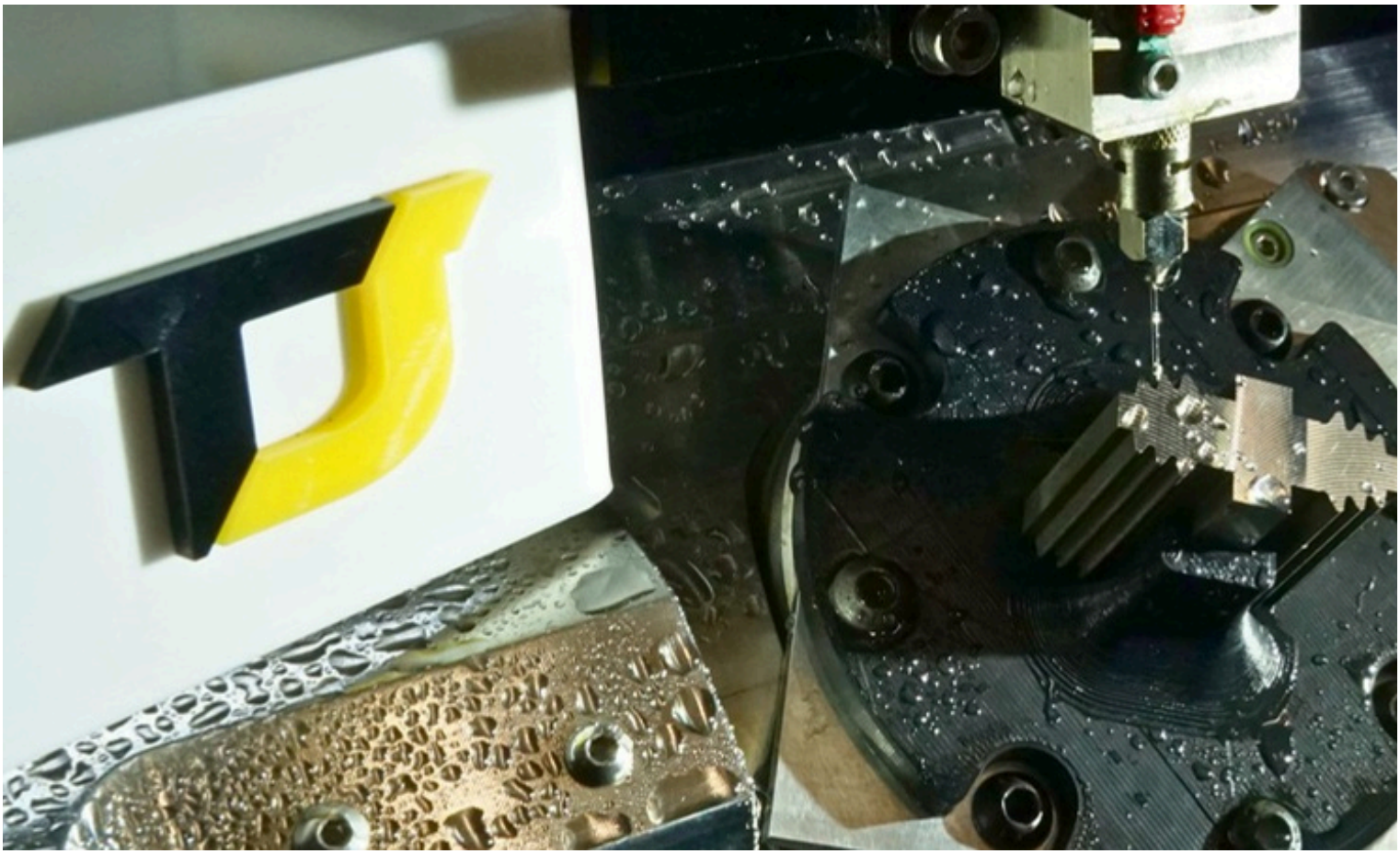
TextureJet

Precise Controlled Selective

APPLICATIONS & TECHNOLOGY 2025



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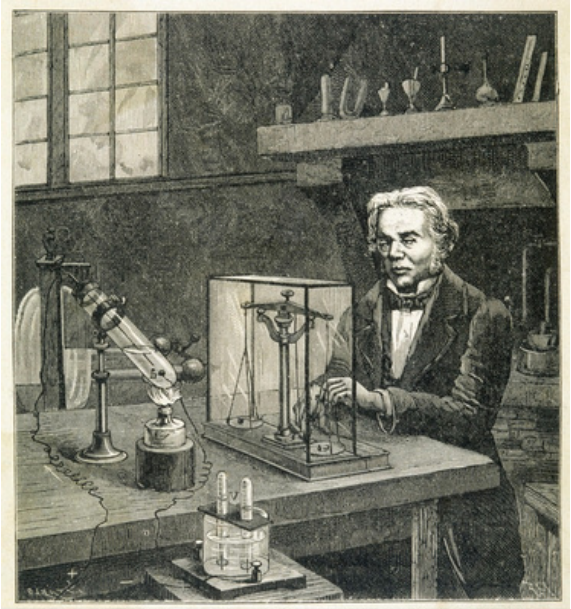
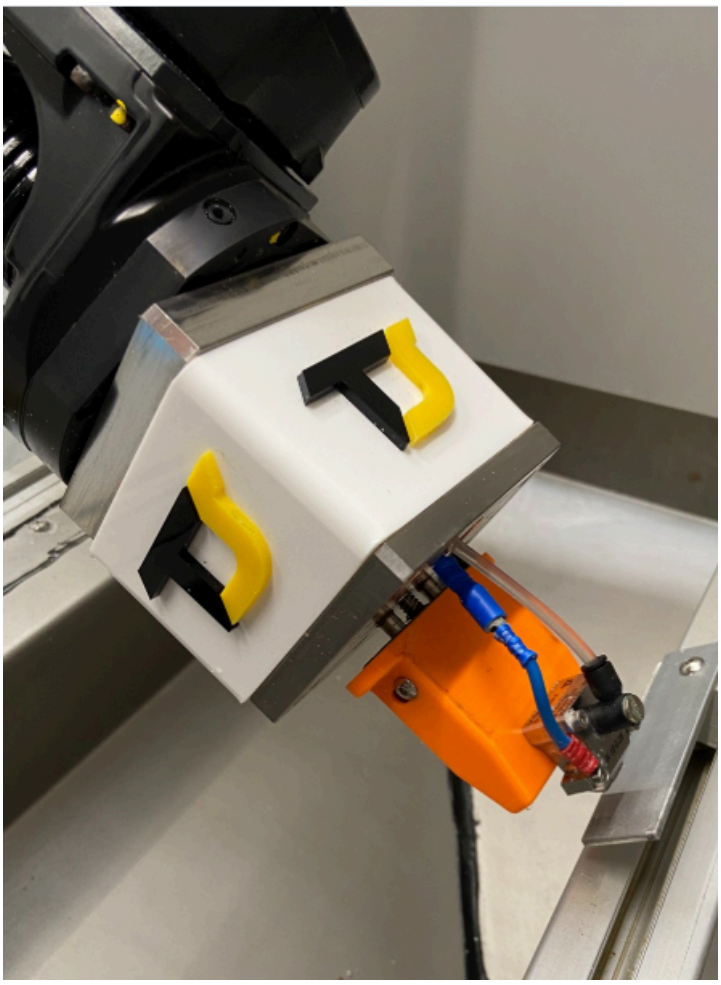
TEXTURE JET

Nearly 200 years ago, Michael Faraday formulated the laws of electrolysis.

The cutting-edge technology we utilise today is rooted in those foundational principles.



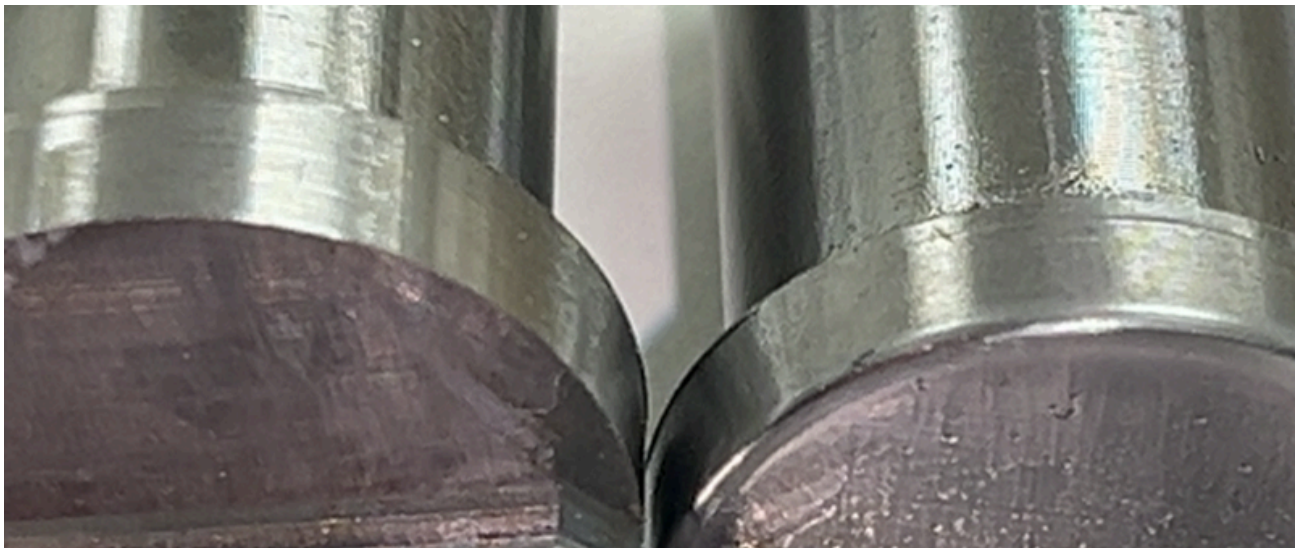


At Texture Jet, we still get excited when we see the results we can generate with our high precision, selective surface processing and edge finishing solutions.

Our team is full of innovative ideas and creative strategies to address the surface processing demands of today's businesses, both now and in the future, including:

- Edge shaping and deburring
- Surface preparation
- Part marking

EDGE SHAPING



Revolutionise your edge profiling with our high precision deburring solution

This solution offers quick deburring, with controlled, repeatable and precise edge breaks on parts, generating a high quality finish without the risk of damage.

Remove burrs and create perfect edge breaks, without heat and without a large affected area. This automated solution reduces operational cost as there are no airborne particles.

Enhanced precision

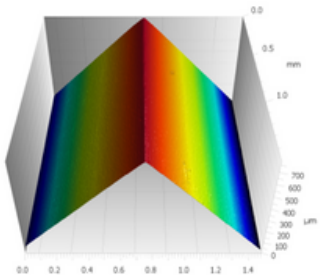
Programmable from 0.1 to 1mm radii, enabling tighter tolerances and better quality.

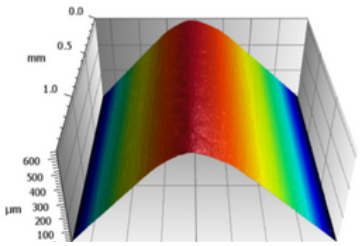
Improved repeatability

Our technology offers greater control and delivers a 78% improvement vs manual deburring and 53% improvement vs robot deburring in repeatability, reducing rework and scrap, resulting in increased yield.

Adaptable for any component

5-axis and robot integrations available allowing any component geometry and size to be machined.





Click here or scan the code to read our Edge Finishing White Paper

APPLICATIONS

SURFACE PREPARATION

Precision surface engineering for bonding, coating and surface dressing

Create high quality finishes on your 2D and 3D surfaces, with our fully automated surface texturing solutions. Increase the repeatability of your surface preparation - creating a predictable bonding surface for adhesives or coatings.

This selective process removes the need for masking, simplifying the process chain and reducing the overall processing time and cost.

Improved repeatability

73% increased repeatability in bond strength vs degreasing only preparation, and 50% vs media blasting, resulting in increases in yield and more consistent bond, or coating, strength.

High level of control

High level of process control allows complex variable surface finishes to be achieved easily.

No masking required

The process is selective, removing the need for masking and therefore reducing the overall processing time and cost.

Click here or scan the code to read an in-depth overview

APPLICATIONS

PART MARKING

Cutting-edge technology for complex part-marking without the need for harsh chemicals or stencils

Create part markings on large or small components with uneven curved surfaces. Machine 2D barcodes direct onto metal surfaces with precision for product identification, tracking and marketing purposes.

Especially relevant for safety critical applications where cyclic loading takes place.

Improved service life

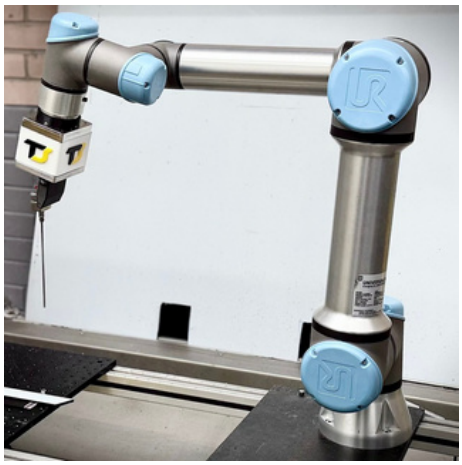
Create part marks without heat, raised edges and without damaging the surrounding area.

High level of control

Control the depth of cut to ensure long-lasting marks are created.

Highly flexible

Easily program complex 2D and 3D part marks, on surfaces of any size or shape, with our cartesian, 5-axis and cobot solutions.



Click here or scan the code to learn more

APPLICATIONS

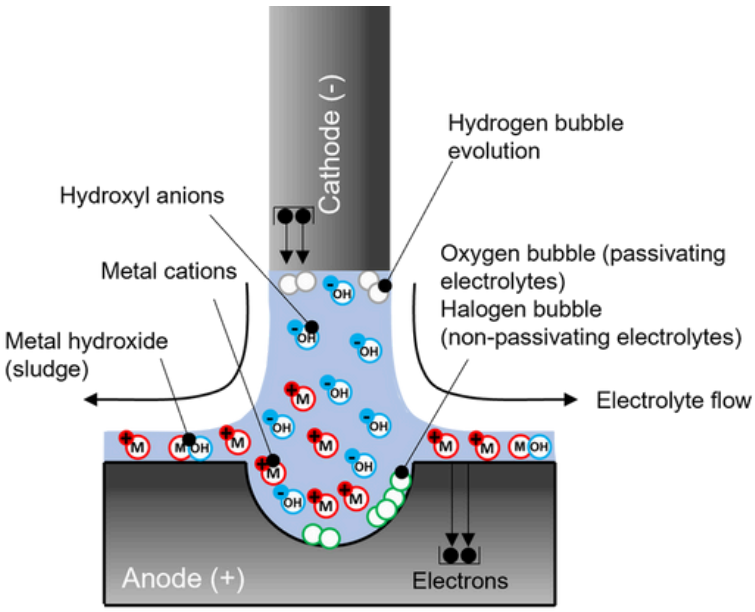
TEXTURE JET PROCESS

What is Electrochemical Jet Machining technology?

Electrochemical Jet Machining (ECJM) is a precise adaptation of more traditional Electrochemical Machining which can be used on any conductive material.

The electrolyte is delivered via a nozzle to the workpiece. An electrical charge is passed between them, causing a controlled amount of material to be removed from the workpiece surface.

The removed material is dissolved in the electrolyte, washed away, filtered, and the electrolyte is recycled through the process.



Key benefits of ECJM

High precision without masking
Ability to machine complex shapes with high precision without the need for masking, saving time, cost and waste.

Suitable for hard-to-machine materials
Suitability for hard-to-machine materials regardless of their hardness or toughness.

High quality finish
Excellent surface finish with no microcracks, deformation or residual stress.

Unique environmental, health & safety features

The TextureJet solution uses no dangerous chemicals, only recycled, pH neutral salt-based electrolytes. Power requirements are very low with less than 1Kwh usage during processing. With very low noise levels (less than 69db), no vibration or forces being applied, and no dust or swarf being created, it is very operator friendly and has no special PPE, dust or fume extraction requirements.

Click here or scan the code to read more about our technology

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