

# WATERJET CUTTING MACHINES





## **PRODUCT LINE**

Water-et cutting machines are a versatile tool that finds application in a wide range of industries. They enable precise cutting of sensitive, hard, and soft materials, as well as non-metallic materials like ceramics, plastics, composites, and food items. When combined with fine abrasive sand, these machines are capable of making very thick cuts without compromising the material's structural integrity. Usel Makina offers Storma systems in various sizes, complete with standard equipment and an array of optional features, including a 3D head.



# **STORMA PRECISE WJ3**

## **3-AXIS CNC WATERJET CUTTING MACHINE**

Highly efficient and reliable system which meets the highest production requirements and allows to solve a wide range of tasks.

The machine is equipped with an advanced control system, powerful drives and built-in software to optimize and increase your productivity.











A wide range of high-pressure pumps from industry leaders BTF and KMT. Choose the one that's right for you



Configure the perfect machine - from the footprint to the many options.



Machine meets the highest safety standards



Bechoff CNC and intuitive software - easy and robust



Intuitive CAD/CAM software



3-axis cutting system with 0.06/0.05 mm positioning/repeating accuracy - the highest quality and precision

# **STORMA CREATOR WJ5**

### **5-AXIS CNC WATERJET CUTTING MACHINE**

The flagship model boasts unmatched precision and an extensive range of technical capabilities. It is a versatile solution for producing and machining intricate geometries with exceptional accuracy, angle-corrected parts, and cutting cones.

The extensive range of options and the latest technology incorporated into this machine ensures your possibilities are virtually limitless, enabling new horizons in productivity while reducing costs to a minimum.



## **5-AXIS CUTTING HEAD USEL (PATENTED)**

- Higher precision: Pre-programmed travel direction reversals are analyzed up front in order to adjust machining conditions according to the machine dynamics

Chamfering up to 60°TaperControl - cutting angle correction feature5axis cutting kinematics with high dynamics and precision <0,02 mm</li>
Endless Rotating = no contour disruption and no repeat plunge-cut required = time and cost savings

Our own 5-Axes head works simuletually can rotate +360 - 360 degree / with beveling +86 till -86 degrees which allowsdo the cutting in all ways

Unleash the full potential of the Storma Creator Wj5 with Fagor 8065 CNC control system (optional) and Igems software (optional)

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# STORMA COMPACT C3-1010

### COMPACT WATERJET CUTTING SYSTEM

This machine occupies minimal floor space, boasts an optimal footprint, and is user-friendly.

The powerful high-pressure pump saves on production costs without sacrificing cutting speed and accuracy.

With its compact size, attractive price point, and impressive technological capabilities, this machine is the ideal solution for medium and small-scale private production across a diverse range of applications.



OPTION







Compact footprint -1000×1000mm



Bechoff CNC and intuitive software - easy and robust



Up to 50% savings without sacrificing cutting quality and speed



Machine meets the highest safety standards



Powerful high-pressure pump BFT 50 hp 4000 bar



High cutting precision +-0.05mm



Ideal for small applications



Wide range of options for expanded functionality

## **HIGH-PRESSURE SYSTEM**

# CONTROL AND SOFTWARE



#### BFT Ecotron 40.37 50 hp, 4000 bar

The basic model that offers excellent value for money, proven technology, stable pressure and perfect cutting precision.

Axial piston pump, controlled by a proportional control valve. Equipped with a reliable pressure multiplier.





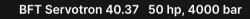
**Booster Pump** 

Oil-air cooler



BFT Ecotron 40.37	′⊕	50 hp,	4000	ba
OPTION*				



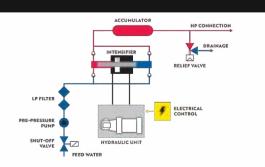


OPTION\*



### BFT Hypertron 60.55 75 hp, 6000 bar

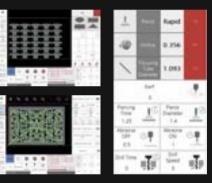
**OPTION\*** 





Compact

Precise/Creator



#### Mobile operator panel 17"

#### ControNest CAM-Software

Easy to operate CAM softwareControNest was specially developed for cutting machinesThe software includes an embedded CAM module, with which CAD drawings, nesting and material databases can be imported, which means no expensive additional CAM software is required

# Beckhoff CX5130 CNC control Unit

- The CX5130 has an Intel Atom® multicore processor with 1.75 GHz, real multi-core technology in the segment of compact embedded PCs
- Two independent, Gigabit-capable Ethernet interfaces as well as four USB 2.0 and one DVI-I interfaces are available
- The CX5130 is characterized by low power consumption and no fanPowerful Contronest drives round out the powerful and reliable control package





## **CUTTING AND ABRASIVE SYSTEM**

## **MOVEMENT SYSTEM AND TABLE STRUCTURE**





**3-axis BFT Waterjet valve** and Abrasive head -TWINJET



250 kg Reservoir



**Abrasive Collection** System

**BFT Automatic abrasive** dosing unit \* Option for Compact



Cutting head water-return valve Usel Patented

OPTION

**USEL 1000 KG automatic** abrasive transfer unit (tank)



Very rigid dual-drive machine bridge

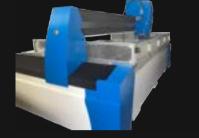


Stand-alone cutting table with high load capacity





**Rigid frame construction** 



Totally enclosed moving units to

protect against ingress of water

and dust



**Electronically monitored central** lubrication system

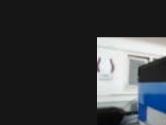
Servo-motors and precision gears ensure excellent positioning accuracy and repeatability



Ground and hardened helical gears on Y- and -X axes, plus high-quality preloaded ball screws on Z- axis



High-quality linear guides on all axes



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## **OPTIONS**



2nd Head of Copy on single Z axis





Waterjet Drilling\*

Waterjet Lathe\*



Laser Pointer





**Pneumatic Tilted table** 

Wireless remote control

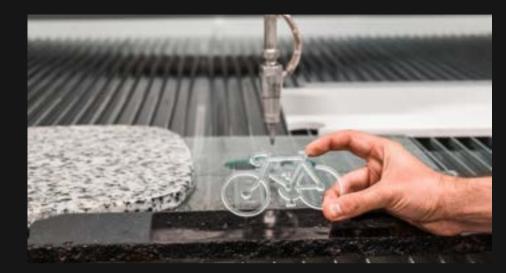
**Collision Protection** Device

\* Not for Compact

# **TECHNICAL SPECIFICATIONS**

	Precise WJ3	Creator WJ5	Compact C3	
Max. number of interpolated axes	3+1*	5+1*	3	
Table load capacity kg/m <sup>2</sup>	1500	1500	950	
Travel Z-axis, mm	200	200	100	
Work feed, mm/min	0 - 20000	0 - 20000	0 - 30000	
Positioning accuracies, mm	± 0,06 / option up to ±0,02	± 0,06 / option up to ±0,02	± 0,05	
Repeatability, mm	± 0,05 / option up to ±0,01	± 0,05 / option up to ±0,01	± 0,05	

\*  $\{ \mathbf{x}_{\mathbf{y}}^{\mathsf{T}} \}$  Lathe (option)



	Precise WJ3 / Creator WJ5								Compact C3			
Modification	2010	2040	2060	2515	2540	3015	3020	3030	3040	3060	3080	1010
Cutting capacity 2D (x,y) mm	2050 × 1050	2050 × 4050	2050 × 6050	2550 × 1550	2550 × 4050	3050 × 1550	3050 × 2050	3050 × 3050	3050 × 4050	3050 × 6050	3050 × 8050	1000 × 1000
Cutting capacity 5 axes, mm	1550X550	1550X3500	1550X5500	2050X1050	2050X3550	2550X1050	2550X1550	2550X2550	2550X3550	2550X5550	2550X7550	
Overall dimensions (LxWxH), m	3,45×2×2,4	3,45×5×2,4	3,45×7×2,4	4,05×2,5×2,4	4,05X5×2,4	4,45×2,5×2,4	4,45×3×2,4	4,45×4×2,4	4,45×5×2,4	4,45×7×2,4	4,45×9×2,4	2,34 × 1,63 × 2,13
Weight without water, kg	2420	4960	6620	3450	6950	3370	3930	6200	5950	8310	10500	1800

# **PROCESSING GALLERY**



## **PRODUCT RANGE**



**BRIDGE SAWS** 

## 5-AXIS CNC MACHINING CENTERS



## WHY US?

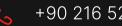


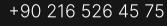


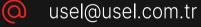




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