




PRECISION STRIP

New since 1701
Zapp Precision Metals GmbH

ZAPP





The illustrations, drawings, dimensional and weight data and other information included in this brochure are intended only for the purposes of describing our products and represent non-binding average values. They do not constitute quality data, nor can they be used as the basis for any guarantee of quality or durability. The applications presented serve only as illustrations and can be construed neither as quality data nor as a guarantee in relation to the suitability of the material. This cannot substitute for comprehensive consultation on the selection of our products and on their use in a specific application. The brochure is not subject to change control.

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PRECISION STRIP

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ZAPP: FROM PAST GENERATIONS – FOR FUTURE GENERATIONS

300 years of Zapp. In 1701 in Runderoth, Germany, Hermann Zapp founded the company, which quickly became a specialist for high-grade, and high-performance steels. We deliver quickly and reliably thanks to a large network of selected sales partners and our own locations in Europe, Asia, and the US. With our experience and expertise, we ensure that you can turn your ideas into reality. From past generations – for future generations! We are your partner for your projects and can carry out the first manufacturing steps, such as cutting and straightening, prior to delivery. This allows you to fully concentrate on the core processes of your production. We supply the right product form for your specific needs: wire, bar, profile, tube, strip, dental discs, and more from stainless steel, titanium materials, nickel, and CoCr based alloys or metal powders. The quest for innovation, intensive quality assurance and the willingness to solve complicated technical problems are our driving forces.

For 300 years, progress has helped us build a future with you for the next generations.

FAR BEYOND STANDARD

As complex as your application is, that's how diverse and varied our production possibilities are. You define the product properties, and we provide them with a variety of processing and finishing options, just as you need them.

OUR STANDARD

Precise, flat, reliable.

OUR VISION

Only those moving forward remain at the top. Whether it is automotive, electronics, or medical technology – together we ensure that our lives and those of the next generations become simpler, better and safer.

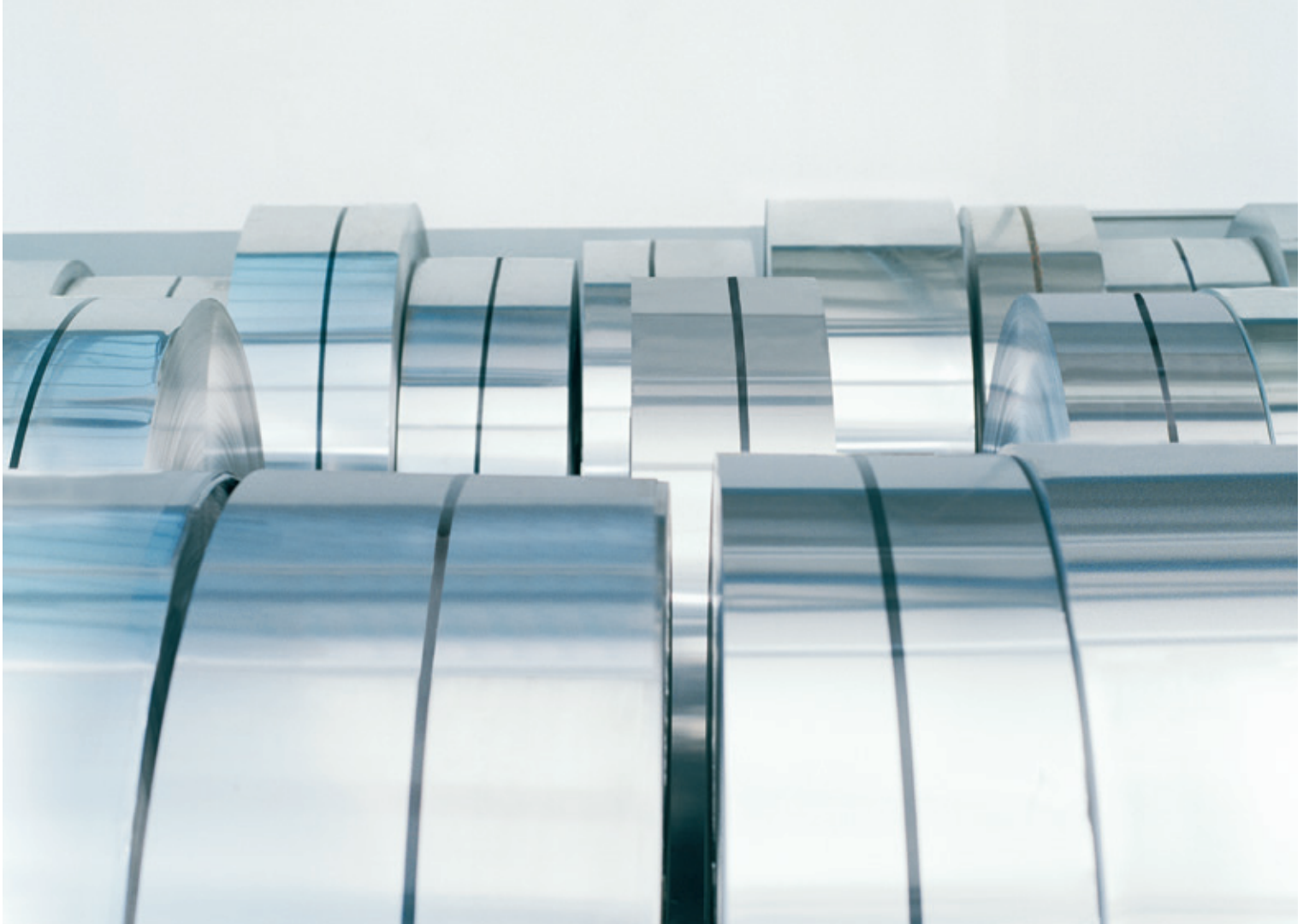
PROCESS-RELIABLE MATERIAL – HIGH REPRODUCIBILITY

Only those who supply consistent product quality create a basis for smooth production. We focus on cold forming and thermal treatment. In order to constantly offer you the best materials, we obtain our material worldwide, from premium manufacturers, and finish it according to your needs.

PROCESS-RELIABLE MATERIAL

- _ Closest dimensional tolerances
- _ Highest product homogeneity
- _ Optimized analysis
- _ Individual security of supply

Our state-of-the-art machines produce application-specific surfaces. With offices in Europe, North America, and Asia, we are close to you.



»The tasks of my customers satisfy my curiosity.«

»Since 2015, I have encountered exciting challenges from our customers at Zapp. With our development and quality team, we engineer precision strip products – and the corresponding processes for their production. We work closely together with the production and other colleagues at the location here. The customer and the application always come first. During the initial discussions, we try to define the right material, the best design, and all other characteristics with our customers in order to not only make the best selection for the end application, but also for the processability of further production steps. For all our decisions, we strive with customers to find the right balance of quality, environmental considerations, safety and cost.

I am very happy to be at Zapp. My curiosity is always awoken by the tasks brought to us by our customers. I can proudly claim that at Zapp, we are working on tomorrow's future technologies.«

DR. ARAZ BARANI, MANAGER DEVELOPMENT & QUALITY
PRECISION STRIP, UNNA LOCATION



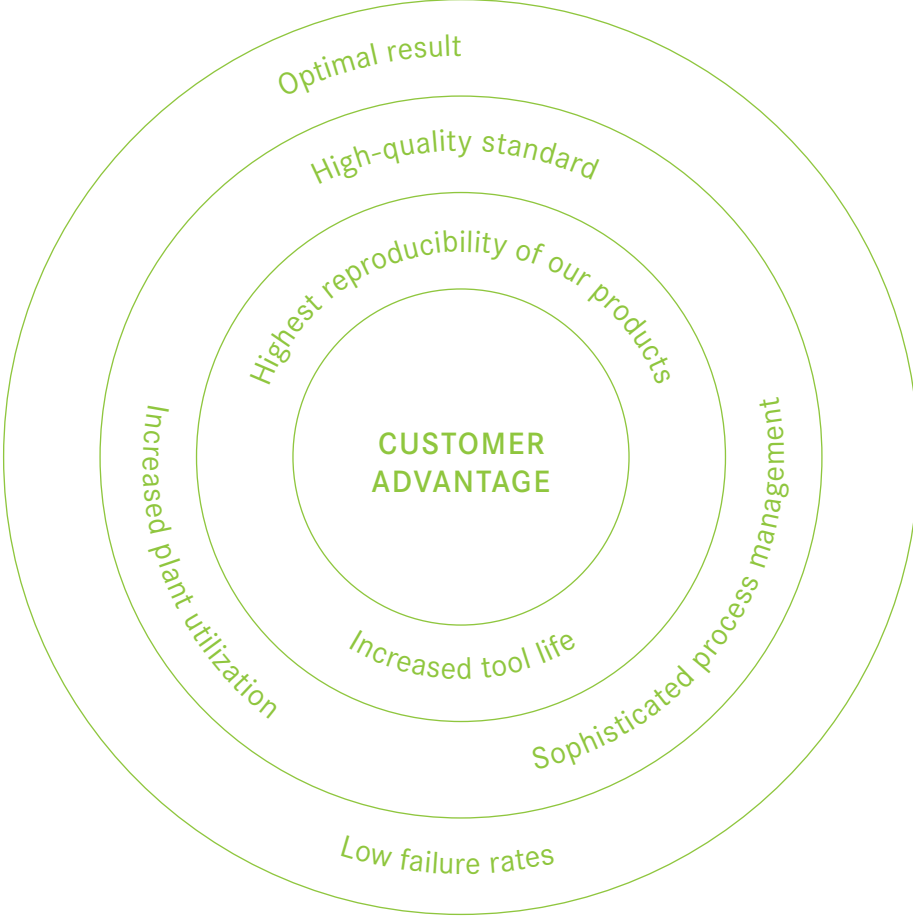
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HOW YOUR PRODUCTION BENEFITS FROM OUR PRODUCTS



»My goal: customer satisfaction
worldwide.«

»I organize the fastest, most reliable and cost-efficient
way of worldwide transportation for you. Your satisfac-
tion is important to me.«

MECHTHILD PITZKE, LOGISTICS
PRECISION STRIP, UNNA LOCATION



»I care for the absolute precision of
your strip.«

»I've been with Zapp since 2006 and have completed my training on the old twenty-roller rolling mill. During this time, much of the rolling was done by »touch and feel«. With the help of the latest-generation twenty-roller rolling mill, I am now able to achieve thickness tolerances in the micron range. Due to the variety of control instruments and visual displays, I always have the quality of the strip under control. With this mill, rolling is more like navigating a spaceship than operating a steam locomotive.«

VELI ALACAM, MILL OPERATOR
PRECISION STRIP, UNNA LOCATION



PRECISION STRIPS WITH CLOSEST TOLERANCES

Our tolerances are smaller, both in terms of mechanical and geometrical properties. In addition, we offer an unusually wide range of materials, strengths, dimensions, and surfaces – from soft to full-hard or hardened and tempered versions as narrow or wide strip.

Our range of materials includes selected carbon-steels; stainless steels; as well as nickel based, titanium, and other special alloys. The exceptional dimension spectrum covers widths from 2 to 1,066 mm and thicknesses from 0.05 to 2.0 mm. Please request our technical information material or our surface catalogue.

PRODUCTION, RANGE OF PRODUCTS, PRECISION STRIP, STANDARDS, AND CUSTOM-MADE PRODUCTS

Standards	Additional Zapp capabilities
Delivery performances, conditions, surfaces	
Annealed, cold-reduced according to DIN EN 10088-2, spring hard according to DIN EN 10151, hardened and tempered according to DIN EN 10088-2	Closer abided mechanical and technological properties; hardness on request; oxide reduced, degreased, stress relieved; defined roughness; dull rolled, bright rolled and polished; brushed, crystal (shot blasted), satin (spark eroded); foil coated (color marked); lacquered or galvanized coated, roll-bonding claddings
Size tolerances	
DIN EN ISO 9445	DIN EN ISO 9445 P, closer tolerances on request
Deviation from straightness	
DIN EN ISO 9445	DIN EN ISO 9445 R, closer tolerances on request
Flatness	
DIN EN ISO 9445	DIN EN ISO 9445, closer tolerances on request
Edge finishes	
Mill edges, slit	Reduced burr, deburred, rolled, chamfered, rounded
Forms of delivery	
Coils up to 8 kg/mm strip width, up to 16 kg upon consultation Inner diameter of coil 300/400/500 mm, multicoil	Coils with special inner diameters upon agreement; Coils up to 500 kg (spooled on reels, welded): 0.05 to 2.0 mm thickness; 5 to 25 mm width; Strips and sheets in fixed lengths upon agreement 0.05 to 0.60 mm thickness; ≤ 1,066 mm width Or 0.05 to 3.0 mm thickness ≤ 450 mm width Other dimensions available on request

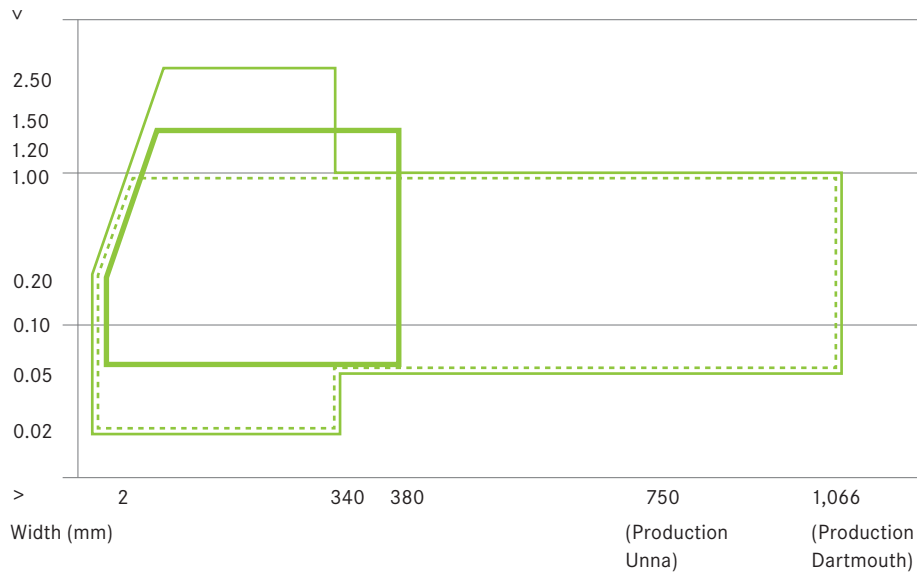


RANGE OF DIMENSIONS

SIZE RANGE FOR STAINLESS STEEL GRADES

Mill edge condition, thickness-/tensile ratio on request

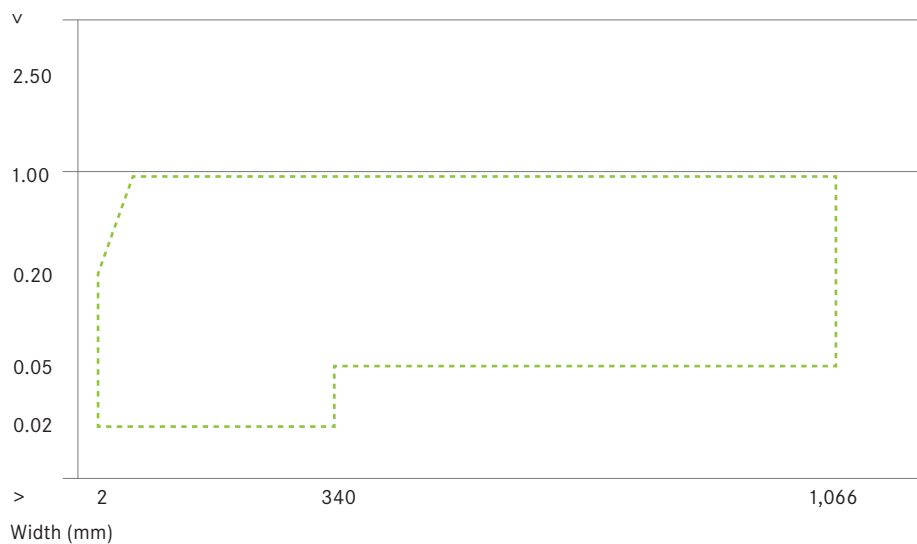
Thickness (mm)



SIZE RANGE FOR HIGH NICKEL ALLOYS AND TITANIUM

Mill edge condition, thickness-/tensile ratio on request

Thickness (mm)



- hardened, tempered
- temper rolled
- - - cold rolled, bright annealed

»I ensure that you can process the strip
we are producing consistently!«

»Using our so called SR systems, I can ‘iron out’ possible
deviations in the material curvature and straightness.
Here I use a high degree of subtlety and experience. The
result must always be perfect.«

GIOVANNI FLORIDIA, PLANT OPERATOR SR
PRECISION STRIP, UNNA LOCATION



SELECTION OF MATERIALS

ZAPP BRAND NAME ¹⁾	EN DIN	AISI	UNS	OTHER DESIGNATIONS/ BRAND NAMES
Stainless steels				
Ferritic				
Ergste 1.4016IM*	1.4016	430	S43000	X6Cr17
Ergste 1.4113IL*	1.4113	434	S43400	X6CrMo17-1
Ergste 1.4510IT	1.4510	430Ti	S43036	X3CrTi17
Ergste 1.4521IS	1.4521	444	S44400	X2CrMoTi18-2
Martensitic				
Westig 1.1274QA	1.1274	1095	G1095	C100S
Westig 1.2067EX	1.2067	52100	T61203	102Cr6
Westig 1.2018EA	1.2018	-	-	95Cr1
Westig 1.4006YH	1.4006	410	S41000	X12Cr13
Westig 1.4021YB, YC*	1.4021	420	S42000	X20Cr13
Westig 1.4028YA, YB, MO*	1.4028	420F	S42020	X30Cr13
Westig 1.4034YD*	1.4034	420	S42000	X46Cr13
Westig 1.4037YR	1.4037	420	-	X65Cr13
Westig 1.4122YL*	1.4122	-	-	X39CrMo17-1
Austenitic				
Ergste 1.3912DA/DE	1.3912	36	K93600	Ni36
Ergste 1.4301PA*	1.4301	304	S30400	X5CrNi18-10
Ergste 1.4303ST*	1.4303	305	S30500	X4CrNi18-12
Ergste 1.4306LA*	1.4306	304L	S30403	X2CrNi19-11
Ergste 1.4310FC, FF, FM, FS*	1.4310	301, 302	S30100, S30200	X10CrNi18-8
Ergste 1.4372	1.4372	T201	S20100	X12CrMnNi17-7-5
Ergste 1.4401PC*	1.4401	316	S31600	X5CrNiMo17-12-2
Ergste 1.4404LA*	1.4404	316L	S31603	X2CrNiMo17-12-2
Ergste 1.4435LA	1.4435	316L	S31603	X2CrNiMo18-14-3
Ergste 1.4439LN	1.4439	317LMN	S32726	X2CrNiMoN17-13-5
Ergste 1.4441LA*	1.4441	316LVM, F138/F139	S31673	X2CrNiMo 18-15-3
Ergste 1.4539	1.4539	904L	N08904	X1NiCrMoCu25-20-5
Ergste 1.4541TA, TW	1.4541	321	S32100	X6CrNiTi18-10
Ergste 1.4550	1.4550	347	S34700	X6CrNiNb18-10
Ergste 1.4571TB, TW*	1.4571	316Ti	S31635	X6CrNiMoTi17-12-2
Ergste 1.4828ZA	1.4828	309	S30900	X15CrNiSi20-12
Ergste 1.4833	1.4833	309S	S30908	X12CrNi23-13
Ergste 1.4841ZA	1.4841	314	S31000	X15CrNiSi25-20
Ergste 1.4845ZA*	1.4845	310S	S31008	X8CrNi25-21
Ergste 1.4876	1.4876	B163, Alloy 800	N08800	X10NiCrAlTi32-21

¹⁾ Ergste, Ergitan, Ergiloy, and Westig are registered trademarks of Zapp AG.
Selected carbon steels upon request.

We are pleased to receive your inquiries according to JIS and GOST.

* Raw material on stock

»My customers and the teamwork with my colleagues are paramount.«

»What I like about my job is working with customers. The diversity of the possibilities for the use of our strip continues to fascinate me. At Zapp, I can develop continuously through intensive training. We're a really good team!«

SABINE WALTER, ACCOUNT MANAGER SALES
PRECISION STRIP, UNNA LOCATION



SELECTION OF MATERIALS

ZAPP BRAND NAME ¹⁾	EN DIN	AISI	UNS	OTHER DESIGNATIONS/ BRAND NAMES
Nickel/nickel base alloys				
Ergiloy 2.4068*	2.4068	Alloy 201	N02201	LC-Ni99
Ergiloy 2.4360*	2.4360	Alloy 400	N04400	NiCu30Fe
Ergiloy 2.4816*	2.4816	Alloy 600	N06600	NiCr15Fe
Ergiloy 2.4851*	2.4851	Alloy 601	N06601	NiCr23Fe
Ergiloy 2.4856*	2.4856	Alloy 625	N06625	NiCr22Mo9Nb
Ergiloy 2.4668*	2.4668	Alloy 718	N07718	NiCr19Fe19Nb5Mo3
Ergiloy 2.4669	2.4669	Alloy X-750	N07750	NiCr15Fe7TiAl
Ergiloy 2.4819*	2.4819	Alloy C-276	N10276	NiMo16Cr15W
Ergiloy 2.4665	2.4665	Alloy X	N06002	NiCr22Fe18Mo
Titanium/titanium base alloys				
Ergitan 3.7025*	3.7025	Ti Grade 1	R50250	-
Ergitan 3.7035	3.7035	Ti Grade 2	R50400	-
Ergitan 3.7065	3.7065	Ti Grade 4	R50700	-
Grade 9		Ti Grade 9	R56320	-
Precipitation hardening stainless steels				
Ergste 1.4457	1.4457	633	S35000	X8CrNiMo17-5-3
Ergste 1.4568GA*	1.4568	631	S17700	X7CrNiAl17-7
Ergste 1.4980	1.4980	660	S66286	X6NiCrTiMoVB25-15-2

¹⁾ Ergste, Ergitan, Ergiloy, and Westig are registered trademarks of Zapp AG.
 Selected carbon steels upon request.
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 * Raw material on stock

»I am your voice in our plant.«

»For over 30 years, I have been taking care of your orders and ensuring that you are well supplied with material. This is supported by our modern SAP system, which guarantees us both that no information gets lost. I always have an ear for your questions and requests, and I like being your voice in our plant. The team spirit among my colleagues has been a source of pleasure for many years, and this is the basis for a trusting cooperation.«

NICOLE BREULMANN, INSIDE SALES
PRECISION STRIP, UNNA LOCATION



»Industry 4.0.«

»Since my start at Zapp in 1998, there have been many interesting tasks over the years at the company's world-wide locations. Today, together with the management team, we are adapting our production for the technical requirements of the coming years with the aid of a modern production system and the concepts of Industry 4.0. It is an exciting job and a great feeling to be part of a well-trained and motivated team that is working with commitment, enthusiasm, and fun – and together with you, our customers – on new specialist application segments.«

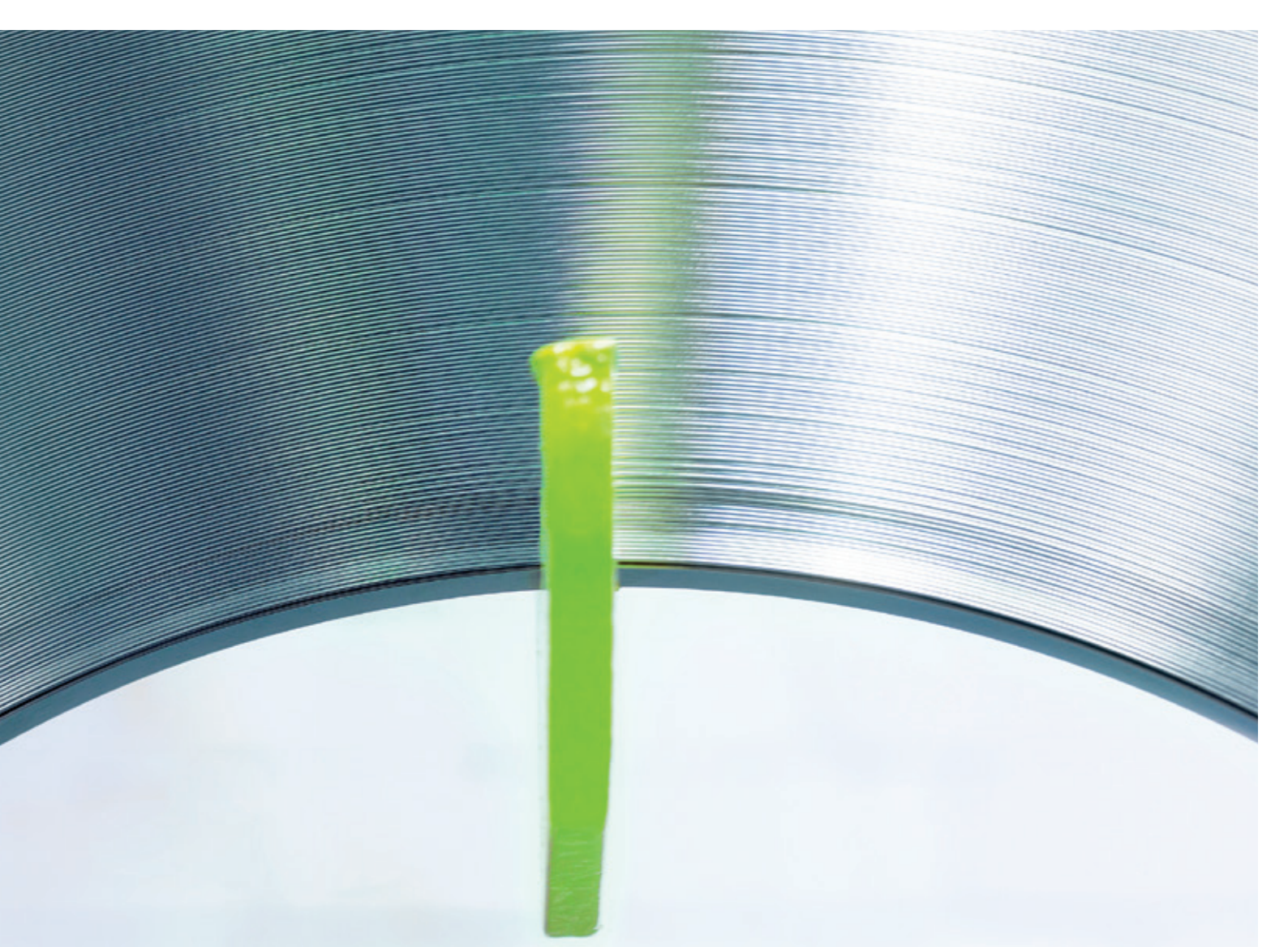
EDO OLLERMANN, MANAGING DIRECTOR
ZAPP PRECISION METALS GMBH, UNNA LOCATION

Rolling mill in Unna





ZAPP CERTIFICATIONS AND ACCREDITATIONS



ISO 9001

FOR THE ZAPP GROUP

ISO 50001

FOR THE ZAPP GROUP GERMANY

ISO TS 16949

FOR AUTOMOTIVE APPLICATIONS
PRECISION STRIP GERMANY

AS 9100

FOR AERONAUTICAL APPLICATIONS
PRECISION STRIP, INC. U.S.A.

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PRESSURE CONTAINER PRECISION STRIP
GERMANY AND U.S.A.

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