



## *OPERATOR'S MANUAL*



## *CHAMPION SCREW COMPRESSOR CSF11, CSF15, CSF18, CSF22 & CSF30*

*MODEL No. : \_\_\_\_\_*

*SERIAL No. : \_\_\_\_\_*

*MANUAL No. : 975423 REV D*

*EFFECTIVE FROM: MAY 2009*

*MACHINE SERIAL # 20,967*

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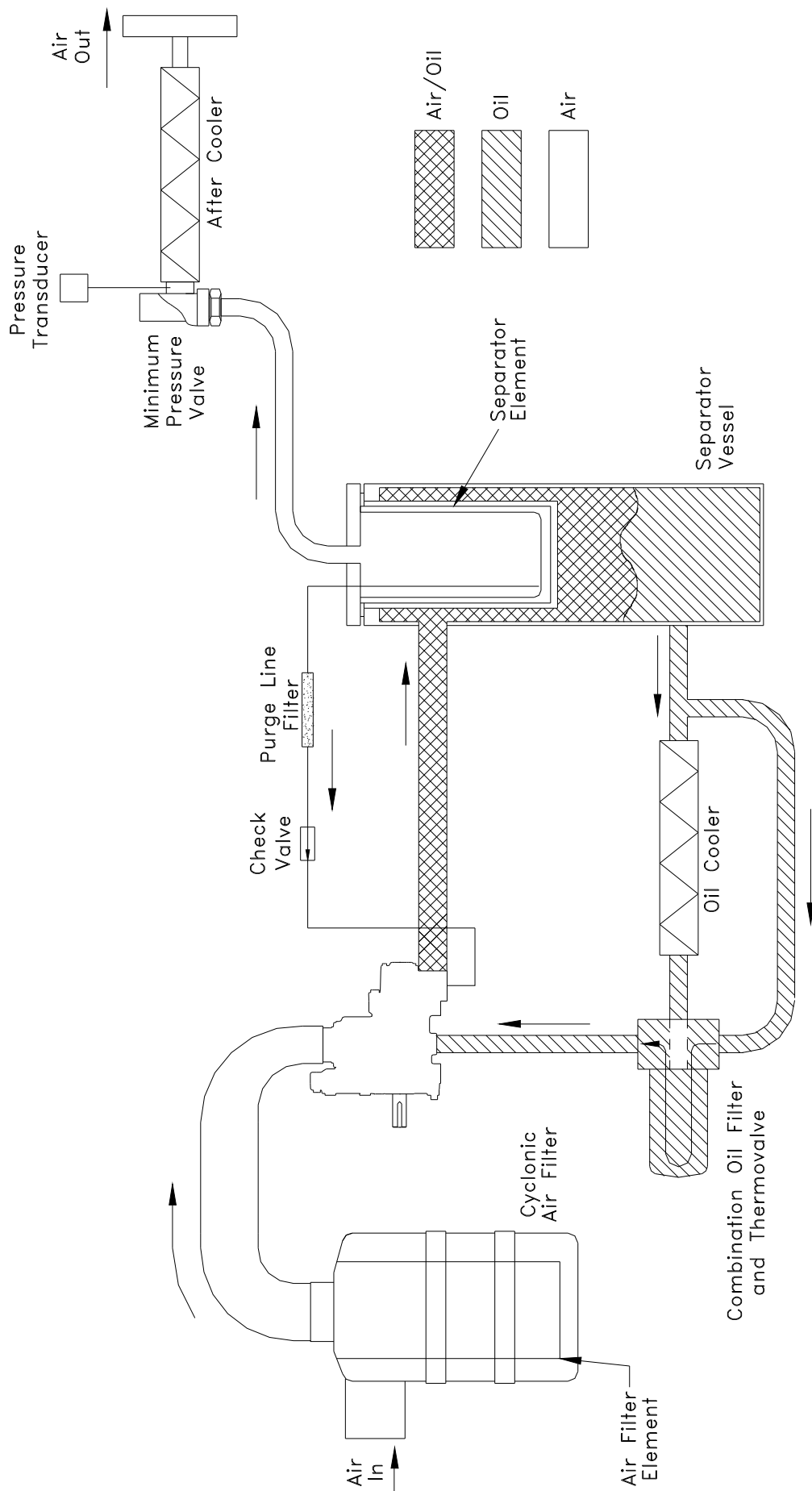


Figure 2 - Flow Schematic

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## 5.0 INSTALLATION AND PRE START CHECKS

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### 5.1 General

**Warning:** Incorrect installation may void warranty.

Before installing your *Champion* compressor, check carefully for any transport damage. Contact *Champion Compressors* Customer Care Division immediately if any such damage is noted.

The compressor should preferably be lifted by fork lift truck. Care should be taken that the forks are correctly spaced, are placed to lift the compressor from the front, and are fully engaged and tipped back prior to lifting (refer Figure 4 - Lifting Points). Fork lift tynes must extend to cover the full depth of the compressor. Ensure the fork lift truck load rating is sufficient to transport the compressor package (refer Section 4.1 - Machine Specifications for compressor shipping weights). Refer to local regulations for fork lift codes of practice.

If a crane is used to lift the compressor, lift with slings using guide ropes to prevent twisting of the compressor, and spreader bars to prevent panel damage (refer Figure 4 - Lifting Points). When the compressor has been set to rest, check for cracked welds and loose bolts or nuts. Ensure that any equipment used is sufficiently rated to transport the compressor package (refer Section 4.1 - Machine Specifications for compressor shipping weights).

Note: A site assessment must be carried out to ensure forklift or crane access for removal and servicing of major components and compressor transport.

### **5.8.3 Vee Belt Check**

Check that all belts are correctly seated in their grooves. The belt tension is maintained by adjusting a jacking nut located above the airend. Refer to Section 8.8 - Belt Tension Adjustment for the correct belt tension measurement and adjustment methods.

### **5.8.4 System Isolating Gate Valve Check**

If a system isolating gate valve has been fitted to your compressor, check that it is open.

The compressor is now ready to be run.

**Important:** Refer to Section 6.0 - OPERATION for the correct compressor start up procedure.

## 6.5.4 LED Indicators

The *Champion* electronic controller has two LED indicator lights located to the right of the digital display. The green Status LED provides a visual indication of the compressor operational status, while the red Fault LED provides a visual indication of the fault status of the compressor.

The LED indicator lights can be in one of five states

- On - Illuminated continuously
- Fast Flash - On / Off four times per second
- Slow Flash - On / Off once per second
- Intermittent Flash - On / Off every four seconds
- Off - Not illuminated

The following table summarises the LED indicator light states for various compressor operating conditions.

<b>Compressor Condition</b>	<b>Status LED (Green)</b>	<b>Fault LED (Red)</b>
Shutdown Fault	Off	Fast Flash
Alarm Condition	Off	Slow Flash
Startup / Initialising	Off	Off
Start Inhibit Check	Off	Off
Start Inhibit Condition	Off	Slow Flash
Ready To Start	Off	Off
Blowdown	Fast Flash *	Off
Standby	Intermittent Flash	Off
Start Motor in star / delta	Fast Flash *	Off
Load Delay	Fast Flash *	Off
Load	On	Off
Reload Delay	Fast Flash *	Off
Standby Run on Time	Intermittent Flash	Off
Stop Run on Time	Slow Flash	Off

\* Intermittent Flash if load state not being requested.

## 8.0 MAINTENANCE

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### 8.1 General

Your compressor will serve you best if you ensure it is adequately maintained. Correct maintenance will increase its productive life and can result in large savings as a direct result of reduced down time.

*Champion Compressors* offer a variety of Maintenance Management options, which provide regular maintenance to ensure long life and trouble-free service from your compressor. Contact *Champion Compressors* Customer Care Division to arrange this service.

Protect your investment by using *Champion's* purpose designed Genuine Parts on your new or used compressors.

**Disclaimer:** Warranty may be void if non-OEM supplied parts are used on *Champion* compressors.

### 8.2 Daily Operation

#### 8.2.1 Prior to Starting

Check the oil level of the compressor and top up as necessary (refer Section 8.6.1 - Oil Level).

**Warning:** Should there be a requirement to open the filler plug, allow two minutes for the oil level to settle and ensure that there is no pressure in the separator vessel.

Check for any obvious deterioration of the vee belts.

Drain any water from air receivers.

#### 8.2.2 After a Routine Start

Observe the electronic controller display for any abnormal readings (i.e. temperature or pressure) and whether any faults are present. Check whether there are any oil or air leaks. Refer to *Champion Compressors* Customer Care Division to resolve any issues.

- f. **Important:** It is imperative that Loctite 277 Threadlocker is used on the M6 x 25 cap screw retaining the valve plate to the valve stem. Use of any other threadlocker may result in failure and void all warranties.
9. Restart the compressor and check the operation of the valve plate.
10. Reassemble the air intake plumbing.

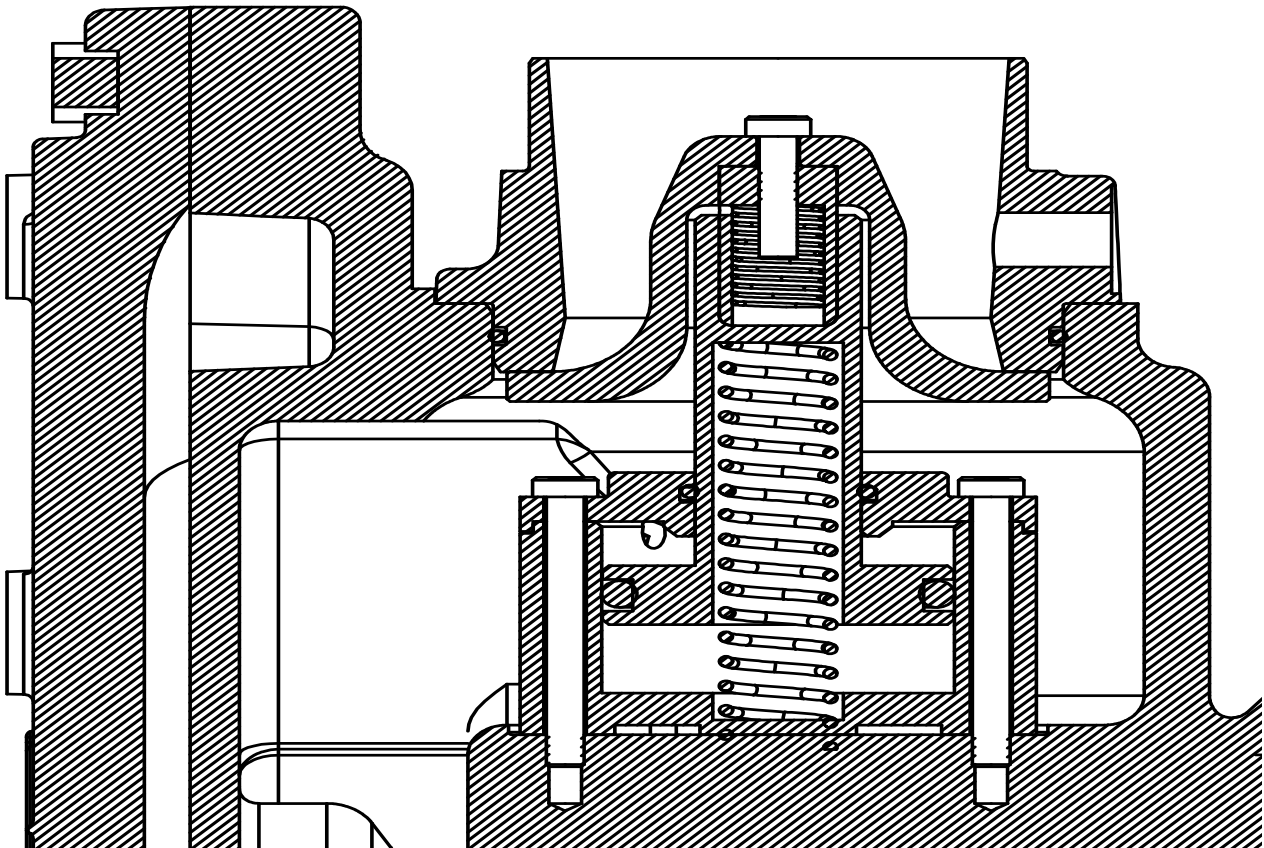


Figure 13 - Inlet Control Valve

# 9.0 GENERAL ARRANGEMENT DRAWINGS

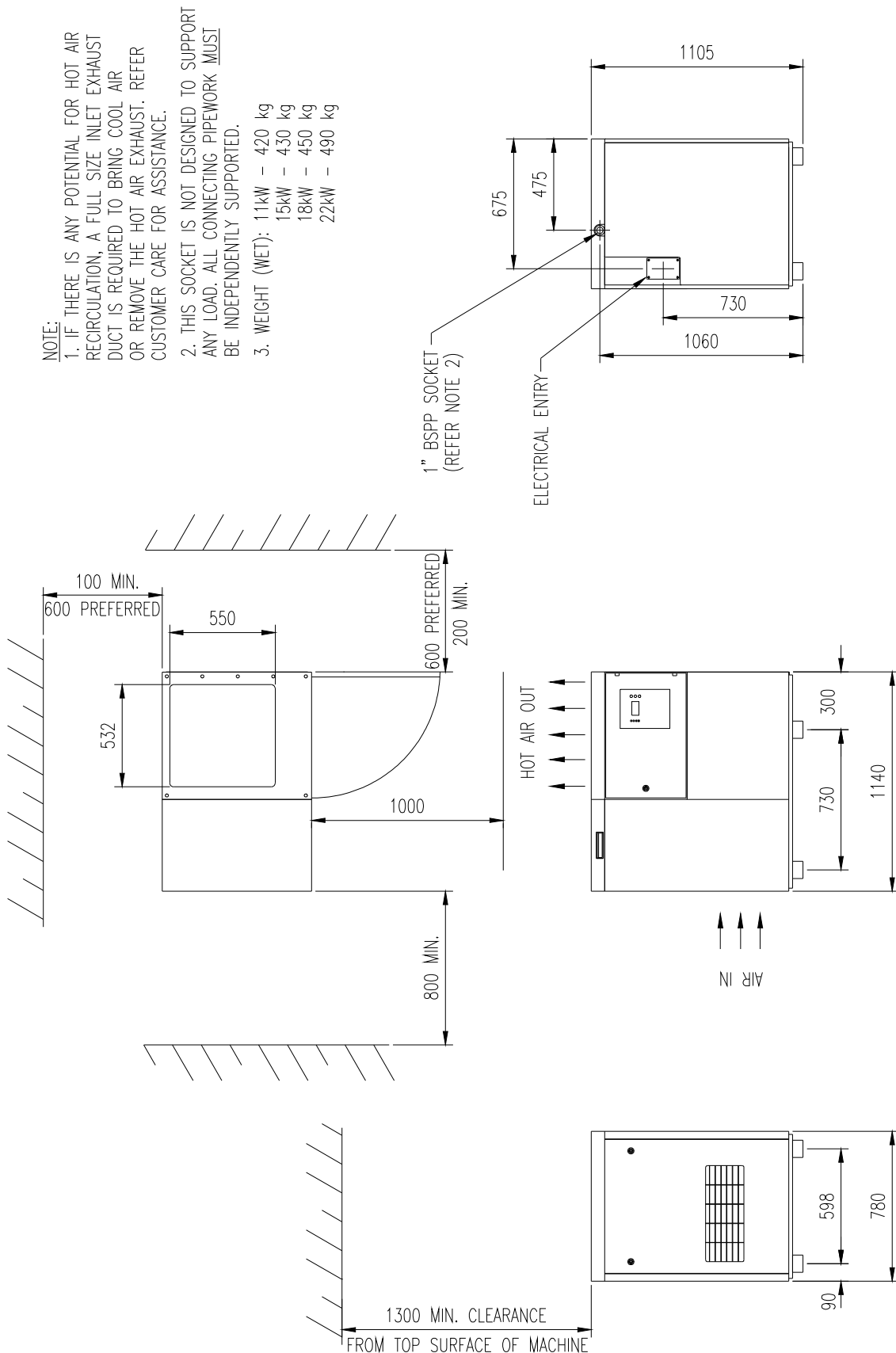


Figure 19 - General Arrangement Drawing - CSF11 - 22

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