Installation & Commissioning Instruction - SH - Semi Hermetic Compressor

1. Safety

Only appropriately licensed and qualified personnel should work on this Semi Hermetic refrigeration unit.
Appropriate personal safety equipment must be worn at all times.
Take care when relieving the dry nitrogen holding pressure.

2. Good Refrigeration Practice

The Current A/NZ Code of Good Practice and all relevant Australian Standards must be followed when installing this unit. The internal components of the system must be kept clean and free from moisture at all times.

3. Transport Damage and Holding Pressure

The unit must be inspected for damage and the holding pressure checked prior to installation. Any damage or lack of holding pressure must be reported to the supplier before installation commences.

4. Electrical Connection Checks

Due to possible vibration during transport all electrical connections must be checked to ensure the safe and correct operation of the unit

5. Leak Testing and Evacuation

Dry nitrogen must be used when soldering pipe work to ensure the system remains internally lean.
The unit and system must be thoroughly leak tested prior to evacuation.
The entire refrigeration system must be evacuated to 300 microns or less.

6. Deep Vaccum Operation Warning

Never run a compressor in deep vacuum. Failure to heed this advice can result in arcing of the Fusite pins causing permanent damage to the compressor.
Open the Suction and Discharge valves before starting the compressor. Do not by-pass the HP/LP safety control.

7. Refrigerant Charging

The crank case heater should be powered for at least 12 hours prior to commissioning to avoid excessive bearing wear. No liquid refrigerant should return to the compressor at any time.

8. Essential System Checks

The following must be checked and adjusted as required;
Voltages, amperages, oil level, pressures and temperatures.
The system must be run tested and superheat set correctly.

9. Fan Speed Control Operation

The fan speed control fitted to this unit is set for R404A operation. If operating with R134a the set point of thefan speed control must be adjusted. Fan should not operate below 50% of full speed.
Set point for 40°C SCT for R404A = 50%
Set point for 40°C SCT for R134a = 25%
Set point equals % of total pressure transmitter span (0 - 3450kPa)

Acpac Model	Compressor Model	Unit Maximum Operating Current	Compressor Maximum Operating Current	Fan Maximum Operating Current	Control Circuit Breaker	Current Circuit Breaker	Overload Setting	Contactor kW Rating
			Amps					kW
SHT 4576 ZHR	SH 4576 Z	17.6	11.6	2 x 3.00	16	25		11
SHT 4591 ZHR	SH 4591 Z	18.7	12.7	2 x 3.00	16	25		11
SHT 4610 ZHR	SH 4610 Z	23.6	17.6	2 x 3.00	16	32		18
SHT 4612 ZHR	SH 4612 Z	26.0	20.0	2 x 3.00	16	32		18
SHT 4615 ZHR	SH 4615 Z	31.4	22.4	3 x 3.00	16	32		18
SHT 4620 ZHR	SH 4620 Z	41.4	32.4	3 x 3.00	16	40		18