

CUTTING-OUT PROCESS

Objective

To cut out, trim or tool complex shapes out of materials of all types, requiring 2 to 6 axes, without any physical distortion.

Principle

Two types of cutting-out processes are available: with pure water or abrasives.

- **Pure water:** for the cutting out of soft materials (i.e. Carpets, composites, plastics, foodstuffs)
- **Water + abrasive:** to cut much harder materials (i.e. Titanium, ceramics, stone, glass) or very thick parts (up to 200 mm).

Parameters influencing cutting-out processes:

- **Pure water:** nozzle diameter, pressure and nozzle-to-part distance
- **Water with abrasive:** nozzle diameter, pressure and nozzle-to-part distance, length of the focusing tube, abrasive flow, type of abrasive (type and grading)

Advantages

- No thermal distortion of the cutout product
- Small-sized tool allowing specifically shaped cutouts
- Little material waste through cutting out
- Various material sandwiches can be cut out
- No tool wear generated by the cutout material

