passion
for precision

fraisa

MFC Alu – Multifunctional High-performance Milling of aluminum and non-ferrous metals

MFC Alu – highest chip removal rates, remarkable quality and process reliability

Impressive market innovation from FRAISA: The completely newly developed milling system **MFC Alu** is the first four-edged, high-performance milling cutter for machining aluminum, copper, plastics and other non-ferrous metals.

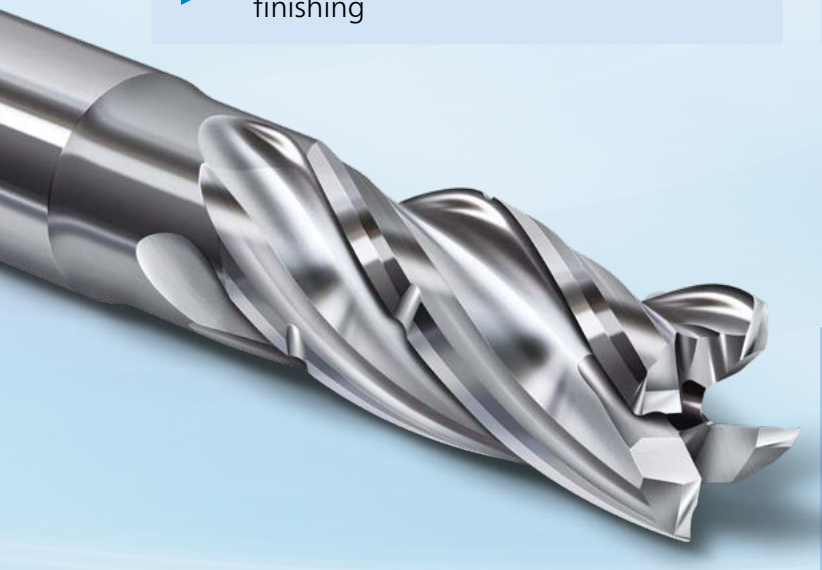
This means that the multifunctional high-performance milling is finally finding its way into these materials as well, providing a unique milling experience thanks to revolutionary and perfectly coordinated tool technologies - extremely easy-cutting and quiet.

The multifunctional tools are ideal for carrying out various applications at a high performance level - regardless of machine concepts, spindle speed or dynamic ranges. This makes the new milling system the best choice for all industries and components. It can be used for a machining depth of up to 5.2xd as well as for the extremely efficient HDC machining (High Dynamic Cutting).

You can benefit from the various application options and increase your productivity by using the **MFC Alu** – the newest benchmark for the machining of aluminum and non-ferrous metals.

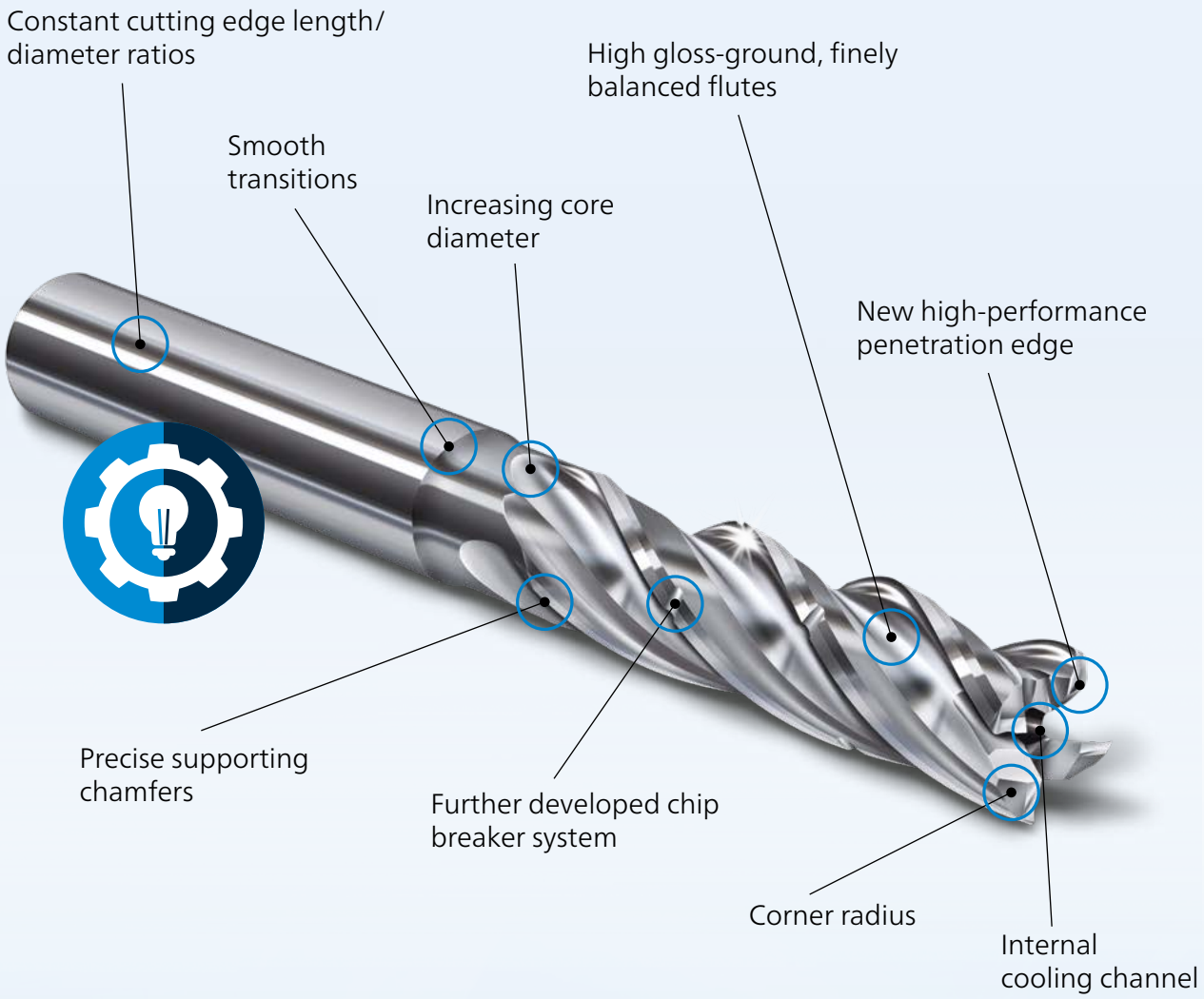
The advantages

- **Multifunctionality** to simplify the entire production
- **Impressive milling experience** – extremely easy-cutting and quiet
- **Maximum chip removal rate** through state-of-the-art technology
- **Significant reduction of production costs**
- **Perfect surface qualities** during finishing
- **HDC** – high performance and reliable for smaller machining forces



Discover interesting information about **MFC** and experience the **MFC Alu** in use.

Technologies



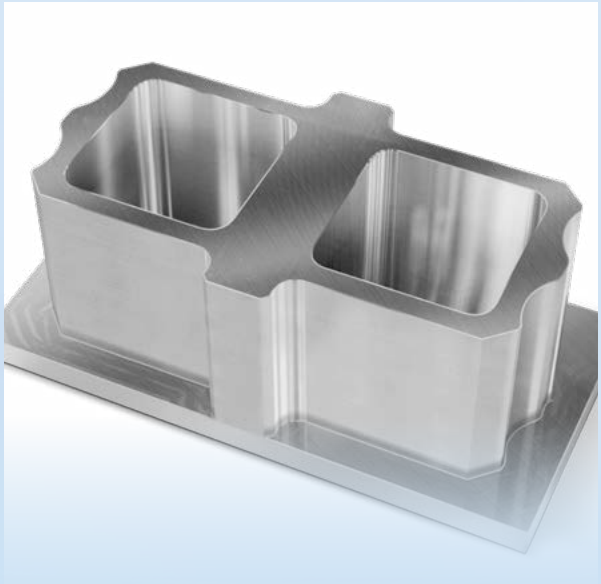
- **Outstanding surface and component qualities**
- **Easy to use: Shorter machine setup times and fast application**
- **Flawless chip removal thanks to chip breaker system**
- **Perfect application data in the FRAISA ToolExpert®**
- **Higher productivity, automation and reproducibility**
- **Sustainable service offers with FRAISA ReTool®Services**

MFC – simplification of the entire production process through multifunctionality

The challenge in production is to find the optimum combination of the milling strategy and tool selection. Targets like an increase in productivity and performance, a longer tool life, process reliability, reduction of costs or an improvement of component quality have to be taken into account at all times.

The faster, simpler and securer a new application case can be solved, the more competitive and effective production becomes.

And right here, the multifunctional high-performance milling (MFC) of FRAISA comes in as the problem solver: The target of the MFC product development is to simplify the production process without a loss in performance. This allows you to focus on your expertise in CAD-CAM programming and further increase your competitiveness.



Direct data integration via online interfaces

Through the integration of an XML or JSON interface, a direct import of cutting data from the FRAISA ToolExpert® into the CAM or TDM system is possible. Time requirements and the susceptibility to error are significantly reduced compared to manual data entry.

Here you can find an overview of CAD-CAM interfaces with outlined functions and available tool groups.


fraisa
MFC
Tools &
product range
Material
CAD-CAM
Machine
Component
ap
ADOC
HDC-P
ae
RDOC
Application &
cutting data
fraisa
FRAISA
ReTool®
FRAISA
ReTool® Blue
FRAISA
ReTool® Green
Life cycle

Cylindrical/Square end mills MFC Alu

Smooth-edged, chip breaker, short neck
High-performance penetration edge, central air/cooling channel

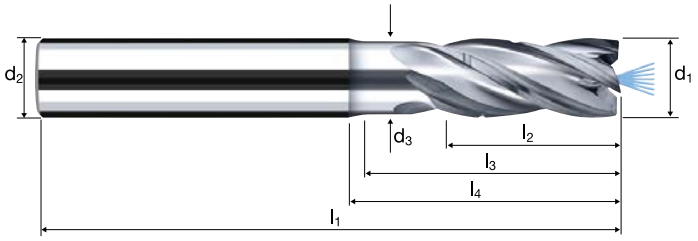
Performance **P**

HM MG10 | λ 30° γ 20°

r | G 2.5

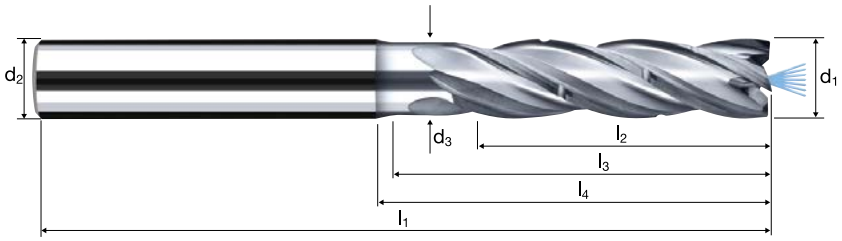
8565 (normal version) **new!**

l_2=2.2xd_1
l_3=3.0xd_1



8575 (medium version) **new!**

l_2=3.7xd_1
l_3=4.5xd_1



Roughing HPC | Roughing HDC | Finishing

ReTool®

Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

[6]

Example: **Order-N°.** Coating | Article-N°. **8565** | ø-Code **300**

Ø Code	d_1 e8	d_2 h5	d_3	l_1	l_2	l_3	l_4	r	z	8565
300*	6.00	6.00	5.50	57	13.50	18.00	19.85	0.100	4	●
391*	8.00	8.00	7.40	63	18.00	24.00	26.37	0.150	4	●
450*	10.00	10.00	9.20	74	22.00	30.00	33.01	0.200	4	●
501*	12.00	12.00	11.00	85	27.00	36.00	39.71	0.200	4	●
610	16.00	16.00	15.00	102	36.00	48.00	52.27	0.200	4	●
682	20.00	20.00	19.00	115	44.00	60.00	64.77	0.250	4	●

* without chip breaker only

Example: **Order-N°.** Coating | Article-N°. **8575** | ø-Code **300**

Ø Code	d_1 e8	d_2 h5	d_3	l_1	l_2	l_3	l_4	r	z	8575
300	6.00	6.00	5.50	65	22.50	27.00	28.85	0.100	4	●
391	8.00	8.00	7.40	76	30.00	36.00	38.37	0.150	4	●
450	10.00	10.00	9.20	90	37.00	45.00	48.01	0.200	4	●
501	12.00	12.00	11.00	105	44.50	54.00	57.71	0.200	4	●
610	16.00	16.00	15.00	125	60.00	72.00	76.27	0.200	4	●
682	20.00	20.00	19.00	145	74.00	90.00	94.77	0.250	4	●

Cylindrical/Square end mills MFC Alu

Smooth-edged, chip breaker, version 5.2xd
High-performance penetration edge, central air/cooling channel

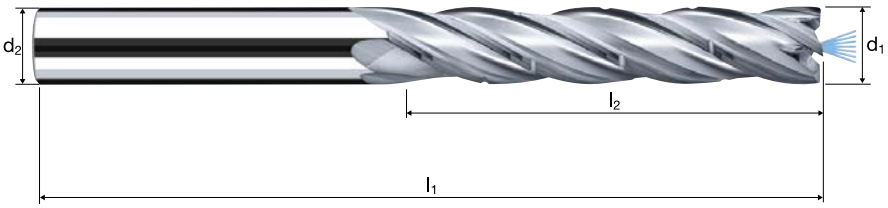
Performance **P**

HM MG10 | λ **30°** γ **20°**

r

G 2.5

new!



Roughing HPC | Roughing HDC | Finishing

ReTool®

Al Aluminium > 99% | **Al** Aluminium Alloy | **Al** Aluminium Cast | **Cu** Copper | **Plastic** Thermoplast

Example: **Order-N°.** Coating **8585** Article-N°. ø-Code **300**

Ø Code	d_1 e8	d_2 h5	l_1	l_2	r	z	8585	
300	6.00	6.00	73	32.00	0.100	4	●	
391	8.00	8.00	84	42.00	0.150	4	●	
450	10.00	10.00	100	53.00	0.200	4	●	
501	12.00	12.00	117	63.00	0.200	4	●	
610	16.00	16.00	144	84.00	0.200	4	●	
682	20.00	20.00	169	105.00	0.250	4	●	

Further information can be found in our High-performance milling tools catalog.

High-precision cutting data

The FRAISA ToolExpert® offers an optimal base for reliable and efficient use of the new **MFC Alu tools.**

Check out FRAISA ToolExpert® and see the advantages for yourself:

Optimized User Experience: Use the advantages of the new FRAISA webshop

- A modern design and attractive features at the cutting edge of technology
- The individual and simple handling thanks to intuitive user navigation and extensive **filter options**
- A responsive design guarantees an **optimal website view** on different kinds of end devices
- Direct link to the **FRAISA ToolExpert®** to retrieve the perfect cutting data
- Download of relevant **CAD data** as well as information about new **promotions, stock levels** and **availabilities**

Discover the new **FRAISA webshop**:

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passion for precision

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