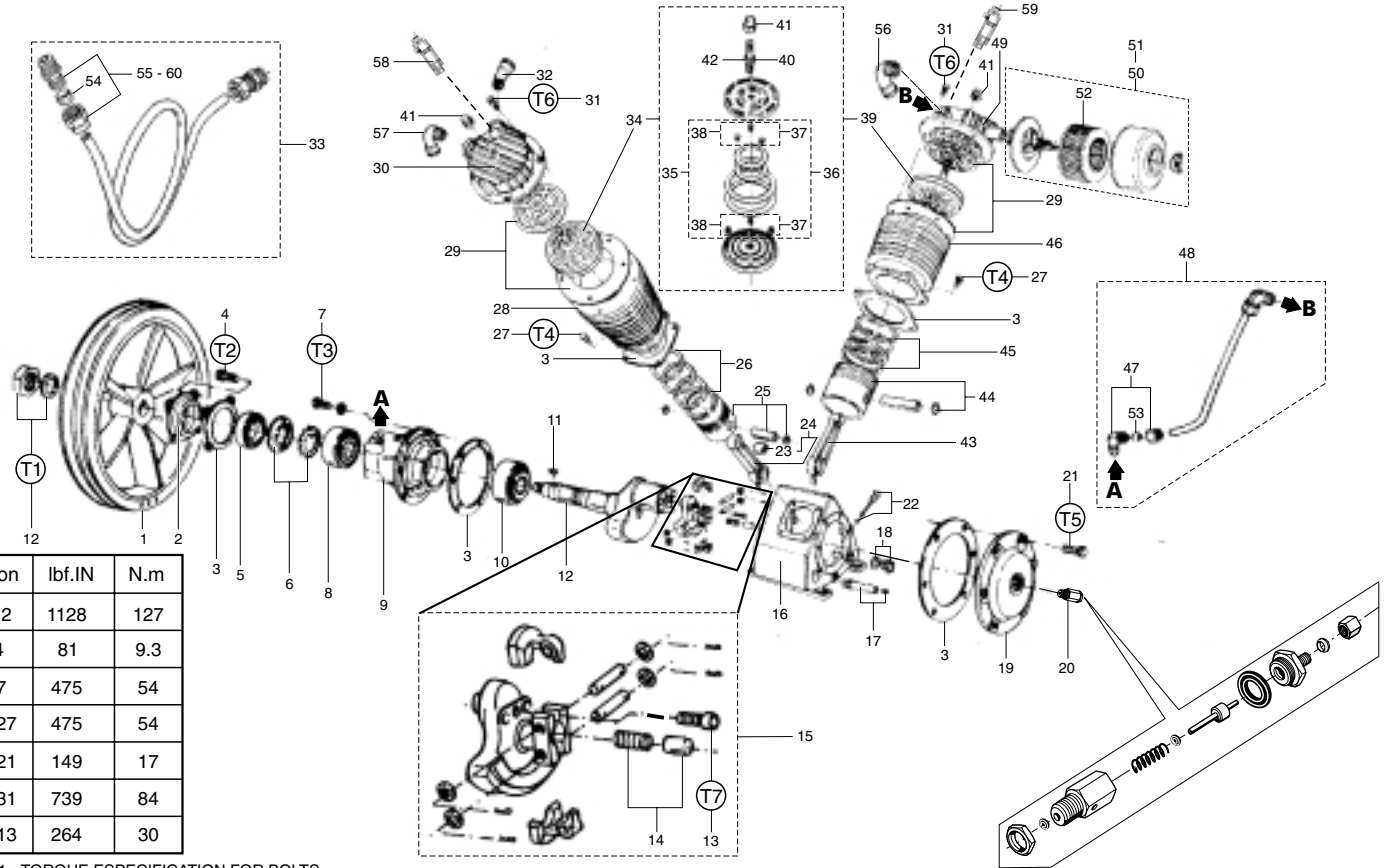


TECHNICAL DATA

| MODEL | DISPLACEMENT cfm | MAX. PRESSURE psig | RPM | MOTOR hp | BELT | MOTOR PULLEY | | OIL CAP. | | WEIGHT IN LBS | DISCHARGE SIZE |
|-----------|---------------------|-----------------------|-----|-------------|------|--------------|------|----------|--------|------------------|-------------------|
| | | | | | | 4 POLES | | ℓ | IN. QT | | |
| MSV 40 SA | 40 | 175 | 790 | 10 | 2-B | mm | inch | 1.5 | 1.57 | 205 | 1" BSP |
| | | | | | | 190 | 7.5 | | | | |



| Position | lb.f.IN | N.m |
|----------|---------|-----|
| (T1) 12 | 1128 | 127 |
| (T2) 4 | 81 | 9.3 |
| (T3) 7 | 475 | 54 |
| (T4) 27 | 475 | 54 |
| (T5) 21 | 149 | 17 |
| (T6) 31 | 739 | 84 |
| (T7) 13 | 264 | 30 |

TABLE 1 - TORQUE ESPECIFICATION FOR BOLTS

The oil level sight's 18 code is 830.0138-0 for products manufactured until December/2003.

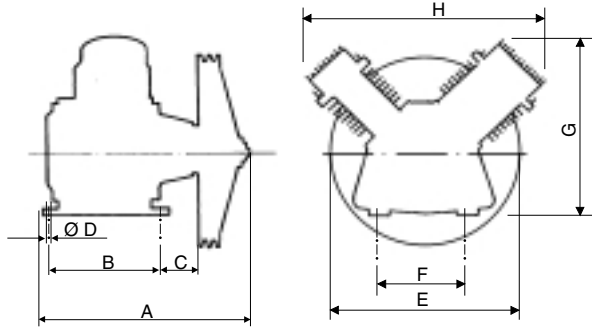
BARE PUMP PARTS

| No. | CODE | DENOMINATION | QUANTITY | No. | CODE | DENOMINATION | QUANTITY |
|-----|---------------|---------------------------------------|----------|-----|------------|---|----------|
| 1 | 709.0136-6 | Flywheel | 01 | 32 | 003.0011-0 | 45° MF 1" fitting | 01 |
| 2 | 709.0139-0 | Flange cover | 01 | 33 | 709.1589-0 | Intercooler kit | 01 |
| 3 | 830.0431-2/NA | Crankcase gasket kit | 01 | 34 | 830.0436-3 | HP 3.3/8" concentric valve | 01 |
| 4 | * | UNC 1/4" x 3/4" LT head bolt | 04 | 35 | 830.0131-3 | HP concentric valve kit | 01 |
| 5 | 023.0099-0 | Oil seal | 01 | 36 | 830.0146-1 | LP concentric valve kit | 01 |
| 6 | 830.0134-8 | Lock nut and washer | 01 | 37 | 830.0583-1 | LP concentric valve spring kit | 01 |
| 7 | * | UNC 7/16" x 1.1/4" LT head bolt | 06 | 38 | 830.0582-3 | HP concentric valve spring kit | 01 |
| 8 | 019.0010-2 | 30208 bearing | 01 | 39 | 830.0437-1 | LP 6.1/8" concentric valve | 01 |
| 9 | 709.0692-9 | Flange | 01 | 40 | 013.0390-2 | LP concentric valve bolt | 01 |
| 10 | 019.0013-7 | 32210 bearing | 01 | 41 | 013.0139-0 | 1/2" concentric valve nut | 02 |
| 11 | 709.0147-1 | Key | 01 | 42 | 013.0391-0 | HP concentric valve bolt | 01 |
| 12 | 830.0438-0 | Crankshaft | 01 | 43 | 709.0694-5 | LP connecting rod | 01 |
| 13 | 830.0314-6 | UNC 5/16" x 1" LT Allen head bolt kit | 01 | 44 | 016.0100-8 | LP Ø 6.1/8" piston | 01 |
| 14 | 830.0150-0 | Counter weight kit | 01 | 45 | 830.0143-7 | LP 6.1/8" ring kit | 01 |
| 15 | 830.0426-6 | Counter weight | 01 | 46 | 709.0697-0 | LP 6.1/8" cylinder | 01 |
| 16 | 709.0690-2 | Crankcase | 01 | 47 | 003.0003-9 | NPT 1/8" x 5/16" elbow | 02 |
| 17 | 830.0205-0 | Oil drain tube | 01 | 48 | 830.0240-9 | 5/16" crankcase breather tube | 01 |
| 18 | 830.0775-0 | 3/4" Oil level sight | 01 | 49 | 709.0700-3 | LP cylinder cover (new with screw for filter) | 01 |
| 19 | 709.0691-0 | Crankcase cover | 01 | 50 | 007.0117-0 | Air filter (manufactured until 07/01) | 01 |
| 20 | 022.0174-0 | Centrifugal relief valve | 01 | 51 | 007.0116-0 | Air filter | 01 |
| 21 | * | UNC 5/16" x 7/8" LT head bolt | 06 | 52 | 007.0118-0 | Filter element | 01 |
| 22 | 830.0435-5 | Oil level dipstick | 01 | 53 | 830.0600-5 | 5/16" ring kit | 01 |
| 23 | 019.0029-0 | Needle bearing | 01 | 54 | 830.0605-6 | 1" ring kit (manufactured until 09/03) | 01 |
| 24 | 830.0637-0 | HP connecting rod with needle bearing | 01 | 55 | 003.0052-7 | 1" straight connection (manufactured until 09/03) | 02 |
| 25 | 830.0634-0 | HP Ø3.3/8" Piston | 01 | 56 | 003.0010-1 | 90° MF 1" fitting | 01 |
| 26 | 830.0144-5 | HP 3.3/8" ring kit | 01 | 57 | 003.0152-3 | 90° MF 1" elbow | 01 |
| 27 | * | UNC 7/16" x 1" LT head bolt | 08 | 58 | 022.0189-0 | HP 1/8" ASME safety valve | 01 |
| 28 | 709.0698-8 | HP 3.3/8" cylinder | 01 | 59 | 022.0177-0 | LP 1/8" ASME safety valve | 01 |
| 29 | 830.0156-9/NA | Upper gasket kit | 01 | 60 | 003.0350-0 | 1" straight connection | 02 |
| 30 | 709.0702-0 | HP 3.3/8" cylinder cover | 01 | - | 709.1070-0 | Pulley (not shown) | 01 |
| 31 | 830.0884-0 | UNC 7/16" x 1" LT Allen head bolt kit | 02 | | | | |

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

DIMENSIONS

MSV 40 SA



| | A | B | C | D | E | F | G | H |
|-------------|------|-----|-----|------|------|-----|------|-----|
| mm | 440 | 220 | 85 | 10.5 | 420 | 200 | 460 | 610 |
| inch | 17.3 | 8.7 | 3.4 | 0.4 | 16.5 | 7.9 | 18.1 | 24 |

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 between the dipstick's maximum and minimum marks, or 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.

SCHULZ

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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, pilot valve, discharge valve, 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

| 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 40 or ISO VG 150 |

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

DISTRIBUTOR

