

Waterjet Edge



Cognitive Insights Newsletter



From the Desk of 2Do

What can a waterjet cutting machine operator cut for helping themselves , we mean like a tool or something ? If the operator is creative, they can use scrap metal or leftover sheet and cut:

"Tools that improve the operator's own productivity and safety — using the very machine they run every day."

Well, is there something we can do for agriculture? Commercial viability is the key!

Read on as we explore product development, tooling and you in this edition

Industry Intelligence

Moving into product development territory, where waterjet operators can not only make tools for themselves, but also develop products that have real commercial value.

Let's focus on flat or 2.5D products that:

- Can be cut entirely on a wateriet.
- · Require minimal or no post-processing.
- · Have realistic demand in the market.
- Can be made from sheet metal, plastics, composites, stone, etc.

Commercially Viable Products a Waterjet Operator Can Make and Sell (Using Only Their Machine)

Category	Product	Market / Buyer	Notes
	Universal Clamps, Fixtures	Fab shops, job shops	Niche, high-margin if custom
Workshop Tools	Welding/Drilling Jigs	Welders, assembly lines	Needs smart design
	T-Slot Table Accessories	CNC users, metal workers	Useful for modular systems

In this newsletter you can expect:

Industry Intelligence

Stakeholder Spotlight

Case of the Month

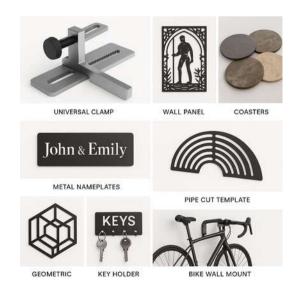
Ask an Expert

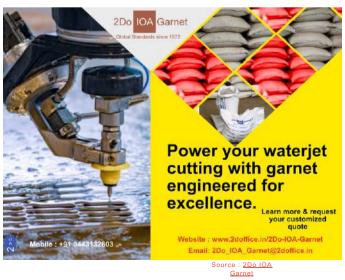
Marketplace & Innovations

Training & Events

2Do Corner

Category	Product	Market / Buyer	Notes
Home & Interior	Designer Wall Panels / Screens Metal Nameplates & Address Boards Coasters / Trays (Metal, Stone) Keyholders / Utility Hooks	Architects, interior designers Homeowners, hotels Gifting, retail Retail, online gift shops	Laser-like finish with waterjet Customizable, mass-appeal Batch production potential Simple, scalable
Art & Decor	Wall Art (Geometric, Mandala, Names) Tabletop Sculptures	Etsy-style consumers Home decor shops	High margin with design appeal Use scrap pieces for variety
Industrial Use	Pipe Cut Templates Shims / Spacers Control Panel Fascia Plates	Pipe fitters, oil & gas Machinery, maintenance Electrical & automation OEMs	Pre-cut templates for welding Thin metal parts with demand Customizable front plates
Signage	Corporate Metal Sign Boards Stencils (Logo, Number, Lettering)	Offices, commercial properties Painters, sign makers	Premium segment Fast turnaround, good volume
Utility	Foldable Knife/Tool Blanks Mechanical Puzzle Toys Bike Wall Mounts / Holders	DIY, blade hobbyists Hobbyists, corporate gifting Urban cyclists, e-comm	Flat blanks ready for grinding High novelty value Laser-cut look, durable







Stakeholder Spotlight



M/s. Shreeji Laser Tech, Mumbai, Maharashtra has built up an impeccable reputation for quality and service while maintaining the highest level of product security.

Their product range includes Laser, Waterjet and Plasmacutting as per the customer's requirement, with in-house design & development capabilities, they use state of the art equipment and techniques to offer perfect solutions for their customers.



Types of Waterjet Cutting done by them :-

- Pure Waterjet Cutting: In this method they use only water, typically at pressures between 30,000 and 90,000 psi (pounds per square inch), to cut soft materials such as rubber, foam, textiles, paper, and some plastics. It is ideal for non-metallic materials that are easily cut with a focused water stream.
- Abrasive Waterjet Cutting: In this method, they
 use an abrasive material (usually garnet) which
 is added to the water stream to increase the
 cutting power, allowing the machine to cut
 harder materials such as metals, stone,
 ceramics, composites, and glass. The abrasive
 particles help to erode the material along the
 cut line.



Source: https://mumbailaser.com/waterjet-cutting/

Case of the Month

Can Waterjet-Cut Spanners Compete in the Market? by 2Do Marketing Solutions

Abstract

Yes, but only in specific niches.

For general, mass-market spanners — NO, waterjet-cut spanners cannot compete on price with forged or CNC-milled spanners from China or India's mass producers.

Why Waterjet-Cut Spanners Are Not Competitive at Scale:

Factor	Mass-Produced Spanners	Waterjet-Cut Spanners
Material Cost	Bulk-purchased alloy steel	Likely smaller sheet sizes, less optimized
Manufact uring Process	Forging + automated machining	Slower, more expensive per piece
Finish & Strength	Heat-treated, forged for strength	Waterjet-cut = flat profile, no edge hardening
Unit Cost	Very low (₹30– ₹150 per spanner)	Much higher (₹150–₹400+ easily)

Where Waterjet-Cut Spanners Can Compete:

Niche	Description
Custom One-Off Tools	Special size, shape, or thin-profile spanners for specific machines
Toolkits for OEMs	Spanners that fit a specific bolt/nut system on their equipment
Decorative / Gift Tool Sets	Personalized, etched spanners (e.g., for Father's Day, corporate gifts)
Artisanal / Industrial Decor	For wall displays, branding, café themes
Emergency Flat Wrenches	For outdoor, survival, or tactical gear kits

ISSUE #3

Ask an Expert

Q: What can a waterjet cutting machine operator cut for helping themselves, we mean like a tool or something?

A: Waterjet cutting operators can absolutely cut tools or accessories that make their own work easier, safer, or more efficient. Here are clever and useful items a waterjet machine operator can fabricate for themselves using the machine:

Tools & Aids Waterjet Operators Can Cut for Themselves

1. Nozzle Alignment Tool

- A precise gauge or jig to help check and align the nozzle head quickly after maintenance.
- Reduces setup time and ensures cut accuracy.

Notes: Flat plate type and use metal or acrylic; cut holes/lines precisely.

2. Fixture Clamps & Brackets

- Custom clamps or hold-downs for irregularly shaped parts.
- Can be made from aluminum or plastic and reused.

Notes: Single-piece or stack multiple plates for 3D.

3. Garnet Flow Funnel or Dispenser

- A precise, durable funnel system for pouring garnet into the hopper without spillage.
- Anti-static plastic or steel, depending on usage.

Notes: Cut funnel pieces; assembly needed.

4. Work piece Positioning Templates

- Templates or jigs that fit into the tank for repetitive cutting jobs.
- Especially helpful in batch production or jobs needing perfect alignment.

Notes: Simple 2D design, cut and use.

5. Protective Covers or Splash Guards

 Shields to protect operators from splashes or mist, customized to their work area.

Notes :Polycarbonate or acrylic sheets cut precisely.







6. Customized Cleaning Scrapers or Tools

 Steel or plastic scrapers for tank cleaning or garnet buildup removal.

Notes: Cut from plastic or soft steel.

7. Cutting Bed Spacer Blocks

 Replaceable grid spacers or risers for lifting parts above the slats for clean cuts and reduced back-scatter.

Notes :Simple blocks; cut from aluminum/plastic.

8. Labeling or Tagging Stencils

 Aluminum or plastic stencils for marking parts before/after cutting, especially useful for job tracking.

Notes: Acrylic or aluminum. Instant use.

9. Toolbox Inserts / Organizers

 Custom foam or plastic tool organizers for neatly storing waterjet nozzles, orifice jewels, allen keys, etc.

Notes: Cut from foam, plastic, or acrylic.

10. Mobile Garnet Tray or Storage Box

 A custom trolley or box to move garnet or spare parts around the workshop.

Notes: Flat metal/plastic cut parts. Assembly may need rivets/screws.

Materials That Can be Used for this purpose:

- Aluminum (light, durable)
- HDPE / Acrylic (non-corrosive, easy to cut)
- Mild Steel (if heavy-duty strength is needed)
- Rubber or Gasket Sheet (for splash control or seals)

Source: 2Do Consultancy



Waterjet operators can play a surprisingly valuable role in agriculture, especially in small-batch tool production, custom fabrication, and repair solutions for farms.

Waterjet cutting is ideal for strong, rust-resistant, flat-profile tools made from steel, aluminum, or plastic. Agriculture-Friendly Products a Waterjet Operator Can Design, Cut & Sell.



Marketplace & Innovations



Market Advantage:

- Many farmers and agrientrepreneurs in India need durable, low-cost, and customfit tools — but don't get access to branded solutions.
- Waterjet operators can offer low-volume precision parts at better prices, especially in rural areas or co-ops.

1. Hand Tools & Attachments

Product	Use	Notes
Planting Markers / Spacers	Align seeds or saplings	Durable, rust-proof
Hoe Blades / Weeding Attachments	Hand or tractor- based	Replace worn parts with custom-cut versions
Sickle Blanks / Handle-Mount Blades	Harvesting tools	Waterjet-cut blanks ready for handle fit
Flat Cultivation Tines	Soil aeration	Cut in batches, sold as spares

2. Farm Repair & Mounting Solutions

Product	Use	Notes
Mounting Plates / Brackets	Fix pumps, motors, solar panels	Custom-fit, precision holes
Custom Gaskets (Rubber or Metal)	Irrigation systems, tractors	Waterjet shines here for non-metal cuts
Shield Plates / Spray Guards	Attach to sprayers or tillers	Reduces damage from debris
Nozzle Guides / Housings	Agri-sprayers	High wear – fast replacement possible

3. Farm Infrastructure Items

Product	Use	Notes
Tool Racks	Storage in sheds	Wall-mounted
Animal Feed Sifters / Screens	Filtering grain/hay	Precise mesh cuts possible
Ventilation Louvers / Panels	Poultry sheds, greenhouses	Custom size cuts in aluminum
Name Boards / Tag Plates	Cattle, sheds, water tanks	SS, MS or coated aluminum



Training & Events



- Expo: Abrasive Expo 2025 (November 14–16, Kolkata)
 (https://www.theabrasiveexpo.com/)
- Expo: ENGIMACH 2025 (December 3-7 , Gandhinagar, Gujarat)
 (https://www.kdclglobal.com/kdcl-event/17th-engimach/)

2Do Corner

Design is the process of creating something with a specific purpose or function in mind. It is the art and science of planning and creating a product, system, or environment that meets the needs of users and stakeholders.

Get in touch with us for your design needs!

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Call for Collaboration

We're inviting stories, cases, innovations, or partnerships. Want to get featured or co-develop a solution?

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Thank you for reading!

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