

Initial requirement of an Ideal CA Room:

H Controlled Temperature.

- H Controlled Amount of Moisture Content(Rh).
- H Controlled Air Circulation like Blanket Cooling System.

And then comes the essence of CA storage which is about the range of O2 and CO2 Concentration inside the CA room

Produce inside CA Room



We are highly perishable...... Save us...... We want to live longer.....



Opt for CONCH formulation for: Total Relaxation No Chemical Minimum Ageing

N2 GENERATOR PSA BASED

PRINCIPLE OF PSA PURIFICATION:

- q Specially designed adsorbent mix
- **q** The adsorbent (CMS) having micro pores on its surface adsorbs gases selectively under a certain pressure.
- q After the adsorption process, the adsorbent is regenerated by de-pressurizing
- **q** The PSA systems produce the purified gas continuously by repeating the aforementioned adsorption and regeneration process



N2 Generator procured from leading manufacturer having Technical Collaboration with KURARAY CHEMICAL CO. LTD., JAPAN (A US \$ 4 billion group) with approval from

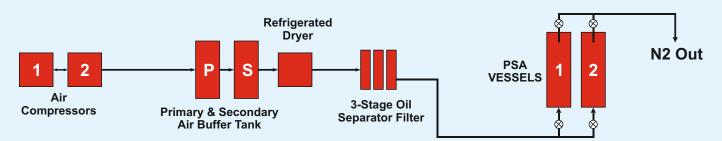
- q Chief Controller of Explosives-Nagpur,
- q Chief Inspector of Boilers.
- q ASME (American Society of Mechanical Engineers) under <u>'U' Stamp</u> for manufacturing of unfired pressure vessels.
- q ASME (American Society of Mechanical Engineers) under <u>'S' Stamp</u> for manufacturing of Boilers.

Most Special Feature:

- 1. Our PSA system has activated alumina of ARKENA (France) at the bottom for further moisture removal and Carbon Molecular Sieve (CMS) of KURARAY (Japan) at the top to adsorb O2 from the air.
- 2. Our N2 Generator can keep control on the required CO2 and C2H4 (Ethylene) values incase of failure of CO2 Scrubber in any worst scenario for which CON₂CH need to have interlocking with the client's fully Automatic Refrigeration System.
- 3. The only impurity in N2 generator outlet is Oxygen Gas.

Model No.	N2 Flow(m3/hr.)		3-Phase	Size of Skid in mm		
	**95% N2	99% N2	Load in KW	L	В	Н
NG 30	66	40	17	4000	4500	3000
NG 60	100	60	24	4000	4500	3000
NG 90	135	80	29	5000	5000	3000

**These values are approximate and have been interpolated w.r.t. the flow @ 99% purity.



Note: All Drawings and Flow Chart are indicative only

CO2 ADSORBER/SCRUBBER

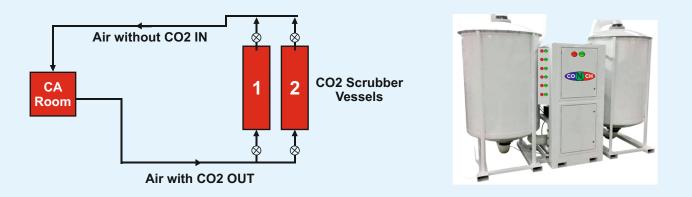
It's a twin-tower unit having two towers containing Activated Carbon. Air come in contact with Activated Carbon for removal of CO2 in any one tower. After a particular duration other tower starts adsorption of CO2 and at the same time the earlier tower gets regenerated by outside air.

The cycle of Adsorption and Regeneration is the principle on which the system works Automatically through a Programmable PLC.

Considering the Indian Apple Varities like Red Delicious, Delicious, McIntosh etc, CONCH recommend to provide a CO2 Scrubber of 550 Kg/24hr. capacity @ 1degC room temperature for 12-14 rooms having 200MT of Apples in each room.

Other models are also available on customer's request.

Model No. Power		CO2 Scrubbing	Recommended	
in KW		Capability in Kg/24hr.	for treating	
CT 550	3.0	550		



C2H4(Ethylene) SCRUBBER

CONCH N2 generator and CO2 Scrubber along with our Smart Automatic SCADA Based Controller can keep control on C2H4 within permissible limits, provided the interlocking is possible with the PLC of the fully Automatic Refrigeration System of the client.

ACCESSORIES

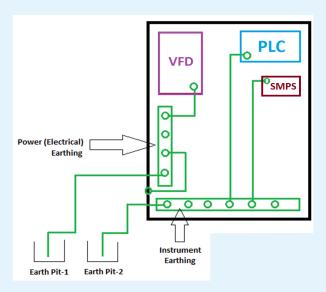
- 1. Potable O2/CO2 measuring instrument- 1 No.
- 2. Calibration Gas- 2 cylinders.
- 3. Under pressure/Over pressure Safety valves- 1 No. for each room.
- 4. Testo make digital manometer- 2 No.
- 5. PVC Pipelines- Complete.
- 6. Wiring and conduit- Complete
- 7. Copper earthing- 1 No.
- 8. Pneumatic pipes- Complete
- 9. Air Buffer Balloon- Not required in our engineering.

SMART AUTOMATIC CONTROLLER

- 1. Designed to sense any excess C2H4 and automatically reduce the same.
- 2. SCADA Based.
- 3. Fully Automatic.
- 4. Adjustable as per customer's specific requirements.
- 5. User friendly.
- 6. Touch Screen.
- 7. Capable of controlling 4 chambers at a time once the pull down of O2 is done and the desired values are achieved.

SALIENT FEATURES

- 1. Air Balloons- Not required.
- 2. System is designed for Indian conditions considering frequent- Power cuts, Poor Power quality, dust in ambient air etc.
- 3. Zero maintenance and service cost for 2 years.
- 4. Most accurate O2, CO2 and C2H4 Sensors.
- 5. Calibration gas will be provided free of cost for 2 years.
- 6. Most of the mechanical parts are indigenous to minimise maintenance cost and repair in minimum time.
- 7. No hidden cost between supply to erection except for the 3-Phase power supply point and dedicated space/platform/room to be provided by the client.





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