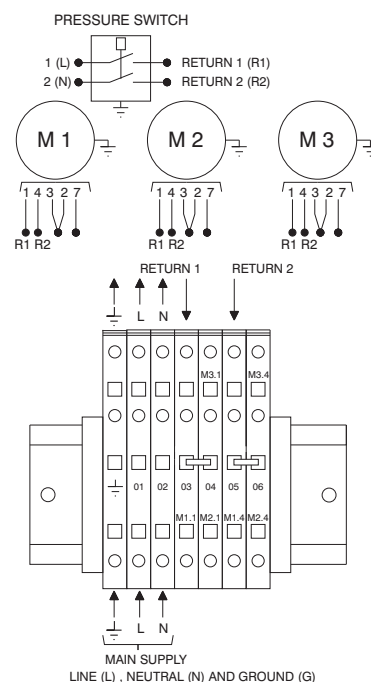
Note: The items 1 to 63 indicates in the drawings are described in the table of page 02.

LEGEND WIRE	
Nº	COLOR
1	BLUE
2	WHITE
3	ORANGE
4	YELLOW
7/P2	BROWN
-	GREEN (GROUND)

MSV 6/30



MSV 12/175 - BOX CONNECTIONS



MSV 18/250

BARE PUMP'S PARTS

No.	CODE	DENOMINATION	QTY
64	830.0185-2	Protecting screen (kit)	01
65	709.0251-6	Fan	01
66	709.1254-0	End bracket	01
67	830.0187-9	60 Hz Electric motor	01
67.1	830.0581-5	50 Hz Electric motor	01
68	012.0655-0	60 Hz thermic protector	01
68.1	012.0657-0	50 Hz thermic protector	01
69	830.0289-1	Stud (kit with 4 pieces)	01
70	019.0017-0	Back bearing	01
71	019.0076-0	Connecting rod bearing	02
72	019.0082-0	Front bearing	01
73	013.0217-5	Key	01
74	709.0257-5	Crankcase	01
75	709.1252-0	Crankcase cover with hole breather	01
76	*	UNC 1/4" x 3/8" RI screw with crack	04
77	028.0035-7	Crankcase hole with breather (see note)	01
78	830.0193-3	Crankshaft (kit)	01
79	830.0695-0	Needle bearing with seal (kit)	02
79.1	023.0052-4	Seal	04
80	830.0694-0	Connecting rod with needle bearing (kit)	02
81	830.0242-5	Ring (kit is for 1 cylinder)	02
82	830.0692-0	Ø 46,5mm piston (kit)	02
83	709.0242-7/AT	Cylinder	02
84	*	UNC 5/16" x 3/4" RI head screw	08
85	*	UNC 5/16" x 3/4" Allen hex head screw	08
86	830.0192-5/NA	Gasket (kit)	01
87	830.0181-0	Valve plate (kit)	02
88	830.0641-0	Valve plate with Ø 80mm	02
89	830.1103-0	Air filter element (kit with 4 pieces)	02
90	830.1731-0/AT	1/4" Air filter (kit)	02
91	809.0997-0	1/4" Air filter	02
92	809.0984-0	Air filter element	02
93	709.0245-1	Cylinder cover	02
94	*	UNC 1/4" x 1.1/2" RI head screw	08
95	*	UNC 1/4" x 1.3/4" RI Allen hex head screw	08
96	*	1/4" Lock washer assembled with Allen screw	08
97	*	6 x 12mm washer assembled with Allen screw	08
98	023.0290-0/NA	Washer thermic	02

SCREWS

Position	lbf.in	N.m	Tools
(T1) 94	81.0	9.3	Socket wrench 7/16"
95	150.0	17.0	Hexagon key 3/16"
(T2) 87	20.0	2.2	Hexagon key wrench M2,5
(T3) 84	150.0	17.0	Open ended spanner 1/2"
85			Hexagon key wrench 1/4"
(T4) 67	81.0	9.3	Socket wrench 7/16"
(T5) 67.1	30.8	3.5	Screwdriver 1/4" x 140
(T6) 78	271.0	30.8	Hexagon key wrench 1/4"
(T7) 76	53.0	6.0	Screwdriver 5/16" x 200
(T8) 64	4.5	0.5	Screwdriver 1/8" x 100

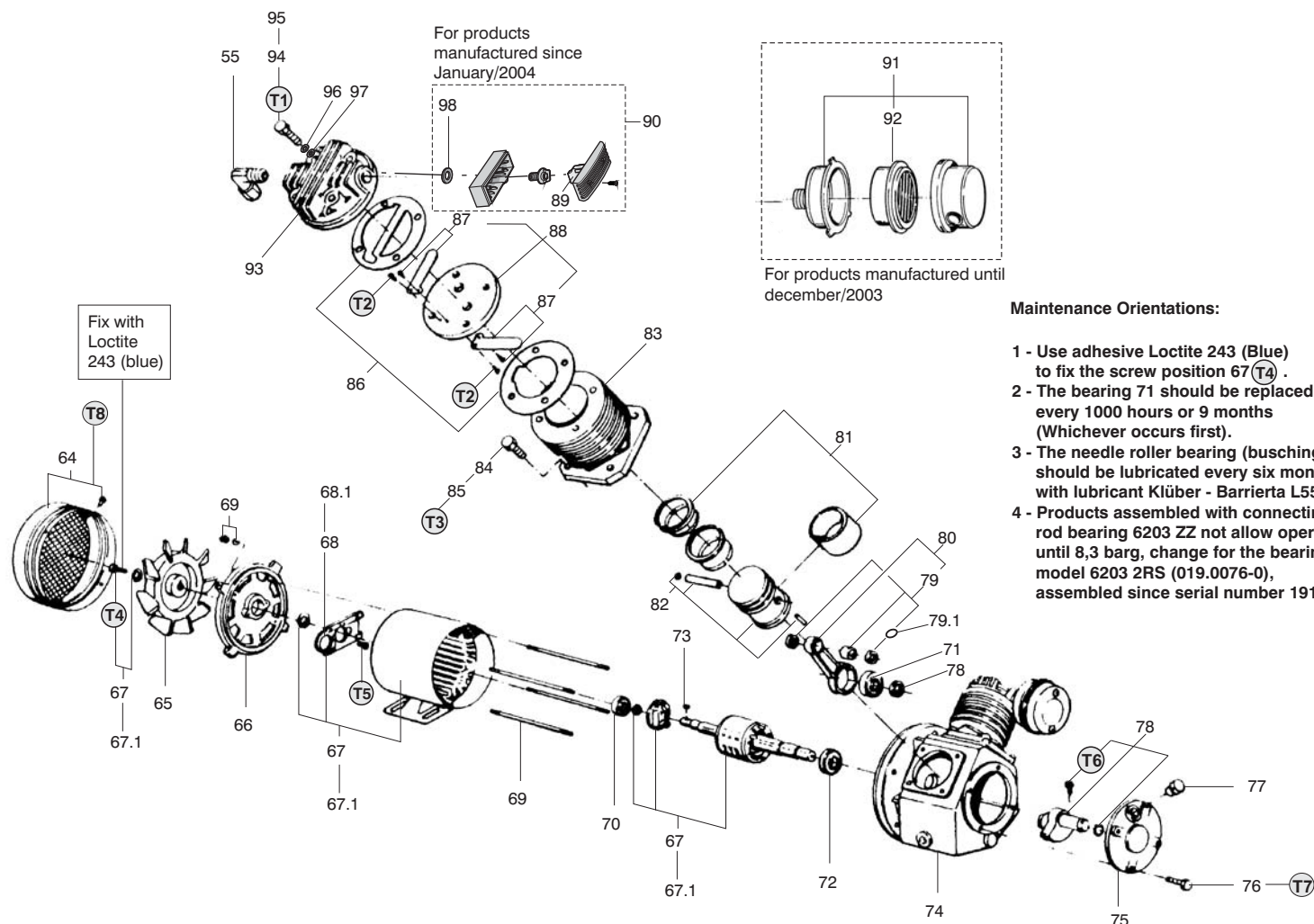
Table 1 - Torque especifications for screws and tools

* Part available in the market - not sold by Schulz S.A.

Note: - Products manufactured until August 1998, the air filter element (89) has code 830.0257-3. And since September until Dezember 2003 has code 809.0984-0.

- The item 77 was assembled in crankcase (75) for products manufactured until April/2000.

- Screw item 84 assembled until September/2005.

**Maintenance Orientations:**

- 1 - Use adhesive Loctite 243 (Blue) to fix the screw position 67 (T4).
- 2 - The bearing 71 should be replaced every 1000 hours or 9 months (Whichever occurs first).
- 3 - The needle roller bearing (busching 79) should be lubricated every six month with lubricant Klüber - Barrierta L55/2.
- 4 - Products assembled with connecting rod bearing 6203 ZZ not allow operate until 8,3 barg, change for the bearing model 6203 2RS (019.0076-0), assembled since serial number 1918654.

TROUBLESHOOTING TIPS

PROBLEM	PROBABLE CAUSE	WHAT TO DO	PROBLEM	PROBABLE CAUSE	WHAT TO DO	
Motor does not start or does not restart.	Voltage drop or electrical supply is out. Installation does not match local technical standards.	Check the installation and/or wait for the electrical supply stabilization.	Very frequent starts.	Excess of condensed water in the air receiver.	Drain the condensed water by using drain 27, 28 and 29.	
	Damaged electric motor (burned or defective rotor).	Replace damaged part 67 and 67.1.	Compressor does not reach maximum pressure.	Leakage in fittings, aftercooler, upper gaskets or in pneumatics.	Change the damaged parts or fasten fittings 56 and 86.	
	Damaged pressure switch or unfastened electrical connections	Fasten again the electrical connections or replace the pressure switch 33 and 34.		Valves do not seal.	Adjust or replace valve plate 88.	
	Compressed air retained in the relief tube or in the aftercooler.	Relieve the pressure through the pressure switch relief valve or replace it if necessary 33 and 34.		Air consumption higher than compressor's capacity.	Check compressor's capacity.	
	Air returns by check valve.	Verify check valve, clean it or change kit 16 or valve 15.	Overheating.	Incorrect rotation direction.	Send it to an authorized technician.	
	Compressor unit is not rotating.	Replace the damaged components.		Operating in a non-ventilated area.	Improve local conditions.	
	Motor does not turn off with maximum pressure.	Pressure switch is not regulated.		Unplug the motor and regulate the pressure switch.	Working pressure above the indicated one.	Adjust the pressure switch and never operate the equipment above the maximum working pressure specified .
Damaged pressure switch.		Replace the pressure switch 33 and 34.		Too much dust on the compressor.	Clean the compressor externally.	
Excessive pressure drop between the air receiver and the working place.	Air leakage, obstruction or tubing wrong dimensions (tube's diameter is too small).	Eliminate leakage and obstruction and re-dimension tubing.	Abnormal noise or vibration.	Valves do not seal.	Adjust or replace valve plate 88.	
	Pressure gauge does not indicate right pressure.	Replace pressure gauge 5.		Air leakage in fittings, aftercooler or upper gaskets.	Change the damaged parts or fasten fittings 56 and 86.	
Air receiver's filling up time above specified in Technical Data Table.	Leakage in fittings, aftercooler or upper gaskets.	Change damaged parts or fasten fittings 56 and 86 again.		Leaking safety valve.	Air consumption higher than compressor's capacity.	Check compressor's capacity.
	Valves do not seal.	Adjust or replace valve plate 88.			Filter element clogged.	Change 89 and 92.
Pressure switch relief valve leaks after compressor reaches maximum pressure.	Check valve does not seal because of impurities between piston and seating.	Clean or replace valve 15 or kit 16.	Not enough pressure for the job.		Loose fastening elements.	Find and fasten them.
					Compressor's unit internal parts are worn out.	Replace the damaged parts.
Premature wearing of the compressor unit internal parts.	Operating in non adequate environment.	Improve local conditions.		Unit transmits electric current (electric chock).	Check valve is making noise.	Replace valve 15 or kit 16.
					Broken air receiver foot/base.	Replace the air receiver (Do not weld on air receiver).
				Damaged valve.	Replace it 1 and 2.	
				Pressure regulator is not adjusted or pressure gauge is damaged.	Adjust regulator 9 or change pressure gauge 5.	
				Installation not according to local technical standards.	Check the installation and make necessary adjustments.	

NOTE: Schulz S.A. reserves the right to change its products without prior notice.

ATTENTION: - Use Schulz original parts only.
- Preserve the environment by not disposing of used pieces.