

**Delivery program pipes prefabrication** 



# **General processing possibilities**

In addition to offering as a complete supplier with all qualities and dimensions, Salzgitter Mannesmann Stahlhandel also offers a comprehensive portfolio of prefabrication options in the pipe segment. This covers simple cutting for pipes and hollow profiles, a variety of coating options and sophisticated pipe bending We will always find a solution for you in our Salzgitter network! activities in the precision pipe segment.

Do not hesitate to contact one of our customer service teams at a location close to you even if you do not find all your needs covered on the following pages.

#### The benefits are obvious:

- · Requirement and application oriented execution of your order
- · Individual production for your needs
- · Constant and continuous Salzgitter quality
- $\cdot$  Delivery from a single source
- · Therefore avoidance of interfaces
- · Logistics, administration and order cost savings
- · Time advantage due to immediate availability for use
- · Delivery date optimization

The result is an optimal price/performance ratio as a solid basis for your calculation.

All services generated in our processing centers are subject to quality control in accordance with DIN EN ISO 9001:2008.









### Applications in steel and machine construction

Speed, reliability and technical competence are major prerequisites for a sustainable success for our customers.

It is our expectation to fulfill these prerequisites for our customer.

Partnership is most important for us. We develop efficient solutions for your requirements jointly with you - always adapted to your needs and the requirements for the respective demand.

Benefit from our comprehensive internal and external prefabrication options for a cost effective design and realization of your projects.

#### **Prefabrication options**

Delivery ready for installations of seamless and welded round pipes and steel construction hollow profiles in accordance with customer specifications.

- · Contour cuts
- · Welding seam preparation
- · Bending
- · Fixed lengths right-angled and mitered
- · Drill holes
- $\cdot$  Slits and slotted holes
- · Blasting and preservation
- · Painting
- · Signing and marking
- · Deburring
- · Machining with pipe laser





# **Processing possibilities for fire protection**

We have become a high-performance partner for our customers in the fire protection market. We offer an almost complete service portfolio with the products in our Virotec business sector.

We maintain well stocked warehouses with grooved, zinc coated and powder coated steel pipes (RAL 3000 and RAL 9010) in lengths of 6 m at our warehouse locations in Hanover and Mannheim.

# Prefabrication of sprinkler systems

- · Drilling
- · Installation of the sprinkler brackets
- · Welding of distribution lines
- $\cdot$  Sealing of fittings with sealing materials
- · Sawing
- · Grooving
- · Thread cutting
- · De-scaling
- · Conservation
- · Powder coating

The production of distribution lines with saddle clamps as well as with welded groove adapters complete the range on offer.

All services provided by us are subject to the quality standard DIN EN ISO 9001.

In accordance with your specifications/sketches/parts lists, we deliver installation-ready distribution and branch line pipes on schedule to your construction site and adapt our logistics to your individual technical requirements.







# **Processing possibilities precision steel tubes**

#### Prefabrication for all production stages

Many prefabrication options, which are adapted and expanded continuously to the changing requirements in the automotive and industrial segment, are available for individual production and ready for a smooth and direct delivery for further processing of the products in the customer's production processes.

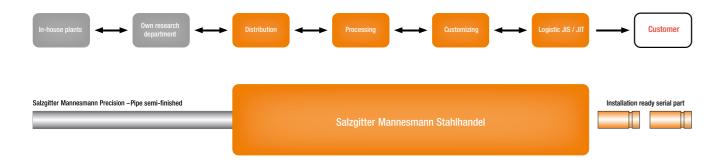
#### Performance characteristics

- · In-house prefabrication and processing centers
- · Direct access to in-depth expert prefabrication
- and further processing know how
- · State of the art systems engineering suitable for series production
- · Complete prefabrication portfolio due to established external production partnerships

### Efficient performance due to direct paths

Based on the in-house precision pipe production, material development and production, the service and delivery program of Salzgitter Mannesmann Stahlhandel is characterized by a consistently high quality that includes process stages, extensive supply safety and the largest possible flexibility when fulfilling delivery requirements.

# Example Supply-Chain: Precision steel tubes ex Salzgitter Mannesmann Precision



- Large buffer stock and reservation contingent call-up management Mülheim warehouse
- High degree of automation optimal price/performance ratio
- Top quality due to certified in-house plants and partner plants
  Development of material substitution and weight reductions by our own research department









For prefabrication and further processing, heavy-duty sawing systems are available at our in-house central warehouses and the production locations in Mülheim. Pipe cuttings in serial production can be performed here dimensionally accurate and cost effective

# Prefabrication portfolio at the Mülheim location

- · Sawing to exact lengths
- High performance RSA saws
- Brush deburring
- Accurate lengths measuring device with 100% control
- Integrated wall thickness measurement
- · Flushing without chips
- · Re-conservation

#### Performance characteristics at the Mülheim location

- · Precision cuts using state of the art systems engineering
- · Single piece production
- · Series production

Additional productions services are covered by certified, carefully selected system partners to complete the prefabrication portfolio.

### Performance characteristics prefabrication portfolio

- · State of the art production technology, qualified and experienced expert personnel
- · Time and cost savings based on single source delivery
- · Flexible combinable prefabrication modules individually for each customer

#### Material management & logistics

#### **Product range**

- Comprehensive delivery and dimension program of seamless and welded precision and stainless steel pipes for the automotive industry
- · Assumption of the complete material management
- · Scheduling, procurements, warehousing

#### **Prefabrication services**

- Many opportunities for the prefabrication of precision steel pipes
- · Analysis of make or buy scenarios through the presentation of cost/benefit ratios
- · Outsourcing of processes and company segments

# Logistics

- · High performance distribution network
- · Customer specific supply concepts for materials and prefabricated parts in assembly
- · Scalable logistics concepts
- Just-in-Time (JIT)
- Just-in-Sequence (JIS)
- Kanban concepts





# **Processing possibilities precision steel tubes**

# Seperation technology

- · Cutting
- · Shearing
- · Laser cutting
- $\cdot$  Unreel
- · Vibratory grinding

# **Processing**

- · Suck in
- $\cdot$  Expand
- · Rejuvenate
- · Compress
- · Calibrate
- Bending
- · Rotate
- · Milling
- · Emboss
- · Perforate
- ·Stamping

# Pipe end processing

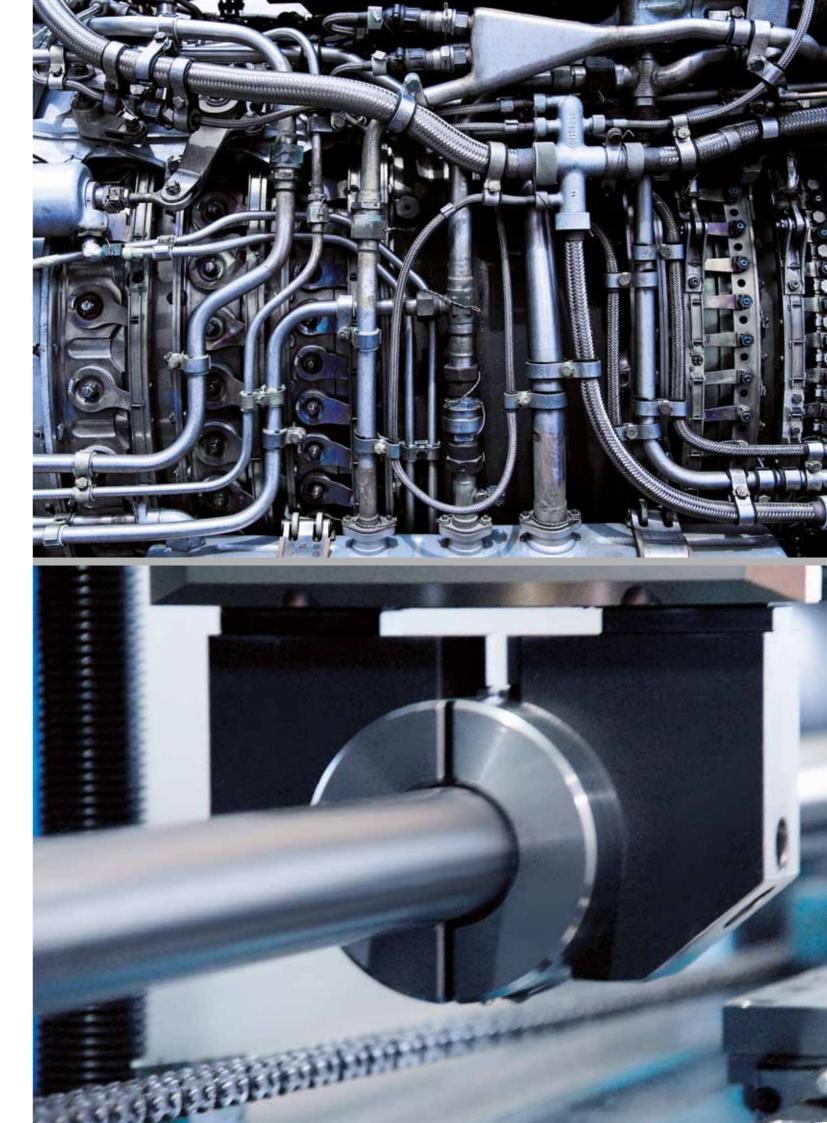
- · Unscrew the inside
- $\cdot \ \text{Pierce nut}$
- · Reshape · Deburr
- · Individual bevellers
- · Multiple bevellers
- · Turning radius
- ·Threading

# Surface coating

- · Galvanic galvanize
- · Hot dip galvanize
- · KTL Coating
- $\cdot \ \text{Powder coating}$
- · Painting

# **Heat Treatment**

- · Normalize
- · Reimburse



# **Processing possibilities precision steel tubes**

# Example - manufacture of components for individual customers

Outsourcing of the parts production for the "Housing pipe" product in accordance with customer specifications.

# Product/semi-finished goods

Substitution of welded drawn pipes in accordance with EN 10305-2 by pipes in accordance with EN 10305-3.

#### **Prefabrication service**

- · Cutting to length
- · Turning the bearing seat
- · Turning the bevels
- · Turning the plane surface
- · Surface coating

# Logistics

- · Customizing and packing in customer load carriers
- · Just-in-time delivery of the prefabricated parts to the customer's assembly line
- · Load carrier logistics

# Result

Cost reduction while simultaneously improving the surface characteristics.

#### **Example - active cost reduction**

Development consultation and support - saving potentials. Additional reinforcement automotive.

### **Initial situation**

- · Semi-finished goods: Welded rectangular pipe with subsequent heat treatment
- · The finished part is subsequently individually zinc plated

#### Solution

- · Material change to continuously zinc plated micro-alloyed steel
- · Change to flat oval pipe
- · Cutting optimization through combination fixed length

#### Result

- $\cdot$  Weight savings compared to the rectangular pipe: > 21%
- $\cdot$  No heat treatment required
- $\cdot$  No subsequent individual zinc plating required
- · Time and cost savings



Rectangular Tube

Flat Oval Tube (weight reduction: > 21%)





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