



BOLDORCHI

ESTABLISHED IN 1909

OIL & GAS • PETROCHEMICAL • FERTILIZER



WORLDWIDE ENGINEERING & PRODUCTION EXCELLENCE

Boldrocchi Equipment for Process Applications

Boldrocchi Group, headquartered in Italy, since 1909 designs and manufactures custom-engineered equipment to fit customer's specific need. The Group has subsidiaries in India, Egypt, Europe, USA and Brazil and can provide an excellent site services and a worldwide assistance. Boldrocchi is certified as conformed with ISO 9001.

FANS AND BLOWERS

For every application, Boldrocchi fans will be tailor made designed in different types, size and arrangements. In the years Boldrocchi has developed a wide experience in **double or multi stage blowers** with pressure rise over 9000 mmH₂O, **double driven fans** with steam turbine as main driver and electric motor as back-up, **fans designed for pressures of several bars, fans manufactured in special alloys, casing with steam tracing** to avoid acid condensates. Fan and blowers are designed and manufactured to respect clients' specifications and the main international standards as API 560 and API 673. High flexibility in testing equipment is one of the plus that Boldrocchi can offer to his customers: **performance tests** (according AMCA 210 or other standards) with ducts up to 3 m, **running test** at full speed for fans larger than 3 MW, **complete unit tests** with medium voltage motors of different voltage, **pressure tests, hot gas tests** and more. All the **welding** are performed **according ASME, AWS or EN norms**, with practically no restriction on the type of materials: **carbon steels** for very high or very low temperatures, different type of **stainless steels, duplex and superduplex, inconel, titanium**.



OIL & GAS AND PETROCHEMICAL APPLICATIONS

• Hydrogen Reformer

Forced and Induced Draft Fans

• Ethylene Furnaces and Fired heaters

Forced and Induced Draft Fans

• Sulfur Recovery Units

Main Air Blowers

Incinerator Air Blowers

Recycle Blowers

• Chlorination and Regeneration Plants

Hot Gas Regeneration Blowers

Fines Removal & Elutriation Blowers

Regeneration Cooler Blowers

• LNG

Thermal Oxider Air Blower

FERTILIZER APPLICATIONS

• Urea Plant

Granulator & Cooler Scrubber exhaust fans

Granulator & Fluid Bed Coolers Fluidization Air Fan

Atomization Air Blowers

Dedusting & Fumes Extraction Fans

CO₂ Blowers

• Ammonia & Methanol Plant

Induced Draft Fans

Forced Draft Fans

• Formaldehyde

Pressurization Air Blower

Recirculation Blowers

AIR COOLED HEAT EXCHANGER

Specializing in providing all Thermal & Mechanical information, this division **supplies tailor made air cooled heat exchangers (ACHE)** for any main Petrochemical, Process, Oil & Gas and Power Plant needs.

Typical application are in plants for:

- **Hydrocracking;**
- **Gas Sweetening and Acid Gas Removal;**
- **TEG Regeneration.**

And to cool lube oil, gas and water for main equipment as:

- **Heavy duty Gas Compressor**
- **Primary Pumps**
- **Gas Turbines**



Low noise applications, low temperature solutions and winterization for external air recirculation can also be provided by Boldrocchi.

In 1927 Boldrocchi manufactured **the first finned tube** and now thanks to the **11 different finning machines** can supply finned tubes of different types:

- **L-Footed** / • **KLM** / • **Extruded** / • **Embedded** - up to a finned length of 16 meters and in a variety of materials.

DESIGN AND MECHANICAL STRENGTH TEST UP TO 500 BAR

The tube bundle are mechanical and thermal designed for high pressure (up to 400 bar) in **special materials** such as **Superduplex, Monel, Hastelloy** and **Titanium** and for heavy service such as **Wet H₂S, Hydrogen** and **Fluor**.

DESIGN WITH H.T.R.I SOFTWARE

Thermal design is performed within Boldrocchi using H.T.R.I software and generally in accordance with API 661. Mechanical design of the pressure parts can be performed by Boldrocchi according to the main international codes (ASME, EN13445, AD Merkblatt, CODAP, VSR, etc.); FEA analysis can be performed for parts not covered by these codes. NACE, EEMUA and TEMA are also available.

Boldrocchi has a comprehensive ACHE Reference List which will show all previous contracts and Engineering Companies they have worked with.

DAMPERS



Custom-designed dampers are built according to critical operational requirements, depending on pressure, temperature, sealing degree and airflow regulation.

Boldrocchi has its own technical knowledge to manufacture dampers in highly corrosive, abrasive and elevated temperature environments.

The Company offers: • 3D design / • FEM mechanical calculation / • Fluid dynamic simulation / • Noise analysis

Boldrocchi performs, in its own workshops, tests for dampers in the presence of the Client before the shipping, achieving the overcoming of all the tests required by the stringent Customer specifications.

BOLDROCCHI SERVICE

EM&S is our service division dedicated to the upgrade of existing installations, having the possibility to grant all the needed services, starting from the feasibility study up to the supply, installation and commissioning of the new components, including field balancing.

Oil & Gas • Petrochemical



ID FAN - H2 PLANT ID FAN - ETHYLENE PLANT CO₂ BOOSTER FAN - UREA



INCINER. AIR BLOWER - SRU FLUEGAS FAN - H2 FURNACES AUTO OIL 2 - REFINERY



SAQQARA PROJECT STAATSOLIE REFINERY HG4 HYDROGEN GENER. UNIT



ISOCRACKER - REFINERY FCCU DEBOTTLENECK - REF. COMPRESSOR AFTER COOLER



TANDEM BLADE DAMPER



MULTI BLADE ON/OFF TYPE



MULTI BLADE REGULAT. TYPE



GAS STORAGE PLANT



**Global Presence
Local Service
Tailor Made Solutions**

PRODUCTION

- 45.000 sqm Manufacturing Shop
- 44 ton Balancing Machine
- Conformed with ISO 9001
- Welding Performed According to ASME, AWS or EN Norms

FACILITIES TEST FOR

- Fan
- Air Cooler
- Silencer
- Filter

TESTS

- Acoustic Compliance Test
- Mechanical Strength Test up to 500 bar
- Fan Performance Test up to KW 2000
- Asme: Hydrostatic Test
- Running Test for Fans and Air Coolers
- Complete Pre-assembling Test
- Pressure and Hot Gas Tests

Fertilizer



GUILLOTINE DAMP. & BLINDS H2 REFORMER - H2 PLANT ATOMIZ. AIR BLOWER - UREA



WHR & APH MODULAT. DAMP. COOLER AIR FAN - UREA PRESS. & RECIRC. BLOWERS



MULTI BLADE STACK DAMPER FLUE GAS FAN - AMMONIA AIR CHILLER - OMAN INDIA



TWO BLADES STACK DAMPER AIR CHILLER - OMAN INDIA AIR CHILLER - UREA COMPLEX



BOLDROCCHI

ESTABLISHED IN 1909

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