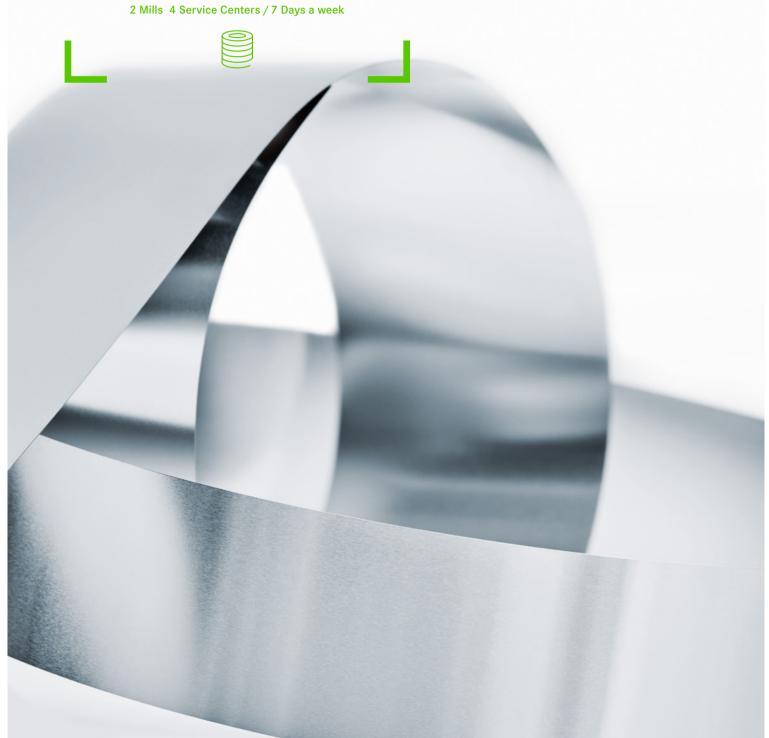
Zapp





precise.

consistent.

reliable.

YOUR WISH IS OUR MISSION.

0203

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>300 YEARS

> 15 LOCATIONS

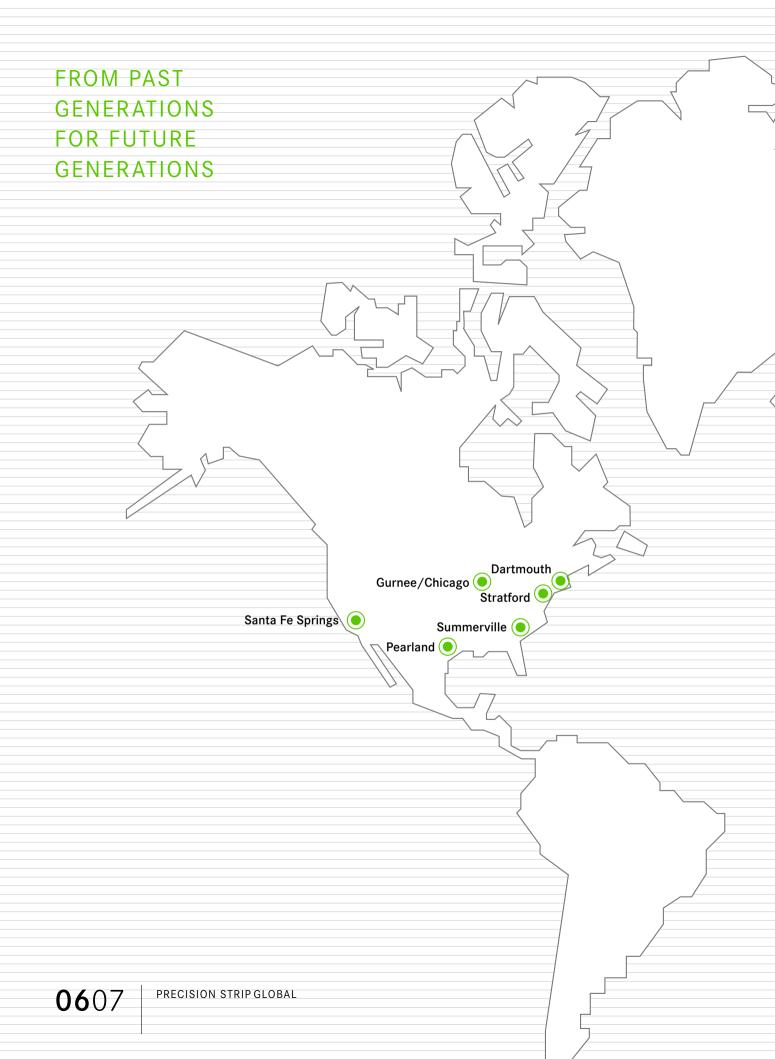
1,300 EMPLOYEES

500 M USD SALES

SOLUTIONS

0405 PRECISION STRIP GLOBAL







We are here

Unna / 228 Employees Strip, Service Center Europe and Tooling Alloys

> Dartmouth / 51 Employees Strip

Service Center Stratford / 21 Employees Strip

Service Center Santa Fe Springs / 14 Employees Strip

Service Center Taicang / 27 Employees Strip, Wire, Bar, Profile, Specialty Materials, Tooling Alloys

Sales Office Pune / 2 Employees Strip, Wire, Bar, Profile, Tooling Alloys, Specialty Materials

Summerville / 65 Employees Wire, Bar, Profile, Sales Tooling Alloys

Schwerte / 520 Employees Wire, Bar, Profile, Service Center Specialty Materials

> Ratingen / 70 Employees Sales Specialty Materials, Tooling Alloys

> > Pforzheim / 80 Employees Profiles, Components

Service Center Sheffield / 8 Employees Wire, Bar, Profile

Service Center Gurnee / 9 Employees Tooling Alloys

Service Center Pearland / 12 Employees Wire, Profile

Sales Office Hong Kong / 5 Employees Profile

> Sandviken / 145 Employees Wire, Bar, Profile

Over 300 years of Zapp

In **1701** in the village of Ründeroth, Germany, Hermann Zapp founded our company, which quickly became a specialist for **high-grade**, and **high performance** steels. Today, thanks to our global network of production, service centers and distribution sites we deliver our precision products **quickly** and **reliably** to our customers wherever they are in the world.

With our **experience** and expertise, we can help turn your ideas into reality. As a loyal partner, we can **support** you with both existing business as well as new projects.

The wider Zapp Group can supply you with the right product form for your specific needs: **strip**, wire, bar, profile, tube, CAD-CAM discs, and more from stainless steel, titanium materials, nickel, and CoCr based alloys or metal powders.

For over 300 years, we have continually **invested** in our people, technology and product portfolio. This progress has helped us to build a future for many more generations to come.



Zapp Precision Metals GmbH

GERMAN ROLLING MILL UNNA, NRW

Stainless steel (ferritic, austenitic and martensitic) and nickel alloys.

A combination of world class rolling and finishing operations helps Zapp Precision Strip GmbH produce products with the tightest tolerances in respect of dimensional, shape and mechanical properties.

Specialties

- _ Ultra thin foils, down to a thickness of 0.0008"/ 0.020 mm
- _ Special heat treated products (tension annealed, super stress relieved)
- _ Ultra high strength strip (>2,000 MPa/290,000 Psi)
- _ Hardened and tempered martenisitic strip
- _Special surface conditions





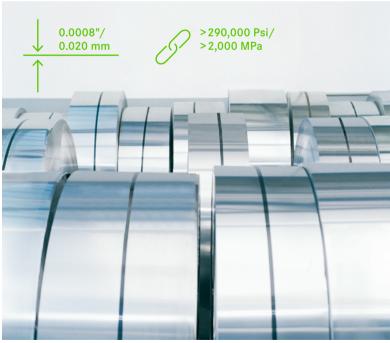
Founded: 1991 (new mill 2013) Employees: 228 Floor space: 979,516 sq/ft (91,000 m²)

Made in Germany

Size range for Unna products

Mill edge condition, thickness-/tensile ratio on request





U.S.A. ROLLING MILL **DARTMOUTH**, MASSACHUSETTS

A wide range of stainless steel, nickel alloy and titanium strip.

As a thin strip specialist, Zapp Precision Strip Inc. provides its customers with comprehensive solutions for difficult to source thin metal precision strip.

Specialties

- _ Strip products in both thin thicknesses and wide widths
- _ Aerospace accredited products endorsed by industry and customer certifications
- _ Soft annealed to full hard (high yield) conditions
- Experienced and technically competent staff available for customer support
- Reliable logistics and program management service solutions
- _ Premium offerings of nickel and titanium grades



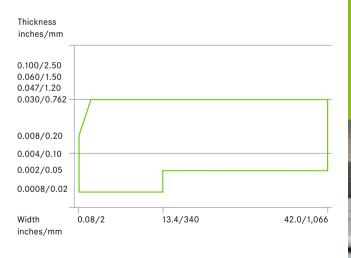


Founded: 1999 Employees: 51 Floor space: 50,000 sq/ft (~4,650 m²)

Made in U.S.A.

Size range for Dartmouth products

Mill edge condition, thickness-/tensile ratio on request





Our specialty

temper rolled, bright annealed

Zapp Precision Strip, Inc.

STRATFORD, CONNECTICUT, U.S.A. EAST COAST SERVICE CENTER

Specialties

- _ Slitting
- Traverse winding (reel sizes from 10 lbs to 1,000 lbs/ ~450 kg) using high-quality in-line laser welding.
- _Edge profiling/deburring
- _Quick delivery turn-around
- _ Inventory, service solutions, logistics
- _ Able to process small quantity orders
- _ Customized packaging solutions available
- _ Toll services available





Founded: 2007 Employees: 21 Floor space: 30,000 sq/ft (~2,800 m²)

Zapp Precision Strip, Inc.

SANTA FE SPRINGS, CALIFORNIA, U.S.A. WEST COAST SERVICE CENTER

Specialties

- _ Slitting
- _ Winding
- _ Cut-to-length
- _ Inventory, service solutions, logistics
- _ Rapid response to customer inquiries/requests
- _ Quick delivery turn-around
- _ Able to process small quantity orders
- _ Supply of wide widths up to 41.50"/1,054 mm and as thin as 0.002"/0.050 mm in thickness



Founded: 1999 Employees: 14 Floor space: 25,000 sq/ft (~2,350 m²)

Zapp Precision Metals GmbH

UNNA, GERMANY SERVICE CENTER

Specialties

- _ Slitting
- _ Winding (various coil IDs)
- _ Cut-to-length
- _ Wide range of inventory (focus on thin/wide)
- _ Able to process small quantity orders
- Service solutions, customer specific logistics, express shipment





Founded: 2005 Employees: 8 Floor space: 16,150 sq/ft (~1,500 m²)

Zapp Precision Metals (Taicang) Co.,Ltd.

TAICANG, CHINA SERVICE CENTER

Specialties

- _ Slitting
- _Leveling
- _Winding
- _Edge profiling
- _Cut-to-length
- _Sawing
- _ Laser and water jet cutting
- _ Inventory, service solutions, logistics



Founded: 2007 (expansion 2020) Employees: 27 Floor space: 64,585 sq/ft (~ 6,000 m²)

How your production benefits from our products



Process-reliable material – high reproducibility.

Our vision

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

Far beyond standard.

ZAPP PRECISION STRIP LINECARD

Choice of materials	DIN-Steel name	AISI/SAE	UNS
Austenitic grades			
1.4301	X5CrNi18-10	304	\$30400
1.4303	X4CrNi18-12	305	S30500
1.4306	X2CrNi19-11	304L	S30403
1.4310	X10CrNi18-8	301 302	S30100 S30200
1.4372	X12CrMnNiN17-7-5	201	S20100
1.4401	X5CrNiMo17-12-2	316	S31600
1.4404	X2CrNiMo17-12-2	316L	S31603
1.4435	X2CrNiMo18-14-3	316L	S31603
1.4439	X2CrNiMoN17-13-5	317LMN	S31726
1.4441	X2CrNiMo18-15-3	~316LVM F138/F139	S31673
1.4539	X1NiCrMoCuN25-20-5	904L	N08904
1.4541	X6CrNiTi18-10	321	S32100
1.4550	X6CrNiNb18-10	347	S34700
1.4571	X6CrNiMoTi17-12-2	316Ti	S31635
1.4828	X15CrNiSi20-12	309	S30900
1.4833	X12CrNi23-13	309S	S30908
1.4841	X15CrNiSi25-21	314	S31400
1.4845	X8CrNi25-21	310S	S31008
1.4876	X10NiCrAlTi32-21	B163, Alloy 800	N08800
Ferritic grades			
1.4016	X6Cr17	430	S43000
1.4521	X2CrMoTi18-2	444	S44400
Martensitic grades			
1.4006	X12Cr13	410	S41000
1.4021	X20Cr13	420	S42000
1.4028	X30Cr13	420F	S42020
1.4028Mo	X30Cr13	420	S42000
1.4034	X46Cr13	420	S42000
1.4122	X39CrMo17-1	_	_
1.4037	X65Cr13	_	_

The microstructure, grain size and cleanness of our strips is assessed by the detailed inspection of metallographical sections.

Choice of materials	DIN-Steel name	AISI/SAE	UNS
Precipitation hardening steels			
1.4457	8CrNiMo17-5-3	633	S35000
1.4542/1.4548	X5CrNiCuNb16-4	630	S17400 (17-4PH)
1.4568	X7CrNiAI17-7	631	S17700 (17-7PH)
1.4980	X5NiCrTi26-15	660	S66286 (Alloy 286)
Iron-nickel alloys			
1.3912	Ni36	F1684	K93603
Nickel/nickel based alloys			
2.4068	LC-Ni99	Alloy 201	N02201
2.4360	NiCu30Fe	Alloy 400	N04400
2.4602	NiCr21Mo14W	Alloy C-22	N06022
2.4816	NiCr15Fe	Alloy 600	N06600
2.4851	NiCr23Fe	Alloy 601	N06601
2.4856	NiCr22Mo9Nb	Alloy 625	N06625
2.4668	NiCr19Fe19Nb5Mo	Alloy 718	N07718
2.4669	NiCr15Fe7TiAl	Alloy 688, Alloy X-750	N07750
2.4819	NiMo16Cr15W	Alloy C-276	N10276
2.4665	NiCr22Fe18Mo	Alloy X	N06002
-	_	Alloy 864	N35135
Titanium/titanium alloys			
3.7025	Ti Grade 1	Ti Grade 1	R50250
3.7035	Ti Grade 2	Ti Grade 2	R50400
3.7065	Ti Grade 4	Ti Grade 4	R50700
Grade 9	Ti Grade 9	Ti Grade 9	R56320
High carbon, only hardened and tempered			
1.1274	Ck101	1095	G10950
1.2067	100Cr6	L1/L3	T61203



ZAPP CERTIFICATES AND ACCREDITATIONS

97/23/EG& AD2000-W 0

Pressure container Precision Strip Germany and U.S.A.

ISO 50001

For the Zapp Group Germany

1415 PRECISION STRIP GLOBAL

AS 9100

For aeronautical applications Precision Strip, Inc. U.S.A.



IATF 16949

For automotive applications Precision Strip Germany (Schwerte and Unna) Precision Wire, U.S.A. (Summerville)

GERMAN & U.S.A. QUALITY



Testing and R&D Services

- _ Quality inspection
- _ Metallurgical laboratories
- _Material testing
- _ Performance testing
- _ Chemical analysis and corrosion testing

Logistics

Individually agreed logistics concepts such as consignment, safety stock and call-off schedules, allow for short, reliable lead times wherever you are in the world.

Your contact.

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 various manufacturing steps**, such as cutting and straightening, prior to delivery.

CONTACT

2 Mills

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4 Service Centers

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Zapp Precision Strip, Inc. 100 Benton Street Stratford, Connecticut 06615 U.S.A. Phone +1 203 386-0038 Fax +1 203 502-6681 Tollfree +1 866 5789277 ecsc@zapp.com

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