#### S T RON ΙΝ D USTRIAL COMPRESSORS Α 1

crim     psig     np     2 poles     4 poles <i>i</i> in qt     in dt	crim     psig     np     2 poles     4 poles <i>i</i> in qt     in ngt     in link     SIZE       MSV 20 MAX     20     175     1050     5     1-A     mm     inch     mm     inch     in link     94.8     1/2" NPT       * Optional     * Optional     *     *     *     *     See picture cylinder cover     8     * </th <th>MODEL</th> <th>DISPLACEMENT</th> <th>MAX. PRESSURE</th> <th>RPM</th> <th>MOTOR</th> <th>BELT</th> <th colspan="2">MOTOR PULLEY</th> <th colspan="2">OIL CAP.</th> <th>WEIGHT</th> <th>DISCHARGE</th>	MODEL	DISPLACEMENT	MAX. PRESSURE	RPM	MOTOR	BELT	MOTOR PULLEY		OIL CAP.		WEIGHT	DISCHARGE			
MSV 20 MAX   20   175   1050   5   1A   128   5.04   216   8.5   1.0   1.06   94.8   1/2" NPT     * Optional     37   37     41   36   25     25   See picture cylinder cover     25     Detail of the assembly of HP/LP oil rings     41     7     22     Optional     33     34     7     24     34     100     100     21     0     94.8     1/2"     See picture cover     0     100     100     100     100     100     100     100     100 </th <th>IMSV 20 MAX   20   175   1050   5   124   128   5.04   216   8.5   1.0   1.06   94.8   1/2" NPT     * Optional     <td colspa<="" th=""><th></th><th>cfm</th><th>psig</th><th></th><th>hp</th><th></th><th>2 p</th><th>oles</th><th>4 pc</th><th>oles</th><th>e</th><th>in.qt</th><th>in lbs</th><th>SIZE</th></td></th>	IMSV 20 MAX   20   175   1050   5   124   128   5.04   216   8.5   1.0   1.06   94.8   1/2" NPT     * Optional     * Optional <td colspa<="" th=""><th></th><th>cfm</th><th>psig</th><th></th><th>hp</th><th></th><th>2 p</th><th>oles</th><th>4 pc</th><th>oles</th><th>e</th><th>in.qt</th><th>in lbs</th><th>SIZE</th></td>	<th></th> <th>cfm</th> <th>psig</th> <th></th> <th>hp</th> <th></th> <th>2 p</th> <th>oles</th> <th>4 pc</th> <th>oles</th> <th>e</th> <th>in.qt</th> <th>in lbs</th> <th>SIZE</th>		cfm	psig		hp		2 p	oles	4 pc	oles	e	in.qt	in lbs	SIZE
See picture See p	se picture se picture tail of the assembly LP cylinder cover 10 10 10 10 10 10 10 10 10 10	MSV 20 MAX	20	175	1050	5						1.0	1.06	94.8	1/2" NPT	
22 21 Detail of the assembly of HP/LP oil rings tail of the assembly LP cylinder cover 20 20 20 20 20 20 20 20 20 20	$\begin{array}{c} \begin{array}{c} 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\$	37		.23	37			25		See pic cylinde	ture r cover	B	30 (14)	24 / 32	$\sim$	
	$\begin{array}{c} 7 \\ 9 \\ 1-1.1 \\ 2 \\ 9 \\ 34 \\ 5 \\ 6 \end{array}$	<b>3 • • • • • • • • • •</b>	42 suction	7 er 20			as: HP/I	etail of the sembly of LP oil rin	of igs	and			-30 -7 -29	~7 // 31		

TECHNICAL DATA

### TABLE 1 - TORQUE ESPECIFICATIONS FOR BOLTS

### BARE PUMP PARTS

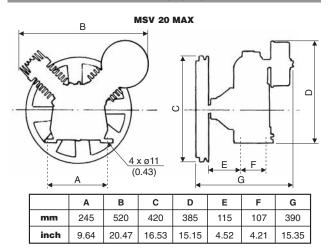
No.	CODE	DENOMINATION	QTY
1	709.1062-0	Flywheel (1-A)	01
1.1	709.1107-0	Flywheel (2-A)	01
2	023.0265-0	Oil seal	01
3	019.0004-8	6206 bearing	01
4	*	M8 x 1,25 x 20 hex. head screw	06
5	709.1056-0	Flange	01
6	019.0005-6	6207 bearing	01
7	830.0776-0/NA	Gasket kit	01
8	709.0163-3	Key	01
9	830.0778-0	Crankshaft	01
10	*	M5 x 0,8 x 20 head bolt	01
11	20028001	Labyrinth cover	01
12	709.1231-0	Crankcase	01
13	003.0028-4	1/4" plug	02
14	830.0775-0	3/4" oil level sight	01
15	019.0064-0	Needle bearing	01
16	830.0783-0	HP connecting rod with needle bearing	01
17	830.0786-0	HP Ø 2" piston	01
18	830.0781-0	HP 2" ring kit	01
19	*	M10 x 1,5 x 25 hex. head bolt	08

\* Part available in the market - not sold by Schulz. \*\* The standard motor pulley is supplied with a standard hole. Note: HP = high pressure LP = low pressure

No.	CODE	DENOMINATION	QTY
20	709.1057-0	HP 2" cylinder	01
21	830.0782-0	HP valve plate kit	01
22	830.0785-0	HP 2" valve plate	01
23	709.1332-0	HP 2" cylinder cover	01
24	*	M8 x 1,25 x 30 hex. head bolt	10
25	709.1229-0	Intercooler	01
26	709.1068-0	LP connecting rod	01
27	016.0042-0	LP Ø 90mm piston	01
28	830.0780-0	LP 90mm ring kit	01
29	709.1058-0	LP 90mm cylinder	01
30	830.0779-0	LP valve plate kit	01
31	830.0784-0	LP 90mm valve plate	01
32	709.1232-0	LP 90mm cylinder cover	01
33		M6 x 1,0 x 45 Allen hex. head bolt	01
34	007.0116-0	Air filter	01
35	007.0118-0	Filter element	01
36	830.0603-0	5/8" ring kit	01
37	003.0294-0	NPT 1/2" x 5/8" elbow	02
38	830.0340-5	Crankcase breather tube kit	01
39	003.0005-5	NPT 1/8"x1/4" elbow	01
40	003.0054-3	1/8"x1/4" straight connection	01
41	022.0215-0	HP 1/8" ASME safety valve	01
42	022.0177-0	LP 1/8" ASME safety valve	01
-	709.1168-0	Pulley ø 216 mm (1Å) - not shown	01 01
-	709.1150-0 709.1270-0	Pulley ø 128 mm (1A**) - not shown Pulley ø 218 mm (2A) - not shown	01
	/03.12/0-0		01

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#### DIMENSIONS



#### INSTALLATION AND OPERATION INSTRUCTIONS

#### **INSTALLATION AND LOCATION**

1. Installation: Install the compressor in a covered, well ventilated area, free of dust, toxic gases, humidity or any other kind of pollution. The compressor should be located no closer than 32" (800mm) from a wall or any other obstacle that could interfere with the air flow through the fan. This distance will also make maintenance easier. Place the compressor on a leveled surface. Rotation of the flywheel must be in the direction of the arrow cast into the flywheel. The maximum ambient temperature recommended while working is 104°F or 40°C. If necessary, install an exhaust fan to guarantee fresh air and to dissipate heat.

Before making the electrical connections, check oil level and top-up lubricating oil. For type of oil, see table at the end of these instructions.

2. Electrical connection: The country's valid electrical standards must be followed regarding Low Voltage Electrical Installation.

#### OPERATION

- 1. Initial start procedure: Before turning on the compressor, check the crankcase oil level. It must be in the middle of the OIL LEVEL SIGHT. As to the type of oil to be used and the recommended change intervals, check at "Lubrication" and as to its volume, check the Technical Data Table.
- **2. Start:** Turn on the electrical start key and let your compressor run for about 10 (ten) minutes, what will keep the tank's internal pressure or compressed air around 20 psig. This will optimize a homogeneous lubrication of the parts.

#### LIMITED WARRANTY

All component parts on your SCHULZ compressor are warranted to be free of defects in workmanship and material for a period of one year. Transportation charges are responsibility of the purchaser. This warranty extends to the original purchaser of the compressor only.

There are no express warranties except as contained in this limited warranty statement and implied warranties, including those of merchantability and fitness for a particular purpose, are limited to the period of warranty.

Our liability is limited solely to replacement of nonconforming parts as set forth herein and does not include any liability for any incidental, consequential, or other damages of any kind. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.



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#### MAINTENANCE WARNING

Turn off power before servicing and be sure the air tank is unloaded. These instructions are based on normal operating conditions. If the compressor is located in an exceedingly dusty area, increase the frequency of all inspections.

- DAILY
- Inspect the compressor visually.
- Check oil level and add some if necessary, before turning the compressor on.
- Drain moisture from the piping system.
- Be sure there is no excessive or unusual vibration or noise.

#### WEEKLY

- Remove and clean intake air filters; do not wash the filter element.
- Check V-belt for tightness. Belt tension should be adjusted to allow approximately 3/8" to 1/2" (9 to 13 mm) deflection with normal thumb pressure.
- Clean cylinders externally, cylinder head, motor, fan blade, tubing, and tank.
- ASME safety valve should be tested manually to see if it is working properly.

#### MONTHLY

- Check entire system for air leakage around fittings, etc by using water and soap lather.
- Check the pressure switch operation.
- Check for oil contamination and change it if necessary.

#### QUARTERLY

- Change the air filter element every 300 working hours or quarterly. (Whichever occurs first).
- Fasten bolts and nuts as required. (See table 01)
- Change oil more frequently if compressor is located in a very dirty environment.

# - WHILE RUNNING IN A PERIOD OF ABOUT 100 WORKING HOURS THE OIL LEVEL SHOULD BE CAREFULLY CHECKED.

#### ANNUALLY

- Test and calibrate the pressure switch, pressure gauge and ASME safety valve according to their own technical standards. These parts must be removed from the tank and pump to be tested.
- Inspect and clean the suction and discharge valve(s) plate(s) every 1000 (one thousand) working hours (whichever occurs first), located between the cylinder and its cover and, if necessary, replace it (them) according to the operation conditions.

## LUBRICATION

- The first oil change should be made after 8 hours of operation.
- The second oil change after 40 hours of operation.
- The third and following exchanges should be made after 200 hours of operation, or 60 (sixty) days, whichever occurs first.

# NOTE:

Heavy Duty and multi-viscous oils are not adequate for Schulz air compressor's lubrication. The same applies to oils that tend to emulsify.

We recommend good industrial oil for air compressors, with rust and oxidation inhibitors and high viscosity level (from 90 to 95), SAE or ISO, as indicated in the table below:

#### RECOMMENDED LUBRICANT OILS FOR SCHULZ AIR PUMPS

AN	BIENT TEMPERATURE	E °F (°C)
Below 32 °F	32 °F to 68 °F	68 °F to 104 °F
Below 0 °C	0 °C to 20 °C	20 °C to 40 °C
SAE 10W	SAE 20W	SAE 30
or	or	or
ISO 32	ISO 68	ISO 100

Note: Schulz reserves the right to make changes without prior notice.

#### DISTRIBUTOR