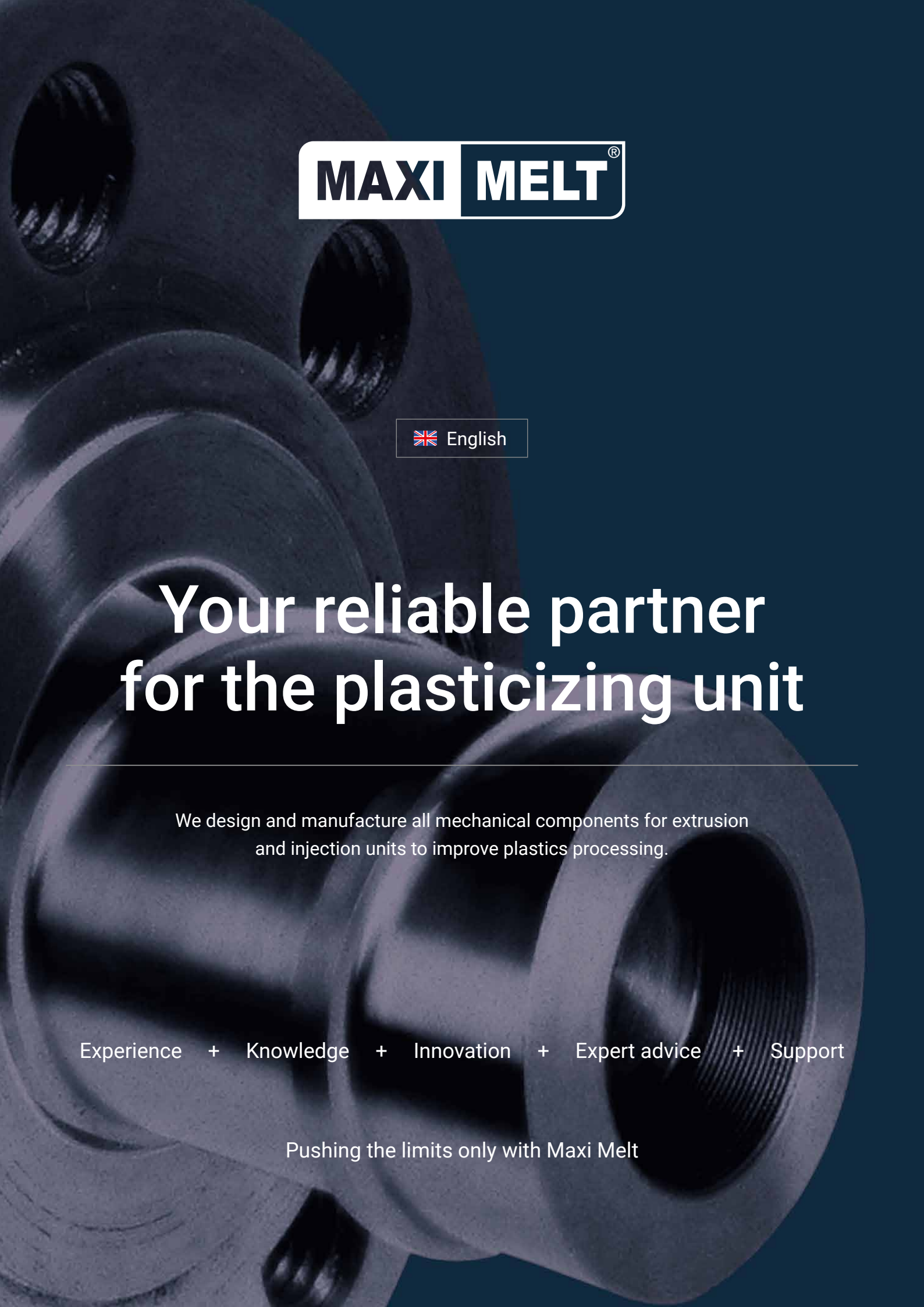


MAXI MELT®

English

Your reliable partner for the plasticizing unit

We design and manufacture all mechanical components for extrusion and injection units to improve plastics processing.

Experience + Knowledge + Innovation + Expert advice + Support

Pushing the limits only with Maxi Melt

Company

With over 35 years of experience, Maxi Melt specialises in advanced solutions for wear-resistant plasticizing components. We serve machine constructors and end users with high-quality products; therefore, Maxi Melt is not just a supplier but also a partner to meet all customer needs. With its research to find new solutions, Maxi Melt continues pushing the limits.

Bimex USA starts production bimetallic cylinders in The Netherlands.

1989

Kluin Wijhe BV extends product range with screws.

1993

1992

Kluin Wijhe BV takes over production facility for Bimetallic Cylinders.

Mission and vision

With our innovative screws Maxi Melt, and high-quality products, our goal is to achieve superior performance in plasticizing process, offer precise process control, increase productivity, enhance mechanical resistance, minimize energy consumption, improve surface finishing, reduce masterbatch usage and generate less reject rates.

Maxi Melt brand name was introduced.

2002

2009

MAXI MELT

Maxi Melt starts as independent company.

Global European organisation for customer support and presence on whole European market.

Currently

Cylinders

Injection cylinder

Extrusion cylinder

Pin barrel

Wide range of materials

Maxi Melt offers a wide range of cylinders in different materials like nitrided, hardened and an exclusive range of bimetallic alloys.

Nitrided cylinders	Hardened cylinders	Bimetallic cylinders
We offer a wide range of nitrided cylinder basic materials.	We offer a wide range of hardened cylinders for small diameters.	Top grade of our solutions and commonly used are our bimetallic cylinders.

Bimetallic alloys table

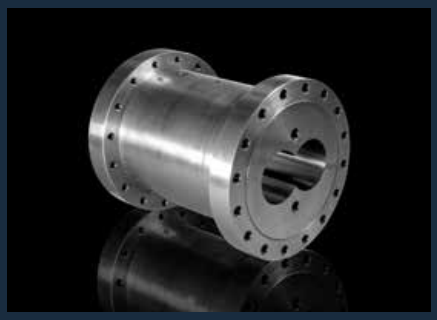
TYPE	NAME	BASE ALLOY	ALLOY COMPONENTS	HARDNESS [HRC]	ABRASIVE WEAR RESISTANCE	CORROSIVE WEAR RESISTANCE
	KB100	Fe	Ni - C - B	58 - 65	++	+
	KB109	Fe - Cr	Ni - Mo - Cu - C - B	64 - 69	+++	+++
	KB200	Ni - Co	Cr - Mo - B	48 - 56	+	+++++
	KB300	Ni	Cr - Ni - Co - B - W	60 - 66 (a)	++++	++++
	KB350	Ni	Cr - Si - B - W	60 - 66 (a)	+++++	++++

Above indicated tables are only for reference. Exact technical details available on request.

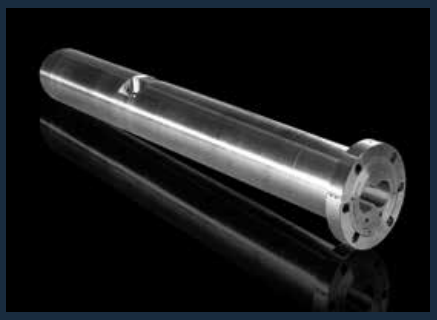
(a) Tungsten carbides have a hardness of 89 HRC

Suitability: (+ good) to (+++++ excellent)

Twin cylinders



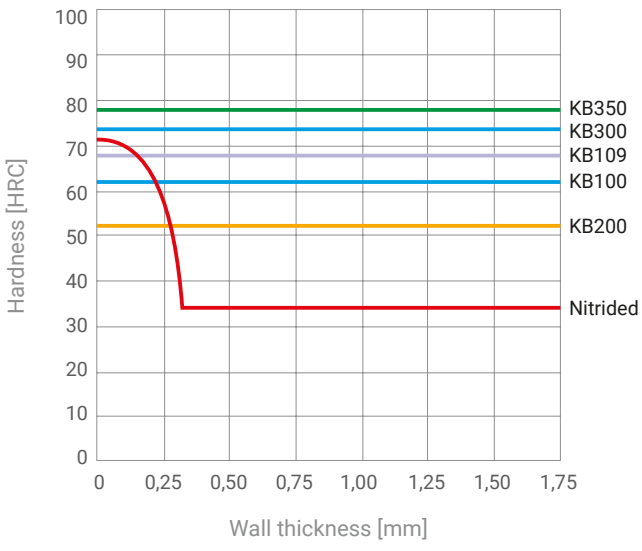
Co-rotating
twin cylinder

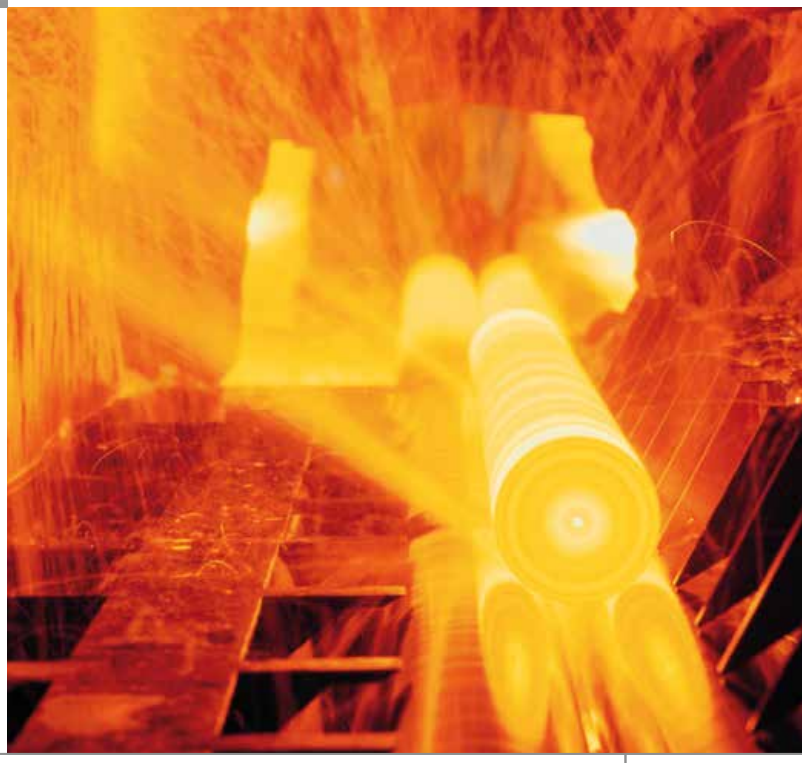


Counter rotating
twin cylinder

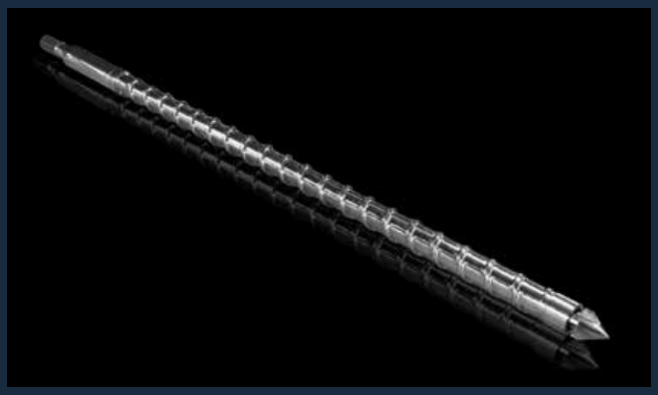
Conical counter
rotating twin cylinder

Our bimetallic alloys with 1.5 to 2 mm layer thickness offer consistently high hardness





Screws



Injection screw

Extrusion single screw

Base materials

Based on our experience we offer different types of basic materials and treatments to reduce wear.

MM CODE	BASE MATERIAL	TREATMENT	ABRASIVE WEAR RESISTANCE	CORROSIVE WEAR RESISTANCE
MM31	Quenced and Tempered	Nitriding	+	+
MM41	Quenced and Tempered	Nitriding	+	+
MM34	Quenced and Tempered	Nitriding	+	+
MM39	Quenced and Tempered	Hardening	+	+++
MM121	Cold work to Steel	Hardening	+++	++
KPM1	Powder Metallurgy Steel	Hardening	+++++	+++
KPM2	Powder Metallurgy Steel	Hardening	++++	++++++
MM276	Rolled Steel	Blank	++	++++++
MM625	Rolled Steel	Blank	++	++++++

Above indicated tables are only for reference.
Exact technical details available on request

Suitability: (+ good) to (+++++ excellent)

Twin screws

Conical twin screw set

Parallel twin screw set

Corotating screw elements

Welding

Our robust and efficient components are well-suited and with our advanced welding techniques, we provide the highest quality and long-lasting solutions for wear and or corrosion for your plasticizing processes.

Welding materials

MM CODE	FLIGHT ARMORING	TECHNOLOGY	ABRASIVE WEAR RESISTANCE	CORROSIVE WEAR RESISTANCE
MM120	Cobalt Base Alloy	PTA	+++	+++
MM50	Iron Base Alloy	TIG	++++	++
MM560	Nickel Base Alloy	PTA	++++	++++
MM570	Nickel Base Alloy	PTA	++++++	+++++
MM830	Nickel Base Alloy	PTA	+++++	+++++
MM4900	Molybdenum	HVOF	+++++	++++
MM6000	Tungsten Carbide	HVOF	++++++	++++++

Above indicated tables are only for reference.
Exact technical details available on request.

Suitability: (+ good) to (+++++ excellent)

To reduce the friction coefficient that ensures greater melt smoothness and protection from corrosive agents, we deposit surface treatments with different characteristics on the surface of the screws - using PVD technology.

Maxi Melt screw geometry

The design of the screw tailored to provide every need.

The Maxi Melt screw is designed to optimize the plasticizing process, each geometry is tailor-made and therefore modified each time to be adapted to each specific need, the result is an optimized screw that ensures energy and cost savings and guarantees an output of high quality. Thanks to our proven know-how that always provides us excellent results, we sell the Maxi Melt geometry screw with a result guarantee.

Maxi Melt screws – Main characteristics

[01]

Variable pitch

Trusted provider of custom screw profiles for enhanced competitiveness. Variable pitch design optimizes melting efficiency.

[02]

Special mixer designs

We ensure reproducible production cycles and high quality molded parts. Maxi Melt offers two mixer types for flawless plasticizing.

[03]

Conical core

Optimize the plasticizing process with a longer, gentle transition for increased productivity, mechanical strength, energy savings and waste reduction.

Screw geometry examples

Maxi Melt Precision

For homogenization and improved plasticization, we offer a standard screw with the pineapple mixer at the front.

Maxi Melt Pack

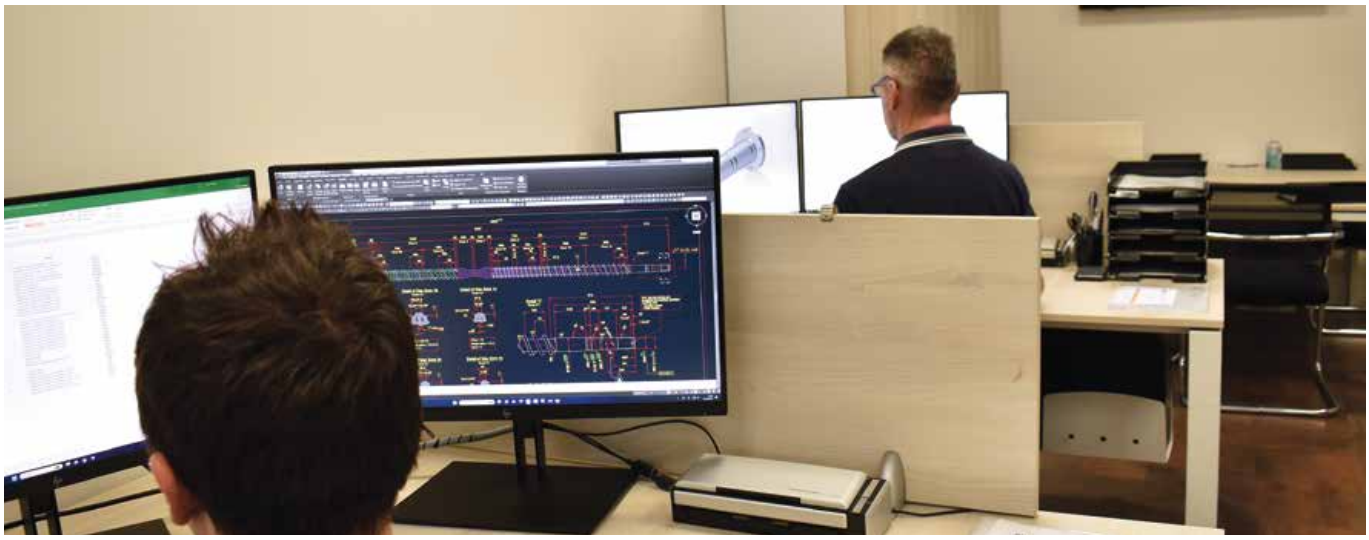
To improve masterbatch mixing we use a maddock and pineapple mixer and can in many cases save masterbatch usage.

Maxi Melt Extreme

To obtain better mixing we offer screws with a specially designed kneading mixing system.

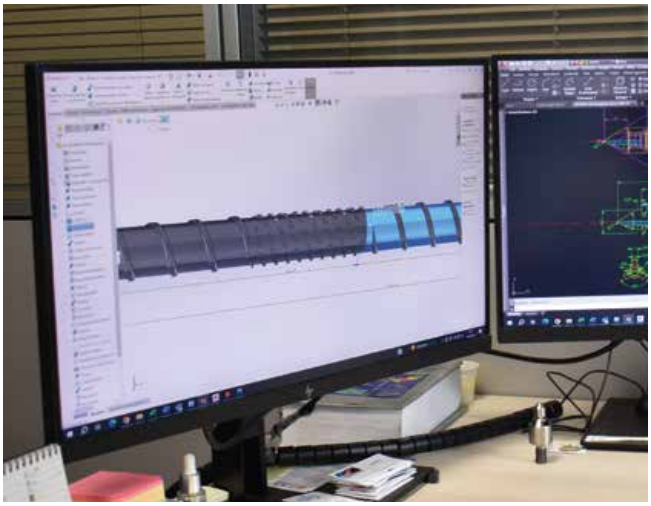
A technical team of specialists

Our team of experienced engineers is able to provide customized design solutions studying the needs of our customers.



Develop innovative screw geometries

With our self-made computer programs, we are able to develop innovative screw geometries which have a better performance compared to the standard geometry.



35 years of experience

Over 35 years of experience on screw geometry innovation offers you expertise and guarantee.

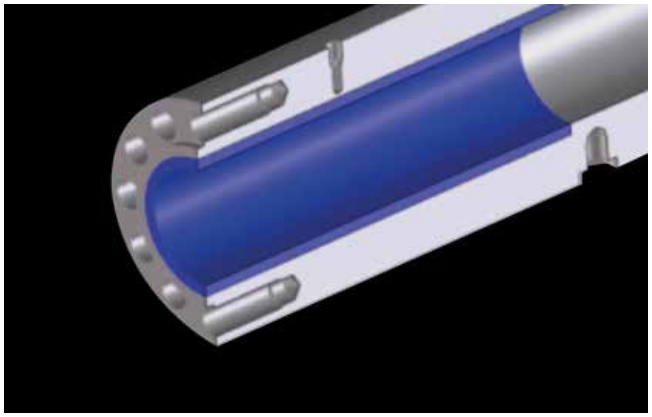
Complementary articles

Cylinder flanges, adaptors and nozzles

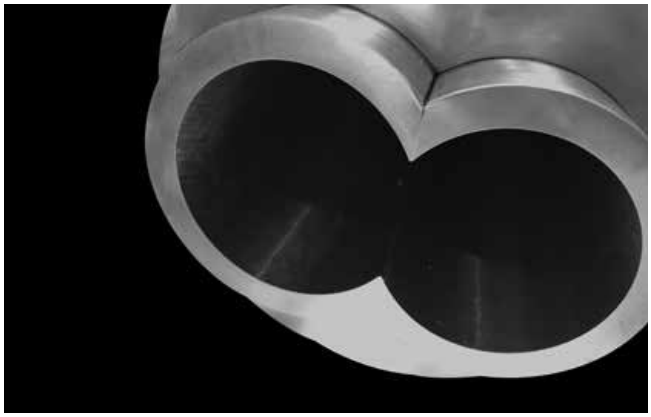
Tip assemblies

Screw and barrel repair

In our specialized workshop, we can repair various types of damage to screws and cylinders.



Repair by fitting a liner



Twin cylinder reline or replace

Repair through a larger inner diameter

Flight top welding

High quality finishing

Only special dedicated tools are used to apply final quality control and guarantee our high-quality standard.

Quality control tools

All our products undergo careful post-production checks. Our expertise combined with high-precision tools guarantees the supply of excellent quality products.

The best solution to fight wear

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COD. rev2 ENGFOL