

Innovate

Parting for Productivity with MULTI F GRIP

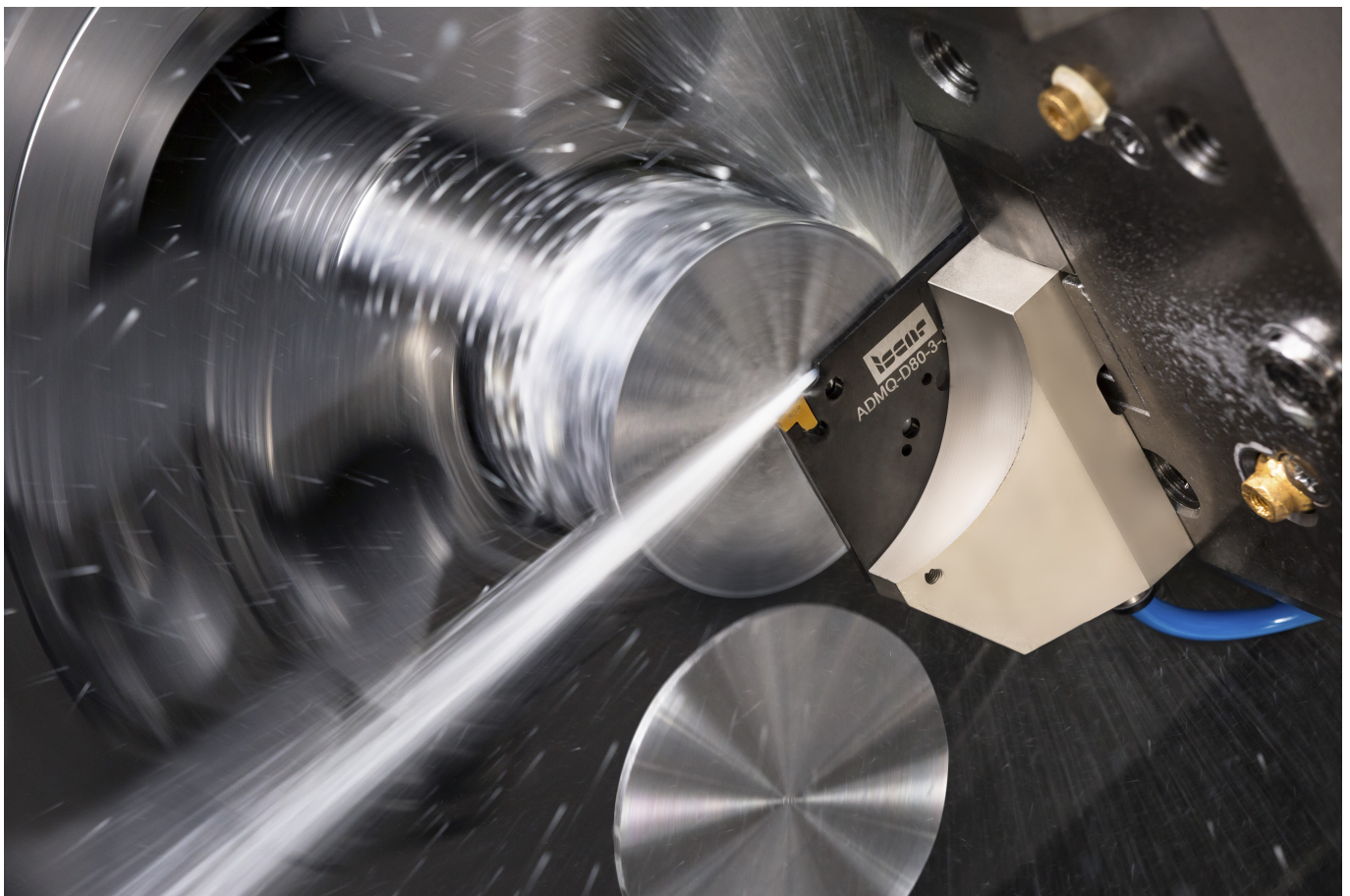
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Always at the cutting edge of developments in the field of cutting tools, ISCAR introduces a new system for parting and grooving operations.

Parting and grooving are essential aspects of the turning process and the metalworking industry faces a constant challenge to integrate methods that will increase efficiency and decrease downtime for these popular operations.

ISCAR fully understands the importance of parting and grooving operations in the turning process and that multiple factors need to be considered for every application, including machine tool selection, the type of material being parted/grooved, required depth of cut, and feed and speed rates. ISCAR has responded to these complex needs by developing a comprehensive range of highly effective parting and grooving solutions that include an extensive choice of insert geometries, chip breakers, and carbide grades – and the range continues to expand.

With Industry 4.0 demands and standards fueling industry development at extraordinary rates, ISCAR has introduced new parting and grooving technologies capable of integrating seamlessly with the new wave of machining centers that work with incredibly high feeds. MULTI-F-GRIP has been designed to answer these needs and to achieve high productivity and lower costs.



A revolutionary parting system designed for increased productivity, MULTI-F-GRIP comprises a robust tool block carrying square blades that feature four pockets, with a unique parting concept capable of parting off up to 120mm bar diameter to optimize performance.

MULTI-F-GRIP is simple to mount and operate on all machine types, including multi-task and machining centers on X-AXIS, without any need for special adjustment. The system enables the mounting of both TANG-F-GRIP and DO-GRIP blades on the same blocks.

The square blades possess a support system that provides totally vibration-free grooving and parting. MULTI-F-GRIP also saves on setup time as, in cases of pocket damage, the block's configuration allows a blade to be rotated to a new pocket without setup.

MULTI-F-GRIP is intended for high feed parting. It extends insert life, improves surface finish and part straightness, and features high stability – especially when parting large diameters. The new patented blades reduce cutting time and also enable significant material savings – for instance, a 120mm bar can be cut with a 3mm blade with HF (high feed) inserts at a feed rate of up to 0.4 mm/rev (.0157ipr).

The HF tangential single-ended insert was developed to enable highly efficient parting at very high feed rates, by use of a unique chipformer technology. The insert features a new insert chipformer to allow unobstructed chip flow, which increases insert and blade tool life and leads to very high productivity gains.

All TANG-GRIP inserts can be integrated into the MULTI-F-GRIP system, which is also compatible with DO-GRIP DGN double-sided twisted geometry parting inserts, to provide an extensive choice of parting widths for all application ranges. ISCAR offers a wide variety of chipformers and advanced grades to ensure unbeatable performance and extended tool life.

A secure clamping method using a tangentially orientated pocket facilitates pocket life that is three times longer than that of any other conventional self-grip system. The robust clamping method enables machining at high feed rates and provides excellent straightness and surface finish characteristics, while the flat top configuration prevents chip obstructions under all possible machining conditions.

The JETCUT system incorporates ingeniously designed through-coolant channels to deliver coolant close to the cutting edge, which improves chip formation and slashes flank and cratering rates. When machining materials such as stainless steel or high-temperature alloys, the temperature near the cutting edge area becomes extremely high. In addition, these material types tend to adhere to the tool's cutting edge, causing built-up edge. These problematic phenomena can be moderated by targeting high-pressure coolant directly to the cutting zone.

ISCAR maintains its unrelenting progress as a result of the company's continuous development of innovative, high-quality products, based on the talented work of the company's R&D Department and prompted by the evolving needs of global industry. This desire to provide customers with the very latest, most efficient metal cutting technology is reflected in the introduction of MULTI-F-GRIP solutions to ISCAR's comprehensive GRIP range of parting and grooving tools.

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