

# OXYGEN NITROGEN ACETYLENE PLANTS

IN TECHNICAL COLLABORATION WITH

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**UNIVERSAL INDUSTRIAL PLANTS MFG. CO.(P) LTD.**

# UB-SERIES OXYGEN/NITROGEN PLANT

## AIR COMPRESSOR

This is a multistage air compressor complete with flywheel inter cooler, foundation bolt, motor pulley, motor, v-belts, guard and slide rails and air filter. This can also be supplied in skid mounted versions to avoid civil foundation for quick installation. This is used to compress atmospheric air. -1No.



## PROCESS SKID

This consists of the following items:

1. After Cooler with Tank
2. Nitrogen Cooler with Tank
3. Moisture Separator (PURGER)
4. Chilling Unit with Freon Unit.
5. Oil Absorber filled with Alumina.
6. Molecular Sieve Battery on skid
7. Defrost Heater.
8. Gas/Air Lines as per Standard Layout on skid/platform.
9. Water Pump
10. Inlet and Outlet Water Lines
11. Drain Manifold complete with Ball Valves for draining moisture.

All the above equipments are neatly mounted on a skid/platform complete with inter-connecting piping and ready for installation. -1 Set.



# UB-SERIES OXYGEN/NITROGEN PLANT



## MOLECULAR SIEVE BATTERY

Complete with 2 Nos M.S. Vessel Reactivation heater complete with Molecular sieve designed for process skid mounting-1No.



## OIL ADSORBER

Complete with Alumina and inlet and outlet filter and connection designed for process skid mounting-1 No.



## DUST FILTER

Complete with Cartilage, cyclone type with inlet outlet connections -1 No.

## EXPANSION ENGINE

Complete with Motor/starter/starter shall be Siemens /ABB/Kiirloskar, with hydraulic valve control bursting disc for safety, complete with Flywheel pressure guage, Motor pulley V-Belts, Belt Guard slide rails inter connecting copper pipes(Inlet & Outlet) -1 No.



# UB-SERIES OXYGEN/NITROGEN PLANT



## AIR SEPARATION UNIT

(Air separation column-cold box) Consists of outer steel casing, Main heat exchanger, liquifier, Bottom column, Top column, Condensor, Sub-cooler, Liquid oxygen & nitrogen filter. Cooling pipe line, insulation material, Digital electronic temperature indicator & scanner, PT 100 sensor, DP gauge monometer, Expansion vavle with longstemp type with pointer & index & wheel -1 set.



## CYLINDER FILLING MANIFOLD

Complete with socket ,control valve pressure gaugesafety valves and filling connections mounted on a stand -1 Set.

## COOLING TOWER

FRP Cooling Tower complete with fan and motor -1 Set.



## LIQUID OXYGEN PUMP

With S.S. Jacket,Piston Liner Complete with electric motor piston rings,Safety device amd non-return valve-1 No.

## ELECTRIC PANEL

Electrical panel complete with ON/OFF switches-1 No.

## OPTIONAL ITEMS

Other optional items are also available on request.

# UB-SERIES OXYGEN/NITROGEN PLANT

## TECHNICAL SPECIFICATIONS

### SMALL CAPACITY

S.No.	MODEL	UB-20	UB-30	UB-40	UB-50
1.	Capacity Oxygen Nitrogen	20 CuM/Hr 80 CuM/Hr	30 CuM/Hr 100 CuM/Hr	50 CuM/Hr 150 CuM/Hr	50 CuM/Hr 200 CuM/Hr
2.	Purity Oxygen Nitrogen(Optional)	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%
3.	Power Connected	55KW	70KW	80KW	95KW
4.	Power Consumed (abt.)	40KW	45KW	60KW	70KW
5.	Power Supply	415Volts	415Volts	415Volts	415Volts
6.	Air Capacity	150 CuM/Hr	200 CuM/Hr	250 CuM/Hr	300 CuM/Hr
7.	Starting Pressure	60Kg/sq. Cm	55Kg/sq. Cm	55Kg/sq. Cm	55Kg/sq. Cm
8.	Working Pressure (abt.)	50Kg/sq.Cm	40Kg/sq.Cm	40Kg/sq.Cm	40Kg/sq.Cm
9.	Starting Time (After Defrost)	8 Hours	8 Hours	7 Hours	7 Hours
10.	Starting Time (After Tripping)	40 Mts.	40 Mts.	40 Mts.	40 Mts.
11.	Area Required	6MX8M	6MX10M	8MX10M	8MX12M
12.	Assembly Height	7M	7M	7.5M	7.5M
13.	Weight (About)	14 Tons	16 Tons	18 Tons	19 Tons
14.	Air Separation Column	Type-Boschi	Type-Boschi	Type-Boschi	Type-Boschi

### MEDIUM CAPACITY

S.No.	MODEL	UB-60	UB-80	UB-100	UB-150
1.	Capacity Oxygen Nitrogen	60 CuM/Hr 200 CuM/Hr	80 CuM/Hr 250 CuM/Hr	100 CuM/Hr 300 CuM/Hr	150 CuM/Hr 500 CuM/Hr
2.	Purity Oxygen Nitrogen(Optional)	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%
3.	Power Connected	110KW	130KW	150KW	200KW
4.	Power Consumed (abt.)	88KW	95KW	105KW	165KW
5.	Power Supply	415Volts	415Volts	415Volts	415Volts
6.	Air Capacity	300 CuM/Hr	400 CuM/Hr	600 CuM/Hr	900 CuM/Hr
7.	Starting Pressure	45Kg/sq. Cm	45Kg/sq. Cm	45Kg/sq. Cm	45Kg/sq. Cm
8.	Working Pressure (abt.)	40Kg/sq.Cm	38Kg/sq.Cm	36Kg/sq.Cm	36Kg/sq.Cm
9.	Starting Time (After Defrost)	7 Hours	7 Hours	6 Hours	6 Hours
10.	Starting Time (After Tripping)	40 Mts.	30 Mts.	20 Mts.	20 Mts.
11.	Area Required	12MX15M	12MX15M	14MX15M	14MX15M
12.	Assembly Height	8M	9M	9.5M	9.5M
13.	Weight (About)	20 Tons	25 Tons	30 Tons	40 Tons
14.	Air Separation Column	Type-Boschi	Type-Boschi	Type-Boschi	Type-Boschi

## HIGH CAPACITY

S.No.	MODEL	UB-200	UB-300	UB-400	UB-500
1.	Capacity Oxygen Nitrogen	200 CuM/Hr 800 CuM/Hr	300 CuM/Hr 1200 CuM/Hr	400 CuM/Hr 1400 CuM/Hr	500 CuM/Hr 2000 CuM/Hr
2.	Purity Oxygen Nitrogen(Optional)	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%	99.6% 96%-99.6%
3.	Power Connected	300KW	400KW	600KW	750KW
4.	Power Consumed (abt.)	220KW	330KW	400KW	500KW
5.	Power Supply	415Volts	415Volts	415Volts	415Volts
6.	Air Capacity	1200 CuM/Hr	1800 CuM/Hr	2400 CuM/Hr	3000 CuM/Hr
7.	Starting Pressure	45Kg/sq. Cm	45Kg/sq. Cm	45Kg/sq. Cm	45Kg/sq. Cm
8.	Working Pressure (abt.)	36Kg/sq.Cm	30Kg/sq.Cm	30Kg/sq.Cm	30Kg/sq.Cm
9.	Starting Time (After Defrost)	6 Hours	5 Hours	5 Hours	5 Hours
10.	Starting Time (After Tripping)	20 Mts.	20 Mts.	20 Mts.	20 Mts.
11.	Area Required	14MX15M	15MX16M	15MX18M	18MX20M
12.	Assembly Height	9.5M	9.5M	10M	10M
13.	Weight (About)	50 Tons	60 Tons	70Tons	80 Tons
14.	Air Separation Column	Type-Boschi	Type-Boschi	Type-Boschi	Type-Boschi

### OPTIONAL

High Purity of Nitrogen PPM grade also available. Higher Capacities of 400 CuM/Hr & 500 CuM/Hr are also available with liquid output. •Liquid Nitrogen Pump•Nitrogen Compressor • Liquid Plants

- Notes: 1.About 40% of Nitrogen is used for the regeneration of the Molecular Sieve Battery.  
 2.The above capacities are based on gaseous output on design Suction Conditions of 30deg cen,760mm hg pressure,50% relative humidity & 0.03% Carbon dioxide in the atomsphere.  
 3.Oxygen/Nitrogen is filled in Cylinders at 155 Bar pressure(Optional 200 & 300 BAR).  
 4.The above specifications are subject to modification.

### CYLINDER FILLING CHART

Name of the Models	UB-20	UB-30	UB-40	UB-50	UB-60	UB-80	UB-100	UB-120	UB-130	UB-150	UB-200	UB-300	UB-400	UB-500
Capacity (CuM/Hr)	20	30	40	50	60	80	100	120	130	150	200	300	400	500
No. Of cylinders in a Day (Oxygen/Nitrogen)	70	100	140	180	200	300	400	400	400	600	800	1000	1600	2000

NOTE:-Cylinder capacity 5 to 7 cubic meter.

#### SALIENT FEATURES

LOW WORKING PRESSURE  
 LOW OPERATING COST  
 STURDY DESIGN  
 LOW MAINTENANCE  
 SIMPLE OPERATION  
 HIGH SAFTEY

#### DESIGN QUALITY

We manufacture oxygen plants as per the latest technology & design of the company ING. L.&A. BOSCHI,ITALY.This technology has been proven all over the world for its working efficiency & trouble free operation,safety & low Power Consumption.

BOSCHI Column have been known for its efficiency & long life.There are plants working trouble free for more than thirty years in various parts of the Globe.

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