

# SCHULZ COMPRESSOR MSWV 80 MAX TWO STAGES 175 PSIG

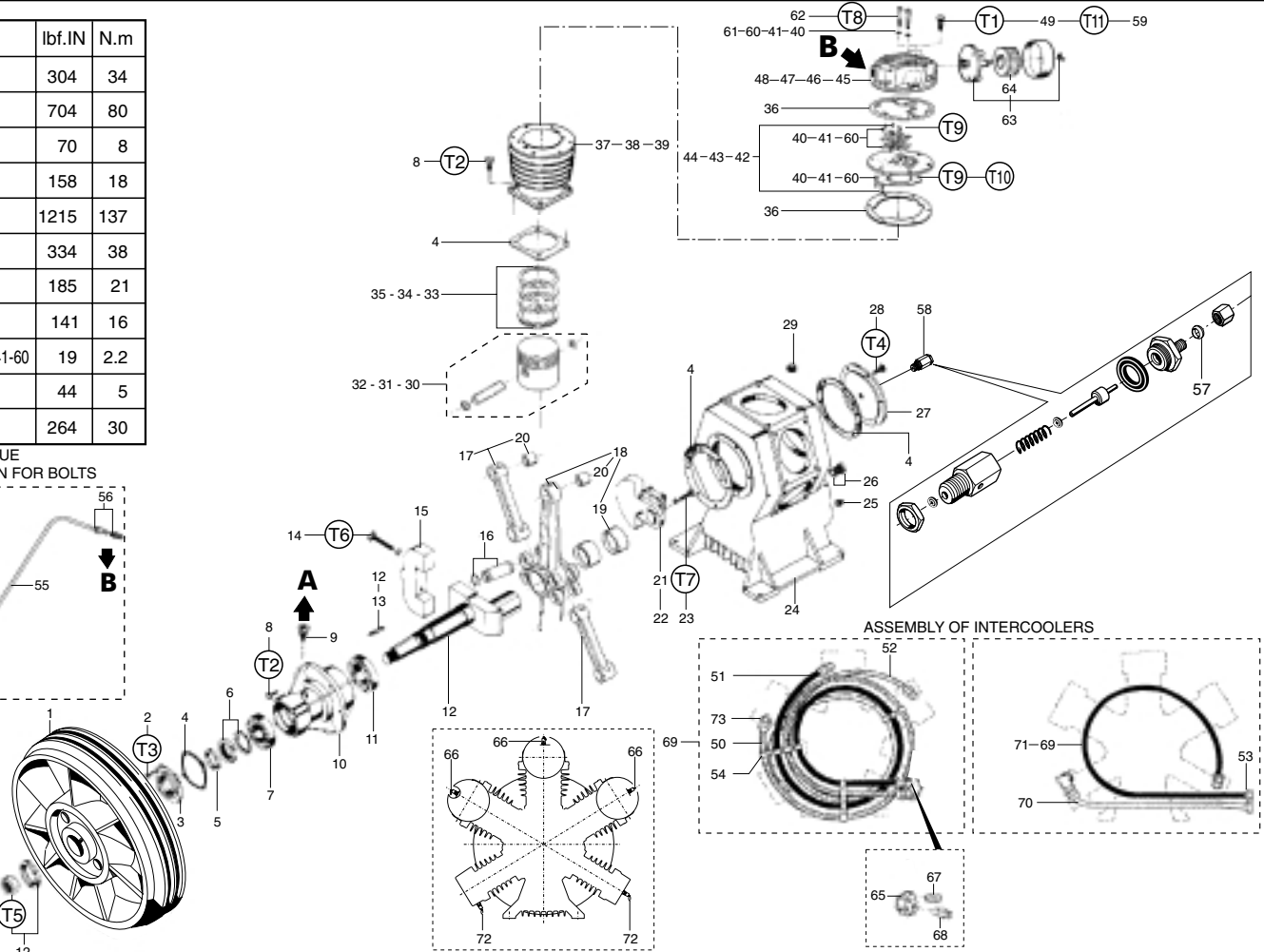
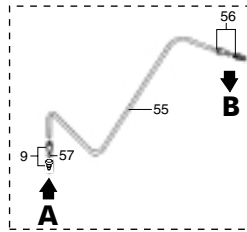
CAST IRON INDUSTRIAL COMPRESSORS

## TECHNICAL DATA

MODEL	DISPLACEMENT cfm	MAX. PRESSURE psig	RPM	MOTOR hp	BELT	MOTOR PULLEY		OIL CAP.		WEIGHT IN LBS	DISCHARGE SIZE
						2 POLES		IN 1	IN QT		
<b>MSWV 80 MAX</b>	80	175	910	20	2-B	mm	inch	4.5	4.72	397.3	3/4" BSP
						145	5.7				

Position	lbf.IN	N.m
(T1) 49	304	34
(T2) 8	704	80
(T3) 2	70	8
(T4) 28	158	18
(T5) 12	1215	137
(T6) 14	334	38
(T7) 23	185	21
(T8) 62	141	16
(T9) HP-LP 40-41-60	19	2.2
(T10) LP 40-41-60	44	5
(T11) 59	264	30

TABLE 1 - TORQUE ESPECIFICATION FOR BOLTS



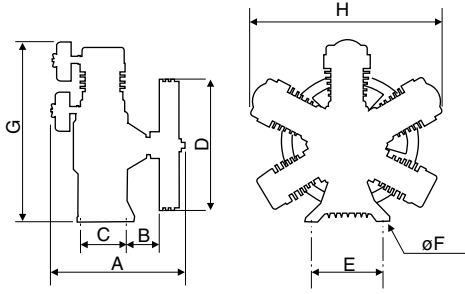
## BARE PUMP PARTS

No.	CODE	DENOMINATION	QUANTITY	No.	CODE	DENOMINATION	QUANTITY
1	709.1346-0	Flywheel	01	39	709.1347-0	HP 2.1/2" cylinder	01
2		UNC 1/4" x 3/4" head bolt	04	40	830.0955-0	LP 4.3/4" valve plate kit	03
3	20505001	Flange cover	01	41	830.1002-0	HP 90 mm valve plate kit	01
4	830.1033-0	Crankcase gasket kit	01	42	809.1028-0	LP 4.3/4" valve plate	03
5	60082501	Oil seal	01	43	809.1027-0	HP 90mm valve plate	01
6	830.0932-0	Lock washer and nut	01	44	809.1029-0	HP 2.1/2" valve plate	01
7	60154502	33109 bearing	01	45	709.1272-0	LP 4.3/4" cylinder cover (with breather)	01
8		NC 1/2" x 1" head bolt	26	46	709.1423-0	LP 4.3/4" cylinder cover (without breather)	02
9	60259501	Straight fitting	01	47	709.1424-0	HP 90mm cylinder cover	01
10	20504001	Flange	01	48	709.1424-0	HP 2.1/2" cylinder cover	01
11	60154501	32211 bearing	01	49	709.1389-0	UNC 3/8" x 1.1/2" head bolt	23
12	830.0933-0	Crankshaft	01	50	709.1457-0	Short intercooler No. 2	01
13	60267503	Key	01	51	709.1459-0	Medium intercooler No. 3	01
14		UNF 3/8" x 3" head bolt	02	52	709.1458-0	Long intercooler No. 4	01
15	20508005	Crankshaft counter weight	01	53	21011004	3/4" nut for intercooler	10
16	830.0934-0	Connecting rod pin	04	54	21029003	Intercooler holder	03
17	30008502	Connecting rod	04	55	830.0340-5	1/4" crankcase breather tube	01
18	830.0938-0	Master connecting rod	01	56	003.0054-3	1/8" x 1/4" straight connection	01
19	60152502	Connecting rod inner bushing	02	57	830.0599-8	1/4" ring kit	01
20	60152501	Connecting rod bushing	09	58	022.0174-0	Centrifugal unloading valve	01
21	30007007	Counter weight with centrifugal mechanism	01	59	383.0111-0	HP 5/16" x 1.1/2" Allen hex bolt	06
22	830.0937-0	Counter weight kit with centrifugal mechanism	01	60	830.0957-0	HP 2.1/2" valve plate kit	01
23		UNF 5/16" x 1.1/4" head bolt	02	61	830.1032-0	Washer kit	01
24	20501001	Crankcase	01	62	013.0752-0	M6 x 1 x 55 Allen hex bolt	08
25	003.0029-2	3/8" plug	01	63	007.0116-0	Air filter	03
26	830.0775-0	3/4" oil level sight	01	64	007.0118-0	Filter element	03
27	709.1316-0	Crankcase cover	01	65	20517005	Intercooler adaptor	02
28		UNC 5/16" x 3/4" head bolt	06	66	022.0177-0	LP 1/8" ASME safety valve	03
29	003.0031-4	3/4" plug	01	67	21011001	3/4" x 1/2" straight connection	04
30	60273501	LP 4.3/4" piston	03	68	003.0036-5	3/4" nipple	01
31	830.1000-0	HP 90mm piston	01	69	809.1043-0	Intercooler kit	01
32	830.0939-0	HP 2.1/2" piston	01	70	709.1369-0	Discharge tube No. 1	01
33	000.0077-0	LP 4.3/4" ring kit	03	71	709.1456-0	Discharge tube No. 5	01
34	000.0080-0	HP 90mm ring kit	01	72	022.0189-0	HP 1/8" ASME safety valve	02
35	000.0075-0	HP 2.1/2" ring kit	01	73	21011002	3/4" x 3/4" straight connection	06
36	830.1031-0	Upper gasket kit	01	-	709.1359-0	Pulley (not shown)	01
37	709.1306-0	LP 4.3/4" cylinder	03				
38	709.1308-0	HP 90mm cylinder	01				

\* Part available in the market - not sold by Schulz  
Note: HP = high pressure LP = low pressure

## DIMENSIONS

### MSWV 80 MAX



	A	B	C	D	E	F	G	H
<b>mm</b>	650	120	244	540	344	14	780	960
<b>inch</b>	25.6	4.7	9.6	21.2	13.5	0.55	30.7	37.8

## 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-belts 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 1)
- 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, pilot valve, discharge valve and 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

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

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

## DISTRIBUTOR

