

TURBOMACHINERY SOLUTIONS

TURBINE & COMPRESSOR & TURBOEXPANDER

- ENGINEERING
 - MANUFACTURING
 - REPAIR & MAINTENANCE
 - REFORMING & REBUILDING OF EQUIPMENTS
 - SPARE PARTS
 - INSTALLATION & PUTTING INTO OPERATION
 - PROCUREMENT EQUIPMENT'S
 - PERSONNEL TRAINING
-
- DRYER
 - GAS GENERATOR
 - AIR SEPARATION UNIT

for the PETROLEUM , CHEMICAL , GAS
AND POWERHOUSE INDUSTRY SERVICES

- طراحی و مهندسی
- ساخت و تولید
- تعمیر و نگهداری
- بازسازی تجهیزات
- قطعات یدکی
- نصب و راه اندازی تجهیزات دوار
- آموزش نیروی متخصص
- خشک کن (صنعتی)
- تجهیزات تولید گاز خنثی
- تجهیزات جدا کننده هوا

خدمات در صنایع نفت، گاز، پتروشیمی
، نیروگاه و صنایع مرتبط



ASA COMPANY

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www.asacomp.ir



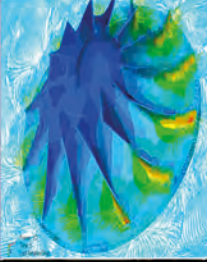
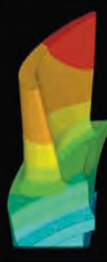
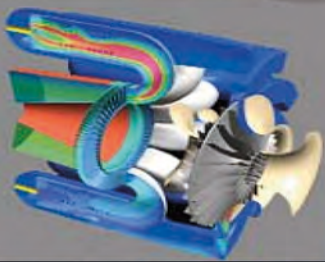


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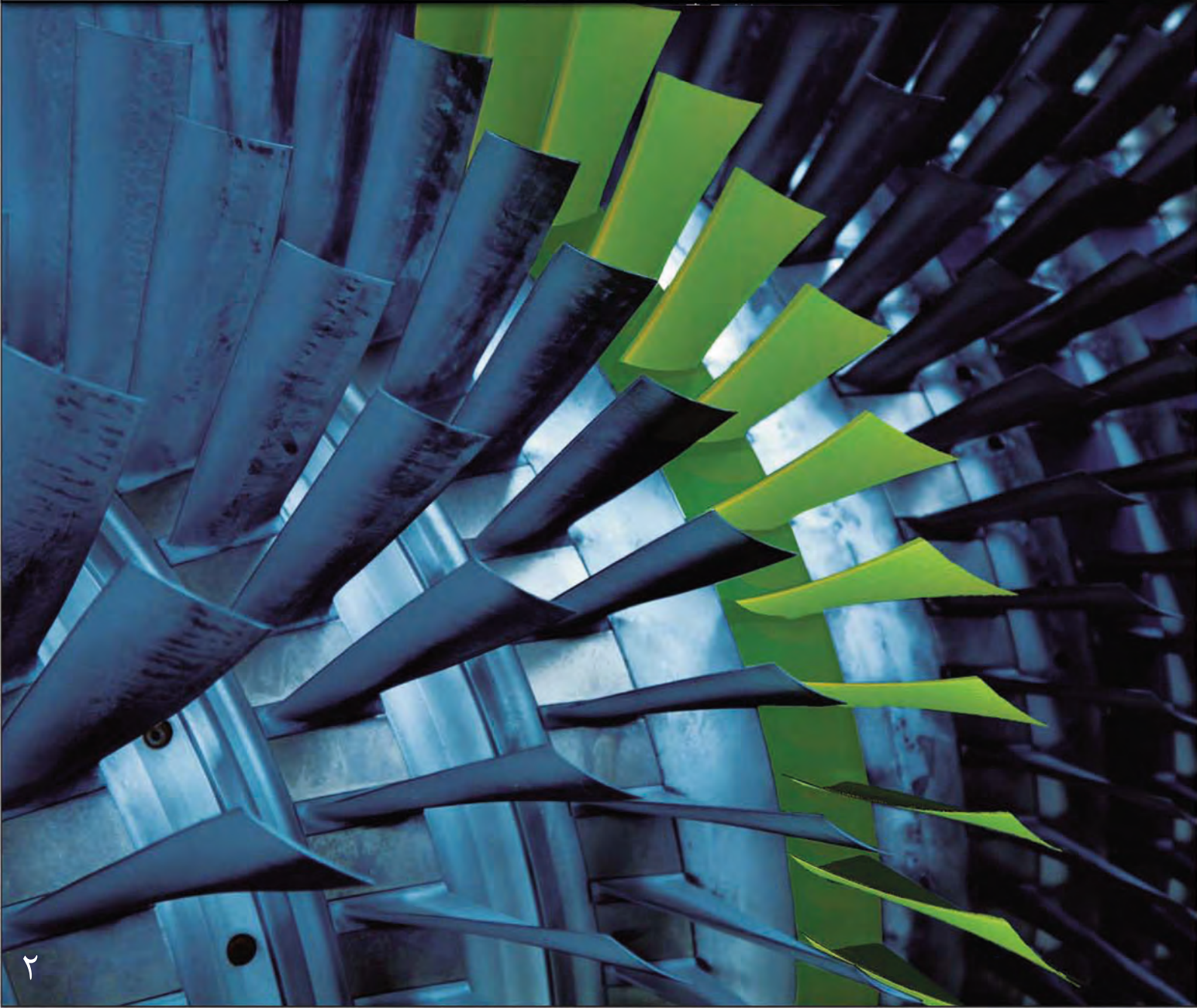
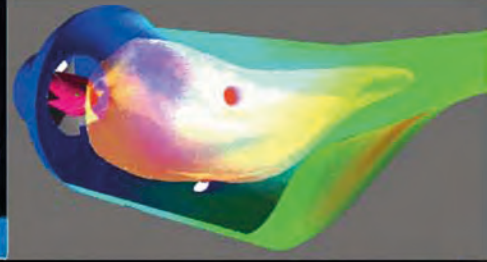
TURBINE & COMPRESSOR & TURBOEXPANDER

- ENGINEERING (Design & Calculation and Simulation for Rotating Equipment)

Engineering Simulation Solutions for Turbomachinery



Prediction of the internal flow of a turbomachine





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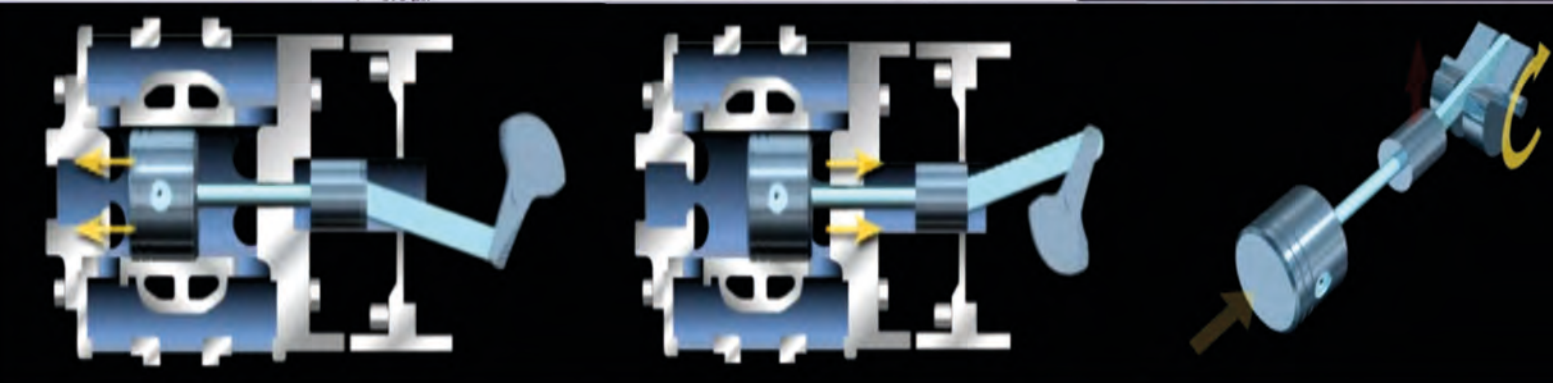
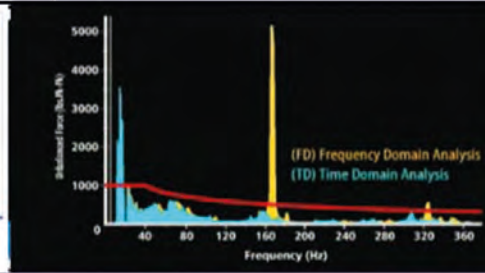
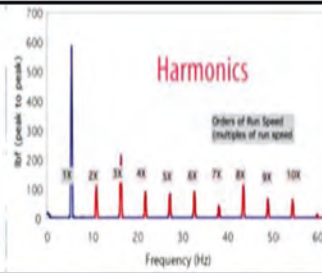
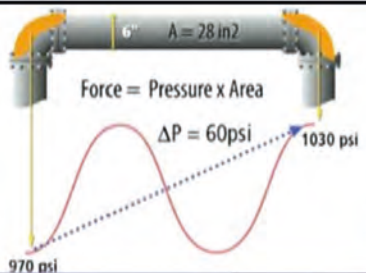
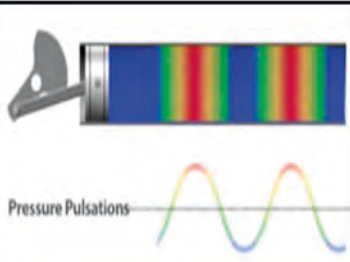
TURBINE & COMPRESSOR & TURBOEXPANDER

ENGINEERING (Design , Calculation & Simulation for Rotating Equipment)

Acoustical Modeling for Reciprocating Compressor

The Vibration Equation:

$$\text{Vibration} = \frac{\text{Dynamic Force}}{\text{Dynamic Flexibility}} \times \text{Dynamic Flexibility}$$



FLUID FLOW SIMULATION SOLUTION

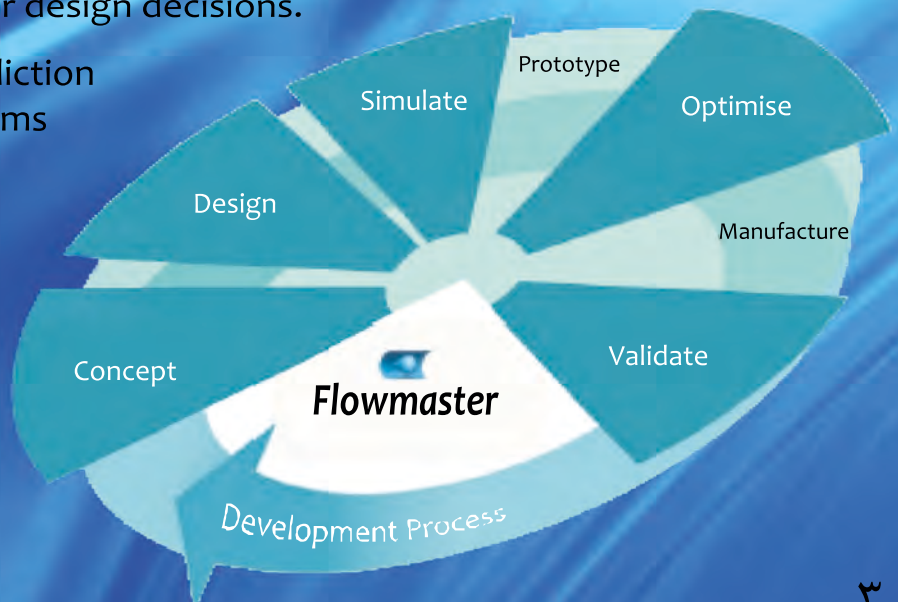
Flowmaster is an industry leading fluid flow simulation solution. Its advanced virtual modelling system enables you to carry out complex simulations throughout your development process, enhancing your design decisions.

- Pressure, temperature & flow prediction
- Liquid, gas & air conditioning systems
- Steady state (equilibrium)
- Transient (time domain)
- Component sizing
- Any size or complexity of system

Industry Applications

for the PETROLEUM, CHEMICAL, GAS AND POWERHOUSE INDUSTRY SERVICES

Development Process Integration : Integrate the use of Flowmaster throughout your development process.





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TURBINE & COMPRESSOR & TURBOEXPANDER

- REPAIR & MAINTENANCE
- REFORMING & REBUILDING OF EQUIPMENTS
- SPARE PARTS



TURBINE COMPRESSOR ASIA (TUKA) Expertise for Your Turbine & Compressor Project .

Laboratory Equipments

Mechanics of Material Lab :

- Mechanical Strength Test
- Creep Test
- Fatigue Test
- Impact Test

Non-Destructive Test Lab :

- X-RAY Test
- Ultrasonic Test
- Eddy Current Test

Material Analysis Lab :

- Complete System
- Balancing up to 47000 RPM

Chemical Analysis Lab :

- Quantum Analysis
- Single Element Analysis

Metallographic Lab :

- Optic Microscope
- Microscope
- Image Analysis

Accurate Measurement Lab :

- CMM
- Profile Projector



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TURBINE & COMPRESSOR & TURBOEXPANDER

- MANUFACTURING



TURBINE COMPRESSOR ASIA (TUKA) Expertise for Your Turbine & Compressor Project .

MACHINERY AND TECHNICAL EQUIPMENTS

Forging and metalworking shops :

- Cutting
- Flex Work
- Welding

Heat Treatment shops :

- Vacuum Furnace
- Other Furnace

Machining shops :

- Turning
- Milling
- Smoothing
- CNC Turning
- CNC Milling
- CNC Spark
- CNC Wire Cut
- Heavy Turning
- Medium Turning

Special Welding shops :

- TIG Welding
- MIG Welding
- Resistance Welding
- Special Welding Fixture

Vacuum Casting shops :

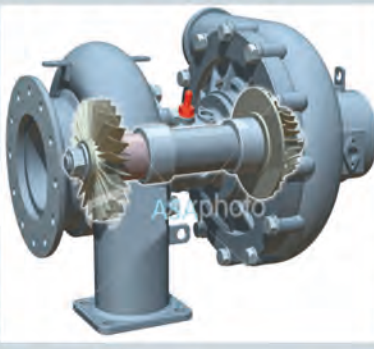
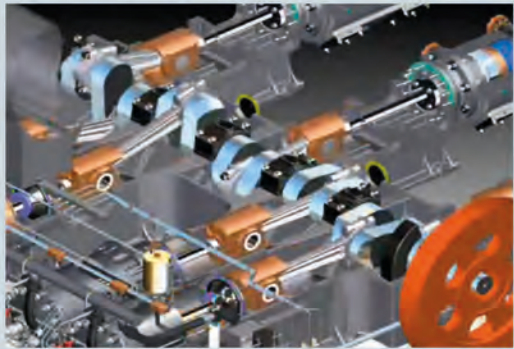
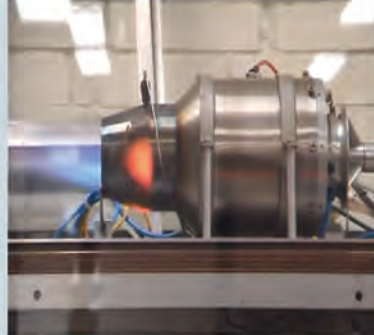
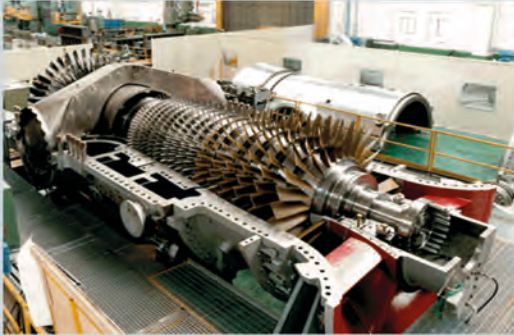
- VIM Furnace System
- Accessories



TURBINE & COMPRESSOR & TURBOEXPANDER

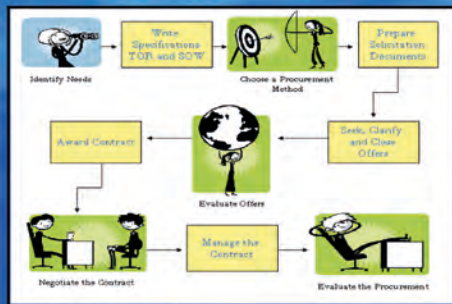
- INSTALLATION & PUTTING INTO OPERATION

- PERSONNEL TRAINING



ASA Company offers your personnel training - to work with compressor & turbine equipment. Upon completion of training - the certificate is granted.

- PROCUREMENT EQUIPMENT'S



- COMPRESSOR

RECIPROCATING (IR - COMPAIR - BAUER - ARIEL - BARON)
 SCREW (ARIEL - MYCOM - AERZENER - SCR - SHANGHAI MACHINERY)
 CENTERIFUGAL (SAMSUNG - ASA)

- DRYER

REGENERATION & REFRIGERATION TYPE (ASA)

- INERT GAS GENERATOR

PURGE , SEAL , INERT , NITROGEN GAS (ASA - CALORIC - MVS)

- TURBINE

STEAM TURBINE (GINGDAO 4308)

- BLOWER

AIR & GAS BLOWER (AERZENER)
 FAN (ASA)

- AIR SEPERATION UNIT

O₂ , N₂ , Ar LIQUID & GAS PLAN (HANG YANG)

- WORKSHOP EQUIPMENTS





DRYER (AIR & GAS)

- REGENERATION HEATLESS & HEATED



Model	Average Outlet Flow Capacity*	Max. Working Pressure	Min. Working Pressure	In/Out Connect	Pressure Drop	Weight lbs. (kg.)	Dimensions H" x W" x D" (mm)
60	51.4 scfm @ -40°F PDP 49.4 scfm @ -100°F PDP (60 scfm inlet flow)	150 psig	50 psig	1" NPT	Less than 3 psig	341 (155)	68.90 x 25.59 x 33.85 (1750 x 650 x 860)
260	222.6 scfm @ -40°F PDP 219.7 scfm @ -100°F PDP (260 scfm inlet flow)	150 psig	50 psig	1.5" NPT	Less than 3 psig	782 (355)	89.75 x 34.5 x 42 (2280 x 876 x 1067)
590	222.6 scfm @ -40°F PDP 219.7 scfm @ -100°F PDP (260 scfm inlet flow)	150 psig	50 psig	1.5" NPT	Less than 3 psig	1265 (575)	110.23 x 37.79 x 49.01 (2800 x 960 x 1245)

SPECIAL DESIGN FOR YOUR PROJECT for example :

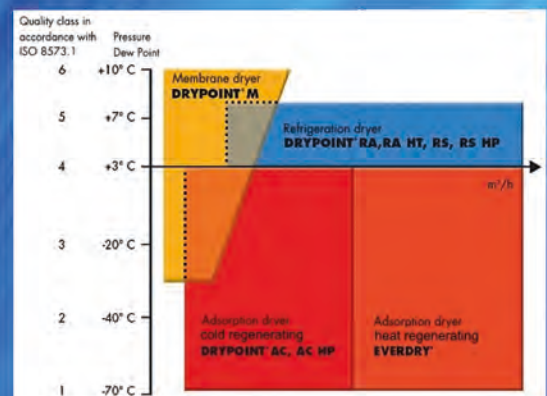
- Desiccant dryers consist mainly of two cylinders containing desiccant, connected by a valve system.
- When the desiccant in the first cylinder is saturated, the air flow can be switched to the cylinder containing the dried desiccant.
- Common desiccants are silica gel (an oxide of silica), alumina (aluminum oxide) and calcium sulfate (the anhydrous form of gypsum).
- Designed for consistent-pressure dew points
- Eliminate water and freeze-up in low ambient.
- Come completely assembled, piped and wired, with a full charge of activated alumina desiccant
- Only hook-up of utilities is needed for operation



- REFRIGERATION

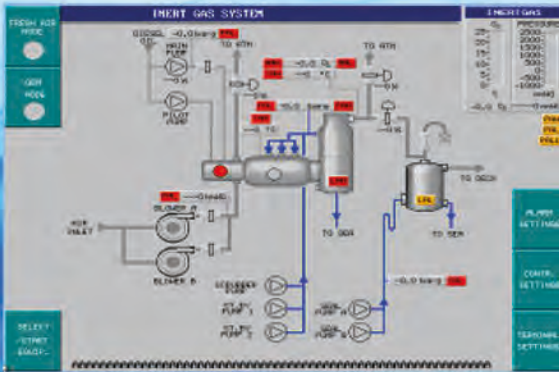
SPECIAL DESIGN FOR YOUR PROJECT :

- 1 Optimum drying thanks to highly effective heat exchanger combination
- 2 Maximum efficiency = minimum energy consumption
- 3 Lowest possible pressure loss, even with varying loads
- 4 Condensate drain inside
- 5 Excellent price / performance ratio



GAS GENERATOR

- INERT GAS GENERATOR



APPLICATIONS

- Purging and blanketing of chemical equipment.
- Inert gas packing of foodstuff.
- Bright annealing of non-ferrous alloys.
- Processes requiring low oxygen inert gas.

INERT gas is produced by controlled combustion of LPG/Nitrogen or kerosene fuels. It generally has very little oxygen. It is mainly a mixture of CO₂ and Nitrogen & is commonly used in chemical/ petro chemical and refining & equipment for purging, inertization & to provide an inert atmosphere.

DEW POINT OF GAS

A Refrigerated dryer or a Desiccant dryer can be installed after this inert gas generator if one needs a Dew point of (+) 5 C or (-) 40 C respectively.

Gas composition

This inert gas is available at around 500 mm wg pressure and can be directly used for purging. In case you wish to store this inert gas at higher pressure, we provide an intermediate inert gas compressor. Compressed gas is then stored in a tank and from there it is used as and when needed.

FUELS

LPG/ Natural gas/kerosene /HSD

CAPACITIES

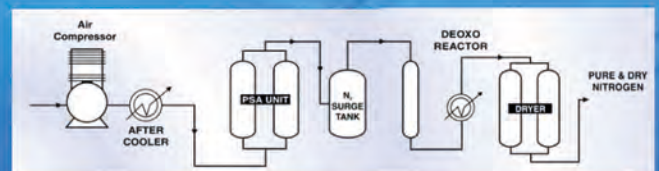
Standard gas generators are available in 10 Nm³/hr to 2500 Nm³/ hr sizes.

- NITROGEN GAS GENERATOR

FOR PRODUCING LOW COST COMMERCIAL GRADE, TECHNICAL GRADE AND HIGH PURITY NITROGEN FROM AIR BY COMPACT SIZE, SKID MOUNTED UNITS.

NITROGEN PURITY 99% TO 99.9999%

- Fast start-up in only 5 minutes
- Automatic operation by single push button.
- Special burner for soot free combustion and oxygen free Exo-gas
- Flame monitoring by UV-eye and burner ignition by spark plug.
- Very safe operation by safety interlocks provided.





AIR SEPERATION UNIT



up to 20,000 Nm3/h Nitrogen

ASA offers(hangyang brand)a wide range of air separation units (ASUs), including small, medium and large capacity ASUs for various industries such as steel, oil and gas processing, refinery, the petrochemical industry, the chemical industry, the glass industry, electronics, power generation, as well as industrial gas retail.

We offer the following ASUs for the production of nitrogen, oxygen, and argon as well as for complex air separation with extraction of rare gases (Ne, He, Kr, Xe).



HANGYANG COMPANY



Hangyang Cryogenic Liquefy Equipment Co., Ltd. is one of the holding subsidiaries of Hangyang Co.,Ltd.(stock code:002430),it is organized on the basis of the original Small Scale of ASU Company of Hangzhou Hangyang Co.,Ltd.It is the major engineering,research and manufacturing base for small size of ASU and liquefaction plants in China,,It is located in Hangyang Manufacturing Base in Lin'an Economic Development Zone, 项 the address of sales office is No. 388, Dongxin Road, Hangzhou. It undertakes engineering consulting, design and manufacture, assembled construction design, installation and commissioning and supply of parts for medium and small size of ASU with its professional quality. It is the main base of design, research and manufacture for the domestic medium and small size of oxygen/nitrogen generating plants, liquid oxygen/liquid nitrogen plants, oxygen/nitrogen liquefiers, high-purity nitrogen generators, vacuum pipes and Pressure Swing Adsorption (PSA) for oxygen/nitrgen generating, etc.; Meanwhile, it is also the professional manufacturer for integrated assembly or skid type of medium size of ASU for leaving workshop by Hangyang, its abilities of design and manufacture for integrated assembly of medium size of ASU reach the leading domestic level.

ASA Co. (Araz Sanat Asia Company) is a leading engineering group and spare parts manufacturing company in the field of Oil, Gas and petrochemical industries which was established in 2006 . The most skillful and well trained technical staffs are organized to provide technical services and to utilize the latest tools, including computer aided design techniques for manufacturing basic process equipment of Oil, Gas, Petrochemical, Power plants and all other related industries.

The information contained in this publication is provided for illustrative purposes only. Product descriptions and contents may change in consideration of specific market situations, may make changes to the descriptions provided at any time for technical and commercial reasons.

ASA Company



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