

TC burrs PLAST, FVK and FVKS cut
Maximum stock removal on plastics



**YOU KNOW HOW.
WE KNOW
WOW!**



TRUST BLUE

- For trimming and contour milling
 - For a wide range of fibre-reinforced plastics (GRP/CRP)
 - Particularly suitable for machine and robot applications
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TC burrs PLAST, FVK and FVKS cut for work on GRP/CRP

Tungsten carbide burrs with the PLAST, FVK and FVKS cuts are suitable for trimming and contour milling on a wide range of fibre-reinforced plastics (GRP/CRP).

Burrs with a drill cut (BS) or with a centre drill (ZBS) allow combined drilling and milling work. Burrs with an end cut (two teeth, STS) enable holes to be drilled with minimal burr formation, whilst the version with a flat end cut (two teeth, FSTS) is used to mill grooves and pockets. The STS and FSTS versions are suitable only for machine and robot applications. The special tooth geometry allows high feed rates due to the low resistance. In addition, these burrs are characterized by smooth milling.

Recommendations for use:

- The version with a drill cut (BS) is particularly suitable for machine and robot applications, while the version with a centre drill (ZBS) is used for manual applications. It allows secure drilling on almost all surface conditions.
- The versions with an end cut (two teeth, STS) and flat end cut (two teeth, FSTS) are suitable only for machine and robot applications.
- Select a burr diameter greater than the thickness of the material to be machined, to avoid impacts and chattering with the risk of damaging or breaking the tool.
- Increase the rotational speed if the tool tends to chatter.
- If necessary, reduce the rotational speed and contact pressure if melting occurs.
- If possible, use the tools on powerful drives with elastically mounted spindles to avoid vibration.
- For the cost-effective use of burrs, work with higher rotational/cutting speeds. Power recommendation for tool drives:
 - Shank diameter of 3 mm: 75 to 300 watts
 - Shank diameter of 6 mm: from 300 watts
- Please observe the rotational speed recommendations.

Applications:

- Trimming
- Contour milling
- Deburring
- Milling grooves and pockets (with FSTS)
- Drilling blind holes (with FSTS)
- Drilling with minimal burr formation (with STS)
- Milling out
- Cutting out holes

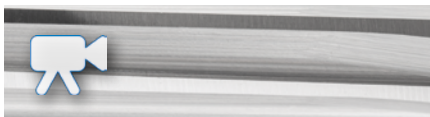
Matching tool drives:

- Flexible shaft drive
- Straight grinder
- Robot
- Machine tools

Safety notes:

-  = Wear eye protection!
-  = Wear hearing protection!
-  = Wearing protective gloves is recommended. Handle the tool drive with both hands.
-  = Observe the recommended rotational speed, especially when using burrs with long shanks!

PLAST cut



Tungsten carbide burrs with the PLAST cut are particularly suitable for use on less hard glass and carbon-fibre-reinforced duroplastics (GRP and CRP with $\leq 40\%$ fibre content) and fibre-reinforced thermoplastics. The cut (similar to PCD milling) minimizes delamination and fraying.

Advantages:

- Particularly suitable for GRP and CRP with $\leq 40\%$ fibre content.
- Minimizes delamination and fraying due to the special cut that is similar to PCD mills.
- Particularly suitable for use on machines and on robots.
- Very low cutting force.
- High feed rates.

Materials that can be worked:

- Plastics
- Fibre-reinforced plastics (GRP/CRP) with a fibre content $\leq 40\%$
- Thermoplastics

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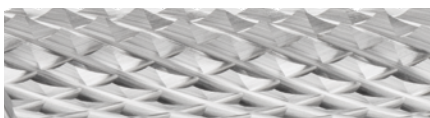
PFERDERGONOMICS recommends burrs with PLAST cut as an innovative tool solution for comfortable working with significantly reduced vibration and less noise.



PFERDEFFICIENCY recommends burrs with PLAST cut for long fatigue-free and resource-saving work with perfect results in a very short period of time.



FVK cut



Tungsten carbide burrs with the FVK and FVKS cuts are suitable for universal use on hard glass and carbon-fibre-reinforced duroplastics. Due to its high concentricity, the FVK cut is suitable for tool machines and manual applications. It is characterized by smooth milling and produces a smooth cut edge. The FVKS cut is suitable for use on machines and robots with high feed rates.

FVKS cut



Advantages:

- Particularly suitable for GRP and CRP, also with $> 40\%$ fibre content.
- The FVKS cut produces smooth edges and is characterized by smooth milling.

Materials that can be worked:

- Plastics
- Fibre-reinforced plastics (GRP/CRP) with a fibre content $> 40\%$

TC burrs PLAST, FVK and FVKS cut for work on GRP/CRP

Recommended rotational speed range [RPM]

To determine the recommended rotational speed range [RPM], please proceed as follows:

- 1 Refer to the table for the cutting speed.
- 2 Select the required burr diameter.
- 3 The cutting speed range and the burr diameter determine the recommended rotational speed range.

Material group	Application	Cut	1 Cutting speed
Plastics, other materials	Trimming, contour milling, cutting out holes, deburring	PLAST	450–900 m/min
		FVK	
		FVKS	



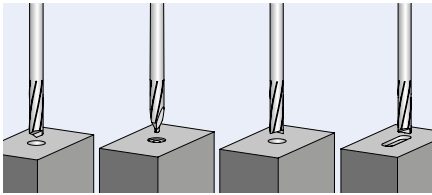
Example:

TC burr, PLAST cut, burr dia. of 8 mm. Trimming plastics. Cutting speed: 450–900 m/min
Rotational speed range: 18,000–36,000 RPM

2 Burr dia. [mm]	3 Cutting speeds [m/min]	
	450	900
	Rotational speeds [RPM]	
6	24,000	48,000
8	18,000	36,000

Cylindrical shape ZYA

Cylindrical burr.

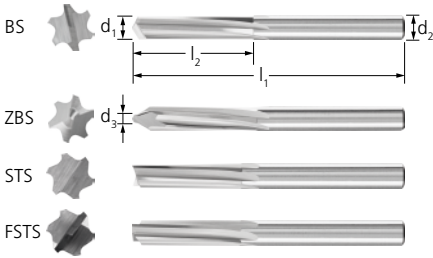
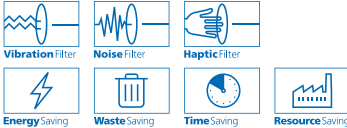


Ordering notes:

- Please complete the description with the desired cut.

PFERDVALUE:

PLAST cut:



d ₁ [mm]	l ₂ [mm]	d ₂ [mm]	l ₁ [mm]	Center drill d ₃ [mm]	Cut			RPM	Description
					PLAST	FVK	FVKS		
					EAN 4007220				
Shank dia. of 6 mm with drill cut (BS)									
6	25	6	65	-	900413	050217	808900	24,000–48,000	1 ZYA 0625/6 ... BS
Shank dia. of 8 mm with drill cut (BS)									
8	25	8	65	-	900468	050231	808917	18,000–36,000	1 ZYA 0825/8 ... BS
Shank dia. of 6 mm with centre drill (ZBS)									
6	25	6	65	2.5	900451	869048	869055	24,000–48,000	1 ZYA 0625/6 ... ZBS
Shank dia. 6 mm with end cut (STS)									
6	25	6	65	-	003107	-	-	24,000–48,000	1 ZYA 0625/6 ... STS
Shank dia. 8 mm with end cut (STS)									
8	25	8	65	-	003121	-	-	18,000–36,000	1 ZYA 0825/8 ... STS
Shank dia. 6 mm with flat end cut (FSTS)									
6	25	6	65	-	003138	-	-	24,000–48,000	1 ZYA 0625/6 ... FSTS
Shank dia. 8 mm with flat end cut (FSTS)									
8	25	8	65	-	003152	-	-	18,000–36,000	1 ZYA 0825/8 ... FSTS

Subject to technical modifications. 03/2020