

Versatile, affordable and easy to use:

Waterjet cutting now available for small budgets

Job shops that offer services for cutting materials often have to deal with a variety of customer demands. Diverse geometries have to be produced from different materials. That is why the cutting process must be as flexible as the customer's requirements. However, waterjet cutting technology can also demonstrate its abilities in other areas that require high flexibility. Yet, many companies shy away from a switch from conventional cutting processes to waterjet cutting – often they fear high costs and the complexity of the technology. Cost-effective starter models make it now especially easy to switch or to get in.

Bretten, September 17th, 2007 - Flow Europe's experts for high-pressure waterjet cutting are primarily known for their high-end waterjet cutting systems. Know-how gathered over many years especially in the area of pumps, cutting heads but also control software allows for highest precision work, flexibility and efficiency. For the first time Flow has included a model into the program that makes this know-how available with a cost-effective waterjet cutting system.

Small price, big performance

One of the main factors affecting the precision of waterjet cutting is the quality of the cutting head and the pumping technology. Of great importance, for example, is the control software that also determines whether a system is easy to operate. Even in the case of the starter model WaterjetPRO (Picture 1) which is exclusively distributed by Flow, the waterjet cutting experts did not want to make any compromises in terms of these components. For this reason, these components come from Flow. In order to still achieve an affordable price, the table is manufactured in Asia.

The system is available in two sizes: 1.3 m x 1.3 m and 2 m x 3.1 m. Depending on the requirements, three different pumps are available: There is a direct-driven pump with 22 kW (30 HP) and there are intensifier pumps with 22 or 37 kW (30 or 50 HP) achieving working pressures of 3,800 bar and up to 4,150 bar. The cutting head PASER ECL Plus (Picture 2) provides a most effectively concentrated and focused jet; reflection and

friction are largely avoided. On the one hand, the system utilizes pure water and is able to smoothly cut plastic, paper, wood or foamed materials. On the other hand, hard materials such as stainless steel or glass can also be cut efficiently by using added abrasive sand. Depending on the material, cutting speeds of up to 6.3 m/min can be achieved; the repeatability is always better than +/- 0.2 mm. The CNC controlled system that features a graphic user interface can be operated intuitively even without prior knowledge of CNC or without long training periods on complex machine control systems (Picture 3). This DXF-to-Motion software can be used to easily import CAD data. The software has been specially customized for waterjet cutting.

The model WaterjetPRO complements the product range in the beginner class and allows the newcomer to utilize the benefits of this cutting technology. For example, different materials can not only be cut with just one tool and without thermal effects but they can also be drilled and engraved. Machining forces acting on the workpiece are minimal. And since the waterjet with the added abrasive sand is the cutting medium, it will wear out less than it is the case with conventional cutting processes.

Picture 1 The waterjet cutting system WaterjetPRO cuts gaskets as well as glass, metal or foamed material.

Picture 2 The cutting head PASER PASER ECL Plus provides a most effectively concentrated and focused jet.

Picture 3 The CNC controlled system with a graphic user interface can be intuitively operated even without prior CNC knowledge or long training periods on complex machine control systems.

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Flow Europe is a subsidiary of Flow International Corporation, USA, and European Headquarters for all products relating to ultrahigh-pressure waterjet cutting technology. Flow Europe has subsidiaries in France, Italy, Spain, and the UK.

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