

**Detailed Specification of Ammonia Refrigeration Compressor
(Reciprocating) alongwith Electric Motor and
related accessories, Qty. 01 No.**

1. AMMONIA REFRIGERATION COMPRESSOR (Reciprocating):

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|-------|-----------------------------|---|----------------------------|
| i. | Capacity | : | 300,000 BTU/Hr (25 T.R) |
| ii. | Discharge Pressure | : | 150 - 200 PSI |
| iii. | Discharge Temperature | : | Maximum 150° C |
| iv. | Discharge Flow Rate | : | 100-120 m ³ /Hr |
| v. | Evaporating Temperature | : | -10° C |
| vi. | Condensing Temperature | : | 40° C |
| vii. | Media | : | R717 (Ammonia Gas) |
| viii. | Maximum speed | : | 1000 RPM |
| ix. | Water Cooled Jackets System | | |
| x. | Cylinder Oil Lubricated. | | |

Note: Compressor must be equipped with inlet and outlet valves.

2. ELECTRIC MOTOR

Motor Power suitable to operate the above compressor.

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|------|----------------------------------|---|-----------------------------------|
| i. | IP rating | : | 55 |
| ii. | Supply | : | 3-Phase (A.C):380-400 Volts, 50Hz |
| iii. | RPM | : | compatible with requirement |
| iv. | Body finished Ammonia resistant. | | |
| v. | Explosion Proof | | |

Note: Ammonia compressor & Motor must be fitted on common steel base.

3. STARTER

Automatic Star delta starter suitable according to motor rating along with Phase Failure and Phase Reverse Protection Relay, Electronic Over Current Relay, On and OFF push buttons, LED type indication lights, Digital type Ampere & voltmeter. IP - 65 rated enclosure complete with cable glands.

4. SAFETY AND MEASURING DEVICES

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|------|--------------------------|---|--------|
| i. | Low pressure cut out. | | |
| ii. | High pressure cut out. | | |
| iii. | Low oil pressure cut out | | |
| iv. | Pressure gauges | : | 02 Nos |
| v. | Temperature gauges | : | 03 Nos |
| vi. | Ampere Meter | : | 01 No |

5. SPARE PARTS.

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|------|-----------------|---|--------|
| i. | Piston | : | 01 Set |
| ii. | Piston Rings | : | 01 Set |
| iii. | Oil Rings | : | 01 Set |
| iv. | Piston Pins | : | 01 Set |
| v. | Suction Valves | : | 01 Set |
| vi. | Delivery Valves | : | 01 Set |
| vii. | Connecting Rod | : | 01 Set |

viii.	Crank shaft	:	01 No
ix.	Oil Pump	:	01 No
x.	Oil Filters	:	04 sets
xi.	Starter	:	01 No (Complete in all respect)
xii.	Motor Bearings	:	02 Sets
xiii.	Condenser	:	01 No

6. ANCHORING MEDIA:

Anchoring Bolts and Anchoring chemical for installation of Compressor and Electric Motor.

7. CLIMATIC CONDITIONS

- Temperature range : -3 to 50°C
- Atmospheric relative humidity : 25 - 90%

8. UTILITIES

Following utilities are available at site:-

- Electricity 380 - 400 volts, 50Hz, three phase.
- Electricity 220-230 volts, 50Hz, single phase.
- Raw Water at 2 bar
- Instrument air at 4 bar

9. TECHNICAL SUPPORT:

The SELLER is obliged to provide that after Final Acceptance Test (FAT) of the contracted store, there shall be continuing technical support as and when required by the BUYER. In addition, the BUYER shall be kept informed regarding latest advancement in the related technology for further improvement in the process for a period of 15 years, commencing from the date of Final Acceptance Test.