



PACKAGE DATASHEET



Purchaser: Zanzan Petrochemical Co.
Owner: Zanzan Petrochemical Co.
Project: UREA & AMMONIA
Plant: Zanzan City
Location: IRAN

As per MYCOM STD Compressor Skid Option

Purchaser		Zanzan Petrochemical Co.
Owner		Zanzan Petrochemical Co.
Plant Name/Project		UREA
No.of Required units:		1 Refrigeration Package(2 Compressor Skids and Common Condensing Unit)
Item No. /Name		



Design Operating Condition

Design Case

Refrigerant **Ammonia**

Capacity kg/hr **500.0 For Each Compressor**

Evaporating temp °C **-37.5**

Condensing temp °C **50**

Basic Specification

please specify motor rated power too.
 - For motors, please confirm that ratings are according to the maximum ambient temperature (+48°C) and altitude 1846m above sea level.
 - API factor shall be considered for motors.

Package Type	Refrigeration		Q'ty:1 Unit
Ref. Compressor Type/Model	Screw		
No. of Compressors: Two compressor Per Unit			
Operating Condition (1 unit)		Max capacity	Note
Comp. Capacity		207.0	Given capacities are ±5% per each compressor Given capacities are ±5% per each compressor
Break kW		150.0	
Speed		2950	
Driver	<input checked="" type="checkbox"/> Electric motor	<input type="checkbox"/> Soft starter	IIC
Starting Method	<input checked="" type="checkbox"/> Direct on line	<input type="checkbox"/> VFD	
Capacity Control	Control Source <input type="checkbox"/> Inlet Pressure		
	Range of Control <input checked="" type="checkbox"/> 30 to 100 %		
	Control Method <input checked="" type="checkbox"/> Slide valve		
Oil Separation	1 stage (Direction Change, Gravity and Coalescent)		
Location	<input checked="" type="checkbox"/> Outdoor/underroof	<input checked="" type="checkbox"/> Hazardous Zone 2, IIB, T3	
	<input checked="" type="checkbox"/> Ambient (-5 / +48)°C		
Noise Limitation	<input checked="" type="checkbox"/> Specification (85 dBa @ 1 Meter from Skid Edge)		
Code & Standard	<input checked="" type="checkbox"/> JIS	<input checked="" type="checkbox"/> ASME VIII div 1	<input checked="" type="checkbox"/> IEC, IECEX (No mechanical ATEX)

Utility (Design capacity)

please specify clearly that 150KW is brake horse power or rated power.

Electricity	Service	Drive Power (kW)	Voltage (V)	Frequency (Hz)	Note
	Main Electric Motor	150	6000	50	
	Oil Pump Motors	5	400	50	
	Heater/ Heat tracing	2 (approx.)	400	50	
	Control Panel	2	230	50	IP55
	Air Cooler	N/A			
Cooling water	Temperature (°C.)	in	return	Flow Rate m³/h	
	Pressure (bar G)	in	return		
Steam	Pressure (kg:cm²G)		Temp. (deg.°C.)		
Instrument Air	Pressure (bar G)	4 - 6	Temp. (deg.°C.)		



Screw Compressor Unit Components(per Compressor Unit)

<input checked="" type="checkbox"/> Compressor Make Mayekawa Mfr.		Q'TY: 1	
Type:	Oil Injected Screw Compressor	Model	N2016
Material :	Casing: Cast Iron FC300	Rotor:	Nodular Cast Iron
Shaft Seal:	Singel Mechanical	<div style="border: 1px solid red; padding: 2px; display: inline-block; color: green; font-size: small;"> electrical MV motor shall be Exd-IIC-T3 suitable for zone2. </div> <div style="border: 1px solid red; padding: 2px; display: inline-block; color: green; font-size: small; margin-left: 20px;"> 400V or 6KV? there is discrepancy with previous page. </div>	
		Code:	JIS
<input checked="" type="checkbox"/> Electric motor for compressor		Q'TY: 1	
Type:	Squirrel Cage Induction motor	Type of Explosion proof:	Exec
Enclosure	TEFC	Ingress protection:	IP56
Rated Power:	150	Voltage:	400 V
Poles:	2	Drive Speed:	2950 rpm
Frequency :	50		
<input checked="" type="checkbox"/> Oil pump Make MYCOM/ Mayekawa Mfr.		Q'TY: 1	
Type:	Screw type Gear Pump	Rotor:	CI
Material :	Casing CI		
<input checked="" type="checkbox"/> Electric motor for oil pump		Q'TY: 1	
Type:	Squirrel Cage Induction motor	Type of Explosion proof:	Exec
Enclosure:	TEFC	Ingress protection:	IP56
Rated Power:	5	Voltage:	400 V
Poles:	4	Drive Speed:	1495 rpm
Frequency :	50		
<input checked="" type="checkbox"/> Oil Separator		Q'TY: 1	
Type:	Horizontal drum type (Mycom design)	Code:	MYCOM STD
Material:	CS	Element	coalescers
<input checked="" type="checkbox"/> Oil cooler		Q'TY: 1	
Type:	MYCOM STD Water Cooled		
<input checked="" type="checkbox"/> Oil Filter		Q'TY: 1	
		Code:	MYCOM STD
<input checked="" type="checkbox"/> Suction gas strainer		Q'TY: 1	
Type:	Cone type		
<input type="checkbox"/> Noise Enclosure(If required)		Q'TY: 0	



Unit Components (Common part)

Refrigerant Condenser Q'TY: 1

Type: Water Cooled Code: ASME VIII without U-stamp
Material: Carbon Steel

Receiver Q'TY: 1

Type: Pressure vessel Code: ASME VIII without U-stamp

Economizer Q'TY: 1

Material: Shell Carbon Steel Code: MYCOM STD

Suction K.O Drum Q'TY: 1

Gas Purger Q'TY: 1

Code: MFR STD

Piping for Skid and Interconnecting piping as Loose Spools Q'TY: 1

Base Frame

Type Carbon steel

Local Push buttons and junction boxes

Material : SS 304 or AL

Control Panel and Instruments

Q'ty: 1

Control panel

Scope Vendor
Location Indoor Non-hazardous
Type Transmitters
 PLC Siemens S7-400

Manufacturer Siemens or Equivalent Allen Bradley

Instrumentation as per MYCOM STD PID.Number and Type of Instruments will be as per MYCOM design

Package Design and manufacturing will be Only as per PARDIS project with following changes:

- 1) Motors will be Exec instead of Safe Area
- 2) Instruments will be Exd Inside Package
- 3) Two Compressor is selected based on MR while Pardis has one compressor Skid
- 4) Documents for Compressor Skid will be PID, Compressor Package Data sheet, Compressor Skid drawing
- 5) No Specification can be applied on this offer except agreed specified items in this quote



Test & Inspection

Items	Compressor	Pressure Vessel		Piping*			Panel	Skid (Unit)	Remarks
		a	b	c	d	e			
Performance Test	S	-	-	-	-	-	-	-	
Mechanical Running Test	S	-	-	-	-	-	-	-	
Noise & Vibration Test	S	-	-	-	-	-	-	-	
Functional test	-	-	-	-	-	-	-	-	
Material Inspection	S	S	-	-	S	-	-	-	See note 3
Non-destructive Test (if applicable)	-	-	-	-	-	-	-	-	
Hydrostatic Test	S	S	-	S	-	-	-	-	See note 4
Pneumatic Leak Test	-	-	-	-	S	-	-	W	
Visual Inspection	-	W	-	S	S	-	W	W	
Dimensional Inspection	S	W	-	S	S	-	W	W	
Painting Inspection	-	-	-	-	-	-	-	W	
Shipping Inspection	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	

Abbreviations)

- a ASME VIII Div.1 pressure vessel
- b No code pressure vessel.
- c Gas and lube oil piping
- d Coolant, CW, IA piping and tubing
- e Pre-fabricated piping

* Pneumatic leak test for piping will be performed as whole packaged unit after assembly, but before painting.

** SW is for tubing for gas and lube oil line.

W Witness Inspection by customer

S Report or certificate issue (see note 4)

V Manufacture's test/inspection (Report and certificate is not issued)

Notes)


- 1) Third party's inspection for local standard, regulation and code shall be provided by customer.
- 2) Compressor testrun will be done using air as compressed fluid with shop motor and lube oil system.
Tests will be performed at our workshop in Japan.
- 3) Hydrostatic Pressure Test might be replaced by Pneumatic Testing according to the Code.
- 4) Test reports shall be provided acc. To supplier format.

Code and Standard

General:	MYCOM Standard, IEC, JIS, ASME-Div.1
Compressor:	MYCOM Standard, JIS
Pressure Vessel / Heat Exchanger:	ASME VIII, DIV 1.
Piping:	MYCOM STD for Compressor Skid, ASME B16.5 & B31.3 for others
Valve:	MYCOM STD for Compressor Skid, Carbon steel
Flange:	MYCOM STD for Compressor Skid, ANSI, Carbon steel, JIS
Tubing :	Double ferrule compression type (SS 316) / SS 1/2"
Electric:	IEC, EX-proof
Cable	Armoured cable
Cable glands	
Material:	MYCOM STD for Compressor Skid, ANSI,JIS,ASTM,ASME, DIN
Painting :	Vendor offshort painting
Note :	



Scope of Supply

No.	Item	Scope	Remarks
1	Refrigeration Unit	Vendor	
2	Motors	Vendor	
3	PLC Control Panel for safe area	Vendor	
4	Motor starter (MCC)	N/A	Direct Feeder for Users
5	Foundation Work	Customer	
6	Installation Work, Assembly	Customer	
7	Piping Work Piping within skid (Shop Work) 	VENDOR	(Skids to be considered together)
	All piping till Reciever	VENDOR	
	Piping to others	Customer	
8	Electric Wiring Work (for power)	Customer	
	Instrun (Shop Work)	VENDOR	
	Wiring (Field Work)	Customer	
9	Instrumentation Work (Wiring/Tubing)		
	Wiring (Shop Work)	VENDOR	
	Wiring between skids	VENDOR	Connections between skids will be unplugged for transport
	Wiring (Field Work)	Customer	
10	Insulation within skid		Insulation by customer
	Design	Customer	
	Material & Work	Customer	
11	Heat Tracing		
	Material	Customer	
	Work	Customer	
12	Transportation	Vendor	Till Ex-Work Local Factory
13	Supervising		
	Installation, Re-assembly	Optional	
	Pre-commissioning	Optional	
	Start-up	Optional	
14	Schrinked Packing	VENDOR	

electrical heat tracing is vendor scope of work / supply.

Customer
Customer



No.	Item	Scope	Remarks
15	Lube Oil for initial charge	Optional	
16	Refrigerant	Customer	
17	Ocean Freight	Vendor	
18	Capital/two years operational spare par Commissioning spare parts	Optional Vendor	a) As per commercial offer
19	Structures(Inside Skid)	VENDOR	Within the skid
20	Anchor bolts and nuts	VENDOR	
21	Lifting Lugs for unit	VENDOR STD	
22	Special tools	VENDOR	For compressor only
23	Main motor cable gland	Customer	
24	Molecular Sleeve, Fitler dryer	N/A	

Notes

1 Guarantee period.
Twelve (12) months after start-up or eighteen (18) months after notification of readiness for shipment, whichever occurs first.