

ABRA*master*

We are

waterjet

**THE NEW ABRASIVE SYSTEM
FOR THE DELIVERY AND PRECISE
DOSING OF ABRASIVES**

For even faster and more precise
waterjet cutting



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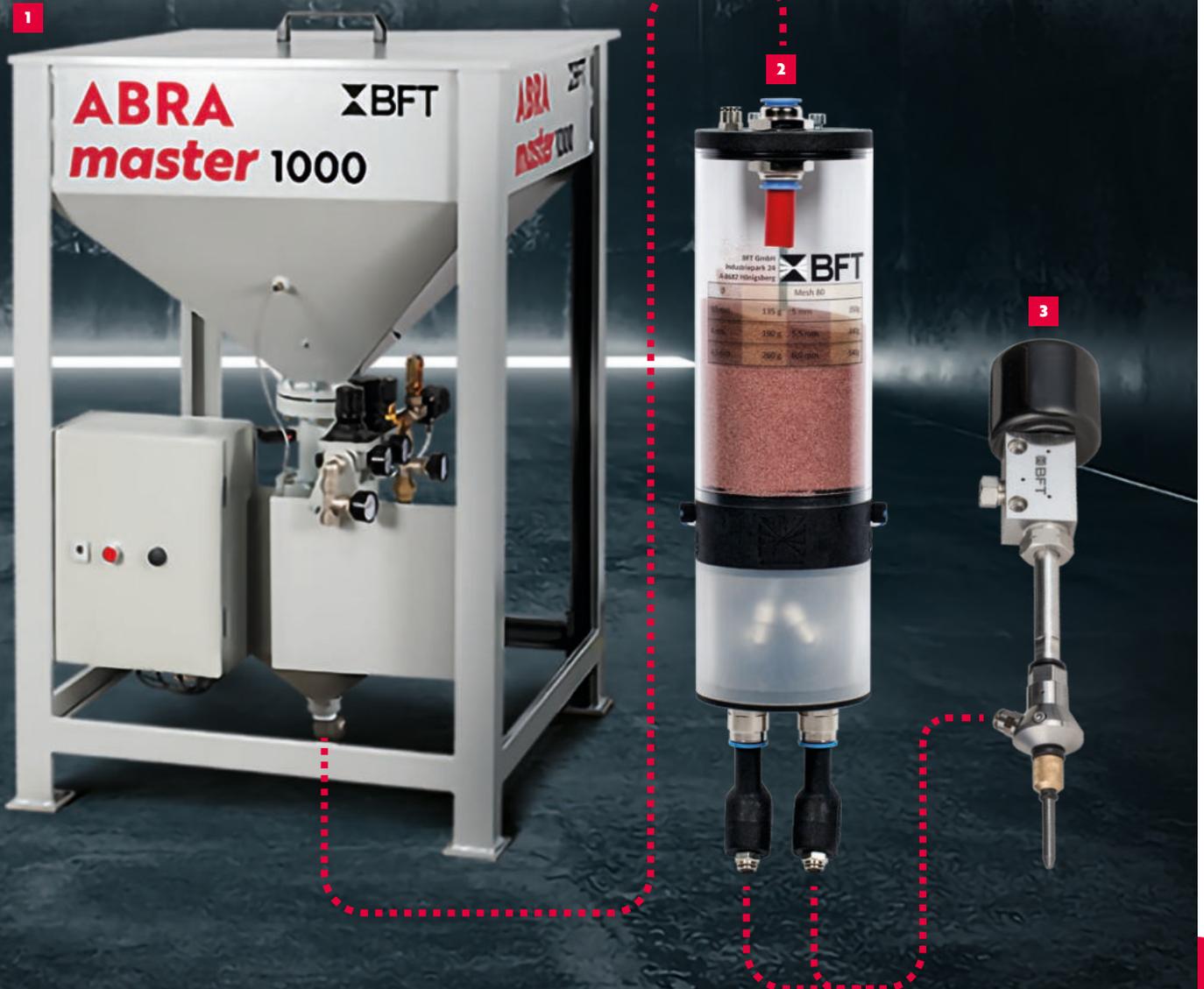
BFT, THE WORLD'S LEADING SUPPLIER OF HIGH-PRESSURE PUMP SYSTEMS, PRESENTS:

ABRA^{master}

**EVEN HIGHER WATERJET CUTTING QUALITY THANKS TO THE
ABRAMASTER: THE ABRASIVE CUTTING SYSTEM OF THE FUTURE.**

In waterjet cutting, a differentiation is generally made between two process variants: cutting with a pure waterjet and abrasive waterjet cutting, whereby in the latter a sharp-edged abrasive (such as garnet sand) is added.

Thus even harder materials can be cut.



**BFT, THE WORLD'S LEADING SUPPLIER
OF HIGH-PRESSURE PUMP SYSTEMS, PRESENTS:**

ABRAmaster

The first choice for abrasive waterjet cutting

THE ABRAmaster ABRASIVE CUTTING SYSTEM FOR FAST AND PRECISE ABRASIVE CUTTING:

The easy-to-use system guarantees reliable delivery as well as precise dosing of abrasives to the water jet to achieve high cutting quality on stone, metal, ceramics, glass, composites, etc.

EASY MAINTENANCE

No mechanically moving components come into contact with abrasives – only the sleeves of the pinch valves. These have an above-average service life due to their material and have an extended maintenance interval if operated properly.

The ABRAmaster consists of two components:

- 1 ABRASIVE CONTAINER
WITH CONVEYOR SYSTEM
(ABRAfeeder)**
- 2 ABRASIVE DOSING UNIT
(ABRAdoser)**
- 3 WATERJET VALVE OR
CUTTING HEAD**

ABRAfeeder

The abrasive delivery unit ABRAfeeder is divided into a supply tank and a pressure tank. The abrasive is conveyed pneumatically to the abrasive dosing unit by means of an integrated PLC control and sensors. The ABRAfeeder is available in three capacity sizes.

The built-in fill level sensor on the supply tank shows the minimum fill level and sends a stop signal to the control unit if the level drops below it. The supply tank can also be filled during abrasive delivery. In addition, it is as standard equipped with a sieve that filters unwanted solids up to 1 mm out of the added abrasive.

The pressure tank holds 24 l and is separated from the supply tank above by a pneumatic pinch valve. A sensor also monitors the fill level on the pressure tank. If the pressure drops below the limit, the pinch valve opens briefly, the excess pressure in the pressure tank is relieved via a hose line back into the supply tank and the pressure tank is filled with abrasive. The pressure tank is then pressurised again with the pneumatic pressure required for delivery and abrasive is delivered back to the abrasive dosing unit.

ABRAdoser

The abrasive dosing unit ABRAdoser doses abrasives in the simplest way and repeatedly with pinpoint accuracy.

The ABRAdoser is optionally available as a double version with two integrated dosing nozzles. This allows two cutting heads to be supplied with abrasive at the same time. With only one cutting head, it is again easy to switch between two differently dosed abrasive quantities.

The control of the installed pinch valve (maximum pneumatic pressure: 2.5 bar) is carried out by means of a 3/2-way solenoid valve. The control system is designed as a safety circuit and provides protection against power or compressed air failure – provided that the signals are integrated into the system control.

QUICK DOSING NOZZLE EXCHANGE

The dosing is carried out by dosing nozzles of different sizes, which can be exchanged quickly and without tools thanks to push-in connection technology. In the double version, the ABRAdoser can be operated with different dosing nozzles.

TECHNICAL DETAILS ABRAmaster

ABRAfeeder

Capacity, abrasive container	kg	450/1,000/2,000
Dimensions (width x depth x height)	mm	860x860x1,320/1,060x1,060x1,500/ 1,240x1,240x1,773
Abrasive	Garnet sand	
Max. conveying capacity	kg/min	4
Capacity, pressure tank	l	24
Required compressed air supply	bar	5.5–6.5
Delivery pressure	bar	2.5–3.5
Supply voltage	VAC	110–240
Frequency	Hz	50–60

ABRAdoser

Dosing quantity	g/min	0–1,100
Supply voltage	VDC	24
Compressed air supply, max.	bar	2.5
Standard abrasive input hose	mm	16
Standard abrasive output hose	mm	6
Dosing nozzles	1 (single)–2 (double)	

Technical changes reserved



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