SOLUTIONS

IN TUBE FORMING & WELDING

ELBOWS AND TUBE BENDS

BENDING IN ALL THREE DIMENSIONS

ONE-PIECE TUBE BENDS FOR HEATING/COOLING REGISTERS
ELBOWS AND TUBE BENDS FOR PIPING CONSTRUCTIONS
ISOMETRIC TUBE BENDS
SERIES MANUFACTURING
PNEUMATIC CONVEYANCE
PNEUMATIC POST SYSTEMS
CUSTOMIZED TUBE BENDS UP TO TUBE DIA. 406,4 (15“)

TUBETEC
ROHRVERFORMUNGSTECHNIK

Company premises, Nistertal

THE TUBE-TEC COMPANY

HIGH-QUALITY – MADE IN GERMANY

TUBE-TEC Rohrverformungstechnik GmbH is one of the world's leading companies in tube bending, tube processing and tube welding technology.

As an innovative, flexible and owner-managed family business, our customers benefit from flat hierarchies, quick decision-making and constant investment in qualified specialists, as well as the most modern machine technology and the latest production processes.

Due to our high degree of vertical integration with our own tool-making, our own sheet metal processing and the mastery of all bending processes in the cold-forming of tubes, today we have an outstanding position with our customers and partners worldwide in the fields of power plant technology, the petrochemical industry, food industry, chemical and pharmaceutical industry, apparatus manufacturing, offshore systems plant construction as well as in the field of renewable energies.

Our product range covers everything from filigree components for gas turbines to multi-ton heavy synthetic gas coolers/ industrial equipment, individual parts made to order for projects and complete ready-to-install assemblies.

BENDING COMPETENCE CENTER WESTERBURG - SAINSCHEID

On a production area of more than 1000 m² we manufacture elbows and pipe-spools made of tube up to Ø 406,4 mm.

Site, Bending competence center Westerburg-Sainscheid

TUBE BENDING TECHNOLOGY

DIFFERENT PROCESSES
FOR THE MOST DIFFERENT OF DEMANDS

Our CNC-driven modern bending machines can bend tubes from ø 10,0 mm up to ø 406.4 mm and in different wall thicknesses of up to 30 mm, depending on the material used and the bending radius.

20 years of experience in tube bending technology has given us with one of the largest and expansive pool of tools, placing us in the position to be extremely flexible and client cost-effective in the production.

MATERIALS

- Carbon steel
- Medium and high alloyed steels
- Austenitic materials
- High strength heat resistant nickel alloy
- Inconel and hasteloy groups
- Zirkonuim and titan
- Copper alloys

ELBOWS AND TUBE BENDS

up to max. tube diameter from 8,0 - 219.1 mm

APPLICATION EXAMPLES

- Industrial pipeline construction
- Pneumatic conveyance
- Granulate conveyance
- Pneumatic post systems
- Storage tank facility
- Cement conveyance
- Plant construction and apparatus construction

CUSTOMIZED TUBE BENDS

up to max. tube diameter from 101,6 - 406.4 mm

APPLICATION EXAMPLES

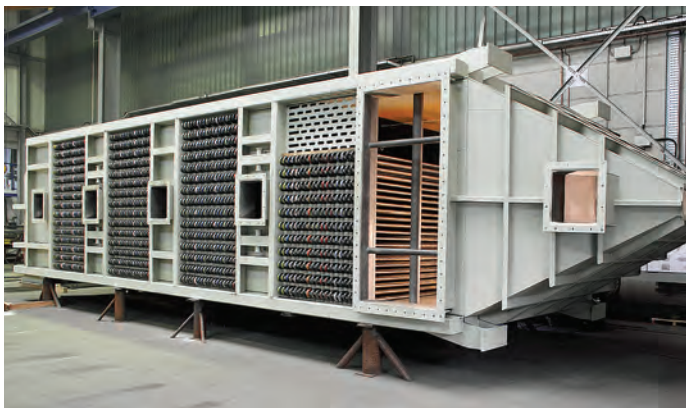
- Silo systems
- Compounding plant
- Extruders
- Conveyer plant in general

TUBE BENDS

ONE-PIECE TUBE BENDS FOR HEATING / COOLING REGISTERS

Whether in power station technology, chemical plant construction or renewable energy sector, bundles of heat-exchangers – so-called registers – they all find multi-purpose usage in the supply of process heat for deployment in industrial production companies or power stations and waste incineration plant.

In order to optimally accompany maintenance activities and service deployments of our customers for not only boiler inspections and planned standstills but also of insuring economical new constructions, TUBE-TEC has specialized in one-piece bending made of bare tubes as well as finned tubes.



ADVANTAGES

- Efficient alternative to DIN bends for registers and heating surfaces
- Optimized manufacturing costs via up to 50% reduced welded seams as well as the deployment of orbital welding processes
- Overall result is reduced effort for testing procedures, heat treatments etc.
- Simpler geometries in the fabrication
- Reduced effort involved for service “on site“
- Diameters of tube and finned tube up to 88.9 mm
- Even delivery of single-piece bended fin-tubes is possible

SERIES BENDS

ELBOWS, TUBE BENDS AND ASSEMBLIES

Welded assembly

ADVANTAGES

- Processing of all cold-bendable metals
- Outer tube diameter from 6,0 up to 406,4 mm
- Wall thickness down to 1,0 mm
- Own mechanical workshop for fittings
- As a certified welding company, we use orbital welding machines with the absolute latest welding technology
- RT and even 3D-CT testing and evaluation by external experts

Serial bends of TUBE-TEC are used e.g. in power plants for gas-turbines, recreational industry, agricultural machinery as well as in automotive industry or medical and rehab technology.

As welding experts we also manufacture complete sub-assemblies with welded fittings from our own mechanical workshop.

One-piece bends with right / left turn

One-piece bends

ELBOWS

FOR PNEUMATIC CONVEYING

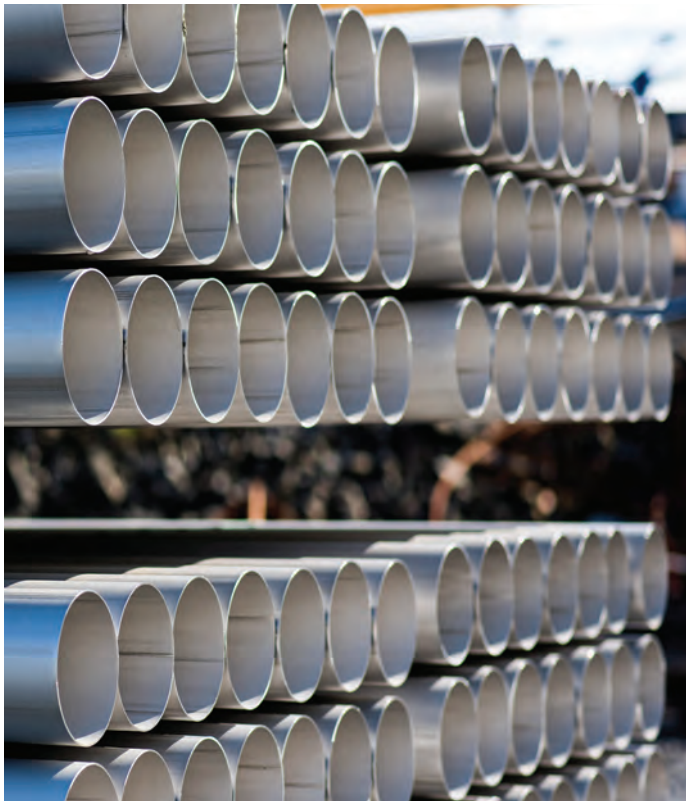
Pneumatic conveyor systems, such as for granulate, filling/ emptying silos, compounding plants and extruders, are typical examples of elbow & bend applications.

For pneumatic conveyer systems TUBE-TEC manufactures elbows and offset bends with bending radii up to 1.200 mm on up-to-date CNC tube bending machines so that even thin-walled bends stay out of wrinkles.

Excerpt from our material list:

Stainless steel e.g. 1.4301, 1.4307, 1.4541, 1.4571 as well as carbon steel or aluminium. Other dimensions, radii and materials are variable. Degree numbers up to 180°.

Straight tubes and elbows to some extent available from stock.
Please contact us!



Straight tubes in random or fix length ex stock

Elbows for conveying systems e.g. for granulate

ADVANTAGES

- Materials 1.4301/1.4307/1.4404/1.4571 and aluminium
- Outer tube diameter 38,0 – 406,4 mm wall thickness 1,5 /2,0 / 3,0 mm
- Welded seam smoothed or shaved (DIN 11 850 resp. DIN 17 457)
- Bend radii: 500 / 800 / 1.000 / 1.200 mm other material, dimensions and radii on request
- Short delivery time due to delivery direct from the manufacturer
- Straight ends each side upon and according to customers request

ELBOWS

FOR PNEUMATIC TUBE SYSTEMS
MATERIAL STAINLESS STEEL, STEEL AND ALUMINIUM

TUBE-TEC elbows are used worldwide in pneumatic tube systems of hospitals and industrial plants. We also supply the straight tubes in random lengths, on request in fixed lengths.

Tubes and elbows to some extent available from stock. Please contact us!

TUBE DIAMETER (MM)

- 80,0
- 100,0
- 104,0
- 108,0
- 110,0
- 129,0
- 154,0
- 159,0
- 204,0

RADII (MM)

- 500
- 650
- 800
- 1000
- 1200
- 1500

ADVANTAGES

- Straight ends each side upon and according to customers request
- Elbows caliber proved
- Material stainless steel, steel and aluminium
- Other material, dimensions and radii on request

ELBOWS

FOR INDUSTRIAL PLANT CONSTRUCTION

Tubes, elbows and off-set pipes for the plastics industry, building materials industry, food industry, aluminium industries and renewable energy sector.
In our tube bends and components serveral materials are feeded, e.g. agricultural products, food and feed or plastic granulates and chemicals.

Elbows for the foodstuffs industry

ADVANTAGES

- Short delivery time due to delivery direct from the manufacturer
- Outer tube diameter up to 406,4 mm
- Wall thickness 1,5-4,0 mm
- Single bends, off-set pipes, multiple bends
- Straight tubes in random lengths, on request in fixed lengths
- Straight ends each side upon and according customers request
- Materials 1.4301/1.4307/1.4404/1.4571 and aluminium
- Radii from 2,5 x tube diameter available

TUBE DIAMETER (MM)

- 104,0
- 108,0
- 114,3 (4“)
- 129,0
- 139,7
- 141,3 (5“)
- 154,0
- 156,0
- 168,3 (6“)
- 193,7
- 204,0
- 219,1(8“)
- 254,0
- 273,0 (10“)
- 306,0
- 323,9 (12“)
- 355,6 (14“)
- 406,4 (16“)

TUBE BENDS

BENDING ACC. TO ISOMETRICS

TUBE-TEC manufactures one-piece drawned multiple bends, complete pipelines and pigtails, for example for power plant technology, the oil and gas industry, petrochemical industry and industrial plants.

With the TUBE-TEC bending technology we reach a considerable reduction in the number of welds required in a system, due to increasing safety in operation and lastly a reduction in the number of locations which have to be inspected.

An optical 3D measuring system is available for the on-site measurement of pipelines.

Reduced costs by minimizing the number of welds

ADVANTAGES

- Elbows and bended tubes for pipelines made of tube from Ø 8.0 mm – up to Ø 219.1 mm (8”), radii BA3, BA 5, BA 10 and customized radii
- Consulting, planning, support by TUBE-TEC with CAD (Auto-CAD) and bending simulation programms.
- Optical 3D measurement device for measuring the tube Ø on-site, thereby reducing standstill times
- Flexibility through own workshops
- Pre-manufacturing of pipe-spools and pigtails
- Through to optimized production costs up to 50% savings on weld seams, as well as reduced costs for test procedures and heat treatments.

TUBE DIMENSIONS (MM)

- 60,3 x 2,6 - 12,0 (2“)
- 76,1 x 2,9 - 14,0 (2“)
- 88,9 x 3,2 - 17,5 (3“)
- 101,6 x 3,6 - 17,5 (3,5“)
- 114,3 x 3,6 - 30,0 (4“)
- 133,0 x 4,0 - 25,0 (4“)
- 139,7 x 4,0 - 25,0 (4“)
- 168,3 x 4,5 - 17,5 (6“)
- 219,1 x 5,0 - 8,8 (8“)

QUALITY & PROCEDURE

TUBE WELDING TECHNOLOGY

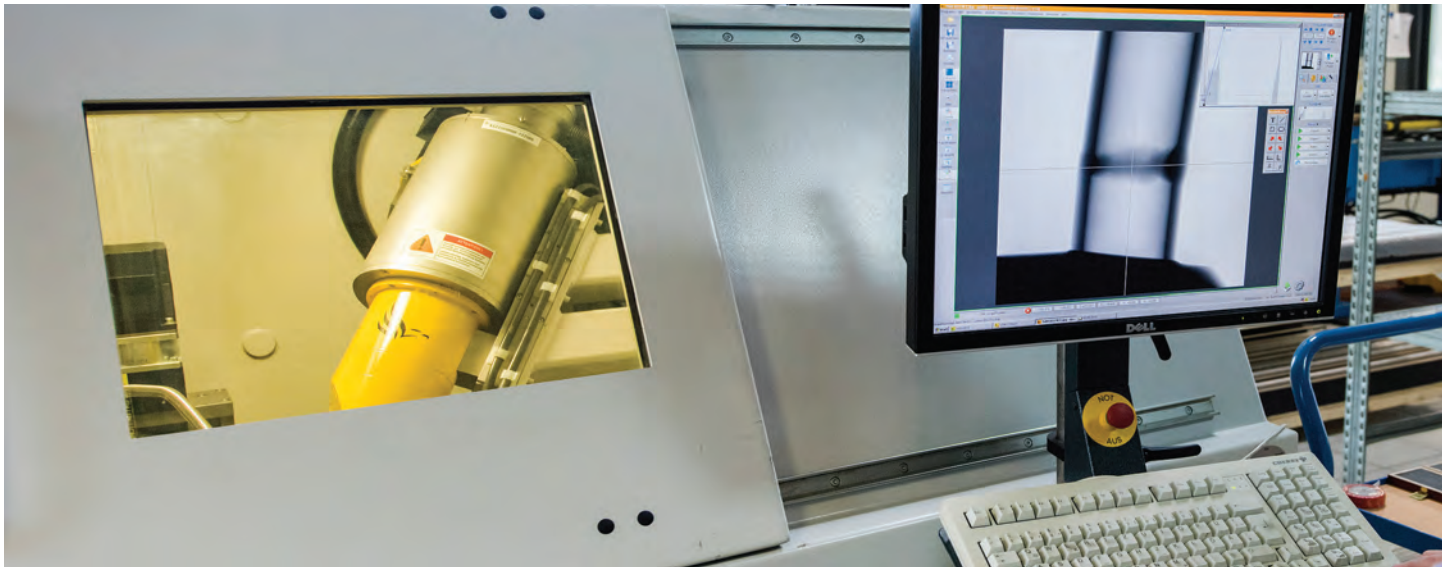
OUR WELDING PROCESS

- TIG tungsten inert gas welding (process 141 / 142)
  - with and without filler metal
  - cold wire and hot wire
  - manual, mechanised, semi-automated
- Plasma welding (process 15)
  - manual, mechanised, fully automated
- Orbital Welding (Process 141 / 142, 135 / 136)
  - with and without filler metal
  - manual and mechanised
- MAG metal active gas welding (Process 135 / 136)
  with solid wire or cored wire

The production of complex elbows and pipe bends not only requires enormous know-how in bending technology but also competence in welding technology.

In this case the requirements of the regulations (AD2000, ASME, DIN EN ISO, EAC and many more), the processing of demanding materials and the necessary heat treatments place the highest demands on a manufacturing company.

TUBE-TEC qualified therefore as a welding specialist early on and today has over 150 own qualifications WPQR according to ISO 15614-1,-2,-6,-8.



RT and CT 3D X-ray at TUBE-TEC by external service specialist

Up to 8 employees of the quality assurance department ensure that our work conforms to the regulations, which is reflected in the usual high quality of TUBE-TEC products. Here, too, we rely on a high vertical range of manufacture.

We put particular importance to carrying out as many in-house testing procedures as possible with our own certified testing personnel.
As our business partner, you are always one step ahead of the ever-changing market.

Benefit from our expertise and secure a strong partner at your side.

OUR TESTING PROCEDURES

- RT and CT 3D X-ray by external specialist
- Radiographic testing in own x-ray bunkers
- Ultrasonic testing of wall thickness
- Dye penetration inspection
- Magnetic particle testing
- Hardness testing
- Cold water pressure test
- Leak testing
- Visual, direct and indirect (endoscopy) Examination
- Ferrite content and roughness measurement
- Positive material identification (PMI)
- Dimensional inspection with optical 3D measuring method

OUR CERTIFICATIONS

- AD 2000 - HP0
- AD 2000 - W0
- ASME U, U2 + S-Stamp
- Bureau Veritas Mode II
- DGRL Materials
- DIN EN ISO 9001
- DIN EN ISO 3834-2
- EAC certification
- EN 764-5
- DNV-GL
- TÜV Austria Law on Boilers section

TUBETEC
ROHRVERFORMUNGSTECHNIK

Headquarters Nistertal

Administration / Production

TUBE-TEC
Rohrverformungstechnik GmbH

Hirtscheider Straße 13-15
57647 Nistertal
Germany

Telephone: +49 2661 9591-0
Fax: +49 2661 9591-950
www.tube-tec.de

Bending Competence Centre Sainscheid

Production

TUBE-TEC
Rohrverformungstechnik GmbH

Siemensstraße 17
56457 Westerburg-Sainscheid
Germany
www.rohrbogen-tt.de