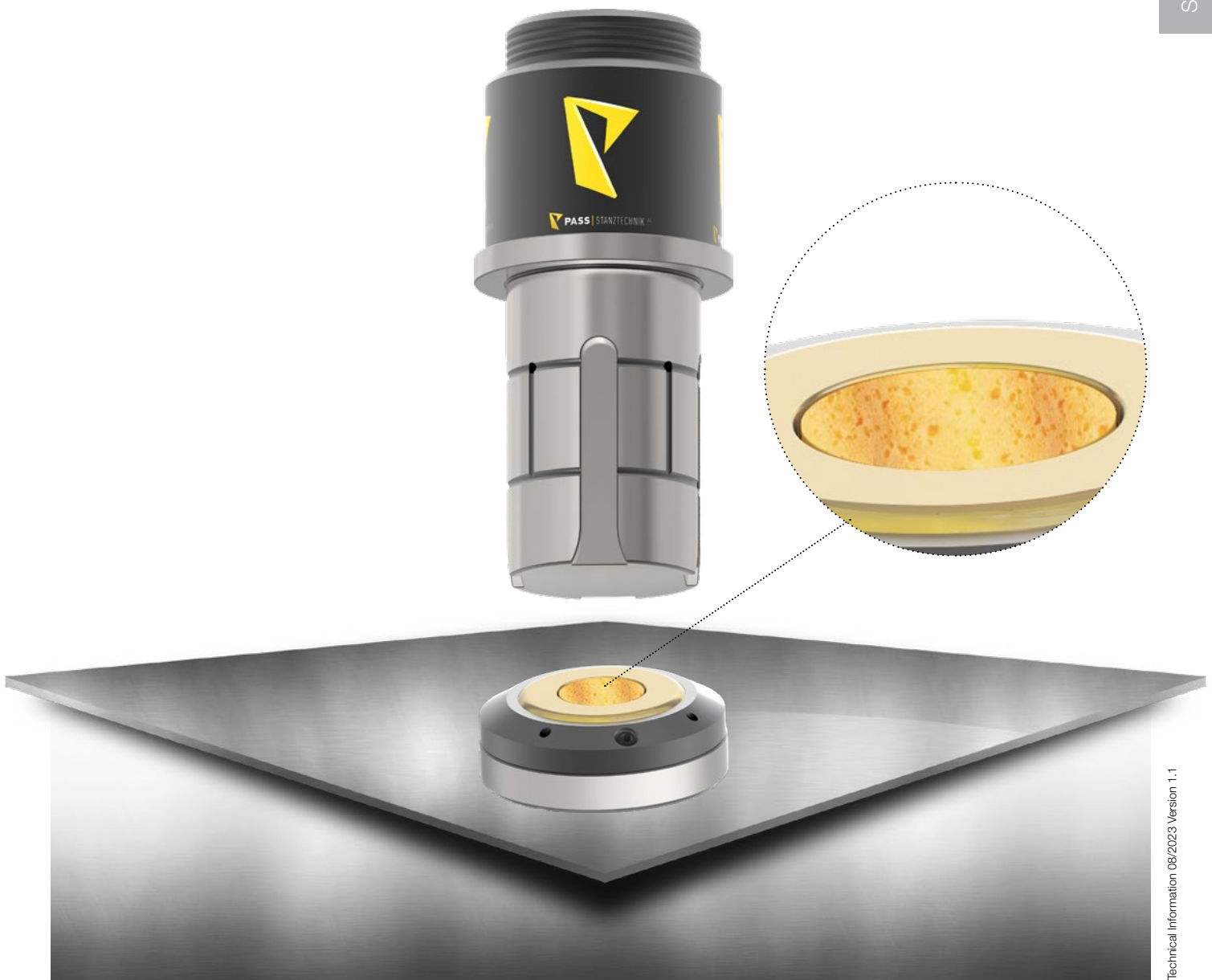


# ps:<sup>®</sup>sponge-tool

## NEW LUBRICATION TOOL FOR EXACT EMBOSSINGS

When forming sheet metal, oil in the right place is an important requirement for best forming results and a component for a long tool lifetime. Until now, oil lubrication from the bottom side of the tool on CNC-controlled machines was not possible which is why lubrication is usually completely dispensed with. As a result, poor tool lifetime has to be accepted as well as poor formings are achieved often. In order to meet the quality requirements, PASS Stanztechnik AG has developed a solution:

### ps:<sup>®</sup>sponge-tool



TRUMPF

THICK TURRET

SALVAGNINI

Technical Information 08/2023 | Version 1.1

# ps:<sup>®</sup>sponge-tool

## NEW LUBRICATION TOOL FOR EXACT EMBOSSINGS

The lubrication tool **ps:<sup>®</sup>sponge-tool** enables sheet lubrication on CNC sheet metal working machines from below and thus ensures selective lubrication exactly at the point on the sheet metal where it is necessary.

**ps:<sup>®</sup>sponge-tool** contains a sponge with a capillary effect for oil which is included in the die. The die is equipped with an oil filler screw through whose filling hole the corresponding oil is filled in (approx. 50 ml). Now the sponge absorbs the oil and the screw can be closed again. Furthermore, the tool is equipped with steel springs as well as an Ampco stripper for low-scratch material handling due to the low effort needed. You will find further information about low-scratch material handling on our website.

In practice, the whole thing works as follows: In the production of an extrusion for example, the sheet metal is pre-punched first. Then, **ps:<sup>®</sup>sponge-tool** executes a hit at the corresponding position. The sponge is pressed on the sheet metal and oil is precisely applied to it. The next step is the creation of an extrusion which is to place the oil film exactly where it is needed. Another classical application are forming tools such as the round emboss tool. In this case, lubrication results in significantly lower friction during the forming process. As a consequence, embossings are produced in better quality.

The advantages of **ps:<sup>®</sup>sponge-tool** are obvious:

- quality improvements in embossings
- controlled applications
- significant improvement in tool lifetime by successively used forming tools
- high process reliability

What's behind the magic sponge that can do it?

**ps:<sup>®</sup>sponge-tool** is a special sponge which operates the essential functions for sheet metal embossing: liquid absorption, storability as well as retention capacity. This means, that the sponge doesn't constantly release oil but exactly at that point on the sheet that is affected by the embossing process. Its oil film acts like a lubricating film and thus protects the surface during processing.

The **ps:<sup>®</sup>sponge-tool** is currently available with a sponge insert of 30 mm diameter and for tools of the THICK TURRET and TRUMPF machine systems. Designs for other tool types are of course available on request. The sponge has no limit to the sheet thickness. Two further positive characteristics of the sponge are its high chemical fastness and solvent resistance. Thus, commercial lubricants can be used without damaging the material.

Replacement sponges for **ps:<sup>®</sup>sponge-tool** are of course available at a reasonable price.

If you have any questions about the new lubrication tool, please contact your contact person at PASS.