Lucchini RS Group is a leader in the design and production of high-quality rolling stock products, castings and forgings for all industrial sectors. The strength of the Group lies in its integrated production facilities, from the steel making to the finished products, in the skill of its human resources, in its knowhow and organization, wholly focused on production and assembly of every kind of forging and casting products for all customers and markets.

Lucchini RS is one of the main European manufacturers which integrates in two sites, Lucchini RS and Lucchini Mame Forge, all facilities from research and development of materials, to steel production and finished products.

Lucchini Mame Forge operates worldwide in the Steel Forgings Business and it has been created from the acquisition in 2015 of Mame Group Spa by Lucchini RS Spa.

Thanks to its commercial offices - Lucchini North America, Lucchini India and Lucchini Trade Company - Lucchini RS Group spreads its presence in the main market areas.

OUR VISION

The global and reliable Partner for the sustainable progress of mobility and industry. Passion, talent and creativity for advanced Customer-oriented solutions.
Strengths

Lucchini RS Group stands out for:

- **Worldwide presence** in highly technological sectors: Oil & Gas, Power Generation, High Tech Engineering, Shipbuilding, Cement Works
- **Fully integrated production** of high quality forgings and castings (short lead time, streamlined processes and reliability)
- R&D and engineering services to develop **customized solutions**
- **Further processing** such as final machining, cladding and surface treatment, mechanical and welding assembly.
Quality certifications

Main global reference standards
- ISO 9001
- ISO 14001
- ISO 50001
- ISO 3834-2
- ISO 9712
- ISO/IEC 17025
- OHSAS 18001
- ASME III
- NORSOK M122
- NORSOK M123

Certified by
- DNV-GL
- BUREAU VERITAS
- IIES CERT
- LLOYD’S REGISTER
- ABS
- ASME III
- RINA
- TÜV
- ACHILLES
- FPAL
- CLASSNK
R&D - Testing & Inspection

The quality of Lucchini RS products is based on its "state-of-the-art" technology of its laboratories for metallurgy and chemistry. They perform a range of tests, including mechanical property tests, chemical and environmental analyses, metallographic, macrographic and micrographic tests using optical and electronic microscopes.

The superior quality of the service offered by Lucchini RS laboratories is recognised and guaranteed by ACCREDIA, which certifies conformance with the requirements of UNI CEI EN ISO/IEC 17025.

Moreover, all materials are tested and certified in accordance with international standards and Customer’s specifications, using any combination of the following methods: UT-RT-HT-PT-MT-VT-DT.

Furthermore, Lucchini RS Group has an internal European Metallurgical Inspection Centre (EMIC) dedicated to in-service non-destructive tests.

EMIC proposes different services such as:

• Customer support for testing of new and in-service products, applying customised standards or instructions;

• Technical procedures for NDT tests on new and existing products;

• In-service overhaul of components used for the production of thermal, hydroelectric and wind power plants and equipments such as moulds for plastic and die casting.
Steel Grades portfolio
• Carbon
• Alloyed
• Stainless

Steel line
• 60 t Electric Arc Furnace (EAF) / Power 40 MVA
• 2 Ladle Furnace (LF)
• 2 Tank Degassing VD - VOD type
• Pits for bottom pouring
• ESR Plant (max weight 32 t)
• Carbon, alloyed, stainless steel
• Round, Square & Polygonal Ingots: weight from 3 t up to 85 t
• Liquid Steel for castings up to 300 t
Forging production process

1. Electric arc furnace
2. LF+VD/VOD
3. Pouring
4. Ingot
5. Heating
6. Forging
7. E.S.R.
8. Rough & Finish machining
9. Heat treatments
10. Inspection finished forgings
11. Shipment
12. Inspection finished forgings
13. Shipment
Facilities

Products
- Open Die Forgings & Tool Steels bars
- Products up to 35 t
- Ingots with max weight 60 t
- Max length of 18 m

Forging Process
- 3200/4200/6000 t Open die presses
- Manipulators, Lifting Capacity up to 60 t
- Heating Forging Furnaces, Max Capacity 150 t
- Furnaces for Hydrogen Bake-Out Up to 14 m

Heat Treatment
- Semi-automatic Heat Treatment System
- Quality Heat Treatment Furnaces
- Max length 18 m
- Quenching tanks up to 16 m

Machining
- Rough & Finishing Machining
- Vertical Lathes
- Parallel Lathes
- Extra Large Parallel Lathes
- NC Boring Machines
- Milling, Planning Machine
- Column Drill

Cladding & Surface Treatment
Forged bars

Steel grades
• Carbon steel
  (C45, LF2)
• Low-Medium-High alloy steel
  (4130/4140/4145, 8630, 4330/4340, F9, F11, F22, F91, F92)
• Stainless steel
  (410/420, 17.4/15.5 PH, F6NM, 304, 316, 347, F51, F53, F55)

Dimension
• Round bars
  From 250 mm to 1200 mm*
• Square bars
  From 250 x 250 mm to 800 x 800 mm*

Heat Treatment
• Annealing
• Quenching and Tempering
• Normalizing
• Solution Annealing
• Aging

Condition of supply
• Black as forged
  (Tolerance -0/+15 mm)
• Rough machined
  (Tolerance -0/+2-3 mm)
• Ground
  (Tolerance -0/+10 mm)

*The maximum size depends on the steel grades
Casting production process

- Electric arc furnace
- LF+VD/VOD
- Pouring up to 5 ladles (300 tons)
- Sand blasting
- Trimming & Grinding
- Sand blasting
- Final NDT & Dimensional inspection
- Rough & Finish machining
- Final conditioning
- Preliminary NDT & Dimensional inspection
- Heat treatments
- Shipment
- Final NDT & Dimensional inspection
Facilities

Products
- Net Shipped weight from 2 t to 160 t
- Advanced software for best control of melting, casting and cooling processes
- Robotized cold trimming equipment, shot and sand blasting machines for surface conditioning

Engineering & Casting Process
- Electric Arc Furnace (EAF)
- Simultaneous pouring of 5 ladles of 60 t/each of steel, moulding pit up to 12x6x4,2 m
- Sandblasting
- Trimming

Heat Treatment
- Semi-automatic Heat treatment System, transfer time <60 seconds
- Quality Heat Treatment Furnaces
- Max length 11 m
- Quenching tanks up to 6,5x8x6,5 m

Machining
- Rough & Finishing Machining
- OD Max 6 m
- Max weight 140 t
- Max length 11 m

Mechanical & Welding Assembly

Special painting

- Quality Heat Treatment Furnaces
- Max length 11 m
- Quenching tanks up to 6,5x8x6,5 m
Oil & Gas | Petrochemicals

**Forgings**
- Blow Out Preventer
- Body Valve
- Bonnet
- Christmas Tree Component
- Clamp
- Cylinder Head
- Flange
- Fluid-Ends
- Jack-Up System Pinion
- Lifting Hook
- Lower-Upper Body
- Master Valve Block
- Pile Driver Anvil
- Pile Driver Raw Weight
- Ram
- Risers-Stress Joint
- Rotary Swivel Connector
- Shear & Pipe
- Spool Body
- Stabilizer
- Wellhead

**Castings**
- Ball Valve Body
- Body
- Bottom Receptacle
- Connection Shroud
- Covers
- Expanding Gate Valve
- Gate Valve Body
- Hyperbaric Chamber Assembly (bottom / bonnet / body)
- Lifting Hook Assemblies
- Lift Point
- Offshore Assemblies
- Lift Trunnion (double slings or double grommets)
- Mooring Padeye (castings and assembly)
- Pile Driver Anvil
- Sheave
- Shutters
- Stab-In Cone (castings and assembly)
- Tendon Porch
- Transition Node
- X-Brace
Power Generation

Forgings
- Cross Head Runner
- Gas Turbine Discs
- Generator Shafts
- Hydraulic Turbine Rotors Lever
- Pelton Turbine and Wheels
- Piston Runner
- Rotor Shaft and Jack Shaft
- Trunion Runner
- Turbine Shafts

Castings
- Compressor Blade Carrier
- Distributor
- Exhaust Casing
- Francis Runner
- Gas Turbine Casing
- Hub
- Kaplan Hub
- Inner Casing
- Nuclear Pump Body
- Outer Casing
- Outer Diffusor
- Outer Shell
- Pump Body
- Pump Rotor
- Radiation Liner
- Rotary Body and Conveyor
- Valve Casing
High Tech Engineering

**Forgings**
- Cylinders
- Column
- Connecting Rod
- Cover
- Expander
- Extension
- Flange
- Heat Exchanger Plate
- High Pressure Head
- Yokes
- Y-Tee Block
- Nozzle
- Pinion
- Pipe
- Reactor Pressure Vessel
- Ring
- Shell / Tube Sheet
- Tie Rod Tube
- Work Roll (Hot/Cold Rolling)

**Castings**
- Chocks
- Crosshead
- Die Forgings Ram
- Frame For Die Forging Machine
- Ladle
- Mill Housing
- Mould Base
- Press Plate
- Press Reaction Plate
- Support Plate
Shipbuilding

Forgings
- Crank Shaft
- Intermediate Shaft
- Propeller Shaft
- Transmission Marine Product
- Rudder Shaft

Casting
- Rudder Support
- Stern Post
- Propeller Arm
- Pintle Conical Coupling
- Propeller Boss

Cement Works

Forgings
- Gear Wheel
- Gear
- Pinion
- Disc
- Joke Plate
- Gear Plate
- Kiln Support Roller Shaft Assemblies
- Thrust Roller
- Inner Head Nut

Castings
- Mill Head
- Kiln Tyre
- Roller Shaft
Tool Steels

AUTOMOTIVE

HOME APPLIANCES & WHITE GOODS

ELECTRONICS

LENSES

FOOD & BEVERAGE

MEDICAL
Mould & Tool die branded steel grades

**KEYLOS**
- Plastic moulding
  - Injection
  - Compression
  - Thermoforming
  - Extrusion
- Forged frames
  - For light alloys
  - Die-casting dies

**BEYLOS**
- Hot work
  - Close die drop forging
  - Aluminium extrusion

**KRAYLOS**
- Frames in cast condition
  - For light alloys
  - Die-casting dies

**ESKYLOS**
- Electro slag remelted steel grades
  - For light alloys
  - Die-casting dies

**Technical moulds for plastic**