**Cartridge type 842**

Expansion of the modular grooving system range

HORN is expanding its grooving system by adding a type 842 cartridge system, which features smaller dimensions for machining smaller workpieces. The system is suitable for parting off various grades of steel and really stands out on account of its extremely high rigidity and efficient cooling concept.

The 842 cartridges form part of the 940 modular grooving system, which comprises a basic holder, a grooving tool holder and a cartridge. The key advantages for users lie in the flexible component combinations. The grooving tool holders – which are available in different lengths according to the type of machine and application – are connected to the basic holder.

Thanks to its compact design, the grooving tool can be easily integrated into different types of machine. HORN initially developed the new product with special connections for lathes made by Traub and Index. In combination with the S100 cutting insert range, type 842 provides a cost-effective solution for parting off free-cutting, high-strength and stainless steels.

Specially designed for use on lathes with smaller work areas, the cartridge can be screwed from both sides. The type S100 cutting edge is available with different widths, geometries and coatings to suit the machining task concerned. The screw clamping device of the cutting edge makes it easy to perform tool changes with a high level of repeat accuracy.

The grooving tool features an internal coolant supply with support cooling provided from below and clamping finger cooling provided from above. As a result, the coolant jet acts directly on the cutting edge, thereby ensuring optimum work results. Compared with conventional external cooling concepts, this type of cooling improves the cutting parameters and leads to longer tool lives. As a result, users of the system benefit from its cost-effectiveness.

The type 842 cartridges were developed with a particular aim in mind: maximum rigidity. In comparison to blades, this offers advantages in terms of flatness and surface quality. There is no longer any need for the additional face turning operation to be performed on the parting-off surface. After machining with the 842 system, the workpiece surface exhibits a

very flat parting-off surface with minimal roughness. HORN offers the grooving tool with grooving depths of Tmax = 22 mm (0.8661") and Tmax = 34 mm (1.3386"). The strengths of the system particularly come to the fore when machining bars in the context of series production.

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**Image caption:**



**Image 1:** The type 842 cartridges offer a high level of rigidity and, when used in combination with the 940 system, considerable flexibility.

**Image credit:** Paul Horn GmbH, Nico Sauermann

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