

**BUTTWELDING FITTINGS,  
CLAD FITTINGS, PIPING SPOOLS  
MANIFOLDS, SLUG CATCHERS  
SPECIAL PRODUCTS**



**BASSI LUIGI & C**  
Manufacturing



## Company profile

It was after World War II that Mr. Luigi Bassi started producing the first fittings in Italy. He gained wide high experience and created many important connections in this industrial field. In 1962 he moved his activities to its current location and established his company.

The company has progressively extended its range of activity and has achieved a worldwide leading position and a high degree of specialization, which characterizes its overall production. Part of an international group of companies, over the course of the years **Bassi Luigi & C.** has been granted the most important certifications to work in the power generation, oil&gas, offshore and nuclear plant industries.

Technological innovation at **Bassi Luigi & C.** matches its with long experience across production processes and people play a leading role in facing the most demanding challenges. This synergy is the company's strength and characterizes its whole production.



## Company details

**Company name**  
Bassi Luigi & C. SpA

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

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

**Chamber of  
Commerce**  
REA LO/ 593412

**Paid Capital**  
Euro 7,000,000

**VAT No.**  
IT00839520152

**Telephone**  
+39 0377 454300

**Fax**  
+39 0377 569371

**E-mail**  
info@bassiluigi.com

**Website**  
<https://www.bassiluigi.com>

## Products & target markets

**Butt welding fittings:** Bassi Luigi & C. S.p.A. is a world leader and one of the historical manufacturers of BW fittings. In recent years the company have invested in innovation and new technologies in order to ensure a wider range of products and services to customers.

For this reason, **Bassi Luigi** can supply fittings according to the most stringent norms /calculation codes and technical prescriptions.

Its experienced staff is nowadays fundamental for closer working and partnership with the world's most important EPC companies and end users.



**Prefabrication:** besides the manufacturing of joints and loose components, the company has expanded its activities in assembling components in the factory. These complex prefabricated products add a higher value to the range of production, increase the quality of construction and assure cost effective solutions. This prefabricated process enables the realization of important projects.

**Clad pipes and fittings:** Bassi Luigi has been operating in the field of clad piping manufacturing for more than 20 years. Thanks to this experience we have developed and improved our manufacturing systems and experiences.

Application processes: the selection methods depend on the sizes, wall thicknesses and materials involved.

**Titanium Application:** the needs to build new plants in environments requiring more resistant and anticorrosion material led to the company developing the application of titanium.

**Bassi Luigi** production is mainly destined for the following sectors: power generation, off-shore, oil&gas, petrochemical.



## Fittings

TYPE OF PRODUCT	DIMENSIONS	MATERIAL
Equal and reducing tees	Up to 120"	All grades
LR/ SR elbows	Up to 120"	All grades
Barred sphere tees	Up to 120"	All grades
Bull heads	Up to 120"	All grades
Concentric and eccentric reducers	Up to 120"	All grades
Caps and crosses	Up to 120"	All grades

## Prefabrication

TYPE OF PRODUCT	DIMENSIONS	THICKNESS	WEIGHT
Slug catchers (Finger type)	Up to 120"	max 190 mm	approx. 6000 tonnes
Slug catchers (Vessel type)	Up to 195"	max 190 mm	max 190 tonnes
Headers and manifolds	Up to 120"	up to 180 mm	
Pipe spools	Up to 120"	up to 180 mm	
Scraper traps (launching & receiving)	From 150 to 2500 lbs and further with special pressure		



## Special production

TYPE OF PRODUCT	CHARACTERISTICS
Titanium application	Excellent strength, corrosion resistance to seawater, ductile and malleable when heated
Norsok Certification	Fittings in Duplex, Super-duplex and 6Mo according to Norsok M-650 Edition 4 approval

## Application processes

Clad pipes and fittings	Cladding of pipes and piping components through welding overlay process (Ni alloy, Austenitic steel, Stellite)	Cladded fittings starting from clad plate/ pipes process (Ni alloy, Austenitic steel, Stellite)
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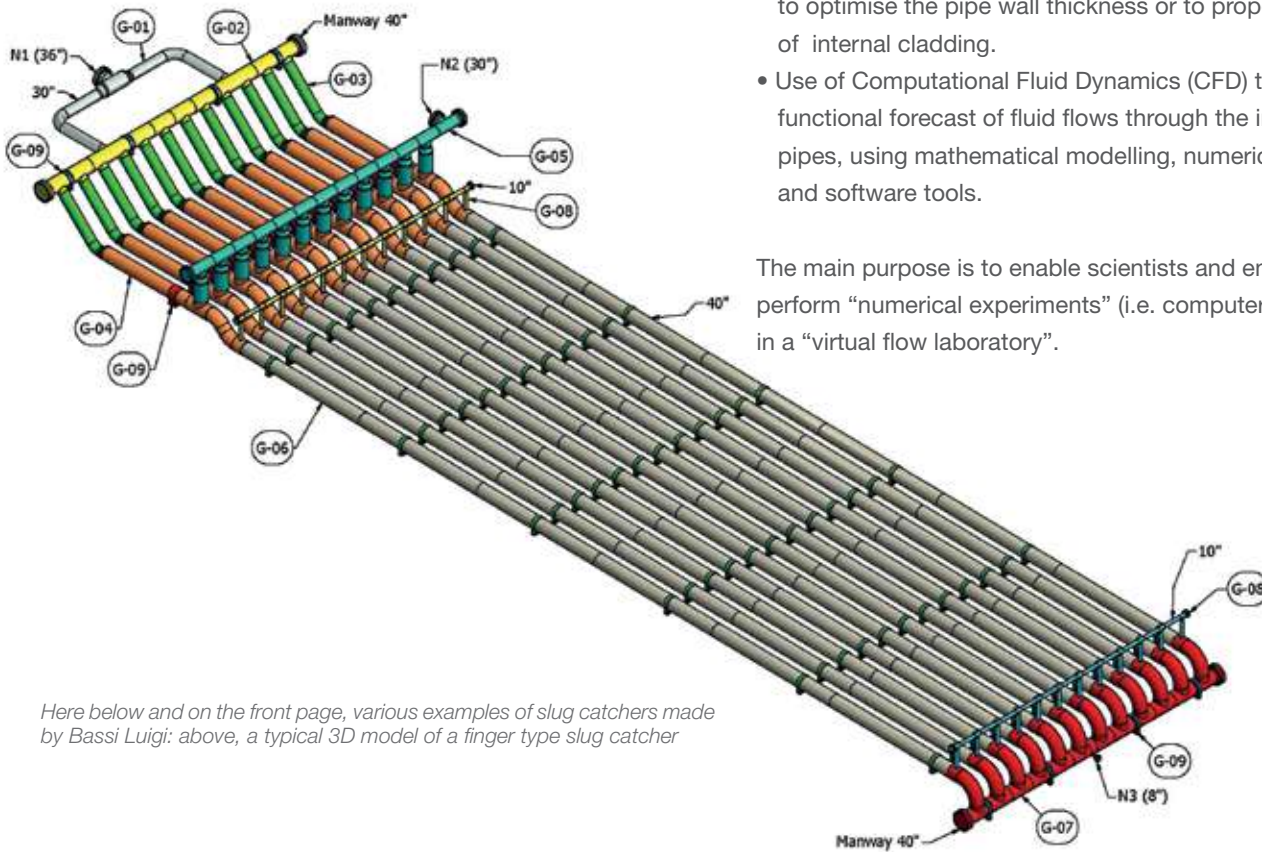


# Engineering

Bassi Luigi has long experience in piping systems and slug catcher design, thanks to its dedicated engineering team .

## Mechanical design

- Wall thickness calculation as per international codes or client special requests
- Stress Analysis and Finite Element Analysis
- Interaction with other suppliers of the same project using PDMS or similar software.



Here below and on the front page, various examples of slug catchers made by Bassi Luigi: above, a typical 3D model of a finger type slug catcher

# Welding Engineering

- Review of welding requirements
- Planning and managing of welding qualification & welding book
- Research & Development in new welding processes and new welding consumable materials

## Process Design

- Preliminary calculation of the dimensions of the section and length of the pipes, first using chemical analysis and the physical parameters of the “wet gas”.
- Measurement of the level of corrosion by the fluid in order to optimise the pipe wall thickness or to propose the type of internal cladding.
- Use of Computational Fluid Dynamics (CFD) to obtain a functional forecast of fluid flows through the inside of the pipes, using mathematical modelling, numerical methods and software tools.

The main purpose is to enable scientists and engineers to perform “numerical experiments” (i.e. computer simulations) in a “virtual flow laboratory”.







## 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

#### ASTM / ASME A234: WPB

- WPC

WP1 - WP11 - WP12 - WP5

WP22 - WP9 - WP91 - WP92

#### 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

#### EN 10253-1 EN 10253-2

(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

#### ASTM / ASME A/SA 420

WPL6

WPL3.

### 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

#### ASTM / ASME A/SA 403:

WP304 - WP304L - WP304H

WP304LN - WP304N

WP316 - WP316L

WP316H - WP316LN

WP316N - WP317 - WP317L

WP321 - WP321H - WP347

WP347H - WPS31254 (other

grades can be supplied

upon request)

#### ASTM A774: TP304L

TP316L TP317L TP321

TP347

#### Equivalent grades of EN

10253-3 EN 10253-4 (former

AFNOR-DIN-BS equivalent

grades).

### 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

#### ASTM A860/MSS-SP75:

WPHY 42 WPHY 46 - WPHY

52 - WPHY 60 - WPHY 65 -

WPHY 70 grades

WPHY 80 only as per

MSS-SP75

### AUSTENITIC/FERRITIC STAINLESS STEEL

#### ASTM / ASME A/SA 790:

UNS 31803

(duplex) - UNS 32750

(superduplex)

UNS 32760 (superduplex)

UNS 32550 (superduplex)

and equivalent grades

#### ASTM / ASME A/SA 815:

UNS 31803 (duplex)

### NICKEL ALLOY

#### ASTM / ASME B/SB 366:

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

EN 13445 - 13480 - 12952

(former BS PD 5500

Swedish ordinance AFS

1994:39)

DIN 2413 - TRD301

AD 2000 Merkblatt B2-B3-B9

STOOMWEZEN rules for pressure vessels

MSS - SP-75

## Manufacturing Standards

ASME B16.9 - ASME B16.25

MSS-SP43 - MSS-SP75

DIN 2605 - 2606 - 2615

2616 - 2617 - BS 1640

GOST 17374 - 17375

17376 - 17377 - 17378

17379 - 17380

EN 10253

ISO 15590

BS/EN 14870

## Certifications

NORSOK M-650 Edition 4

· ISO/TS 29001- 2010 by Afnor

· DIN EN ISO 3834-2 by TÜV Nord

· ISO 14001:2015 by Afnor

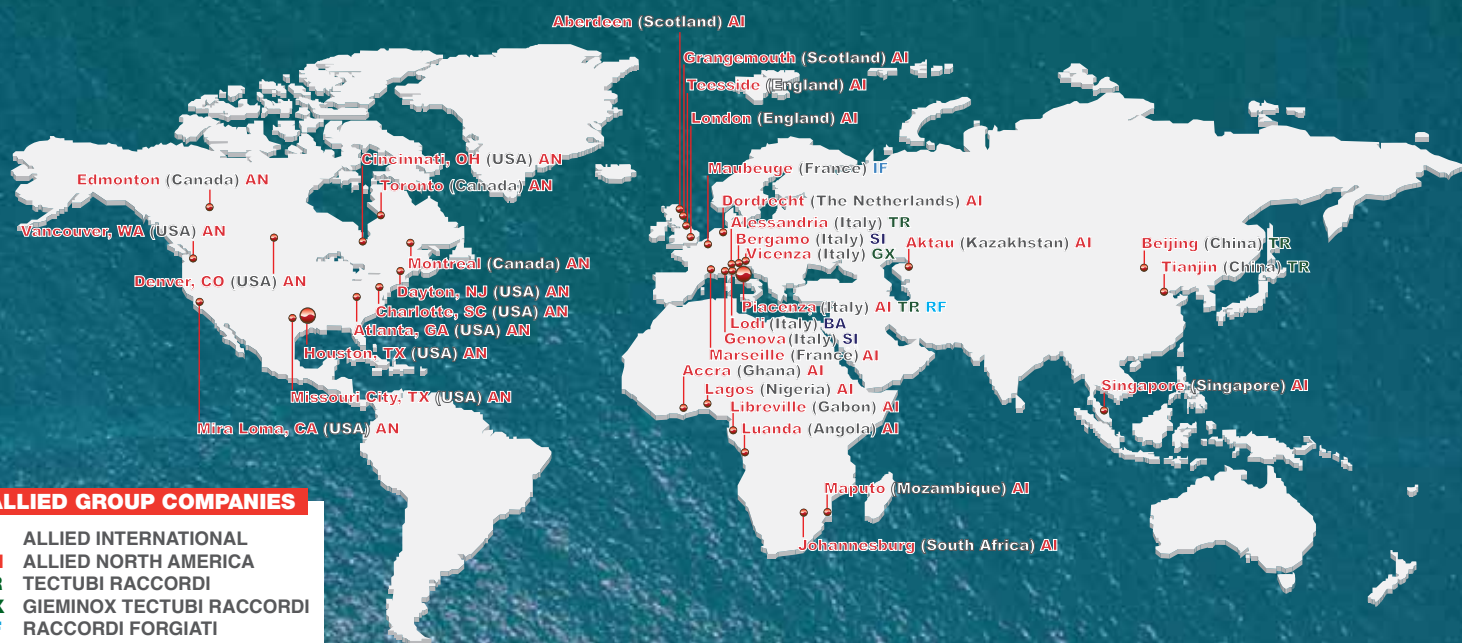
· ISO 9001:2015 by Afnor

· PED 2014 – 68 by TÜV Nord

· OHSAS BS 18001 by Afnor

In addition to these Certifications, issued by public entities and organizations, **Bassi Luigi** has Approvals issued by private and public companies, such as: **ADNOC, Aramco, BP, ENI, Exxon, GE, Italgas, KNPC, KOC, Kvaerner, National Grid, Saipem, Snam Rete Gas, Statoil, Total, TransCanada.**

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- BA** BASSI
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*The fitting choice worldwide*

## INDUSTRIA MECCANICA BASSI LUIGI & C. S.P.A.

### Head Office

Via Luigi Bassi, 8 – 26865 San Rocco al Porto (Lodi), Italy  
 Tel. + 39 0377 56023 – Fax +39 0377 569371  
 info@bassiluigi.com – www.bassiluigi.com



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