

# Group presentation

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Forging

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# 1. Group structure

## von Schaewen AG Holding

Managing board: Alexander von Schaewen, Uwe Metzger

Head office Location: Essen

### ameca von Schaewen GmbH

CEO:  
A. von Schaewen

Location: Essen-Vogelheim

Flame-Cutting, Machining,  
Welding, Trading

### SSK von Schaewen Wetter GmbH

CEO:  
A. von Schaewen, U. Metzger

Location: Wetter an der Ruhr

Forging, Quenching and  
tempering, Trading, Sawing,  
Machining

### SSK von Schaewen Hückeswagen GmbH

CEO:  
U. Metzger

Location: Hückeswagen

Forging, Quenching and  
tempering, Trading, Sawing

### von Schaewen Polska Sp. z o.o.

CEO:  
A. von Schaewen, U. Metzger

Location: PL-Swietochlowice

Machining, Welding, Shot-  
blasting and Painting

## 2. Key-Facts

Founding year: 1931  
Legal form: AG (registered shares with restricted transferability)  
Head office: Essen, Germany  
Share capital: € 18m  
Credit rating: 126 (Creditreform Risk Class I, PD Ø 0,14 %  
equals AAA (S&P))

Employees 2011: approx. 475

Turnover 2010: approx. € 120m

Turnover 2011: approx. € 145m

Export share 2011: approx. 33 %

Average inventory

on hand: approx. 70.000 to

Production area: more than 125.000 m<sup>2</sup>

Covered area: more than 72.000 m<sup>2</sup>



# 3. Business Activities

## 1. Forging

- /// 3 CNC-controlled open-die forging press (7, 20 and 30 MN)
- /// max. single piece weight 33 to (raw condition)
- /// max. applicable length 13.000 mm
- /// registered steel grade HYT 60<sup>®</sup> for valve and hydraulic engineering applications
- /// approved by all major classification societies as ABS, BV, DNV, GL, LRS, RINA amongst others

# 3. Business Activities

## 1. Forging

### Steel grades:

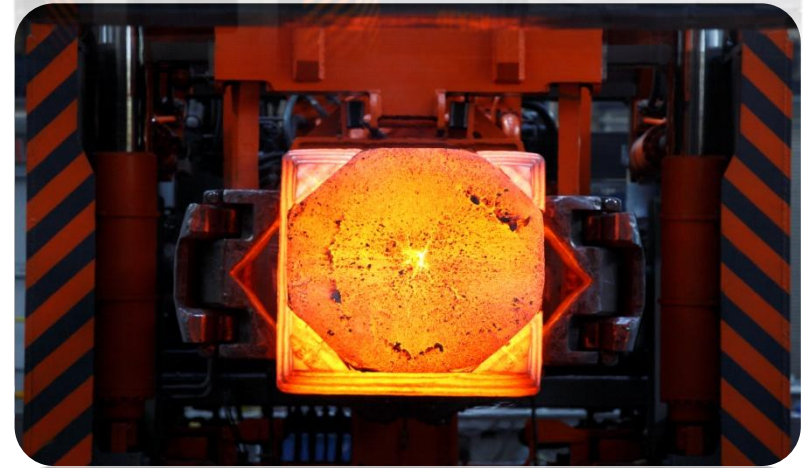
- /// boiler steel
- /// carburizing steel
- /// cold working steel
- /// duplex steel
- /// heat treatable steel
- /// hot-working steel
- /// injection molding tool steel
- /// nitriding steel
- /// special structural steel HYT 60®
- /// spring steel
- /// stainless steel
- /// structural steel



AISI, ASTM and additional grades upon request



# 3.1 Forging



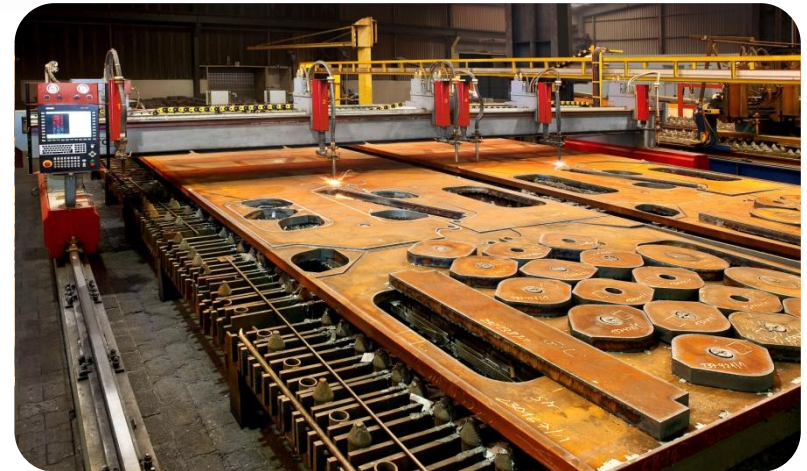
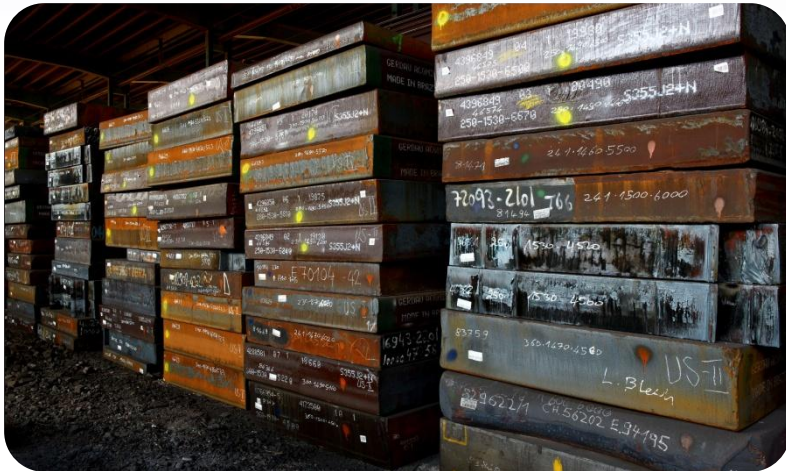
# 3. Business Activities

## 2. Flame Cutting

- /// 14 flame cutting machines (7.800 x 20.000 mm) each with up to 6 burners
- /// 2 robo-cut machines (3.000 x 6.000 mm)
- /// max. cutting depth (2D) 1.400 mm
- /// max. cutting depth (3D) including chamfer up to 600 mm
- /// max. single piece weight 65 to
- /// 1 MN straightening press



## 3.2 Flame Cutting



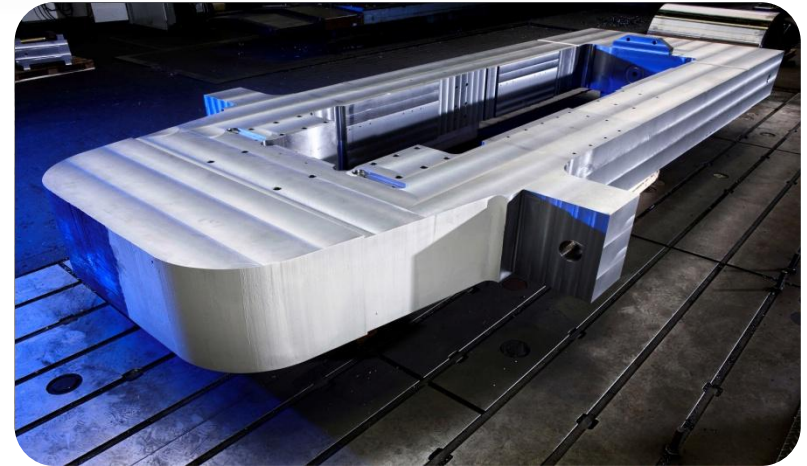
# 3. Business Activities

## 3. Machining

- /// 4 machining centres (x 3.650, y 2.250, z 1.600 mm)
- /// 4 travel stand milling machines (x 16.000, y 4.000, z 1.600 mm)
- /// 2 fixed bed-type milling machines (x 6.200, y 1.670, z 1.050 mm)
- /// 1 gantry type portal milling machine (x 7.000, y 3.400, z 1.000 mm)  
[clearance y 2.550 mm]  
[clearance z 1.500 mm]
- /// 7 portal milling machines (x 12.000, y 4.200, z 3.000 mm)
- /// 4 vertical turret lathes (x 2.920, y 2.500, z 1.000 mm)
- /// 7 centre lathes (centre height  $\varnothing$  1.020, max.  $\varnothing$  1.560,  
max. length 14.000 mm)
- /// 2 table drills (x 3.000, y 2.500, z 1.000 mm)



# 3.3 Machining





## 3.3 Machining





# 3.3 Machining



# 3. Business Activities

## 4. Welding

- /// solid wire and filler wire welding (MAG M), single-wire and double-wire submerged arc welding (UP) or manual electric arc welding (E)
- /// max. single piece weight 60 to
- /// broad range of steel grades, general construction steels, fine-grain qualities or a combination of different grades (e.g. tempering steel and general steel welded together)
- /// qualified acc. to DIN EN ISO 3834-2 (EN 729-2)
- /// qualified acc. to DIN 18800-7:2002, class E



# 3.4 Welding



# 3. Business Activities

## 5. Trading

- /// plates and slabs from 20 up to 700 mm (average inventory on hand approx. 30.000 to)
- /// engineering bar in rolled and forged carbon and alloy steel.  
Ø 170 up to. 1.300 mm
  - /// S355J2G3                    Ø 200 - 1.250 mm
  - /// C45                            Ø 200 - 1.300 mm
  - /// 25CrMo4                    Ø 170 - 450 mm
  - /// 42CrMo4                    Ø 170 - 1.250 mm
  - /// 34CrNiMo6                Ø 170 - 500 mm
  - /// 30CrNiMo8                Ø 200 - 500 mm
  - /// 18CrNiMo7-6            Ø 170 - 1.050 mm
  - /// 56NiCrMoV7            Ø 200 - 430 mm
- /// 36 horizontal bandsaws max. 1.500 x 2.000 mm or Ø 1.500 mm



# 3.5 Trading



# 4. Additional Services inhouse

## 1. Heat Treatment

- /// stress relieving, normal and soft annealing, strain hardening and ferritic-pearlitic annealing up to 13.000 mm and 30 to single piece weight
- /// quenching and tempering up to 12.600 mm and 30 to single piece weight
- /// heat treatment parameters acc. to customer demand

- /// 4 annealing furnaces (10.100 x 3.500 x 1.800 mm)
- /// 4 annealing/tempering furnaces (7.800 x 2.500 x 1.500 mm)
- /// 3 tempering furnaces (13.000 x 2.500 x 1.500 mm)
- /// 2 quenching pools (12.600 x 2.200 mm, volume 135.000 l and 9.000 x 2.200 mm, volume 100.000 l)

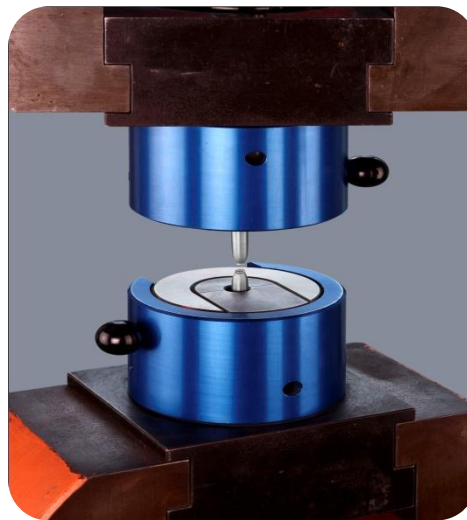
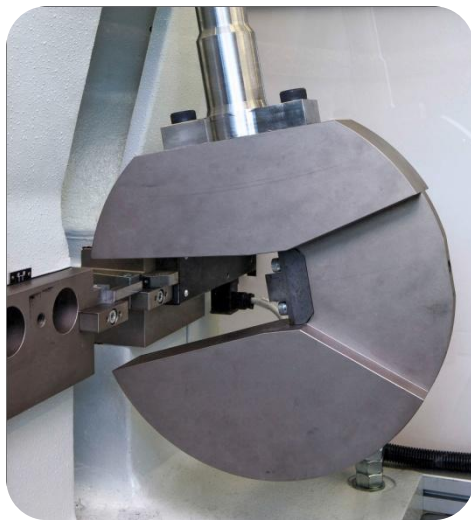




# 4. Additional Services inhouse

## 2. Certification

- /// all business units are certified acc. to DIN EN ISO 9001:2008
- /// 3.1 acc. to DIN EN 10204 test certificate by von Schaewen of German origin for all products (forgings, bars and flame cutted pieces) manufactured by von Schaewen upon request
- /// third party approved NDT – and DT-testing-facilities inhouse



# 4. Additional Services inhouse

## 2. Certification

Testing procedures inhouse:

- /// Brinell hardness test (DIN EN ISO 6506)
- /// Rockwell hardness test, procedure C (HRC) (DIN EN ISO 6508)
- /// Charpy impact test (RT down to -76°C) (DIN EN ISO 148)
- /// tensile test at RT (DIN EN ISO 6892)
- /// Leeb Hardness test (EQUOTIP) (ASTM A956-96)
- /// Jominy test (DIN EN ISO 642)
- /// cleanliness test using standard pictures (DIN EN 10247)
- /// micrographic determination of the apparent grain size (DIN EN ISO 643)
- /// dye penetrant inspection (all ISO-standards, as well as SEP 1936)
- /// magnetic particle inspection (all ISO-standards)
- /// ultrasonic inspection (all ISO-standards, as well as SEP 1921 and 1923)





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**AND WHAT CAN WE DO FOR YOU?**



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