Gas Processing Equipment

TROPICALIZED

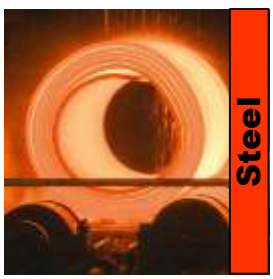
DEW POINT DEMAND

PURGE CONTROL

READY TO RUN

AIR SUPPLY PACKAGES

GPE-CAT-02-21082018- AIR SUPPLY PACKAGES



AIR SUPPLY PACKAGES

Entire range of air supply packages designed to provide instrument / plant air free of impurities like atmospheric pollutants, micro-organisms, compressor wear particles, bulk lubricating oil, aerosols, water vapour, condensed water, oil water emulsion, rust and carbon. The packages are skid mounted – optimized for space, reliability, availability and maintenance access. Supplied with screw compressor, refrigerated dryer, moisture separator, heatless dryer, field instruments, a control panel and air receivers (optional).

Either a single or a pair of screw compressors and refrigerated dryers (one can be put in stand by or both can operated simultaneously) can be selected

STANDARD FEATURES

- Air is free from oil and moisture. (Dew Point Down to (-) 70°C).
- Package is fully automated by **MicroLogix™** PLC housed in the control panel.
- Gauges for local display. Automatic / manual drain valve to drain condensate.
- Oil injected screw compressor from **Atlas Copco** with dedicated control panel and display.
- Filter cartridges sourced from **Van Air, USA**

OPTIONAL FEATURES

- Third Party Inspection by TUV / Lloyd's / BV
- Suitable for Hazardous Area installation
- ATEX, CCOE, UL, FM, CSA certifications
- Dew point measurement by **Michell™** transmitter
- Demand based extension and switching
- Pneumatic leakage testing after re-assembly

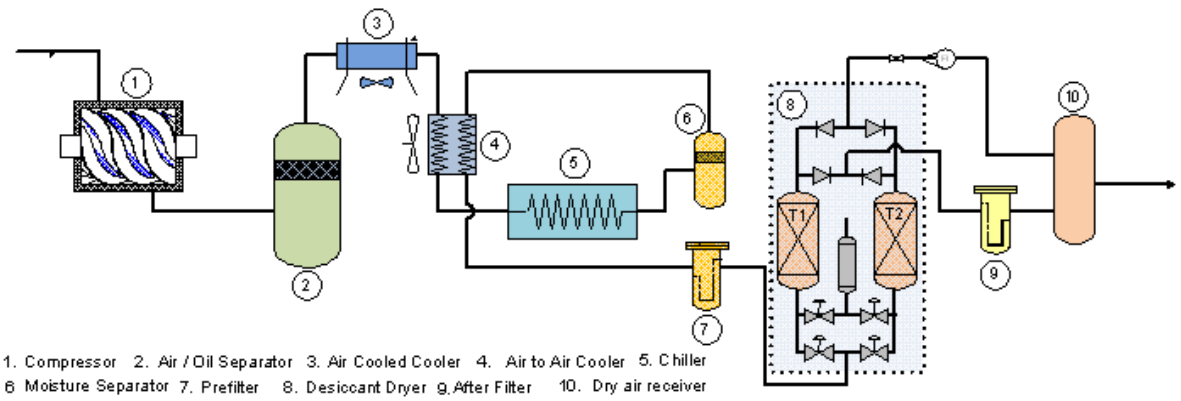
INDUSTRY STANDARDS

- Air quality meets various classes of ISO 8573-1(including 1.1.1). Customers can specify their required quality class.
- Vessels designed and fabricated as per ASME BPVC Sec VIII Div 1.
- Piping designed to ANSI B31.1/ANSI B31.3
- Welding procedure and qualification as per ASME BPVC Sec IX.
- API RP 14C followed for Offshore Installations

BENEFITS

- Ready to run unit
- Minimizes engineering and field erection time.
- Complete system function testing in factory.
- Single source accountability.
- Skid mounted modular, space optimized design.
- Cost effective as compared to site assembly.

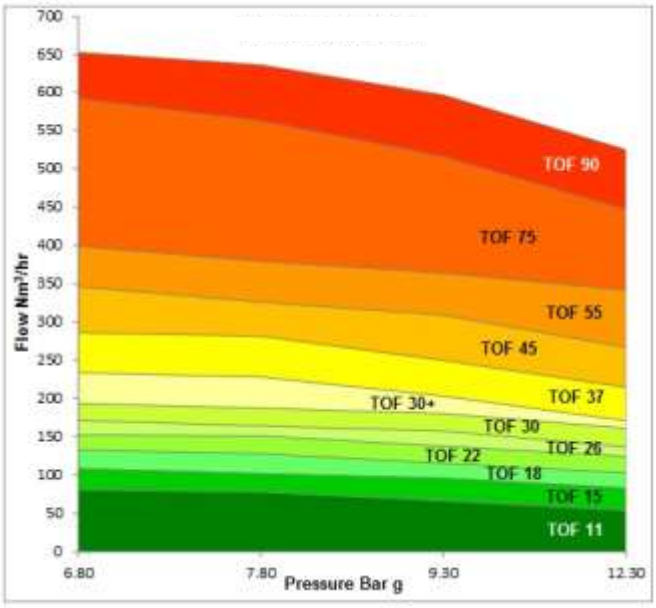
FLOW DIAGRAM



1. Compressor 2. Air / Oil Separator 3. Air Cooled Cooler 4. Air to Air Cooler 5. Chiller
6 Moisture Separator 7. Prefilter 8. Desiccant Dryer 9. After Filter 10. Dry air receiver

AIR SUPPLY PACKAGES

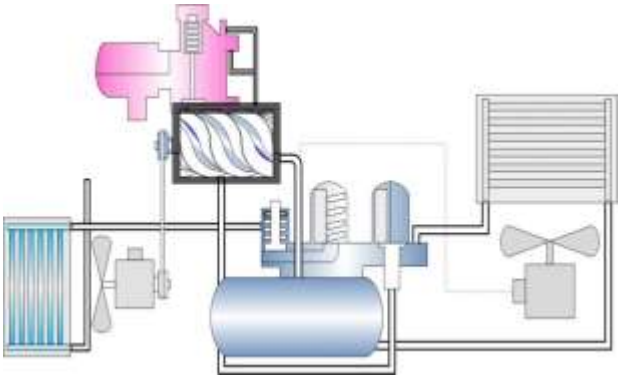
RANGE & MODEL DESIGNATION



- Model designation denotes power rating in KW of compressor motor (TOF 11 has a motor of 11 KW)
- Standard product range is shown. Larger sized units with compressor power of 160 kw (TOF160) and flow upto 1050 Nm^3/hr can be offered upon request.
- Compressor intake air is sized at altitude of 100 m, temperature of 40° C and relative humidity of 70%.
- For “No Negative Tolerance” derate the flow by 5%.
- Storage vessel can be offered optionally based on the storage demand. It can be either skid mounted or site erected on concrete foundation (loose supply).

COMPRESSOR PACKAGE

An oil injected screw compressor is provided (Oil free can be provided as an option). It sucks air from atmosphere through an air intake filter. The compressed air then flows through a specified path and oil is injected for cooling/sealing the air. The compressed air is delivered to the system through air/oil separator. Loading and unloading of the compressor is done with the help of pressure switch signals. Air from the compressor goes through a refrigeration package for dew point depression and oil removal. Depending on the degree of oil freeness required, the outlet temperature of the refrigeration package can be determined.



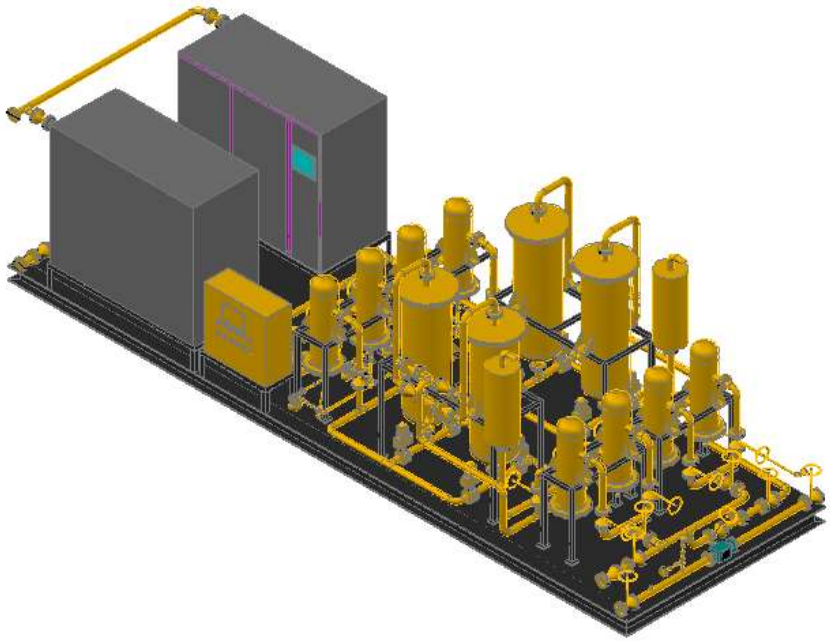
As an option, vapour adsorption filters can be provided. Air from the oil removal system passes through the twin tower heatless dryer and after filters to go to the final air receiver vessels. The control of the compressor and dryers are from two separate dedicated control panels and they communicate with each other for proper regeneration of the bed (in case the compressor has gone to unloaded mode.)

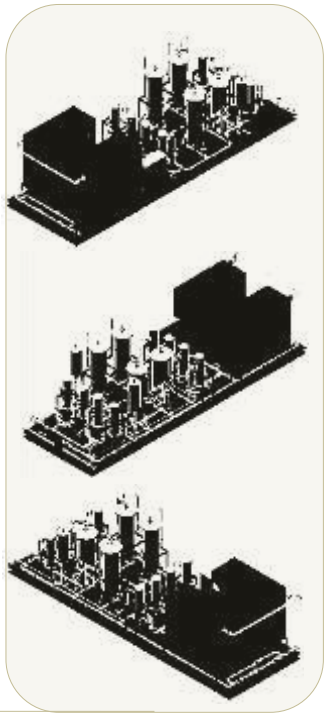
OPTIONAL LAYOUT OF AIR RECEIVER VESSELS

- Storage vessels are placed underneath the air supply skid.
- This design reduces the overall footprint of the unit inclusive of air receiver vessels.
- Minimizes site activities such as erection of air receivers

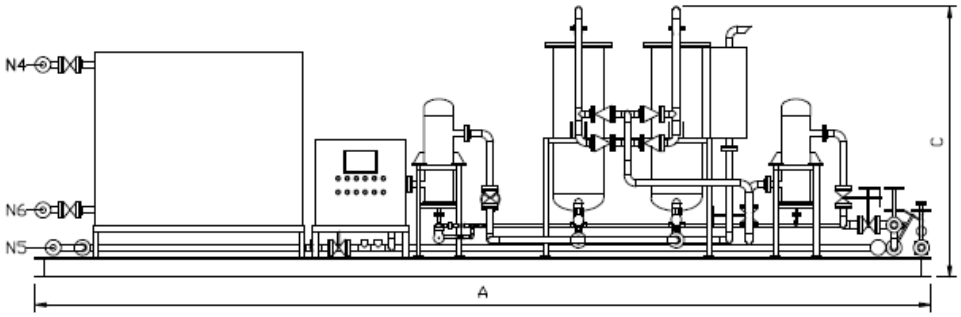
AIR SUPPLY PACKAGES

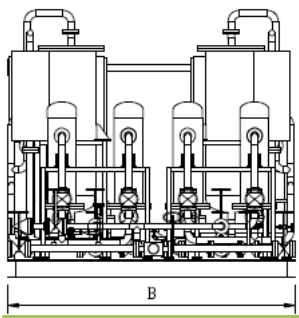
ISOMETRIC VIEW

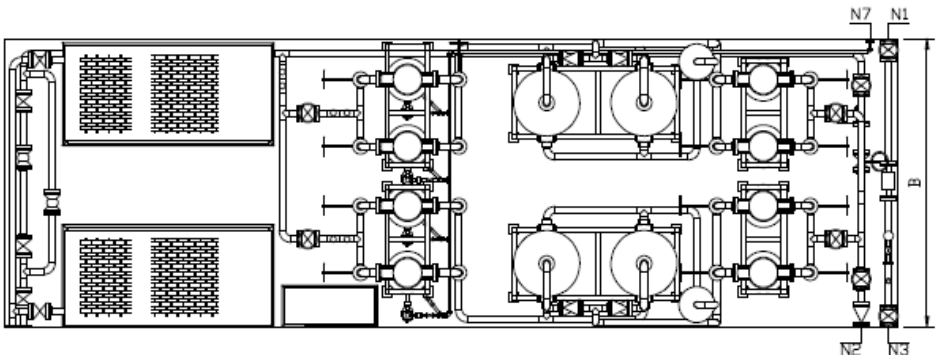




GENERAL ARRANGEMENT







NOZZLE DISCRIPTION

N1	DRY AIR OUTLET
N2	DRY AIR FROM AIR RECEIVER
N3	DRY AIR TO AIR RECEIVER
N4	COMPRESSOR TO LP AIR RECEIVER
N5	FROM LP AIR RECEIVER
N6	CONDENSATE LINE FROM LP AIR RECEIVER
N7	CONDENSATE DRAIN

		TOF 11	TOF 15	TOF 18	TOF 22	TOF 26	TOF 30	TOF 30+	TOF 37	TOF 45	TOF 55	TOF 75	TOF 90
DIMENSIONS mm	A	7800	7900	8000	8000	8000	8000	9500	9600	9600	9750	9900	9900
	B	2400	2400	2400	2400	2400	2400	3200	3200	3200	3200	3200	3200
	C	2750	2750	2750	2750	2750	2750	3000	3000	3000	3000	3000	3000
	N1	DN25	DN25	DN32	DN40	DN40	DN40	DN40	DN40	DN50	DN50	DN65	DN65
	N2	DN25	DN25	DN32	DN40	DN40	DN40	DN40	DN40	DN50	DN50	DN65	DN65
	N3	DN25	DN25	DN32	DN40	DN40	DN40	DN40	DN40	DN50	DN50	DN65	DN65
	N4	DN25	DN25	DN32	DN40	DN40	DN40	DN40	DN40	DN50	DN50	DN65	DN65
	N5	DN25	DN25	DN32	DN40	DN40	DN40	DN40	DN40	DN50	DN50	DN65	DN65
	N6	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15	DN15
	N7	DN25	DN25	DN25	DN25	DN25	DN25	DN40	DN40	DN40	DN40	DN40	DN40
WEIGHT kg		7300	7400	7600	7700	7800	8000	9200	9300	9400	9600	9900	10000

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