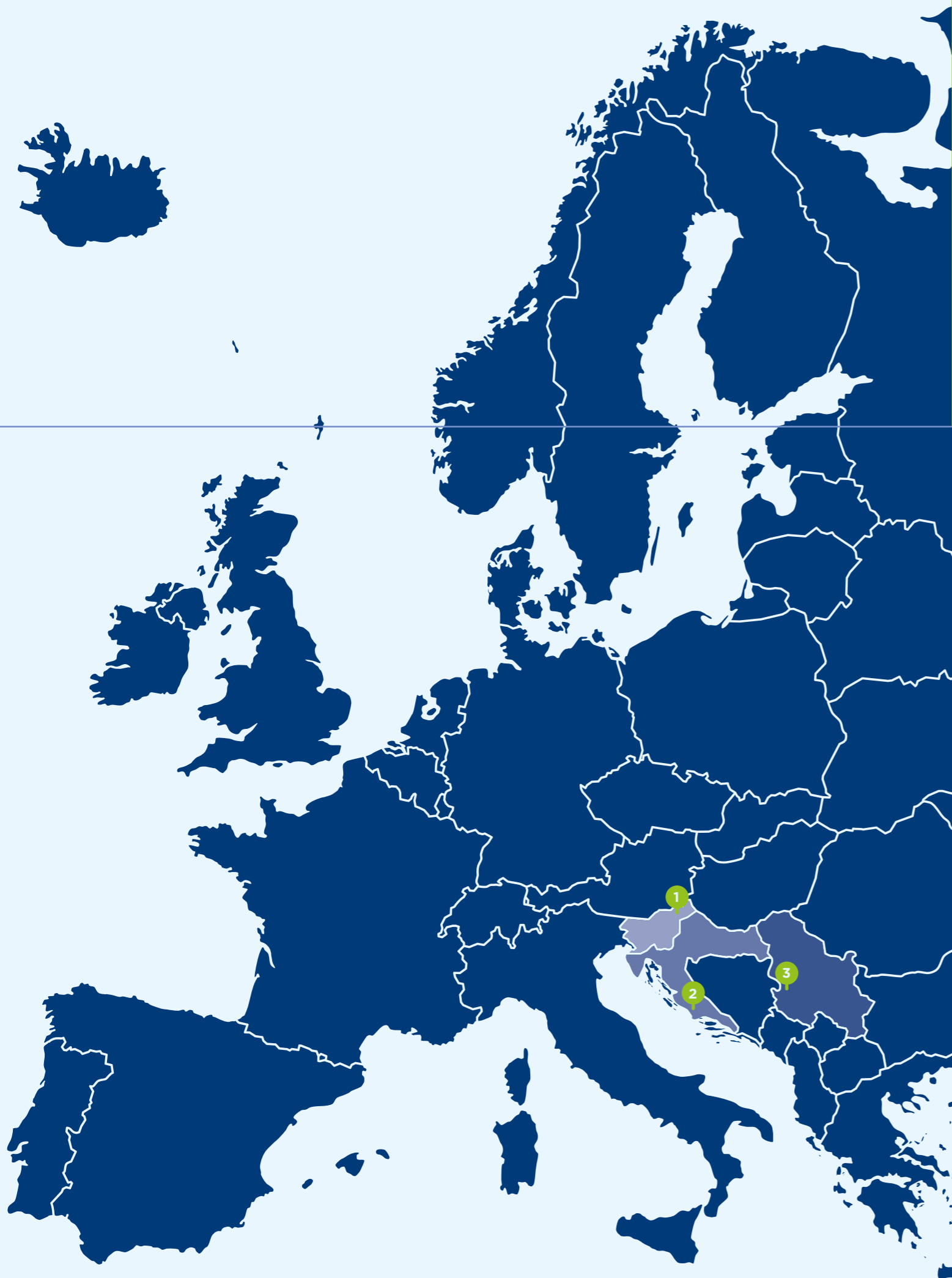




*Profiles,
Sections &
Rods, Bars,
Tubes*

impol
Aluminium Industry



Our Passion. Innovation.

The processing of aluminium into state-of-the-art semi-finished products is our business and our passion. For almost two centuries we have been guided by innovation, development orientation, flexibility and universality.

Our sustainable business growth, continuous modernisation and expansion of business capacities, wide range of products and alloys represent the guarantee that, with us, you will get a reliable business partner.

Extrusion is our core production group. In our three plants, we annually produce over 77,000 tons of semi-finished products: extruded and drawn bars, rods, tubes, as well as standard and custom-made profiles. Our particular strength lies in our solutions and products for the automotive industry, for which we manufacture products for energy absorption and basic car safety components, as well as for the construction, transport and electrical sectors. Our satisfied customers and the numerous quality certificates we have obtained confirm our quality.

1 IMPOL
Slovenska Bistrica, Slovenia

2 IMPOL TLM
Šibenik, Croatia

3 IMPOL SEVAL
Sevojno, Serbia



Mechanical Equipment

Own foundry, with a total capacity of **180,000 tonnes per year** (capacity for the needs of extrusion of over 90,000 tonnes) gives us a lot of advantages on the market. It allows us flexible production and development of new alloys and technologies. However, to fill the capacity on the extrusion press we annually process around **25,000 tonnes of material** from external suppliers. Therefore we produce over **77,000 tonnes of finished extruded products** per year on seven extrusion presses as described below.

SOFT ALLOYS PLANT

	12.5 MN	20 MN	28 MN	40 MN
Diameter of input billet [mm]	152	203	228	279.4 - 282
Optimal sections [mm ²]	180 - 550	400 - 1500	700 - 3700	2000 - 11300
Optimal length of section [mm]	800 - 7530	1500 - 12400	1500 - 8400	1500 - 8000

HARD ALLOYS PLANT

	20 MN	35 MN	55 MN
Diameter of input billet [mm]	218	275	279.4 - 282
Optimal sections of products [mm ²]	35 - 3340	300 - 12670	314 - 25000
Optimal length of products [mm]	2000 - 6000	2000 - 6000	2000 - 6000

SHORTER LENGTHS OF SECTIONS ARE POSSIBLE BASED ON CUSTOMER'S REQUIREMENTS.

ISO 9001

BVQI SINCE 1992

*Uncompromised
Quality*

The quality of our products is subject to certification and testing in the state-of-the-art, independent labs of the Impol Group, i.e. the labs for metallurgical, metallographic and chemical testing.

ISO 14001

BVQI SINCE 2000

THE METALLURGICAL TESTING LAB

It conducts mechanical tests, hardness tests and tests of the material's hard-drawing properties. Keeping up with the latest findings in the field of testing, we are consistent in implementing the most recent standard requirements in our testing methods. The metallographic testing lab is concerned with analysing the material's history and characterising the segments of its microstructure. Metallographic analysis is conducted via optical microscopy. Electron microscopy featuring an EDS detector is used to produce more reliable results regarding the identification of the type of material and individual fragments.

THE CHEMICAL TESTING LAB

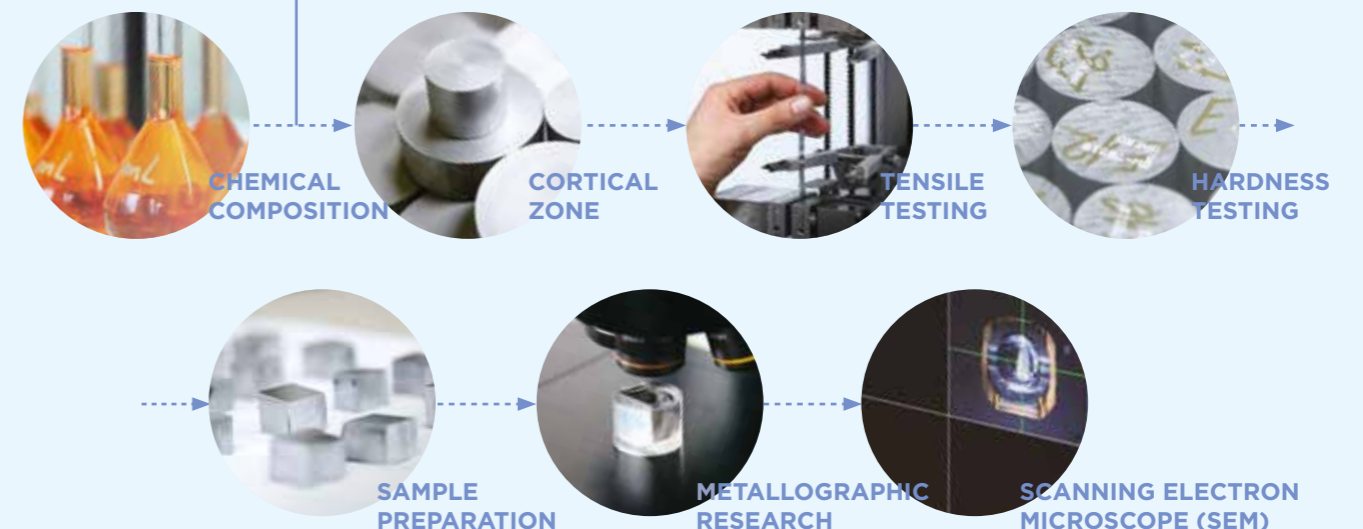
It carries out spectroscopic analyses of the chemical composition of aluminium alloys, analytical chemistry and waste water analysis.

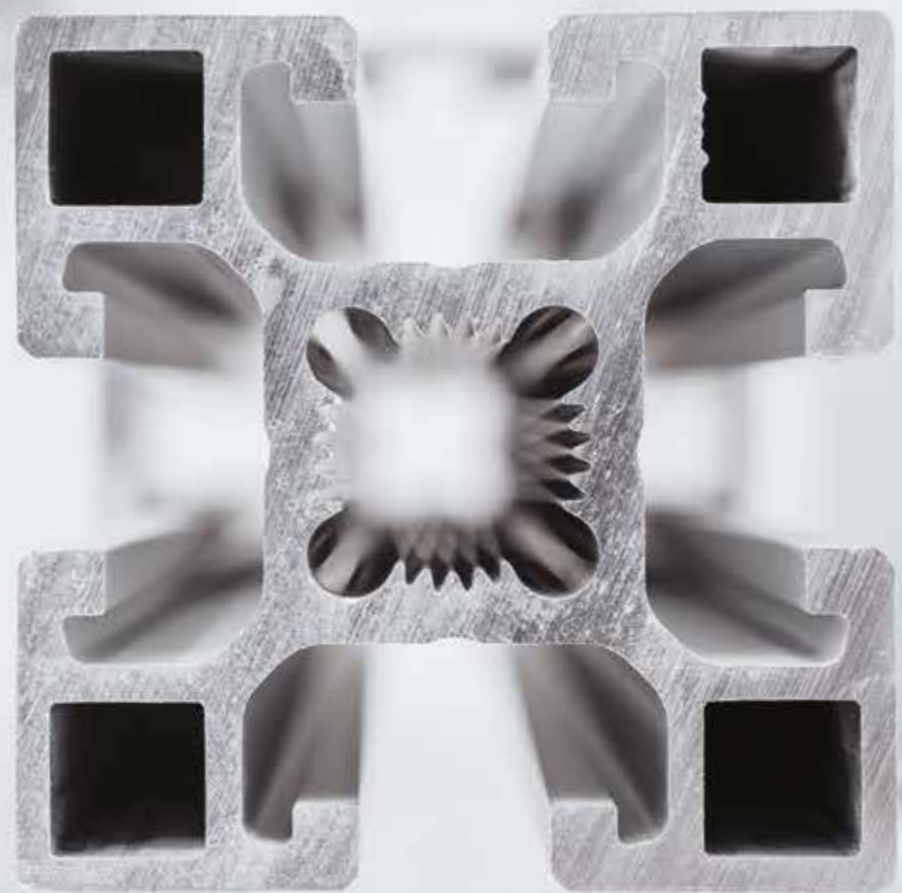
OHSAS 18001

BVQI SINCE 2000

ISO TS 16949

BVQI SINCE 2004





*Profiles
and Sections*

4000

DIFFERENT PROFILES AND SECTIONS



ASTM

Impol manufactures sections for the following uses

- automotive
- transportation
- electro industry
- renewable energy
- consumer goods
- construction
- aerospace



Impol products are harmonised with international standards regarding their chemical composition, mechanical properties, dimension tolerances and surface standards: DIN, ASTM, NF, EN, etc. In agreement with the customer, sections can also be made according to other (internal) standards.

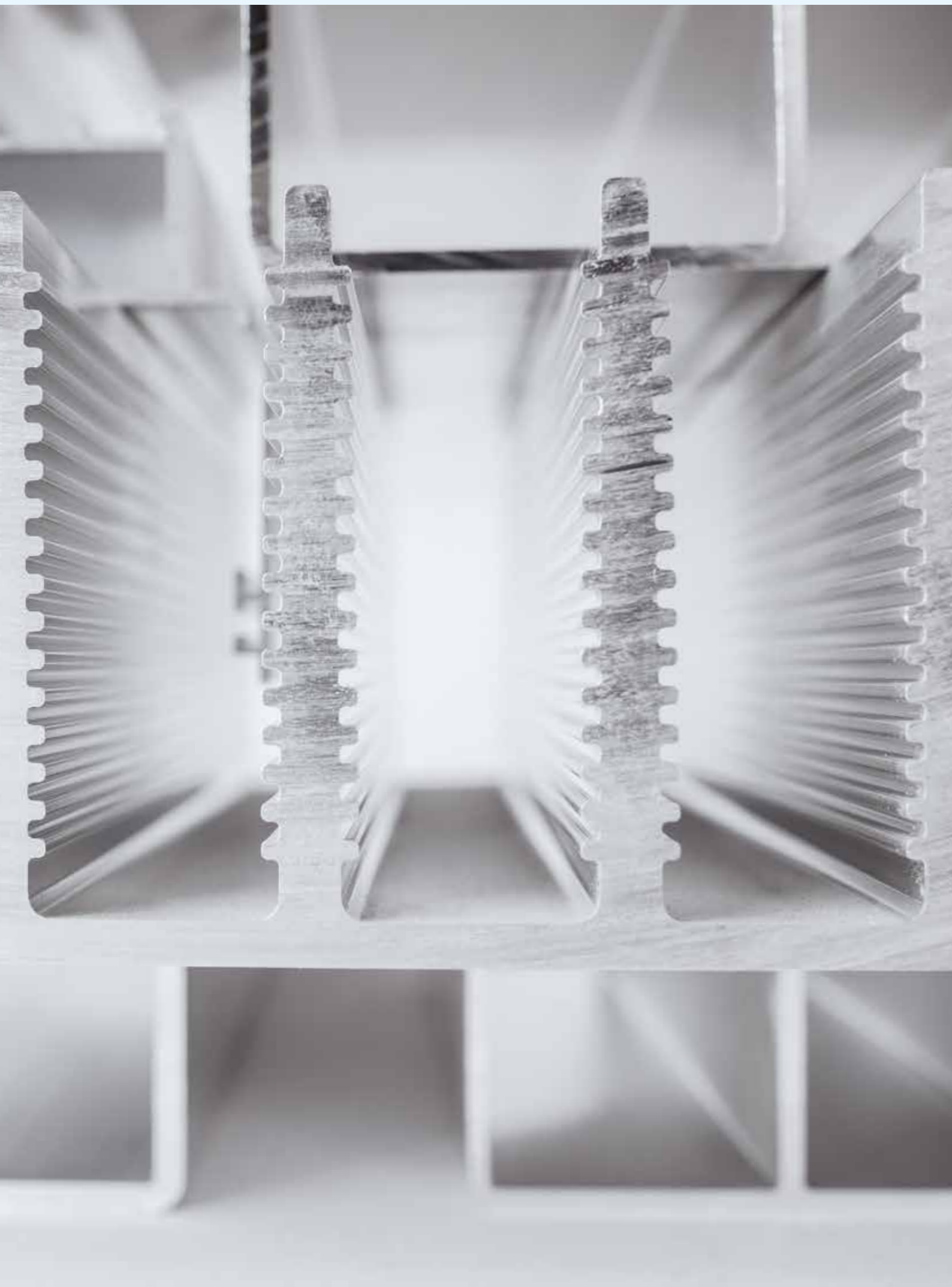
320 mm

1 mm/m

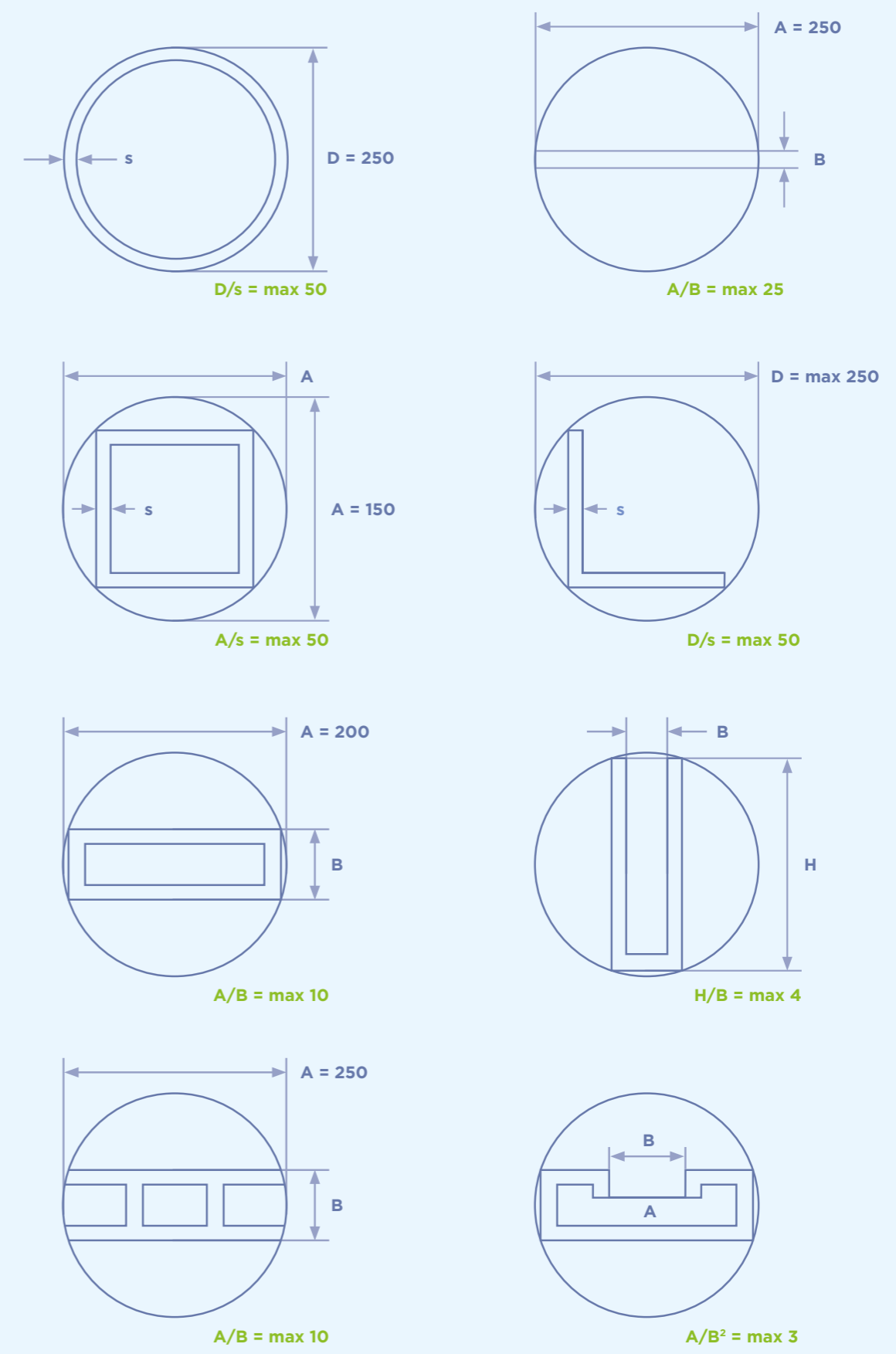
DIN

NF

EN



Dimensional Limitations of Profiles and Sections



ALSO 40MN DIRECT PRESS: circle D max = 320mm, profile H max = 250mm



*Rods, Bars
and Tubes*

100%

ultrasonic
controlled



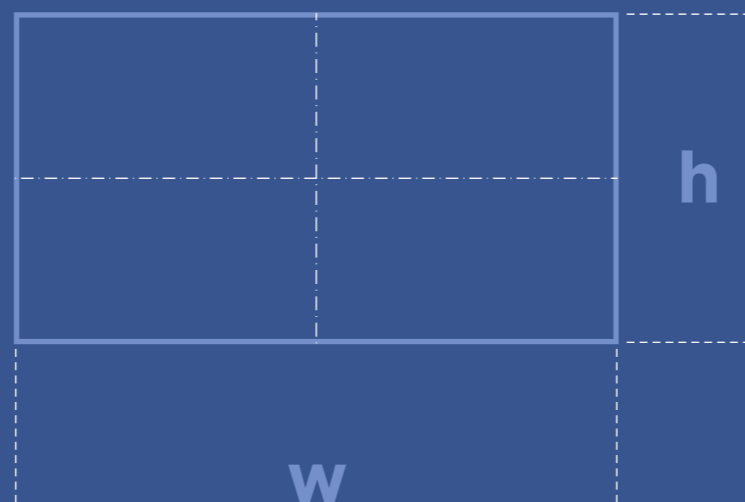
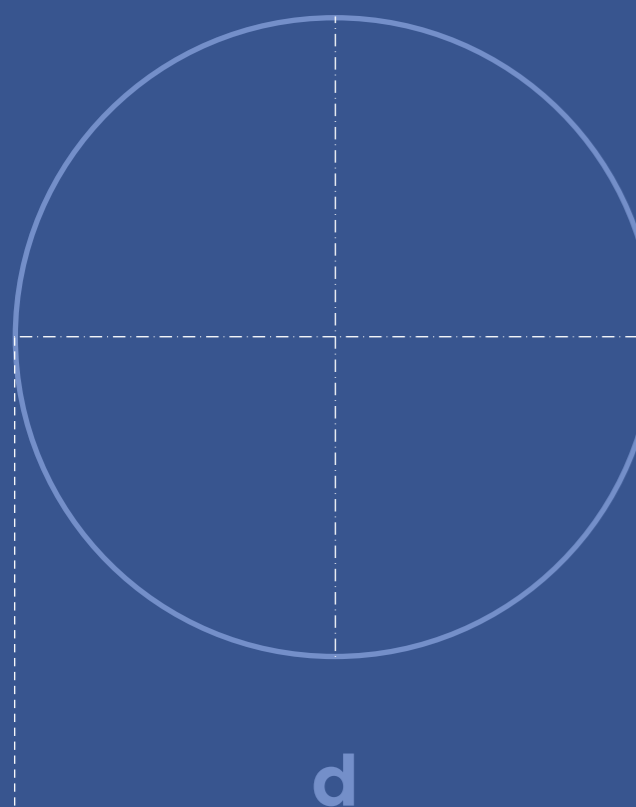
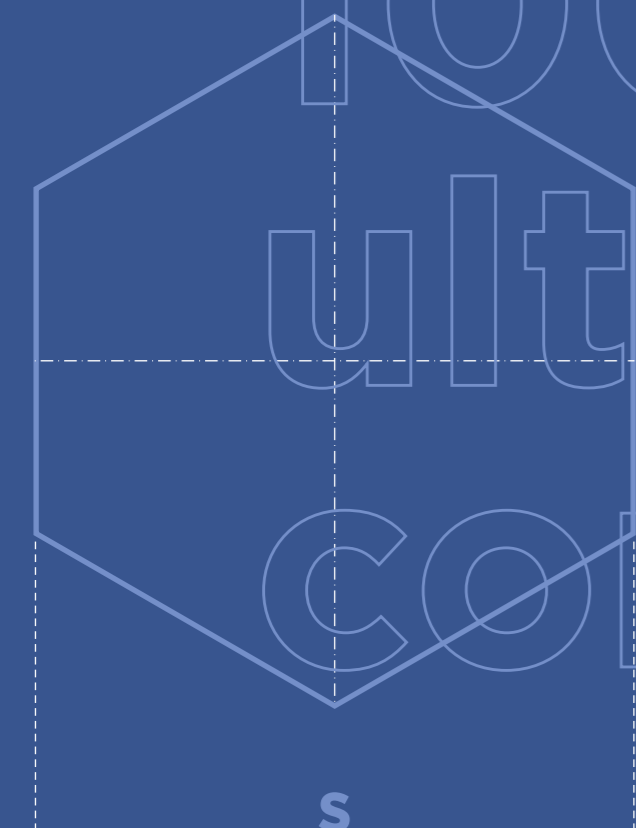
Fields of use of rods, bars, tubes and profiles

- automotive & aircraft industries
- machine building
- transportation
- interior design
- electrical industry
- civil engineering

In accordance with international standards, Impol produces extruded and drawn rods and tubes in all standard dimensions. Hard alloys, which are not so easily worked or even difficult to work, predominate. Special attention is given to stress-free states of materials, to free-cutting alloys and to rods for forging.

After the production process, the products can be 100% ultrasonically controlled on customer's demand.

OVER
40
ALLOYS

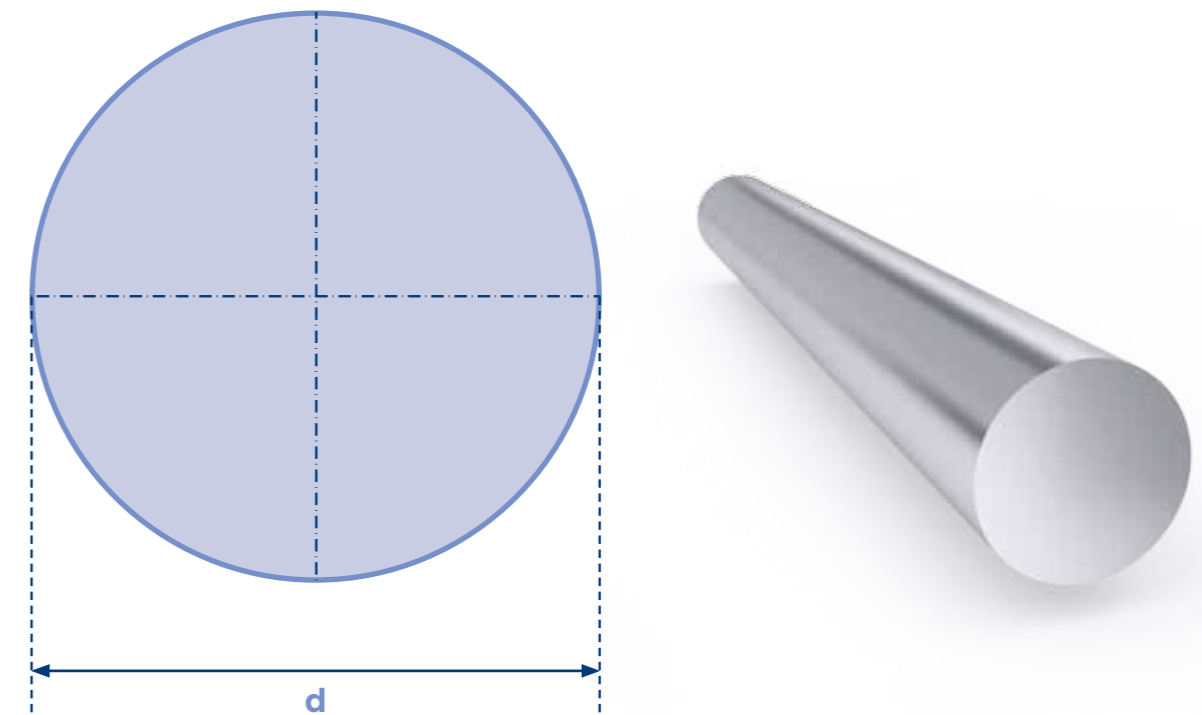


OVER
77,000 t



Available Dimensions of Impol Products

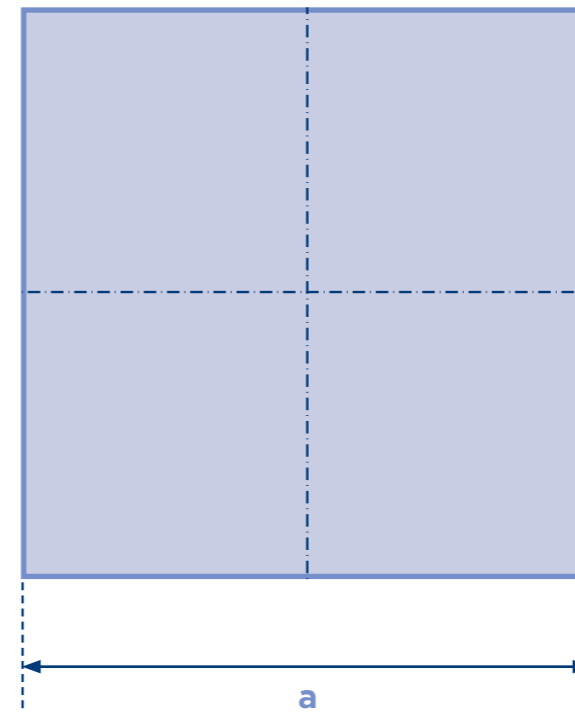
ROUND RODS AND BARS



		d [mm]	length [m]
EXTRUDED			
Alloys series 6xxx an 1xxx	755/3	8.0 - 180.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements. Applies to other series of alloys.
Other series of alloys	755/3	20.0 - 180.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
DRAWN			
Alloys series 1xxx, 6xxx and 2011	754/3	5.5 - 76.2	2.0 - max 4.5 or based on customer's requirements
Other series of alloys	754/3	7.0 - 76.2	2.0 - max 4.5 or based on customer's requirements



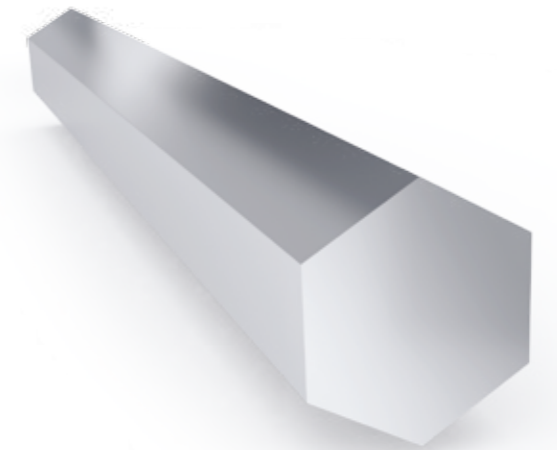
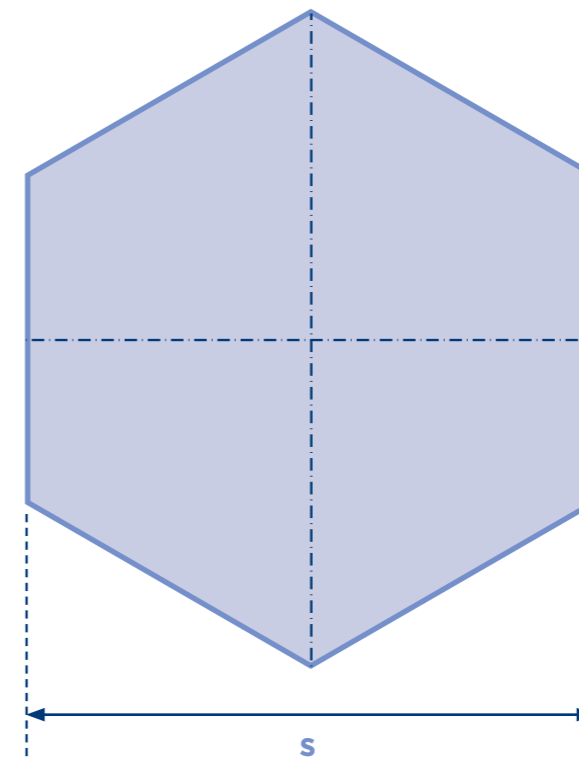
SQUARE BARS



		a [mm]	length [m]
EXTRUDED			
Alloys series 6xxx and 1xxx	755/4	8.0 - 140.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
Other series of alloys	755/4	20.0 - 140.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
DRAWN			
Alloys series 6xxx and 2011	754/4	6.0 - 63.5	2.0 - max 4.5 or based on customer's requirements
Other series of alloys	754/4	7.0 - 63.5	2.0 - 6.0 or based on customer's requirements



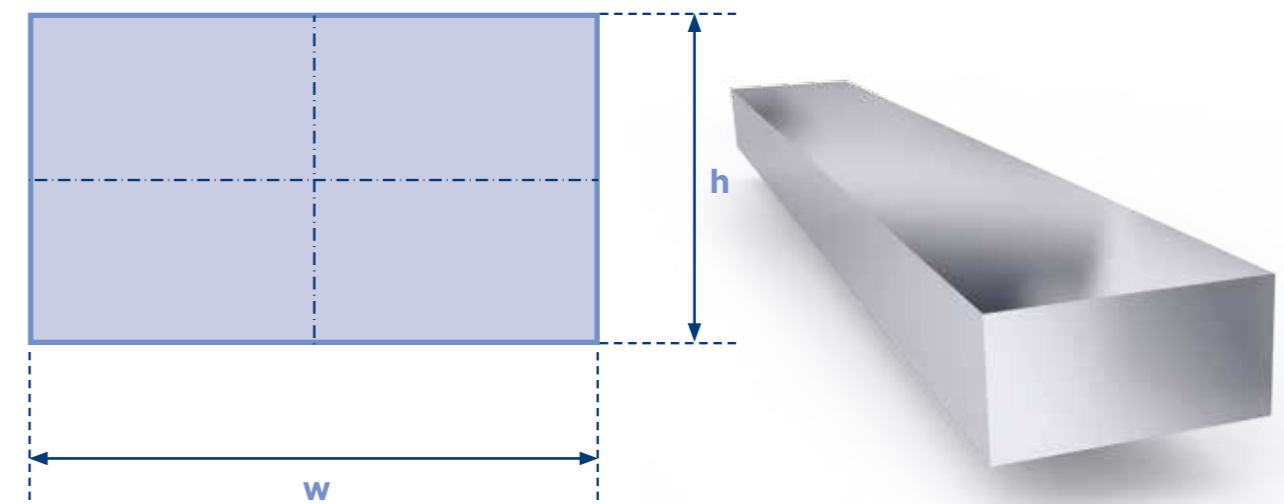
HEXAGONAL BARS



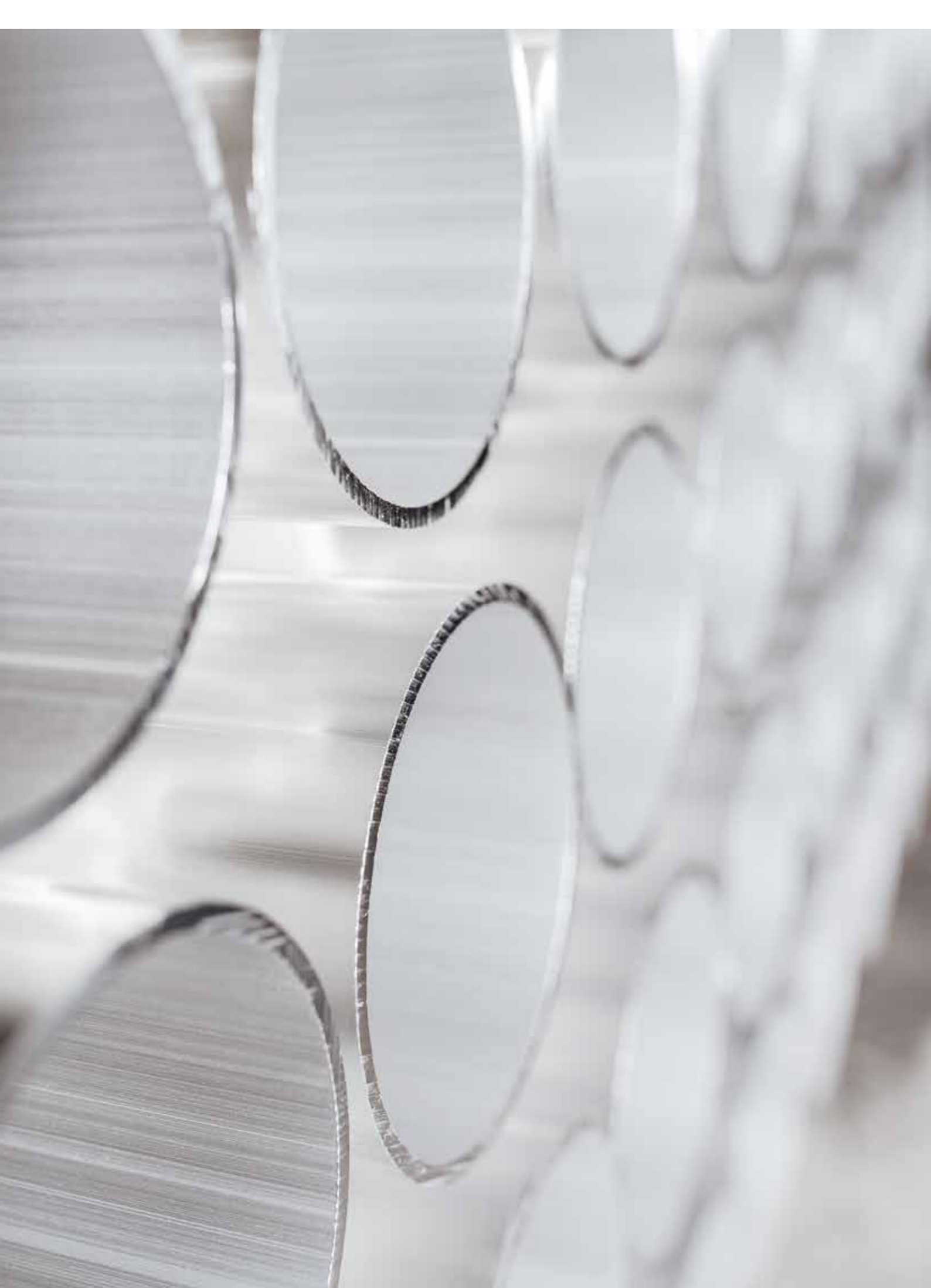
		s [mm]	length [m]
EXTRUDED			
Alloys series 6xxx and 1xxx	755/6	8.0 - 120.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
Other series of alloys	755/6	20.0 - 120.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
DRAWN			
Alloys series 6xxx and 2011	754/6	6.0 - 63.5	2.0 - max 4.5 or based on customer's requirements
Other series of alloys	754/6	7.0 - 63.5	2.0 - max 4.5 or based on customer's requirements



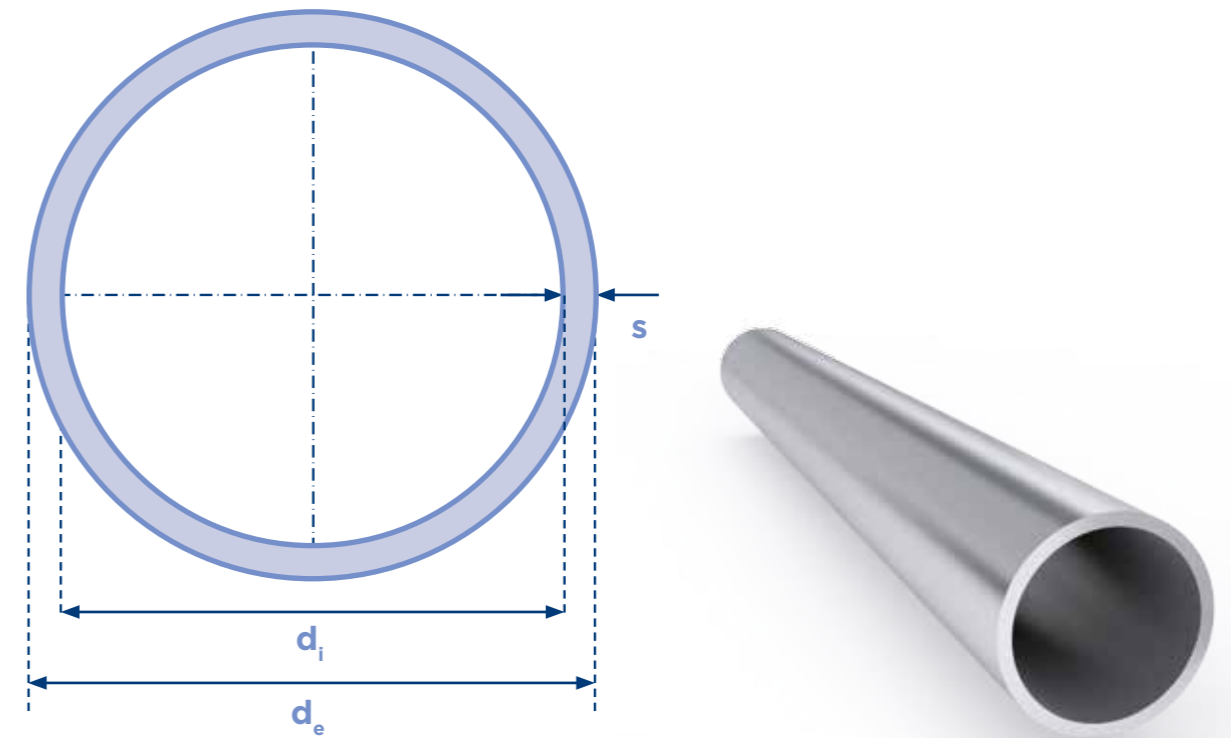
FLAT BARS



EXTRUDED		h [mm]	w [mm]	length [m]
Alloys series 6xxx an 1xxx	755/5	2.0 - 100.0	10.0 - 250.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.
Other series of alloys	755/5	10.0 - 100.0	20.0 - 140.0	2.0 - 6.0 Depending on dimension and alloy or based on customer's requirements.



TUBES



SEAMLESS TUBES		d_e [mm]	d_i [mm]	s [mm]	length [m]
Extruded	755/7	25.0 - 90.0	16.0 - 74.0	2.5 - 25.0	2.0 - 4.5 or based on customer's requirements
Drawn	754/7	25.0 - 76.2	16.0 - 74.0	2.5 - 25.0	1.0 - 4.5 or based on customer's requirements (min. 1.5 kg/m and max. 9 kg/m)
CHAMBER EXTRUDED TUBES		d_e [mm]	s [mm]		
Extruded	755/8	10.0 - 250.0	1.5 - 25.0 Square tubes are available from 10x10 to 220x220.		

FERRULES - OVAL TUBES

In accordance with DIN 3093 standard, from no. 16 to 32.



Comparative Table of Materials

- Alloys for forging
- Free-cutting alloys
- Other alloys

We can also accommodate customer's special requirements other than standard ones. However, only if the existing technology and machinery facilitate the above.

ALLOYS FOR FORGING

2XXX	EN AW-2014	
	EN AW-2014A	
	EN AW-2017A	
	EN AW-2024	
	EN AW-2618A	
6XXX	EN AW-6110A	
	EN AW-6082 mod.	EN AW-6082
	EN AW-6056	AA 6111
	F40, F42, F45	F32, F34, F36, F38
7XXX	EN AW-7010	
	EN AW-7020	
	EN AW-7050	
	EN AW-7150	
	EN AW-7075	
	AA-7055	
	EN AW-7049A	
	EN AW-7175	
OTHER	EN AW-4032	
	EN AW-5754	



FREE-CUTTING ALLOYS

	2XXX	6XXX
Pb max. 0.05 (Sn Bi)	AA-2041	EN AW-6023
	AA-2044	AA-6028
		EN AW-6262A
		AA-6026 mod. (Sn, Pb free)
Pb max. 0.40 (Bi)	AA-2028A	AA-6064
	AA-2011	EN AW-6026
		AA-6012
with Pb	EN AW-2011	EN AW-6012
	EN AW-2007	EN AW-6262
	EN AW-2030	

EN AW-6262A is a direct replacement for EN AW-6262

EN AW-6064 is a direct replacement for EN AW-6262

AA-2041 is a direct replacement for AA-2011

AA-2044 is a direct replacement for AA-2007 / AA-2030

AA-2028A is a direct replacement for AA-2007 / AA-2030

EN AW-6023 is a direct replacement for EN AW-6012 and EN AW-6262

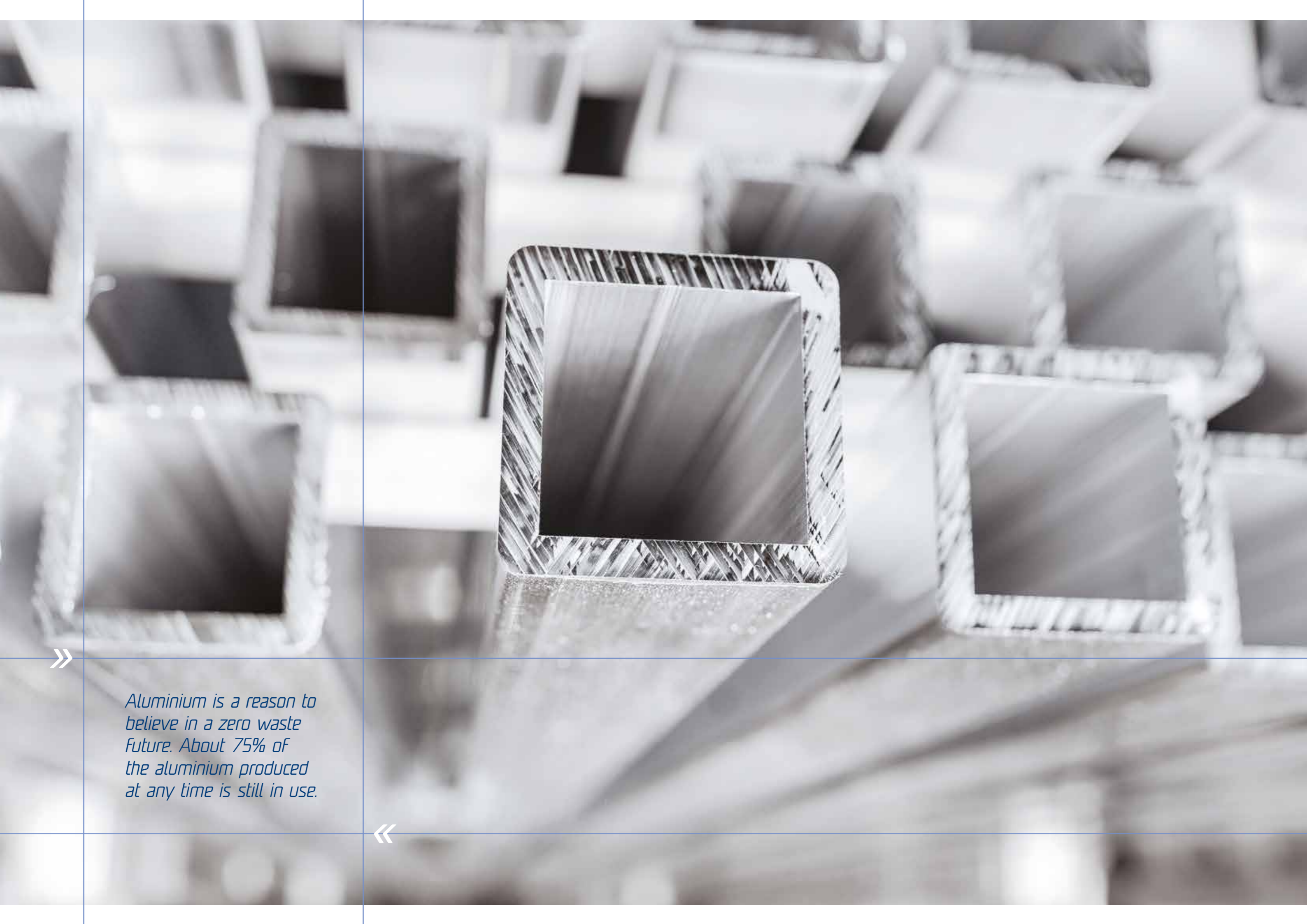
EN AW-6026 is a direct replacement for EN AW-6012 and EN AW-6262

AA-6028 is a direct replacement for EN AW-6012 and EN AW-6262



ALLOYS FOR OTHER APPLICATIONS

1XXX	EN AW-1050A	
	EN AW-1070A	
	EN AW-1350	
2XXX	EN AW-2014A	EN AW-2618A
	EN AW-2017A	EN AW-2014
	EN AW-2024	EN AW-2017
	EN AW-2028A	
3XXX	EN AW-3003	
	EN AW-3103	
4XXX	EN AW-4032	
	EN AW-4032 mod.	
5XXX	EN AW-5019	EN AW-5754
	EN AW-5051A	
	EN AW-5083	EN AW-5051 (Ferule)
6XXX	EN AW-6005	EN AW-6063
	EN AW-6005A	EN AW-6082
	EN AW-6005B	EN AW-6101
	EN AW-6060	EN AW-6101A
	EN AW-6061	EN AW-6101B
7XXX	EN AW-7003	EN AW-7049A
	EN AW-7010	EN AW-7050
	EN AW-7020	EN AW-7075
	EN AW-7021 mod.	EN AW-7175
	EN AW-7022	



Aluminium is a reason to believe in a zero waste future. About 75% of the aluminium produced at any time is still in use.





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