

Info

Die simmill® Zirkularfräswerkzeuge  
The simmill® Groove Milling Tools



simmill® A3  
SIMTEK Milling Tools Type A3



simmill® PX  
Sigma-Line Milling Tools Type P

simmill® SX  
Sigma-Line Milling Tools Type S

simmill® UX  
Sigma-Line Milling Tools Type U

simmill® VX  
Sigma-Line Milling Tools Type V



simmill® MX  
Sigma-Line Milling Tools Type M

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Zirkularfräswerkzeuge für die Innenbearbeitung im Durchmesserbereich ...  
Groove Milling Tools for internal applications in the diameter range of ...

≤ Ø 6,0 mm

Ø 10,0 - 42,0 mm

≥ Ø 39,0 mm

Ein Verzeichnis aller Werkzeuge finden Sie ab Seite 536  
A list of all the tools can be found as of page 536

## Info

# Das Werkzeugsystem simmill® A3 The Tool System simmill® A3

**simmill® A3**  
SIMTEK Milling Tools Type A3

- + Schafffräser aus Feinstkornhartmetall  
in den Schaftdurchmessern 6,0 oder 8,0 mm  
Solid micro grain carbide Milling Cutter  
with shank diameters 6,0 or 8,0 mm
- + Hohe Nuttiefen in kleinsten Bohrungen  
High Groove depths in smallest bores
- + Verbesserte Schnittbedingungen  
mit 3 Schneiden in Bohrungen ab Ø 1,4 mm  
Improved cutting conditions  
with 3 cutting edges in bores as of Ø 1,4 mm
- + Hohe Gewindetiefen bei reduziertem Schnittdruck  
Extended Thread depths at low cutting pressure
- + Nutzbare Länge bis zu 35,6 mm  
Usable length up to 35,6 mm

## Hauptanwendungen

Nutfräsen, Gewindefräsen, Bohrungen fassen,  
Fräsen von Scheibenfedernuten

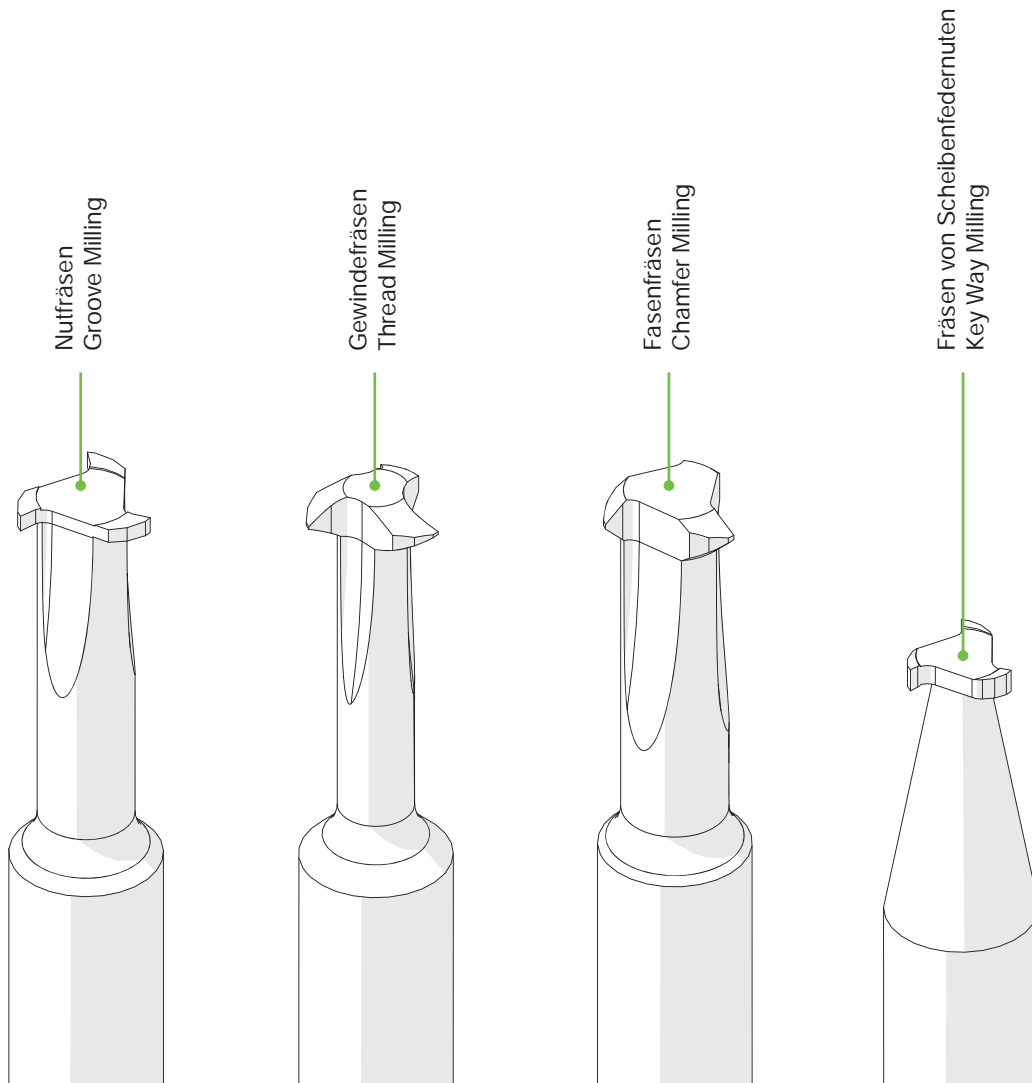
simtek-individual- und  
Sonderwerkzeuge verfügbar.

## Main Applications

Groove Milling, Thread Milling,  
Chamfering, Key Way Milling

simtek-individual and  
special tools available.





... finden Sie ab Seite:  
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## Allgemeines Nutfräsen

Nutfräsen gerader Nutformen. Geeignet ab Bohrungsdurchmesser 6,0 mm. Aufnahme nach DIN 6535 HA.

## General Groove Milling

General Groove Milling. For use in bores as of minimum bore diameter 6,0 mm. Shank according to DIN 6535 HA.

Schnittwerte (Start) // Cutting parameters (Start)

f <sub>zm</sub> 0,02	h <sub>max</sub> 0,03	V <sub>c</sub> S./P. 524
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Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)

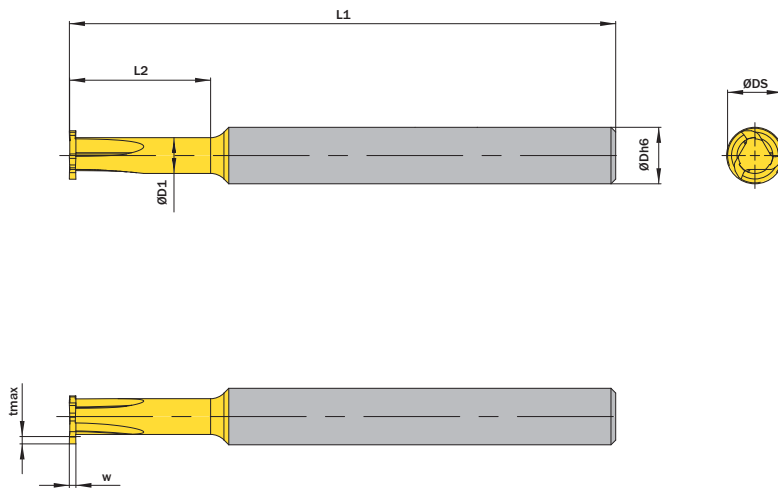
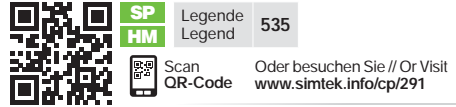


Abbildung zeigt / Drawing shows: MA3.070.15.06.00 AG

Anzahl Schneiden Number of Cutting Edges	w ±0,02	L2	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	L1	ØDh6	tmax	ØDS	ØD1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
	mm	mm	mm								
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 6,0 mm											
3	0,7	15,0	6,0	MA3.070.15.06.00 AG	ACW4	58,0	6,0	0,8	5,8	3,8	-
3	0,8	15,0	6,0	MA3.080.15.06.00 AG	AM62	58,0	6,0	0,8	5,8	3,8	-
3	0,9	15,0	6,0	MA3.090.15.06.00 AG	AF94	58,0	6,0	0,8	5,8	3,8	-
3	1,0	15,0	6,0	MA3.100.15.06.00 AG	AAZ2	58,0	6,0	0,8	5,8	3,8	-
3	1,5	15,0	6,0	MA3.150.15.06.00 AG	AN5F	58,0	6,0	0,8	5,8	3,8	-
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 8,0 mm											
3	0,7	25,0	8,0	MA3.070.25.08.00 AG	AJ2V	68,0	8,0	1,2	7,8	5,0	-
3	0,8	25,0	8,0	MA3.080.25.08.00 AG	AFCH	68,0	8,0	1,2	7,8	5,0	-
3	0,9	25,0	8,0	MA3.090.25.08.00 AG	AMAC	68,0	8,0	1,2	7,8	5,0	-
3	1,0	25,0	8,0	MA3.100.25.08.00 AG	ANEA	68,0	8,0	1,2	7,8	5,0	-
3	1,5	25,0	8,0	MA3.150.25.08.00 AG	AF41	68,0	8,0	1,2	7,8	5,0	-
3	2,0	25,0	8,0	MA3.200.25.08.00 AG	AFXY	68,0	8,0	1,2	7,8	5,0	-

Bestellbeispiel // Order Example: MA3.200.25.08.00 AG GN39 (GN39 = Schneidstoff // Grade)

simtek individual

MA3. w, 1/100 mm, 3 Stellen/Digits .15.06. R, 1/100 mm, 3 Stellen/Digits .A Toleranz // Tolerance

Beispielartikelnummer // Example Part number: MA3.179.15.06.030.A XG

MA3. w, 1/100 mm, 3 Stellen/Digits .25.08. R, 1/100 mm, 3 Stellen/Digits .A Toleranz // Tolerance

Beispielartikelnummer // Example Part number: MA3.179.25.08.030.A XG

## Allgemeines Nutfräsen

Nutfräsen gerader Nutformen. Geeignet ab Bohrungsdurchmesser 6,0 mm. Aufnahme nach DIN 6535 HB.

## General Groove Milling

General Groove Milling. For use in bores as of minimum bore diameter 6,0 mm. Shank according to DIN 6535 HB.

Schnittwerte (Start) // Cutting parameters (Start)

f <sub>zm</sub> 0,02	h <sub>max</sub> 0,03	V <sub>c</sub> S./P. 524
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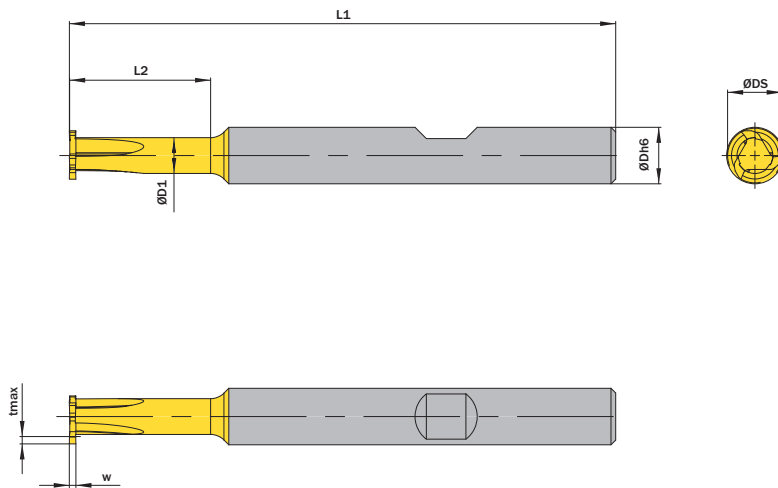
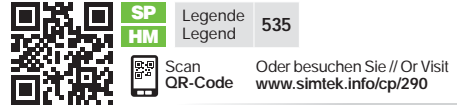
Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)

Abbildung zeigt / Drawing shows: MA3.070.15.06.00 BG

Anzahl Schneiden Number of Cutting Edges	w ±0,02	L2	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	L1	ØDh6	tmax	ØDS	ØD1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
	mm	mm	mm			mm	mm	mm	mm	mm	
<b>▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 6,0 mm</b>											
3	0,7	15,0	6,0	<b>MA3.070.15.06.00 BG</b>	AK6P	58,0	6,0	0,8	5,8	3,8	-
3	0,8	15,0	6,0	<b>MA3.080.15.06.00 BG</b>	AC5V	58,0	6,0	0,8	5,8	3,8	-
3	0,9	15,0	6,0	<b>MA3.090.15.06.00 BG</b>	AN99	58,0	6,0	0,8	5,8	3,8	-
3	1,0	15,0	6,0	<b>MA3.100.15.06.00 BG</b>	AFZ9	58,0	6,0	0,8	5,8	3,8	-
3	1,5	15,0	6,0	<b>MA3.150.15.06.00 BG</b>	AH1W	58,0	6,0	0,8	5,8	3,8	-
<b>▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 8,0 mm</b>											
3	0,7	25,0	8,0	<b>MA3.070.25.08.00 BG</b>	AG62	68,0	8,0	1,2	7,8	5,0	-
3	0,8	25,0	8,0	<b>MA3.080.25.08.00 BG</b>	AFGT	68,0	8,0	1,2	7,8	5,0	-
3	0,9	25,0	8,0	<b>MA3.090.25.08.00 BG</b>	AP4E	68,0	8,0	1,2	7,8	5,0	-
3	1,0	25,0	8,0	<b>MA3.100.25.08.00 BG</b>	AKWG	68,0	8,0	1,2	7,8	5,0	-
3	1,5	25,0	8,0	<b>MA3.150.25.08.00 BG</b>	AH6A	68,0	8,0	1,2	7,8	5,0	-
3	2,0	25,0	8,0	<b>MA3.200.25.08.00 BG</b>	AEX7	68,0	8,0	1,2	7,8	5,0	-

Bestellbeispiel // Order Example: **MA3.200.25.08.00 BG GN39** (GN39 = Schneidstoff // Grade)



MA3. w, 1/100 mm, 3 Stellen/Digits .15.06. R, 1/100 mm, 3 Stellen/Digits .B Toleranz // Tolerance

Beispielartikelnummer // Example Part number: **MA3.179.15.06.030.A XG**

MA3. w, 1/100 mm, 3 Stellen/Digits .25.08. R, 1/100 mm, 3 Stellen/Digits .B Toleranz // Tolerance

Beispielartikelnummer // Example Part number: **MA3.179.25.08.030.A XG**

## Metrisches ISO-Gewindefräsen, Teilprofil

Gewindefräsen ab Bohrungsdurchmesser 1,38 mm, metrisches ISO-Gewinde, Teilprofil. Aufnahme nach DIN 6535 HA.

## Thread milling, metric ISO-Thread, partial profile

Thread Milling as of bore diameter 1,38 mm, ISO metric thread, partial profile. Shank according to DIN 6535 HA.

Schnittwerte (Start) // Cutting parameters (Start)

f <sub>zm</sub> 0,02	h <sub>max</sub> 0,03	V <sub>c</sub> S./P. 524
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Bitte Hinweise im Anhang beachten // Please read add. notes

ALL (S./P. 531), H04 (S./P. 534)



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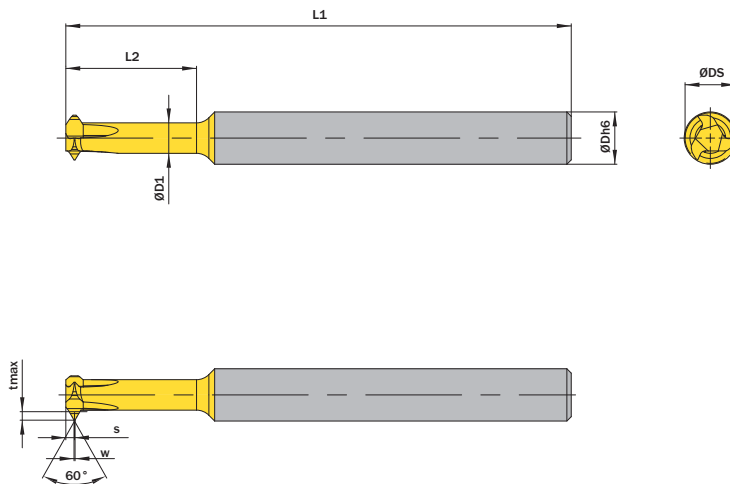


Abbildung zeigt / Drawing shows: MA3.MT15.01.15.06 AM

Ab Gewindegröße As of Thread size	Steigung (von) Pitch (as of)	Steigung (bis) Pitch (up to)	L2	ØD <sub>min</sub> (Min. Bohrung) ØD <sub>min</sub> (Min. Bore)	Artikelnummer Part number	Webcode www.simtek.eu/webcode	Anzahl Schneiden Number of Cutting Edges	w	S	L1	t <sub>max</sub>	ØDS	ØD <sub>h6</sub>	ØD1	Connectcode www.simtek.eu/ccode
<b>▼ ØD<sub>h6</sub> = 3,0 mm</b>															
M1,6	0,35	0,35	4,0	1,38	MA3.MT03.01.04.03 AM	AQOE	3	0,04	0,2	32,0	0,19	1,18	3,0	0,64	-
M1,8	0,35	0,35	5,0	1,58	MA3.MT03.01.05.03 AM	AQOF	3	0,04	0,25	32,0	0,19	1,38	3,0	0,7	-
M2,0	0,4	0,4	5,0	1,7	MA4.MT04.01.05.03 AM	AQOG	4	0,05	0,28	32,0	0,22	1,5	3,0	0,75	-
M2,5	0,45	0,45	6,0	2,15	MA4.MT04.01.06.03 AM	AQOH	4	0,06	0,3	32,0	0,25	1,95	3,0	1,15	-
M3,0	0,5	0,5	7,0	2,6	MA4.MT05.01.07.03 AM	AQOJ	4	0,06	0,3	32,0	0,27	2,4	3,0	1,6	-
M3,5	0,6	0,6	8,0	3,0	MA4.MT06.01.08.03 AM	AQOK	4	0,08	0,37	32,0	0,33	2,8	3,0	1,8	-
<b>▼ ØD<sub>h6</sub> = 5,0 mm</b>															
M4,0	0,7	0,7	9,0	3,3	MA4.MT07.01.09.05 AM	AQOM	4	0,09	0,41	44,0	0,38	3,1	5,0	1,98	-
M5,0	0,8	0,8	10,0	3,8	MA4.MT08.01.10.05 AM	AVE5	4	0,1	0,49	44,0	0,43	3,6	5,0	2,2	-
M6,0	1,0	1,0	12,2	4,3	MA4.MT10.01.12.05 AM	AQON	4	0,13	0,49	44,0	0,54	4,1	5,0	2,7	-
M7,0	1,0	1,0	15,2	5,1	MA4.MT10.01.15.05 AM	AQOP	4	0,13	0,58	44,0	0,54	4,9	5,0	3,26	-
<b>▼ ØD<sub>h6</sub> = 6,0 mm</b>															
M7	0,5	1,5	15,0	6,0	MA3.MT15.01.15.06 AM	AAF4	3	0,06	0,8	58,0	0,91	5,8	6,0	3,5	-
<b>▼ ØD<sub>h6</sub> = 6,35 mm</b>															
M7	0,5	1,5	15,0	6,0	MA3.MT15.01.15.250 AM	AS4P	3	0,06	0,8	58,0	0,92	5,8	6,35	3,5	-
<b>▼ ØD<sub>h6</sub> = 7,92 mm</b>															
M9	0,5	1,5	25,0	8,0	MA3.MT15.01.25.312 AM	AS4K	3	0,06	1,0	68,0	0,92	7,8	7,92	5,5	-
M10	1,0	2,0	25,0	8,0	MA3.MT20.01.25.312 AM	AS4M	3	0,19	1,0	68,0	1,14	7,8	7,92	5,0	-
<b>▼ ØD<sub>h6</sub> = 8,0 mm</b>															
M9	0,5	1,5	25,0	8,0	MA3.MT15.01.25.08 AM	AAVN	3	0,06	1,0	68,0	0,91	7,8	8,0	5,5	-
M10	1,0	2,0	25,0	8,0	MA3.MT20.01.25.08 AM	AFM6	3	0,12	1,0	68,0	1,19	7,8	8,0	5,0	-

Bestellbeispiel // Order Example: MA3.MT20.01.25.312 AM GN39 (GN39 = Schneidstoff // Grade)

Bitte beachten Sie die zusätzlichen Hinweise zu den Mehrbereichswerkzeugen im Infobereich rechts oben.

Please read the additional notes mentioned in the information area on the top right corner of this page.

Die angegebene GewindegröÙeneignung bezieht sich auf die Startsteigung.

The mentioned thread size „As of Thread size“ is based on the starting pitch.

## Metrisches ISO-Gewindefräsen, Teilprofil

Gewindefräsen ab Bohrungsdurchmesser 6,0 mm, metrisches ISO-Gewinde, Teilprofil. Aufnahme nach DIN 6535 HB.

## Thread milling, metric ISO-Thread, partial profile

Thread Milling as of bore diameter 6,0 mm, ISO metric thread, partial profile. Shank according to DIN 6535 HB.

Schnittwerte (Start) // Cutting parameters (Start)

fzm 0,02	hmax 0,03	Vc S./P. 524
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Bitte Hinweise im Anhang beachten // Please read add. notes

ALL (S./P. 531), H04 (S./P. 534)



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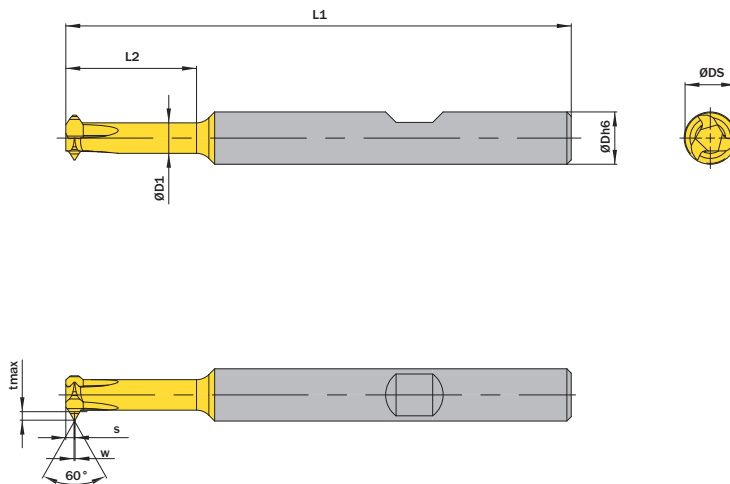


Abbildung zeigt / Drawing shows: MA3.MT15.01.15.06 BM

Ab Gewindegröße As of Thread size	Steigung (von) Pitch (as of)	Steigung (bis) Pitch (up to)	L2	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	Anzahl Schneiden Number of Cutting Edges	w	S	L1	tmax	ØDS	ØDh6	ØD1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
M7	0,5	1,5	15,0	6,0	<b>MA3.MT15.01.15.06 BM</b>	AMUK	3	0,06	0,8	58,0	0,91	5,8	6,0	3,5	-
M9	0,5	1,5	25,0	8,0	<b>MA3.MT15.01.25.08 BM</b>	AB7Q	3	0,06	1,0	68,0	0,91	7,8	8,0	5,5	-
M10	1,0	2,0	25,0	8,0	<b>MA3.MT20.01.25.08 BM</b>	AAJP	3	0,12	1,0	68,0	1,19	7,8	8,0	5,0	-

Bestellbeispiel // Order Example: **MA3.MT15.01.15.06 BM GF25** (GF25 = Schneidstoff // Grade)

- Bitte beachten Sie die zusätzlichen Hinweise zu den Mehrbereichswerkzeugen im Infobereich rechts oben.
- Please read the additional notes mentioned in the information area on the top right corner of this page.
- Die angegebene Gewindegrößenbezeichnung bezieht sich auf die Startsteigung.
- The mentioned thread size „As of Thread size“ is based on the starting pitch.

Mehr Infos zu den **Mehrbereichswerkzeugen** und deren **Gewindegrößenbezeichnung** finden Sie auf Seite 535

More information about the **Multi-Purpose Thread Milling Tools** and the **Thread size suitability** can be found on page 535

## Fräsen von Fasen

Fasenfräsen beidseitig. Geeignet ab Bohrungsdurchmesser 6,0 mm. Aufnahme nach DIN 6535 HA.

## Chamfering

Chamfering on both sides. For use in bores as of minimum bore diameter 6,0 mm. Shank according to DIN 6535 HA.

Schnittwerte (Start) // Cutting parameters (Start)

f <sub>zm</sub> 0,02	h <sub>max</sub> 0,03	V <sub>c</sub> S./P. 524
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Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)



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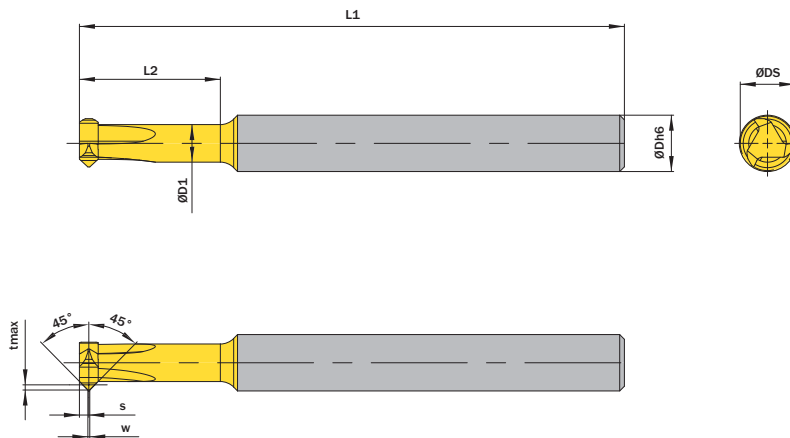


Abbildung zeigt / Drawing shows: MA3.4545.02.15.06 AF

Anzahl Schneiden Number of Cutting Edges	w	L2	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	S	L1	ØDh6	tmax	ØDS	ØD1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
	mm	mm	mm			mm	mm	mm	mm	mm	mm	
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 6,0 mm												
3	0,2	15,0	6,0	<b>MA3.4545.02.15.06 AF</b>	AHPT	1,0	58,0	6,0	0,6	5,8	4,0	-
3	0,2	15,0	6,0	<b>MA3.4545.02.15.250 AF</b>	AS4Q	1,0	58,0	6,35	0,6	5,8	4,2	-
3	0,2	25,0	6,0	<b>MA3.4545.02.25.06 AF</b>	AC3U	1,0	68,0	6,0	0,6	5,8	4,0	-
3	0,2	25,0	6,0	<b>MA3.4545.02.25.250 AF</b>	AS4H	1,0	68,0	6,35	0,6	5,8	4,2	-
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 8,0 mm												
3	0,2	25,0	8,0	<b>MA3.4545.02.25.08 AF</b>	AKDE	1,5	68,0	8,0	1,2	7,8	5,0	-
3	0,2	25,0	8,0	<b>MA3.4545.02.25.312 AF</b>	AS4J	1,5	68,0	7,92	1,2	7,8	5,0	-
3	0,2	35,0	8,0	<b>MA3.4545.02.35.08 AF</b>	AKCW	1,5	78,0	8,0	1,2	7,8	5,0	-
3	0,2	35,0	8,0	<b>MA3.4545.02.35.312 AF</b>	AS4N	1,5	78,0	7,92	1,2	7,8	5,0	-

Bestellbeispiel // Order Example: **MA3.4545.02.35.08 AF GN39** (GN39 = Schneidstoff // Grade)



## Fräsen von Fasen

Fasenfräsen beidseitig. Geeignet ab Bohrungsdurchmesser 6,0 mm. Aufnahme nach DIN 6535 HB.

## Chamfering

Chamfering on both sides. For use in bores as of minimum bore diameter 6,0 mm. Shank according to DIN 6535 HB.

Schnittwerte (Start) // Cutting parameters (Start)

fzm 0,02	hmax 0,03	Vc S./P. 524
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Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)



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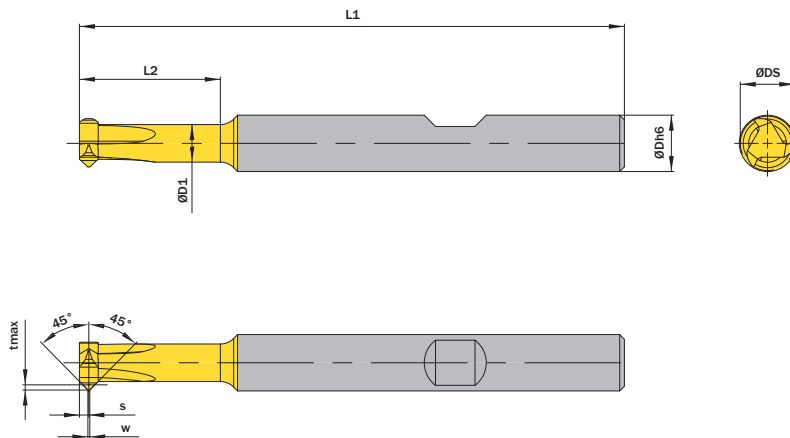


Abbildung zeigt / Drawing shows: MA3.4545.02.15.06 BF

Anzahl Schneiden Number of Cutting Edges	w	L2	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	S	L1	ØDh6	tmax	ØDS	ØD1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
	mm	mm	mm			mm	mm	mm	mm	mm	mm	
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 6,0 mm												
3	0,2	15,0	6,0	MA3.4545.02.15.06 BF	AKUY	1,0	58,0	6,0	0,6	5,8	4,2	-
3	0,2	25,0	6,0	MA3.4545.02.25.06 BF	AB5P	1,0	68,0	6,0	0,6	5,8	4,2	-
▼ ØDmin (Min. Bohrung) // ØDmin (Min. Bore) = 8,0 mm												
3	0,2	25,0	8,0	MA3.4545.02.25.08 BF	AJ1W	1,5	68,0	8,0	1,2	7,8	5,0	-
3	0,2	35,0	8,0	MA3.4545.02.35.08 BF	AP10	1,5	78,0	8,0	1,2	7,8	5,0	-

Bestellbeispiel // Order Example: MA3.4545.02.25.08 BF GN39 (GN39 = Schneidstoff // Grade)

## Fräsen von Scheibenfedernuten

Fräsen von Scheibenfedernuten (DIN6888). Aufnahme nach DIN 6535 HA.

## Keyway Milling

Keyway milling according to DIN6888. Shank according to DIN 6535 HA.

Schnittwerte (Start) // Cutting parameters (Start)

fzm 0,02	hmax 0,03	Vc S./P. 524
-------------	--------------	-----------------

Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)



SP  
HM

Legende  
Legend

535

Scan  
QR-Code

Oder besuchen Sie // Or Visit  
[www.simtek.info/cp/304](http://www.simtek.info/cp/304)

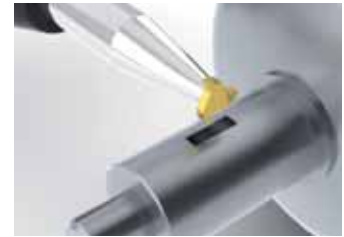
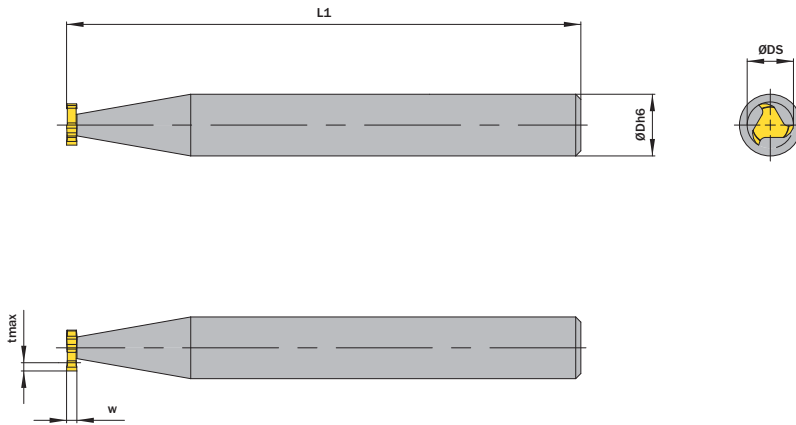


Abbildung zeigt / Drawing shows: MA3.100.09.06.00 AS

Anzahl Schneiden Number of Cutting Edges	w ±0,02	ØDS	ØDh6	Artikelnummer Part number	Webcode <a href="http://www.simtek.eu/webcode">www.simtek.eu/webcode</a>	tmax	L1	Connectcode <a href="http://www.simtek.eu/ccode">www.simtek.eu/ccode</a>
	mm	mm	mm					
<b>▼ ØDS = 4,5 mm</b>								
3	1,0	4,5	6,0	MA3.100.04.06.00 AS	AKOY	1,0	50,0	-
<b>▼ ØDS = 7,5 mm</b>								
3	1,5	7,5	8,0	MA3.150.07.08.00 AS	ANPA	2,0	50,0	-
3	2,0	7,5	8,0	MA3.200.07.08.00 AS	AK6Z	1,8	50,0	-
<b>▼ ØDS = 10,5 mm</b>								
3	2,0	10,5	12,0	MA3.200.10.12.00 AS	AEH6	2,9	60,0	-
3	2,5	10,5	12,0	MA3.250.10.12.00 AS	ACMK	2,7	60,0	-
3	3,0	10,5	12,0	MA3.300.10.12.00 AS	AM42	2,5	60,0	-
<b>▼ ØDS = 13,5 mm</b>								
3	3,0	13,5	16,0	MA3.300.13.16.00 AS	AF2J	3,8	70,0	-
3	4,0	13,5	16,0	MA3.400.13.16.00 AS	AE01	3,5	70,0	-
<b>▼ ØDS = 16,5 mm</b>								
3	3,0	16,5	16,0	MA3.300.16.16.00 AS	ADT5	5,3	70,0	-
3	4,0	16,5	16,0	MA3.400.16.16.00 AS	AJXW	5,0	70,0	-
3	5,0	16,5	16,0	MA3.500.16.16.00 AS	AGAJ	4,5	70,0	-
<b>▼ ØDS = 19,5 mm</b>								
3	4,0	19,5	16,0	MA3.400.19.16.00 AS	ANKE	6,0	70,0	-
3	5,0	19,5	16,0	MA3.500.19.16.00 AS	AMOX	5,5	70,0	-
3	6,0	19,5	16,0	MA3.600.19.16.00 AS	AB59	5,1	70,0	-
<b>▼ ØDS = 22,5 mm</b>								
3	5,0	22,5	16,0	MA3.500.22.16.00 AS	ANVG	7,0	70,0	-
3	6,0	22,5	16,0	MA3.600.22.16.00 AS	AHC5	6,6	70,0	-
3	8,0	22,5	16,0	MA3.800.22.16.00 AS	ADG7	6,2	70,0	-
<b>▼ ØDS = 25,5 mm</b>								
3	6,0	25,5	16,0	MA3.600.25.16.00 AS	AH8A	7,5	70,0	-

Bestellbeispiel // Order Example: MA3.100.04.06.00 AS GN39 (GN39 = Schneidstoff // Grade)

## Fräsen von Scheibenfedernuten

Fräsen von Scheibenfedernuten (DIN6888). Aufnahme nach DIN 6535 HB.

## Keyway Milling

Keyway milling according to DIN6888. Shank according to DIN 6535 HB.

Schnittwerte (Start) // Cutting parameters (Start)

fzm	hmax	Vc
0,02	0,03	S./P. 524

Bitte Hinweise im Anhang beachten // Please read add. notes  
ALL (S./P. 531)



SP Legende  
HM Legend 535

Scan QR-Code Oder besuchen Sie // Or Visit  
www.simtek.info/cp/303

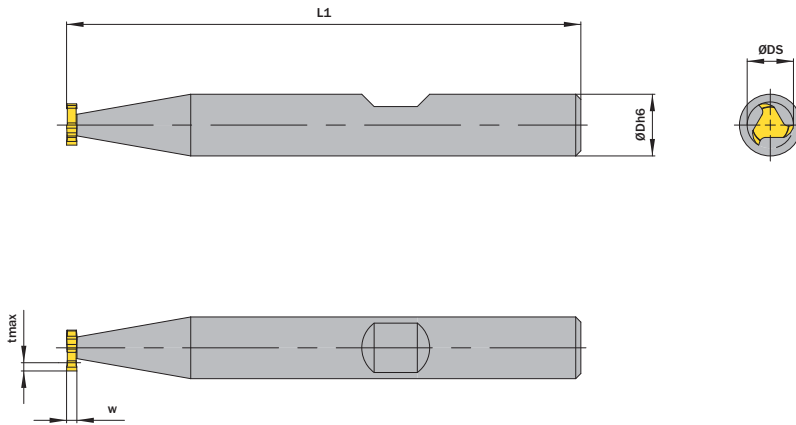


Abbildung zeigt / Drawing shows: MA3.100.09.06.00 BS

Anzahl Schneiden Number of Cutting Edges	w ±0,02	ØDS	ØDh6	Artikelnummer Part number	Webcode www.simtek.eu/webcode	tmax	L1	Connectcode www.simtek.eu/ccode
	mm	mm	mm					
<b>▼ ØDS = 4,5 mm</b>								
3	1,0	4,5	6,0	MA3.100.04.06.00 BS	ACHP	1,0	50,0	-
<b>▼ ØDS = 7,5 mm</b>								
3	1,5	7,5	8,0	MA3.150.07.08.00 BS	AHFC	2,0	50,0	-
3	2,0	7,5	8,0	MA3.200.07.08.00 BS	AMKA	1,8	50,0	-
<b>▼ ØDS = 10,5 mm</b>								
3	2,0	10,5	12,0	MA3.200.10.12.00 BS	AG61	2,9	60,0	-
3	2,5	10,5	12,0	MA3.250.10.12.00 BS	AJK4	2,7	60,0	-
3	3,0	10,5	12,0	MA3.300.10.12.00 BS	ANFH	2,5	60,0	-
<b>▼ ØDS = 13,5 mm</b>								
3	3,0	13,5	16,0	MA3.300.13.16.00 BS	AJXP	3,8	70,0	-
3	4,0	13,5	16,0	MA3.400.13.16.00 BS	AEN9	3,5	70,0	-
<b>▼ ØDS = 16,5 mm</b>								
3	3,0	16,5	16,0	MA3.300.16.16.00 BS	ABS5	5,3	70,0	-
3	4,0	16,5	16,0	MA3.400.16.16.00 BS	AJA6	5,0	70,0	-
3	5,0	16,5	16,0	MA3.500.16.16.00 BS	AKKP	4,5	70,0	-
<b>▼ ØDS = 19,5 mm</b>								
3	4,0	19,5	16,0	MA3.400.19.16.00 BS	APTY	6,0	70,0	-
3	5,0	19,5	16,0	MA3.500.19.16.00 BS	ABQY	5,5	70,0	-
3	6,0	19,5	16,0	MA3.600.19.16.00 BS	AM9H	5,1	70,0	-
<b>▼ ØDS = 22,5 mm</b>								
3	5,0	22,5	16,0	MA3.500.22.16.00 BS	AE1F	7,0	70,0	-
3	6,0	22,5	16,0	MA3.600.22.16.00 BS	AN37	6,6	70,0	-
3	8,0	22,5	16,0	MA3.800.22.16.00 BS	AAC5	6,2	70,0	-
<b>▼ ØDS = 25,5 mm</b>								
3	6,0	25,5	16,0	MA3.600.25.16.00 BS	AHX6	7,5	70,0	-

Bestellbeispiel // Order Example: MA3.300.16.16.00 BS GN39 (GN39 = Schneidstoff // Grade)

Info

Die Werkzeugsysteme simmill® PX / SX / UX / VX  
 The tool systems simmill® PX / SX / UX / VX



**simmill® VX**  
 Sigma-Line Milling Tools Type V

**simmill® UX**  
 Sigma-Line Milling Tools Type U

**simmill® SX**  
 Sigma-Line Milling Tools Type S

**simmill® PX**  
 Sigma-Line Milling Tools Type P

Für Bohrungsdurchmesser (mm) // For Bore diameter (mm)

...	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	...
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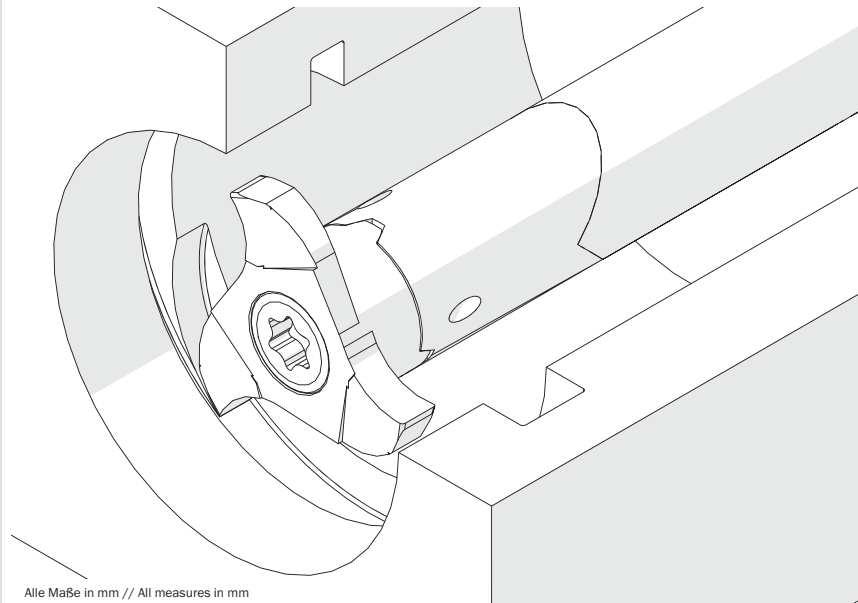
**simmill® PX**  
 Sigma-Line Milling Tools Type P

**simmill® SX**  
 Sigma-Line Milling Tools Type S

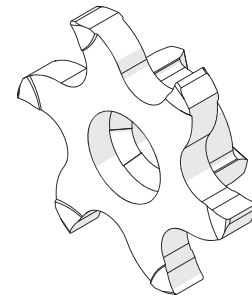
**simmill® UX**  
 Sigma-Line Milling Tools Type U

**simmill® VX**  
 Sigma-Line Milling Tools Type V

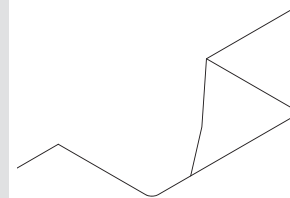
# Allgemeines Nutfräsen General Groove Milling



Alle Maße in mm // All measures in mm



Auch als 6-Schneider verfügbar.  
Also available with 6 cutting edges.

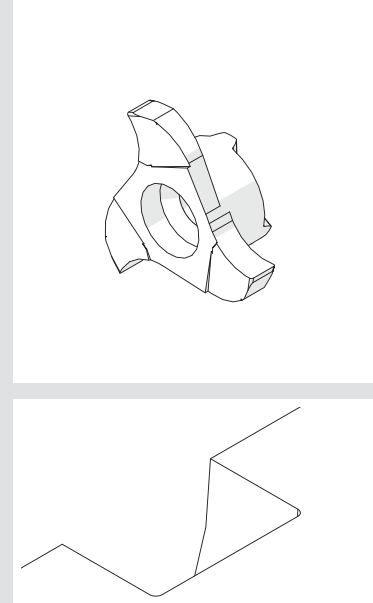
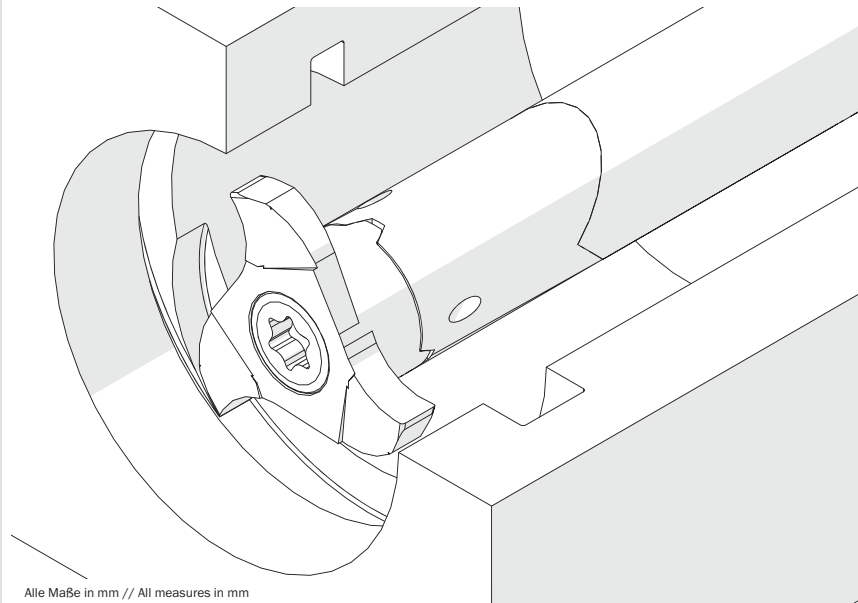


Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	w	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
P10.0100.00 G	10,0	1,0	3	396
P10.0150.02 G	10,0	1,5	3	396
P10.0157.00 G	10,0	1,57	3	396
P10.0200.02 G	10,0	2,0	3	396
P10.0250.02 G	10,0	2,5	3	396
P12.0150.02 G	12,0	1,5	3	397
P06.0150.02.12 G	12,0	1,5	6	398
P12.0157.02 G	12,0	1,57	3	397
P12.0200.02 G	12,0	2,0	3	397
P06.0200.02.12 G	12,0	2,0	6	398
P12.0250.02 G	12,0	2,5	3	397
S14.0100.00 G	14,0	1,0	3	414
S14.0117.00 G	14,0	1,17	3	414
S14.0142.00 G	14,0	1,42	3	414
S14.0150.02 G	14,0	1,5	3	414
S14.0157.02 G	14,0	1,57	3	414
S14.0200.02 G	14,0	2,0	3	414
S14.0239.02 G	14,0	2,39	3	414
S14.0250.02 G	14,0	2,5	3	414
S16.0117.00 G	16,0	1,17	3	415
S16.0142.00 G	16,0	1,42	3	415
S16.0150.02 G	16,0	1,5	3	415
S06.0150.02.16 G	16,0	1,5	6	416
S16.0157.02 G	16,0	1,57	3	415
S16.0160.01 G	16,0	1,6	3	415
S16.0200.02 G	16,0	2,0	3	415
S06.0200.02.16 G	16,0	2,0	6	416
S16.0239.02 G	16,0	2,39	3	415
S16.0250.02 G	16,0	2,5	3	415
S06.0250.02.16 G	16,0	2,5	6	416
U18.0117.00 G	18,0	1,17	3	438
U18.0142.00 G	18,0	1,42	3	438
U18.0150.02 G	18,0	1,5	3	438
U06.0150.010.18 G	18,0	1,5	6	436
U18.0157.02 G	18,0	1,55	3	438
U18.0200.02 G	18,0	2,0	3	438
U06.0200.020.18 G	18,0	2,0	6	436
U18.0239.02 G	18,0	2,39	3	438
U18.0250.02 G	18,0	2,5	3	438
U06.0250.020.18 G	18,0	2,5	6	436
U18.0300.02 G	18,0	3,0	3	438

Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	w	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
U06.0300.020.18 G	18,0	3,0	6	436
U18.0318.02 G	18,0	3,18	3	438
U18.0400.02 G	18,0	4,0	3	438
U06.0150.010.20 G	20,0	1,5	6	437
U06.0200.020.20 G	20,0	2,0	6	437
U06.0250.020.20 G	20,0	2,5	6	437
U06.0300.020.20 G	20,0	3,0	6	437
V22.0100.00 Z	22,0	1,0	3	468
V22.0100.01 G	22,0	1,0	3	468
V06.0100.010.22 G	22,0	1,0	6	467
V22.0117.00 Z	22,0	1,17	3	468
V22.0150.02 G	22,0	1,5	3	468
V06.0150.010.22 G	22,0	1,5	6	467
V22.0157.02 G	22,0	1,57	3	468
V22.0200.02 G	22,0	2,0	3	468
V06.0200.020.22 G	22,0	2,0	6	467
V22.0239.02 G	22,0	2,39	3	468
V22.0250.02 G	22,0	2,5	3	468
V06.0250.020.22 G	22,0	2,5	6	467
V22.0300.02 G	22,0	3,0	3	468
V06.0300.020.22 G	22,0	3,0	6	467
V22.0318.02 G	22,0	3,18	3	468
V22.0318.04 G	22,0	3,18	3	468
V22.0350.02 G	22,0	3,5	3	468
V22.0356.02 G	22,0	3,56	3	468
V22.0400.02 G	22,0	4,0	3	468
V22.0400.04 G	22,0	4,0	3	468
V06.0400.020.22 G	22,0	4,0	6	467
V22.0437.02 G	22,0	4,37	3	468
V22.0437.04 G	22,0	4,37	3	468
V22.0475.02 G	22,0	4,75	3	468
V25.0200.02 G	25,0	2,0	3	481
V25.0239.02 G	25,0	2,39	3	481
V25.0250.02 G	25,0	2,5	3	481
V25.0300.02 G	25,0	3,0	3	481
V25.0318.02 G	25,0	3,18	3	481
V25.0350.02 G	25,0	3,5	3	481
V25.0400.02 G	25,0	4,0	3	481
V25.0475.02 G	25,0	4,75	3	481
V06.0100.010.28 G	28,0	1,0	6	484
V06.0120.010.28 G	28,0	1,2	6	484

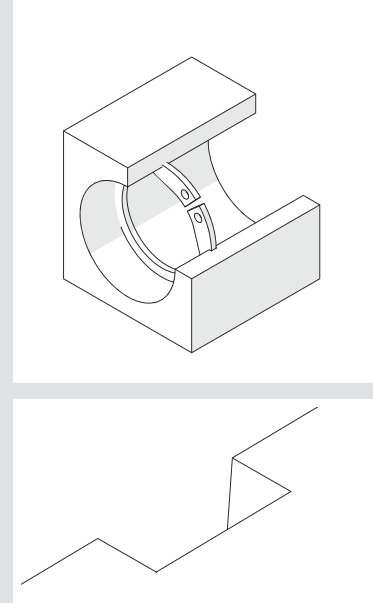
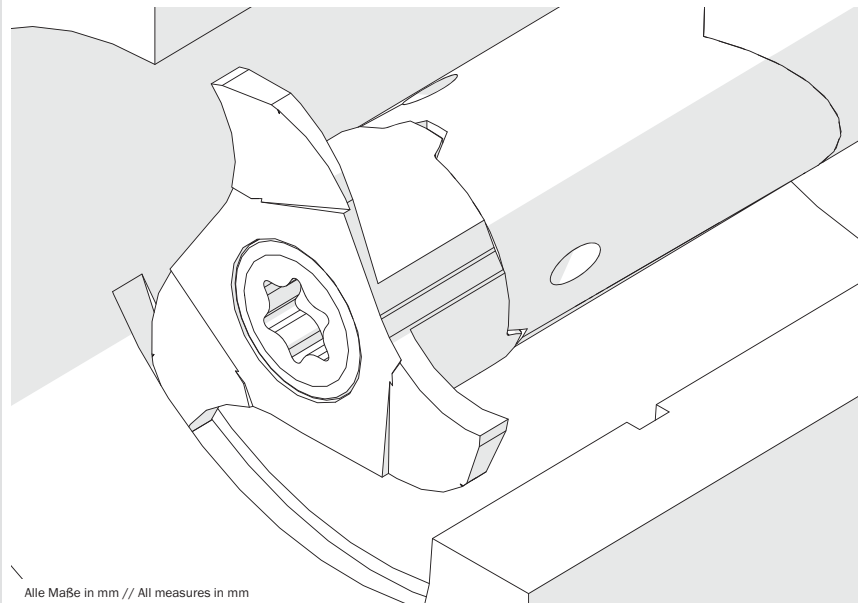
Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	w	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
V28.0150.02 G	28,0	1,5	3	482
V28.0150.02.09 G	28,0	1,5	3	483
V06.0150.010.28 G	28,0	1,5	6	484
V28.0200.02 G	28,0	2,0	3	482
V28.0200.02.09 G	28,0	2,0	3	483
V06.0200.020.28 G	28,0	2,0	6	484
V06.0215.020.28 G	28,0	2,26	6	484
V28.0250.02 G	28,0	2,5	3	482
V28.0250.02.09 G	28,0	2,5	3	483
V06.0250.020.28 G	28,0	2,5	6	484
V06.0265.020.28 G	28,0	2,65	6	484
V28.0300.02 G	28,0	3,0	3	482
V06.0300.020.28 G	28,0	3,0	6	484
V28.0350.02 G	28,0	3,5	3	482
V28.0400.02 G	28,0	4,0	3	482
V06.0400.020.28 G	28,0	4,0	6	484
V28.0500.02 G	28,0	5,0	3	482
V06.0500.020.28 G	28,0	5,0	6	484
V28.0600.02 G	28,0	6,0	3	482
V06.0600.020.28 G	28,0	6,0	6	484
V32.0200.02 G	32,0	2,0	3	488
V32.0250.02 G	32,0	2,5	3	488
V32.0300.02 G	32,0	3,0	3	488
V06.0150.010.35 G	35,0	1,5	6	491
V06.0200.020.35 G	35,0	2,0	6	491
V06.0250.020.35 G	35,0	2,5	6	491
V06.0300.020.35 G	35,0	3,0	6	491
V06.0050.000.37 G	37,0	0,5	6	493
V06.0060.000.37 G	37,0	0,6	6	493
V06.0080.000.37 G	37,0	0,8	6	493
V06.0100.010.37 G	37,0	1,0	6	492
V06.0150.010.37 G	37,0	1,5	6	492

## Allgemeines Nutfräsen in Leichtmetall General Groove Milling in light alloys



Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	w	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
P12.0150.42 C	12,0	1,5	3	399
P12.0200.42 C	12,0	2,0	3	399
P12.0250.42 C	12,0	2,5	3	399
S16.0150.42 C	16,0	1,5	3	417
S16.0200.42 C	16,0	2,0	3	417
S16.0250.42 C	16,0	2,5	3	417
U18.0150.42 C	18,0	1,5	3	439
U18.0200.42 C	18,0	2,0	3	439
U18.0250.42 C	18,0	2,5	3	439
U18.0300.42 C	18,0	3,0	3	439
V22.0150.42 C	22,0	1,5	3	470
V22.0200.42 C	22,0	2,0	3	470
V22.0250.42 C	22,0	2,5	3	470
V22.0300.42 C	22,0	3,0	3	470
V22.0400.42 C	22,0	4,0	3	470
V28.0200.42 C	28,0	2,0	3	485
V28.0250.42 C	28,0	2,5	3	485
V28.0300.42 C	28,0	3,0	3	485
V28.0350.42 C	28,0	3,5	3	485
V28.0400.42 C	28,0	4,0	3	485
V32.0200.42 C	32,0	2,0	3	489
V32.0250.42 C	32,0	2,5	3	489
V32.0300.42 C	32,0	3,0	3	489
V32.0600.42 C	32,0	6,0	3	489
V33.0110.42.10 C	33,0	1,1	3	490
V33.0120.42.10 C	33,0	1,2	3	490
V33.0132.42.10 C	33,0	1,32	3	490
V33.0150.42.10 C	33,0	1,5	3	490
V33.0160.42.10 C	33,0	1,6	3	490
V33.0170.42.10 C	33,0	1,7	3	490
V33.0200.42.10 C	33,0	2,0	3	490
V33.0250.42.10 C	33,0	2,5	3	490
V33.0170.42.12 C	33,9	1,7	3	490
V33.0250.42.12 C	33,9	2,5	3	490

## Fräsen von Sicherungsringnuten, innen Circlip Ring Groove Milling, internal

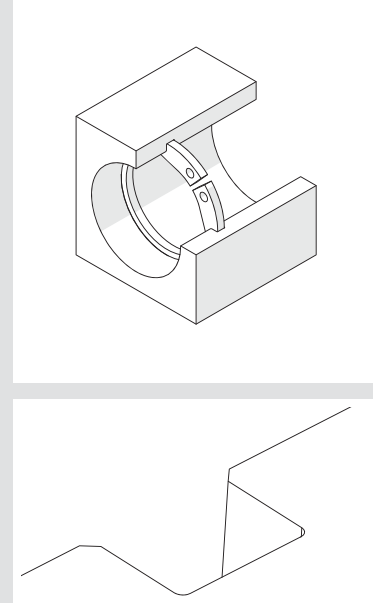
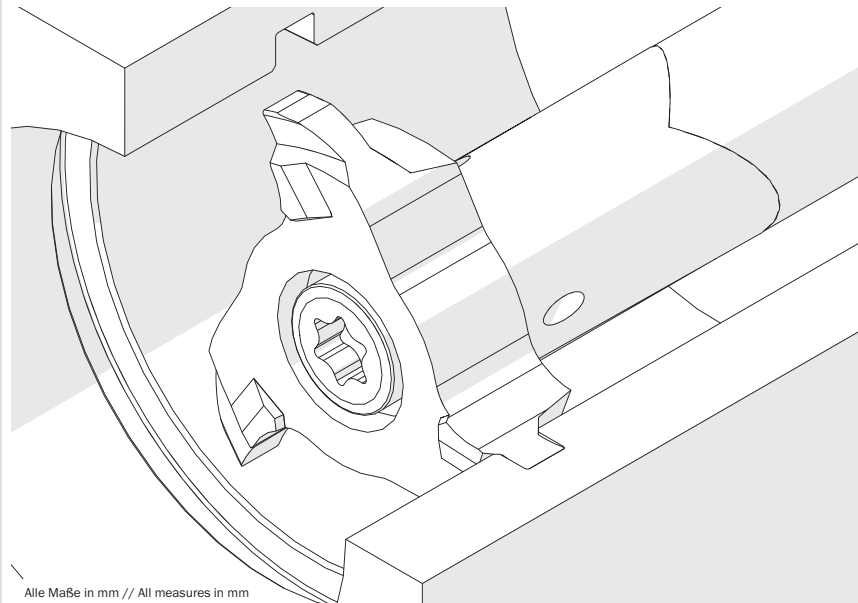


Alle Maße in mm // All measures in mm

Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Nuttbreite Nominal width of groove	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
P10.0070.00 Z	10,0	0,7	3	393
P10.0080.00 Z	10,0	0,8	3	393
P10.0090.00 Z	10,0	0,9	3	393
P10.0110.00 G	10,0	1,1	3	393
P10.0130.01 G	10,0	1,3	3	393
P10.0160.01 G	10,0	1,6	3	393
P12.0110.00 G	12,0	1,1	3	394
<b>P12.0110.40 C</b>	12,0	1,1	3	395
P12.0130.01 G	12,0	1,3	3	394
<b>P12.0130.41 C</b>	12,0	1,3	3	395
P12.0160.01 G	12,0	1,6	3	394
<b>P12.0160.41 C</b>	12,0	1,6	3	395
U18.0070.00 Z	18,0	0,7	3	434
U18.0080.00 Z	18,0	0,8	3	434
U18.0090.00 Z	18,0	0,9	3	434
U18.0110.00 G	18,0	1,1	3	434
U18.0110.40 C	18,0	1,1	3	435
<b>U06.0110.000.18 G</b>	18,0	1,1	6	433
U18.0130.01 G	18,0	1,3	3	434
U18.0130.41 C	18,0	1,3	3	435
<b>U06.0130.000.18 G</b>	18,0	1,3	6	433
U18.0160.01 G	18,0	1,6	3	434
U18.0160.41 C	18,0	1,6	3	435
<b>U06.0160.000.18 G</b>	18,0	1,6	6	433
V22.0070.00 Z	22,0	0,7	3	465
V22.0080.00 Z	22,0	0,8	3	465
V22.0090.00 Z	22,0	0,9	3	465
V22.0110.00 Z	22,0	1,1	3	465
V22.0130.01 G	22,0	1,3	3	465
<b>V22.0130.41 C</b>	22,0	1,3	3	466
V22.0160.01 G	22,0	1,6	3	465
<b>V22.0160.41 C</b>	22,0	1,6	3	466
V22.0185.02 G	22,0	1,85	3	465
<b>V22.0185.42 C</b>	22,0	1,85	3	466
V22.0215.02 G	22,0	2,15	3	465
<b>V22.0215.42 C</b>	22,0	2,15	3	466
V22.0265.02 G	22,0	2,65	3	465
<b>V22.0265.42 C</b>	22,0	2,65	3	466
V22.0315.02 G	22,0	3,15	3	465
<b>V22.0315.42 C</b>	22,0	3,15	3	466
V22.0415.02 G	22,0	4,15	3	465

Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Nuttbreite Nominal width of groove	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
<b>V22.0415.42 C</b>	22,0	4,15	3	466
V22.0515.02 G	22,0	5,15	3	465
V22.0515.04 G	22,0	5,15	3	465
<b>V22.0515.42 C</b>	22,0	5,15	3	466

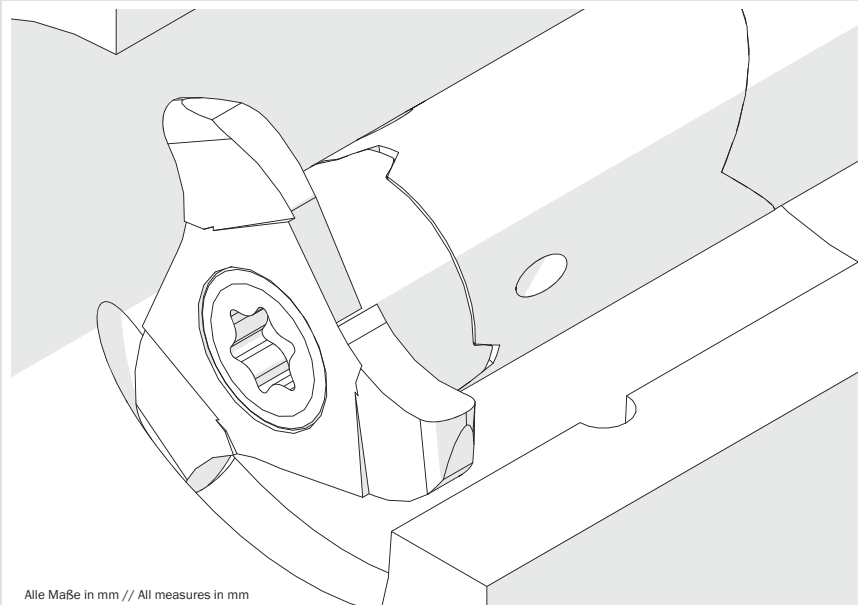
## Fräsen von Sicherungsringuten mit Nutaußenkantenfasung Circlip Ring Groove Milling with chamfering



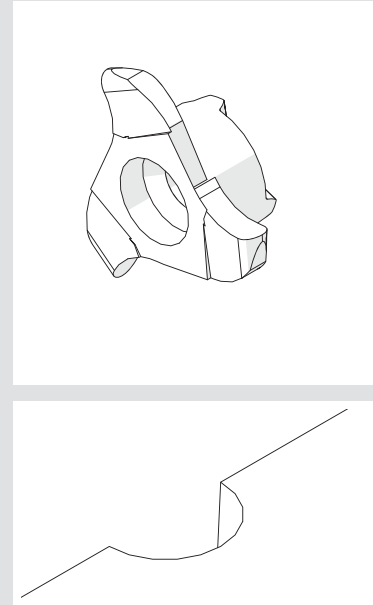
Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Nutnenbreite Nominal width of groove	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
V22.1105.30 F	22,0	1,1	3	469
V22.1307.30 F	22,0	1,3	3	469
V22.1308.30 F	22,0	1,3	3	469
V22.1609.35 F	22,0	1,6	3	469
V22.1610.35 F	22,0	1,6	3	469
V22.1812.35 F	22,0	1,85	3	469
V22.2215.35 F	22,0	2,15	3	469
V22.2616.45 F	22,0	2,65	3	469
V22.2617.45 F	22,0	2,65	3	469
V22.3118.45 F	22,0	3,15	3	469
V22.4120.55 F	22,0	4,15	3	469
V22.4125.55 F	22,0	4,15	3	469



## Fräsen von Vollradiusnuten Full Radius Groove Milling

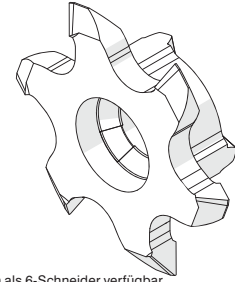
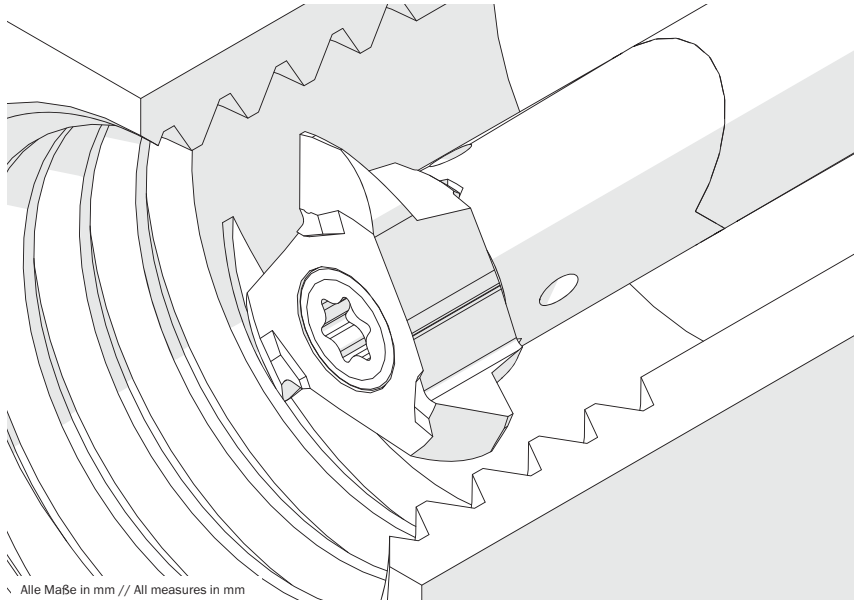


Alle Maße in mm // All measures in mm

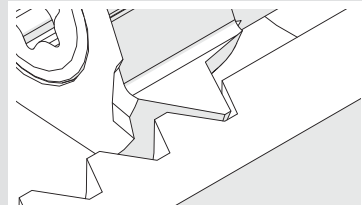


Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	R	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
P12.0011.22 V	12,0	1,1	3	400
S16.0011.22 V	16,0	1,1	3	418
U18.0010.20 V	18,0	1,0	3	440
U18.0011.22 V	18,0	1,1	3	440
U18.0015.30 V	18,0	1,5	3	440
V22.0005.10 V	22,0	0,5	3	471
V22.0008.16 V	22,0	0,8	3	471
V22.0010.20 V	22,0	1,0	3	471
V22.0012.24 V	22,0	1,2	3	471
V22.0014.28 V	22,0	1,4	3	471
V22.0015.30 V	22,0	1,5	3	471
V22.0020.40 V	22,0	2,0	3	471
V22.0022.44 V	22,0	2,2	3	471
V22.0025.50 V	22,0	2,5	3	471

## Metrisches ISO-Gewindefräsen, Teilprofil Thread milling, metric ISO-Thread, partial profile

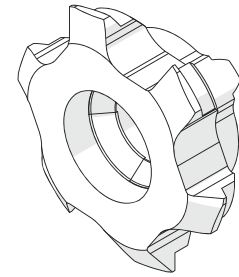
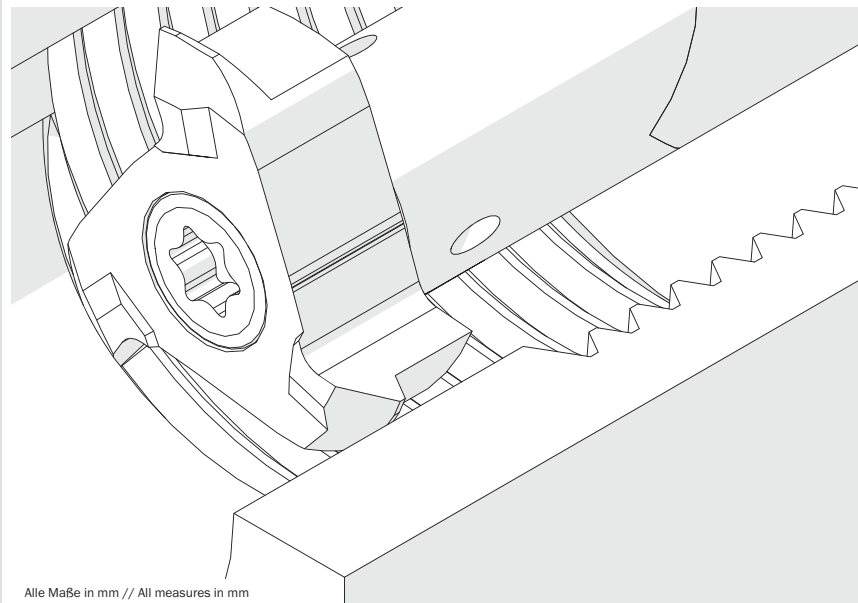


Auch als 6-Schneider verfügbar.  
Also available with 6 cutting edges.

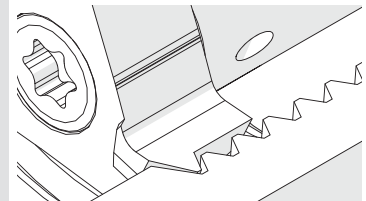


Artikelnummer Part number	Ab Gewindegröße As of Thread size	Steigung (von) Pitch (as of)	Steigung (bis) Pitch (up to)	siehe Seite see Page
P06.0510.01.10 M	M12	1,0	1,75	401
P12.0510.01 M	M12	1,0	1,75	402
P06.0720.01.10 M	M14	1,0	2,0	401
P12.0720.01 M	M14	1,0	2,0	402
S06.0510.01.12 M	M16	1,0	1,75	419
S16.0510.01 M	M16	1,0	1,75	420
S06.0720.01.12 M	M16	1,0	2,0	419
S16.0720.01 M	M16	1,0	2,0	420
P06.0815.01.11 M	M16	1,5	2,75	401
P12.0815.01 M	M16	1,5	2,75	402
P06.2530.01.11 M	M16	2,0	3,0	401
P12.2530.01 M	M16	2,0	3,0	402
S06.0815.01.13 M	M18	1,5	2,75	419
S16.0815.01 M	M18	1,5	2,75	420
S06.2530.01.13 M	M18	2,0	3,0	419
S16.2530.01 M	M18	2,5	3,0	420
<b>U18.0510.01 M</b>	M22	1,0	1,75	444
<b>U06.0720.01.18 M</b>	M22	1,0	2,0	443
<b>U18.0720.01 M</b>	M22	1,0	2,0	444
<b>U18.0815.01 M</b>	M22	1,5	2,75	444
<b>U18.1325.01 M</b>	M24	2,0	3,0	444
<b>U06.2535.01.18 M</b>	M24	2,0	3,5	443
<b>U18.2535.01 M</b>	M24	2,0	3,5	444
<b>U18.1020.01 M</b>	M24	2,0	3,75	444
<b>U18.1630.01 M</b>	M24	2,5	5,0	444
<b>U18.1835.01 M</b>	M24	3,0	5,5	444
V06.0720.01.22 M	M27	1,0	2,0	474
V22.0720.01 M	M27	1,0	2,0	475
V22.0815.01 M	M27	1,5	2,75	475
V22.1020.01 M	M27	2,0	3,75	475
V06.2545.01.22 M	M27	2,0	4,5	474
V22.2545.01 M	M27	2,0	4,5	475
V22.1630.01 M	M30	2,5	5,0	475
V22.2140.01 M	M30	3,5	6,0	475
V22.2445.01 M	M30	3,5	6,5	475
V28.0720.01 M	M33	1,0	2,0	487
V06.1525.01.28 M	M33	1,5	2,5	486
V28.1525.01 M	M33	1,5	2,5	487
V06.3050.01.28 M	M36	2,5	5,0	486
V28.3050.01 M	M36	2,5	5,0	487
V28.5060.01 M	M39	4,0	6,0	487

## Metrisches ISO-Gewindefräsen, Vollprofil Thread milling, metric ISO-Thread, full profile

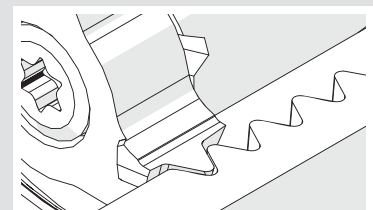
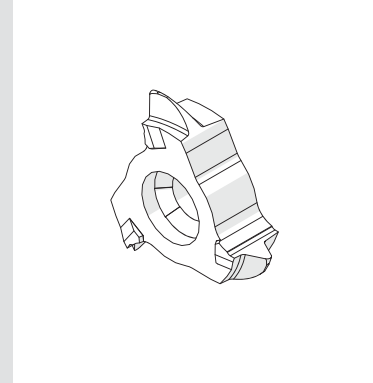
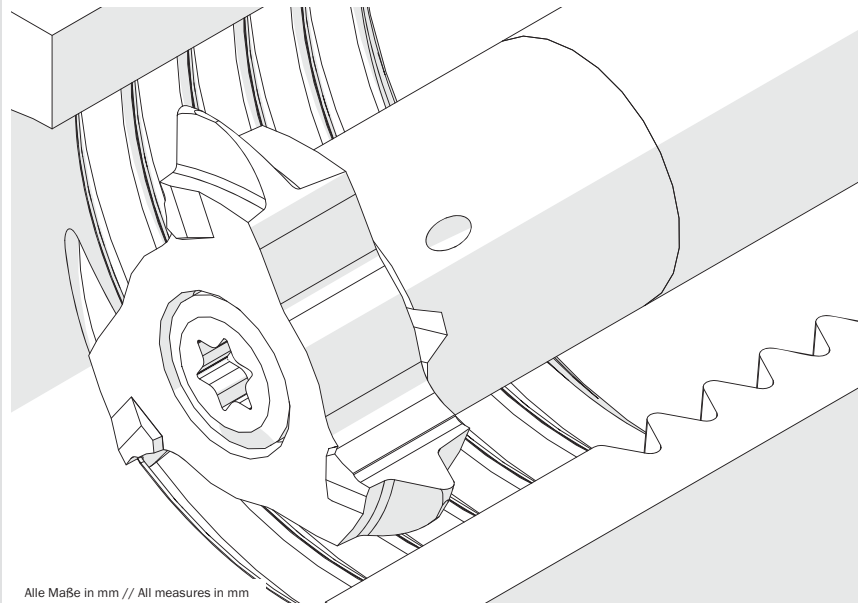


Auch als 6-Schneider verfügbar.  
Also available with 6 cutting edges.



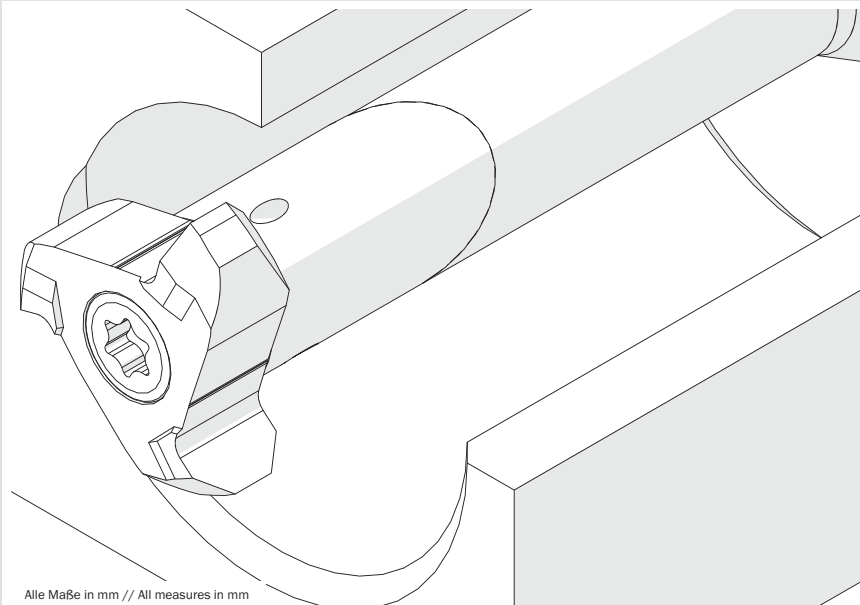
Artikelnummer Part number	Ab Gewindegröße As of Thread size	Steigung (von) Pitch (as of)	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
U18.0815.02 M	M22	1,5	3	442
U06.0815.02.18 M	M22	1,5	6	441
U18.0917.02 M	M22	1,75	3	442
U18.1020.02 M	M22	2,0	3	442
V22.0815.02 M	M24	1,5	3	473
V06.0815.02.22 M	M24	1,5	6	472
U06.1020.02.18 M	M24	2,0	6	441
U18.1325.02 M	M24	2,5	3	442
U06.1630.02.18 M	M24	3,0	6	441
U06.1835.02.18 M	M24	3,5	6	441
V22.0917.02 M	M27	1,75	3	473
V06.0917.02.22 M	M27	1,75	6	472
V22.1020.02 M	M27	2,0	3	473
V06.1020.02.22 M	M27	2,0	6	472
U18.1630.02 M	M27	3,0	3	442
U18.1835.02 M	M27	3,5	3	442
V22.1630.02 M	M30	3,0	3	473
V06.1630.02.22 M	M30	3,0	6	472
V22.1835.02 M	M30	3,5	3	473
V22.2140.02 M	M33	4,0	3	473
V06.2140.02.22 M	M33	4,0	6	472
V22.2445.02 M	M33	4,5	3	473

## Whitworth-Gewinde, Vollprofil Whitworth Thread, full profile

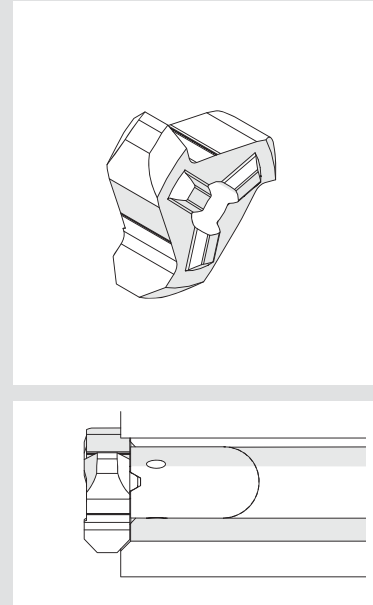


Artikelnummer Part number	Gang/Zoll Threads/inch	Anzahl Schneid- Number of Cutting Edges	siehe Seite see Page
P12.1423.11 M	11	3	403
S16.1423.11 M	11	3	421
<b>U18.BS1.02 M</b>	11	3	447
V22.5511.02 M	11	3	476
P12.1118.14 M	14	3	403
S16.1118.14 M	14	3	421
<b>U18.BS14.02 M</b>	14	3	447
P12.0813.19 M	19	3	403
<b>U18.BS19.02 M</b>	19	3	447
V22.5506.02 M	6	3	476
V22.5508.02 M	8	3	476

## Fräsen von Fasen Chamfering

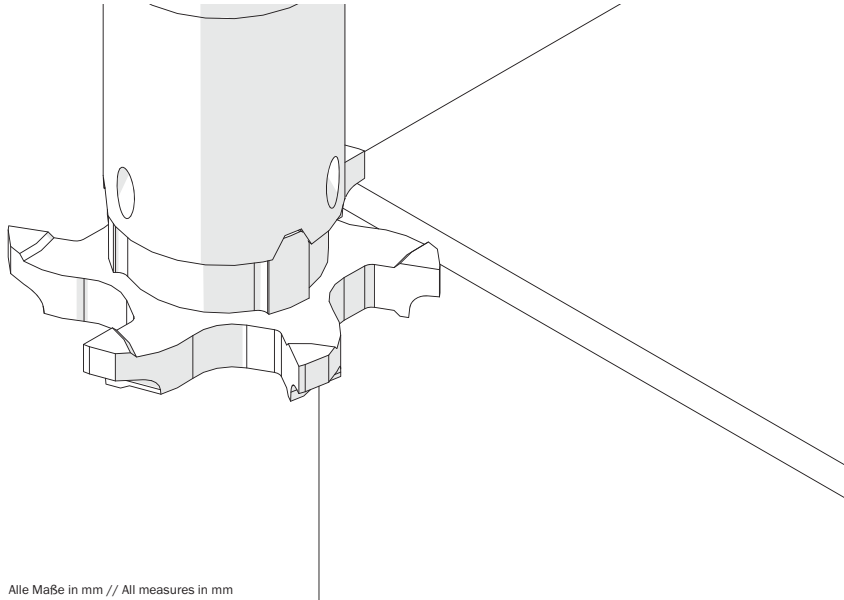


Alle Maße in mm // All measures in mm

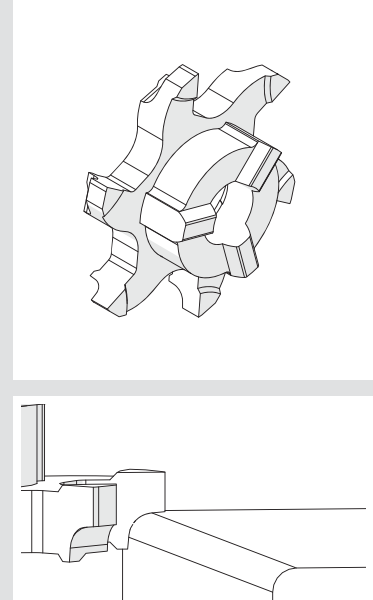


Artikelnummer Part number	ØDmin (Min. Bohrung) ØDmin (Min. Bore)	Anzahl Schneidkanten Number of Cutting Edges	siehe Seite see Page
P09.4545.02 F	9,6	3	405
P10.4545.35 F	10,0	3	405
P06.1515.02.10 F	10,0	6	404
P06.2020.02.10 F	10,0	6	404
P06.3030.02.10 F	10,0	6	404
P06.4545.02.10 F	10,0	6	404
P12.4545.35 F	12,0	3	405
S06.1515.02.14 F	14,0	6	422
S06.2020.02.14 F	14,0	6	422
S06.3030.02.14 F	14,0	6	422
S06.4545.02.14 F	14,0	6	422
<b>U15.4545.58 F</b>	15,0	3	448
<b>U06.4545.050.15 F</b>	15,0	6	450
S16.4545.02 F	16,0	3	423
S16.4545.45 F	16,0	3	423
<b>U18.4545.58 F</b>	18,0	3	448
<b>U06.4545.020.18 F</b>	18,0	6	450
V22.4545.58 F	22,0	3	477
V22.4545.94 F	22,0	3	477
V06.4545.020.22 F	22,0	6	478
V06.4545.020.28 F	28,0	6	478

## Fräsen von Kantenverrundungen (Entgraten) Corner Rounding (Deburring)

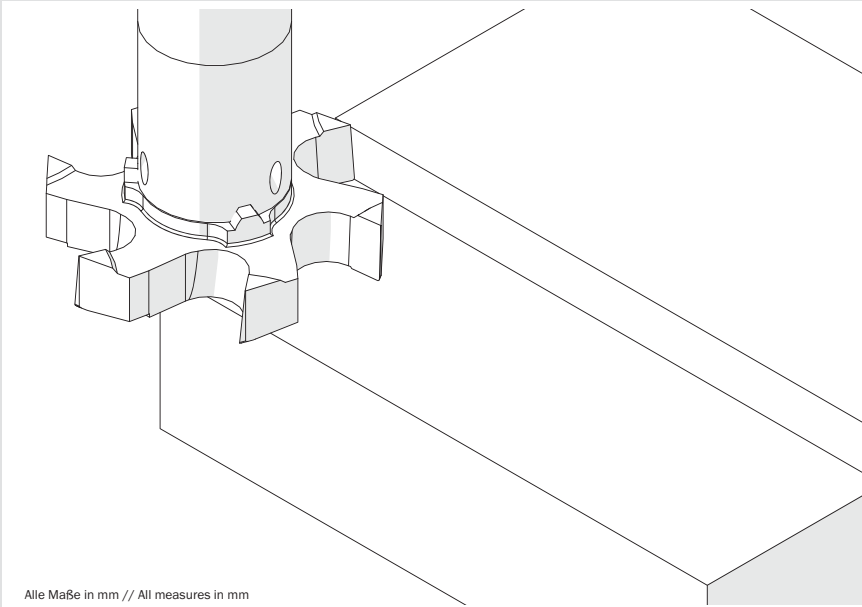


Alle Maße in mm // All measures in mm

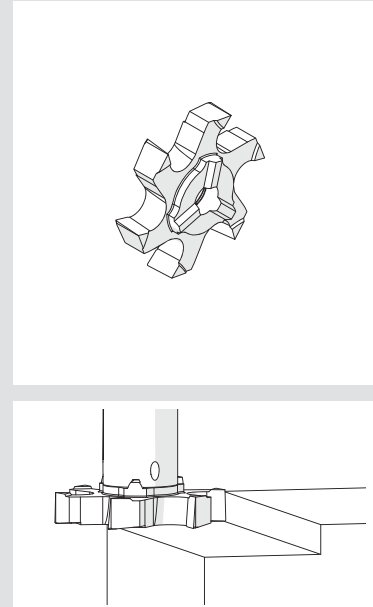


Artikelnummer Part number	R	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
V06.R020.22 F	0,2	6	479
V06.R050.22 F	0,5	6	479
V06.R060.22 F	0,6	6	479
V06.R080.22 F	0,8	6	479
V06.R100.22 F	1,0	6	479
V06.R125.22 F	1,25	6	479
V06.R150.22 F	1,5	6	479
V06.R200.22 F	2,0	6	479
V06.R225.22 F	2,25	6	479
V06.R250.22 F	2,5	6	479
V06.R300.22 F	3,0	6	479

# Stirn- und Planfräsen Face Milling



Alle Maße in mm // All measures in mm



Artikelnummer Part number	ØDS	Anzahl Schneiden Number of Cutting Edges	siehe Seite see Page
V06.PL50.020.28 Y	27,7	6	480