

SERVICE

REFURBISHING, REPAIR //

Wear of screws and barrels as resulting from various additives such as glass fibres, colouring pigments, fillers and flameproofing agents and as occurring in the ceramic industry is unavoidable.

A lower output rate, in conjunction with poor quality, will substantially deteriorate the performance of these parts. You can increase the productivity of your equipment by refurbishing your process unit.

WEAR - CONTROL //

A special service from 3S is wear inspection locally by our customer. Our customers get actually reports of the condition from crew and barrel. So an organised maintenance service without uncontrolled stops of your process units is possible.

CAD //

As an additional service, we prepare drawings of screws and barrels, for example during repair or, at short notice, on the customer's premises.



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SCREWS BARRELS

PLANT ROITHAM



LASEX®

LASER ARMOURED SCREWS FOR EXTRUSION

To date, state-of-the-art technology for armouring extruder screws has involved welding processes such as TIG (Tungsten Inert Gas) or PTA (Plasma Transfer Arc) in which the welding material is applied in powder form. A closely-associated process is laser CMB (Controlled Metal Buildup).

This process uses a laser beam to melt the weld material instead of using an electric arc or plasma. Working closely together with a research institute, 3S has now developed a laser CMB process for extruder screws. This process can be used to armour screws between 1 and 6 metres long and 50 to 500 mm in diameter.

SINGLE SCREWS //

We manufacture screws for extrusion and injection moulding with lengths of up to 6000 mm and a diameter of 300 mm (single or multi-part). We offer a wide range of designs for all extrusion applications: Screws for food, chemical, ceramic or rubber - industry. But also mixing parts, screw tips and back flow valves are part of our product range.

TWIN SCREWS //

Twin screws (co-rotating and counter-rotating) are of cylindrical or conical design. A wear protected option are Mo-coated or CNC- Plasma welded screws.

GROOVED FEED BUSHES //

Groove feed bushes made of various materials with integrated cooling system or rolled-in cooling tubes.

BARRELS FOR SINGLE SCREW EXTRUDERS //

Nitrated or bimetallic, smooth or grooved geometry and with different cooling systems.

BARRELS FOR TWIN SCREW EXTRUDERS //

We offer cylindrical or conical Barrels and segmented barrel parts for Compounding extruders as well.

MUD MOTORS //

- Stators „constant Wall“
- Rotors
- Cores
- Metall only - moineu pump (metall?)

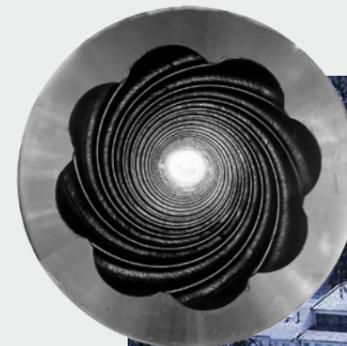


A TRULY NOVEL BARREL.

So far the design of barrels for conical twin screw extruders had one major disadvantage: the heavy wear. In the last 50 years the design of the barrels – with surface-cured material – had hardly changed at all. Until now.

The team of developers of 3S has produced a world novelty in the world of barrels: A wear casing (bushing) made of hardened tool steel and located inside the barrels can be exchanged completely and as often as you like when it is worn out. This way the lifecycle of the barrels has become significantly longer. The new technology is produced at another 3S location in "Wartberg im Mürztal". In February 2010 the first barrels with wear protection casing already left the production plant.

- Experiences of the last years results a four - time lifetime in comparison with the nitrated version.
- Longer service life of bushings due to consistent hardness.
- Bushings can be exchanged, the barrels casing remains the same.
- A wide spectrum of high-performance materials is available for special applications.
- Reduced standstill times of extruders due to longer service life of barrels.
- All provided by one supplier: optimal adjustment of the barrels and screw materials.



PLANT ST. BARBARA