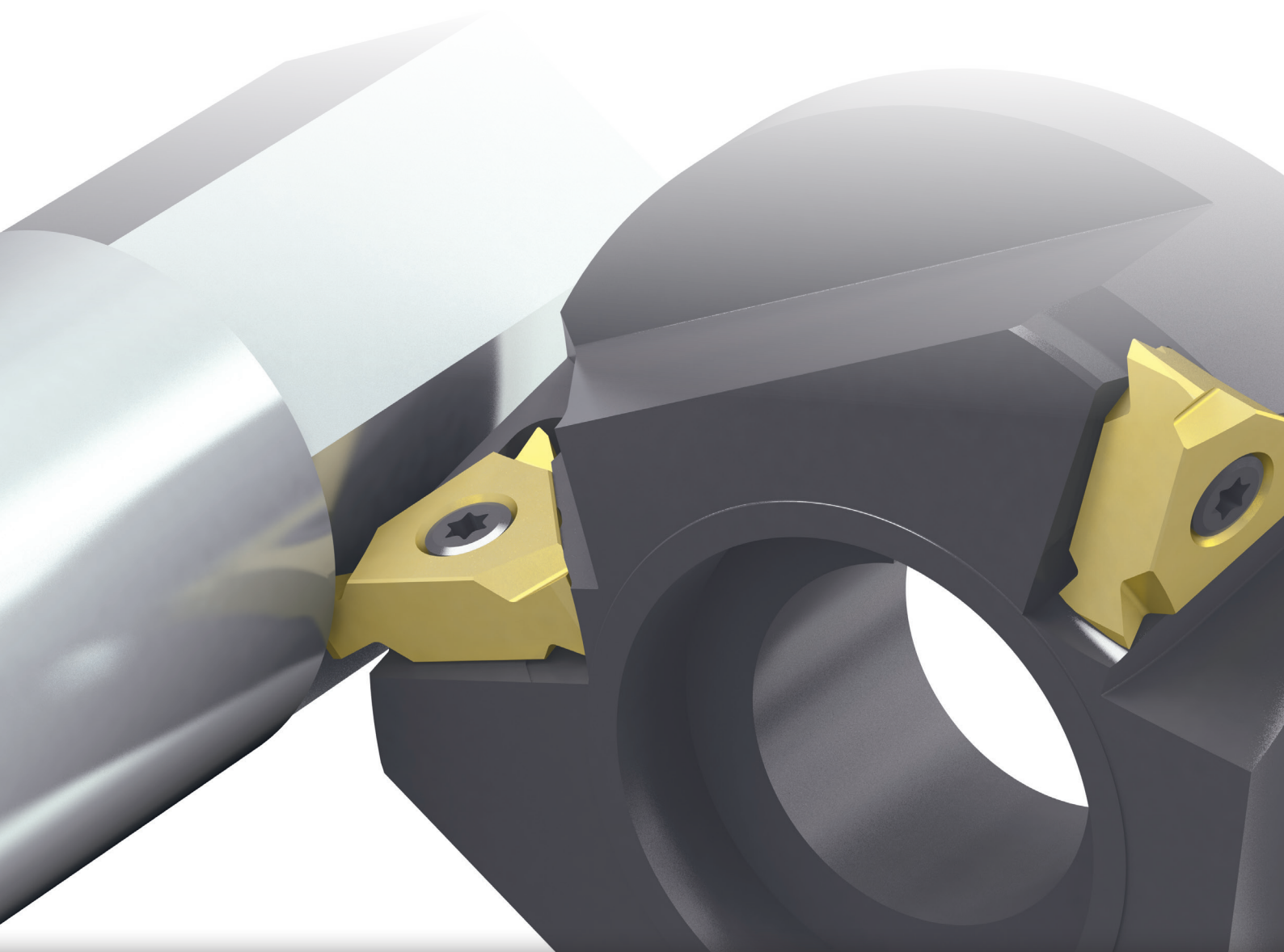


SIMTEK

Tools for
highest
expectations



simcut
SIMTEK CUTTING TOOLS

Part Catalog
R20 US-Edition



Tools for
highest
expectations

Contact

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mail usa@simtek.com
web www.simtek.com

The simcut Product Groups

simcutBA
SIMTEK Broaching Type BA

simcutBF
SIMTEK Broaching Type BF

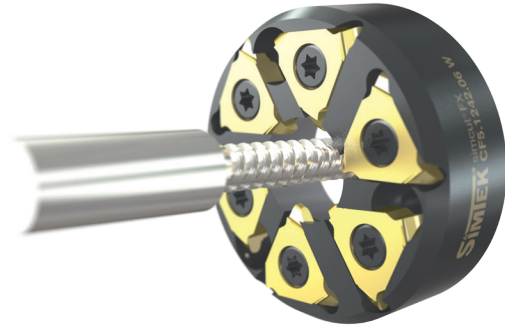


Broaching

Page

6

simcutFX
SIMTEK Thread Whirling Type FX



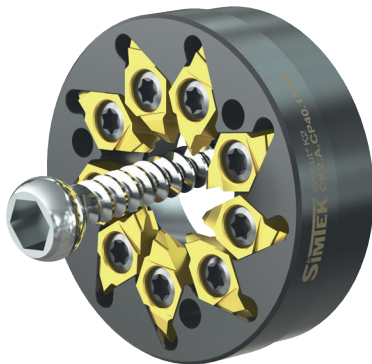
Thread whirling applications



Page

37

simcutK2
SIMTEK Thread Whirling Type K2



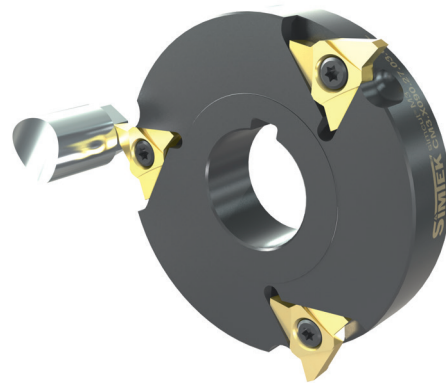
Thread whirling applications



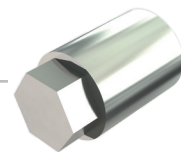
Page

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simcutMX
SIMTEK Polygon Milling Type MX



Polygon milling tools



Page

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A list of all the tools can be found on page 73

The Connectcode

Please use the „Connectcode“ in order to verify which combination between cutting insert and toolholder is recommended.

This „Connectcode“ is shown on catalog pages of cutting inserts as well as on catalog pages of toolholders if the tool system does not require the use of a toolholder, no „Connectcode“ is given. Identical values indicate that the combination of insert and toolholder is recommended.

Different combinations can be possible too at the possible expense of other tool characteristics.

Connectcode www.simtek.com/code	Cutting tool						
	BA06	BA07	BA10	BF10	BF12.08	BF12.10	BF12.12
BA06	●	-	-	-	-	-	-
BA07	-	●	-	-	-	-	-
BA10	-	-	●	-	-	-	-
BF10	-	-	-	●	-	-	-
BF12*	-	-	-	-	●	●	●
BF12.08	-	-	-	-	●	○	○
BF12.10	-	-	-	-	-	●	○
BF12.12	-	-	-	-	-	-	●

- Recommended combination
- Constructionally possible combination but with differing functionality

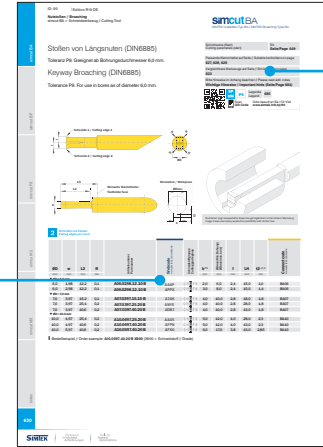
This table contains all the „Connectcodes“ from this catalog. A full blue circle on the intersection of cutting tool and toolholder indicates that the connection of both items is recommended.

Using the catalog

The Webcode and more cross-references

The **Webcode**, shown on every catalog page line

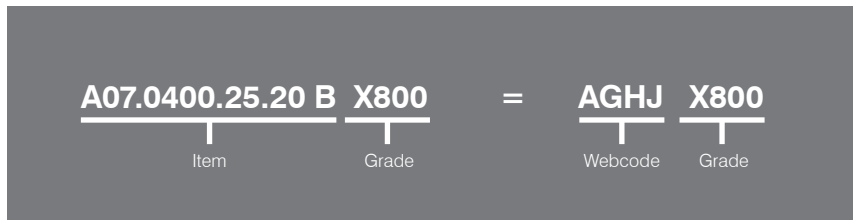
The webcode is a unique and fast connection between our part numbers and the digital world. Use it on our website and get up-to-date information fast, easy and reliable.



<http://www.simtek.com/webcode/>

The Webcode is a four digit alpha-numeric code which is available for every standard item.

This code is unique for every item:



You can also use this Webcode for your ordering process. Just add the grade code if ordering a cutting insert and the short ordering code is complete.

Extra **cross-references** and **information**, shown on every catalog page

Schnittwerte (Start) / Cutting parameters (start) Vc
Seite/Page 649

Passende Klemmhalter auf Seite // Suitable toolholders on page
627, 628, 629

Vergleichbare Werkzeuge auf Seite // Similar tools on page
623

Bitte Hinweise im Anhang beachten // Please read add. notes
Wichtige Hinweise // Important hints (Seite/Page 684)

 	 SP HM P9	Legende Legend 685
Oder besuchen Sie // Or Visit www.simtek.info/cp/90		

You can find additional information and cross-references in the upper right corner. These cross-references lead to compatible toolholders, similar tools, cutting parameters and additional notes. The corresponding information can be found on the shown page numbers.

The simcut Broaching Tools

simcutBA
SIMTEK Broaching Type BA

simcut BF

Broaching tools for internal profiles in bores as of diameter 17,0 mm (0.669")



simcut BA

Broaching tools for internal profiles in bores as of diameter 6,0 mm (0.236")

Standard and Special Tools for Broaching Applications

Cutting tools



The simcut tool system for broaching applications offers **standard cutting tools** for the following profiles:

- [Keyways \(according to DIN 6885\)](#)
- [Keyways \(according to DIN 138\)](#)
- [Hexagon socket](#)



The insert range is extended by individual tools for special profiles, such as [involute toothing profiles](#) and others.



This catalog contains our standard cutting inserts for keyway broaching.



Please contact us in case you need one of the other profiles.

Toolholder

Two kinds of toolholders are available for holding the range of Standard and special customized cutting inserts:

- [Toolholders for conventional broaching](#)

as well as

- [Toolholders for broaching units:](#)

Schwarzer "Version 1" *

Schwarzer "2in1" *

Benz "LinA"

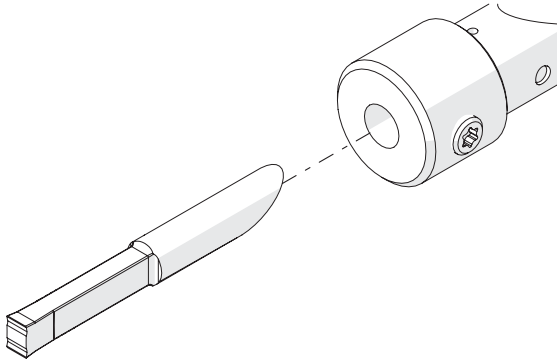
EWS "Slot"

* Available upon request.

Info

The Tool System simcut BA

- + System of steel toolholder and carbide milling insert



- + For internal use in bores as of bore diameter 6,0 mm (0.236")
- + Standard toolholders for conventional broaching, as well as for broaching units
- + Wide range of standard cutting inserts
- + Individual, special profiles upon request
- + 2 cutting edges per insert

simcutBA
SIMTEK Broaching Type BA



As of page

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Application overview

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All tools

simcut BA

simcut BF

simcut FX

simcut K2

simcut MX

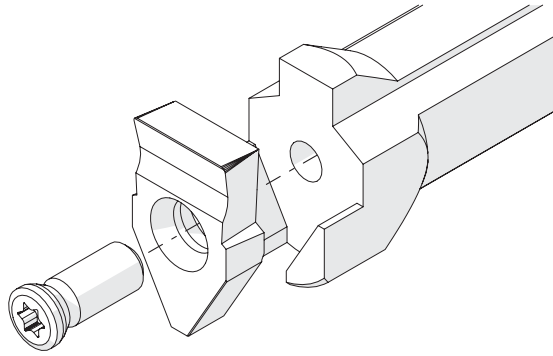
Index

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Info

The Tool System simcut BF

- + System of steel toolholder and carbide milling insert



- + For internal use in bores as of bore diameter 17,0 mm (0.669")
- + Standard toolholders for conventional broaching, as well as for broaching units
- + Wide range of standard cutting inserts
- + Individual, special profiles upon request

simcutBF
SIMTEK Broaching Type BF



As of page

10

Application overview

22

All tools

simcut BA

simcut BF

simcut FX

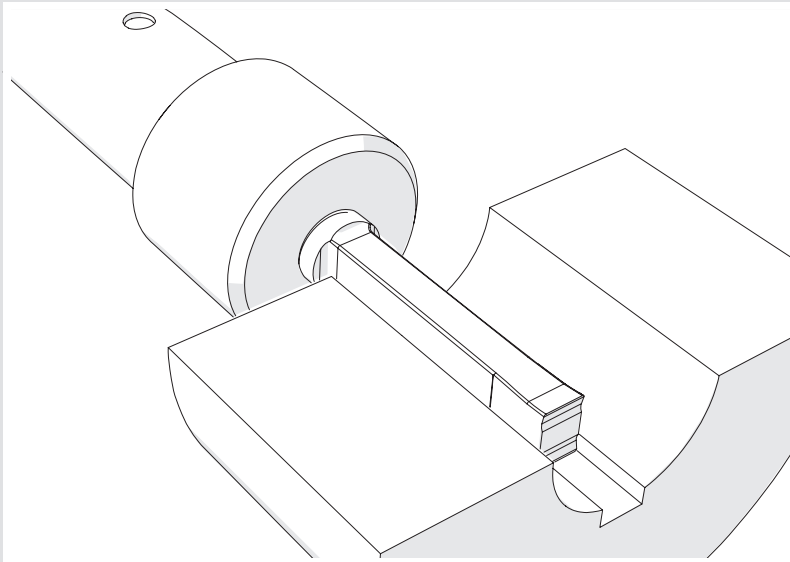
simcut K2

simcut MX

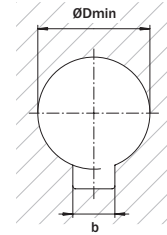
Index

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Keyway Broaching (DIN 6885 / DIN 138)



Workpiece



Standard tools are available for the following tolerance classes. Further tolerance classes upon request.

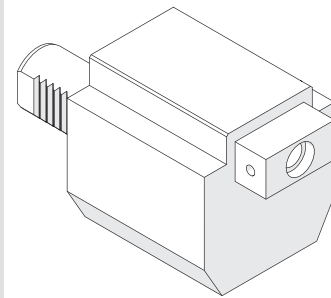
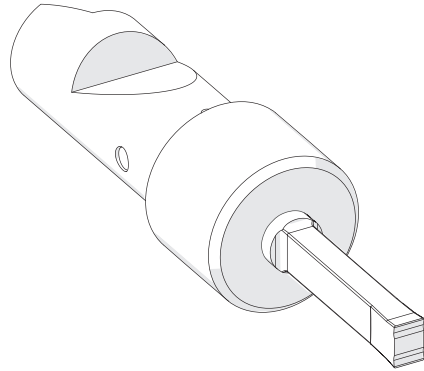
P9 JS9 H9 C11

Part number	ØDmin (min. bore)	b	see Page
A06.0198.12.10 B	6,0	2,0 ^{P9}	17
A06.0200.12.10 B	6,0	2,0 ^{JS9}	18
A06.0202.12.10 B	6,0	2,0 ^{H9}	19
A06.0298.12.10 B	8,0	3,0 ^{P9}	17
A06.0300.12.10 B	8,0	3,0 ^{JS9}	18
A06.0302.12.10 B	8,0	3,0 ^{H9}	19
A07.0397.15.10 B	10,0	4,0 ^{P9}	17
A07.0397.25.20 B	10,0	4,0 ^{P9}	17
A07.0397.40.20 B	10,0	4,0 ^{P9}	17
A07.0400.15.10 B	10,0	4,0 ^{JS9}	18
A07.0400.15.20 B	10,0	4,0 ^{JS9}	18
A07.0400.25.20 B	10,0	4,0 ^{JS9}	18
A07.0400.40.20 B	10,0	4,0 ^{JS9}	18
A07.0402.15.10 B	10,0	4,0 ^{H9}	19
A07.0402.25.20 B	10,0	4,0 ^{H9}	19
A07.0402.40.20 B	10,0	4,0 ^{H9}	19
A10.0497.25.20 B	12,0	5,0 ^{P9}	17
A10.0497.40.20 B	12,0	5,0 ^{P9}	17
A10.0500.25.20 B	12,0	5,0 ^{JS9}	18
A10.0500.40.20 B	12,0	5,0 ^{JS9}	18
A10.0502.25.20 B	12,0	5,0 ^{H9}	19
A10.0502.40.20 B	12,0	5,0 ^{H9}	19
F10.0500.02.14 B	14,0	5,0 ^{JS9}	30
F10.0498.02 B	17,0	5,0 ^{P9}	28
F10.0500.02 B	17,0	5,0 ^{JS9}	30
F10.0502.02 B	17,0	5,0 ^{H9}	32
A10.0597.40.20 B	17,0	6,0 ^{P9}	17
A10.0600.40.20 B	17,0	6,0 ^{JS9}	18
A10.0602.40.20 B	17,0	6,0 ^{H9}	19
F10.0598.02 B	17,0	6,0 ^{P9}	28
F10.0600.02 B	17,0	6,0 ^{JS9}	30
F10.0602.02 B	17,0	6,0 ^{H9}	32
F10.0796.02 B	22,0	8,0 ^{P9}	28
F10.0800.02 B	22,0	8,0 ^{JS9}	30
F10.0802.02 B	22,0	8,0 ^{H9}	32
F12.0796.02 B	22,0	8,0 ^{P9}	29
F12.0800.02 B	22,0	8,0 ^{JS9}	31
F12.0800.02.05 B	22,0	8,0 ^{JS9}	31
F12.0802.02 B	22,0	8,0 ^{H9}	33
F12.0996.03 B	30,0	10,0 ^{P9}	29
F12.1000.03 B	30,0	10,0 ^{JS9}	31

Part number	ØDmin (min. bore)	b	see Page
F12.1000.03.05 B	30,0	10,0 ^{JS9}	31
F12.1002.03 B	30,0	10,0 ^{H9}	33
F12.1196.03 B	38,0	12,0 ^{P9}	29
F12.1200.03 B	38,0	12,0 ^{JS9}	31
F12.1200.03.05 B	38,0	12,0 ^{JS9}	31
F12.1200.05 B	38,0	12,0 ^{JS9}	31
F12.1202.03 B	38,0	12,0 ^{H9}	33
F12.1600.03 B	38,0	16,0 ^{JS9}	31
F12.1396.03 B	40,0	14,0 ^{P9}	29
F12.1400.03 B	40,0	14,0 ^{JS9}	31

Standard Tools

Toolholder for Push-Slotting Aggregat



Standard toolholders for broaching units are available for the following units.

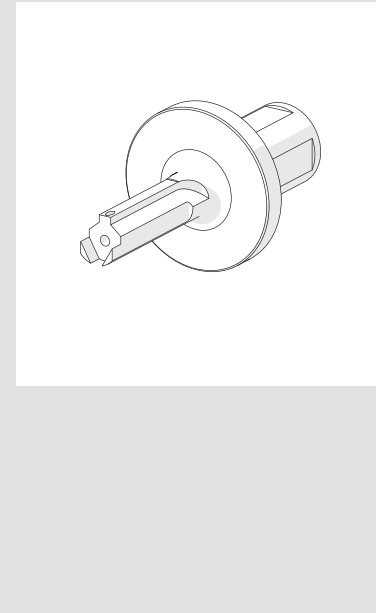
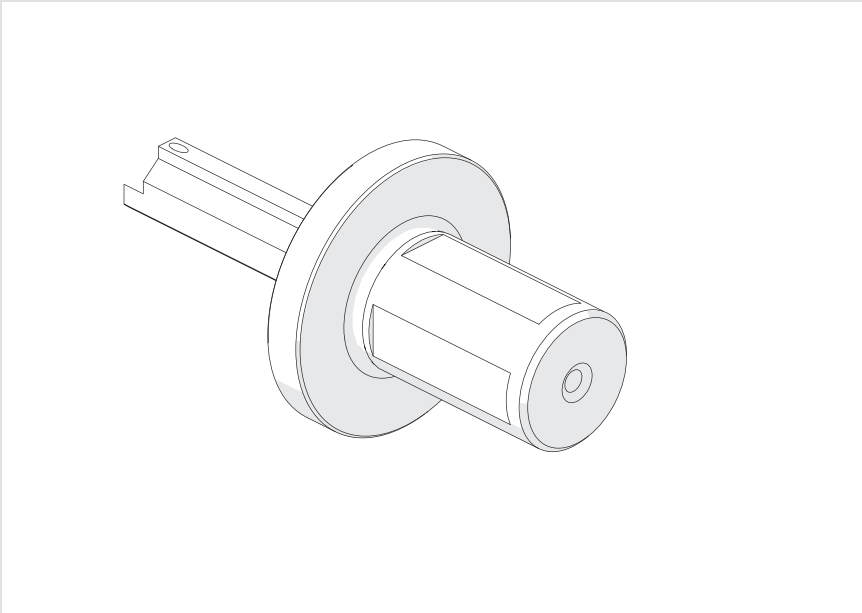
Schwarzer "Version 1"* Benz "LinA"
 Schwarzer "2in1"* EWS "Slot"

Available upon request.

Part number	For broaching unit	see Page
F10.SB20.35-B IC	BENZ LinA 4.0/ EWS P20	26
F10.SB20.53-B IC	BENZ LinA 4.0/ EWS P20	26
A06.SB16-B	BENZ LinA/ EWS Slot	16
A07.SB16-B	BENZ LinA/ EWS Slot	16
A10.SB16-B	BENZ LinA/ EWS Slot	16
F10.SB16.35-B	BENZ LinA/ EWS Slot	26
F10.SB16.53-B	BENZ LinA/ EWS Slot	26

Standard Tools

Toolholder for conventional Broaching



Part number	ØDg6	see Page
A06.SB16	16,0	14
A07.SB16	16,0	14
A07.SB.0.750	19,05	14
A06.SB20	20,0	14
A07.SB20	20,0	14
A06.SB25	25,0	14
A07.SB25	25,0	14
A10.SB25	25,0	14
F10.05.40.25	25,0	24
F10.05.40.25.14	25,0	24
F10.SB25.56 ZB	25,0	23
F10.SB25.80 ZB	25,0	23
F39.06.50.25	25,0	25
F39.06.70.25	25,0	25
F39.08.50.25	25,0	25
F39.08.75.25	25,0	25
A06.SB.1.000	25,4	14
F10.05.40.1.000	25,4	24
F39.08.51.1.000	25,4	25
F39.08.76.1.000	25,4	25
F39.10.51.1.250	31,75	25
F39.10.76.1.250	31,75	25
F39.12.76.1.250	31,75	25
A07.SB32	32,0	14
A10.SB32	32,0	14
F10.05.40.32	32,0	24
F10.SB32.56 ZB	32,0	23
F10.SB32.80 ZB	32,0	23
F39.10.10.32	32,0	25
F39.10.50.32	32,0	25
F39.10.75.32	32,0	25
F39.12.10.32	32,0	25
F39.12.50.32	32,0	25
F39.12.75.32	32,0	25



As of page

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Application overview

simcut BA

simcut BF

simcut FX

simcut K2

simcut MX

Index

Toolholder for Conventional Broaching

For conventional broaching of standard and special profiles on capable CNC-machines.

Tightening torque (screw)

7,0 Nm

Similar tools on page

12

Please read add. notes

Important hints (Page 71)



Legend

72

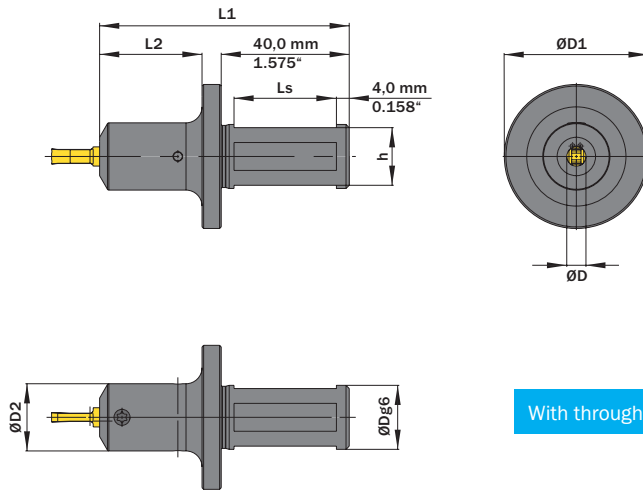


Scan QR-Code

Or Visit

www.simtek.info/cp/88

This page contains inch tools! These tools are indicated by **inch on the right hand side.**



With through coolant supply

Drawing shows: A06.SB20

ØD	ØDg6	Part number	Webcode www.simtek.com/webcode	With through coolant supply	ØD1	ØD2	h	L1	L2	Ls	Screw	Screw driver	Connectcode www.simtek.com/code	
mm/inch	mm/inch				mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch				
▼ ØD = 6,0 mm / 0.236"														
0.236"	1.000"	A06.SB.1.000	A3DK	Yes	1.969"	0.827"	0.921"	3.071"	1.260"	1.260"	A M6x7,5 T15F	T15F	BA06	inch
6,0	16,0	A06.SB16	AWY9	Yes	38,0	21,0	14,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA06	
6,0	20,0	A06.SB20	AA00	Yes	45,0	21,0	18,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA06	
6,0	25,0	A06.SB25	AGC0	Yes	50,0	21,0	23,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA06	
▼ ØD = 7,0 mm / 0.256"														
0.256"	0.750"	A07.SB.0.750	A4VT	Yes	1.771"	0.866"	0.750"	3.071"	1.260"	1.260"	A M6x7,5 T15F	T15F	BA07	inch
7,0	16,0	A07.SB16	AWZA	No	38,0	22,0	14,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA07	
7,0	20,0	A07.SB20	AAEE	Yes	45,0	22,0	18,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA07	
7,0	25,0	A07.SB25	AKVH	Yes	50,0	22,0	23,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA07	
7,0	32,0	A07.SB32	AKJF	Yes	58,0	22,0	30,0	78,0	32,0	32,0	A M6x7,5 T15F	T15F	BA07	
▼ ØD = 10,0 mm / 0.394"														
0.394"	1.000"	A10.SB.1.000	A5QV	Yes	1.969"	0.984"	0.921"	3.386"	1.575"	1.260"	A M6x7,5 T15F	T15F	BA10	inch
10,0	25,0	A10.SB25	AJ7X	Yes	50,0	25,0	23,0	86,0	40,0	32,0	A M6x7,5 T15F	T15F	BA10	
10,0	32,0	A10.SB32	AD2N	Yes	58,0	25,0	30,0	86,0	40,0	32,0	A M6x7,5 T15F	T15F	BA10	

Order example: **A10.SB25**

Toolholder for Broaching Units

For broaching of standard and special profiles on broaching units „WTO“.

Please read add. notes

Important hints (Page 71)



TW
ST

ME

AW

Legend

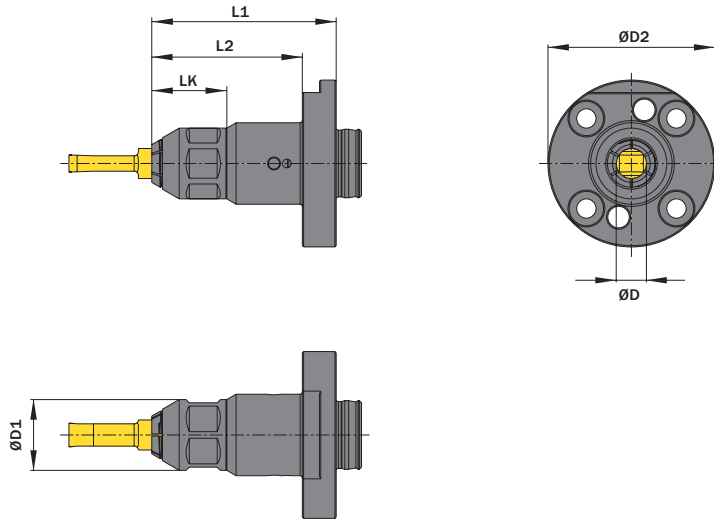
72



Scan
QR-Code

Or Visit

www.simtek.info/cp/1267



Drawing shows: A07.SB16.ME W

For broaching unit	ØD	Part number	Webcode www.simtek.com/webcode	ØD1	ØD2	L1	L2	LK	Standard screw nut	Connectcode www.simtek.com/code
	mm			mm	mm	mm	mm	mm		
wto	6,0	A06.SB16.ME-W	A03X	16,5	38,9	43,0	35,1	17,5	A00.K.16.12.108	BA06
wto	7,0	A07.SB16.ME-W	A1Q9	16,5	38,9	43,0	35,1	17,5	A00.K.16.12.108	BA07

Order example: **A06.SB16.ME-W**


Toolholder for Broaching Units

For broaching of standard and special profiles on broaching unit „Benz LinA“ and „EWS Slot“.

Tightening torque (screw)
7,0 Nm

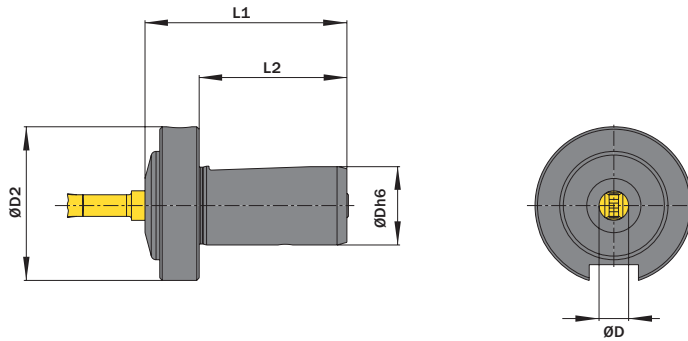
Similar tools on page
11

Please read add. notes
Important hints (Page 71)



TW **ST** **AW** Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/461



Drawing shows: A06.SB16-B

For broaching unit	ØD	ØDh6	Part number	Webcode www.simtek.com/webcode	ØD2	L1	L2	Screw	Screw driver	Connectcode www.simtek.com/code
	mm	mm								
BENZ LinA/ EWS Slot	6,0	16,0	A06.SB16-B	AP46	32,0	41,0	30,0	A M6x7,5 T15F	T15F	BA06
BENZ LinA/ EWS Slot	7,0	16,0	A07.SB16-B	AP5A	32,0	41,0	30,0	A M6x7,5 T15F	T15F	BA07
BENZ LinA/ EWS Slot	10,0	16,0	A10.SB16-B	AUBG	32,0	50,0	30,0	A M6x7,5 T15F	T15F	BA10

Order example: **A07.SB16-B**

Tool holders for other broaching units like „Schwarzer V1“ or „Schwarzer 2in1“ are available upon request.

Keyway Broaching (DIN6885)

Tolerance P9. For use in bores as of diameter 6,0 mm.

Cutting parameters (start)	Vc 37.pdf
----------------------------	---------------------

Suitable toolholders on page	14, 15, 16
------------------------------	-------------------

Similar tools on page	10
-----------------------	-----------

Please read add. notes
Important hints (Page 71)

SP HM P9 Legend 72
Scan QR-Code Or Visit www.simtek.info/cp/90

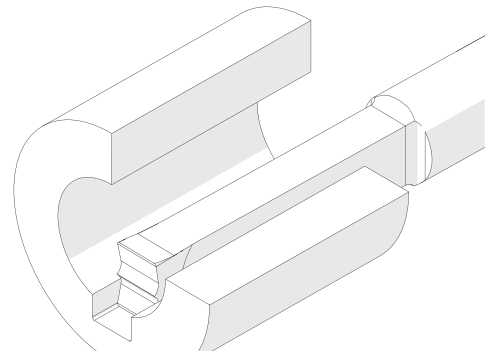
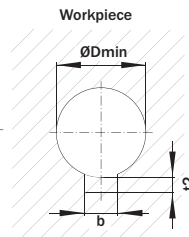
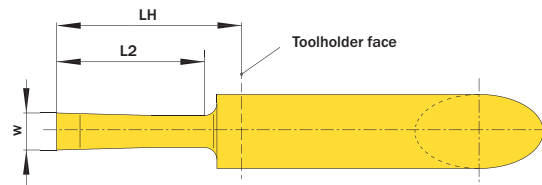
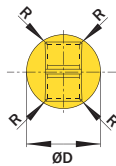
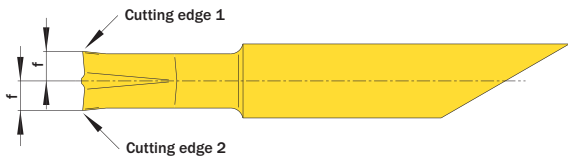


Image shows exemplary application possibility with similar tool.

2 Cutting edges per insert

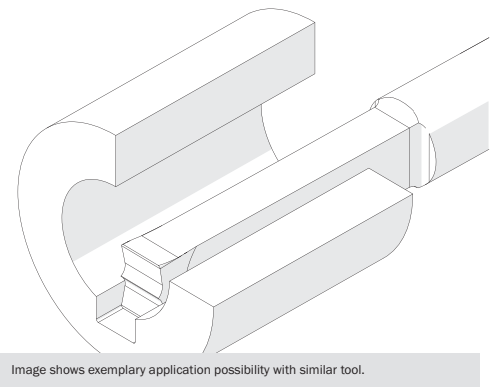
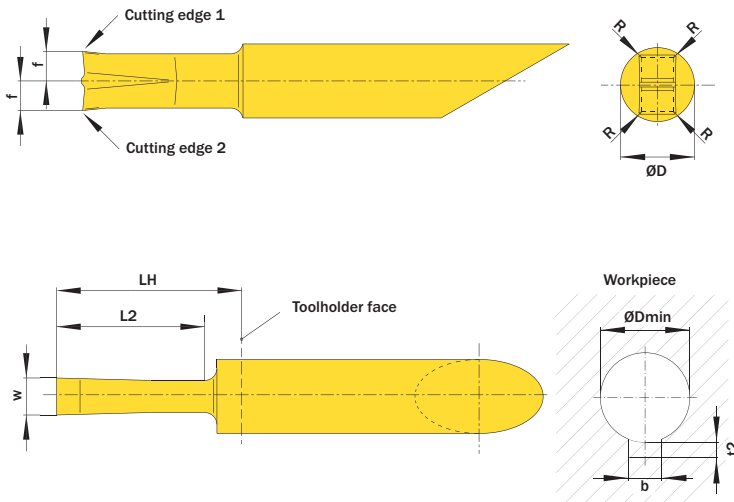
ØD	w	L2	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	b ^{P9}	ØDmin (min. bore)	f	LH	t2 ^{+0,2}	Connectcode www.simtek.com/code
▼ ØD = 6,0 mm												
6,0	1,98	12,2	0,1	A06.0198.12.10 B	AA4P	CH G F K	2,0	6,0	2,4	15,0	1,0	BA06
6,0	2,98	12,2	0,1	A06.0298.12.10 B	APPX	CH G F K	3,0	8,0	2,4	15,0	1,4	BA06
▼ ØD = 7,0 mm												
7,0	3,97	15,2	0,1	A07.0397.15.10 B	AJ46	CH G F K	4,0	10,0	2,8	18,0	1,8	BA07
7,0	3,97	25,4	0,2	A07.0397.25.20 B	ANYE	CH G F K	4,0	10,0	2,8	28,0	1,8	BA07
7,0	3,97	40,6	0,2	A07.0397.40.20 B	AD8J	CH G F K	4,0	10,0	2,8	43,0	1,8	BA07
▼ ØD = 10,0 mm												
10,0	4,97	25,4	0,2	A10.0497.25.20 B	AA45	CH G F K	5,0	12,0	4,0	28,0	2,3	BA10
10,0	4,97	40,6	0,2	A10.0497.40.20 B	AFPN	CH G F K	5,0	12,0	4,0	43,0	2,3	BA10
10,0	5,97	40,6	0,2	A10.0597.40.20 B	AFX6	CH G F K	6,0	17,0	3,8	43,0	2,85	BA10

Order example: **A10.0597.40.20 B X800** (X800 = Grade)

Keyway Broaching (DIN6885)

Tolerance JS9. For use in bores as of diameter 6,0 mm.

Cutting parameters (start)	Vc 37.pdf
Suitable toolholders on page	14, 15, 16
Similar tools on page	10
Please read add. notes	
Important hints (Page 71)	
	SP HM JS9 Legend 72
	Scan QR-Code Or Visit www.simtek.info/cp/89



2 Cutting edges per insert

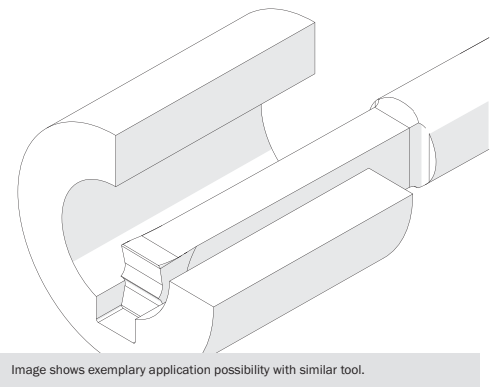
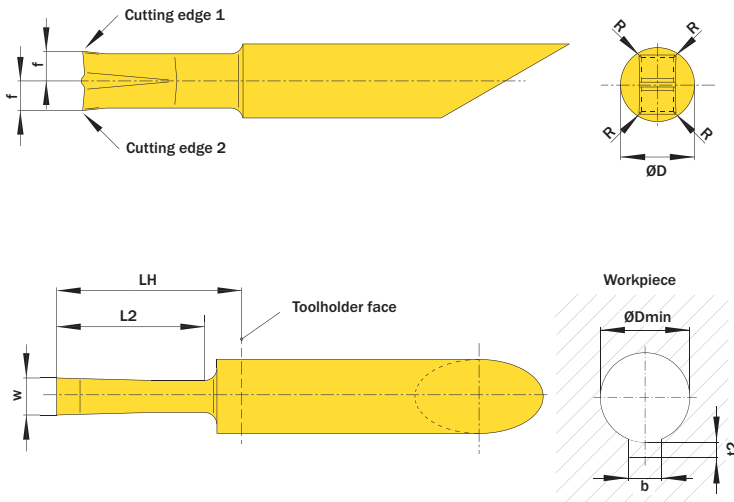
ØD	w	L2	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	b ^{JS9}	ØDmin (min. bore)	f	LH	t2 ^{+0,2}	Connectcode www.simtek.com/code
▼ ØD = 6,0 mm												
6,0	2,0	12,2	0,1	A06.0200.12.10 B	AF66	CH G FK	2,0	6,0	2,4	15,0	1,0	BA06
6,0	3,0	12,2	0,1	A06.0300.12.10 B	ANGZ	CH G FK	3,0	8,0	2,4	15,0	1,4	BA06
▼ ØD = 7,0 mm												
7,0	4,0	15,2	0,1	A07.0400.15.10 B	AJYU	CH G FK	4,0	10,0	2,8	18,0	1,8	BA07
7,0	4,0	15,2	0,2	A07.0400.15.20 B	AE20	CH G FK	4,0	10,0	2,8	18,0	1,8	BA07
7,0	4,0	25,4	0,2	A07.0400.25.20 B	AGHJ	CH G FK	4,0	10,0	2,8	28,0	1,8	BA07
7,0	4,0	40,6	0,2	A07.0400.40.20 B	ACH7	CH G FK	4,0	10,0	2,8	43,0	1,8	BA07
▼ ØD = 10,0 mm												
10,0	5,0	25,4	0,2	A10.0500.25.20 B	AK2N	CH G FK	5,0	12,0	4,0	28,0	2,3	BA10
10,0	5,0	40,6	0,2	A10.0500.40.20 B	APD8	CH G FK	5,0	12,0	4,0	43,0	2,3	BA10
10,0	6,0	40,6	0,2	A10.0600.40.20 B	AC72	CH G FK	6,0	17,0	3,8	43,0	2,85	BA10

Order example: **A10.0500.25.20 B X800** (X800 = Grade)

Keyway Broaching (DIN6885)

Tolerance H9. For use in bores as of diameter 6,0 mm.

Cutting parameters (start)	Vc 37.pdf					
Suitable toolholders on page	14, 15, 16					
Similar tools on page	10					
Please read add. notes						
Important hints (Page 71)						
	<table border="1"> <tr> <td>SP</td> <td>HM</td> <td>H9</td> <td>Legend</td> <td>72</td> </tr> </table>	SP	HM	H9	Legend	72
SP	HM	H9	Legend	72		
	Scan QR-Code Or Visit www.simtek.info/cp/260					





2 Cutting edges per insert

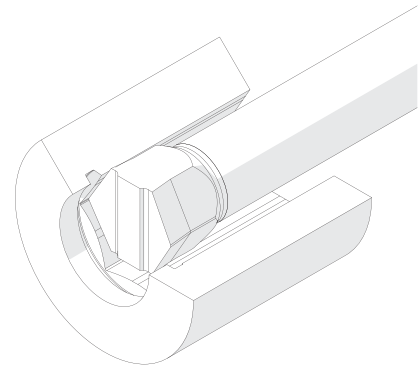
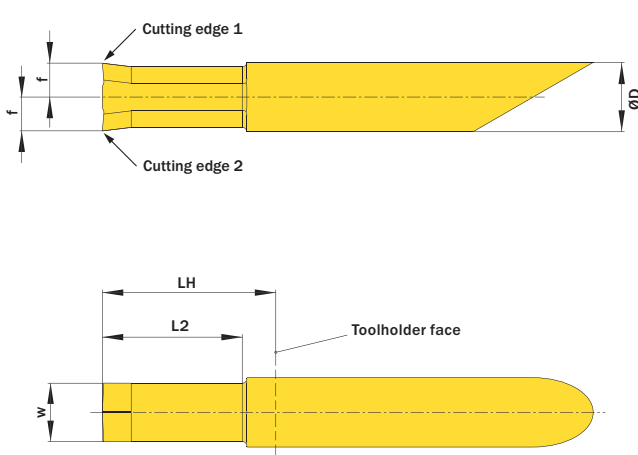
ØD	w	L2	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	b ^{H9}	ØDmin (min. bore)	f	LH	t2 ^{+0,2}	Connectcode www.simtek.com/code
							mm	mm				
▼ ØD = 6,0 mm												
6,0	2,0	12,2	0,1	A06.0202.12.10 B	AJDC	CHGFK	2,0	6,0	2,4	15,0	1,0	BA06
6,0	3,0	12,2	0,1	A06.0302.12.10 B	AAZX	CHGFK	3,0	8,0	2,4	15,0	1,4	BA06
▼ ØD = 7,0 mm												
7,0	4,02	15,2	0,1	A07.0402.15.10 B	APSD	CHGFK	4,0	10,0	2,8	18,0	1,8	BA07
7,0	4,02	25,4	0,2	A07.0402.25.20 B	ADHG	CHGFK	4,0	10,0	2,8	28,0	1,8	BA07
7,0	4,02	40,6	0,2	A07.0402.40.20 B	AM3V	CHGFK	4,0	10,0	2,8	43,0	1,8	BA07
▼ ØD = 10,0 mm												
10,0	5,02	25,4	0,2	A10.0502.25.20 B	AGU3	CHGFK	5,0	12,0	4,0	28,0	2,3	BA10
10,0	5,02	40,6	0,2	A10.0502.40.20 B	AKWT	CHGFK	5,0	12,0	4,0	43,0	2,3	BA10
10,0	6,02	40,6	0,2	A10.0602.40.20 B	AFU9	CHGFK	6,0	17,0	3,8	43,0	2,85	BA10

Order example: **A07.0402.25.20 B X800** (X800 = Grade)

Hexagon-Socket

Hexagon socket broaching.

Cutting parameters (start)	Vc 37.pdf
Suitable toolholders on page 14, 15, 16	
Please read add. notes Important hints (Page 71)	
 SP HM	Legend 72
 Scan QR-Code	Or Visit www.simtek.info/cp/883



2 Cutting edges per insert

ØD	L2	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	f	LH	SW von	SW bis	w	Connectcode www.simtek.com/code
mm	mm				mm	mm	mm	mm	mm	
▼ ØD = 6,0 mm										
6,0	4,5	A06.H025.05.20 B	AXU7	CHGFK	0,98	13,0	2,5	2,5	1,5	BA06
6,0	5,8	A06.H030.06.25 B	AXU6	CHGFK	1,23	13,0	3,0	3,0	1,8	BA06
6,0	7,0	A06.H035.07.30 B	AXU5	CHGFK	1,48	13,0	3,5	3,5	2,1	BA06
6,0	9,0	A06.H040.09.35 B	ASD0	CHGFK	1,73	13,0	4,0	5,0	3,0	BA06
6,0	12,2	A06.H060.12.59 B	ASD1	CHGFK	2,73	18,0	6,0	9,0	5,0	BA06
▼ ØD = 7,0 mm										
7,0	25,4	A07.H100.25.92 B	AXB0	CHGFK	4,6	28,0	10,0	15,0	8,0	BA07
▼ ØD = 10,0 mm										
10,0	25,4	A10.H100.25.99 B	ASD2	CHGFK	4,95	28,0	10,0	15,0	8,0	BA10

Order example: **A06.H060.12.59 B X800** (X800 = Grade)

Chamfer Broaching

Deburring of key ways.

Cutting parameters (start)	Vc 37.pdf
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Suitable toolholders on page
14, 15, 16

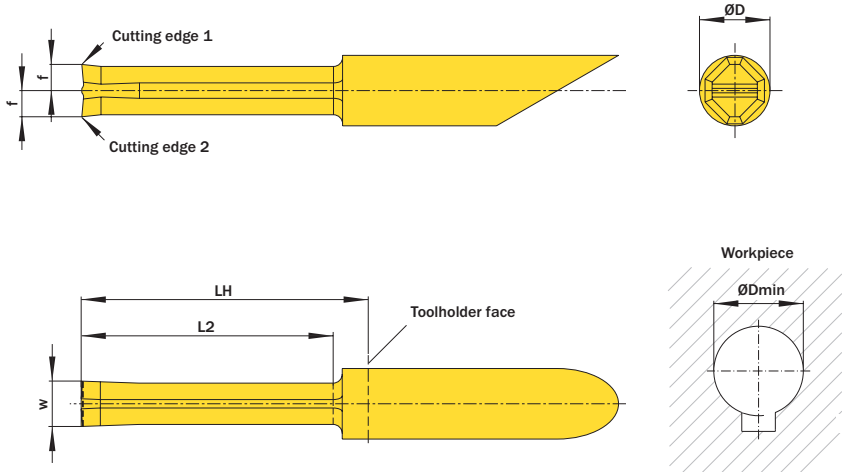
Please read add. notes
Important hints (Page 71)

SP

HM

Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/1112



2 Cutting edges per insert

ØD	L2	ØDmin (min. bore)	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	f	LH	w	Connectcode www.simtek.com/code
mm	mm	mm				mm	mm	mm	
▼ ØD = 7,0 mm									
7,0	16,0	6,0	A07.4545.15.60 BF	AYD8	CHGFK	2,6	18,0	4,5	BA07
7,0	25,4	6,0	A07.4545.25.60 BF	AYD7	CHGFK	2,6	28,0	4,5	BA07
▼ ØD = 10,0 mm									
10,0	25,4	9,0	A10.4545.25.90 BF	AYD6	CHGFK	3,8	28,0	6,3	BA10
10,0	40,6	9,0	A10.4545.40.90 BF	AYD5	CHGFK	3,8	43,0	6,3	BA10

Order example: **A07.4545.25.60 BF X800** (X800 = Grade)



As of page

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Application overview

simcut BA

simcut BF

simcut FX

simcut K2

simcut MX

Index

Toolholder for Conventional Broaching

For conventional broaching of standard and special profiles on capable CNC-machines.

Tightening torque (screw)

4,5 Nm

Similar tools on page

12

Please read add. notes

Important hints (Page 71)



Legend

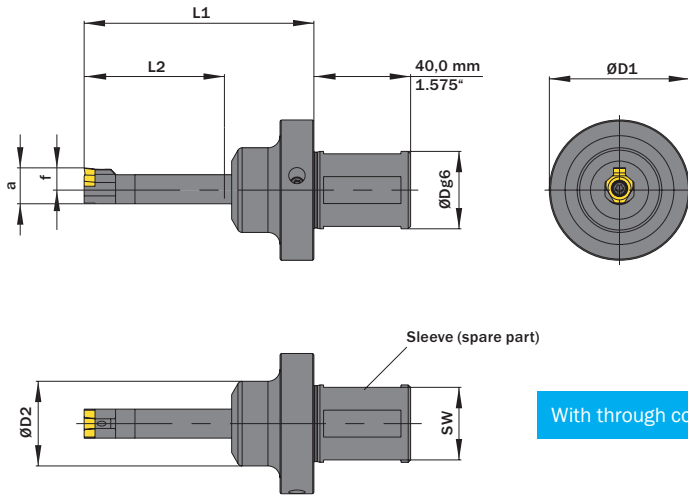
72



Scan QR-Code

Or Visit

www.simtek.info/cp/463



Drawing shows: F10.SB32.56 ZB

ØDg6	L2	Part number	Webcode www.simtek.com/webcode	a	ØDmin (min. bore)	ØD1	ØD2	f	L1	SW	Toolholder (spare part)	Sleeve (spare part)	Screw	Screw driver	Connectcode www.simtek.com/code
▼ ØDg6 = 25,0 mm															
25,0	56,0	F10.SB25.56 ZB	ASCV	14,85	17,0	58,0	35,0	8,85	94,5	23,0	F10.05.56.12	F10.1225.56 SB	FM4x11 T15F	T15F	BF10
25,0	80,0	F10.SB25.80 ZB	ASCW	14,85	17,0	58,0	35,0	8,85	114,0	23,0	F10.05.80.12	F10.1225.80 SB	FM4x11 T15F	T15F	BF10
▼ ØDg6 = 32,0 mm															
32,0	56,0	F10.SB32.56 ZB	ASCX	14,85	17,0	58,0	35,0	8,85	94,5	30,0	F10.05.56.12	F10.1232.56 SB	FM4x11 T15F	T15F	BF10
32,0	80,0	F10.SB32.80 ZB	ASCY	14,85	17,0	58,0	35,0	8,85	114,0	30,0	F10.05.80.12	F10.1232.80 SB	FM4x11 T15F	T15F	BF10

Order example: **F10.SB25.56 ZB**

Toolholder for Conventional Broaching

For conventional broaching of standard and special profiles on capable CNC-machines.

Tightening torque (screw)

4,5 Nm

Similar tools on page

12

Please read add. notes

Important hints (Page 71)



Legend

72

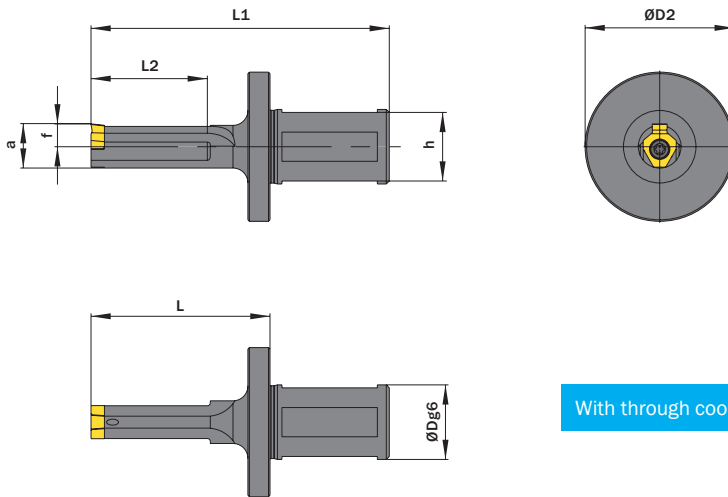


Scan QR-Code

Or Visit

www.simtek.info/cp/462

This page contains inch tools! These tools are indicated by **inch on the right hand side.**



Drawing shows: F10.05.40.25

L2	ØDg6	Part number	Webcode www.simtek.com/webcode	a	ØDmin (min. bore)	ØD2	f	h	L	L1	Screw	Screw driver	Connectcode www.simtek.com/code
mm/inch	mm/inch			mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch			
▼ ØDmin (min. bore) = 14,0 mm / 0.551"													
1.579"	1.000"	F10.05.40.1.000	A1EB	0.512"	0.551"	2.000"	0.256"	0.921"	2.362"	3.937"	FM4x11T15F	T15F	BF10.08.14 inch
40,1	25,0	F10.05.40.25.14	A083	13,0	14,0	50,0	6,5	23,0	60,0	100,0	FM4x11T15F	T15F	BF10.08.14
▼ ØDmin (min. bore) = 17,0 mm													
40,0	25,0	F10.05.40.25	AQH6	14,8	17,0	50,0	7,65	23,0	60,0	100,0	FM4x11T15F	T15F	BF10
40,0	32,0	F10.05.40.32	AQH7	14,8	17,0	58,0	7,65	30,0	60,0	100,0	FM4x11T15F	T15F	BF10

Order example: F10.05.40.25

Toolholder for Conventional Broaching

For conventional broaching of standard and special profiles on capable CNC-machines.

Tightening torque (screw)
6,0 Nm

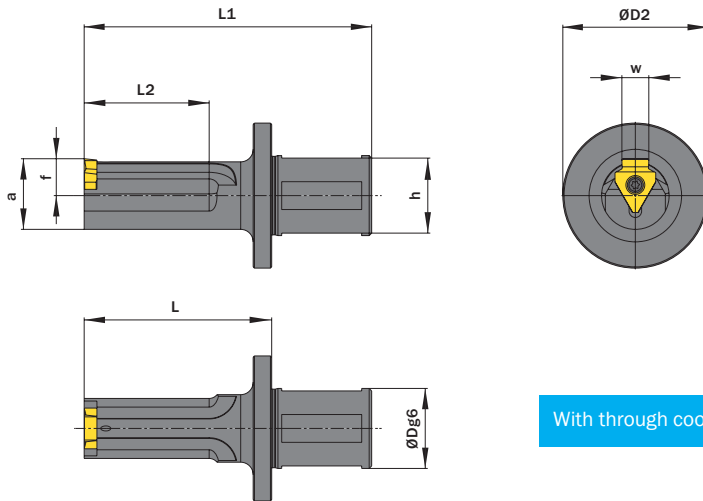
Similar tools on page
12

Please read add. notes
Important hints (Page 71)

Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/145

This page contains inch tools! These tools are indicated by on the right hand side.



With through coolant supply

Drawing shows: F39.10.50.32

w	L2	ØDg6	Part number	Webcode www.simtek.com/webcode	a	ØDmin (min. bore)	ØD2	f	h	L	L1	Screw	Screw driver	Connectcode www.simtek.com/code
mm/inch	mm/inch	mm/inch			mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch			
▼ w = 6,0 mm														
6,0	50,0	25,0	F39.06.50.25	ATYV	20,3	22,0	50,0	10,5	23,0	75,0	115,0	FM5x13 T20R	T20R	BF12.06
6,0	70,0	25,0	F39.06.70.25	ATYU	20,3	22,0	50,0	10,5	23,0	95,0	135,0	FM5x13 T20R	T20R	BF12.06
▼ w = 8,0 mm / 0.315"														
8,0	50,0	25,0	F39.08.50.25	AJØD	20,3	22,0	50,0	10,5	23,0	75,0	115,0	FM5x13 T20R	T20R	BF12.08
0.315"	2.000"	1.000"	F39.08.51.1.000	A1EC	0.799"	0.866"	1.969"	0.413"	0.921"	2.953"	4.528"	FM5x13 T20R	T20R	BF12.08
8,0	75,0	25,0	F39.08.75.25	AUGC	20,3	22,0	50,0	10,5	23,0	100,0	140,0	FM5x13 T20R	T20R	BF12.08
0.315"	3.000"	1.000"	F39.08.76.1.000	A4TT	0.799"	0.866"	1.969"	0.413"	0.921"	2.953"	4.528"	FM5x13 T20R	T20R	BF12.08
▼ w = 10,0 mm / 0.394"														
10,0	100,0	32,0	F39.10.10.32	AØZQ	28,5	30,0	58,0	14,75	30,0	125,0	185,0	FM5x13 T20R	T20R	BF12.10
10,0	50,0	32,0	F39.10.50.32	AKJG	28,5	30,0	58,0	14,75	30,0	75,0	115,0	FM5x13 T20R	T20R	BF12.10
0.394"	2.000"	1.250"	F39.10.51.1.250	A1ED	1.122"	1.181"	2.283"	0.581"	1.181"	2.953"	4.528"	FM5x13 T20R	T20R	BF12.10
10,0	75,0	32,0	F39.10.75.32	ANWV	28,5	30,0	58,0	14,75	30,0	100,0	140,0	FM5x13 T20R	T20R	BF12.10
0.394"	3.000"	1.250"	F39.10.76.1.250	A1EE	1.122"	1.181"	2.283"	0.581"	1.171"	3.937"	5.512"	FM5x13 T20R	T20R	BF12.10
▼ w = 12,0 mm / 0.472"														
12,0	100,0	32,0	F39.12.10.32	AØZP	36,0	38,0	58,0	18,5	30,0	125,0	185,0	FM5x13 T20R	T20R	BF12.12
12,0	50,0	32,0	F39.12.50.32	AHHB	36,0	38,0	58,0	18,5	30,0	75,0	115,0	FM5x13 T20R	T20R	BF12.12
12,0	75,0	32,0	F39.12.75.32	AFT7	36,0	38,0	58,0	18,5	30,0	100,0	140,0	FM5x13 T20R	T20R	BF12.12
0.472"	3.000"	1.250"	F39.12.76.1.250	A1EF	1.417"	1.496"	2.283"	0.728"	1.171"	3.937"	5.512"	FM5x13 T20R	T20R	BF12.12

Order example: F39.08.75.25

Toolholder for Broaching Units

For broaching of standard and special profiles on broaching unit „Benz LinA“ and „EWS Slot“.

Tightening torque (screw)

4,5 Nm

Similar tools on page

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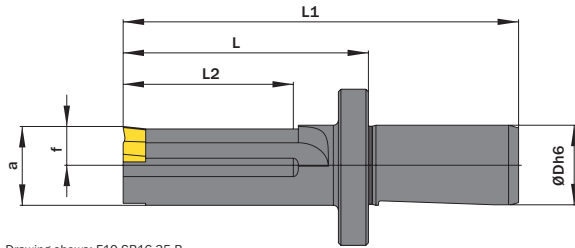
Please read add. notes

Important hints (Page 71)

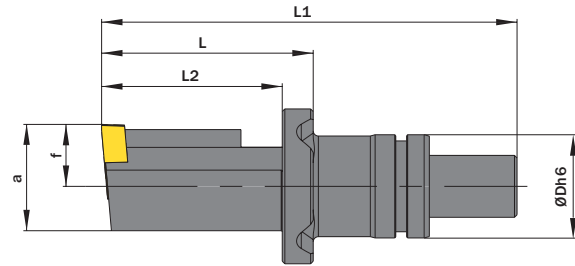
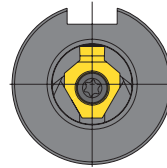


Scan QR-Code

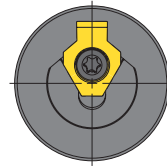
Or Visit www.simtek.info/cp/459



Drawing shows: F10.SB16.35-B



Drawing shows: F10.SB20.35-B IC



For broaching unit	ØDh6		L2	Part number	Webcode www.simtek.com/webcode	a	ØDmin (min. bore)	f	L	L1	Screw	Screw driver	Connectcode www.simtek.com/code
	mm	mm											
BENZ LinA/EWS Slot	16,0	35,0		F10.SB16.35-B	AP4Y	15,75	17,0	7,75	49,0	79,0	FM4x11 T15F	T15F	BF10
BENZ LinA/EWS Slot	16,0	53,0		F10.SB16.53-B	A0YC	15,75	17,0	7,75	67,5	97,5	FM4x11 T15F	T15F	BF10
BENZ LinA 4.0/EWS P20	20,0	35,5		F10.SB20.35-B IC	A2ZG	15,75	17,0	7,75	41,5	81,0	FM4x11 T15F	T15F	BF10
BENZ LinA 4.0/EWS P20	20,0	53,0		F10.SB20.53-B IC	A4N5	15,75	17,0	7,75	60,5	100,0	FM4x11 T15F	T15F	BF10

Order example: **F10.SB16.35-B**

Toolholders for other broaching units like „Schwarzer 2in1“ or „Schwarzer V1“ available upon request.

Toolholder for Broaching Units

For broaching of Standard and special profiles on broaching units „WTO“.

Tightening torque (screw)

4,5 Nm



Legend

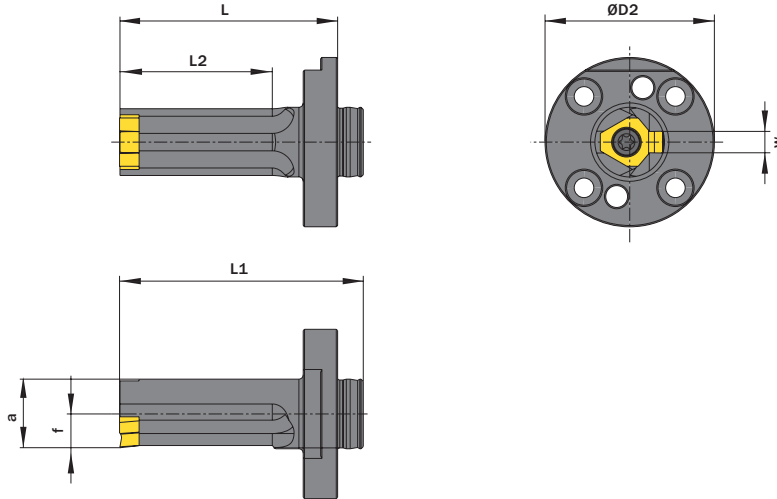
72



Scan QR-Code

Or Visit

www.simtek.info/cp/1268





Drawing shows: F10.SB16.35 W

For broaching unit	L2 mm	Part number	Webcode www.simtek.com/webcode	a	ØDmin (min. bore)	ØD2	f	L	L1	w	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm	mm	mm			
wto	35,0	F10.SB16.35-W	A1SB	15,75	17,0	38,9	7,75	50,0	55,9	4,0	FM4x11 T15F	T15F	BF10

Order example: **F10.SB16.35-W**

Keyway Broaching (DIN6885)

Tolerance P9. For use in bores as of diameter 17,0 mm.

Cutting parameters (start)	Vc 37.pdf					
Suitable toolholders on page	23, 24, 26, 27					
Similar tools on page	10					
Please read add. notes						
Important hints (Page 71)						
	<table border="1"> <tr> <td>SP</td> <td>HM</td> <td>P9</td> <td>Legend</td> <td>72</td> </tr> </table>	SP	HM	P9	Legend	72
SP	HM	P9	Legend	72		
	Scan QR-Code Or Visit www.simtek.info/cp/464					

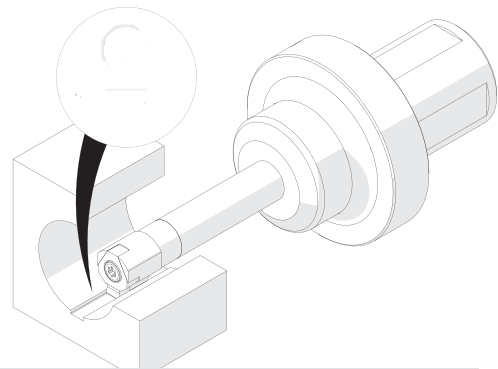
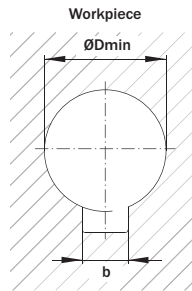
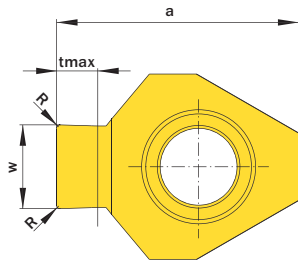


Image shows exemplary application possibility with similar tool.



w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{P9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/ccode
mm	mm				mm	mm	mm	mm	mm	
4,97	0,2	F10.0498.02 B	AQ0T	CHGFK	14,5	5,0	17,0	4,4	2,8	BF10
5,97	0,2	F10.0598.02 B	AQ0U	CHGFK	14,5	6,0	17,0	4,4	2,8	BF10
7,97	0,2	F10.0796.02 B	AT82	CHGFK	14,5	8,0	22,0	4,4	4,1	BF10

Order example: **F10.0796.02 B X800** (X800 = Grade)

The article F10.0796.02 B has a limited suitability for the use in push-slotting aggregates. Please contact our Technical Department in order to proof the technical feasibility: +1 862 757 8130 or usa@simtek.com

Keyway Broaching (DIN6885)

Tolerance P9. For use in bores as of diameter 22,0 mm.

Cutting parameters (start)	Vc 37.pdf					
Suitable toolholders on page	25					
Similar tools on page	10					
Please read add. notes						
Important hints (Page 71)						
	<table border="1"> <tr> <td>SP</td> <td>HM</td> <td>P9</td> <td>Legend</td> <td>72</td> </tr> </table>	SP	HM	P9	Legend	72
SP	HM	P9	Legend	72		
	Scan QR-Code Or Visit www.simtek.info/cp/148					

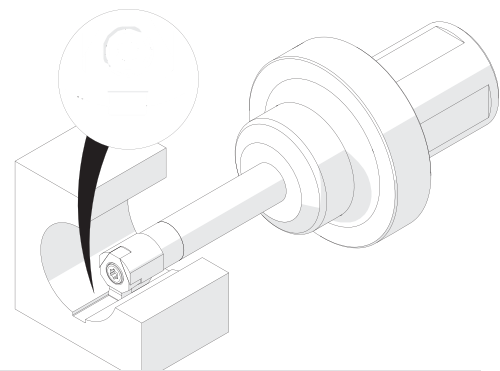
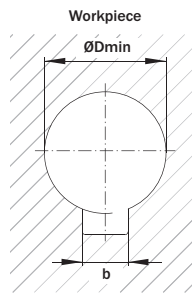
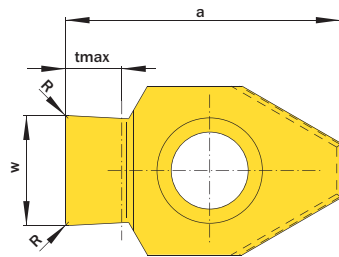
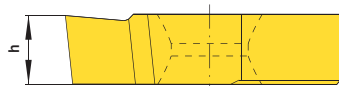




Image shows exemplary application possibility with similar tool.

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{P9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/code
mm	mm				mm	mm	mm	mm	mm	
▼ Connectcode = BF12.08										
7,98	0,2	F12.0796.02 B	AJ2Q	CHGFK	20,0	8,0	22,0	5,0	4,1	BF12.08
▼ Connectcode = BF12.10										
9,98	0,3	F12.0996.03 B	AN3J	CHGFK	21,5	10,0	30,0	5,0	4,2	BF12.10
▼ Connectcode = BF12.12										
11,97	0,3	F12.1196.03 B	ANEM	CHGFK	21,5	12,0	38,0	5,0	5,7	BF12.12
13,97	0,3	F12.1396.03 B	A18K	CHGFK	21,5	14,0	40,0	5,0	6,8	BF12.12

Order example: **F12.0996.03 B X800** (X800 = Grade)

Keyway Broaching (DIN6885)

Tolerance JS9. For use in bores as of diameter 14,0 mm.

Cutting parameters (start)	Vc 37.pdf
Suitable toolholders on page	23, 24, 26, 27
Similar tools on page	10
Please read add. notes	
Important hints (Page 71)	
 	Scan QR-Code Or Visit www.simtek.info/cp/465

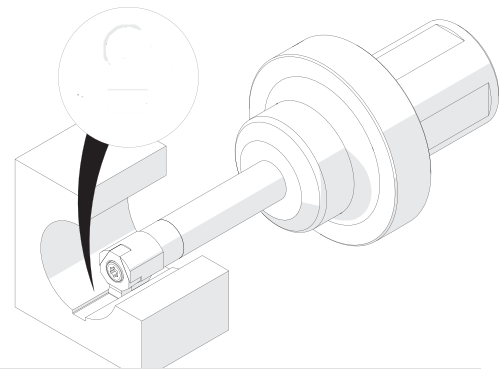
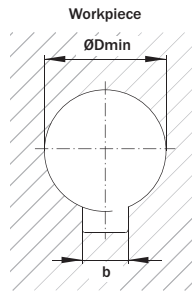
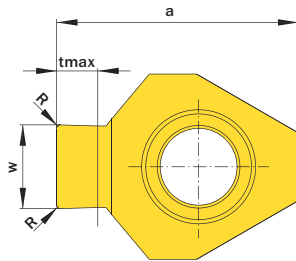


Image shows exemplary application possibility with similar tool.

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{JS9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/ccode
mm	mm				mm	mm	mm	mm	mm	
▼ ØDmin (min. bore) = 14,0 mm										
5,0	0,2	F10.0500.02.14 B	A082	CHGFK	12,5	5,0	14,0	4,4	2,8	BF10.08.14
▼ ØDmin (min. bore) = 17,0 mm										
5,0	0,2	F10.0500.02 B	AQ0S	CHGFK	14,5	5,0	17,0	4,4	2,8	BF10
6,0	0,2	F10.0600.02 B	AQ0Q	CHGFK	14,5	6,0	17,0	4,4	2,8	BF10
▼ ØDmin (min. bore) = 22,0 mm										
8,0	0,2	F10.0800.02 B	AT83	CHGFK	14,5	8,0	22,0	4,4	4,1	BF10

Order example: **F10.0800.02 B X800** (X800 = Grade)

The article F10.0800.02 B has a limited suitability for the use in push-slotting aggregates. Please contact our technical department in order to proof the technical feasibility: +1 862 757 8130 or usa@simtek.com

Keyway Broaching (DIN6885)

Tolerance JS9. For use in bores as of diameter 22,0 mm.

Cutting parameters (start)	Vc 37.pdf
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Suitable toolholders on page	25
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Similar tools on page	10
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Please read add. notes
Important hints (Page 71)

SP HM JS9 Legend 72
Scan QR-Code Or Visit www.simtek.info/cp/146

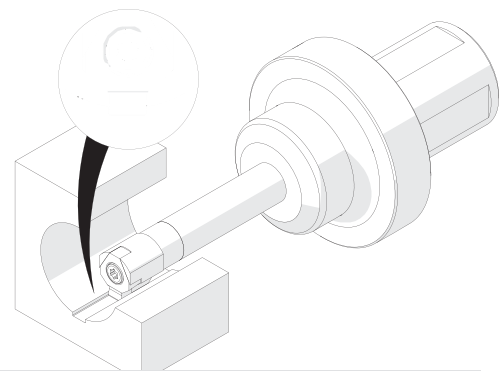
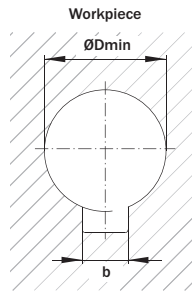
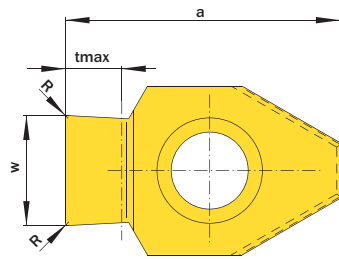
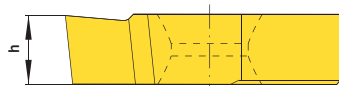




Image shows exemplary application possibility with similar tool.

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{JS9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/code
mm	mm				mm	mm	mm	mm	mm	
▼ Connectcode = BF12.08										
8,0	0,2	F12.0800.02 B	ACKQ	CHGFK	20,0	8,0	22,0	5,0	4,1	BF12.08
8,0	0,5	F12.0800.02.05 B	APQ6	CHGFK	20,0	8,0	22,0	5,0	4,1	BF12.08
▼ Connectcode = BF12.10										
10,0	0,3	F12.1000.03 B	AFVD	CHGFK	21,5	10,0	30,0	5,0	4,2	BF12.10
10,0	0,5	F12.1000.03.05 B	AJUV	CHGFK	21,5	10,0	30,0	5,0	4,2	BF12.10
▼ Connectcode = BF12.12										
12,0	0,3	F12.1200.03 B	AD7S	CHGFK	21,5	12,0	38,0	5,0	5,7	BF12.12
12,0	0,5	F12.1200.03.05 B	AG8M	CHGFK	21,5	12,0	38,0	5,0	5,7	BF12.12
12,0	0,5	F12.1200.05 B	ANBE	CHGFK	21,5	12,0	38,0	5,0	8,5	BF12.12
14,0	0,3	F12.1400.03 B	A18J	CHGFK	21,5	14,0	40,0	5,0	6,8	BF12.12
16,0	0,3	F12.1600.03 B	A2T1	CHGFK	21,5	16,0	38,0	5,0	6,27	BF12.12

Order example: **F12.0800.02 B X800** (X800 = Grade)

Keyway Broaching (DIN6885)

Tolerance H9. For use in bores as of diameter 17,0 mm.

Cutting parameters (start)	Vc 37.pdf
Suitable toolholders on page	23, 24, 26, 27
Similar tools on page	10
Please read add. notes	Important hints (Page 71)
 	Scan QR-Code Or Visit www.simtek.info/cp/466

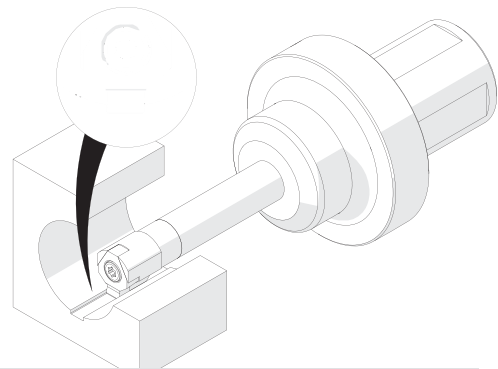
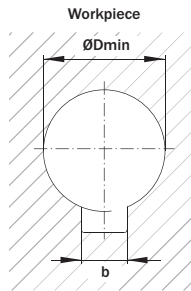
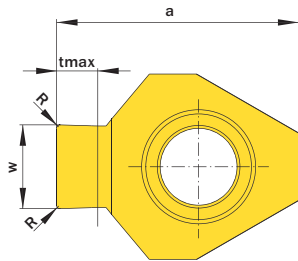
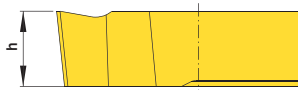


Image shows exemplary application possibility with similar tool.

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{H9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/ccode
mm	mm				mm	mm	mm	mm	mm	
5,02	0,2	F10.0502.02 B	AQ0V	CHGFK	14,5	5,0	17,0	4,4	2,8	BF10
6,02	0,2	F10.0602.02 B	AQ0W	CHGFK	14,5	6,0	17,0	4,4	2,8	BF10
8,02	0,2	F10.0802.02 B	AT84	CHGFK	14,5	8,0	22,0	4,4	4,1	BF10

Order example: **F10.0602.02 B X800** (X800 = Grade)

The article F10.0802.02 B has a limited suitability for the use in push-slotting aggregates. Please contact our technical department in order to proof the technical feasibility: +1 862 757 8130 or usa@simtek.com

Keyway Broaching (DIN6885)



Tolerance H9. For use in bores as of diameter 22,0 mm.


Cutting parameters (start) **Vc 37.pdf**

Suitable toolholders on page **25**

Similar tools on page **10**

Please read add. notes
Important hints (Page 71)

 Scan QR-Code Or Visit www.simtek.info/cp/264

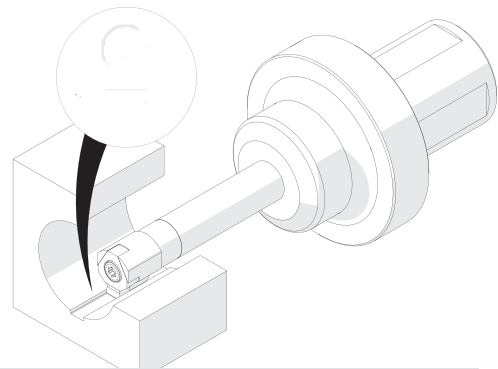
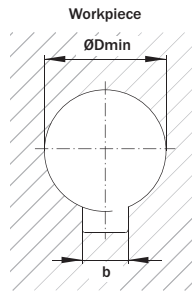
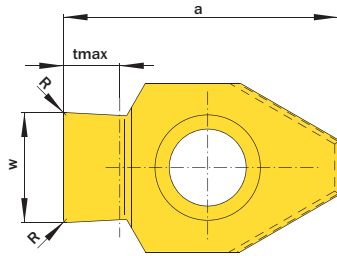
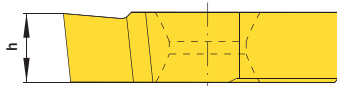


Image shows exemplary application possibility with similar tool.

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{H9}	ØDmin (min. bore)	h	tmax	Connectcode www.simtek.com/code
					mm	mm	mm	mm	mm	
8,02	0,2	F12.0802.02 B	AEV2	CHGFK	20,0	8,0	22,0	5,0	4,1	BF12.08
10,02	0,3	F12.1002.03 B	AEX3	CHGFK	21,5	10,0	30,0	5,0	4,2	BF12.10
12,02	0,3	F12.1202.03 B	AJQ5	CHGFK	21,5	12,0	38,0	5,0	5,7	BF12.12

Order example: **F12.1002.03 B X800** (X800 = Grade)

Chamfer Broaching

Deburring of key ways.

Cutting parameters (start) Vc
37.pdf

Suitable toolholders on page
23, 24, 26, 27

Please read add. notes
Important hints (Page 71)

SP

HM

C11

Legend

72

Scan QR-Code Or Visit
www.simtek.info/cp/1113

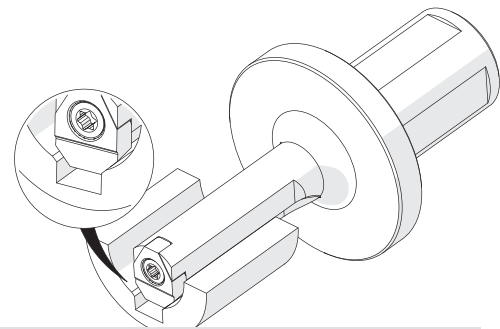
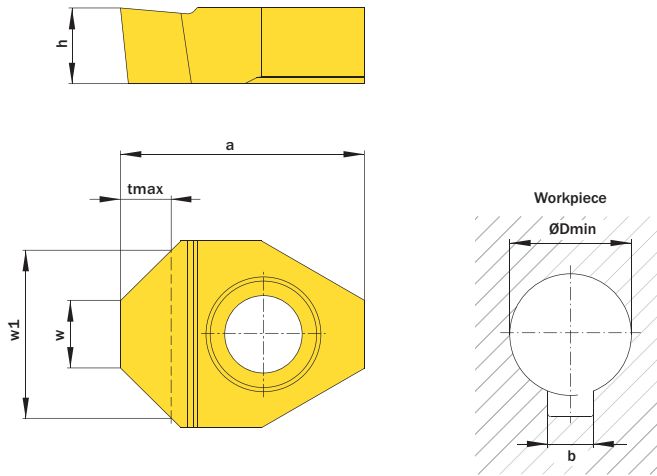





Image shows exemplary application possibility with similar tool.

w	b ^{C11}	ØDmin (min. bore)	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	h	tmax	w1	Connectcode www.simtek.com/code
mm	mm	mm				mm	mm	mm	mm	
4,0	6,0	17,0	F10.4545.40.06.17 BF	AYEA	CHGFK	14,5	4,5	3,15	10,3	BF10
5,5	8,0	22,0	F10.4545.55.08.22 BF	AYD9	CHGFK	14,5	4,5	2,4	10,3	BF10

Order example: **F10.4545.40.06.17 BF X800** (X800 = Grade)

Chamfer Broaching

Deburring of key ways.

Cutting parameters (start)	Vc 37.pdf
Suitable toolholders on page	25
Please read add. notes	
Important hints (Page 71)	
 	
 Scan QR-Code	Or Visit www.simtek.info/cp/1114

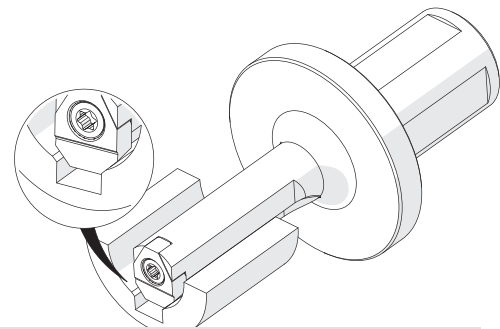
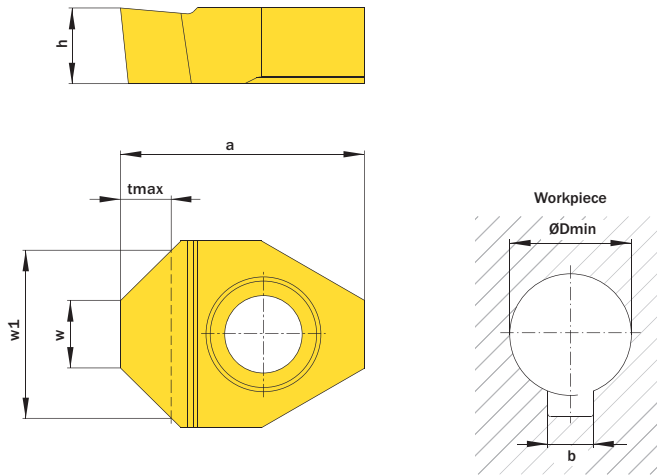


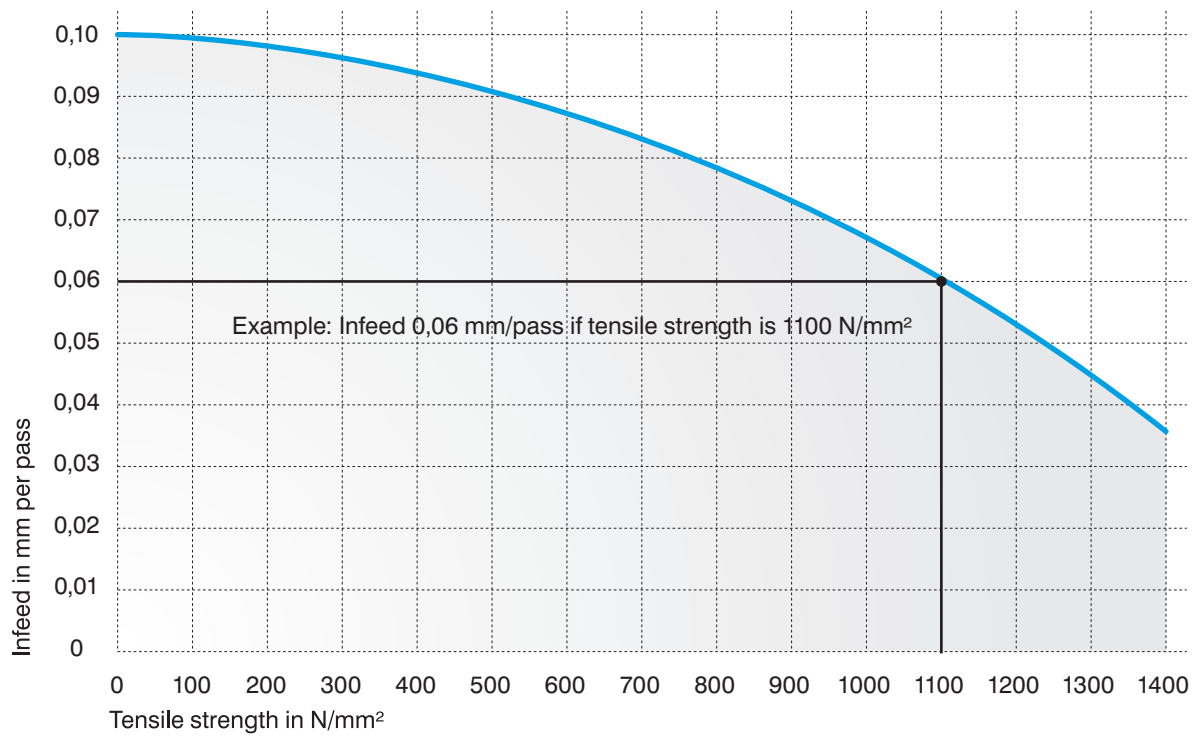
Image shows exemplary application possibility with similar tool.

w	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	a	b ^{C11}	ØDmin (min. bore)	h	tmax	w1	Connectcode www.simtek.com/ccode
5,0	F12.4545.50.08.22 BF	AYED	CHC	20,0	8,0	22,0	5,0	3,25	11,5	BF12.08
6,5	F12.4545.65.10.30 BF	AYEE	CHF	21,5	10,0	30,0	5,0	4,5	15,5	BF12.10
8,5	F12.4545.85.12.38 BF	AYEF	CHF	21,5	12,0	38,0	5,0	3,5	15,5	BF12.12

Order example: **F12.4545.65.10.30 BF X800** (X800 = Grade)

Cutting Parameters for Broaching

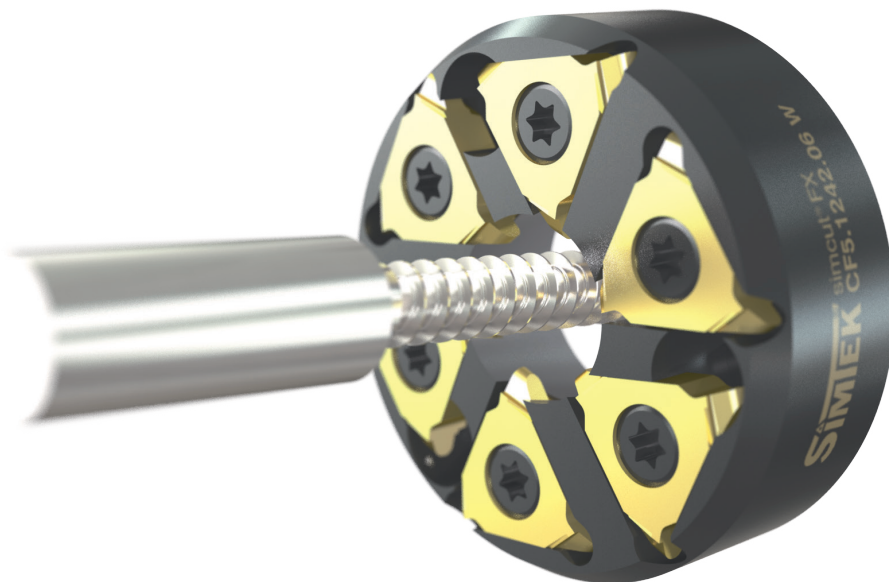
This chart should give you an approximate value for the cutting parameters. The values can vary depending on machine conditions and workpiece kind.



The cutting speed is mainly influenced by the machine conditions and machine capabilities.

The Tool System simcut FX

Thread whirling applications in medical technology and in difficult-to-machine materials.

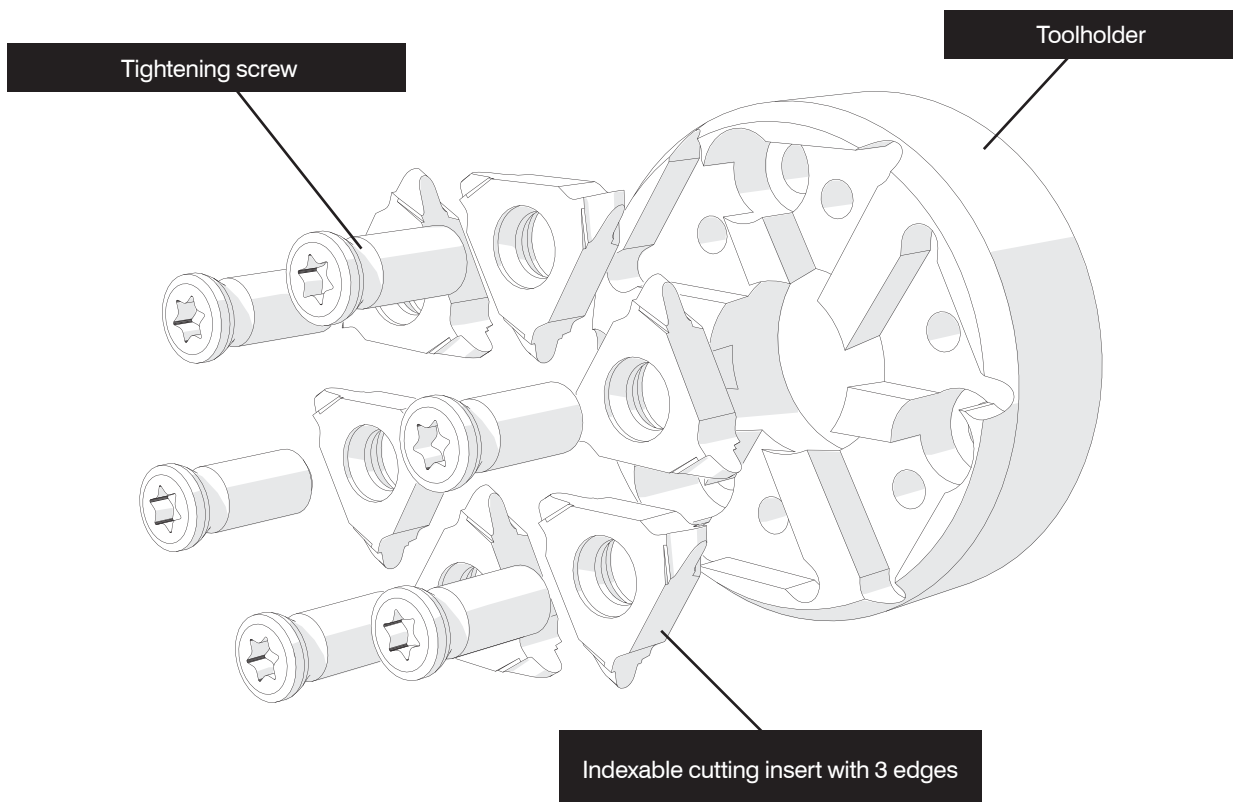


Tool group of high precision, three-edged carbide inserts with special coatings and matching whirling ring. Suitable for „Difficult-to-machine materials“ too.

The System Details

Please read the general instructions for use on page

71



Thread whirling rings available for the following machine types

- For Tornos-machines
- For Citizen-machines with Jarvis-spindle
- For Citizen-machines with PCM-spindle
- For WTO-whirling units
- For Star-machines
- For Tsugami-machines
- For Hanwha

Thread Whirling Head „Tornos“

For Tornos machines.

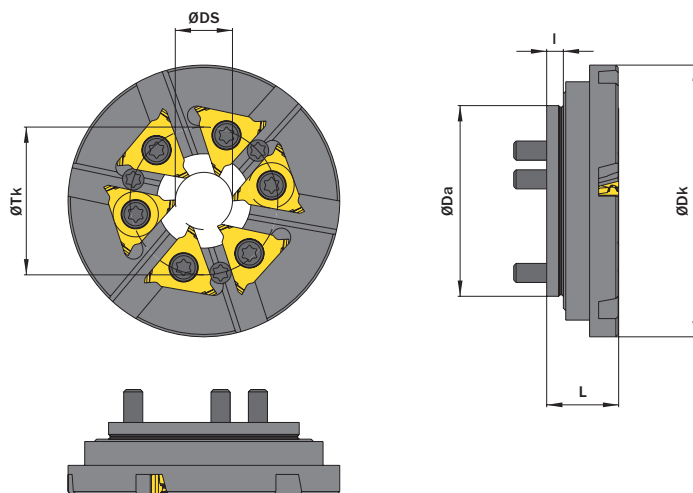
Tightening torque (screw)

4,5 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/929



Drawing shows: CF5.AA40.12.06

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
12,0	6	CF5.AA40.12.06	AS32	40,0	57,0	3,5	15,0	31,0	306101/307087	FM4x8,5T15F	T15F	CF5.L.4.1
12,0	6	CF5.AA50.12.06	AZU8	50,0	67,0	3,5	15,4	40,0	417627	FM4x8,5T15F	T15F	CF5.L.4.1

Order example: **CF5.AA40.12.06**


Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „WTO“

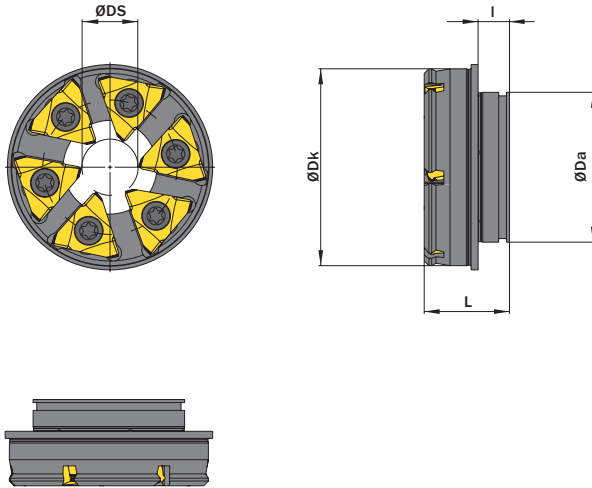
For WTO whirling units.

Tightening torque (screw)

4,5 Nm



TW	Legend	72
ST	Scan QR-Code	Or Visit www.simtek.info/cp/933



Drawing shows: CF5.1242.06 W

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm				
11,4	6	CF5.1242.06 W	AQAW	31,97	42,0	6,7	18,2	TN762004	FM4x8,5T15F	T15F	CF5.L.4.1
20,0	8	CF5.WW54.20.08	A1F9	56,5	54,0	1,5	13,8	TN762006	FM4x8,5T15F	T15F	CF5.L.4.1

Order example: **CF5.1242.06 W**

Thread Whirling Head „Citizen“

For Citizen machines with Citizen whirling unit.

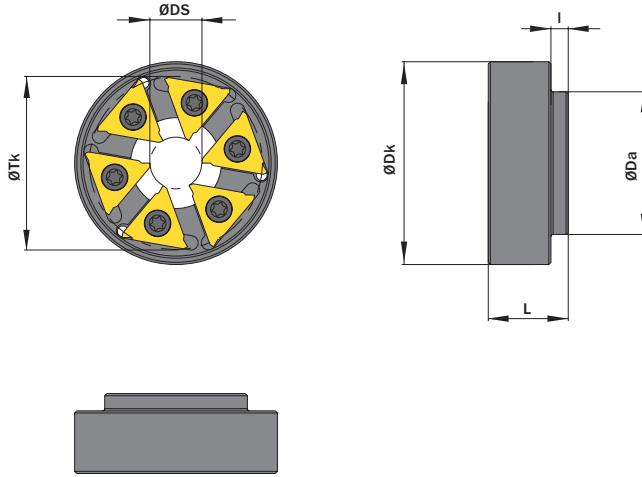
Tightening torque (screw)

4,5 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1223



Drawing shows: CF5.CC33.12.06

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	l	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
mm				mm	mm	mm	mm	mm				
12,0	6	CF5.CC33.12.06	AZU1	33,0	46,9	4,0	18,5	40,0	BTW 1000	FM4x8,5T15F	T15F	CF5.L.4.1

Order example: **CF5.CC33.12.06**

Thread Whirling Head „Citizen“

For Citizen machines.

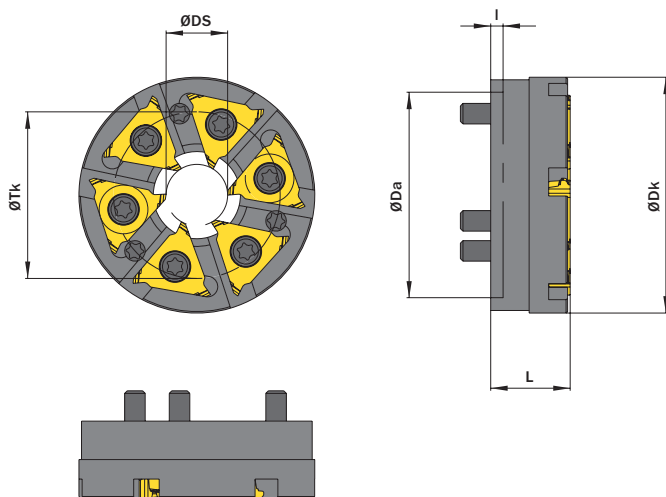
Tightening torque (screw)

4,5 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/926



Drawing shows: CF5.CP40.12.06

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
6,0	6	CF5.CP20.06.06	A106	20,0	35,0	3,2	15,0	26,0	GSW 101	N M4x8,5 T15F	T15F	CF5.L.4.1
12,0	6	CF5.CP40.12.06	AS3Y	40,0	46,0	2,5	15,5	32,5	MWS 101; KSW101; LSW 101; LSW 215315; BSW 215	N M4x8,5 T15F	T15F	CF5.L.4.1
12,0	6	CF5.CP45.12.06	A105	45,0	46,0	9,5	18,0	30,0	LSW-424	N M4x8,5 T15F	T15F	CF5.L.4.1

Order example: **CF5.CP40.12.06**

Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „Star“

For Star machines.

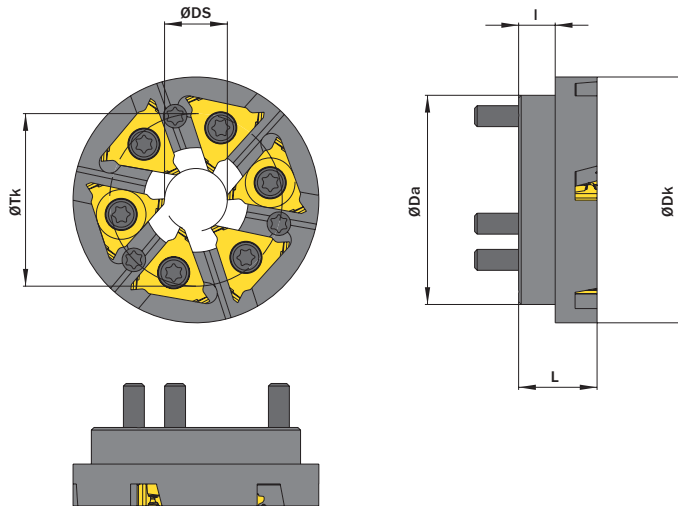
Tightening torque (screw)

4,5 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/925



Drawing shows: CF5.DD40.12.06

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
12,0	6	CF5.DD40.12.06	AS30	40,0	47,0	7,0	15,0	33,0	5914 72 00 / 68172	N M4x8,5 T15F	T15F	CF5.L.4.1

Order example: **CF5.DD40.12.06**

Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „Tsunami“

For Tsugami machines.

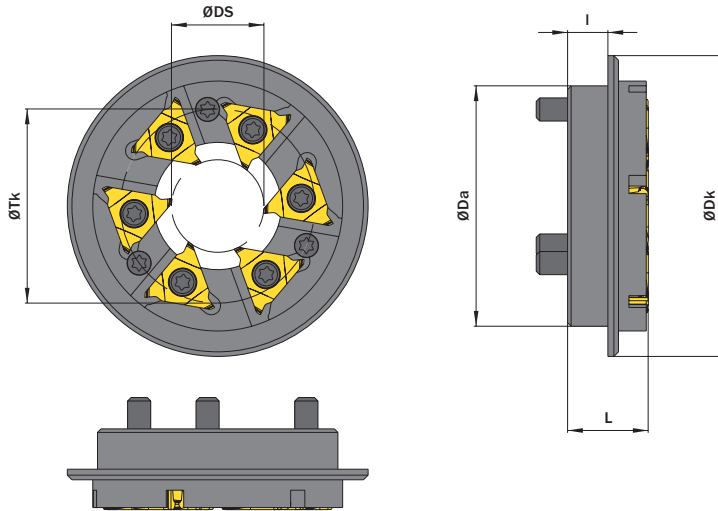
Tightening torque (screw)

“F M4x11 T15F”: 4,5 Nm
“F M4x8,5 T15F”: 4,5 Nm



TW
ST Legend 72

Scan QR-Code Or Visit www.simtek.info/cp/928



Drawing shows: CF5.BB52.20.06

ØDa	ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
50,0	16,0	6	CF5.BB50.16.06	A1ZF	62,0	8,5	20,0	40,0	3214 Y342	F M4x8,5 T15F	T15F	CF5.L.4.1
52,0	12,0	6	CF5.BB52.12.06	AXXQ	65,0	8,7	17,0	42,0	3234 Y342	F M4x11 T15F	T15F	CF5.L.4.1
52,0	12,0	6	CF5.BB52.12.10.06	A103	52,0	10,0	10,0	44,0	3268 Y452	F M4x8,5 T15F	T15F	CF5.L.4.1
52,0	12,0	6	CF5.BB52.12.19.06	A1QM	54,0	6,0	19,0	38,0	3268 Y271	F M4x8,5 T15F	T15F	CF5.L.4.1
52,0	20,0	6	CF5.BB52.20.06	AS31	65,0	8,7	17,0	42,0	3234 Y342	F M4x11 T15F	T15F	CF5.L.4.1

Order example: **CF5.BB52.12.06**

Fastening screw thread whirling head: D M5x13 T20R

Thread Whirling Head „Hanwaha“

For Hanwaha machines with Madaula unit.

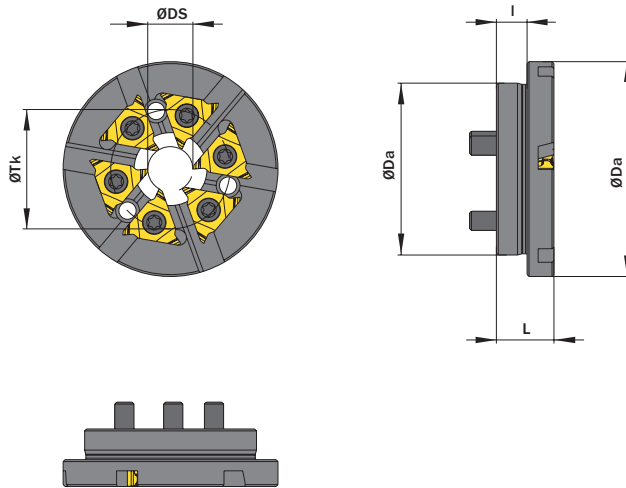
Tightening torque (screw)

4,5 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1176



Drawing shows: CF5.FM45.12.06

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Screw	Screw driver	Connectcode www.simtek.com/code
mm				mm	mm	mm	mm	mm			
12,0	6	CF5.FM45.12.06	AZCQ	45,0	56,0	8,5	15,0	31,2	FM4x8,5T15F	T15F	CF5.L.4.1

Order example: **CF5.FM45.12.06**


Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling inserts

Thread whirling inserts for HA-threads.

Cutting parameters (start) **Vc 37.pdf**

Suitable toolholders on page **39, 40, 41, 42, 43, 44, 45**



SP HM Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/916

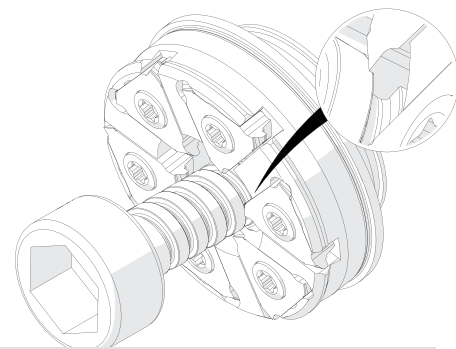
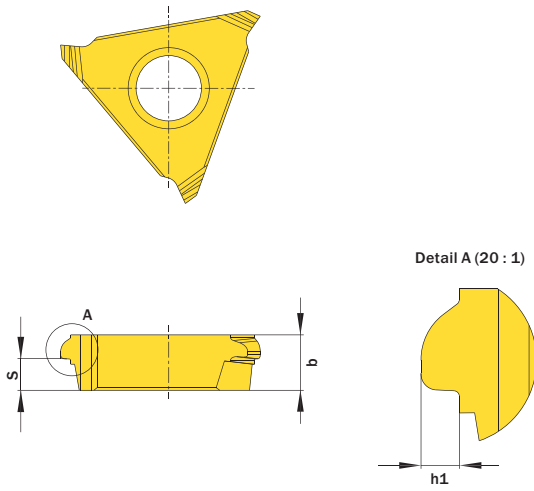


Image shows exemplary application possibility with similar tool.

Drawing shows: CF5.175.HA.02 M

Pitch (as of)	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	b	h1	S	Connectcode www.simtek.com/ccode
				mm	mm	mm	
0,5	CF5.050.HA.02 M	AUK5	CH G F K	4,1	0,188	3,5	CF5.L.4.1
0,6	CF5.060.HA.02 M	AUK6	CH G F K	4,1	0,339	3,5	CF5.L.4.1
1,0	CF5.100.HA.02 M	AUK7	CH G F K	4,1	0,4	3,1	CF5.L.4.1
1,25	CF5.125.HA.02 M	AUK8	CH G F K	4,1	0,55	2,8	CF5.L.4.1
1,5	CF5.150.HA.02 M	AS3P	CH G F K	4,1	0,55	2,5	CF5.L.4.1
1,75	CF5.175.HA.02 M	AS3Q	CH G F K	4,1	0,75	2,3	CF5.L.4.1

Order example: **CF5.060.HA.02 M X800** (X800 = Grade)

Thread Whirling inserts

Thread whirling inserts for HB-threads.

Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page [39, 40, 41, 42, 43, 44, 45](#)



SP HM Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/919

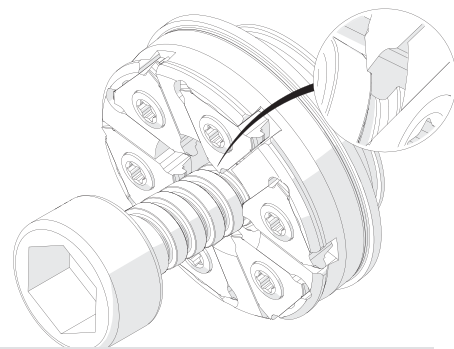
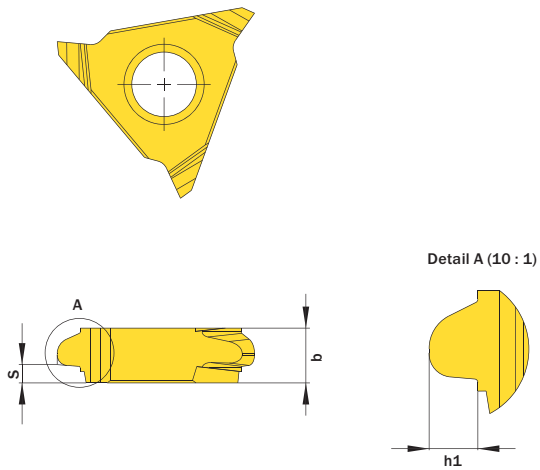


Image shows exemplary application possibility with similar tool.

Drawing shows: CF5.275.HB.02 M

Pitch (as of)	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	b	h1	S	Connectcode www.simtek.com/ccode
				mm	mm	mm	
1,75	CF5.175.HB.02 M	AS3S	CH G FK	4,1	1,05	2,35	CF5.L.4.1
2,75	CF5.275.HB.02 M	AS3T	CH G FK	4,1	1,75	1,4	CF5.L.4.1

Order example: **CF5.175.HB.02 M X800** (X800 = Grade)

Semi-Finished Inserts

Semi-finished-insert for component- and customer-specific forms.

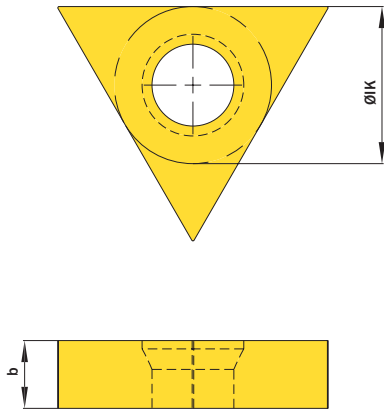
Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page [39, 40, 41, 42, 43, 44, 45](#)



SP
HM Legend 72

Scan QR-Code Or Visit www.simtek.info/cp/932



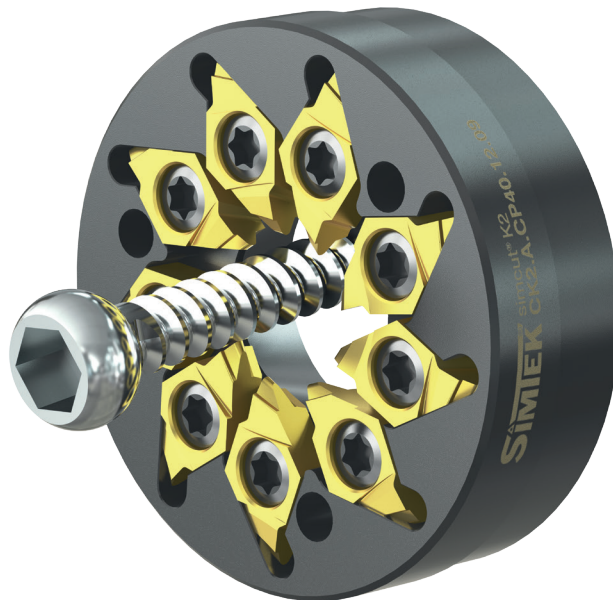
Drawing shows: CF5.0410.00 M

b	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	ØIK	Connectcode www.simtek.com/code
mm				mm	
4,1	CF5.0410.00 M	AS1N	CH G FK	9,5	CF5.L.4.1
5,5	CF5.0550.00 M	AS1P	CH G FK	9,5	CF5.L.4.1

Order example: **CF5.0410.00 M GF25** (GF25 = Grade)

The Tool System simcut K2

Thread Whirling applications in medical technology and in difficult-to-machine materials.



Tool system of high precision, two-edged carbide inserts with special coatings and matching whirling ring. Suitable for „difficult-to-machine materials“ too.

Due to its two-edged design, this system provides up to 50% more cutting edges in equal diameters compared to three-edged systems.

Thread Whirling Head „Tornos“

For Tornos machines.

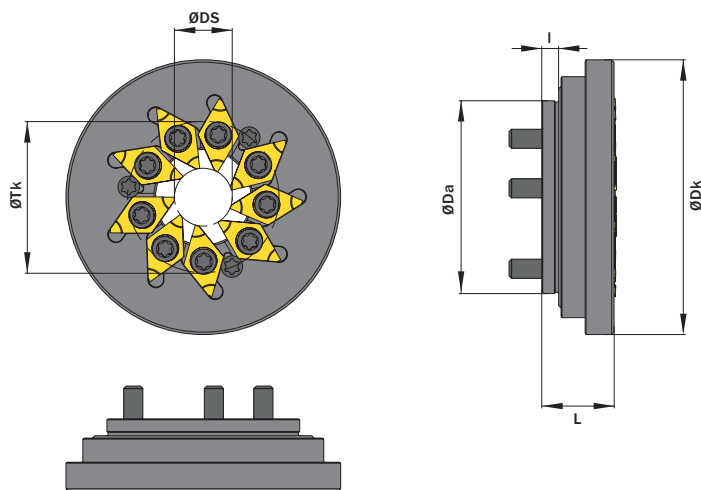
Tightening torque (screw)

3,0 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1089



Drawing shows: CK2.A.AA40.12.09

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
12,0	9	CK2.A.AA40.12.09	AXYA	40,0	57,0	3,5	15,0	31,0	306101/307087	M M3,5x9 T10F	T10F	CK2.L.4.0
12,0	9	CK2.A.AA50.12.09	AZU9	50,0	64,0	3,5	15,1	40,0	417627	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.AA50.12.09**

- In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.
- Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „WTO“

For WTO whirling units.

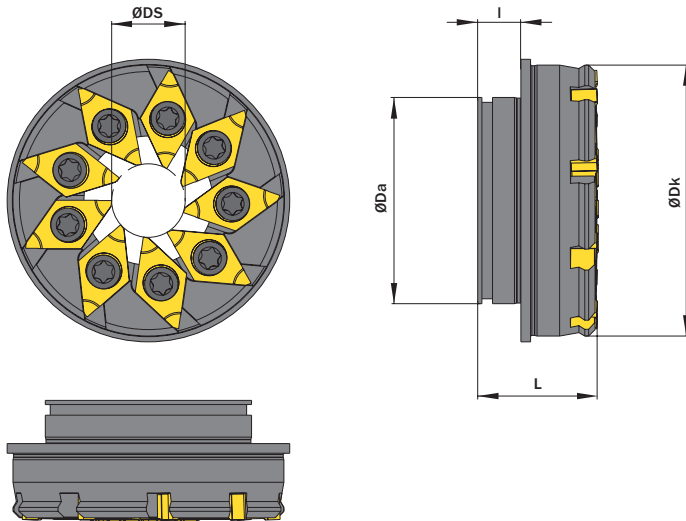
Tightening torque (screw)

3,0 Nm



TW ST Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/1090



Drawing shows: CK2.A.1242.09 W

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	l	L	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
mm				mm	mm	mm	mm				
11,4	9	CK2.A.1242.09 W	AXYB	32,0	42,0	6,7	18,7	TN762004	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.1242.09 W**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.

Thread Whirling Head „Citizen“

For Citizen machines.

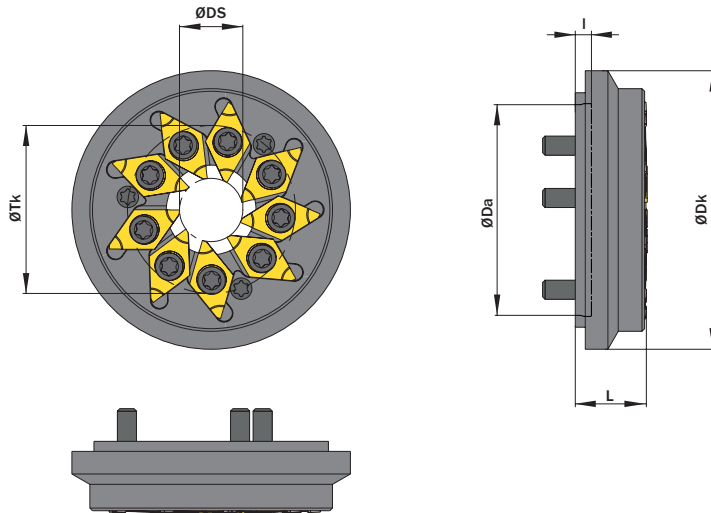
Tightening torque (screw)

3,0 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1091



Drawing shows: CK2.A.CJ40.12.09

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
12,0	9	CK2.A.CJ40.12.09	AXYC	40,0	52,8	3,0	13,65	32,0	LTR 0128; 0132; 0139	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.CJ40.12.09**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.
Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „Citizen“

For Citizen machines.

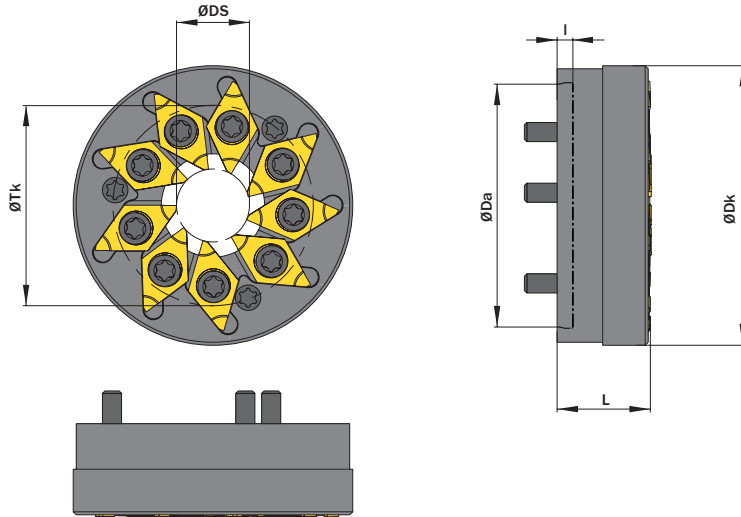
Tightening torque (screw)

3,0 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1092



Drawing shows: CK2.A.CP40.12.09

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
				mm	mm	mm	mm	mm				
12,0	9	CK2.A.CP40.12.09	AXYD	40,0	46,0	2,5	15,5	32,5	MWS 101; KSW 101; LSW 101; LSW 215315; BSW 215	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.CP40.12.09**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.

Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „Star“

For Star machines.

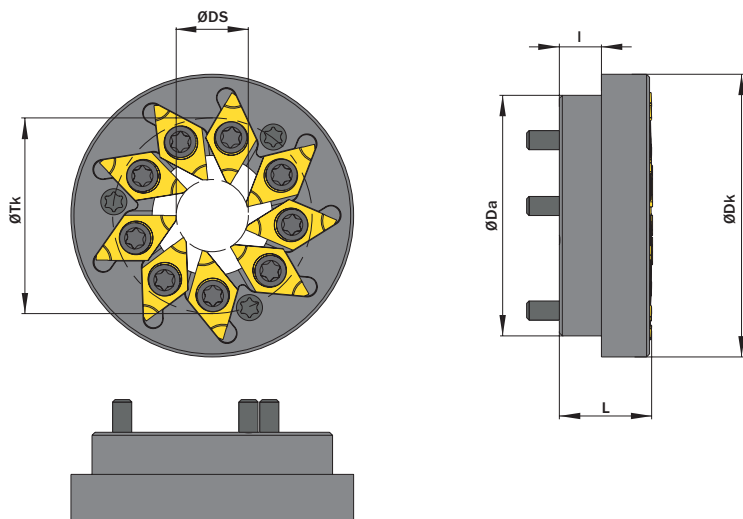
Tightening torque (screw)

3,0 Nm



TW Legend **72**
ST

Scan QR-Code Or Visit www.simtek.info/cp/1093



Drawing shows: CK2.A.DD40.12.09

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/code
mm				mm	mm	mm	mm	mm				
12,0	9	CK2.A.DD40.12.09	AXYE	40,0	47,0	7,0	15,5	33,0	5914 72 00 / 68172	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.DD40.12.09**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.

Fastening screw thread whirling head: D M4x12 T15F

Thread Whirling Head „Tsunami“

For Tsugami machines.

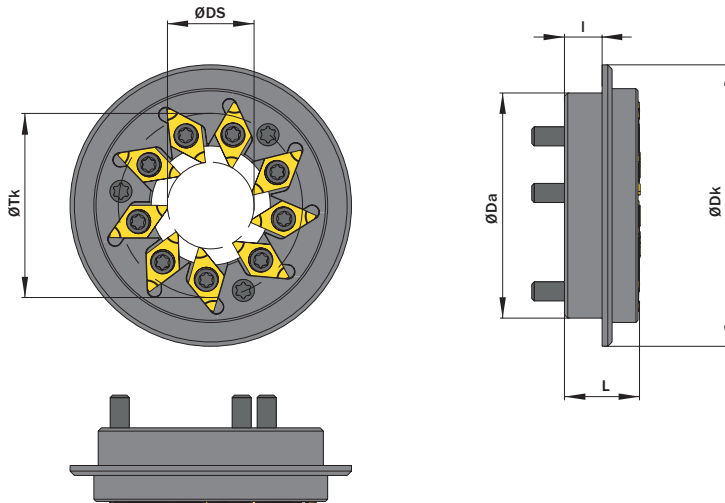
Tightening torque (screw)

3,0 Nm



TW ST Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/1094



Drawing shows: CK2.A.BB52.20.09

ØDS mm	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa mm	ØDk mm	I mm	L mm	ØTk mm	Screw	Screw driver	Connectcode www.simtek.com/code
12,0	9	CK2.A.BB52.12.09	AXYF	52,0	65,0	8,7	17,5	42,0	M M3,5x9 T10F	T10F	CK2.L.4.0
20,0	9	CK2.A.BB52.20.09	AXYG	52,0	65,0	8,7	17,5	42,0	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.BB52.20.09**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.

Fastening screw thread whirling head: D M5x13 T20R

Thread Whirling Head

For Citizen machines.

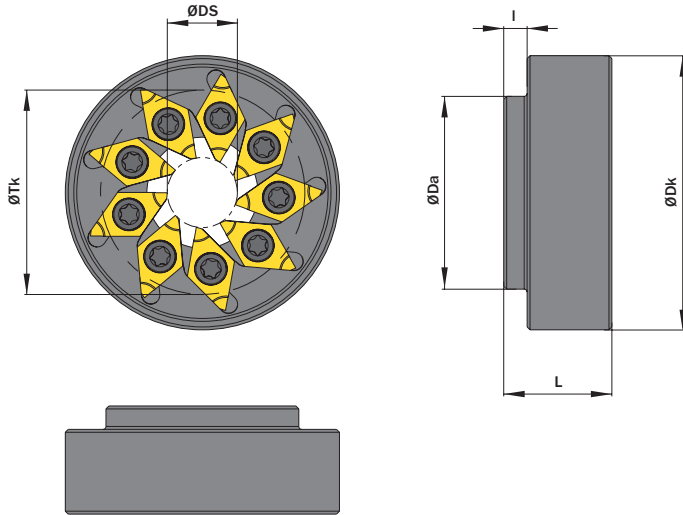
Tightening torque (screw)

3,0 Nm



TW ST Legend 72

Scan QR-Code Or Visit www.simtek.info/cp/1237



Drawing shows: CK2.A.CC33.12.09

ØDS	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØDa	ØDk	I	L	ØTk	Whirling units	Screw	Screw driver	Connectcode www.simtek.com/ccode
mm				mm	mm	mm	mm	mm				
12,0	9	CK2.A.CC33.12.09	AZVA	43,0	46,9	4,75	18,5	40,0	BTW 1000	M M3,5x9 T10F	T10F	CK2.L.4.0

Order example: **CK2.A.CC33.12.09**

In order to prevent chip problems due to the small cutting diameter, we recommend to use these tools together with a high coolant pressure.

Semi-Finished Inserts

Semi-finished-insert for component- and customer-specific forms.

Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page **50, 51, 52, 53, 54, 55, 56**




 Scan QR-Code Or Visit www.simtek.info/cp/1095

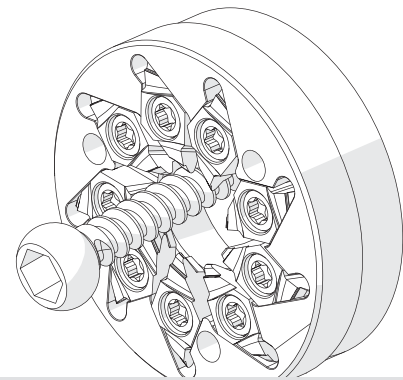
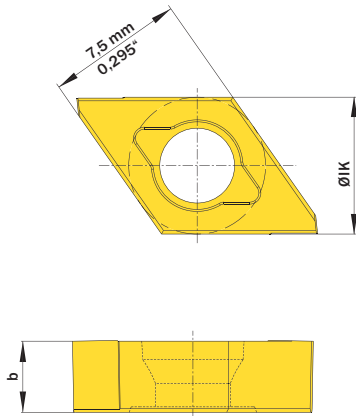


Image shows exemplary application possibility with similar tool.

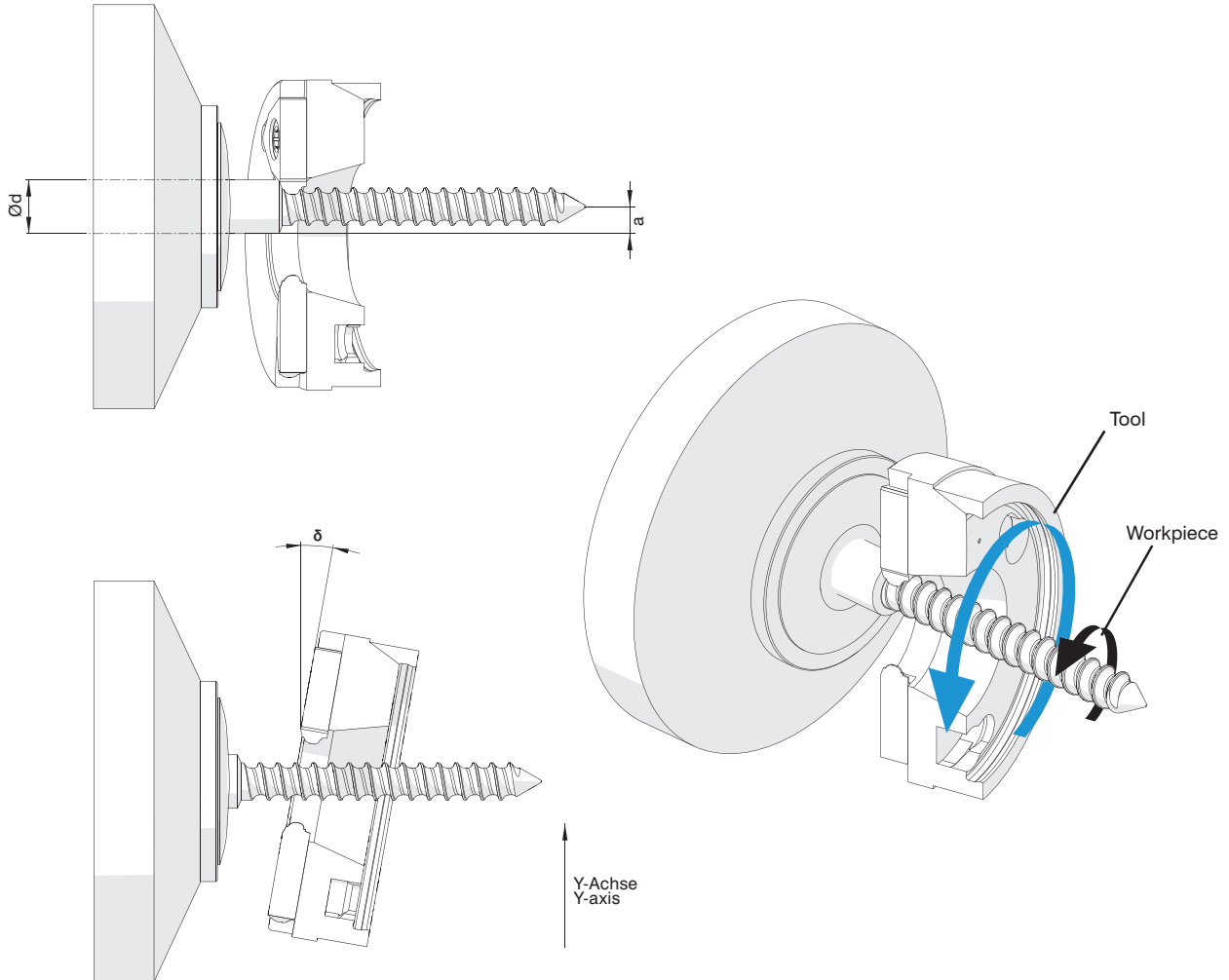
Drawing shows: CK2.A.0390.00 M

b	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	ØIK	Connectcode www.simtek.com/code
mm				mm	
3,9	CK2.A.0390.00 M	AXYJ	CH G FK	7,5	CK2.L.4.0
6,3	CK2.A.0630.00 M	AXYK	CH G FK	7,5	CK2.L.4.0

Order example: **CK2.A.0630.00 M GF25** (GF25 = Grade)

Info

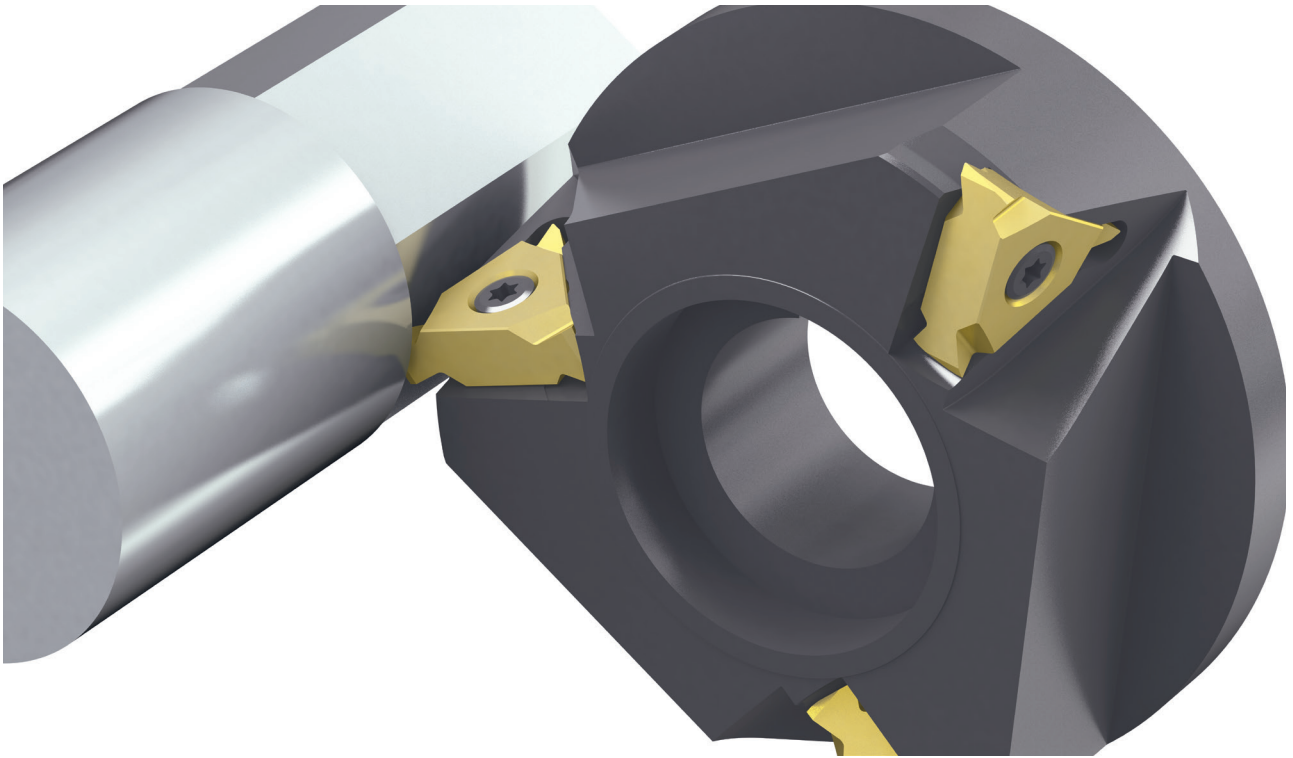
Cutting data calculation for the thread whirling



Numbers of cutting edges	6 or 9
Range of cutting speed	40 - 60 m/min
Feed range	0,02-0,10 mm / Cutting edge
Unit swivel angle	Refer to unit manufacturer

The Tool System simcut MX

High performance Polygon Milling Tools.



Tool system of three or six edged indexable carbide insert and disc milling cutters with several insert seats for longitudinal or radial feed polygon milling.

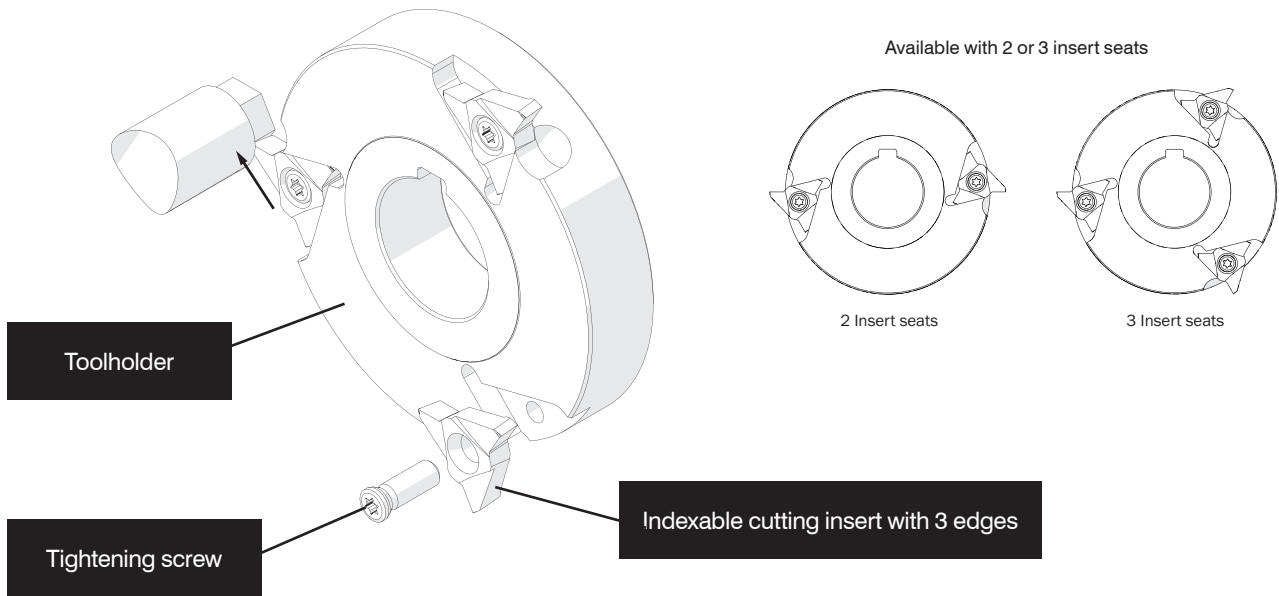
A range of polygon profiles are machinable with one disc milling cutter by variation of used cutting inserts and transmission ratio.

The System Details

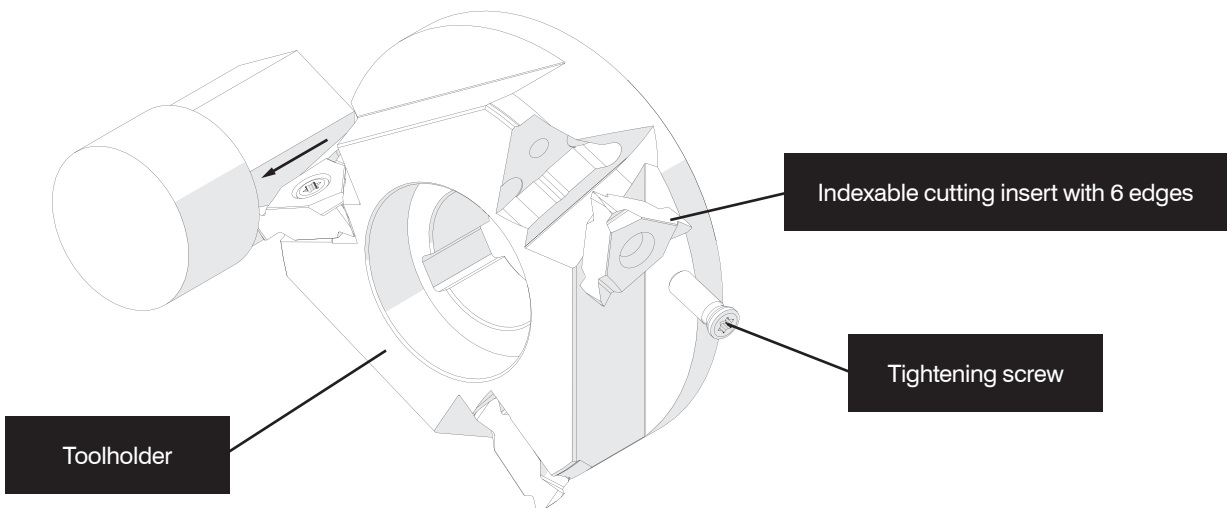
Please read the general instructions for use on page

71

Radial feed polygon milling



Longitudinal feed polygon milling



Polygon Milling

Polygon milling allows the machining of flats at rotationally symmetrical work pieces on CNC lathes, Swiss-style lathes and multi spindle machines. For polygon milling, the main spindle (work piece) and the tool spindle (milling cutter) must run at a tightly synchronized transmission ratio in up milling direction.

The number of generated surfaces depends on the number of teeth of the cutter (z) and the transmission ratio (i) (see table on page 683).

The process of polygon milling superimposes two circular movements, this leads to slightly convex or concave surfaces, depending on the transmission ratio. This effect is usually insignificant and can be reduced with proportionally larger cutting diameters. Recommended combinations of cutting diameter and hex wrench sizes are shown in the table below, in all other cases, we recommend a technical assessment.

The feed direction of the cutter should follow the direction of the work piece axis, in doing so additional chamfers and outlets can be copied. Surfaces behind or in between shoulders can also be machined with a radial feed direction.

		Cutting diameter (ØDS)										
		27,7 mm	44,0 mm	50,0 mm	63,0 mm	72,0 mm	78,0 mm	80,0 mm	86,0 mm	90,0 mm	98,0 mm	118,0 mm
Wrench size (sw)	3,2 mm	●	●	●	●	●	●	●	●	●	●	●
	4,0 mm	●	●	●	●	●	●	●	●	●	●	●
	5,0 mm	●	●	●	●	●	●	●	●	●	●	●
	5,5 mm	●	●	●	●	●	●	●	●	●	●	●
	6,0 mm	●	●	●	●	●	●	●	●	●	●	●
	7,0 mm	●	●	●	●	●	●	●	●	●	●	●
	8,0 mm	●	●	●	●	●	●	●	●	●	●	●
	9,0 mm	●	●	●	●	●	●	●	●	●	●	●
	10,0 mm	●	●	●	●	●	●	●	●	●	●	●
	11,0 mm		●	●	●	●	●	●	●	●	●	●
	12,0 mm		●	●	●	●	●	●	●	●	●	●
	13,0 mm		●	●	●	●	●	●	●	●	●	●
	14,0 mm			●	●	●	●	●	●	●	●	●
	15,0 mm				●	●	●	●	●	●	●	●
	16,0 mm				●	●	●	●	●	●	●	●
	18,0 mm				●	●	●	●	●	●	●	●
	22,0 mm				●	●	●	●	●	●	●	●
	24,0 mm					●	●	●	●	●	●	●
	27,0 mm						●	●	●	●	●	●
	30,0 mm									○	●	●
32,0 mm									○	○	●	
36,0 mm									○	○	○	
41,0 mm											○	
46,0 mm											○	
50,0 mm											○	

- Recommended combination
- Limited recommended

Polygon Milling Toolholder

Suitable for Gildemeister- and Tornos-machines.

Tightening torque (screw)

6,0 Nm



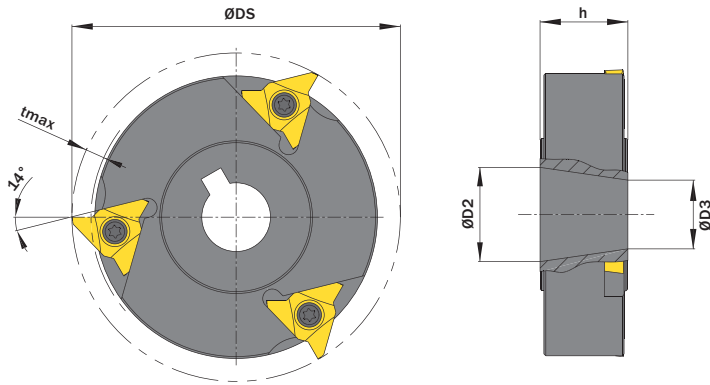
Legend **72**



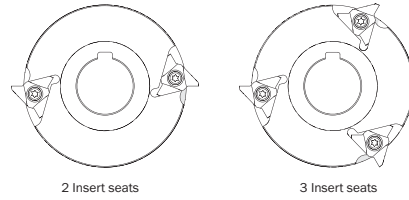
Scan QR-Code

Or Visit

www.simtek.info/cp/920



Similar illustrations



Suitable for Gildemeister Multi-Spindle (GM / GMC) and Tornos MultiDECO 20/6, 20/8, 20/8b, 26/6, 32/6i

Drawing shows: CM3.E086.25.03.00 L

ØDS	ØD2	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØD3	h	tmax	Screw	Screw driver	Connectcode www.simtek.com/code
mm	mm				mm	mm	mm			
▼ ØDS = 70,0 mm										
70,0	15,0	2	CM3.E070.25.02.00 L	AXUM	10,64	15,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
70,0	15,0	3	CM3.E070.25.03.00 L	AXUK	10,64	15,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
▼ ØDS = 86,0 mm										
86,0	24,69	2	CM3.E086.25.02.00 L	AUMK	18,0	23,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
86,0	24,69	3	CM3.E086.25.03.00 L	AUMW	18,0	23,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
▼ ØDS = 98,0 mm										
98,0	26,0	2	CM3.E098.26.02.00 L	AUMN	20,0	23,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
98,0	26,0	3	CM3.E098.26.03.00 L	AUMY	20,0	23,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0

Order example: **CM3.E086.25.03.00 L** (L = Left hand version)

Polygon Milling Toolholder

Suitable for Index-machines.

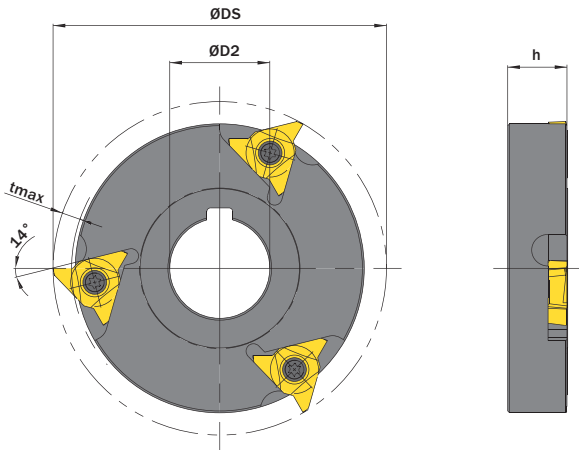
Tightening torque (screw)

6,0 Nm

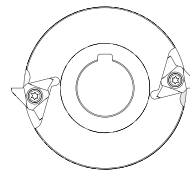


Legend **72**

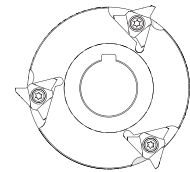
Scan QR-Code Or Visit www.simtek.info/cp/922



Similar illustrations



2 Insert seats



3 Insert seats

Drawing shows: CM3.X090.27.03.00 L

ØDS	ØD2	Number of insert seats	Part number	Webcode		h	tmax	Screw	Screw driver	Connectcode	
				www.simtek.com/webcode						www.simtek.com/code	
mm	mm			R	L	mm	mm			R	L
90,0	27,0	2	CM3.X090.27.02.00 R/L	AUPD	AUAW	16,2	5,0	M M5x1.3 T20R	T20R	CM3.R.6.0	CM3.L.6.0
90,0	27,0	3	CM3.X090.27.03.00 R/L	AUPE	AUAV	16,2	5,0	M M5x1.3 T20R	T20R	CM3.R.6.0	CM3.L.6.0

Order example: **CM3.X090.27.03.00 R** (R = Right hand version)

Polygon Milling Toolholder

Suitable for Schütte machines.

Tightening torque (screw)

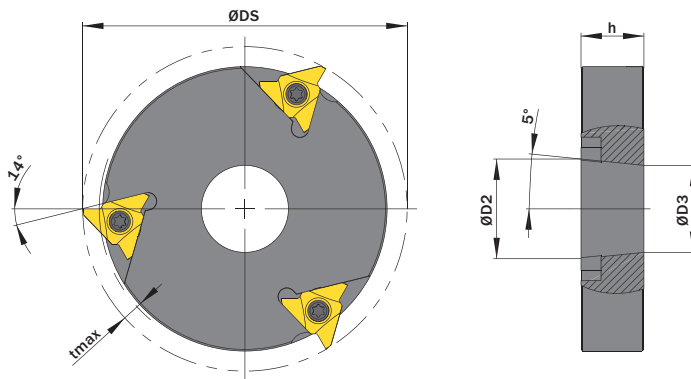
6,0 Nm



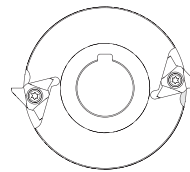
Legend **72**

Scan QR-Code

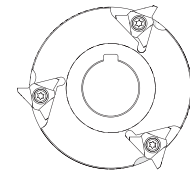
Or Visit www.simtek.info/cp/923



Similar illustrations



2 Insert seats



3 Insert seats

Drawing shows: CM3.S098.30.03.00 L

ØDS	ØD2	Number of insert seats	Part number	Webcode www.simtek.com/webcode	ØD3	h	tmax	Screw	Screw driver	Connectcode www.simtek.com/code
mm	mm				mm	mm	mm			
▼ ØDS = 98,0 mm										
98,0	30,1	2	CM3.S098.30.02.00 L	AUMQ	26,3	19,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
98,0	30,1	3	CM3.S098.30.03.00 L	AUMØ	26,3	19,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
▼ ØDS = 118,0 mm										
118,0	30,1	2	CM3.S118.30.02.00 L	AUMS	26,3	19,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0
118,0	30,1	3	CM3.S118.30.03.00 L	AUM1	26,3	19,0	5,0	M M5x13 T20R	T20R	CM3.L.6.0

Order example: **CM3.S118.30.03.00 L** (L = Left hand version)

Polygon Milling Toolholder

Suitable for Index-machines.

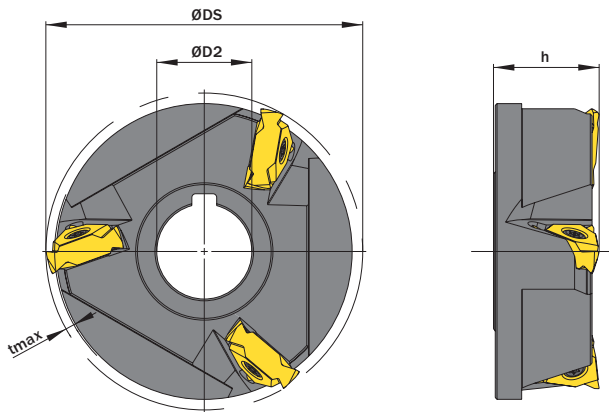
Tightening torque (screw)

6,0 Nm



Legend **72**

Scan QR-Code Or Visit www.simtek.info/cp/1305



Drawing shows: CM6.X090.27.03.00 L

ØDS	ØD2	Number of insert seats	Part number	Webcode www.simtek.com/webcode	h	tmax	Screw	Screw driver	Connectcode www.simtek.com/code
mm	mm				mm	mm			
90,0	27,0	3	CM6.X090.27.03.00 L	A2Z4	30,0	2,5	M M5x1.5 T20R	T20R	CM6.L.8.0

Order example: **CM6.X090.27.03.00 L** (L = Left hand version)

„Longitudinal Feed“ Polygon Milling

Indexable cutting insert for longitudinal feed polygon milling.

Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page **62, 63, 64**



 Scan QR-Code Or Visit www.simtek.info/cp/930

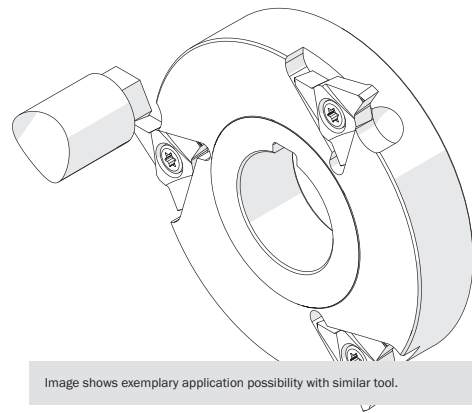
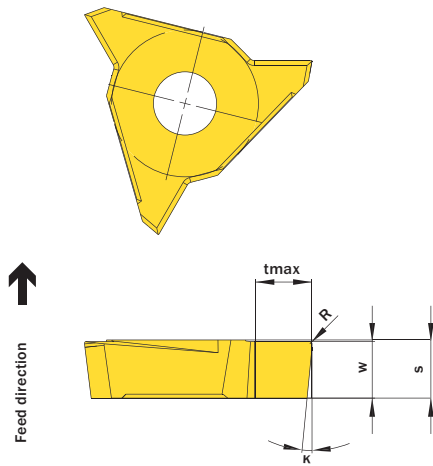


Image shows exemplary application possibility with similar tool.

Drawing shows: CM3.L500.05.F20 YL

S	tmax	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	K	W	Number of cutting edges	Connectcode www.simtek.com/code
mm	mm	mm					mm		
5,2	5,0	0,2	CM3.L500.05.F20 YR/L	R ATSV L ASZK	CHGFK	5°	5,0	3	R CM3.R.6.0 L CM3.L.6.0
6,5	5,0	0,2	CM3.L650.05.F20 YR/L	R AUPM L ASZM	CHGFK	5°	6,4	3	R CM3.R.7.0 L CM3.L.7.0
7,5	5,0	0,2	CM3.L750.05.F20 YR/L	R AUPN L ASZN	CHGFK	5°	7,4	3	R CM3.R.8.0 L CM3.L.8.0

Order example: **CM3.L500.05.F20 YR X808** (R = Right hand version, X808 = Grade)

Polygon Milling

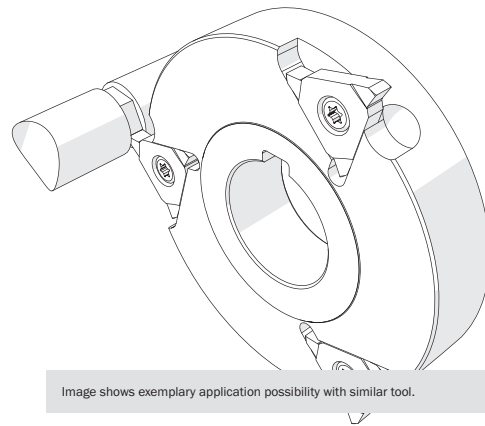
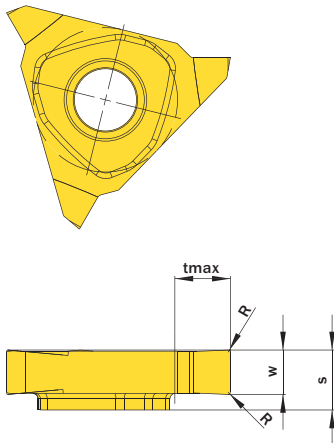
Indexable cutting insert for radial feed polygon milling.

Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page **62, 63, 64**




 Scan QR-Code Or Visit www.simtek.info/cp/931



Drawing shows: CM3.0400.020 GL

w	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	S	tmax	Number of cutting edges	Connectcode www.simtek.com/code
mm	mm				mm	mm		
4,0	0,2	CM3.0400.020 GR/L	R AUPH L ASZG	C H G F K	5,4	5,0	3	R CM3.R.6.0 L CM3.L.6.0
5,0	0,2	CM3.0500.020 GR/L	R AUPJ L ASZH	C H G F K	5,4	5,0	3	R CM3.R.6.0 L CM3.L.6.0
7,0	0,2	CM3.0700.020 GR/L	R AUPK L ASZJ	C H G F K	7,4	5,0	3	R CM3.R.8.0 L CM3.L.8.0

Order example: **CM3.0500.020 GR X808** (R = Right hand version, X808 = Grade)

„Longitudinal Feed“ Polygon Milling

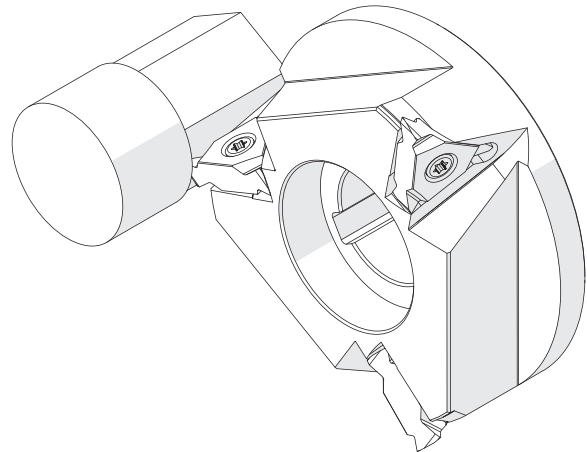
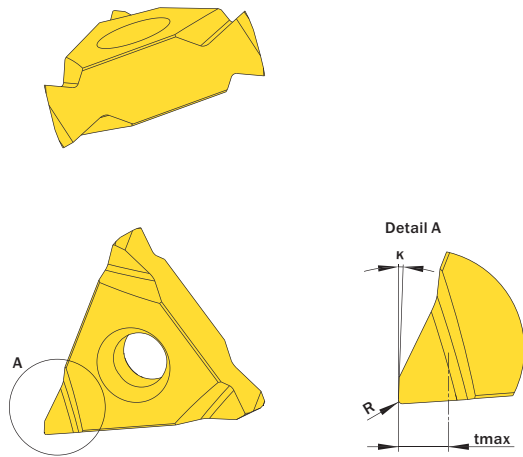
Precision ground six-edged indexable cutting insert for polygon milling applications with longitudinal feed.

Cutting parameters (start) [Vc 37.pdf](#)

Suitable toolholders on page **65**




 Scan QR-Code Or Visit www.simtek.info/cp/1312



Drawing shows: CM6.L740.05.F02 Y L

tmax	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	K	Number of cutting edges	Connectcode www.simtek.com/code
mm	mm						
2,5	0,2	CM6.L740.05.F02 YL	A2ZX	CHGFK	2°	6	CM6.L.8.0
2,5	0,4	CM6.L740.05.F04 YL	A2ZY	CHGFK	2°	6	CM6.L.8.0
2,5	0,8	CM6.L740.05.F08 YL	A2ZZ	CHGFK	2°	6	CM6.L.8.0

Order example: **CM6.L740.05.F08 YL X808** (L = Left hand version, X808 = Grade)

Longitudinal Feed Polygon Milling

Cutting insert for longitudinal feed polygon milling.

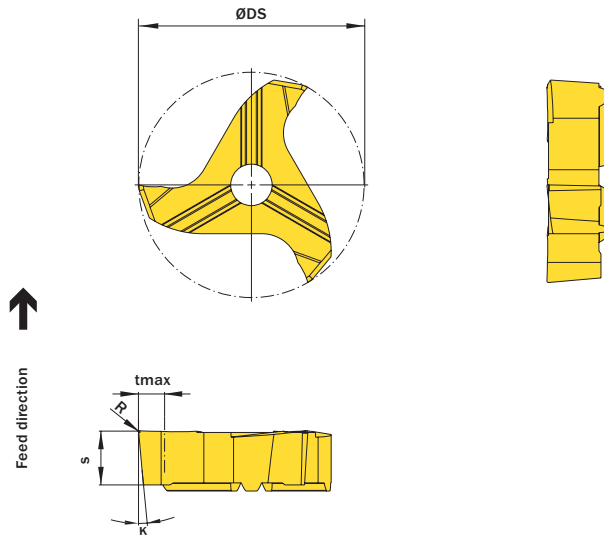
Cutting parameters (start) Vc
37.pdf

SP

HM

Legend 72

Scan
QR-Code
 Or Visit
www.simtek.info/cp/960

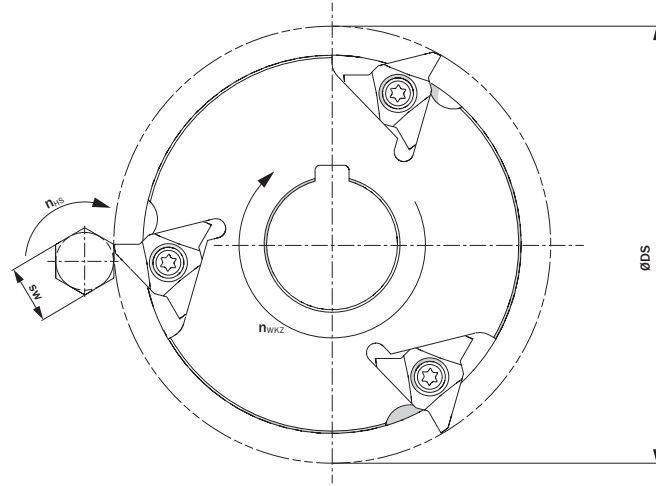


Drawing shows: V28.L650.02.F20 Y

ØDS	S	R	Part number	Webcode www.simtek.com/webcode	Cutting Grade Group	tmax	K	Number of cutting edges	Connectcode www.simtek.com/code
mm	mm	mm				mm			
27,7	6,5	0,2	V28.L650.02.F20 Y	AU68	CHGFK	4,5	5°	3	VD14.3

Order example: **V28.L650.02.F20 Y X800** (X800 = Grade)

Cutting data calculation for Polygon Milling



Calculating of cutting speed

$$v_c = n_{WKZ} \cdot \pi \cdot \varnothing DS + n_{HS} \cdot \pi \cdot sw$$

$$= i \cdot n \cdot \pi \cdot \varnothing DS + n \cdot \pi \cdot sw$$

$$= n \cdot \pi \cdot (i \cdot \varnothing DS + sw)$$

Calculating the RPM of the cutting tool

$$n_{WKZ} = \frac{i \cdot v_c}{\pi \cdot (i \cdot \varnothing DS + sw)}$$

Calculating the RPM ratio

$$i = \frac{n_{WKZ}}{n_{HS}}$$

Calculating the RPM on the main spindle

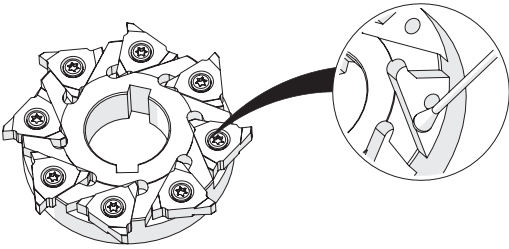

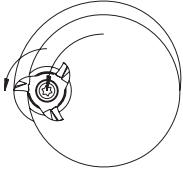
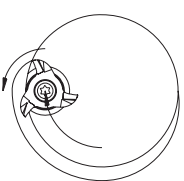
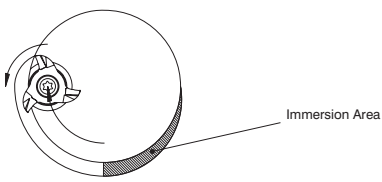
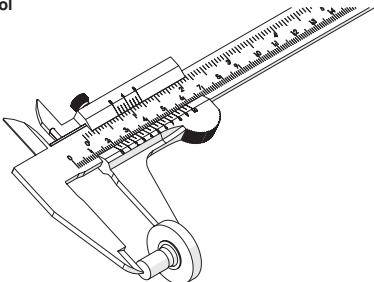
$$n_{HS} = \frac{v_c}{\pi \cdot (i \cdot \varnothing DS + sw)}$$

- sw Wrench size
- ØDS Outer diameter
- i RPM ratio
- n Speed
- v_c Cutting speed
- n_{HS} RPM of Main spindle
- n_{WKZ} RPM of Tool


	Form														
	Semi-circle		Rounded rectangle		Triangle			Square		Pentagon			Hexagon		Octagon
Number of cutting inserts (z)	1	2	1	3	2	1	2	1	3	2	1	3	2	4	2
Rotational frequency (i)	1:1	1:1	2:1	1:1	1,5:1	3:1	2:1	4:1	1,66:1	2,5:1	5:1	2:1	3:1	2:1	4:1

Customized tools available upon request

Important hints

<p>Cleaning</p>  <p>Please clean insert seat well before use.</p>	<p>Available grades, stock and prices can be found up-to-date on www.simtek.com/webcode/ as well as in the latest price list.</p>  <p>Please use the webcode which is given on the catalog page.</p>				
<p>Milling method</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Upcut Milling</p>  </div> <div style="text-align: center;"> <p>Synchronous Milling</p>  </div> </div> <p>Tool movement shown.</p> <p>The synchronous milling method is the recommended milling method for SIMTEK milling tools.</p>	<p>Immersion Loop</p>  <p>We recommend to immerse the groove with an immersion loop between 45° and 180° until the maximum groove depth is reached.</p>				
<p>Control</p>  <p>Please control your work pieces frequently.</p>	<p>Cutting parameters</p> <table border="1" data-bbox="821 1388 1316 1444"> <tr> <td>Cutting parameters (Start)</td> <td>fzm *** mm</td> <td>hmax *** mm</td> <td>Vc Page ***</td> </tr> </table> <p>Given cutting parameters are ment as initial values.</p> <p>The best values depend on a variety of criteria (for example the machine conditions) and can be higher or lower.</p>	Cutting parameters (Start)	fzm *** mm	hmax *** mm	Vc Page ***
Cutting parameters (Start)	fzm *** mm	hmax *** mm	Vc Page ***		

Legend

- SP** Carbide insert
- HM**
- TW** Steel toolholder
- ST**
- L** Left hand version shown
- ME** ME-clamping system
- AW** For driven push-slotting aggregate
- C11** For key way width tolerance C11
- H9** For key way width tolerance H9
-  Through coolant
- JS9** For key way width tolerance JS9
- P9** For key way width tolerance P9

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simcut Product list

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