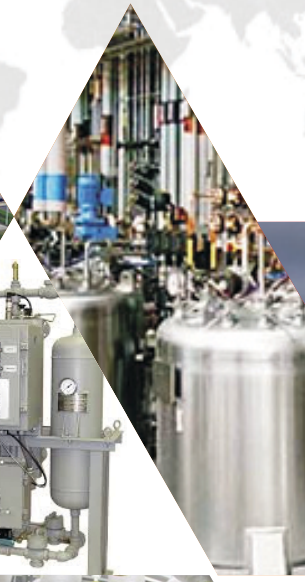
ADVANCE COMPAIR SYSTEMS PVT. LTD.

Air/Gas Drying Plants, Heat Exchangers, Air Receivers, Genuine Spares

DRYERS



Applications of our Products :

- Nuclear Power Plant
- Chemicals
- Fertilizers
- Textiles
- Oil & Gas
- Metal Mfg. Plants
- Photo Film Mfg. Plants
- Glass Fibre
- Acrylic
- Pharmaceuticals
- Cement
- Ceramic
- Plastics

WHY AIR DRYER

Vapourous water is in the atmosphere everywhere because air compressors intake this vapourous water with the raw air, water vapour is introduced into every compressed air system. For example in ambient conditions of 35°c and 70% relative humidity, 391 litres of water pere day will pass through 500 nm^3/ hr compressor. If the afetrcooler removes 300 litres. 91 litres still are introduced into the downstream system.

High concentration of water vapour inside a compressed air system can cause corrosion and in some cases, produce contaminations. Even worse if thr vapor condenses liquid water will cause more corrosion and erosion and at low temperature can freeze and plug up the system.

To avoid theses potential problems, compressed air must be dried and dual tower desiccant dryeres are best source to obtain continous supply to high quality dry air.

ADSORPTION AND REGENERATION

Desiccant dryers use chemical that have affinity for water vapour desiccant chemical is loaded into pressure vessels and wet compressed air is directed to flow through thr chemical bed water vapour from the air is adsorbed on surface of the desiccant pellets eventually the desiccant becomes saturated so these dryers are built with pair of towers. When one drying bed nears its moisture capacity valves operated by timer shift to direct inlet air flow in to the alternate tower.

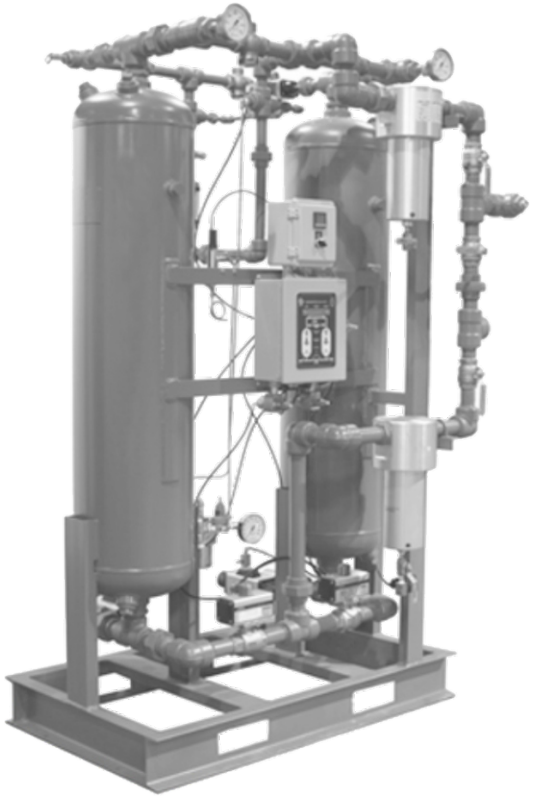
Saturated bed can be regenerated or restored to their original water adsorption capacity by heating the bed by passing hot air through it. Heat can be supplied from internal / external heaters or even the heat of compression alternatively the bed can be regenrated by throttling dry purging air tapped off down stream of the active tower this is called heatless method and operates on pressure swing principle.

DEW POINT

An Important Rating Factor For Compressed Air Dryers Is The Pressure Dew Point They Can Attain The Pressure Dew Point That Temperature Below Which Water Vapour In The Compressed Air Begin To Condense If A Compressed Air Piping System Is Exposed To An Ambient Temprearture Less Than Its Pressure Dew Point Liquid Water Will Start To Form Inside The System. The Pressure Dew Point Can Also Be Considered As An Absolute Measurement Of Water Content For Example A 35°f (1.7°c) Dew Point Equates 4100 Ppm Of Moisture On Weight Basis Refrigerant Dryers Have Practical Limitations And At Best Can Attain Pressure Dew Point Of About 35°f Desiccant Dryers Produce Dew Points Far Below Any Conceivable Ambient Natural Temperatures.

DESICCANTS

In compressedd air drying the desiccant may be silica gel activated alumina or molecular sieves or combinations of any of these in mixed beds depending upon process requirements heatless dryers cannot have silica gel as desiccant due its limitations in desorption in pressure swing cycle thses are chemicals which have affinity for the water vapour and can be regenerated by desorption processes.



FILTERATION

Desiccant dryers can not tolerate solid/ liquid contaminates so upstream filterations is essential activated carbon filters to removes oil in case of lubricated type compressors and prefilters to remove dust etc. Are required the descciant dryers do provide an important filteration bonus in addition to adsorbing water vapour. They can also remove chemical and oil vapours introduced with ambient air and generated by compressor an afetr filter down stream eliments the potential for product contaminations and toxicity in these type of compressed air applications.

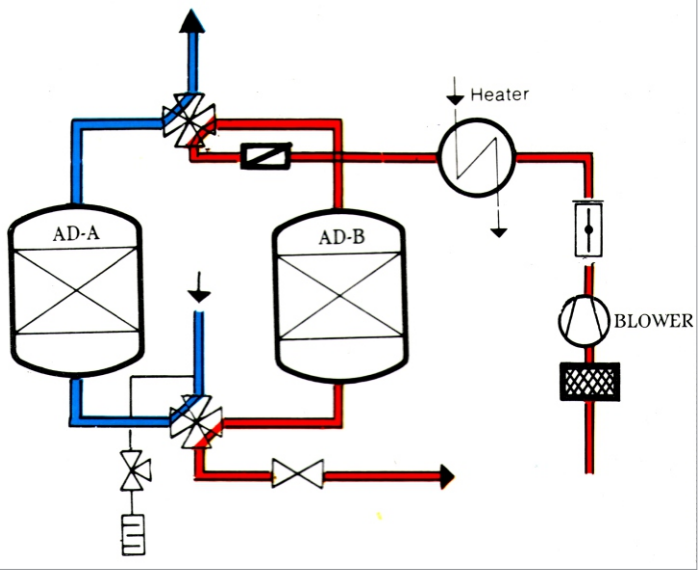
APPROVALS

We are approved by various third party inspection agencies and engineering consultants:

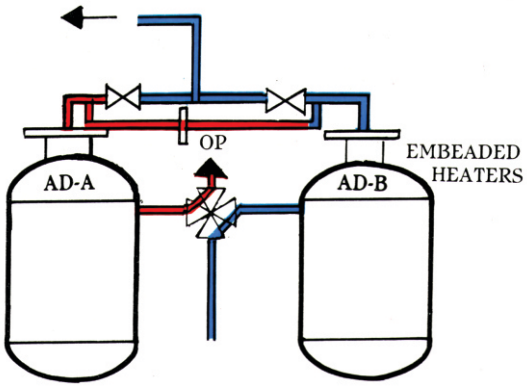
- Nuclear Power Corporation of India Ltd.
- Lloyd's Register Asia
- BHEL - BHOPAL
- Uhde India Pvt. Ltd.
- Aker Powergas Pvt. Ltd.
- Mott Macdonald Consultants (India) Pvt. Ltd.
- Tata Consulting Engineers
- SNC-LAVALIN Engineering India Pvt. Ltd.
- Technimont ICB Ltd.
- Jacobs H&G
- Chemtex Global Engineers Pvt. Ltd.

LOADING RECTIVATION

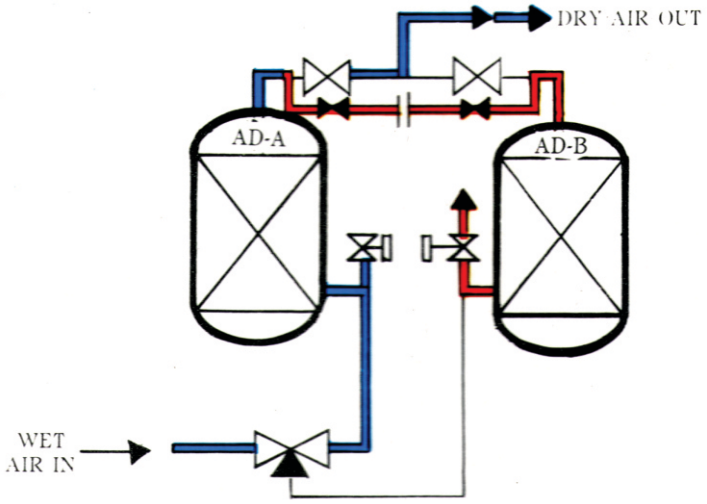
REGENERATION WITH THE AID OF ATM AIR BLOWER REACTIVATION ATM TYPE

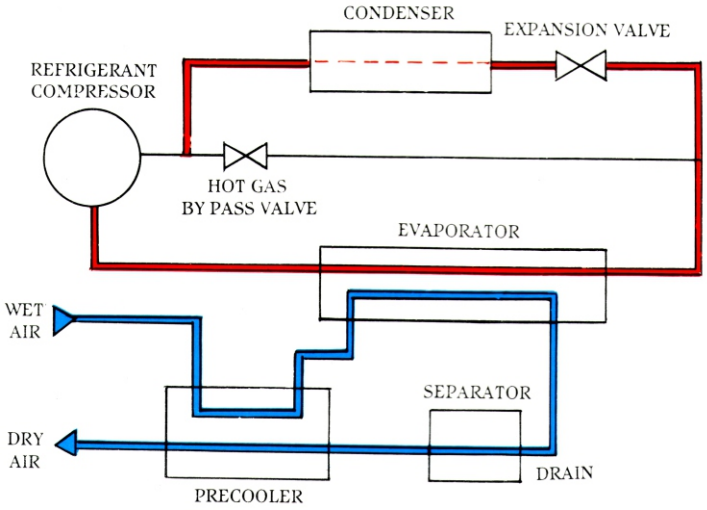


REGENERATION WITH PARTIAL DRIED AIR PURGE REACTIVATION

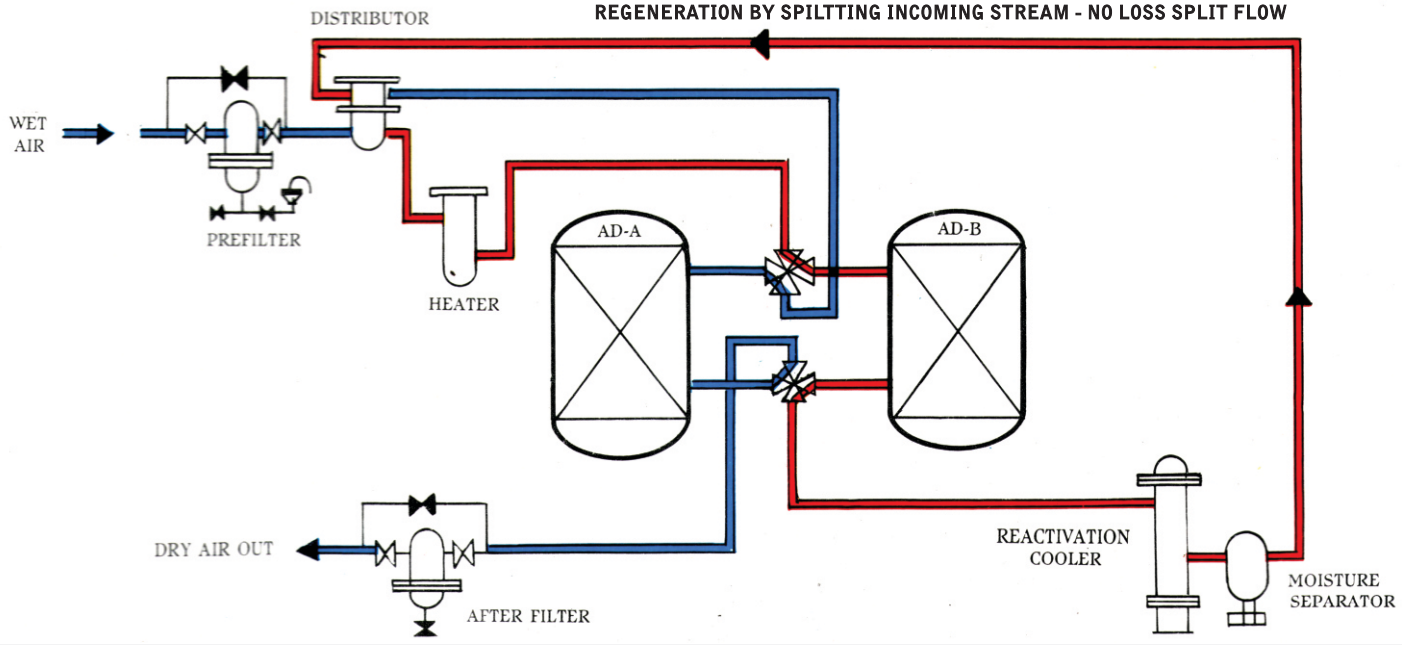


REGENERATION WITH PARTIAL DRIED AIR BY PRESSURE SWING HEATLESS

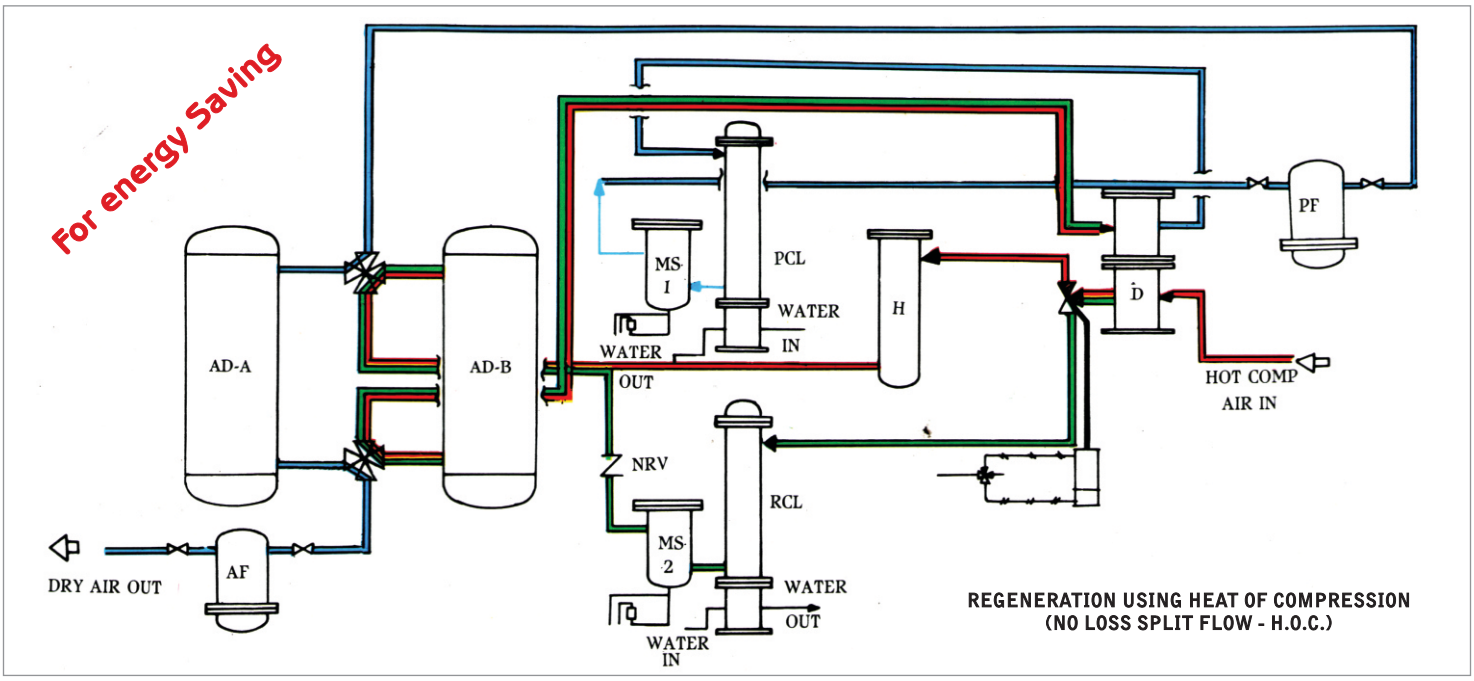


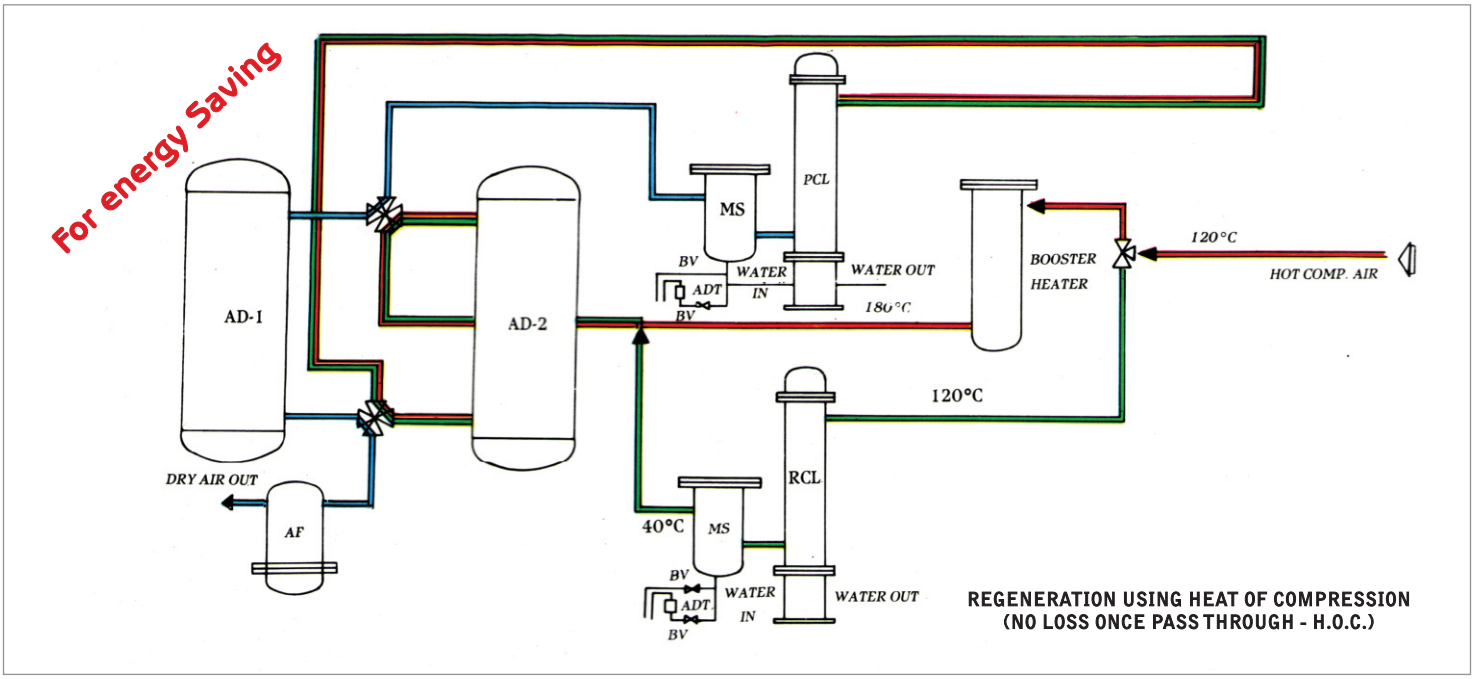


REGENERATION BY SPILTTING INCOMING STREAM - NO LOSS SPLIT FLOW



LOADING RECTIVATION COOLING





Advance Compair offers complete compressed air/gas system on turnkey basis-or the part of the system as per specifications of consultants and customer's requirements.

We undertake total responsibility of Design-Engineering, Supply, Erection, Commissioning and after sales services of the compressed air/gas systems and particularly air/gas drying units.

We offer various types and models of air/gas drying units depending on Capacity, Pressure, Temprature, Utilities and Criticality of Dew Point.

We have supplied and installed wide range of air dryers from 10 NM^3/HR to 6000 NM^3/HR

ADVANCE COMPAIR SYSTEMS PVT. LTD.

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Authorised Dealer :