

5.1 Forming solutions

Strip Rolling



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APPLICATION

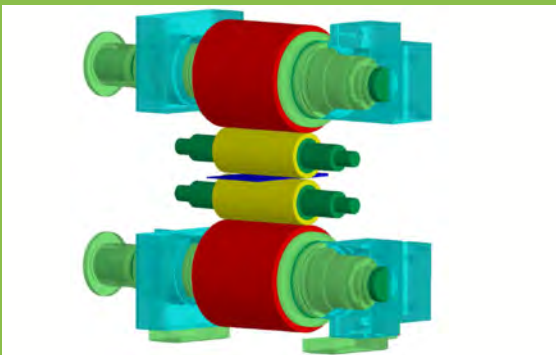
Steel Strip for Tube welding

Continuous manufacturing of longitudinal welded tubes requires incoming strip with tight thickness tolerance and defined material strength. In addition, the use of a cold mill reduces the amount of raw material as the required wall thickness can be calibrated in the rolling mill. The inline Calibration/Skin-Pass Mill allows continuous operation of a tube welding process.



PROCESS

Strip Rolling



Incoming hot or cold rolled strip is rolled in a single roll pass to required thickness and material strength:

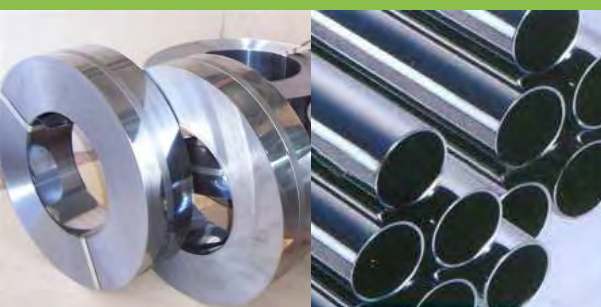
- . 4-HI configuration, fast work roll change, 20-30 min
- . Continuous operation, synchronized with process line
- . Hydraulic or servo screw-down systems
- . Contact type thickness gauge, AGC / trend- or forward-control possible
- . Main drive as single drive or as Twin Drive, with individual drive for upper & lower roll set
- . Strip width up to 250 mm possible
- . Strip thickness 0,5—10 mm
- . Roll force up to 400 tons available
- . Rolling speeds up to 150 m/min
- . Max. thickness reduction in one pass 10-15%, depending on material strength
- . Mill is integrated into tube manufacturing line; after cold rolling strip is shaped into a tube and welded

LAYOUT



PRODUCT

Strip for Welded Tubes



Reference mill specifications:

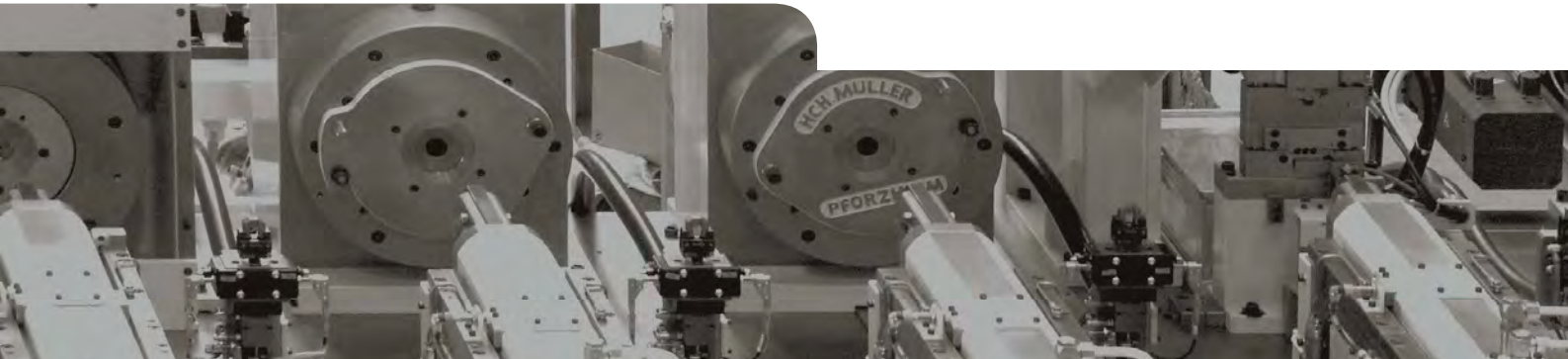
- . C-steel, width 35-130 mm
- . Inlet thickness 0,9—5,5 mm
- . Outlet thickness 0,75—4,80 mm
- . Finish thickness tolerance +/- 20 µ at 2 mm
- . 4-HI backup roll 265mm, work roll 120 mm x 250 face
- . Roll force max. 100 tons
- . Rolling speed 120 m/min
- . Contact gauge, AGC / trend control
- . Dancer control, squeegee rolls
- . Servo driven screw-down
- . Hydraulic roll change system



Forming solutions by HMP, Germany



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ROTARY SWAGING



AXIAL FORMING



DRAWING



ROLLING

FORMING WITH CONCEPT

HMP is an established integrated solution supplier and technology leader due to its well engineered experience in the international markets.

For many different project applications HMP creates flexible and economical solutions. The realization of forming processes with Net Shape requirement and short process chains has been our business for 100 years.

We supply components ready to be installed, forming machines and complete production systems of highest quality.

DEMANDING SOLUTIONS

Satisfied customers in numerous industries confirm the success of our achievements.

Thus our customers profit from our expertise going back many years, for example in:

- . Automotive industry
 - . Aircraft industry
 - . Optical industry
 - . Medical technology
 - . Jewelry industry
 - . Wire & cable industry
 - . Textile industry
- and in many other industries.

SUCCESSFUL TRADITION

In order to satisfy demanding market requirements, we offer as group an extensive spectrum of expertise to you.

HMP Maschinenfabrik: Innovative development, construction and production of high performance forming machines and systems for various production processes: Rotary swaging, Axial Forming, Rolling, Drawing

HMP Umformtechnik: Development and realization of innovative processes through efficient production of small and large workpieces, simultaneous engineering, flexible prototype manufacturing, high quality forming dies

MECHANICAL ENGINEERING IN PERFECTION

The machine segment is our core business. Our main target is it to manufacture for our customers machines of superior quality. We are aiming at achieving utilization at the highest possible level and keeping the running cost as low as possible. Therefore we invest a major amount of time into the selection of functional components and realize technical solutions which exactly suit the high quality requirements of our customers.

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