

02 Forming solutions

Profile Wire

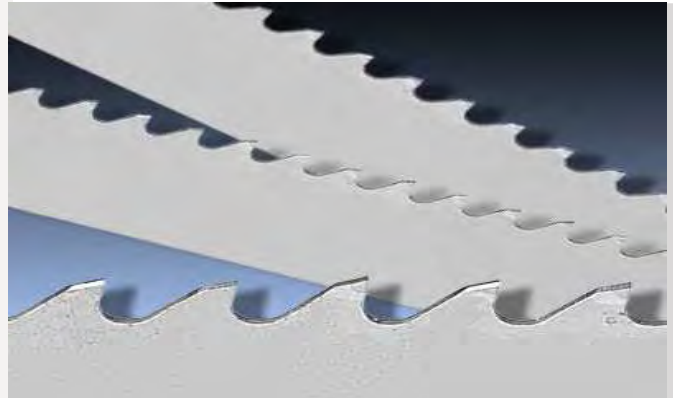


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APPLICATION

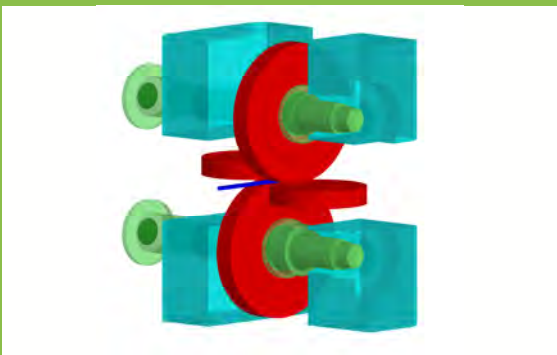
HSS Profile Wire

Flat Wire Profiles from HSS High Speed Steel are used for manufacturing of saw blades, in band saw and hack saw blades. The small HSS wire is welded to a spring steel strip, creating a bimetallic product. The HSS tip is then cut and sharpened to create the hard teeth of the saw blades. By this the use of HSS can be minimized. Essential is a HSS profile wire with very small corner radii.



PROCESS

Profile Wire Rolling Mill



Incoming pre-drawn round HSS High Speed Steel Wire is profile rolled to a square or rectangular shape in a series of roll stands:

- Pay off for spools, max. 500 kg
- Servo dancer / accumulator control mode
- 1x 2-HI roll stand, 120 mm roll Ø
- 2x Turks head roll stands, 160 mm Ø driven main rolls, 105 mm non-driven side rolls.
- Fast roll change system, tungsten carbide rolls
- Servo-adjustment of thickness and width
- Twin main drive for reduction of roll wear
- Twin servo screw-down
- Contact thickness & width gauge at roll stand 3, optional gauge at stand 2, AGC gauge control
- Layer winding take up, min. 10 kg / max. 500 kg
- Fine filtration system for enhanced roll life
- Rolling speed max. 600 m/min

DETAILS



PAY-OFF

DANCER

2-HI STAND

OPERATOR SIDE

TURKS HEAD

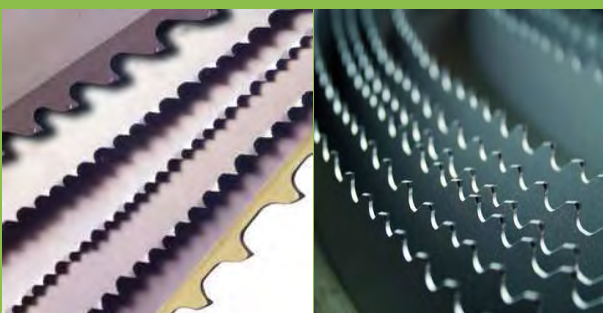
THICKNESS & WIDTH GAUGE

TAKE-UP

CONTROL PANEL

PRODUCT

Bimetal Saw Blade



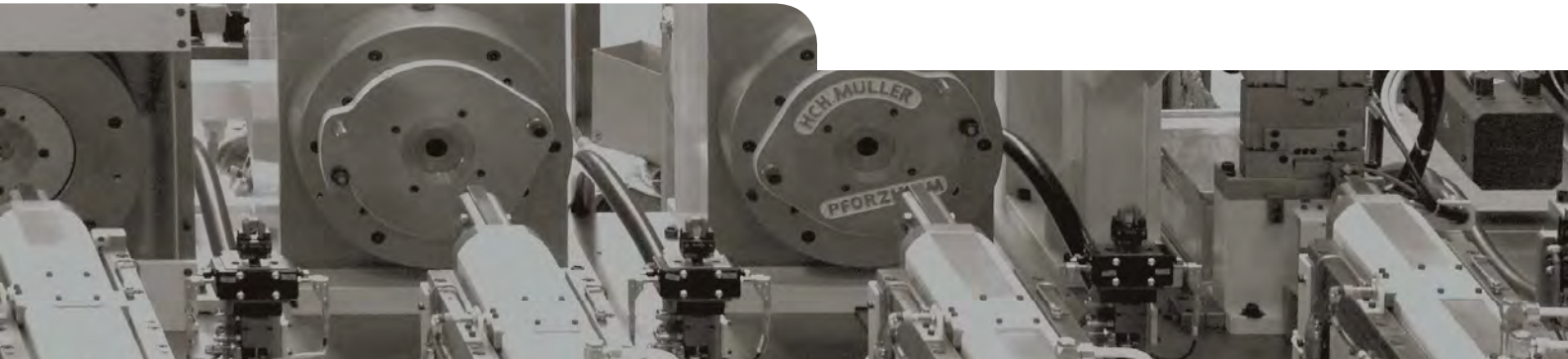
- HSS High Speed Steel, Matrix, M42 and others
- Inlet wire Ø 0,50—3,50 mm
- Edge wire min. 0,50 x 0,50 mm, max. 3,5 x 3,0 mm
- Thickness-width ratio from square to 1:2
- Corner radii from min 50 µm to 120 µm
- Thickness tolerance +/- 3 µm, width tolerance +/- 7 µm
- Ultrafine filtration system, 3-5 µm
- Optimized air wipe, effective oil removal at high speed
- Optional inline profile measurement system
- Fully automated system, SPC quality control
- Exit product has defined final strength, no additional heat treatment required
- High production capacity with constant quality



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.

HMP Heinrich Müller Maschinenfabrik GmbH, Goepfinger Strasse 3, D-75179 Pforzheim, Germany
Phone +49 7231 3199 0, Fax: +49 7231 3199 11, info@hmp.com, www.hmp.com

HMP Umformtechnik GmbH, Goepfinger Strasse 3, D-75179 Pforzheim, Germany
Phone +49 7231 3199 900, Fax: +49 7231 3199 99, info@hmp.com, www.hmp.com

