OVER 100 YEARS OF EXPERIENCE
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BRIEF HISTORY:

1904 – our Company has been founded as a branch of the Austrian Company “Machinen und Waggonbau Fabriks Aktiengesellschaft in Simmering”, property of “Brunn-Konigsfelder Maschinenfabrik” Works in Brno

1990 – it becomes an independent joint-stock Company, named VULCAN SA

2002 – Vulcan becomes a private owned Company, with the main shareholder GET (Grup Energetic Tender)

2011 – Vulcan welcomes a new Top Management whose main purpose and actions refer to:

• redefining the business strategy
• building a strong organization structure,
• ensuring sourcing on talent
• building a new performance and learning culture, by developing expertise, competencies and ensuring succession planning
• optimizing processes in key areas of the organization

MAIN CUSTOMERS:

BABCOCK & WILCOX VOLUND – Denmark
BABCOCK & WILCOX – UK
BABCOCK & WILCOX POWER – USA
METSO POWER OY – Finland
NEM – The Netherlands
AE&E – Czech Republic
SIEMENS – Austria

ALSTOM POWER SERVICE – France
CMI – Belgium
WATERLEAU – Belgium
KEPPEL SEGHERS – Germany
LEROUX & LOTZ – France
H S ENERGIEANLAGEN GmbH & CO KG – Austria
VISION:
True values always stand the test of time, and our historical background shows it – we’re one of the worldwide leaders in the manufacturing of power plant boilers, industrial equipment and pumping units.

MISSION:
With more than 100 years of experience and skilled employees, Vulcan has proven to be a reliable manufacturer for the Power Supply, Oil and Gas, and Construction Industries, by providing high quality products and services to its customers and co-workers all over the world.

VALUES:
People:
We focus on adding value to our employees and investing in them. We embrace communication, cooperation and teamwork for creating a remarkable customer experience with each project we conclude.

Accountability:
We act in a responsible and professional way towards the potential and existing customers, co-workers and business partners.

Excellence:
We offer high quality products and services, giving deference to national and international regulations and standards.

Tradition:
By emphasizing our history, we focus not only on automation, but mostly on classic manpower works which have proven to be accurate, enduring and trouble free.
Range of Products and Services

• BOILERS AND PRESSURE PARTS FOR BOILERS
• TECHNOLOGICAL EQUIPMENT – PRESSURE VESSELS
• NON-PRESSURE PARTS FOR THERMAL POWER PLANT BOILERS
• WELDED STRUCTURES
• PUMPING UNITS FOR OIL EXTRACTION
• SERVICES

***all Vulcan products can be fabricated with various types of materials from carbon steel to high alloyed materials (P91, P92, WB36).

YEARLY CAPACITY

• 4,500 tons – Pressure Parts & Accessories
• 6,000 tons – Pumping Units for Oil Extraction, Gear Reducers and Structural Steel

VULCAN SA has a total area of 249,012 sqm and manufacturing facilities of 139,911 sqm.
**Boilers and Pressure Parts for Boilers**

**BOILERS:**
- POWER PLANT STEAM BOILERS
- FORCED CIRCULATION BOILERS
- INDUSTRIAL BOILERS
- HOT WATER BOILERS
- RECOVERY BOILERS/Biomass BOILERS

**BOILERS PRESSURE PARTS:**
- MEMBRANE WALLS
- HEADERS
- HP&LP PIPING
- COILS
- SUPERHEATERS
- ECONOMIZERS
- DRUMS

***according to a Quality Management System certified since 1983 and specific European/American Standards.
References for Boilers/Boiler Parts Projects

CLIENT: BABCOCK & WILCOX VOLUND – DENMARK
PROJECT: WASTE RECOVERY BOILER – LIDKÖPPING – SWEDEN
SUPPLY:
- Membrane Walls & attached headers
- Ducts
- Prism
- Downcomers
- Risers
- Superheater
- Evaporator
- Pipe bundles for 2 boilers
VULCAN SCOPE:
- detailed engineering
- boiler arrangement drawings
- workshop drawings
- assembling drawings
TOTAL WEIGHT: 271 tons
FABRICATION: 2011
 References for Boilers/Boiler Parts Projects

CLIENT: KEPEL SEGHERS – GERMANY

PROJECT: 2 IDENTICAL WASTE RECOVERY BOILERS – MANCHESTER – UK

SUPPLY:
- Membrane Walls + attached headers
- Prism
- Downcomers
- Risers
- Superheater
- Evaporator
- Pipe bundles for 2 boilers

VULCAN SCOPE:
- detailed engineering
- boiler arrangement
- workshop drawings
- assembling

TOTAL WEIGHT: 2.280 tons

FABRICATION: 2011

PROJECT: AMBARLI – TURKEY

SUPPLY:
- Modules No.6, 7, 9 for 2 (two) heat recovery boilers, steam generator type:
  - Pressure parts – harps
  - Non-pressure parts – hangers
  - Drains

VULCAN SCOPE:
- detailed engineering
- boiler arrangement drawings
- workshop drawings
- assembling drawings of nozzle grid
- purchasing of all raw materials, except for finned tubes and consumables
- marking, corrosion protection, packaging, stiffening, labeling
- transportation on site

TOTAL WEIGHT: 1.160 tons

FABRICATION: 2009 – 2010
References for Boilers/Boiler Parts Projects

CLIENT: H S ENERGIEANLAGEN GMBH & CO KG – VIENNA, AUSTRIA

PROJECT: SICET POWER PLANT/HOSPITALE DI CADORE – ITALY

SUPPLY:

- Fluidized Bed Boiler having main assemblies:
- Economizer (membrane walls & buckstays)
- Superheater
- Flue gas air Preheater
- Internal boiler Piping (downcomers, connection, risers)
- Ash hoppers

VULCAN SCOPE:

- detailed engineering
- boiler arrangement drawings, workshop drawings, assembling drawings of nozzle grid
- purchasing of all raw materials and consumables materials
- marking, corrosion protection, packaging, stiffening, labeling
- transportation on site
- erection on site in Italy

TOTAL WEIGHT: 481 tons

FABRICATION & ERECTION: 2009 – 2010
References for Boilers/Boiler Parts Projects

CLIENT: LEROUX & LOTZ – FRANCE
PROJECT: BRADU – ROMANIA

SUPPLY:
- Complete waste boiler:
  - Steam drum
  - Feed water tank
  - Feed Piping
  - Flash Tank
  - Ash hoppers

VULCAN SCOPE:
- detailed design
- consumables material procurement
- fabrication
- transport to site
- erection of equipment
- assistance for commissioning

TOTAL WEIGHT: 18.5 tons

FABRICATION: 2009
References for Boilers/Boiler Parts Projects

CLIENT: BABCOCK & WILCOX POWER – USA

PROJECT: ARKANSAS ARPA – USA
SUPPLY:
- Straight and bent membrane walls
- Superheater and Membrane Walls headers
- Primary and secondary SH sections
TOTAL WEIGHT: 364 tons
FABRICATION: 2006

PROJECT: TEXAS UTILITIES PRAIRIE STATE – USA
SUPPLY:
- Parts for 2 boilers:
  - Convection Pass Wall and Roof
  - Upper Furnace Headers
  - Loose Upper and Lower Headers
  - Steam Piping
TOTAL WEIGHT: 2,550 tons
FABRICATION: 2006 – 2008

PROJECT: WESTON – USA
SUPPLY:
- Membrane Walls
- Attached headers
- Convection pass and screen panels
TOTAL WEIGHT: 960 tons
FABRICATION: 2005
References for Boilers/Boiler Parts Projects

CLIENT: ALSTOM POWER SERVICE – FRANCE
PROJECT: MARSAT/ALGERIA
SUPPLY:
• Membrane walls
• Economizer
• Reheater
• SH3
TOTAL WEIGHT: 751 tons
FABRICATION: 2008 – 2009

PROJECT: RAS DJINET/SONELGAS ALGERIA
SUPPLY:
• SH coils
• Supporting pipes
• Connection pipes
TOTAL WEIGHT: 150 tons
FABRICATION: 2009

PROJECT: DALKIA/FRANCE
SUPPLY:
• Steam drum
TOTAL WEIGHT: 0.8 tons
FABRICATION: 2009
CLIENT: NEM HENGELO – THE NETHERLANDS

PROJECT: SOHAR PROJECT – OMAN – END CLIENT: MITSUBISHI HEAVY INDUSTRIES

SUPPLY:
- Manufacturing and pre-assembling of EDL Auxiliary boiler:
  - Pre-assembling and erection operations performed by VULCAN team in Constanța Harbor
  - Shipment of complete assembled boiler directly to the site

VULCAN SCOPE ASSEMBLY:
- Furnace membrane walls and headers
- Economizer casing
- Superheater 1 & 2
- Blow down tank
- Large bore piping

TOTAL WEIGHT OF EDL BOILER: 312 tons NET

Technological Equipment – Pressure Vessels

- FOR DISTRICT HEATING POWER PLANTS
- THERMAL POWER PLANTS
- NUCLEAR POWER PLANTS
- WATER TREATMENT PLANTS
- CHEMICAL PLANTS
- PETROCHEMICAL PLANTS
- FOOD PROCESSING PLANTS
- FUEL TANKS
- OIL TANKS
- COMPRESSED AIR TANKS

Pressure Vessels and Process Equipment – for Chemical, Petrochemical and Oil and Gas industries, manufactured in accordance with ASME Section VIII, from: Carbon Steel, Low Alloy, Stainless Steel, High Alloy, Cladded Materials.

Our state of the art equipment can roll shells up to 110 mm thickness, with diameters between 700 and 2400 mm and length up to 4000 mm.
Welded Structures & Non-Pressure Parts for Thermal Power Plant Boilers

- INFRASTRUCTURAL BUILDINGS
- AIR AND GAS DUCTS
- FAN PARTS
- MILL COMPONENTS
- ROTARY AIR PREHEATERS
- PERFORMED ACCORDING TO CLIENT/ENGINEERING INSTITUTE DESIGNS AND SPECIFICATIONS OR TO CUSTOMER INQUIRY
- GOOD COOPERATION WITH ROMANIAN ENGINEERING INSTITUTES FOR DESIGNS AND SPECIFICATIONS FOR ANY KIND OF PROJECTS
- SPECIAL ORDERS CAN BE CARRIED OUT ON CHEMICAL, PETROCHEMICAL, METALLURGICAL AND CEMENT INDUSTRIES, ENVIRONMENTAL EQUIPMENT
References for Steel Structures

CLIENT: AKTOR SA GREECE
PROJECT: CHITILA BRIDGE – BUCHAREST RING
VULCAN SCOPE:
- To procure all the raw necessary materials for the manufacture/fabrication of the steel structures
- To ensure all the consumables (welding, protection, packing)
- To manufacture the steel structures
- To deliver on the BUYER’s site all the Steel Structures manufactured
- To perform all the necessary works such as: the installation

All steel structure was supplied and erected on site at the quality required by the BUYER and by the Romanian effective legislation.
YEAR OF PERFORMANCE: 2009 – 2010
By incorporating high standard engineering, VULCAN pumping units have proven to be some of world’s most reliable and trouble-free.

<table>
<thead>
<tr>
<th>Type of Pumping Unit</th>
<th>No. of types</th>
<th>Stroke Lengths Range</th>
<th>Loads Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Units</td>
<td>53</td>
<td>36 – 240 inch</td>
<td>7600 – 42700 lbs.</td>
</tr>
<tr>
<td>Front Mounted Units</td>
<td>32</td>
<td>64 – 216 inch</td>
<td>17300 – 42700 lbs.</td>
</tr>
<tr>
<td>Romanian Units</td>
<td>22</td>
<td>1200 – 5000 mm</td>
<td>3.0 – 15.0 tons</td>
</tr>
<tr>
<td>Water Well Units</td>
<td>–</td>
<td>385 – 610 mm</td>
<td>1.45 – 2.45 tons</td>
</tr>
</tbody>
</table>

75% of our pumping units - meaning VULCAN’s main range of sucker rod surface pumping units – include the following types (most required by our beneficiaries):

- API C 57 D-109-48
- API C 80 D-133-54
- API C 114 D-173-64
- API C 114 D-119-100
- API C 160 D-200-74
- API C 228 D-173-100
- API C 320 D-213-120
- API C 456 D-256-144
- API C 640 D-305-168
- API C 912 D-305-192

Besides these conventional pumping unit types, we can also provide a wide range of front mounted geometry pumping units. Depending on Customer request we can supply spare parts for all types of VULCAN brand pumping units.
VULCAN’s current biggest customer for API pumping units is **OMV PETROM – ROMANIA**.

**VULCAN delivered in 2009 – 2010:**
- 220 Units
- over 60 gear reducers
- 500 tons – spare parts
- over 5900 tons – total deliveries

**VULCAN delivered in 2011:**
- 111 Pumping Units (2915 tons)
- 170 tons – spare parts
- 50 reconditioned gear reducers (200 tons)
- 41 new gear reducers (125 tons)
Services

• Construction Services
• Pre-Erection/Erection Services
• Technical Assistance for Erection
• Site Jobs
• Repair Works for Power Plants and Boilers
• Pipes’ Bending
• Heat Treatments
• Mechanical Processing
• Chemical, Destructive & Non-Destructive Tests
Technical Capacities

BENDING CAPABILITIES:

- COLD BENDING CAPABILITIES:
  - 600 – 1400 (max. thickness – 30mm)
  - 1400 – 3000 (max. thickness – 60mm)

- HOT BENDING CAPABILITIES:
  - 1400 – 1800 (max. thickness – 80mm)
  - 1800 – 3000 (max. thickness – 100mm)

TECHNICAL EQUIPMENT:

- HOT/COLD BENDING MACHINES
- AUTOMATIC WELDING MACHINES FOR MEMBRANE WALLS
- AUTOMATIC CUTTING MACHINES
- PIPING/HEADER MANUFACTURING LINES UP TO 100 TONS/MONTH
- SPECIAL TOOTHING MACHINES FOR GEAR REDUCERS (SYKES TYPE) UP TO 1 m DIAMETER
- LIFTING CAPACITIES FROM 10 TONS UP TO 80 TONS

ROLLING CAPABILITIES:

- Cold – 70 mm thickness
- Hot – 110 mm thickness
Transport facilities/access routes

**SHIPPING BLACK SEA HARBOR:**
- Bucharest – Constanța (225 km)

**SHIPPING DANUBE HARBORS:**
- Bucharest – Giurgiu (68 km)

**SHIPPING BLACK SEA HARBOR:**
- Direct access to the Company’s workshops