

HOT INDUCTION BENDING WELD-OVERLAY OF MOTHER PIPES & PIPES PIPING SPOOLS, PRESSURE VESSELS











#### **Company profile**

The acquisition of **Bassi Luigi & C**. by the **Allied Group** during 2018 naturally involved also **SIMAS S.p.A.**, an experienced manufacturer founded in 1963, located in Prezzate di Mapello (Bergamo, Italy) which in 1994 entered the **Bassi Group** following the complete acquisition of the former **B.G. Metallurgica Bergamasca**.

**SIMAS** is specialized in the production of a wide range of large-radius bends cladding, pressure vessels, heat exchangers, and in prefabrication. In particular many ranges of special pieces are destined for oil&gas such as prefabricated pipes in all types of material grades, large-radius bends in all sizes up to 60" diameter (produced from bended pipe by electrical induction - 3D, 5D, 7D, 10D), receiving and launching traps with patented quick closures, extrusions on manifolds. Cladding services for pipes and bends are fully in line with requests from clients to upgrade the product performances in several applications.

Last but not least, the company produces pressure reactors for desulphurisation plants, tubular reactors for polypropylene and polyethylene plants, jacketed reactors/semipipe heating, high pressure separators, shell and tubes heat exchangers, pressure vessels, distillation and fractionation columns for the petrochemical sector, while the thermotechnical sector is served with low and medium pressure water pre-heaters, superheaters and tubular refrigerants.

**SIMAS** occupies an area of 45,000 sq m (15,000 sq m covered), employs 60 people and has a yearly capacity of 10,000 tonnes of finished products.



## **Company details**

Company name SIMAS SpA

Registered Office and Administration Via Luigi Bassi 8 26865 San Rocco al Porto (Lodi), Italy

#### Works

Via Dante Alighieri 16, 24030 Prezzate di Mapello (Bergamo), Italy Chamber of Commerce REA/MI 1417637

Paid Capital Euro 1,000,000

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### **Products & target markets**

**Bends:** SIMAS' aim is to provide high quality bending solutions for oil&gas pipelines, either onshore or offshore. The manufacturing and testing procedures exceed all quality standards required by the oil&gas industry through the use of state-of-the-art technology that enables full control of the bending process, as well as total monitoring of bending parameters.

## **Bending capabilities**

PIPE DIMENSION		
Max. dia.	60"	
Min. dia.	2"	
W.t.	From 6 mm to 150 mm	
Max. length	14900 mm	
BENDING RADIUS		
Min.	100 mm	
Max.	10500 mm	
BENDING ANGLE		
Max.	182°	





**Prefabrication:** thanks to more than 50 years' of experience, **SIMAS** is one of the main players in the design, fabrication and inspection of pressure vessels and heat exchangers for oil&gas, refinery and petrochemical plants. **SIMAS** is an authorized holder of PP, S, U and U2 stamps for manufacturing pressure vessels and it is also certified by TÜV NORD for the manufacturing of such products according to standard DIN EN ISO 3834-2 and AD-2000 Merkblatt HP0. **SIMAS** policy is to focus on the most demanding jobs, working on heavy wall products and special materials.

**Cladding of pipes and straight pipes: SIMAS** has been operating in the field of clad piping manufacturing and fabrication for more than 20 years. Thanks to this experience, we have developed and improved our manufacturing systems and experiences. Our different experience has enabled us to support clients' requests and their even more challenging needs.

All **SIMAS** products and services are destined for the oil&gas, petrochemical, power generation and offshore sectors.

## Bends

TYPE OF PRODUCT	DIAMETER	THICKNESS	MATERIALS
Induction bends	From 2" up to 60"	From 6 mm to 150 mm	Carbon steel, Micro Alloyed steel, High strength steel, Stainless steel, Low & High Alloy steel, Duplex and Superduplex, Titanium, Inconel, Hastelloy, Incoloy.

## **Piping Prefabrication**

TYPE OF PRODUCT	DIAMETER	THICKNESS	MATERIALS
Spools for thermal, and nuclear power stations, offshore platforms etc.	From 2" up to 60"	From 6 mm to 150 mm	Carbon steel, Micro Alloyed steel, High strength steel, Stainless steel, Low & High Alloy steel, Duplex and Superduplex, Titanium, Inconel, Hastelloy, Incoloy, Clad.

## Cladding service

TYPE OF PRODUCT	DIAMETER	BASE MATERIAL	CLADDING MATERIAL
Cladding by hot wire TIG	Min. ID 115 mm Max OD 914,4 mm	Carbon steel , Low temperature Carbon steel , High yield strength (up to X-70); Alloy steels (P11, P22);	Inconel 625; Incoloy 825; AISI: 316L, 317L, 321 & 347; Hastelloy C276 & C2000; Stellite 6

## Heat exchangers/ Pressure vessels

TYPE OF PRODUCT	DIAMETER	THICKNESS	WEIGHT
Pressure vessels	Up to 195"	Max 180 mm	Max 190 tons
Heat exchangers	Up to 195"	Max 180 mm	Max 150 tons

## Scraper traps

TYPE OF PRODUCT	DIAMETER	QUALITY MATERIALS	CERTIFICATIONS
Pig launcher and receivers	from150 lbs to1500 lbs	From API 5L X42 to API 5L X70	ASME stamps

## Titanium

TYPE OF PRODUCT	DESCRIPTION
Induction bends, spool, prefabrication	In order to develop the application of titanium with characteristics of anti-corrosion and high resistance, we dedicated a special area "the cleanroom" in our workshop
	for this specific working process



## Cladding

Cladding is a fundamental process in the manufacturing industry and it is applied across the whole spectrum of applications, from the oil&gas industries to petrochemical, nuclear and steelmaking.

Cladding is required to provide corrosion resistance against highly severe corrosive service fluid.

To this end and to serve increasing demand for clad products, **SIMAS** is now specialized in weld overlay using GTAW hot wire automatic process and our manufacturing program covers sizes over 115 mm (inside diameter) and length up to 12 m.

**SIMAS** is also able to offer a complete product to its clients including the induction bending service for clad pipe, heat treatment in our API 6A certified furnace and spool fabrication including hydro-testing and packing into crates or containers for easy transport worldwide. Finally **SIMAS** has the right to use the API 5LD monogram and works in accordance with API Q1.











SIMAS has gained a good reputation with national and foreign customers all over the world, and many of its bends have been used successfully in their projects











SIMAS is able to manufacture prefabricated items for the most extended applications, manufactured in accordance with the official national and international code standard



#### Materials used and related International Standards

#### CARBON AND ALLOY STEEL FOR ROOM, MODERATE AND ELEVATED TEMPERATURES

ASTM / ASME A/SA 106 API 5L: Gr.B - Gr.C ASTM / ASME A/SA 335: Gr.1 - Gr.11 - Gr.12 - Gr.5 Gr.22 - Gr.9 - Gr.91 - Gr.92 CLAD: CS+INCONEL - CS+INOX CS+HASTELLOY EN 10216-2: P195GH - P235GH - P265GH 20MnNb6 - 16Mo3 - 8MoB5 4 - 14MoV63 10CrMo5-5 - 13CrMo4-5 10CrMo9-10 15NiCuMoNb5-6-4 X11CrMo5 - X11CrMo9-1 X10CrMoVNb9-1 X10CrWMoVNb9-2 X20CrMoV11-1 and equivalent grades P265GH - P280GH - P295GH P355NH (other grades can be supplied upon request).

#### CARBON AND ALLOY STEEL FOR LOW TEMPERATURE SERVICE

ASTM / ASME A/SA 333: Gr. 6, Gr. 3, Gr. 8 and equivalent grades.

#### STAINLESS STEEL

ASTM / ASME A/SA 312: TP304 - TP304L - TP304H TP304LN - TP304N TP316 - TP316L - TP316H TP316LN - TP316N - TP317 TP317L - TP321H - TP347 TP347H - S31254 and equivalent grades.

#### TITANIUM ALLOY

ASTM / ASME B/SB862: and equivalent grades ASTM / ASME B/SB861: Gr. 1-2-12.

#### HIGH YIELD STEEL FOR PIPELINE AND OFFSHORE

**API 5L:** Gr. X42 - X46 - X52 X60 - X65 - X70 - X80 **EN 10208-2:** L245NB L290NB - L360NB - L415NB L360QB - L415QB - L450QB L485QB - L555QB - L360MB L415MB - L450MB -L485MB and equivalent grades.

#### AUSTENITIC/FERRITIC STAINLESS STEEL

ASTM / ASME A/SA 790:

UNS 31803 (duplex) - UNS 32750 (superduplex) UNS 32760 (superduplex) UNS 32550 (superduplex) and equivalent grades.

#### NICKEL ALLOY

UNS N04400 - UNS N06600 UNS N06625 - UNS N08020 UNS N08800 - UNS N08811 UNS N08825 - UNS N10276 and equivalent grades.

#### **Design codes**

ASME B31.1 - ASME B31.3 ASME B31.4 - ASME B31.8

AD 2000 Merkblatt W0 - HP0

STOOMWEZEN rules

DIN EN ISO 3834-2

### Manufacturing Standards

ISO 15590-1 DNVGL-ST-F101 ASME B16:49 NORSOK M630 SHELL DEP specifications CHEVRON specifications ARAMCO specifications TOTAL GS specifications BP specifications EXXONMOBIL specifications MSS SP-75, PFI-ES-24



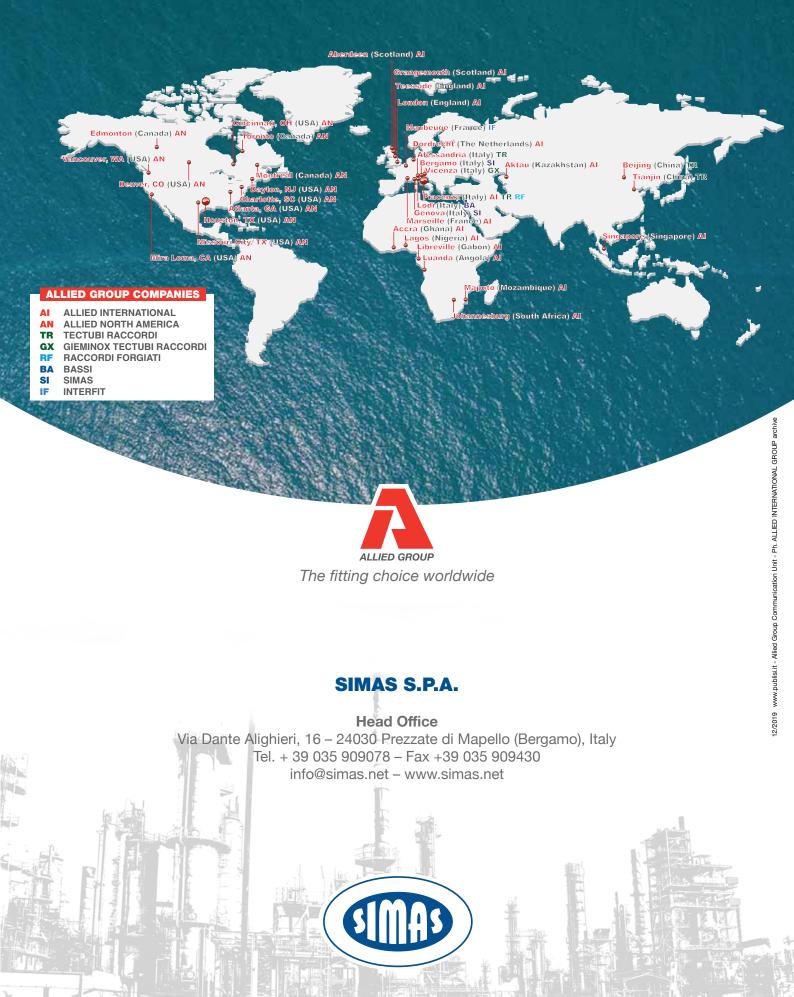
### Certifications

ISO 9001: 2015 by Bureau Veritas
 ASME Stamp authorizations U, U2, S, PP

AD2000 Merkblatt W0 & PED 2014/68/EU by TÜV Nord
DIN EN ISO 3834-2 by TÜV Nord • ISO 14001: 2004 by Afnor • OHSAS 18001:2007 by Afnor • API 5LD & Q1

In addition to these Certifications, issued by public entities and organizations, **SIMAS** has Approvals issued by private and public companies, such as: **Aramco, BP, Chevron, Exxon, FMC, KNPC, Kvaerner, Saipem, Shell, Snam Rete Gas, Statoil, Technip, Total, TransCanada**.

## **ALLIED IN THE WORLD**



SIMAS S.p.A. is part of Allied International Group