

ARGENTINA Seco Tools S.A. Tel. 54 11 4892-0060 Fax 54 11 4723-8600. **AUSTRALIA** Seco Tools Australia Pty. Ltd. Tel. 1300 55 7326 Fax 1300 65 7326. **AUSTRIA** Seco Tools GmbH Tel. (2253) 21040 Fax (2253) 21040-11. **BELGIUM** S.A. Seco Tools Benelux N.V. Tel. (02) 389 09 60 Fax (02) 389 09 89. **BOSNIA** See Solvenia. **BRAZIL** Seco Tools Ind. Com. Ltda. Tel. (0xx15) 2101-8631/34 Fax (0xx15) 2101-8605. **BULGARIA** See Sweden. **CANADA** Seco Tools Canada Inc. Tel. (905) 693 1780 Fax (905) 693 1788. **CHINA** Seco Tools (Shanghai) Co. Ltd. Tel. + 86 - 21- 5426 5500 Fax + 86-21-64855685. **COLOMBIA** Rexo Tools Tel.(57 1)-6606030/31/32/33/35/37 Fax (57 1)-3110026. **CROATIA** See Slovenia. **CZECH REPUBLIC** Seco Tools CZ s.r.o. Tel. 549 249 241 / 549 216 399 Fax 549 245 740. **DENMARK** Seco Tools A/S Tel. 43 44 76 00 Fax 43 44 50 30. **ECUADOR** See Sweden. **FINLAND** Seco Tools Oy Tel. (09) 2511 72 00 Fax (09) 2511 72 01. **FRANCE** Seco Tools France Tel. 0825 826 379 Fax 02 48 67 27 05, Seco EPB Tel. 03 88 71 38 89 Fax 03 88 70 98 98. **GERMANY** Seco Tools GmbH Tel. (0211) 2401-0 Fax (0211) 2401275. **GREECE** Athens Mechanica Tel. 2105231284-5 Fax 2105231286. **HONGKONG** Seco Tools (Shanghai) Co. Ltd. Tel. 86- 21 - 5426 5500 Fax +86 - 21 - 64855685. **HUNGARY** Seco Tools KFT Tel. (36-1) 267-6720 / 383-6568 Fax (36-1) 267- 6721. **INDIA** Seco Tools India (P) Ltd. Tel. 02137-667300 Fax 02137-667430. **INDONESIA** See Singapore. **ITALY** Seco Tools Italia S.p.A. Tel. 031-978111 Fax 840-000938. **JAPAN** Seco Tools Japan. K.K. Tel. 03-3239-3071 Fax 03-3230-4955. **MACEDONIA** See Slovenia. **MALAYSIA** Seco Tools Malaysia Sdn Bhd Tel. 03-90591833 Fax 03-90594833. **MEXICO** Seco Tools de Mexico Tel./Fax 210-543-2200. **NETHERLANDS** Seco Tools Benlux N.V. Tel. 0183-636600 Fax 0183- 6606. **NEW ZEALAND** Seco Tools New Zealand Ltd. Tel. 09-415 8441 Fax 09-415 8442. **NORWAY** Seco Tools A/S Tel. 67927300 Fax 67927302. **PHILIPPINES** See Singapore. **POLAND** Seco Tools (Poland) Sp. z.o.o. Tel. (0-22) 637 53 86/85 Fax (0-22) 637 53 84. **PORTUGAL** Seco Tools Portugal, Lda. Tel. 256 371 650 Fax 256 371659. **ROMANIA** Seco Tools Romania S.R.L. Tel 40 268 414 723 Fax 40 268 476 772. **RUSSIA** Seco AB Moscow Representative Office. Tel +7(495)-680-1322 Fax +7(495)-680 6241. **SERBIA AND MONTENEGRO** See Slovenia. **SINGAPORE** Seco Tools (S.E.A.) Pte. Ltd. Tel. (65) 68 41 28 02 Fax (65) 68 41 28 01. **SLOVAKIA** Seco Tools SK s.r.o. Tel. 421 33 55 13 537, 421 33 53 41 911 Fax 421 33 55 13 538. **SLOVENIA** Seco Tools SI d.o.o. Tel. 003 86 2 450 23 40 Fax 00386 2 450 23 41. **SOUTH AFRICA** Seco Tools S.A. (Pty) Ltd. Tel. (011) 36 22 660 Fax 011 362-1893. **SOUTH KOREA** Seco Tools Korea Ltd. Tel. 041 622 -9785 to 9 Fax 041 622-9784. **SPAIN** Seco Tools España S.A. Tel. 934 745 533 Fax 934 745 550. **SWEDEN** Seco Tools AB Tel. 223 400 00 Fax 223 718 60 Telex 7510. **SWITZERLAND** Seco Tools AG Tel.0041-32 332 78 78 Fax 0041-32 332 78 79. **TAIWAN** Seco Tools Taiwan Tel. 02-26577918 Fax 02-26579461. **THAILAND** Seco Tools Thailand Tel. 02-7467 801 Fax 02-7467 802. **TURKEY** Seco Kestak A.S. Tel. (212) 613 40 43 / 613 40 44 Fax (212) 613 40 42. **UKRAINE** Seco Tools Ukraine Tel. (056) 790 05 44 Fax. (056) 790 05 43 **UNITED KINGDOM** Seco Tools (U.K.) Ltd. Tel (01789) 764341 Fax (01789) 761170. **USA** Seco Tools Inc. Tel. 586-497 5000 Fax 586-497 5627/5629.

DISC MILLING CUTTERS AND INSERTS

COMPLETE. EASY. INNOVATIVE.

DISC MILLING CUTTERS AND INSERTS



SECO

Seco Tools AB, SE-737 82 Fagersta, Sweden. Tel. +46 223 400 00.
www.secotools.com

SECO



YOU KNOW WHAT YOU WANT

SO DO WE

You've got enough to do without slamming through a mass of confusing catalog pages, trying to figure out if a supplier has the product you're after. Don't you really just want to know that you ordered a reliable tool that's right for the job, and that your people won't wonder what you were thinking about when you placed the order?

Seco gives you confidence:

- Our lineup of disc milling cutter bodies, inserts, and toolholding options is the most complete in the industry- we have what you need.
- Ordering from Seco is simple- you'll find exactly what you're looking for quickly, so you can focus on something else.
- Seco is a true innovator- our disc milling products feature technology designed to maximize production and ease of use in any disc milling application.

"Our customers tell us they want a comprehensive range of accurate, free cutting, durable and energy-efficient disc milling and slotting solutions," says Bertrand Riviere, R&D Project Leader for Seco Disc Mills.

Does this sound like you?

TOOL SELECTION THE WAY IT SHOULD BE.

COMPLETE. EASY. INNOVATIVE.

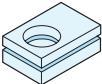
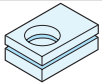
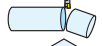
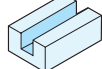
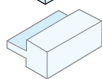
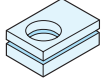
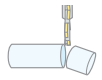
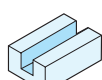
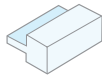
Choosing the correct cutter body and inserts should be straightforward and quick, and should leave you feeling confident you've made the right choice.

Seco's new Disc Mill Guide makes finding the right cutter body and inserts for any disc milling application so easy, you'll wonder why no one else does it this way! We just think that making it easier to find the right cutter or insert for your machines makes it easier for you to choose Seco.

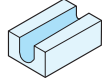
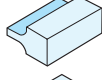
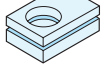
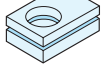


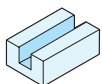
DISC MILLING CUTTERS - FIXED POCKET DESIGN

Full side and face - Fixed pocket design - Selection

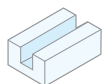
Width ap (mm)	Application	Diameters (mm)												Insert tech.	Radii available (mm)	See page
		24	32	40	50	63	80	100	125	160	200	250	315			
1,6		Cyl./Wel.		ap 1,60–2,65 mm												24
...						B Type		ap 1,60–5,15 mm						335.15		
5,15						A Type		ap 2,25/2,5–3,1–4,1 mm								25–26
2,25						B Type		ap 2,25/2,5–3,1–4,1 mm						335.10		
...																
4,1						RE/Cyl.		ap 4–5–6 mm							0,20 0,40 0,80 1,20 1,60 2,00 2,40 3,00 3,10 3,50	29–30
4						B Type		ap 4–5–6–7 mm								
5						A Type		ap 4–5–6–7 mm								
6						B Type		ap 4–5–6–7 mm								
7														335.19/SNHQ		
8			RE/Cyl.		ap 8–10–12 mm									0,40 0,80 1,60 2,00 2,40 3,10 4,00	34–35	
10						B Type		ap 8–10–12 mm								
						A Type		ap 8–10–12 mm								
						B Type		ap 8–10–12 mm							0,20 0,40 0,80 1,20 1,60 2,00 2,40 3,10 4,00 5,00 6,00	30–31
						A Type		ap 8–10–12 mm								
12																
14						B Type		ap 14–17–20 mm							0,40 0,80 1,60 2,00 2,40 3,10 4,0	35–36
17						A Type		ap 14–17–20 mm								
20																

Full side and face for radius profile - Fixed pocket design - Selection

Width ap (mm)	Application	Diameters (mm)												Insert tech.	Radii available (mm)	See page
		24	32	40	50	63	80	100	125	160	200	250	315			
6					RE/Cyl.		ap 6 mm							3,0 3,5 4,0 5,0 6,0	30-31	
8						B Type				ap 6-7-8-10-12 mm						
						A Type				ap 6-7-8-10-12 mm						
10				RE		ap 6-8 mm								3,0 4,0 5,0	39	
12				B Type		ap 8-10 mm										



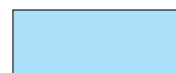
Main application



Possible application

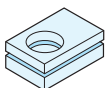


Basic choice



Alternative choice

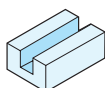
R 0,8 : Basic choice



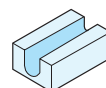
1) Grooving



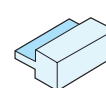
2) Sawing



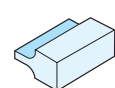
3) Full side and face



4) Full radius profile



5) Half side and face



6) Half radius profile

DISC MILLING CUTTERS - ADJUSTABLE DESIGN

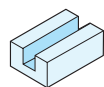
Full side and face - Adjustable design - Selection

Width ap (mm)	Application	Diameters (mm)						Insert tech.	Radii available (mm)	See page			
		80	100	125	160	200	250				315		
8 ↓ 10 10			B Type					 LNK 05	0,4 0,8 1,6 2,0 2,4 3,1	34			
			A Type										
10 ↓ 15 14			B Type					 LNK 06/08	0,4 0,8 1,6 2,4 3,1 4,0	34-35			
			A Type										
15 ↓ 18 14			B Type						 335.18-1005	CH-R0,8	37		
				A Type									
18 ↓ 18			B Type						 335.18-1305 335.18-1606	CH-R0,8	37-38		
				A Type									
								B Type			 AC 1506	1,2 3,0 3,1 6,0	37-38
								A Type					
						B Type			 AP 1604	0,4 0,8 1,6 2,4 3,0 3,1 4,0 4,8	37-38		
						A Type							
31													

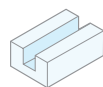
CH = corner chamfer

Full side and face for radius profile - Adjustable design - Selection

Width ap (mm)	Application	Diameters (mm)						Insert tech.	Radii available (mm)	See page
		80	100	125	160	200	250			
8 ↓ 10	 		B Type			ap min 8		 RD Ø 8	4,0	39
			A Type			ap min 8				
10 ↓ 12 12 ↓ 15			B Type			ap min 10/12		 RD Ø 10 RD Ø 12	5,0 6,0	39–40
			B Type			ap min 10/12				
16 ↓ 18			B Type			ap min 16		 RD Ø 16	8,0	40
			A Type			ap min 16				



Main application



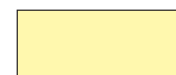
Possible application



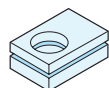
Basic choice



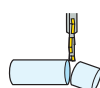
Alternative choice 1



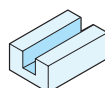
Alternative choice 2



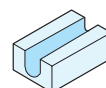
1) Grooving



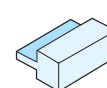
2) Sawing



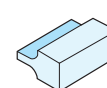
3) Full side and face



4) Full radius profile



5) Half side and face



6) Half radius profile

SECO
4146336
R335.18-1215-08

SECO
4143075
L335.18-1215-08

SECO
4146336
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SECO
WIDTH

12-15



335.18-611



WE HAVE THAT

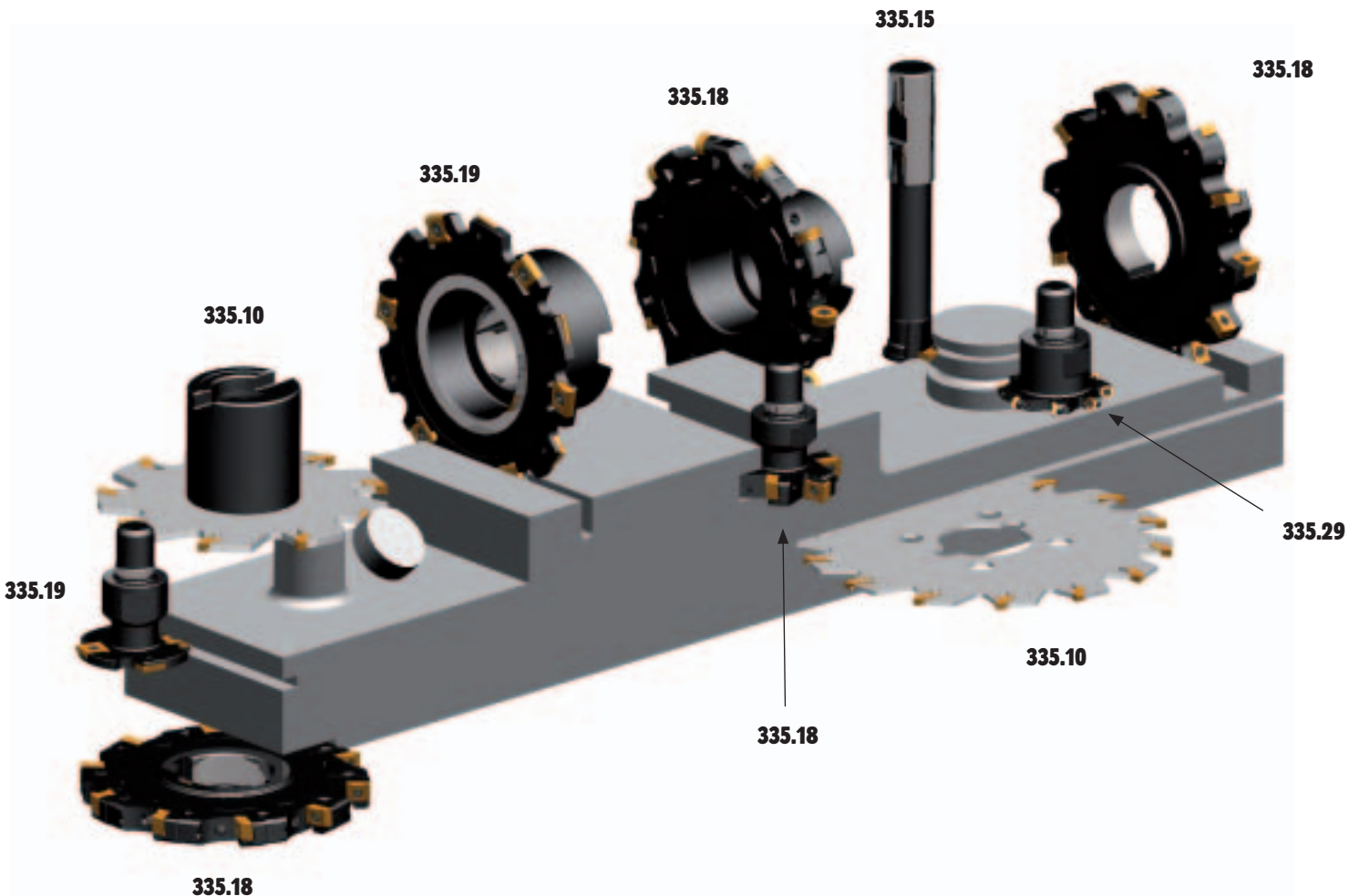
COMPLETE. EASY. INNOVATIVE.

The cornerstone of our approach to disc milling is to offer the widest range of inserts, cutter bodies, and attachment types in the industry. Seco is your single source tooling supplier for slotting, backfacing, circular interpolation, circlip grooving, dual-radius slotting, and trochoidal T-slotting.

The full standard range of disc milling cutters (available in diameters from 24 - 315 mm) consists of 5 families:

- 335.10 for slots from 2,25 – 4,1 mm
- 335.15 for circlip grooves from 1,6 – 5,15 mm
- 335.18 for slots from 8 – 20 mm (LNK inserts)
- 335.19 for slots from 4 – 14 mm (SNHQ inserts)
- 335.29 for full radius operations (using Ø6, 8, or 10 mm round inserts)

For facing, square shoulder milling, or larger slots (8 – 31 mm), Seco recommends the 335.18 disc mill, available in both fixed and adjustable pocket configurations.





SOLUTIONS FOR EVERY APPLICATION

COMPLETE. EASY. INNOVATIVE.

With the industry's most complete family of carbide grades, geometries and radii, Seco provides a huge number of discmill combinations, reducing or even eliminating the cost of custom tooling. Of course, we'll be happy to customize for your unusual applications.

Our indexable carbide inserts provide longer tool life and superior cutting data. The positive rake results in a 'softer' cutting action- less vibration and reduced cutting forces result in a more accurate cut, less energy used to make it, and more parts machined in less time!

The challenges you face are constantly evolving. In order to keep our understanding of solving these challenges current, Seco works closely with customers to develop our product ranges. By partnering with Seco, you can tackle any application with total confidence!



INNOVATION DRIVEN BY YOU

COMPLETE. EASY. INNOVATIVE.

Seco now offers two new insert lines- SNHQ and LNK.

Both the SNHQ and LNK inserts feature:

- Light cutting action generates low-vibration productivity and maximum tool life
- Up to four effective edges per insert for lower tooling cost
- Available wiper flats, when a high-quality surface finish is essential
- A positive cutting rake for reduced power consumption

For some widths, both SNHQ and LNK inserts are available, for optimum production.



LNK05, 06, AND 08 INSERTS:

- Very tough inserts designed for weaker machines or unstable machining conditions these cutters have fewer teeth engaged in the cutting process
- Surface finish below $Ra < 2 \mu$
- Widths from 8 – 15 mm for adjustable pocket configuration
- Widths from 8 – 20 mm for fixed pocket version
- Radii 0,4 - 4,0 mm with up to four cutting edges



SNHQ INSERTS:

- A higher metal removal rate can be achieved under stable machining conditions, due to more teeth in engagement
- The new inserts are excellent for light cutting applications, due to positive insert geometries
- Right- or Left-handed
- Four-edged inserts are available with corner radii from 0,2 – 2,0 mm
- Two-edged inserts are available with corner radii from 2,0 – 6,0 mm
- The SNHQ is a direct replacement for the old 335.19 inserts, but the SNHQ inserts provide additional features like wiper flats and more radius options.
- Full radii on every width
- Surface finish below $Ra < 2 \mu m$
- Width 4 – 14 mm

WE PROVIDE MORE

With EPB tooling systems you will find the most recent spindle tooling products and application techniques to successfully equip your machine tools.

There are 5 different product families:

MONOBLOC – COMBIMASTER – GRAFLEX® - Seco Capto™ – SHRINKFIT DEVICES.

Holders have been developed especially for disc milling cutters (A-type configuration) and are available in both Graflex and Seco Capto™

These holders provide far better reach than conventional holders since they are equipped with slim front end adjustable sliding shaft arbor.

For more complete information regarding Seco's EPB discmillsholders please see:

- Seco EPB tooling catalogue part Graflex holders
- Seco Capto catalogue part tooling
- Leaflet with the new Monoblock HSK, BT and DIN discmillsholders

Or ask your local Seco Tools representative.



AND EVEN MORE...



Combimaster™ is Seco's two-piece milling cutter system, offering maximum flexibility in a wide variety of applications, including disc milling.

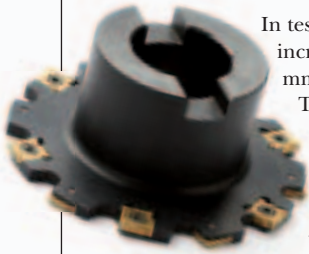
We offer holding systems for the whole Combimaster range of shank types, lengths and interchangeable cutter heads.

Leading with technological innovation is part of what makes Seco the total Disc Milling partner!



CASE STORIES

INCREASED FEED SPEED GAVE PRODUCTIVITY BOOST WITH 116%



In test shown below feed speed could be increased from 0.10 mm/tooth to 0.25 mm/tooth.

This meant that machining time was reduced from 7,36 minutes to 3,08 minutes.

Earlier 50 pieces could be machined before indexing to fresh edges, this was increased to 80 pieces for SNHQ.

Material: GG25 Seco Material group 13	
Workpiece:	
Competitor	Seco
	Cutter 335.19-100-07.27-5
	Inserts SNHQ120435ER/EL-M07 F40M
$v_c = 141$ m/min	$v_c = 130$ m/min
$n = 450$ RPM	$n = 420$ RPM
$f_z = 0,1$ mm/tooth	$f_z = 0,25$ mm/tooth
$v_f = 220$ mm/min	$v_f = 525$ mm/min
$a_p = 5$ mm	$a_p = 5$ mm
$a_e = 7$ mm	$a_e = 7$ mm
$Q = 7,7$ cm ³ /min	$Q = 18,375$ cm ³ /min

FROM CUSTOM TOOLING TO STANDARD



At a customer producing power generators a standard tool

Cutter R335.18-125-1215.32-5N with Inserts LNKT080540PPTL/PPTR-M06 F40M was applied on a part of a turbine house.

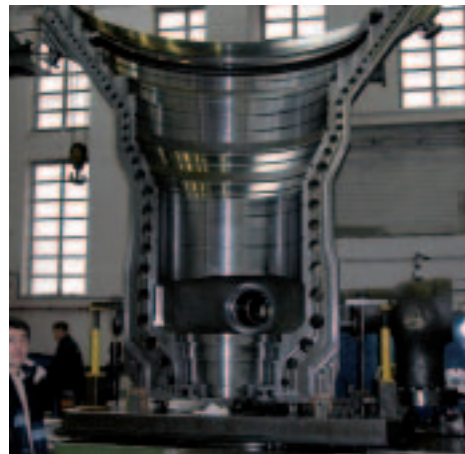
Material was Gs17 CrMoV5.11

W.Nr.: 1.7706 Seco Material group 5.

For the customer this meant going from custom tooling from a competitor to standard products from Seco.

We can all understand the convenience this customer experienced, shorter delivery times, reduced tool cost and not to mention easier logistic handling.

This was made possible thanks to Seco's big and wide standard range of disc milling products.



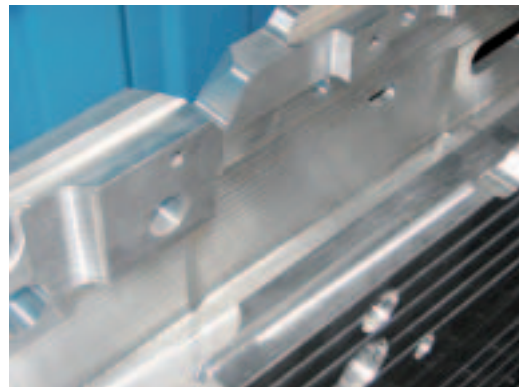
Application to be machined

IMPROVED QUALITY WITHOUT EXTRA COST



MBDA France, a world leader in the development and manufacture of missiles and missile systems can increase its productivity by using a disc mill 335.19-100-06.27-5 equipped with SNHQ 120302 ER4 – E05 for the right hand and SNHQ 120302 EL4 – E05 for the left hand, since the inserts producing flat bottom profiles.

Recent tests have shown that the new SNHQ inserts avoid an extra operation to complete the finished profile.



Application to be machined



DS
27
H
G

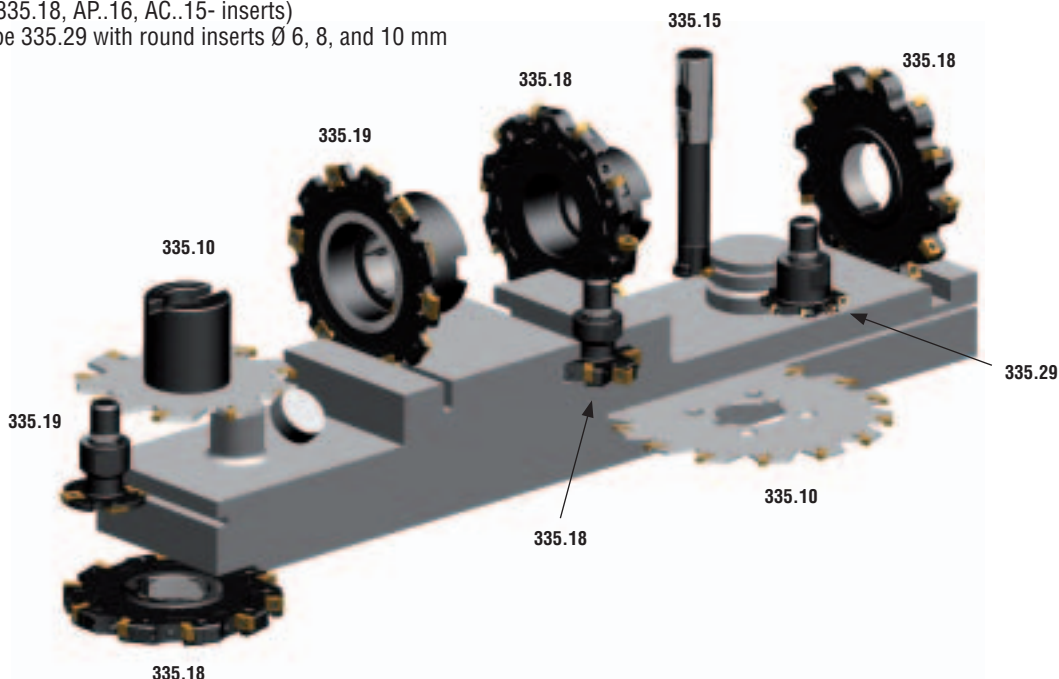
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Disc milling cutters introduction	20 – 22
335.15 cutters.	24
335.10 cutters.	25 – 26
335.10 spare parts	27 – 28
335.19 cutters.	29 – 31
335.19 spare parts	32
LNK.. inserts No of cutting edges	33
335.18 cutters full side & face	34 – 38
335.18/335.19 cutters full radius profiling	39 – 40
335.18 cutters half side right hand	41 – 44
335.18 cutters half side and face left hand	45 – 48
335.18 spare parts, technical information, custom design	49 – 51
Technical information, disc mill 335.18.	50
Cutting data.	52– 66
Inserts.	67 – 80

A full range of disc mills for all kind of disc milling operations

These disc mills, available in diameters from 24–320 mm, offer a wide choice of grades/insert geometries allowing you to machine most material types. Insert radii up to 8 mm are available.

The complete standard range of disc milling cutters consists of 5 families:

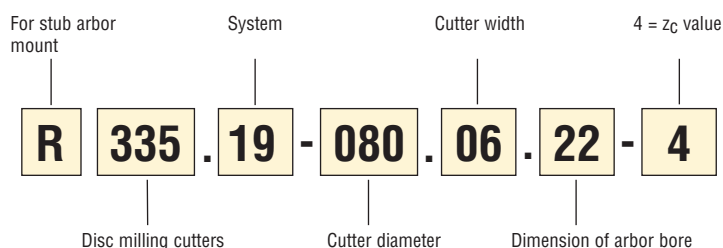
- For circlip grooves 1,6 - 5,15 mm: Seco disc mill type 335.15
- For width 2,25 - 4,1 mm: Seco disc mill type 335.10
- For width 4 - 14 mm: Seco disc mill type 335.19 (SNHQ-inserts)
- For width 8 - 20 mm: Seco disc mill type 335.18 (LNK.-inserts)
- for 20 - 31 mm (335.18, AP..16, AC..15- inserts)
- Seco disc mill type 335.29 with round inserts Ø 6, 8, and 10 mm



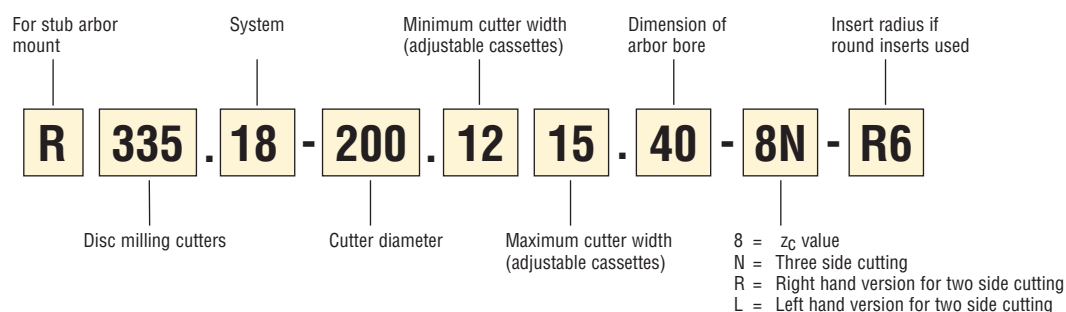
Note: Maximum RPM that for safety reasons never shall be exceeded, are shown on each product page.

Seco can provide 'custom' tools designed to suit your specific requirements.

For fixed pocket disc milling cutter



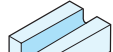
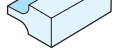
For adjustable disc milling cutter

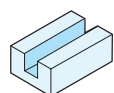


Full side and face - Fixed pocket design - Selection

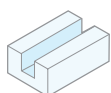
Width ap (mm)	Application	Diameters (mm)												Insert tech.	Radii available (mm)	See page	
		24	32	40	50	63	80	100	125	160	200	250	315				
1,6 ... 5,15		Cyl./Wel.		ap 1,60–2,65 mm				ap 1,60–5,15 mm							335.15	24	
2,25 ... 4,1						A Type ap 2,25/2,5–3,1–4,1 mm								25–26			
4 ... 5 6 7						B Type ap 2,25/2,5–3,1–4,1 mm				ap 2,25/2,5–3,1–4,1 mm				335.10			
8 ... 10 12 14					RE/Cyl.		ap 4–5–6 mm								0,20 0,40 0,80 1,20 1,60 2,00 2,40 3,00 3,10 3,50	29–30	
						B Type ap 4–5–6–7 mm				ap 4–5–6–7 mm							
						A Type ap 4–5–6–7 mm				ap 4–5–6–7 mm							335.19/SNHQ
16 ... 20				RE/Cyl.			ap 8–10–12 mm				ap 8–10–12 mm			LNK 05/06	0,40 0,80 1,60 2,00 2,40 3,10 4,00	34–35	
						B Type ap 8–10–12 mm					ap 8–10–12 mm						
						B Type ap 8–10–12 mm					ap 8–10–12 mm				0,20 0,40 0,80 1,20 1,60 2,00 2,40 3,10 4,00 5,00 6,00	30–31	
						A Type ap 8–10–12 mm					ap 8–10–12 mm		335.19/SNHQ				
18 ... 22						B Type ap 14–17–20 mm				ap 14–17–20 mm					LNK 06/08	0,40 0,80 1,60 2,00 2,40 3,10 4,0	35–36
						A Type ap 14–17–20 mm				ap 14–17–20 mm							

Full side and face for radius profile - Fixed pocket design - Selection

Width ap (mm)	Application	Diameters (mm)												Insert tech.	Radii available (mm)	See page	
		24	32	40	50	63	80	100	125	160	200	250	315				
6					RE/Cyl.			ap 6 mm							3,0 3,5 4,0 5,0 6,0	30-31	
8						B Type					ap 6-7-8-10-12 mm						
						A Type					ap 6-7-8-10-12 mm						
10				RE		ap 6-8 mm									3,0 4,0 5,0	39	
12				B Type		ap 8-10 mm											



Main application



Possible application

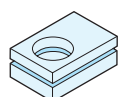


Basic choice

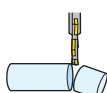


Alternative choice

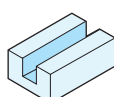
R 0,8 : Basic choice



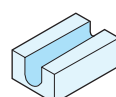
1) Grooving



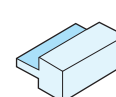
2) Sawing



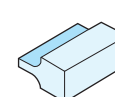
3) Full side and face



4) Full radius profile

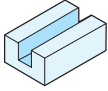
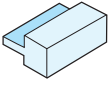
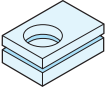
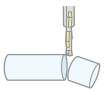


5) Half side and face



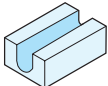
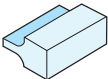
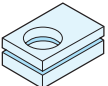
6) Half radius profile

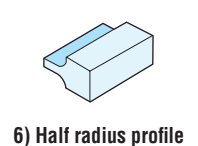
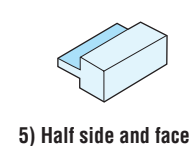
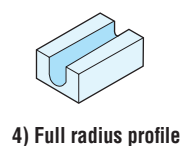
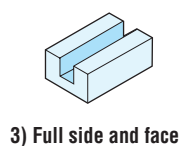
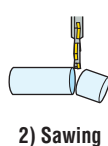
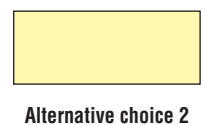
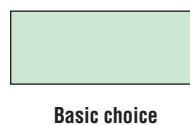
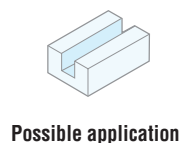
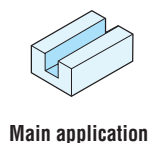
Full side and face - Adjustable design - Selection

Width ap (mm)	Application	Diameters (mm)						Insert tech.	Radii available (mm)	See page				
		80	100	125	160	200	250				315			
8 ↓ 10 ↓ 10 ↓ 15 ↓ 14 ↓ 18 ↓ 18 ↓ 31	    		B Type					 LNK 05	0,4 0,8 1,6 2,0 2,4 3,1	34				
A Type														
B Type							 LNK 06/08	0,4 0,8 1,6 2,4 3,1 4,0	34–35					
A Type														
B Type								 335.18-1005	CH-R0,8	37				
			A Type											
B Type								 335.18-1305 335.18-1606	CH-R0,8	37–38				
				A Type										
				B Type					 AC 1506	1,2 3,0 3,1 6,0	37–38			
				A Type										
				B Type								 AP 1604	0,4 0,8 1,6 2,4 3,0 3,1 4,0 4,8	37–38
				A Type										

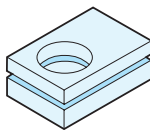
CH = corner chamfer

Full side and face for radius profile - Adjustable design - Selection

Width ap (mm)	Application	Diameters (mm)						Insert tech.	Radii available (mm)	See page	
		80	100	125	160	200	250				315
8 ↓ 10 ↓ 10 ↓ 12 ↓ 12 ↓ 15 ↓ 16 ↓ 18	Full radius   	  	B Type			ap min 8			 RD Ø 8	4,0	39
A Type			ap min 8								
B Type			ap min 10/12			 RD Ø 10 RD Ø 12	5,0 6,0	39–40			
A Type			ap min 10/12								
B Type			ap min 16			 RD Ø 16	8,0	40			
A Type			ap min 16								



335.15



Cylindrical: 24 & 34 mm



B type: 63 mm

Basic choice for grooving

From dia 24–63 mm
2 cutting edges per insert
 $a_p = 1,6-5,15$ mm

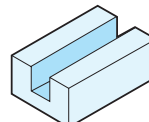
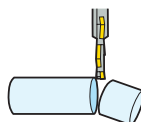
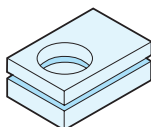
Insert designation
R335.15-13..
R335.15-18..



Edge form:
Chamfer

Product pages: 24
Insert pages: 71
Cutting data: 52

335.10



Cylindrical: 63–80 mm



A type: 80–315 mm



B type 63–160 mm

Basic choice for grooving, sawing and full side and face

Can also be used for halfside and face
From dia 63–315 mm
1 cutting edge per insert
 $a_p = 2,25-4,1$ mm

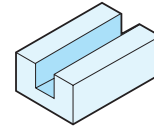
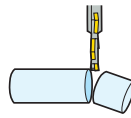
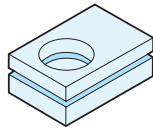
Insert designation
150.10-..



Edge form:
Chamfer

Product pages: 25–26
Insert pages: 78
Cutting data: 53
Add. information: 27–28

335.19



Combimaster Ø 50 mm

Cylindrical Ø 50/63/80 mm

A type: Ø 63–250 mm

B type: Ø 63–160 mm

Product pages: 29–31
Insert pages: 75–77, 80
Cutting data: 54–55
Add. information: 32, 51

335.19 cutter with SNHQ inserts
For full side and face use left and righthand inserts.
For half side and face use only left or righthand inserts.

Basic choice for grooving, sawing and full side and face

Can be used for full and half radius profile with radii inserts
From dia 50–250 mm
2 or 4 cutting edges per insert depending on radii
 $a_p = 4 - 14$ mm

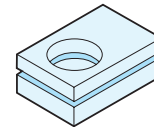
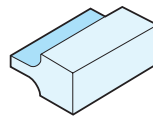
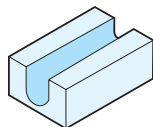
Insert designation
SNHQ inserts are the first choice
335.19 inserts are alternative choice



Edge form:

Chamfer
Corner radii 0.2–6 mm
Full radius 3–6 mm

335.29/335.18 equipped with cassettes for round inserts



Combimaster: Ø 40–50 mm
Fixed pocket

B type: Ø 63–80 mm
Fixed pocket

A type Ø 102–320 mm
Adjustable

B type Ø 82–320 mm
Adjustable

Product pages: 39–40, 44, 48
Insert pages: 72–74
Cutting data: 57–61
Add. information: 49–51

Basic choice for full radius profiling, half radius profile, grooving

From dia 40–320 mm
 $a_p = 6 - 16$ mm

Insert designation
RD..06T1M0
RD..0803M0
RD..10T3M0
RP..1204M0
RP..1605



Edge form:

Full radius 3–8 mm

335.18 LNK – Fixed pocket design






Combimaster: Ø 50 mm

Cylindrical: Ø 32–80 mm

A type: Ø 80–160 mm
Fixed pocket

B type: Ø 63–160 mm
Fixed pocket

Fixed pocket version

Basic choice for full side and face and grooving
 From dia 32–160 mm
 1 to 4 cutting edges per insert depending on radii.

Insert designation:
 LNK..05...
 LNK..06...
 LNK..08...



Edge form:
 Corner radii 0,4–4,0 mm

335.18 LNK – Adjustable design




A type: Ø 100–315 mm
Adjustable

B type: Ø 80–315 mm
Adjustable

Adjustable cassette version

Basic choice for full side and face half-side and face and grooving
 From dia 80–315 mm
 1 or 4 cutting edges per insert depending on radii.

Insert designation:
 LNK..05...
 LNK..06...
 LNK..08...
 335.18
 AC..15
 AP..16



Edge form:
 Corner radii 0,4–6,0 mm

Product pages: 34–38, 41–43, 45–47
 Insert pages: 67–70, 79
 Cutting data: 56, 62–66
 Add. information: 49–51

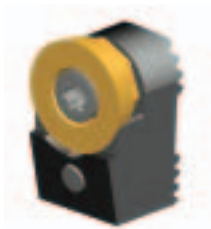
335.18: Seco adjustable disc milling cutter family



335.18-LNK adjustable design



LNK insert
Width 08–15 mm



Round insert
Ø 08, 10, 12, 16 mm



335.18 insert
Width 14–30,5 mm



AC..1506 insert
Width 20–29,2 mm



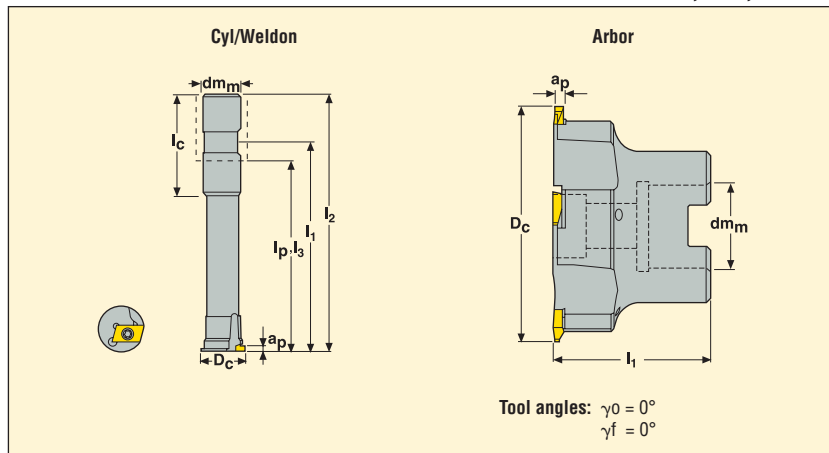
AP..1604 insert
Width 22–31 mm

For circlip grooves milling cutter R335.15

Width 1,6–5,15 mm



- For insert selection and cutting data recommendations, see page 52.
- For complete insert programme, see page 71.



ap*	Part No.	Dimensions in mm										Type of mounting	
		Dc	dm	l1	l2	lp	l3	lc					
1,60–2,65	R335.15 -20024.3-03-1	24	20	–	130	80	80	50	1	0,5	28200	Cyl/Weldon	R335.15-13..
1,60–2,65	-25034.3-03-2	34	25	–	130	74	74	56	2	0,5	23600	Cyl/Weldon	R335.15-13..
1,60–2,65	R335.15 -063-03.22-5	63	22	40	–	–	–	–	5	0,5	17300	Arbor	R335.15-13..
3,15–5,15	-0636-05.22-5	63	22	40	–	–	–	–	5	0,5	17300	Arbor	R335.15-18..

*Depends on the insert width

For groove depth (ar), please see insert page 71.

Spare parts

	Locking screw 	Key* 	Arbor screw
For cutter			
R335.15-20024-25034	C03509-T15P	T15P-3	–
R335.15 -063-	C03509-T15P	T15P-3	220.17-692

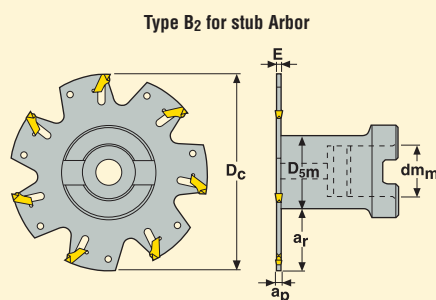
*Torque value 3,0 Nm. Dynamometric keys, see Machining Navigator.

Dimensions of mounting

	For cutter	Dimensions in mm			
		dm	D5m	Bkw	c
	R335.15 -063-	22	40	10,4	6,3

Please check availability in current price and stock-list.

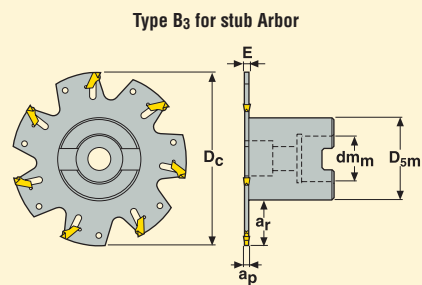
Width 2,25–4,1 mm, full side



Tool angles: $\gamma_0 = +20^\circ$

* Cutter dia 80 and 100 mm with spacer collars DIN2084/B. Cutter dia >100 mm refers to Seco drive rings, see page 27.
Please check availability in current price and stock-list.

Width 2,25–4,1 mm, full side

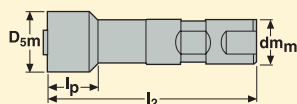


Tool angles: $\gamma_0 = +20^\circ$

[illegible]

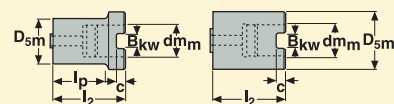
26

Holder for type B₁



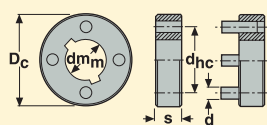
Part No.	dm _m	D _{5m}	l ₂	l _p
335.10-25.3	25	32	106	25
335.10-32.3	32	40	150	30

Holder for type B₂



Part No.	dm _m	D _{5m}	l ₂	l _p	B _{kw}	c
335.10-2232	22	32	50	36	10,4	6,3
335.10-2240	22	40	50	–	10,4	6,3

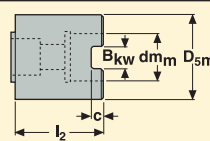
Drive rings for type A



Part No.	D _c	dm _m	d _{hc}	d	s
335.10-14532	55	32	45	6	10
335.10-16340	80	40	63	11	12

Drive ring to be ordered separately.

Holder for type B₃



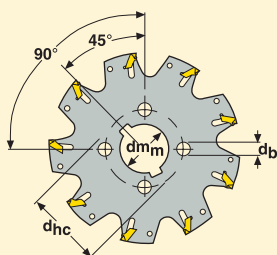
Part No.	dm _m	D _{5m}	l ₂	B _{kw}	c
335.10-2748	27	48	50	12,4	7
335.10-3258	32	58	63	14,4	8
335.10-4080	40	80	63	16,4	9

Spare parts

For cutter	Insert removal key
335.10-	150.10-150

Key to be ordered separately

Dimensions of mounting



For cutter	dm _m	Dimensions in mm	
		d _{hc}	d _b
335.10-080	22	–	–
335.10-100	27	–	–
335.10-125	32	45	6
335.10-160-315	40	63	11

Please check availability in current price and stock-list.

Disc milling cutter 335.10- spare parts

Assembly alternatives/Standard parts for type B₁

Spare parts

Part No.	Standard parts		Assembly screw	Key
	Cutter body Part No.	Holder Part No.		
R335.10 -25063.3-02-5	B-R335.10-063.10-02	335.10-25.3	 335.10-0516-T15P	 T15P-3
-32080.3-02-6	B-R335.10-080.18-02	335.10-32.3		
-25063.3-03-5	B-R335.10-063.10-03	335.10-25.3		
-32080.3-03-6	B-R335.10-080.18-03	335.10-32.3		
-25063.3-04-5	B-R335.10-063.10-04	335.10-25.3		
-32080.3-04-6	B-R335.10-080.18-04	335.10-32.3		

Key to be ordered separately.

Assembly alternatives/Standard parts for type B₂

Spare parts

Part No.	Standard parts		Assembly screw	Key	Arbor screw
	Cutter body Part No.	Holder Part No.			
R335.10 -063-02.22-5	B-R335.10-063.10-02	335.10-2232	 335.10-0516-T15P	 T15P-3	 220.17-696
-080-02.22-6	B-R335.10-080.18-02	335.10-2240			
-063-03.22-5	B-R335.10-063.10-03	335.10-2232			
-080-03.22-6	B-R335.10-080.18-03	335.10-2240			
-063-04.22-5	B-R335.10-063.10-04	335.10-2232			
-080-04.22-6	B-R335.10-080.18-04	335.10-2240			

Key to be ordered separately.

Assembly alternatives/Standard parts for type B₃

Spare parts

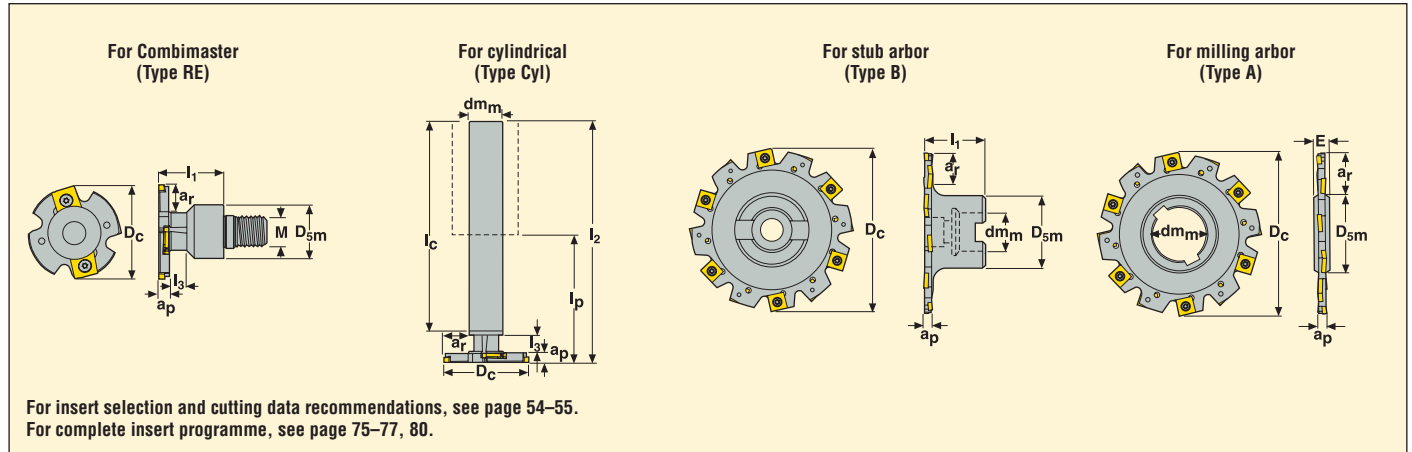
Part No.	Standard parts		Assembly screw 	Key 	Arbor screw 
	Cutter body Part No.	Holder Part No.			
			335.10-0516-T15P	T15P-3	MC6S 12x40
R335.10 -100-02.27-7	B-R335.10-100.27-02	335.10-2748			
-100-03.27-7	B-R335.10-100.27-03	335.10-2748			
-100-04.27-7	B-R335.10-100.27-04	335.10-2748			
-125-02.32-9	B-R335.10-125.32-02	335.10-3258			
-125-03.32-9	B-R335.10-125.32-03	335.10-3258			
-125-04.32-9	B-R335.10-125.32-04	335.10-3258	335-10-1030-T30P	T30P-4	MC6S 20x40
-160-02.40-12	B-R335.10-160.40-02	335.10-4080			
-160-03.40-12	B-R335.10-160.40-03	335.10-4080			
-160-04.40-12	B-R335.10-160.40-04	335.10-4080			

Please check availability in current price and stock-list.

Key to be ordered separately.

Cutter 335.19 – Insert 335.19/SNHQ

Width 4–5 – Full side

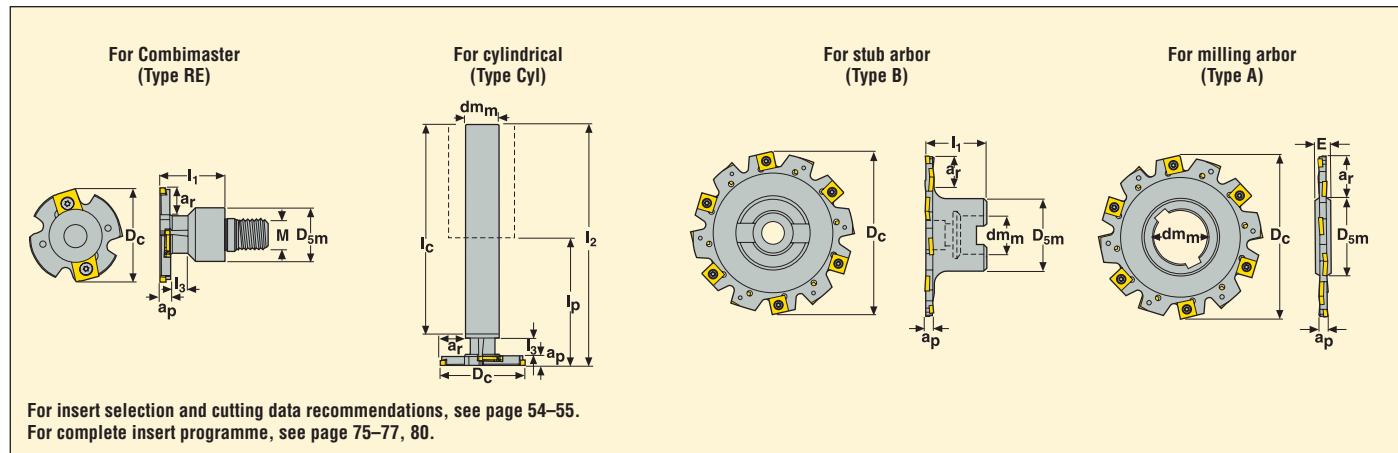


Type	ap	ar	Part No.	Dimensions in mm								Zc*			() = No. Of inserts	
				Dc	dmm	E/l2	l1/lp	D5m	l3/lc	M						
Cyl	4	13,8	R335.19 -2550.0-4.2	50	25	150	94	—	11/110	—	4	2	0,6	19100	1102...R4(2)	1102...L4(2)
RE	4	14,0	-1650.RE-04.2	50	—	—	35	30	11,3	M16	4	2	0,2	19100	1102...R4(2)	1102...L4(2)
Cyl	4	13,8	-3263.0-4.4	63	32	170	110	—	-/148	—	8	4	0,3	17100	1102...R4(4)	1102...L4(4)
RE	4	13,8	-1663.RE-04.4	63	—	—	35	30	11	M16	8	4	0,3	17100	1102...R4(4)	1102...L4(4)
B	4	13,8	-063.04.16-4	63	16	—	35	33	—	—	8	4	0,3	17100	1102...R4(2)	1102...L4(2)
B	4	10,5	-063.04.22-3	63	22	—	50	40	—	—	6	3	0,5	17100	1102...R4(3)	1102...L4(3)
A	4	13,5	335.19 -063.04.22-4	63	22	8	—	33	—	—	8	4	0,5	17100	1102...R4(4)	1102...L4(4)
Cyl	4	22,0	R335.19 -3280.0-4.5	80	32	170	110	—	148	—	10	5	1,2	15200	1102...R4(5)	1102...R4(5)
B	4	20,0	-080.04.22-4	80	22	—	50	40	—	—	8	4	0,6	15200	1102...R4(4)	1102...L4(4)
B	4	22,3	-080.04.22-5	80	22	—	50	40	11	—	10	5	0,6	15200	1102...R4(5)	1102...R4(5)
A	4	20,0	335.19 -080.04.22-4	80	22	12	—	32	—	—	8	4	0,2	15200	1102...R4(4)	1102...L4(4)
A	4	20,0	-080.04.22-5	80	22	12	—	32	—	—	10	5	0,2	15200	1102...R4(5)	1102...R4(5)
B	4	24,2	R335.19 -100.04.27-6	100	27	—	50	48	—	—	12	6	0,7	13500	1102...R4(6)	1102...L4(6)
A	4	26,0	335.19 -100.04.27-6	100	27	12	—	41	—	—	12	6	0,2	13500	1102...R4(6)	1102...L4(6)
B	4	29,6	R335.19 -125.04.32-7	125	32	—	50	58	—	—	14	7	1,0	12200	1102...R4(7)	1102...L4(7)
A	4	31,0	335.19 -125.04.40-7	125	40	12	—	55	—	—	14	7	0,5	12200	1102...R4(7)	1102...L4(7)
B	4	41,0	R335.19 -160.04.40-9	160	40	—	50	70	—	—	18	9	1,2	10700	1102...R4(9)	1102...L4(9)
A	4	44,0	335.19 -160.04.40-9	160	40	12	—	65	—	—	18	9	0,7	10700	1102...R4(9)	1102...L4(9)
Cyl	5	13,8	R335.19 -2550.0-5.2	50	25	150	94	—	10/110	—	4	2	0,6	16800	1103...R4(2)	1103...L4(2)
RE	5	14,0	-1650.RE-05.2	50	—	—	35	28	10,3	M16	4	2	0,2	16800	1103...R4(2)	1103...L4(2)
Cyl	5	13,8	-3263.0-5.4	63	32	170	110	—	-/160	—	8	4	1,3	14900	1103...R4(4)	1103...L4(4)
RE	5	13,8	-1663.RE-05.4	63	—	—	35	30	10	M16	8	4	0,3	14900	1103...R4(4)	1103...L4(4)
B	5	13,8	-063.05.16-4	63	16	—	35	33	—	—	8	4	0,3	14900	1103...R4(2)	1103...L4(2)
B	5	10,5	-063.05.22-3	63	22	—	50	40	—	—	6	3	0,5	14900	1103...R4(3)	1103...L4(3)
A	5	14,0	335.19 -063.05.22-4	63	22	8	—	32	—	—	8	4	0,5	14900	1103...R4(4)	1103...L4(4)
Cyl	5	22,0	R335.19 -3280.0-5.5	80	32	170	110	—	-/160	—	10	5	1,2	13200	1103...R4(5)	1103...L4(5)
B	5	20,0	-080.05.22-4	80	22	—	50	40	—	—	8	4	0,6	13200	1103...R4(4)	1103...L4(4)
B	5	22,3	-080.05.22-5	80	22	—	50	40	—	—	10	5	0,6	13200	1103...R4(5)	1103...L4(5)
A	5	18,0	335.19 -080.05.22-4	80	22	12	—	32	—	—	8	4	0,2	13200	1103...R4(4)	1103...L4(4)
A	5	20,0	-080.05.22-5	80	22	12	—	33	—	—	10	5	0,2	13200	1103...R4(5)	1103...L4(5)
B	5	24,2	R335.19 -100.05.27-6	100	27	—	50	48	—	—	12	6	0,7	11800	1103...R4(6)	1103...L4(6)
A	5	26,0	335.19 -100.05.27-6	100	27	12	—	41	—	—	12	6	0,3	11800	1103...R4(6)	1103...L4(6)
B	5	29,6	R335.19 -125.05.32-7	125	32	—	50	58	—	—	14	7	1,0	10700	1103...R4(7)	1103...L4(7)
A	5	31,0	335.19 -125.05.40-7	125	40	12	—	55	—	—	14	7	0,5	10700	1103...R4(7)	1103...L4(7)
B	5	41,0	R335.19 -160.05.40-9	160	40	—	50	70	—	—	18	9	1,2	9300	1103...R4(9)	1103...L4(9)
A	5	44,0	335.19 -160.05.40-9	160	40	12	—	65	—	—	18	9	0,7	9300	1103...R4(9)	1103...L4(9)

*Effective number of teeth.
For shanks and dimensions, see Combimaster chapter in MN part 2
Please check availability in current price and stock-list

Cutter 335.19 – Insert 335.19/SNHQ

Width 6–10 – Full side



Type	ap	ar	Part No.	Dimensions in mm								Zc*			() = No. Of inserts	
				Dc	dmm	E/l2	l1/lp	D5m	l3/lc	M					Inserts Right hand SNHQ	Inserts Left hand SNHQ
RE	6	13.8	R335.19 -1650.RE-06.2	50	—	—	35	28	9.3	M16	4	2	0.2	12300	1203...R.(2)	1203...L.(2)
Cyl	6	13.8	R335.19 -2550.0-6.2	50	25	150	94	—	9/110	—	4	2	0.6	12300	1203...R.(2)	1203...L.(2)
Cyl	6	13.8	-3263.0-6.3	63	32	170	110	—	-/160	—	6	3	1.2	10900	1203...R.(3)	1203...L.(3)
RE	6	13.8	-1663.RE-06.3	63	—	—	35	30	9	M16	6	3	0.3	10900	1203...R.(3)	1203...L.(3)
B	6	13.9	-063.06.16-3	63	16	—	35	33	—	—	6	3	0.3	10900	1203...R.(3)	1203...L.(3)
B	6	13.9	-063.06.22-3	63	22	—	50	40	—	—	6	3	0.5	10900	1203...R.(3)	1203...L.(3)
A	6	10.5	335.19 -063.06.22-3	63	22	12	—	40	—	—	6	3	0.4	10900	1203...R.(3)	1203...L.(3)
Cyl	6	22.0	R335.19 -3280.0-6.4	80	32	170	110	—	-/160	—	8	4	1.2	9700	1203...R.(4)	1203...L.(4)
B	6	22.0	-080.06.22-4	80	22	—	50	40	—	—	8	4	0.6	9700	1203...R.(4)	1203...L.(4)
A	6	21.0	335.19 -080.06.22-4	80	22	12	—	32	—	—	8	4	0.2	9700	1203...R.(4)	1203...L.(4)
B	6	23.0	R335.19 -100.06.27-5	100	27	—	50	48	—	—	10	5	0.7	8700	1203...R.(5)	1203...L.(5)
A	6	26.0	335.19 -100.06.27-5	100	27	12	—	41	—	—	10	5	0.3	8700	1203...R.(5)	1203...L.(5)
B	6	29.0	R335.19 -125.06.32-6	125	32	—	50	58	—	—	12	6	1.0	7700	1203...R.(6)	1203...L.(6)
B	6	24.5	-125.06.40-6	125	40	—	50	70	—	—	12	6	1.5	7700	1203...R.(6)	1203...L.(6)
A	6	31.0	335.19 -125.06.40-6	125	40	12	—	55	—	—	12	6	0.5	7700	1203...R.(6)	1203...L.(6)
B	6	40.5	R335.19 -160.06.40-8	160	40	—	50	70	—	—	16	8	2.0	6800	1203...R.(8)	1203...L.(8)
A	6	44.0	335.19 -160.06.40-8	160	40	12	—	65	—	—	16	8	0.8	6800	1203...R.(8)	1203...L.(8)
A	6	62.0	-200.06.50-9	200	50	12	—	69	—	—	18	9	1.6	6300	1203...R.(9)	1203...L.(9)
A	6	87.0	-250.06.50-12	250	50	12	—	69	—	—	24	12	3.3	5600	1203...R.(12)	1203...L.(12)
B	7/8**	13.8	R335.19 -063.07.16-3	63	16	—	35	33	—	—	6	3	0.5	9400	1204...R./-12045...R.(3)	1204...L./-12045...L.(3)
B	7/8**	10.5	-063.07.22-3	63	22	—	50/50.5	40	—	—	6	3	0.5	9400	1204...R./-12045...R.(3)	1204...L./-12045...L.(3)
B	7/8**	20.0	-080.07.22-4	80	22	—	50/50.5	40	—	—	8	4	0.6	8400	1204...R./-12045...R.(4)	1204...L./-12045...L.(4)
A	7/8**	21.0	335.19 -080.07.22-4	80	22	12	—	32	—	—	8	4	0.2	8400	1204...R./-12045...R.(4)	1204...L./-12045...L.(4)
B	7/8**	24.2	R335.19 -100.07.27-5	100	27	—	50/50.5	48	—	—	10	5	0.8	7500	1204...R./-12045...R.(5)	1204...L./-12045...L.(5)
A	7/8**	27.0	335.19 -100.07.27-5	100	27	12	—	41	—	—	10	5	0.4	7500	1204...R./-12045...R.(5)	1204...L./-12045...L.(5)
B	7/8**	29.6	R335.19 -125.07.32-6	125	32	—	50	58	—	—	12	6	1.2	6700	1204...R./-12045...R.(6)	1204...L./-12045...L.(6)
B	7/8**	23.7	-125.07.40-6	125	40	—	50/50.5	70	—	—	12	6	1.5	6700	1204...R./-12045...R.(6)	1204...L./-12045...L.(6)
A	7/8**	32.0	335.19 -125.07.40-6	125	40	12	—	55	—	—	12	6	0.5	6700	1204...R./-12045...R.(6)	1204...L./-12045...L.(6)
B	7/8**	41.2	R335.19 -160.07.40-8	160	40	—	50/50.5	70	—	—	16	8	2.0	5900	1204...R./-12045...R.(8)	1204...L./-12045...L.(8)
A	7/8**	45.0	335.19 -160.07.40-8	160	40	12	—	65	—	—	16	8	0.8	5900	1204...R./-12045...R.(8)	1204...L./-12045...L.(8)
A	7/8**	63.0	-200.07.50-9	200	50	12	—	69	—	—	18	9	1.7	5200	1204...R./-12045...R.(9)	1204...L./-12045...L.(9)
A	7/8**	88.0	-250.07.50-12	250	50	12	—	69	—	—	24	12	3.3	4700	1204...R./-12045...R.(12)	1204...L./-12045...L.(12)
B	10	24.2	R335.19 -100.10.27-5	100	27	—	50	48	—	—	10	5	0.8	6600	1205...R.(5)	1205...L.(5)
A	10	28.0	335.19 -100.10.27-5	100	27	12	—	41	—	—	10	5	0.4	6600	1205...R.(5)	1205...L.(5)
B	10	29.6	R335.19 -125.10.32-6	125	32	—	50	58	—	—	12	6	1.2	6000	1205...R.(6)	1205...L.(6)
B	10	23.7	-125.10.40-6	125	40	—	50	78	—	—	12	6	1.5	6000	1205...R.(6)	1205...L.(6)
A	10	33.0	335.19 -125.10.40-6	125	40	12	—	55	—	—	12	6	0.6	6000	1205...R.(6)	1205...L.(6)
B	10	41.2	R335.19 -160.10.40-8	160	40	—	50	70	—	—	16	8	2.1	5200	1205...R.(8)	1205...R.(8)
A	10	46.0	335.19 -160.10.40-8	160	40	12	—	65	—	—	16	8	1.1	5200	1205...R.(8)	1205...R.(8)
A	10	64.0	-200.10.50-9	200	50	12	—	69	—	—	18	9	1.7	4700	1205...R.(9)	1205...L.(9)
A	10	88.0	-250.10.50-12	250	50	12	—	69	—	—	24	12	3.3	4200	1205...R.(12)	1205...L.(12)

*Effective number of teeth.

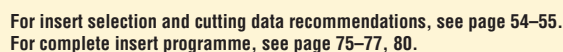
For shanks and dimensions, see Combimaster chapter in MN part 2

Please check availability in current price and stock-list

** For ap = 7 mm use insert SNHQ 1204..., l1 = 50,5 mm.

For ap = 8 mm use insert SNHQ 12045..., l1 = 50 mm.

Width 12-14 – Full side



Please check availability in current price and stock-list

X = SNHQ 4 edges
○ = SNHQ 2 edges
□ = Full radius possibilities

Locking screw/Key

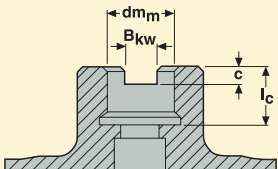
	Locking screw	Key*	Torque value Nm
For ap			
4	C93504-T09P	T09P3	2,0
5	C93505-T09P	T09P3	2,0
6	C94005-T15P	T15P3	3,5
7/8	C94006-T15P	T15P3	3,5
10	C94008-T15P	T15P3	3,5
12	C94010-T15P	T15P3	3,5
14	C94008-T15P	T15P3	3,5

* Dynamomentic keys, see Machining Navigator.

Arbor screw for type B

	Arbor screw	
For cutter Ø		dmm
63mm	TCEI 0825	16
63mm	MC6S 10x40	22
80mm	MC6S 12x35	22
100mm	MC6S 12x35	27
125mm	220.17-634	32
125mm	-	40
160mm	-	40

Dimensions of mounting

	Dimensions in mm				
	For cutter	dmm	Bkw	c	lc
	R335.19 -063	16	8,4	5,6	18
	-063	22	10,4	6,3	20
	-080	22	10,4	6,3	20
	-100	27	12,4	7	22
	-125	32	14,4	8	32
	-125	40	16,4	9	30
	-160	40	16,4	9	30

Please check availability in current price- and stock-list.

LNK 05 / 06 / 08 inserts



LNK..05
For width 8–10



LNK..06
For width 10–12



LNK..08
For width 12–15

LNK.06 and LNK.08 have the same size, but LNK.06 have a reduced cutting length (6 mm) to decrease cutting forces for $a_p = 10\text{--}12$ mm. LNK.08 have a cutting length = 7,5 mm for width 12 to 15.

Radius possibilities/Number of cutting edges

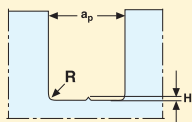
		R	Fixed pocket version: $a_p =$						Adjustable version a_p range =			
			8	10	12	14	17	20	8	10	12	15
4 cutting edges 	LNK. 0504 04	0,4	X	X					○	○		
	08	0,8	X	X					○	○		
	16	1,6	X	X					○	○		
	20	2,0	X	X					○	○		
	LNK. 0605 04	0,4		X	X		X			□	○	
	08	0,8		X	X		X			□	○	
	16	1,6		X	X		X			□	○	
	LNK. 0805 04	0,4		□	□	X	□	X			□	○
	08	0,8		□	□	X	□	X			□	○
	16	1,6		□	□	X	□	X			□	○
	20	2,0		X	X	X	X	X		□	○	○
	24	2,4		X	X	X	X	X		□	○	○
2 cutting edges 	LNK. 0504 24	2,4	X	X					○	○		
	LNK. 0605 31	3,1		X	X		X			□	○	
	LNK. 0805 31	3,1		□	□	X	□	X			□	○
1 cutting edge (right and left insert) 	LNK. 0504 31	3,1	X	X					□	○		
	LNK. 0605 40	4,0		X	X		X			○	○	
	LNK. 0805 40	4,0		□	□	X	□	X			□	○

X = First choice in fixed pocket

□ = Alternative choice

○ = First choice for long overhang machining

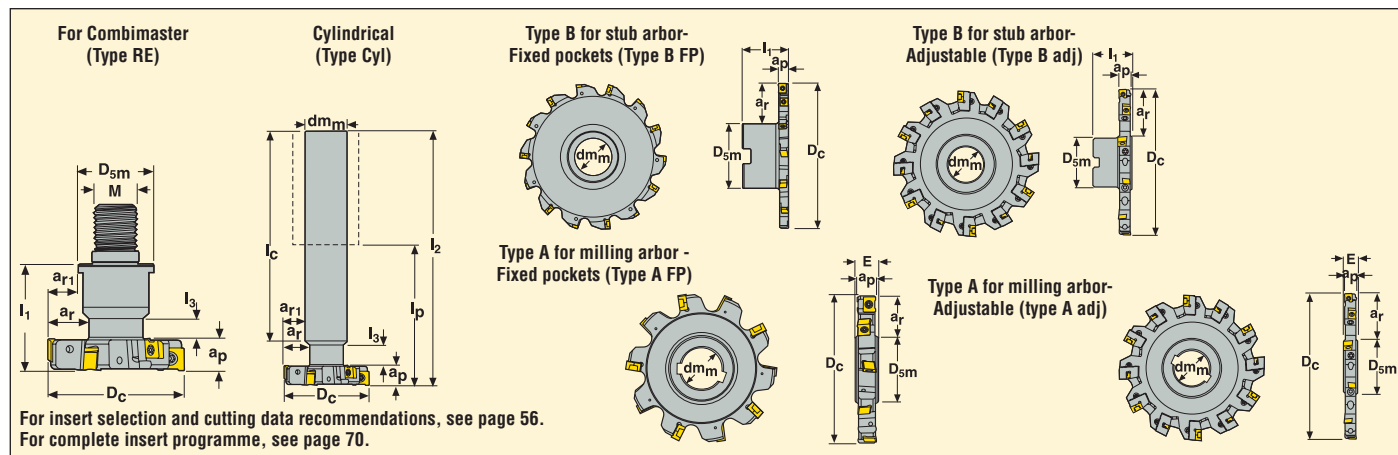
Width and profile generated with LNK 06/08 radii R1.6/R2.0 and R2.4



a_p (mm)	H (mm)	
	Radius 1,6	Radii 2 and 2,4
13,4	—	0
14	—	0,03
14,2	0	0,07
14,5	0,01	0,13
15	0,1	0,3

Cutter 335.18 – Insert LNK

Width 8–12 – Full side



Type	ap	ar	ar1	Part No.	Dimensions in mm											Zc*			Insert
					Dc	dmm	E	l1	l2	lp	l3	lc	D5m	M					
CYL	8	9,0	8,0	R335.18 -1632.0-08.1N	32	16	—	—	140	92	23	108	—	—	2	1	0,3	17300	LNK.05..
CYL	8	12,0	10,0	-2040.0-08.2N	40	20	—	—	140	90	22	108	—	—	4	2	0,4	15400	LNK.05..
CYL	8	15,0	12,5	-2550.0-08.3N	50	25	—	—	150	94	29,5	110	—	—	6	3	0,6	13800	LNK.05..
RE	8	15,0	22,0	-1650.RE-08.3N	50	—	—	35	—	—	12	—	28	M16	6	3	0,2	13800	LNK.05..
CYL	8	15,5	15,5	-3263.0-08.3N	63	32	—	—	170	110	—	162	—	—	6	3	1,1	12300	LNK.05..
B FP	8	15,0	11,5	-063.08.22-3N	63	22	—	50	—	—	28,9	—	40	—	6	3	0,4	12300	LNK.05..
B FP	8	23,5	20,0	-080.08.22-4N	80	22	—	50	—	—	28,9	—	40	—	8	4	0,4	10900	LNK.05..
A FP	8	19,2	—	335.18 -080.08.27-4N	80	27	15	—	—	—	—	—	41	—	8	4	0,2	10900	LNK.05..
A FP	8	27,9	—	-100.08.27-5N	100	27	15	—	—	—	—	—	41	—	10	5	0,4	9700	LNK.05..
B FP	8	26,0	—	R335.18 -100.08.27-5N	100	27	—	50	—	—	—	—	48	—	10	5	0,8	9700	LNK.05..
B adj	08-10	26,0	—	-100.0810.27-4N**	100	27	—	50	—	—	—	—	48	—	8	4	0,8	9400	LNK.05..
A adj	08-10	27,5	—	335.18 -100.0810.27-4N**	100	27	15	—	—	—	—	—	41	—	8	4	0,4	9400	LNK.05..
B FP	8	34,0	—	R335.18 -125.08.32-6N	125	32	—	50	—	—	—	—	58	—	12	6	0,9	8400	LNK.05..
A FP	8	33,4	—	335.18 -125.08.40-6N	125	40	15	—	—	—	—	—	55	—	12	6	0,7	8400	LNK.05..
B adj	08-10	33,5	—	R335.18 -125.0810.32-5N**	125	32	—	50	—	—	—	—	58	—	10	5	1,0	8400	LNK.05..
A adj	08-10	33,0	—	335.18 -125.0810.40-5N**	125	40	15	—	—	—	—	—	55	—	10	5	0,6	8400	LNK.05..
B adj	08-10	45,0	—	R335.18 -160.0810.40-6N**	160	40	—	50	—	—	—	—	70	—	12	6	1,7	7500	LNK.05..
A adj	08-10	50,5	—	335.18 -160.0810.40-6N**	160	40	15	—	—	—	—	—	55	—	12	6	1,1	7500	LNK.05..
A adj	08-10	63,5	—	-200.0810.50-8N**	200	50	15	—	—	—	—	—	69	—	16	8	1,8	6700	LNK.05..
B adj	08-10	55,0	—	R335.18 -200.0810.40-8N**	200	40	—	50	—	—	—	—	90	—	16	8	3,0	6700	LNK.05..
A adj	08-10	88,5	—	335.18 -250.0810.50-9N**	250	50	15	—	—	—	—	—	69	—	18	9	2,8	6000	LNK.05..
CYL	10	9,0	8,0	R335.18 -1632.0-10.1N-LN05	32	16	—	—	140	92	21	108	—	—	2	1	0,3	17300	LNK.05..
CYL	10	12,0	10,0	-2040.0-10.2N-LN05	40	20	—	—	140	90	20	108	—	—	4	2	0,4	15400	LNK.05..
CYL	10	12,0	10,0	-2040.0-10.2N	40	20	—	—	140	90	20	108	—	—	4	2	0,4	14900	LNK.06..
CYL	10	15,0	12,5	-2550.0-10.3N	50	25	—	—	150	94	27,5	110	—	—	6	3	0,6	13400	LNK.06..
RE	10	15,0	11,0	-1650.RE-10.3N	50	—	—	35	—	—	10	—	28	M16	6	3	0,2	13400	LNK.06..
Cyl	10	15,5	15,5	-3263.0-10.3N	63	32	—	—	—	110	—	160	—	—	6	3	1,2	11900	LNK.06..
B FP	10	15,0	11,5	-063.10.22-3N	63	22	—	50	—	—	27	—	40	—	6	3	0,4	11900	LNK.06..
CYL	10	24,0	24,0	-3280.0-10.4N	80	32	—	—	170	110	—	160	—	—	8	4	1,3	10500	LNK.06..
B FP	10	23,5	20,0	-080.10.22-4N	80	22	—	50	—	—	27	—	40	—	8	4	0,5	10500	LNK.06..
A FP	10	16,0	—	335.18 -080.10.27-4N	80	27	15	—	—	—	—	—	41	—	8	4	0,2	10500	LNK.06..
B adj	10-12	16,0	—	R335.18 -080.1012.27-3N***	80	27	—	50	—	—	—	—	48	—	6	3	0,6	10500	LNK.06..
B FP	10	26,0	—	-100.10.27-5N	100	27	—	50	—	—	—	—	48	—	10	5	0,8	9400	LNK.06..
A FP	10	26,0	—	335.19 -100.10.27-5N	100	27	15	—	—	—	—	—	41	—	10	5	0,4	9400	LNK.06..
B adj	10-12	26,0	—	R335.19 -100.1012.27-4N***	100	27	—	50	—	—	—	—	48	—	8	4	0,8	9400	LNK.06..
A adj	10-12	27,5	—	335.18 -100.1012.27-4N***	100	27	15	—	—	—	—	—	41	—	8	4	0,4	9400	LNK.06..
B FP	10	33,5	—	R335.18 -125.10.32-6N	125	32	—	50	—	—	—	—	58	—	12	6	1,0	8400	LNK.06..
A FP	10	32,0	—	335.18 -125.10.40-6N	125	40	15	—	—	—	—	—	55	—	12	6	0,7	8400	LNK.06..
B adj	10-12	33,5	—	R335.18 -125.1012.32-5N***	125	32	—	50	—	—	—	—	58	—	10	5	1,0	8400	LNK.06..
A adj	10-12	33,0	—	335.18 -125.1012.40-5N***	125	40	15	—	—	—	—	—	55	—	10	5	0,6	8400	LNK.06..
B adj	10-12	45,0	—	R335.18 -160.1012.40-6N***	160	40	—	50	—	—	—	—	70	—	12	6	1,7	7500	LNK.06..
A adj	10-12	50,5	—	335.18 -160.1012.40-6N***	160	40	15	—	—	—	—	—	55	—	12	6	1,1	7500	LNK.06..
B adj	10-12	55,0	—	R335.18 -200.1012.40-8N***	200	40	—	50	—	—	—	—	90	—	16	8	3,0	6700	LNK.06..
A adj	10-12	63,5	—	335.18 -200.1012.50-8N***	200	50	15	—	—	—	—	—	69	—	16	8	1,8	6700	LNK.06..
A adj	10-12	88,5	—	-250.1012.50-9N***	250	50	15	—	—	—	—	—	69	—	18	9	2,8	6000	LNK.06..

* Effective number of teeth

** The cutter is set to the minimum cutter width 8 mm +/-0,02 mm

*** The cutter is set to the minimum cutter width 10 mm +/-0,02 mm

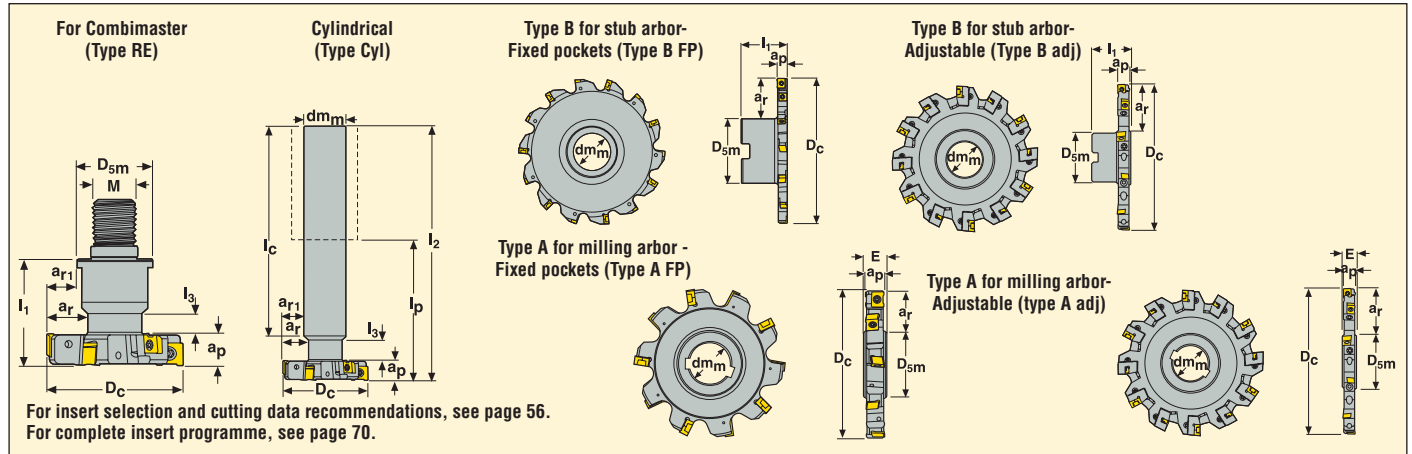
Please check availability in our current price and stock-list

A cutter may be ordered with the cutting width set to any value within its range, see page 50 for more information.

For shanks and dimensions, see the Combimaster chapter in MN Milling part 2.

Cutter 335.18 - Insert LNK

Width 12-15 – Full side



Type	ap	ar	ar ₁	Part No.	Dimensions in mm											Z _c *	 KG		Insert
					D _c	d _{mm}	E	l ₁	l ₂	l _p	l ₃	l _c	D _{5m}	M					
RE	12	15,0	11,0	R335.18 -1650.RE-12.3N	50	—	—	35	—	—	8	—	28	M16	6	3	0,2	13400	LNK.06..
CYL	12	15,0	12,5	-2550.0-12.3N	50	25	—	—	150	94	25,5	110	—	—	6	3	0,6	13400	LNK.06..
CYL	12	15,5	15,5	R335.18 -3263.0-12.3N	63	32	—	—	170	110	—	158	—	—	6	3	1,2	11900	LNK.06..
B FP	12	15,0	11,5	-063.12.22-3N	63	22	—	50	—	—	25	—	40	—	6	3	0,4	11900	LNK.06..
CYL	12	24,0	24,0	R335.18 -3280.0-12.4N	80	32	—	—	170	110	—	158	—	—	8	4	1,3	10500	LNK.06..
B FP	12	23,5	20,0	-080.12.22-4N	80	22	—	50	—	—	25	—	40	—	8	4	0,5	10500	LNK.06..
A FP	12	16,0	—	335.18 -080.12.27-4N	80	27	15	—	—	—	—	41	—	8	4	0,3	10500	LNK.06..	
B adj	12–15	16,0	—	R335.18 -080.1215.27-3N**	80	27	—	50	—	—	—	48	—	6	3	0,7	10500	LNK.08..	
B FP	12	26,0	—	R335.18 -100.12.27-5N	100	27	—	50	—	—	—	48	—	10	5	0,9	9400	LNK.06..	
A FP	12	26,0	—	335.18 -100.12.27-5N	100	27	15	—	—	—	—	41	—	10	5	0,4	9400	LNK.06..	
B adj	12–15	26,0	—	R335.18 -100.1215.27-4N**	100	27	—	50	—	—	—	48	—	8	4	0,9	9400	LNK.08..	
A adj	12–15	27,5	—	335.18 -100.1215.27-4N**	100	27	15	—	—	—	—	41	—	8	4	0,5	9400	LNK.08..	
B FP	12	33,5	—	R335.18 -125.12.32-6N	125	32	—	50	—	—	—	58	—	12	6	1,0	8400	LNK.06..	
A FP	12	32,0	—	335.18 -125.12.40-6N	125	40	15	—	—	—	—	55	—	12	6	0,7	8400	LNK.06..	
B adj	12–15	33,5	—	R335.18 -125.1215.32-5N**	125	32	—	50	—	—	—	58	—	10	5	1,1	8400	LNK.08..	
A adj	12–15	33,0	—	335.18 -125.1215.40-5N**	125	40	15	—	—	—	—	55	—	10	5	0,7	8400	LNK.08..	
B adj	12–15	45,0	—	R335.18 -160.1215.40-6N**	160	40	—	50	—	—	—	70	—	12	6	1,9	7500	LNK.08..	
A adj	12–15	50,5	—	335.18 -160.1215.40-6N**	160	40	15	—	—	—	—	55	—	12	6	1,8	7500	LNK.08..	
B adj	12–15	55,0	—	R335.18 -200.1215.40-8N**	200	40	—	50	—	—	—	90	—	16	8	3,3	6700	LNK.08..	
A adj	12–15	63,5	—	335.18 -200.1215.50-8N**	200	50	15	—	—	—	—	69	—	16	8	2,1	6700	LNK.08..	
A adj	12–15	88,5	—	335.18 -250.1215.50-9N**	250	50	15	—	—	—	—	69	—	18	9	3,6	6000	LNK.08..	
B FP	14	15,0	11,5	R335.18 -063.14.22-3N	63	22	—	50	—	—	23	—	40	—	6	3	0,5	11900	LNK.08..
B FP	14	23,5	20,0	R335.18 -080.14.22-4N	80	22	—	50	—	—	23	—	40	—	8	4	0,6	10500	LNK.08..
B FP	14	26,0	—	R335.18 -100.14.27-5N	100	27	—	50	—	—	—	48	—	10	5	0,9	9400	LNK.08..	
B FP	14	33,5	—	R335.18 -125.14.32-6N	125	32	—	50	—	—	—	58	—	12	6	1,1	8400	LNK.08..	
A FP	14	32,0	—	335.18 -125.14.40-6N	125	40	15	—	—	—	—	55	—	12	6	0,8	8400	LNK.08..	
A FP	14	49,0	—	335.18 160.14.40-7N	160	40	15	—	—	—	—	55	—	14	7	1,5	7500	LNK.08..	

* Effective number of teeth

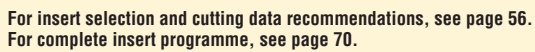
** The cutter is set to the minimum cutter width 12 mm +/-0,02 mm

Please check availability in our current price and stock-list

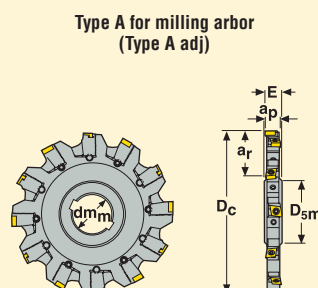
A cutter may be ordered with the cutting width set to any value within its range, see page 50 for more information.

For shanks and dimensions, see the Combimaster chapter in MN Milling part 2.

Width 17-20 - Full side



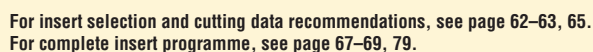
Please check availability in our current price and stock-list

Width 14-25 – Full side

Type	ap	ar	Part No.	Dimensions in mm						Zc*			Inserts	
				Dc	dmm	E/l2	l1/lp	D5m						
B adj	14-17	13	R335.18	-080.1416.27-3N**	80	27	-	50	48	6	3	0,7	9800	335,18-1005
B adj	14-17	24		-100.1416.27-4N**	100	27	-	50	48	8	4	1,1	8800	335,18-1005
B adj	14-18,5	25		-125.1418.40-4N	125	40	-	50	70	8	4	1,7	7800	335,18-1005
A adj	14-18,5	34	335.18	-125.1418.40-4N	125	40	18	-	56	8	4	1,0	7800	335,18-1005
B adj	14-18,5	44	R335.18	-160.1418.40-6N	160	40	-	50	70	12	6	2,7	6900	335,18-1005
A adj	14-18,5	50	335.18	-160.1418.40-6N	160	40	18	-	56	12	6	1,5	6900	335,18-1005
B adj	14-18,5	52	R335.18	-200.1418.40-7N	200	40	-	50	90	14	7	4,1	6100	335,18-1005
A adj	14-18,5	60	335.18	-200.1418.50-7N	200	50	18	-	71	14	7	2,0	6100	335,18-1005
B adj	14-18,5	58	R335.18	-250.1418.60-9N	250	60	-	50	130	18	9	7,5	5500	335,18-1005
A adj	14-18,5	85	335.18	-250.1418.50-9N	250	50	18	-	71	18	9	3,0	5500	335,18-1005
B adj	14-18,5	90	R335.18	-315.1418.60-12N	315	60	-	50	130	24	12	9,5	4900	335,18-1005
A adj	14-18,5	110	335.18	-315.1418.50-12N	315	50	18	-	71	24	12	4,0	4900	335,18-1005
B adj	18,5-21	13	R335.18	-080-1820.27-3N**	80	27	-	55	48	6	3	0,8	8400	335,18-1305
B adj	18,5-21	24		-100.1820.27-4N**	100	27	-	55	48	8	4	2,0	7600	335,18-1305
B adj	18,5-24,3	44		-160.1924.40-5N	160	40	-	50	70	10	5	3,0	5200	335,18-1305
A adj	18,5-24,3	50	335.18	-160.1924.40-5N	160	40	24	-	56	10	5	2,0	5200	335,18-1305
B adj	18,5-24,3	52	R335.18	-200.1924.40-6N	200	40	-	50	90	12	6	4,5	4700	335,18-1305
A adj	18,5-24,3	60	335.18	-200.1924.50-6N	200	50	24	-	71	12	6	2,5	4700	335,18-1305
B adj	18,5-24,3	58	R335.18	-250.1924.60-8N	250	60	-	50	130	16	8	8,0	4200	335,18-1305
A adj	18,5-24,3	85	335.18	-250.1924.50-8N	250	50	24	-	71	16	8	3,5	4200	335,18-1305
B adj	18,5-24,3	90	R335.18	-315.1924.60-10N	315	60	-	50	130	20	10	10,0	3700	335,18-1305
A adj	18,5-24,3	110	335.18	-315.1924.50-10N	315	50	24	-	71	20	10	4,5	3700	335,18-1305
B adj	20-24,5	43	R335.18	-160.1924.40-5N-15H	162	40	-	51,5	70	10	5	3,0	5200	AP..1604R/L
A adj	20-24	50	335.18	-160.1924.40-5N-15H	162	40	24	-	56	10	5	5,0	5200	AC..1506R/L
B adj	20-24,5	53	R335.18	-200.1924.40-6N-15H	202	40	-	51,5	90	12	6	4,5	4700	AC..1506R/L
A adj	20-24	60	335.18	-200.1924.50-6N-15H	202	50	24	-	71	12	6	2,5	4700	AC..1506R/L
B adj	20-24,5	57	R335.18	-250.1924.60-8N-15H	252	60	-	51,5	130	16	8	8,0	4200	AC..1506R/L

Please check availability in our current price and stock-list

Width 24,3–31 – Full side



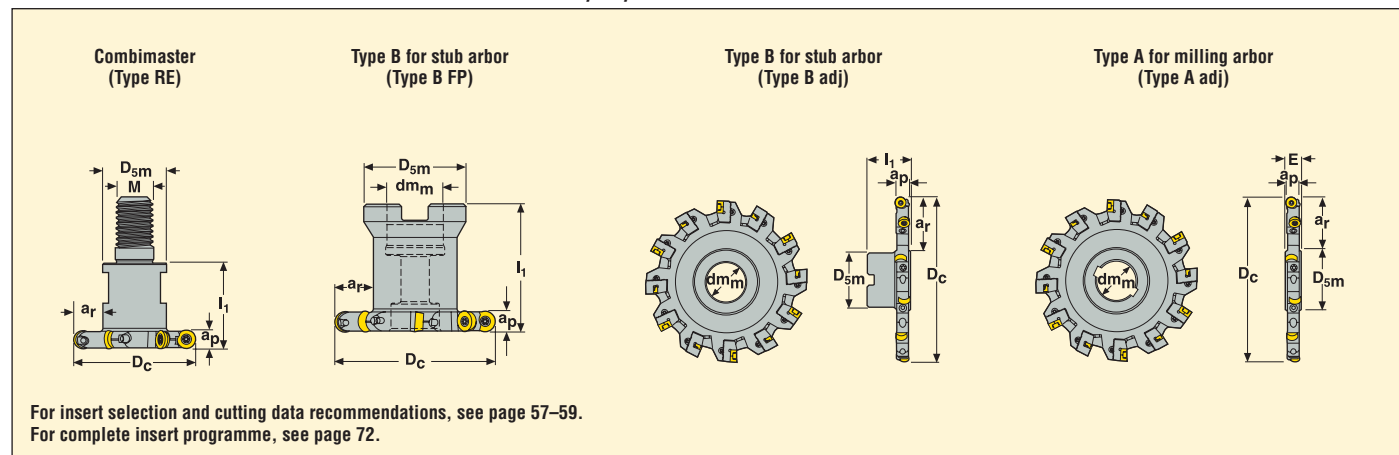
* Effective number of teeth
The cutter is set to the minimum cutter width 24,3/24,5/25 mm +/-0,02 mm

A cutter may be ordered with the cutting width set to any value within its range,
see page 50 for more information.

Please check availability in our current price and stock-list

Cutters 335.29 and 335.18 with round inserts 06/08/10

Width 6–12 – Full radius profiling



Type	ap	ar	Part No.	Dimensions in mm							Zc*			Insert
				Dc	dmm	E	l1	Dsm	M					
RE	6	8,5	R335.29 -1240.RE-06.6N-R3	40	–	–	30	23	M12	6	6	0,2	33700	RD..06
RE	6	10,0	-1650.RE-06.8N-R3	50	–	–	35	30	M16	8	8	0,2	30200	RD..06
RE	8	10,0	R335.29 -1650.RE-08.6N-R4	50	–	–	35	30	M16	6	6	0,2	20200	RD..08
B FP	8	10,5	-063-08.22.8N-R4	63	22	–	80	40	–	8	8	0,5	17000	RD..08
A adj	8-10	27,5	335.18 -100.0810.27-8N-R4	100	27	15	–	41	–	8	8	0,2	9400	RD..08
B adj	8-10	26,0	R335.18 -100.0810.27-8N-R4	100	27	–	48	41	–	8	8	0,5	9400	RD..08
A adj	8-10	33,0	335.18 -125.0810.40-10N-R4	125	40	15	–	55	–	10	10	0,8	8400	RD..08
B adj	8-10	33,5	R335.18 -125.0810.32-10N-R4	125	32	–	58	55	–	10	10	1,0	8400	RD..08
A adj	8-10	50,5	335.18 -160.0810.40-12N-R4	160	40	15	–	55	–	12	12	1,0	7500	RD..08
B adj	8-10	45,0	R335.18 -160.0810.40-12N-R4	160	40	–	70	55	–	12	12	1,2	7500	RD..08
A adj	8-10	63,5	335.18 -200.0810.50-16N-R4	200	50	15	–	69	–	16	16	1,7	6700	RD..08
B adj	8-10	55,0	R335.18 -200.0810.40-16N-R4	200	40	–	90	69	–	16	16	2,0	6700	RD..08
A adj	8-10	88,5	335.18 -250.0810.50-18N-R4	250	50	15	–	69	–	18	18	3,0	6000	RD..08
B FP	10	10,5	R335.29 -063-10.22.6N-R5	63	22	–	50	40	–	6	6	0,5	13500	RD..10T3
B FP	10	20,0	-080-10.27.8N-R5	80	27	–	50	40	–	8	8	0,6	12000	RD..10T3
B adj	10-12	17,0	R335.18 -080.1012.27-3N-R5	82	27	–	50	48	–	6	3	0,6	10500	RD..10T3
B adj	10-12	27,0	-100.1012.27-4N-R5	102	27	–	50	48	–	8	4	0,8	9400	RD..10T3
A adj	10-12	28,5	335.18 -100.1012.27-4N-R5	102	27	15	–	41	–	8	4	0,4	9400	RD..10T3
B adj	10-12	34,5	R335.18 -125.1012.32-5N-R5	127	32	–	50	58	–	10	5	1,1	8400	RD..10T3
A adj	10-12	34,0	335.18 -125.1012.40-5N-R5	127	40	15	–	55	–	10	5	0,6	8400	RD..10T3
B adj	10-12	46,0	R335.18 -160.1012.40-6N-R5	162	40	–	50	70	–	12	6	1,7	7500	RD..10T3
A adj	10-12	51,5	335.18 -160.1012.40-6N-R5	162	40	15	–	55	–	12	6	1,1	7500	RD..10T3
B adj	10-12	56,0	R335.18 -200.1012.40-8N-R5	202	40	–	50	90	–	16	8	3,1	6700	RD..10T3
A adj	10-12	64,5	335.18 -200.1012.50-8N-R5	202	50	15	–	69	–	16	8	1,8	6700	RD..10T3
A adj	10-12	89,5	-250.1012.50-9N-R5	252	50	15	–	69	–	18	9	2,9	6000	RD..10T3

* Effective number of teeth

Profile machined with round inserts

Round 8

Round 10

		ap mm	Profile height H mm	ap mm	Profile height H mm
ap min		8,03	0	10,03	0
		8,50	0	10,50	0
		9,00	0,03	11,00	0,025
		9,50	0,07	11,50	0,060
ap max		10,00	0,13	12,00	0,100

Please check availability in current price and stock-list

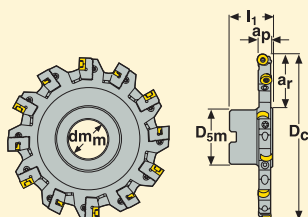
Recommended minimum cutter setting width is 8,03 mm

Recommended minimum cutter setting width is 10,03 mm

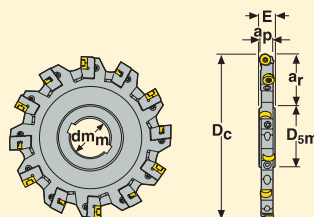
Cutter 335.18 with round inserts 12/16

Width 12–16 – Full radius profiling

Type B for stub arbor
(Type B adj)



Type A for milling arbor
(Type A adj)



For insert selection and cutting data recommendations, see page 60–61.
For complete insert programme, see page 73–74.

Type	ap	ar	Part No.	Dimensions in mm							Zc*			Insert
				Dc	dmm	E	I1	D5m	M					
B adj	12-15	17,0	R335.18 -080.1215.27-3N-R6	82	27	—	50	48	—	6	3	0,7	10500	RP..1204
B adj	12-15	27,0	-100.1215.27-4N-R6	102	27	—	50	48	—	8	4	0,9	9400	RP..1204
A adj	12-15	28,5	335.18 -100.1215.27-4N-R6	102	27	15	—	41	—	8	4	0,5	9400	RP..1204
B adj	12-15	34,5	R335.18 -125.1215.32-5N-R6	127	32	—	50	58	—	10	5	1,1	8400	RP..1204
A adj	12-15	34,0	335.18 -125.1215.40-5N-R6	127	40	15	—	55	—	10	5	0,7	8400	RP..1204
B adj	12-15	46,0	R335.18 -160.1215.40-6N-R6	162	40	—	50	70	—	12	6	1,9	7500	RP..1204
A adj	12-15	51,5	335.18 -160.1215.40-6N-R6	162	40	15	—	55	—	12	6	1,8	7500	RP..1204
B adj	12-15	56,0	R335.18 -200.1215.40-8N-R6	202	40	—	50	90	—	16	8	3,3	6700	RP..1204
A adj	12-15	64,5	335.18 -200.1215.50-8N-R6	202	50	15	—	69	—	16	8	2,2	6700	RP..1204
A adj	12-15	89,5	-250.1215.50-9N-R6	252	50	15	—	69	—	18	9	3,6	6000	RP..1204
B adj	16-18	25,0	R335.18 -125.1418.40-4N-R8	130	40	—	50	70	—	8	4	1,7	7800	RP..1605
A adj	16-18	34,0	335.18 -125.1418.40-4N-R8	130	40	18	—	56	—	8	4	1,0	7800	RP..1605
B adj	16-18	44,0	R335.18 -160.1418.40-6N-R8	165	40	—	50	70	—	12	6	2,7	6900	RP..1605
A adj	16-18	50,0	335.18 -160.1418.40-6N-R8	165	40	18	—	56	—	12	6	1,5	6900	RP..1605
B adj	16-18	52,0	R335.18 -200.1418.40-7N-R8	205	40	—	50	90	—	14	7	4,1	6100	RP..1605
A adj	16-18	60,0	335.18 -200.1418.50-7N-R8	205	50	18	—	71	—	14	7	2,0	6100	RP..1605
B adj	16-18	58,0	R335.18 -250.1418.60-9N-R8	255	60	—	50	130	—	18	9	7,5	5500	RP..1605
A adj	16-18	85,0	335.18 -250.1418.50-9N-R8	255	50	18	—	71	—	18	9	3,0	5500	RP..1605
B adj	16-18	90,0	R335.18 -315.1418.60-12N-R8	320	60	—	50	130	—	24	12	9,5	4900	RP..1605
A adj	16-18	110,0	335.18 -315.1418.50-12N-R8	320	50	18	—	71	—	24	12	4,0	4900	RP..1605

* Effective number of teeth

Profile machined with round inserts

Round 12, recommended minimum cutter setting width is 12,03 mm

	ap mm		Profile height H mm	
	ap min	ap max		
			12,03	0
			12,50	0,01
			13,00	0,02
			14,00	0,08
			15,00	0,19

Profile machined with round inserts

Round 16, recommended minimum cutter setting width is 16,03 mm

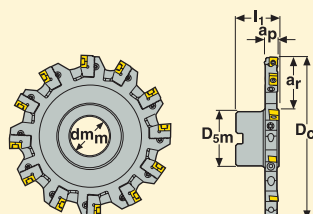
	ap mm		Profile height H mm	
	ap min	ap max		
			16,03	0
			16,50	0
			17,00	0,02
			18,00	0,06
			18,50	0,10

Please check availability in current price and stock-list

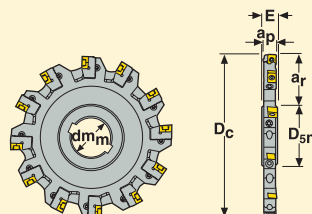
Cutter 335.18 – Insert LNK

Width max 7,5 mm – Half side – Right hand

Type B for stub arbor
(Type B)



Type A for milling arbor
(Type A)



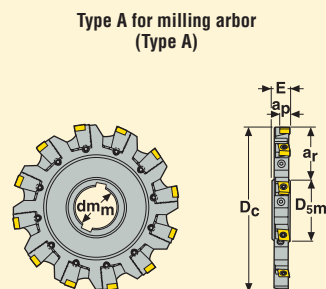
For insert selection and cutting data recommendations, see page 56.
For complete insert programme, see page 70.

Type	ap	ar	Part No.	Dimensions in mm							Zc*			Inserts
				Dc	dmm	E	L1	Dsm	M					
B	5	26,0	R335.18- 100.0810.27-8R	100	27	—	50	27	—	8	8	0,8	9400	LNK05
A	5	27,5	335.18 -100.0810.27-8R	100	27	15	—	27	—	8	8	0,4	9400	LNK05
B	5	33,5	R335.18 -125.0810.32-10R	125	32	—	50	32	—	10	10	1,0	8400	LNK05
A	5	33,0	335.18 -125.0810.40-10R	125	40	15	—	40	—	10	10	0,6	8400	LNK05
B	5	45,0	R335.18 -160.0810.40-12R	160	40	—	50	40	—	12	12	1,7	7500	LNK05
A	5	50,5	335.18 -160.0810.40-12R	160	40	15	—	40	—	12	12	1,1	7500	LNK05
B	5	55,0	R335.18 -200.0810.40-16R	200	40	—	50	40	—	16	16	3,0	6700	LNK05
A	5	63,5	335.18 -200.0810.50-16R	200	50	15	—	50	—	16	16	1,8	6700	LNK05
A	5	88,5	-250.0810.50-18R	250	50	15	—	50	—	18	18	2,8	6000	LNK05
B	6	16,0	R335.18 -080.1012.27-6R	80	27	—	50	48	—	6	6	0,6	10500	LNK06
A	6	27,5	335.18 -100.1012.27-8R	100	27	15	—	41	—	8	8	0,4	9400	LNK06
B	6	26,0	R335.18 -100.1012.27-8R	100	27	—	50	48	—	8	8	0,8	9400	LNK06
A	6	33,0	335.18 -125.1012.40-10R	125	40	15	—	55	—	10	10	0,6	8400	LNK06
B	6	33,5	R335.18 -125.1012.32-10R	125	32	—	50	58	—	10	10	1,0	8400	LNK06
A	6	50,5	335.18 -160.1012.40-12R	160	40	15	—	55	—	12	12	1,1	7500	LNK06
B	6	45,0	R335.18 -160.1012.40-12R	160	40	—	50	70	—	12	12	1,7	7500	LNK06
A	6	63,5	335.18 -200.1012.50-16R	200	50	15	—	69	—	16	16	1,8	6700	LNK06
B	6	55,0	R335.18 -200.1012.40-16R	200	40	—	50	90	—	16	16	3,0	6700	LNK06
A	6	88,5	335.18 -250.1012.50-18R	250	50	15	—	69	—	18	18	2,8	6000	LNK06
B	7,5	16,0	R335.18 -080.1215.27-6R	80	27	—	50	48	—	6	6	0,7	10500	LNK08
B	7,5	26,0	-100.1215.27-8R	100	27	—	50	48	—	8	8	0,9	9400	LNK08
A	7,5	27,5	335.18 -100.1215.27-8R	100	27	15	—	41	—	8	8	0,5	9400	LNK08
B	7,5	33,5	R335.18 -125.1215.32-10R	125	32	—	—	50	—	10	10	1,1	8400	LNK08
A	7,5	33,0	335.18 -125.1215.40-10R	125	40	15	—	55	—	10	10	0,7	8400	LNK08
B	7,5	45,0	R335.18 -160.1215.40-12R	160	40	—	50	70	—	12	12	1,9	7500	LNK08
A	7,5	50,5	335.18 -160.1215.40-12R	160	40	15	—	55	—	12	12	1,8	7500	LNK08
B	7,5	55,0	R335.18 -200.1215.40-16R	200	40	—	50	90	—	16	16	3,1	6700	LNK08
A	7,5	63,5	335.18 -200.1215.50-16R	200	50	15	—	69	—	16	16	2,1	6700	LNK08
A	7,5	88,5	-250.1215.50-18R	250	50	15	—	69	—	18	18	3,6	6000	LNK08

* Effective number of teeth

Please check availability in current price and stock-list

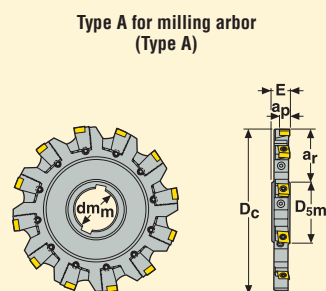
Width max 14,6 mm – Half side – Right hand



Type	ap	ar	Part No.	Dimensions in mm							Zc*			Inserts
				Dc	dmm	E	l1	D5m	M					
B	9	13,0	R335.18 -080.1416.27-6R**	80	27	—	50	48	—	6	6	0,7	9800	335,18-1005
B	9	24,0	-100.1416.27-8R**	100	27	—	50	48	—	8	8	0,7	8800	335,18-1005
B	9	25,0	-125.1418.40-8R	125	40	—	50	70	—	8	8	2,7	7800	335,18-1005
A	9	34,0	335.18 -125.1418.40-8R	125	40	18	—	56	—	8	8	1,0	7800	335,18-1005
B	9	44,0	R335.18 -160.1418.40-12R	160	40	—	50	70	—	12	12	2,7	6900	335,18-1005
A	9	50,0	335.18 -160.1418.40-12R	160	40	18	—	56	—	12	12	1,5	6900	335,18-1005
B	9	52,0	R335.18 -200.1418.40-14R	200	40	—	50	90	—	14	14	4,1	6100	335,18-1005
A	9	60,0	335.18 -200.1418.50-14R	200	50	18	—	71	—	14	14	2,0	6100	335,18-1005
B	9	58,0	R335.18 -250.1418.60-18R	250	60	—	50	130	—	18	18	7,5	5300	335,18-1005
A	9	85,0	335.18 -250.1418.50-18R	250	50	18	—	71	—	18	18	3,0	5300	335,18-1005
B	9	90,0	R335.18 -315.1418.60-24R	315	60	—	50	130	—	24	24	9,5	4800	335,18-1005
A	9	110,0	335.18 -315.1418.50-24R	315	50	18	—	71	—	24	24	4,0	4800	335,18-1005
B	12	13,0	R335.18 -080.1820.27-6R**	80	27	—	55	48	—	6	6	0,8	8400	335,18-1305
B	12	24,0	-100.1820.27-8R**	100	27	—	50	48	—	8	8	2,0	7600	335,18-1305
B	12	44,0	-160.1924.40-10R	160	40	—	50	70	—	10	10	3,0	6000	335,18-1305
A	12	50,0	335.18 -160.1924.40-10R	160	40	24	—	56	—	10	10	2,0	6000	335,18-1305
B	12	52,0	R335.18 -200.1924.40-12R	200	40	—	50	90	—	12	12	4,5	5300	335,18-1305
A	12	60,0	335.18 -200.1924.50-12R	200	50	24	—	71	—	12	12	2,5	5300	335,18-1305
B	12	58,0	R335.18 -250.1924.60-16R	250	60	—	50	130	—	16	16	8,0	4800	335,18-1305
A	12	85,0	335.18 -250.1924.50-16R	250	50	24	—	71	—	16	16	3,5	4800	335,18-1305
B	12	90,0	R335.18 -315.1924.60-20R	315	60	—	50	130	—	20	20	10,0	4200	335,18-1305
A	12	110,0	335.18 -315.1924.50-20R	315	50	24	—	71	—	20	20	4,5	4200	335,18-1305
B	14,6	43,0	R335.18 -160.1924.40-10R-15H	162	40	—	51,5	70	—	10	10	3,0	6000	AC..1506R
A	14,6	50,0	335.18 -160.1924.40-10R-15H	162	40	24	—	56	—	10	10	2,0	6000	AC..1506R
B	14,6	53,0	R335.18 -200.1924.40-12R-15H	202	40	—	51,5	90	—	12	12	4,5	5300	AC..1506R
A	14,6	60,0	335.18 -200.1924.50-12R-15H	202	50	24	—	71	—	12	12	2,5	5300	AC..1506R
B	14,6	57,0	R335.18 -250.1924.60-16R-15H	252	60	—	51,5	130	—	16	16	8,0		

Please check availability in current price and stock-list

Width max 15 mm – Half side – Right hand

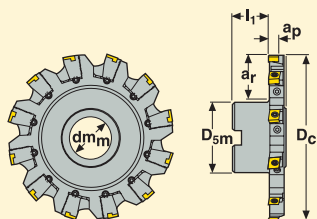
[illegible]

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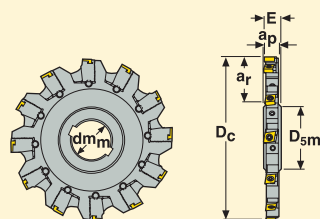
Cutter 335.18 - Inserts 335.18/AC..1506

Width max 14,6 mm – Half side – Left hand

Type B for stub arbor
(Type B)



Type A for milling arbor
(Type A)



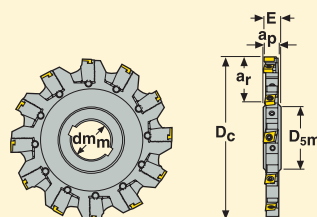
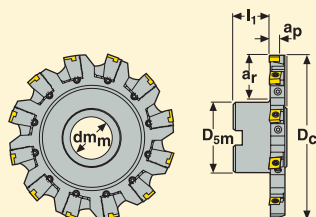
For insert selection and cutting data recommendations, see page 62, 65.
For complete insert programme, see page 67, 79.

Type	ap	ar	Part No.	Dimensions in mm							Zc*			Inserts
				Dc	dmm	E	I1	Dsm	M					
B	9	13,0	R335.18 -080.1416.27-3L	80	27	—	36	48	—	3	3	1,1	9800	335.18-1005
B	9	24,0	-100.1416.27-4L	100	27	—	36	48	—	4	4	1,1	8800	335.18-1005
B	9	25,0	-125.1418.40-8L	125	40	—	36	70	—	8	8	2,7	6900	335.18-1005
A	9	34,0	335.18 -125.1418.40-8L	125	40	18	—	56	—	8	8	1,0	7800	335.18-1005
B	9	44,0	R335.18 -160.1418.40-12L	160	40	—	36	70	—	12	12	2,7	6900	335.18-1005
A	9	50,0	335.18 -160.1418.40-12L	160	40	18	—	56	—	12	12	1,5	6900	335.18-1005
B	9	52,0	R335.18 -200.1418.40-14L	200	40	—	36	90	—	14	14	4,1	6100	335.18-1005
A	9	60,0	335.18 -200.1418.50-14L	200	50	18	—	71	—	14	14	2,0	6100	335.18-1005
B	9	58,0	R335.18 -250.1418.60-18L	250	60	—	36	130	—	18	18	7,5	5300	335.18-1005
A	9	85,0	335.18 -250.1418.50-18L	250	50	18	—	71	—	18	18	3,0	5300	335.18-1005
B	9	90,0	R335.18 -315.1418.60-24L	315	60	—	36	130	—	24	24	9,5	4800	335.18-1005
A	9	110,0	335.18 -315.1418.50-24L	315	50	18	—	71	—	24	24	4,0	4800	335.18-1005
B	12	13,0	R335.18 -080.1820.27-3L	80	27	—	36,5	48	—	3	3	0,8	8400	335.18-1305
B	12	24,0	-100.1820.27-4L	100	27	—	31,5	48	—	8	8	2,0	7600	335.18-1305
B	12	44,0	-160.1924.40-10L	160	40	—	31,5	70	—	10	10	3,0	6000	335.18-1305
A	12	50,0	335.18 -160.1924.40-10L	160	40	24	—	56	—	10	10	2,0	6000	335.18-1305
B	12	52,0	R335.18 -200.1924.40-12L	200	40	—	31,5	90	—	12	12	4,5	5300	335.18-1305
A	12	60,0	335.18 -200.1924.50-12L	200	50	24	—	71	—	12	12	2,5	5300	335.18-1305
B	12	58,0	R335.18 -250.1924.60-16L	250	60	—	31,5	130	—	16	16	8,0	4800	335.18-1305
A	12	85,0	335.18 -250.1924.50-16L	250	50	24	—	71	—	16	16	3,5	4800	335.18-1305
B	12	90,0	R335.18 -315.1924.60-20L	315	60	—	31,5	130	—	20	20	10,0	4200	335.18-1305
A	12	110,0	335.18 -315.1924.50-20L	315	50	24	—	71	—	20	20	4,5	4200	335.18-1305
B	14,6	43,0	R335.18 -160.1924.40-10L-15H	162	40	—	31,5	70	—	10	10	3,0	6000	AC..1506L
A	14,6	50,0	335.18 -160.1924.40-10L-15H	162	40	24	—	56	—	10	10	2,0	6000	AC..1506L
B	14,6	53,0	R335.18 -200.1924.40-12L-15H	202	40	—	31,5	90	—	12	12	4,5	5300	AC..1506L
A	14,6	60,0	335.18 -200.1924.50-12L-15H	202	50	24	—	71	—	12	12	2,5	5300	AC..1506L
B	14,6	57,0	R335.18 -250.1924.60-16L-15H	252	60	—	31,5	130	—	16	16	8,0	4800	AC..1506L
A	14,6	85,0	335.18 -250.1924.50-16L-15H	252	50	24	—	71	—	16	16	3,5	4800	AC..1506L
B	14,6	90,0	R335.18 -315.1924.60-20L-15H	317	60	—	31,5	130	—	20	20	10,0	4200	AC..1506L
A	14,6	120,0	335.18 -315.1924.50-20L-15H	317	50	24	—	71	—	20	20	4,5	4200	AC..1506L
B	14,6	33,0	R335.18 -200.2530.60-12L-15H	202	60	—	25,5	130	—	12	12	4,5	4000	AC..1506L
A	14,6	60,0	335.18 -200.2530.50-12L-15H	202	50	30	—	71	—	12	12	3,0	4000	AC..1506L
A	14,6	85,0	-250.2530.50-16L-15H	252	50	30	—	71	—	16	16	4,0	3600	AC..1506L
B	14,6	58,0	R335.18 -250.2530.60-16L-15H	252	60	—	25,5	130	—	16	16	8,5	3600	AC..1506L
A	14,6	110,0	335.18 -315.2530.60-20L-15H	317	60	30	—	85	—	20	20	5,0	3200	AC..1506L
B	14,6	90,0	R335.18 -315.2530.60-20L-15H	317	60	—	25,5	130	—	20	20	11,0	3200	AC..1506L

* Effective number of teeth

Please check availability in current price and stock-list

Width max 15 mm – Half side – Left hand

[illegible]

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Spare parts for (R) 335.18 – Adjustable cutters

For cutter (R)335.18-xxx-...	Insert type	Locking screw 	Key 	Wedge 	Wedge screw 	Key 	Adjusting screw* 	Cassettes	
								Right	Left
								R335.18-...	L335.18-...
0810	LNK.05.. 	C02508-T08P	T08P-3	335.18-607	LD5019-T15P	T15P-3	SH6004-T09P	0810-05	0810-05
0810	RD..08 	C02506-T08P						N335.18-08-R4	
1012	LNK.06.. 	C03007-T09P	T09P-3	335.18-609	LD6018F-T20P	T20P-4	SH6005-T09P	1012-06	1012-06
1012	RD..10T3 							10-R5	10-R5
1215	LNK.08.. 	C03007-T09P	T09P-3	335.18-6011	LD6018F-T20P	T20P-4	SH6005-T09P	1215-08	1215-08
1215	RP..1204 	C03508-T15P	T15P-3					12-R6	12-R6
1416 and 1418	335.18-1005.. 	C04011-T15P	T15P-3	335.18-613F	LD6018F-T20P	T20P-4	SH6005-T09P	1418	1418
1418	RP..1605 	C05010-T20P	T20P-4					16-R8-D5	16-R8-D5
1820 and 1924	335.18-1305.. 	C04011-T15P	T15P-3	335.18-617M	268-650	4SMS795	SH6005-T09P	1924	1924
1924	AC..1506.. 	C45011-T20P	T20P-4					2024-15H	2024-15H
1924	AP..1604.. 	C04008-T15P	T15P-3					1924-16	1924-16
2530	335.18-1606.. 	C05012-T15P	T15P-3	335.18-623M	268-650	4SMS795	SH6005-T09P	2530	2530
2530	AC..1506.. 	C45011-T20P	T20P-4					2529-15H	2529-15H
2530	AP..1604.. 	C04008-T15P	T15P-3					2530-16	2530-16

Wedge 335.18-613M and wedge screw LD6018 for old cutters 1416 and 1418. Adjusting screw SH6007 for old design cutters 1416-1924 and SH802 for cutters 2530.

* Adjusting screw key T09P-3. * Dynamometric keys, see Machining Navigator.

Arbor screw for type B

For cutter (R)335.18-080-100	Arbor screw 
0810	MC6S 12x40
1012	MC6S 12x40
1215	MC6S 12x40
1416	MC6S 12x40
1820	MC6S 12x40

Torque values for insert locking screws

Locking screw 	Torque value Nm
C02506-T08P	1,2
C02508-T08P	1,2
C03007-T09P	2,0
C03508-T15P	3,0
C04008-T15P	3,5
C04011-T15P	3,5
C045011-T20P	5,0
C05010-T20P	5,0
C05011-T20P	5,0
C05012-T15P	5,0

Dimensions of mounting Type B – R335.18

	Cutter dia mm	Dimensions in mm						For arbor	For spindle-nose
		d_{m_m}	h	d_{hc1}	d_{hc2}	B_{kw}	c		
	80	27	23	–	–	12,4	7	27	–
	100	27	23	–	–	12,4	7	27	–
	125	40	30	–	–	16,4	9	40	ISO40
	160	40	30	–	–	16,4	9	40	ISO40
	200	40	30	66,7	–	16,4	9	40	ISO50
	200	60	40	101,6	–	25,7	14,7	–	ISO50
	250	60	40	101,6	–	25,7	14,7	–	ISO50
	315	60	40	101,6	–	25,7	14,7	–	ISO50
	400	60	40	101,6	177,8	25,7	14,7	–	ISO60

Cassettes for wiper inserts

For slot width (ap) mm	Cassette right 	Cassette left 	Wiper insert 	
	Part No.	Part No.	Part No.	
14 – 17	R335.18 -1418F	L335.18 -1418F	335.18 -1005ZZ	When high surface finish is required it is possible to use wiper inserts, type 335.18-1005ZZ.
14 – 18,5	-1418F	-1418F	-1005ZZ	
18,5 – 21	-1924F	-1924F	-1005ZZ	
18,5 – 24,3	-1924F	-1924F	-1005ZZ	
24,3 – 30,5	-2530F	-2530F	-1005ZZ	
				For full side and face version use one right hand and one left hand cassette mounted at 180°. The cassette must be adjusted 0,05 mm outside the other cassettes.

To order a standard adjustable disc mill 335.18 full side set to a specific width.

To obtain an adjustable disc mill set to your required dimension add "/ADJ" at the end of the reference and specify your required width which will be set with a tolerance of $\pm 0,03$ mm. Without specification the standard disc mill is set to the minimum cutting width.

Ordering example **335.18-200-2530.50-6N-16C/ADJ** and specify on your order your width to any value within its range, for example specify a cutting width of 27,35 mm in your order. The disc mill will be set to 27,35 $\pm 0,03$ mm.

The delivery time is approx. 3 days for a set adjustable disc mill.

Customised disc milling cutters

A custom design software is created to make it easier to request customised solutions possible for 335.18 - 335.19 - 335.29 cutters. One big advantage with this software is to directly receive information of the different possibilities. The software also gives you price and delivery times.

Demarcation

For 335.18
Diameter Ø 80–Ø 320 mm
ap (fixed pocket cutters) 8–20 mm
ap (adjustable cassette cutters) 8–31 mm

For 335.19
Diameter Ø 50–Ø 250 mm
ap 4–13,4 mm

For 335.29
Diameter Ø 40–Ø 120 mm
ap 6–10 mm

CUSTOM DESIGN

Milling >> Disc Milling >> Cutters >> Full side and face >> Chamfer or Radius at dmm Dc Choice

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Step 1: Tool Specification
Step 2: Request for Quotation

Min	Max
ap	8.5
ar	36
Spindle Rotation	Right
Type	8
dmm	27
Dc	120
H	50
Tolerance	+0.08/-0.02
Corner Radius	0.4 ⓘ
Insert reference	SNHQ1204504 R&L
Effective teeth (Zc)	5
No. of inserts needed (Zn)	10
Side surface finish : Ra (µm)	1.2
4 cutting edges	-
To equip with right and left insert R/L	-

Previous
Next

Spare Parts

Designation
R335 19-120-08 50-27-84

Delivery Time

Quantity: Get data

Insert selection – R335.15

Seco material group No.	Recom. feed f_z mm/tooth $a_e / D_c = 5\%$	First choice	First choice	
1	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
2	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
3	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
4	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
5	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
6	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
7	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
8	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
9	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
10	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
11	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
12	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
13	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
14	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
15	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
16	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
17	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
20	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
21	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	
22	0,20–0,45	R335.15-13..FG-M10 F40M	R335.15-18..FG-M12 F40M	

Cutting data – 5% engagement width ($a_e / D_c = 5\%$)

Seco material group No.	Grades							
	F40M							
				Feed rate, f_z (mm/tooth)				
	0,20	0,30	0,45	Cutting speed, v_c (m/min)				
1	350	315	280					
2	310	280	250					
3	255	230	205					
4	235	210	190					
5	195	175	155					
6	140	125	115					
7	45	40	40					
8	240	220	195					
9	210	190	170					
10	180	160	145					
11	140	125	115					
12	195	175	155					
13	180	160	145					
14	165	145	130					
15	130	120	105					
16	1010	910	815					
17	815	735	655					
20	60	55	50					
21	40	35	30					
22	60	55	50					

Cutting data – Side milling

Operations	a_e / D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,07	0,11	0,16	0,60
Side milling	2%	0,32	0,48	0,71	1,10
	5%	0,20	0,30	0,45	1,00
	10%	0,14	0,22	0,32	0,90
	20%	0,10	0,16	0,23	0,85
	30%	0,09	0,13	0,19	0,80
Average chip thickness h_m		0,04	0,07	0,10	–

Type of insert

	Insert size	Width of slot mm
	13160–	1,60–
	18515	5,15

Insert selection – (R)335.10

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	Insert 150.10-2,25N	Insert 150.10-2.5N	Insert 150.10-3N	Insert 150.10-4N
1	0,14–0,30	150.10-2.25N-16 CP600	150.10-2.5N-14 CP600	150.10-3N-12 CP600	150.10-4N-12 CP600
2	0,14–0,25	150.10-2.25N-16 CP600	150.10-2.5N-14 CP600	150.10-3N-12 CP600	150.10-4N-12 CP600
3	0,14–0,22	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-14 T25M	150.10-4N-14 T25M
4	0,14–0,22	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-14 T25M	150.10-4N-14 T25M
5	0,14–0,20	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-14 T25M	150.10-4N-14 T25M
6	0,10–0,15	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-16 T200M	150.10-4N-16 T200M
7	0,10–0,13	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-16 T200M	150.10-4N-16 T200M
8	0,14–0,25	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-12 T25M	150.10-4N-12 T25M
9	0,14–0,22	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-12 T25M	150.10-4N-12 T25M
10	0,14–0,20	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-14 T25M	150.10-4N-14 T25M
11	0,10–0,15	150.10-2.25N-16 CP600	150.10-2.5N-16 CP600	150.10-3N-16 CP600	150.10-4N-16 CP600
12	0,14–0,30	150.10-2.25N-16 T25M	150.10-2.5N-12 T200M	150.10-3N-12 T200M	150.10-4N-12 T200M
13	0,14–0,22	150.10-2.25N-16 T25M	150.10-2.5N-12 T200M	150.10-3N-12 T200M	150.10-4N-12 T200M
14	0,14–0,20	150.10-2.25N-16 T25M	150.10-2.5N-12 T200M	150.10-3N-16 T200M	150.10-4N-16 T200M
15	0,10–0,15	150.10-2.25N-16 HX	150.10-2.5N-16 HX	150.10-3N-16 HX	150.10-4N-16 HX
16	0,16–0,30	150.10-2.25N-16 CP600	150.10-2.5N-14 CP600	150.10-3N-12 CP600	150.10-4N-12 CP600
17	0,16–0,25	150.10-2.25N-16 CP600	150.10-2.5N-14 CP600	150.10-3N-12 CP600	150.10-4N-12 CP600
20	0,14–0,20	150.10-2.25N-16 T25M	150.10-2.5N-14 T25M	150.10-3N-16 T25M	150.10-4N-16 T25M
21	0,10–0,13	150.10-2.25N-16 CP600	150.10-2.5N-16 CP600	150.10-3N-16 CP600	150.10-4N-16 CP600
22	0,14–0,20	150.10-2.25N-16 CP600	150.10-2.5N-16 CP600	150.10-3N-16 CP600	150.10-4N-16 CP600

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades														
	T200M			T25M			CP600			HX					
	Feed rate, f_z (mm/tooth)														
	0,10	0,20	0,30	0,10	0,20	0,30	0,10	0,20	0,30	0,10	0,20	0,30			
	Cutting speed, v_c (m/min)														
1	395	335	300	320	275	245	290	250	220	–	–	–			
2	350	295	265	285	240	215	260	220	195	–	–	–			
3	290	245	220	235	200	180	215	180	165	–	–	–			
4	260	225	200	215	180	165	195	165	150	–	–	–			
5	220	185	165	180	150	135	160	140	125	–	–	–			
6	155	135	–	130	110	–	115	100	–	–	–	–			
7	50	–	–	45	–	–	40	–	–	–	–	–			
8	270	230	205	220	190	170	200	170	155	–	–	–			
9	235	200	180	190	165	145	175	150	135	–	–	–			
10	200	170	155	165	140	125	150	125	115	–	–	–			
11	155	135	–	130	110	–	115	100	–	–	–	–			
12	220	185	165	180	150	135	160	140	125	155	130	115			
13	200	170	155	165	140	125	150	125	115	140	120	110			
14	185	155	140	150	125	115	135	115	105	130	110	100			
15	150	125	–	120	105	–	110	95	–	105	90	–			
16	1135	965	865	925	790	705	840	715	640	800	680	610			
17	920	780	700	750	635	570	680	580	515	645	550	490			
20	70	60	–	55	50	–	50	45	–	30	25	–			
21	45	35	–	35	30	–	30	30	–	20	15	–			
22	70	60	–	55	50	–	50	45	–	30	25	–			

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,05	0,10	0,14	0,65
Side milling	2%	0,21	0,44	0,65	1,20
	5%	0,14	0,28	0,41	1,10
	10%	0,10	0,20	0,30	1,00
	20%	0,07	0,14	0,21	0,90
	30%	0,06	0,12	0,18	0,85
Average chip thickness h_m		0,03	0,06	0,09	–

Type of insert

	Style	Width of slot mm
	-2,25N-	2,25
	-2,5N-	2,5
	-3N-	3,1
	-4N-	4,1

Insert selection – (R)335.19

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative	
1	0,20–0,38	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
2	0,20–0,38	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
3	0,20–0,32	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
4	0,20–0,32	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
5	0,16–0,30	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
6	0,16–0,25	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
7	0,13–0,20	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
8	0,20–0,38	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
9	0,20–0,32	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
10	0,16–0,25	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
11	0,16–0,25	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
12	0,20–0,38	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
13	0,20–0,32	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
14	0,20–0,30	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
15	0,16–0,25	SNHQ....-M07 F30M	SNHQ....-M07 F40M	
16	0,20–0,38	SNHQ....-E05 H25	SNHQ....-E05 F40M	
17	0,20–0,38	SNHQ....-E05 H25	SNHQ....-E05 F40M	
20	0,20–0,25	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
21	0,13–0,20	SNHQ....-M07 F40M	SNHQ....-M07 F40M	
22	0,16–0,25	SNHQ....-M07 F40M	SNHQ....-M07 F40M	

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades											
	F30M			F40M			H25					
	Feed rate, f_z (mm/tooth)											
	0,13	0,25	0,38	0,13	0,25	0,38	0,13	0,25	0,38			
	Cutting speed, v_C (m/min)											
1	340	290	255	325	275	240	–	–	–			
2	300	255	225	285	245	215	–	–	–			
3	250	210	185	235	200	180	–	–	–			
4	225	190	170	215	185	160	–	–	–			
5	190	160	140	180	150	135	–	–	–			
6	135	115	–	130	110	–	–	–	–			
7	45	–	–	45	–	–	–	–	–			
8	235	200	175	220	190	165	–	–	–			
9	205	175	155	195	165	145	–	–	–			
10	175	145	130	165	140	125	–	–	–			
11	135	115	–	130	110	–	–	–	–			
12	190	160	140	180	150	135	170	145	130			
13	175	145	130	165	140	125	155	135	120			
14	160	135	120	150	130	115	145	120	105			
15	130	110	–	120	105	–	115	100	–			
16	980	830	735	935	790	700	885	755	665			
17	790	670	595	755	640	565	715	610	535			
20	60	50	–	55	50	–	30	25	–			
21	40	–	–	35	–	–	20	–	–			
22	60	50	–	55	50	–	30	25	–			

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,06	0,12	0,19	0,65
Side milling	2%	0,28	0,55	0,84	1,20
	5%	0,18	0,35	0,53	1,10
	10%	0,13	0,25	0,38	1,00
	20%	0,09	0,18	0,27	0,90
	30%	0,08	0,15	0,23	0,85
Average chip thickness h_m		0,04	0,08	0,12	–

Type of insert

	Insert size	Width of slot mm
	1102	4
	1103	5
	1203	6
	1204	7
	12045	8
	1205	10, 14
	1207	12

Insert selection – (R)335.19

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternatives
1	0,20–0,38	335.19-....-M08 F40M	335.19-....-M08 T350M
2	0,20–0,38	335.19-....-M08 F40M	335.19-....-M08 T350M
3	0,20–0,32	335.19-....-M08 F40M	335.19-....-M08 T350M
4	0,20–0,32	335.19-....-M08 F40M	335.19-....-M08 T350M
5	0,16–0,30	335.19-....-M08 F40M	335.19-....-M08 T350M
6	0,16–0,25	335.19-....T-MD09 T250M	335.19-....-M08 T350M
7	0,13–0,20	335.19-....T-MD09 T200M	335.19-....T-MD09 T250M
8	0,20–0,38	335.19-....-M08 F40M	335.19-....-M08 T350M
9	0,20–0,32	335.19-....-M08 F40M	335.19-....-M08 T350M
10	0,16–0,25	335.19-....-M08 F40M	335.19-....-M08 T350M
11	0,16–0,25	335.19-....-M08 F40M	335.19-....-M08 T350M
12	0,20–0,38	335.19-....T-MD09 T200M	335.19-....-M08 T350M
13	0,20–0,32	335.19-....T-MD09 T200M	335.19-....-M08 T350M
14	0,20–0,30	335.19-....-M08 T350M	335.19-....T-MD09 T200M
15	0,16–0,25	335.19-....-M08 T350M	335.19-....T-MD09 T200M
16	0,20–0,38	335.19-....-E07 HX	335.19-....-M08 HX
17	0,20–0,38	335.19-....-E07 HX	335.19-....-M08 HX
20	0,20–0,25	335.19-....-M08 F40M	335.19-....-M08 T350M
21	0,13–0,20	335.19-....-M08 F40M	335.19-....-M08 T350M
22	0,16–0,25	335.19-....-M08 F40M	335.19-....-E07 HX

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																		
	T200M			T250M			T350M			T25M			F40M			HX			
	Feed rate, f_z (mm/tooth)																		
	0,13	0,25	0,38	0,13	0,25	0,38	0,13	0,25	0,38	0,13	0,25	0,38	0,13	0,25	0,38	0,13	0,25	0,38	
Cutting speed, v_c (m/min)																			
1	400	340	300	355	305	270	340	290	255	325	280	245	295	250	225	–	–	–	
2	355	305	270	315	270	240	305	260	230	290	245	220	265	225	200	–	–	–	
3	295	250	220	260	220	195	250	215	190	240	205	180	220	185	165	–	–	–	
4	270	225	200	240	200	180	230	195	170	220	185	165	200	170	150	–	–	–	
5	225	190	165	200	170	150	190	160	140	180	155	135	165	140	125	–	–	–	
6	160	135	–	145	120	–	135	115	–	130	110	–	120	100	–	–	–	–	
7	55	–	–	50	–	–	45	–	–	45	–	–	40	–	–	–	–	–	
8	275	235	205	235	200	175	225	190	170	225	190	170	205	175	155	–	–	–	
9	240	205	180	205	175	155	195	165	145	195	165	145	180	150	135	–	–	–	
10	205	175	155	175	150	130	165	140	125	165	140	125	150	130	115	–	–	–	
11	160	135	–	135	115	–	130	110	–	130	110	–	120	100	–	–	–	–	
12	225	190	165	200	170	150	190	160	140	180	155	135	165	140	125	155	135	120	
13	205	175	155	180	155	135	175	150	130	165	140	125	150	130	115	145	125	110	
14	185	160	140	165	140	125	160	135	120	155	130	115	140	120	105	130	110	100	
15	150	130	–	135	115	–	130	110	–	125	105	–	110	95	–	105	90	–	
16	1160	985	870	1030	875	775	990	840	740	945	800	710	860	730	645	815	695	610	
17	935	795	705	830	705	625	800	680	600	765	650	570	695	590	520	660	560	495	
20	70	60	–	65	55	–	60	50	–	60	50	–	55	45	–	30	25	–	
21	45	–	–	40	–	–	35	–	–	35	–	–	35	–	–	20	–	–	
22	70	60	–	65	55	–	60	50	–	60	50	–	55	45	–	30	25	–	

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,06	0,12	0,19	0,65
Side milling	2%	0,28	0,55	0,84	1,20
	5%	0,18	0,35	0,53	1,10
	10%	0,13	0,25	0,38	1,00
	20%	0,09	0,18	0,27	0,90
	30%	0,08	0,15	0,23	0,85
Average chip thickness h_m		0,04	0,08	0,12	–

Type of insert

	Insert size	Width of slot mm
	1102	4
	1103	5
	1203	6
	1204	7
	12045	8
	1205	10, 14
	1207	12

Insert selection – (R)335.18 -08/-20

Universal insert: LNK...-M06 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice		Optimization Stable operation	
		LNK.05	LNK.06/08	LNK.05	LNK.06/08
1	0,20–0,32	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
2	0,20–0,32	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T250M
3	0,20–0,32	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T250M
4	0,20–0,32	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T250M
5	0,15–0,25	LNK...-M06 F30M	LNK...-MD08 F40M	LNK...-MD07 T350M	LNK...-M06 T250M
6	0,15–0,20	LNK...-M06 F30M	LNK...-MD08 F40M	LNK...-MD07 T200M	LNK...-M06 T250M
7	0,13–0,18	LNK...-MD07 T200M	LNK...-MD08 T250M	LNK...-MD07 F30M	LNK...-MD08 T250M
8	0,12–0,25	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
9	0,12–0,25	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
10	0,12–0,20	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
11	0,12–0,20	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
12	0,15–0,25	LNK...-M06 T200M	LNK...-M06 T150M	LNK...-M06 T350M	LNK...-M06 T200M
13	0,15–0,25	LNK...-M06 T200M	LNK...-M06 T150M	LNK...-M06 T350M	LNK...-M06 T200M
14	0,20–0,32	LNK...-MD07 T200M	LNK...-MD08 T150M	LNK...-MD07 T350M	LNK...-MD08 T250M
15	0,20–0,32	LNK...-MD07 T200M	LNK...-MD08 T150M	LNK...-MD07 T350M	LNK...-MD08 T250M
16	0,12–0,32	LNK...-E05 H25	LNK...-E05 H25	LNK...-E05 H25	LNK...-E05 H25
17	0,12–0,32	LNK...-E05 H25	LNK...-E05 H25	LNK...-E05 H25	LNK...-E05 H25
20	0,12–0,20	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
21	0,12–0,20	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M
22	0,12–0,20	LNK...-M06 F40M	LNK...-M06 F40M	LNK...-M06 T350M	LNK...-M06 T350M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T150M			T200M			T250M			T350M			F30M			F40M			H25		
	Feed rate, f_z (mm/tooth)																				
	0,12	0,20	0,32	0,12	0,20	0,32	0,12	0,20	0,32	0,12	0,20	0,32	0,12	0,20	0,32	0,12	0,20	0,32	0,12	0,20	0,32
Cutting speed, v_c (m/min)																					
1	–	–	–	–	–	–	–	–	–	300	270	235	275	245	215	265	235	205	–	–	–
2	–	–	–	–	–	–	–	–	–	270	240	210	245	215	190	235	205	180	–	–	–
3	–	–	–	260	230	200	230	205	180	220	195	170	200	180	155	195	170	150	–	–	–
4	–	–	–	235	210	185	210	185	165	200	180	155	185	165	145	175	155	135	–	–	–
5	–	–	–	195	175	–	175	155	–	170	150	–	155	135	–	145	130	–	–	–	–
6	–	–	–	140	125	–	125	110	–	120	105	–	110	100	–	105	95	–	–	–	–
7	–	–	–	45	40	–	40	35	–	–	–	–	35	35	–	–	–	–	–	–	–
8	–	–	–	245	215	–	210	185	–	200	175	–	190	170	–	180	160	–	–	–	–
9	–	–	–	215	190	–	180	160	–	175	155	–	165	145	–	160	140	–	–	–	–
10	–	–	–	180	160	–	155	135	–	150	130	–	140	125	–	135	120	–	–	–	–
11	–	–	–	140	125	–	120	105	–	115	100	–	110	100	–	105	95	–	–	–	–
12	250	220	195	195	175	155	175	155	135	170	150	130	155	135	120	145	130	115	–	–	–
13	230	200	180	180	160	140	160	145	125	155	135	120	140	125	110	135	120	105	–	–	–
14	210	185	160	165	145	130	145	130	115	140	125	110	130	115	100	125	110	95	–	–	–
15	170	150	–	135	120	–	120	105	–	115	100	–	105	90	–	100	90	–	–	–	–
16	–	–	–	–	–	–	–	–	–	875	775	680	795	705	620	760	675	590	850	750	660
17	–	–	–	–	–	–	–	–	–	705	625	550	645	570	500	615	545	475	685	605	530
20	–	–	–	–	–	–	55	50	–	50	45	–	50	45	–	45	40	–	–	–	–
21	–	–	–	–	–	–	35	30	–	30	30	–	30	25	–	30	25	–	–	–	–
22	–	–	–	–	–	–	55	50	–	50	45	–	50	45	–	45	40	–	–	–	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,06	0,10	0,16	0,65
Side milling	2%	0,26	0,44	0,71	1,20
	5%	0,17	0,28	0,45	1,10
	10%	0,12	0,20	0,32	1,00
	20%	0,09	0,14	0,23	0,90
	30%	0,07	0,12	0,19	0,85
Average chip thickness h_m		0,04	0,06	0,10	–

Type of insert

	Insert size	Width of slot mm
	05	8-10
	06	10-12, 17
	08	12-15, 20

Insert selection – (R)335.29-R03

Universal insert: RDHW 06T1M0-MD02 F30M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative
1	0,08–0,16	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M
2	0,08–0,16	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M
3	0,08–0,16	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M
4	0,06–0,14	RDHW 06T1M0-MD02 F30M	RDHT 06T1M0-E02 F40M
5	0,06–0,14	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
6	0,06–0,14	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
7	–	–	–
8	0,04–0,13	RDHW 06T1M0-MD02 F30M	RDHT 06T1M0-E02 F40M
9	0,04–0,13	RDHW 06T1M0-MD02 F30M	RDHT 06T1M0-E02 F40M
10	0,03–0,10	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F30M
11	0,03–0,10	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F30M
12	0,10–0,17	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
13	0,10–0,17	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
14	0,10–0,17	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
15	0,10–0,17	RDHW 06T1M0-MD02 F30M	RDHW 06T1M0-MD02 F15M
16	0,08–0,20	RDHT 06T1M0-E02 H25	RDHT 06T1M0-E02 F40M
17	0,08–0,20	RDHT 06T1M0-E02 H25	RDHT 06T1M0-E02 F40M
20	0,06–0,14	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M
21	0,03–0,10	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M
22	0,06–0,14	RDHT 06T1M0-E02 F40M	RDHT 06T1M0-E02 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																	
	F15M			F25M			F30M			F40M			H25					
	Feed rate, f_z (mm/tooth)																	
	0,04	0,10	0,17	0,04	0,10	0,17	0,04	0,10	0,17	0,04	0,10	0,17	0,04	0,10	0,17			
Cutting speed, v_c (m/min)																		
1	–	–	–	–	–	–	–	–	–	315	275	245	–	–	–			
2	–	–	–	–	–	–	–	–	–	280	245	215	–	–	–			
3	–	–	–	–	–	–	–	–	–	230	200	180	–	–	–			
4	255	220	–	230	200	–	220	190	–	210	180	160	–	–	–			
5	210	180	–	195	165	–	185	160	–	–	–	–	–	–	–			
6	150	130	–	140	120	–	135	115	–	–	–	–	–	–	–			
7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–			
8	–	–	–	240	205	–	230	195	–	215	190	–	–	–	–			
9	–	–	–	210	180	–	200	170	–	190	165	–	–	–	–			
10	–	–	–	175	155	–	170	145	–	160	140	–	–	–	–			
11	–	–	–	140	120	–	135	115	–	125	110	–	–	–	–			
12	210	180	160	195	165	150	185	160	140	175	150	135	165	145	130			
13	195	165	150	175	155	135	170	145	130	160	140	125	155	135	120			
14	175	155	135	160	140	125	155	135	120	145	125	115	140	120	110			
15	145	125	110	130	115	100	125	110	95	120	105	90	–	–	–			
16	1095	945	840	–	–	–	–	–	–	910	790	700	865	750	665			
17	885	765	680	–	–	–	–	–	–	735	635	565	700	605	540			
20	–	–	–	–	–	–	–	–	–	55	50	–	–	–	–			
21	–	–	–	–	–	–	–	–	–	35	30	–	–	–	–			
22	–	–	–	–	–	–	–	–	–	55	50	–	–	–	–			

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,02	0,05	0,08	0,65
Side milling	2%	0,09	0,22	0,37	1,20
	5%	0,06	0,14	0,24	1,10
	10%	0,04	0,10	0,17	1,00
	20%	0,03	0,07	0,12	0,90
	30%	0,02	0,06	0,10	0,85
		0,01	0,03	0,05	–
Average chip thickness h_m					

Type of insert

	Insert size	Width of slot mm
	06	6

Insert selection – (R)335.29-R04

Universal insert: RDHW 0803M0-MD03 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative
1	0,10–0,18	RDHT 0803M0-E03 F40M	RDHT 0803M0-E03 T350M
2	0,10–0,18	RDHT 0803M0-E03 F40M	RDHT 0803M0-E03 T350M
3	0,10–0,18	RDHT 0803M0-E03 F40M	RDHT 0803M0-E03 T350M
4	0,10–0,16	RDHW 0803M0-MD03 F40M	RDKW 0803M0T-MD05 F40M
5	0,10–0,16	RDKW 0803M0T-MD05 F40M	RDKW 0803M0T-MD05 F25M
6	0,10–0,16	RDKW 0803M0T-MD05 F40M	RDKW 0803M0T-MD05 F15M
7	–	–	–
8	0,08–0,16	RDHT 0803M0-E03 F40M	RDHW 0803M0-MD03 F40M
9	0,08–0,16	RDHT 0803M0-E03 F40M	RDHW 0803M0-MD03 F40M
10	0,06–0,14	RDHW 0803M0-MD03 F40M	RDKW 0803M0T-MD05 F40M
11	0,06–0,14	RDHW 0803M0-MD03 F40M	RDKW 0803M0T-MD05 F40M
12	0,12–0,20	RDKW 0803M0T-MD05 F25M	RDKW 0803M0T-MD05 F15M
13	0,12–0,20	RDKW 0803M0T-MD05 F25M	RDKW 0803M0T-MD05 F15M
14	0,12–0,20	RDKW 0803M0T-MD05 F25M	RDKW 0803M0T-MD05 F15M
15	0,12–0,20	RDKW 0803M0T-MD05 F25M	RDKW 0803M0T-MD05 F15M
16	0,10–0,20	RDHT 0803M0-E03 H25	RDHT 0803M0-E03 F40M
17	0,10–0,20	RDHT 0803M0-E03 H25	RDHT 0803M0-E03 F40M
20	0,10–0,16	RDHT 0803M0-E03 F40M	RDHW 0803M0-MD03 F40M
21	0,06–0,14	RDHT 0803M0-E03 F40M	RDHW 0803M0-MD03 F40M
22	0,10–0,16	RDHT 0803M0-E03 F40M	RDHW 0803M0-MD03 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																		
	T350M			F15M			F25M			F30M			F40M			H25			
	Feed rate, f_z (mm/tooth)																		
	0,06	0,12	0,20	0,06	0,12	0,20	0,06	0,12	0,20	0,06	0,12	0,20	0,06	0,12	0,20	0,06	0,12	0,20	
Cutting speed, v_c (m/min)																			
1	345	300	270	360	315	280	315	280	245	315	275	245	300	265	235	–	–	–	
2	305	270	240	320	280	250	280	245	220	280	245	215	265	235	205	–	–	–	
3	250	220	195	265	230	205	230	205	180	230	200	180	220	195	170	–	–	–	
4	230	200	180	240	210	185	210	185	165	210	185	165	200	175	155	–	–	–	
5	190	170	150	200	175	155	175	155	135	175	155	135	165	145	130	–	–	–	
6	–	–	–	145	125	110	125	110	100	125	110	100	120	105	95	–	–	–	
7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
8	225	200	175	–	–	–	220	190	170	215	190	170	205	180	160	–	–	–	
9	195	175	155	–	–	–	190	165	150	190	165	145	180	160	140	–	–	–	
10	170	150	–	–	–	–	160	140	–	160	140	–	155	135	–	–	–	–	
11	130	115	–	–	–	–	125	110	–	125	110	–	120	105	–	–	–	–	
12	190	170	150	200	175	155	175	155	135	175	155	135	165	145	130	160	140	125	
13	175	155	135	185	160	145	160	140	125	160	140	125	155	135	120	145	130	115	
14	160	140	125	165	145	130	145	130	115	145	130	115	140	125	110	130	115	105	
15	130	115	100	135	120	105	120	105	95	120	105	90	115	100	90	105	95	85	
16	–	–	–	1035	910	810	–	–	–	905	795	705	865	760	675	820	720	640	
17	–	–	–	835	735	650	–	–	–	730	645	570	695	615	545	660	585	515	
20	60	50	45	–	–	–	55	50	45	55	50	45	55	45	40	30	25	–	
21	35	30	–	–	–	–	35	30	–	35	30	–	35	30	–	20	15	–	
22	60	50	45	–	–	–	55	50	45	55	50	45	55	45	40	30	25	–	

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,03	0,06	0,10	0,65
Side milling	2%	0,13	0,26	0,44	1,20
	5%	0,08	0,17	0,28	1,10
	10%	0,06	0,12	0,20	1,00
	20%	0,04	0,09	0,14	0,90
	30%	0,04	0,07	0,12	0,85
		0,02	0,04	0,06	–
Average chip thickness h_m					

Type of insert

	Insert size	Width of slot mm
	08	8

Insert selection – (R)335.18/29-R05

Universal insert: RDHT 10T3M0T-M05 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative
1	0,12–0,20	RDHT 10T3M0-E04 F40M	RDHT10T3M0T-M05 F40M
2	0,12–0,20	RDHT 10T3M0-E04 F40M	RDHT10T3M0T-M05 F40M
3	0,12–0,20	RDHT10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
4	0,12–0,20	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
5	0,15–0,20	RDKW 10T3M0T-MD06 F40M	RDKW 10T3M0T-MD06 T200M
6	0,15–0,20	RDKW 10T3M0T-MD06 F40M	RDKW 10T3M0T-MD06 T200M
7	–	–	–
8	0,10–0,18	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
9	0,10–0,18	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
10	0,10–0,18	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
11	0,10–0,18	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
12	0,15–0,25	RDKW 10T3M0T-MD06 T200M	RDKW 10T3M0T-MD06 F15M
13	0,15–0,25	RDKW 10T3M0T-MD06 T200M	RDKW 10T3M0T-MD06 F15M
14	0,15–0,25	RDKW 10T3M0T-MD06 T200M	RDKW 10T3M0T-MD06 F15M
15	0,15–0,25	RDKW 10T3M0T-MD06 T200M	RDKW 10T3M0T-MD06 F15M
16	0,12–0,25	RDHT 10T3M0-E04 H25	RDHT 10T3M0-E04 F40M
17	0,12–0,25	RDHT 10T3M0-E04 H25	RDHT 10T3M0-E04 F40M
20	0,12–0,20	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
21	0,10–0,18	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-M05 T350M
22	0,12–0,20	RDHT 10T3M0T-M05 F40M	RDHT 10T3M0T-E04 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T200M			T350M			F15M			F25M			F30M			F40M			H25		
	Feed rate, f_z (mm/tooth)																				
	0,10	0,18	0,25	0,10	0,18	0,25	0,10	0,18	0,25	0,10	0,18	0,25	0,10	0,18	0,25	0,10	0,18	0,25	0,10	0,18	0,25
Cutting speed, v_c (m/min)																					
1	–	–	–	340	295	270	–	–	–	310	275	250	310	270	250	295	260	235	–	–	–
2	–	–	–	300	265	240	–	–	–	275	240	220	275	240	220	260	230	210	–	–	–
3	–	–	–	250	215	200	–	–	–	230	200	185	225	200	180	215	190	175	–	–	–
4	255	225	205	225	200	180	–	–	–	205	180	165	205	180	165	195	170	160	–	–	–
5	210	185	170	190	165	150	–	–	–	175	150	140	170	150	140	165	145	130	–	–	–
6	155	135	125	135	120	110	–	–	–	125	110	100	125	110	100	120	105	95	–	–	–
7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	–	–	–	225	195	–	–	–	–	215	190	–	215	185	–	200	175	–	–	–	–
9	–	–	–	195	170	–	–	–	–	185	165	–	185	160	–	175	155	–	–	–	–
10	–	–	–	165	145	–	–	–	–	160	140	–	160	140	–	150	130	–	–	–	–
11	–	–	–	130	115	–	–	–	–	125	110	–	125	110	–	120	105	–	–	–	–
12	210	185	170	190	165	150	195	170	160	175	150	140	170	150	140	165	145	130	175	150	140
13	195	170	155	175	150	140	180	160	145	160	140	130	160	140	125	150	130	120	160	140	130
14	180	155	145	160	140	125	165	145	130	145	125	115	145	125	115	135	120	110	145	125	115
15	145	125	115	130	110	105	135	115	105	115	105	95	115	100	95	110	95	90	120	105	95
16	–	–	–	975	855	785	1020	895	820	900	790	720	890	780	715	850	745	685	900	790	725
17	–	–	–	790	690	635	825	720	660	725	635	585	720	630	580	685	600	550	725	635	585
20	–	–	–	55	50	–	–	–	–	55	50	–	55	50	–	50	45	–	–	–	–
21	–	–	–	35	30	–	–	–	–	35	30	–	35	30	–	35	30	–	–	–	–
22	–	–	–	55	50	–	–	–	–	55	50	–	55	50	–	50	45	–	–	–	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,05	0,09	0,12	0,65
Side milling	2%	0,22	0,40	0,55	1,20
	5%	0,14	0,25	0,35	1,10
	10%	0,10	0,18	0,25	1,00
	20%	0,07	0,13	0,18	0,90
	30%	0,06	0,11	0,15	0,85
Average chip thickness h_m		0,03	0,06	0,08	–

Type of insert

	Insert size	Width of slot mm
	10	10–12

Insert selection – (R)335.18-R06

Universal insert: RPHT 1204M0T-M08 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative
1	0,20–0,32	RPHT 1204M0-E05 F40M	RPHT 1204M0T-ME07 F40M
2	0,20–0,32	RPHT 1204M0-E05 F40M	RPHT 1204M0T-ME07 F40M
3	0,20–0,32	RPHT 1204M0T-ME07 F40M	RPHT 1204M0T-M08 F40M
4	0,20–0,32	RPHT 1204M0T-M08 F40M	RPHT 1204M0T-M08 T350M
5	0,15–0,25	RPHT 1204M0T-M10 F40M	RPHT 1204M0T-M08 T350M
6	0,15–0,20	RPKW 1204M0T-MD10 T200M	RPKW 1204M0T-MD10 F15M
7	–	–	–
8	0,12–0,25	RPHT 1204M0T-ME07 F40M	RPHT 1204M0T-ME07 T350M
9	0,12–0,25	RPHT 1204M0T-ME07 F40M	RPHT 1204M0T-ME07 T350M
10	0,12–0,20	RPHT 1204M0T-M08 F40M	RPHW 1204M0-MD05 F30M
11	0,12–0,20	RPHT 1204M0T-M08 F40M	RPHW 1204M0-MD05 F30M
12	0,20–0,32	RPKW 1204M0T-MD10 T200M	RPKW 1204M0T-MD10 F15M
13	0,20–0,32	RPKW 1204M0T-MD10 T200M	RPKW 1204M0T-MD10 F15M
14	0,15–0,25	RPKW 1204M0T-MD10 T200M	RPKW 1204M0T-MD10 F15M
15	0,15–0,25	RPKW 1204M0T-MD10 T200M	RPKW 1204M0T-MD10 F15M
16	0,15–0,32	RPHT 1204M0-E05 H25	RPHT 1204M0-E05 F40M
17	0,15–0,32	RPHT 1204M0-E05 H25	RPHT 1204M0-E05 F40M
20	0,12–0,20	RPHT 1204M0T-M08 F40M	RPHW 1204M0T-MD05 F40M
21	0,12–0,20	RPHT 1204M0T-M08 F40M	RPHW 1204M0T-MD05 F40M
22	0,12–0,20	RPHT 1204M0T-ME07 F40M	RPHT 1204M0-E05 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T200M			T350M			F15M			F25M			F30M			F40M			H25		
	Feed rate, f_z (mm/tooth)																				
	0,10	0,20	0,32	0,10	0,20	0,32	0,10	0,20	0,32	0,10	0,20	0,32	0,10	0,20	0,32	0,10	0,20	0,32	0,10	0,20	0,32
	Cutting speed, v_c (m/min)																				
1	–	–	–	340	290	255	–	–	–	310	265	235	310	265	230	285	240	210	–	–	–
2	–	–	–	300	255	225	–	–	–	275	235	205	275	235	205	250	215	190	–	–	–
3	–	–	–	250	210	185	–	–	–	230	195	170	225	195	170	205	175	155	–	–	–
4	255	215	190	225	190	170	–	–	–	205	175	155	205	175	155	190	160	140	–	–	–
5	210	180	160	190	160	140	–	–	–	175	145	130	170	145	130	155	135	120	–	–	–
6	155	130	–	135	115	–	–	–	–	125	105	–	125	105	–	115	95	–	–	–	–
7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	–	–	–	225	190	–	–	–	–	215	185	–	215	180	–	195	165	–	–	–	–
9	–	–	–	195	165	–	–	–	–	185	160	–	185	160	–	170	145	–	–	–	–
10	–	–	–	165	140	–	–	–	–	160	135	–	160	135	–	145	125	–	–	–	–
11	–	–	–	130	110	–	–	–	–	125	105	–	125	105	–	115	95	–	–	–	–
12	210	180	160	190	160	140	220	185	165	175	145	130	170	145	130	155	135	120	155	130	115
13	195	165	145	175	145	130	200	170	150	160	135	120	160	135	120	145	125	110	145	120	105
14	180	150	135	160	135	120	185	155	135	145	125	110	145	125	110	130	115	100	130	110	100
15	145	125	110	130	110	95	150	125	110	115	100	90	115	100	85	105	90	80	105	90	80
16	–	–	–	975	835	730	1135	970	850	900	765	670	890	760	665	815	695	610	805	690	605
17	–	–	–	790	675	590	915	785	685	725	620	545	720	615	540	660	565	495	650	555	490
20	–	–	–	55	50	–	–	–	–	55	45	–	55	45	–	50	45	–	–	–	–
21	–	–	–	35	30	–	–	–	–	35	30	–	35	30	–	30	25	–	–	–	–
22	–	–	–	55	50	–	–	–	–	55	45	–	55	45	–	50	45	–	–	–	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,05	0,10	0,16	0,65
Side milling	2%	0,22	0,44	0,71	1,20
	5%	0,14	0,28	0,45	1,10
	10%	0,10	0,20	0,32	1,00
	20%	0,07	0,14	0,23	0,90
	30%	0,06	0,12	0,19	0,85
Average chip thickness h_m		0,03	0,06	0,10	–

Type of insert

	Insert size	Width of slot mm
	12	12–15

Insert selection – (R)335.18-R08

Universal insert: RPKT 1605M0T-ME11 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternative
1	0,25–0,38	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
2	0,25–0,38	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
3	0,25–0,38	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
4	0,20–0,32	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
5	0,20–0,28	RPHT 1605M0T-M12 F40M	RPHT 1605M0T-M12 T350M
6	0,16–0,28	RPKW 1605M0T-MD20 T200M	RPKW 1605M0T-MD20 T200M
7	–	–	–
8	0,25–0,38	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
9	0,25–0,38	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
10	0,20–0,28	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M
11	0,20–0,28	RPHT 1605M0T-M12 F40M	RPHT 1605M0T-M12 T350M
12	0,25–0,38	RPKW 1605M0T-MD20 T200M	RPKW 1605M0T-MD20 F15M
13	0,25–0,38	RPKW 1605M0T-MD20 T200M	RPKW 1605M0T-MD20 F15M
14	0,20–0,28	RPKW 1605M0T-MD20 T200M	RPKW 1605M0T-MD20 F15M
15	0,20–0,28	RPKW 1605M0T-MD20 T200M	RPKW 1605M0T-MD20 F15M
16	0,20–0,38	RPHT 1605M0-E08 H25	RPHT 1605M0-E08 H25
17	0,20–0,38	RPHT 1605M0-E08 H25	RPHT 1605M0-E08 H25
20	0,20–0,28	RPHT 1605M0T-ME11 F40M	RPHW 1605M0T-MD08 F40M
21	0,16–0,25	RPHT 1605M0T-ME11 F40M	RPHW 1605M0T-MD08 F40M
22	0,20–0,28	RPHT 1605M0T-ME11 F40M	RPHT 1605M0T-ME11 T350M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T200M			T350M			F15M			F25M			F30M			F40M			H25		
	Feed rate, f_z (mm/tooth)																				
	0,16	0,25	0,38	0,16	0,25	0,38	0,16	0,25	0,38	0,16	0,25	0,38	0,16	0,25	0,38	0,16	0,25	0,38	0,16	0,25	0,38
Cutting speed, v_c (m/min)																					
1	–	–	–	300	265	235	–	–	–	275	245	215	270	245	215	260	230	205	–	–	–
2	–	–	–	265	235	210	–	–	–	245	215	190	240	215	190	230	205	180	–	–	–
3	–	–	–	220	195	170	–	–	–	200	180	160	200	180	155	190	170	150	–	–	–
4	225	200	175	200	175	155	–	–	–	185	165	145	180	160	145	175	155	135	–	–	–
5	185	165	145	165	150	130	–	–	–	155	135	120	150	135	120	145	130	115	–	–	–
6	135	120	–	120	105	–	–	–	–	110	100	–	110	95	–	105	90	–	–	–	–
7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
8	–	–	–	195	175	155	–	–	–	190	170	150	190	165	150	180	160	140	–	–	–
9	–	–	–	170	155	135	–	–	–	165	145	130	165	145	130	155	140	125	–	–	–
10	–	–	–	145	130	–	–	–	–	140	125	–	140	125	–	135	120	–	–	–	–
11	–	–	–	115	100	–	–	–	–	110	100	–	110	95	–	105	90	–	–	–	–
12	185	165	145	165	150	130	195	170	150	155	135	120	150	135	120	145	130	115	135	120	110
13	170	155	135	155	135	120	175	160	140	140	125	110	140	125	110	135	120	105	125	110	100
14	155	140	–	140	125	–	160	145	–	130	115	–	125	115	–	120	110	–	115	100	–
15	125	115	–	115	100	–	130	115	–	105	90	–	105	90	–	100	85	–	95	85	–
16	–	–	–	860	770	680	1005	895	790	795	705	625	785	700	620	750	670	590	710	635	560
17	–	–	–	695	620	550	810	720	635	640	570	505	635	565	500	605	540	475	575	510	455
20	–	–	–	50	45	–	–	–	–	50	45	–	50	45	–	45	40	–	–	–	–
21	–	–	–	30	30	–	–	–	–	30	25	–	30	25	–	30	25	–	–	–	–
22	–	–	–	50	45	–	–	–	–	50	45	–	50	45	–	45	40	–	–	–	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,08	0,12	0,19	0,65
Side milling	2%	0,35	0,55	0,84	1,20
	5%	0,22	0,35	0,53	1,10
	10%	0,16	0,25	0,38	1,00
	20%	0,12	0,18	0,27	0,90
	30%	0,10	0,15	0,23	0,85
Average chip thickness h_m		0,05	0,08	0,12	–

Type of insert

	Insert size	Width of slot mm
	16	16–18,5

Insert selection – (R)335.18

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	First choice	First choice
1	0,25–0,42	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
2	0,25–0,42	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
3	0,23–0,38	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
4	0,23–0,38	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
5	0,23–0,35	335.18-1005T-M10 T250M	335.18-1305T-M11 T250M	335.18-1606T-M12 T250M
6	0,23–0,32	335.18-1005T-M10 T200M	335.18-1305T-M11 T200M	335.18-1606T-M12 T200M
7	0,16–0,28	335.18-1005T-M10 T200M	335.18-1305T-M11 T200M	335.18-1606T-M12 T200M
8	0,25–0,42	335.18-1005T-M10 F40M	335.18-130508-M11 F40M	335.18-160608-M12 F40M
9	0,25–0,38	335.18-1005T-M10 F40M	335.18-130508-M11 F40M	335.18-160608-M12 F40M
10	0,23–0,32	335.18-1005T-M10 F40M	335.18-130508-M11 F40M	335.18-160608-M12 F40M
11	0,20–0,28	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
12	0,25–0,42	335.18-1005T-M10 T150M	335.18-1305T-M11 T150M	335.18-1606T-M12 T200M
13	0,25–0,38	335.18-1005T-M10 T150M	335.18-1305T-M11 T150M	335.18-1606T-M12 T200M
14	0,23–0,35	335.18-1005T-M10 T150M	335.18-1305T-M11 T150M	335.18-1606T-M12 T200M
15	0,20–0,28	335.18-1005T-M10 T200M	335.18-1305T-M11 T200M	335.18-1606T-M12 T200M
16	0,25–0,42	335.18-1005-E07 HX	335.18-1305-E08 HX	335.18-1606-E09 HX
17	0,25–0,42	335.18-1005-E07 HX	335.18-1305-E08 HX	335.18-1606-E09 HX
20	0,23–0,28	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
21	0,16–0,25	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M
22	0,23–0,28	335.18-1005T-M10 F40M	335.18-1305T-M11 F40M	335.18-1606T-M12 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																		
	T150M			T200M			T250M			T350M			F40M			HX			
	Feed rate, f_z (mm/tooth)																		
	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	
Cutting speed, v_c (m/min)																			
1	–	–	–	400	355	305	355	315	270	340	305	260	295	265	225	–	–	–	
2	–	–	–	355	315	270	315	280	240	305	270	230	265	235	200	–	–	–	
3	–	–	–	295	260	225	260	235	200	250	225	190	215	195	165	–	–	–	
4	–	–	–	265	240	205	235	210	180	225	205	175	200	175	150	–	–	–	
5	–	–	–	220	200	170	200	175	150	190	170	145	165	145	125	–	–	–	
6	–	–	–	160	145	120	140	125	110	135	120	105	120	105	90	–	–	–	
7	–	–	–	55	50	–	45	40	–	45	40	–	40	35	–	–	–	–	
8	–	–	–	275	245	210	235	210	180	225	200	170	205	180	155	–	–	–	
9	–	–	–	240	215	185	205	180	155	195	175	150	180	160	135	–	–	–	
10	–	–	–	205	180	155	175	155	135	165	150	125	150	135	115	–	–	–	
11	–	–	–	160	145	–	135	120	–	130	115	–	120	105	–	–	–	–	
12	280	250	215	220	200	170	200	175	150	190	170	145	165	145	125	155	140	120	
13	260	230	195	205	180	155	180	160	140	175	155	135	150	135	115	145	130	110	
14	235	210	180	185	165	140	165	150	125	160	140	120	140	125	105	130	115	100	
15	190	170	–	150	135	–	135	120	–	130	115	–	110	100	–	–	–	–	
16	–	–	–	–	–	–	–	–	–	985	880	750	855	765	655	815	725	620	
17	–	–	–	–	–	–	–	–	–	795	710	605	690	615	525	655	585	500	
20	–	–	–	–	–	–	65	55	–	60	50	–	55	45	–	–	–	–	
21	–	–	–	–	–	–	40	35	–	35	30	–	35	30	–	–	–	–	
22	–	–	–	–	–	–	65	55	–	60	50	–	55	45	–	–	–	–	

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,08	0,12	0,20	0,65
Side milling	2%	0,35	0,55	0,92	1,20
	5%	0,23	0,35	0,59	1,10
	10%	0,16	0,25	0,42	1,00
	20%	0,12	0,18	0,30	0,90
	30%	0,10	0,15	0,25	0,85
Average chip thickness h_m		0,05	0,08	0,13	–

Type of insert

	Insert size	Width of slot mm
	1005	14–18,5
	1305	18,5–24,3
	1606	24,3–30,5

Insert selection – (R)335.18N/L-16C

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	335.18-...N-16C			
		First choice		First choice	
1	0,25–0,42	APKT 1604PDTR-M14 F40M		APKT 1604PDTL-M14 F40M	APKT 1604PDTL-M14 F40M
2	0,25–0,42	APKT 1604PDTR-M14 F40M		APKT 1604PDTL-M14 F40M	APKT 1604PDTL-M14 F40M
3	0,23–0,38	APKT 1604PDTR-M14 F40M		APKT 1604PDTL-M14 F40M	APKT 1604PDTL-M14 F40M
4	0,23–0,38	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
5	0,23–0,35	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
6	0,23–0,32	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
7	0,16–0,28	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
8	0,25–0,42	APKT 1604PDTR-M14 F40M		APKT 1604PDTL-M14 F40M	APKT 1604PDTL-M14 F40M
9	0,25–0,38	APKT 1604PDTR-M14 F40M		APKT 1604PDTL-M14 F40M	APKT 1604PDTL-M14 F40M
10	0,23–0,32	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
11	0,20–0,28	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
12	0,25–0,42	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
13	0,25–0,38	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
14	0,23–0,35	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
15	0,20–0,28	APFT 1604PDTR-D15 T200M		APFT 1604PDTL-D15 T200M	APFT 1604PDTL-D15 T200M
16	0,25–0,42	APKT 1604PDR-E12 HX		APKT 1604PDL-E12 HX	APKT 1604PDL-E12 HX
17	0,25–0,42	APKT 1604PDR-E12 HX		APKT 1604PDL-E12 HX	APKT 1604PDL-E12 HX
20	0,23–0,28	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
21	0,16–0,25	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M
22	0,23–0,28	APFT 160416R-M13 F40M		APFT 160416L-M13 F40M	APFT 160416L-M13 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades														
	T200M			T25M			F40M			HX					
	Feed rate, f_z (mm/tooth)														
	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42			
	Cutting speed, v_c (m/min)														
1	410	365	310	335	295	255	305	270	230	–	–	–			
2	365	325	275	295	265	225	270	240	205	–	–	–			
3	300	265	230	245	220	185	220	200	170	–	–	–			
4	275	245	210	220	200	170	200	180	155	–	–	–			
5	225	205	175	185	165	140	170	150	130	–	–	–			
6	165	145	125	135	120	100	120	110	90	–	–	–			
7	55	50		45	40	–	40	35	–	–	–	–			
8	280	250	215	230	205	175	210	185	160	–	–	–			
9	245	220	185	200	180	150	180	160	140	–	–	–			
10	210	185	160	170	150	130	155	140	120	–	–	–			
11	165	145		135	120	–	120	110	–	–	–	–			
12	225	205	175	185	165	140	170	150	130	160	145	120			
13	210	185	160	170	150	130	155	140	120	145	130	110			
14	190	170	145	155	140	120	140	125	110	135	120	100			
15	155	140		125	110	–	115	100	–	110	95	–			
16	1180	1055	900	965	860	735	875	780	665	830	740	635			
17	955	850	730	780	695	595	705	630	540	670	600	510			
20	75	65		60	55	–	55	50	–	30	25	–			
21	45	40		35	35	–	35	30	–	20	15	–			
22	75	65		60	55	–	55	50	–	30	25	–			

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,08	0,12	0,20	0,65
Side milling	2%	0,35	0,55	0,92	1,20
	5%	0,23	0,35	0,59	1,10
	10%	0,16	0,25	0,42	1,00
	20%	0,12	0,18	0,30	0,90
	30%	0,10	0,15	0,25	0,85
Average chip thickness h_m		0,05	0,08	0,13	–

Type of insert

	Insert size	Width of slot mm
	1604	22–31

Insert selection – (R)335.18R-16C

Universal insert: APMX 160408TR-M14 T350M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternatives	
			Difficult operations	Optimization
1	0,25–0,42	APMX 160408TR-ME11 F40M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 T250M
2	0,25–0,42	APMX 160408TR-ME11 F40M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 T250M
3	0,23–0,38	APMX 160408TR-M14 T350M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 T250M
4	0,23–0,38	APMX 160408TR-M14 T350M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 T250M
5	0,23–0,35	APMX 160408TR-M14 T250M	APMX 160408TR-M14 T350M	APKX 1604PDR-ME12 T250M
6	0,23–0,32	APMX 160408TR-M14 T250M	APFT 1604PDTR-D15 T200M	APKX 1604PDR-ME12 T250M
7	0,16–0,28	APFT 1604PDTR-D15 T200M	APFT 1604PDTR-D15 F20M	APKX 1604PDR-ME12 F30M
8	0,25–0,42	APKX 1604PDR-ME12 T350M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 F40M
9	0,25–0,38	APKX 1604PDR-ME12 T350M	APMX 160408TR-M14 T350M	APMX 160408TR-ME11 F40M
10	0,23–0,32	APMX 160408TR-M14 T350M	APMX 160408TR-M14 F40M	APKX 1604PDR-ME12 T350M
11	0,20–0,28	APMX 160408TR-M14 F40M	APMX 160408TR-M14 F40M	APKX 1604PDR-ME12 T350M
12	0,25–0,42	APMX 160408TR-M14 T150M	APFT 1604PDTR-D15 T200M	APKX 1604PDR-ME12 F30M
13	0,25–0,38	APMX 160408TR-M14 T150M	APFT 1604PDTR-D15 T200M	APKX 1604PDR-ME12 F30M
14	0,23–0,35	APMX 160408TR-M14 T150M	APFT 1604PDTR-D15 T200M	APKX 1604PDR-ME12 F30M
15	0,20–0,28	APMX 160408TR-M14 T200M	APFT 1604PDTR-D15 T200M	APMX 160408TR-M14 T150M
16	0,25–0,42	APEX 160408FR-E08 H15	APMX 160408TR-ME11 F40M	APEX 160408FR-E08 F15M
17	0,25–0,42	APEX 160408FR-E08 H15	APMX 160408TR-ME11 F40M	APEX 160408FR-E08 F15M
20	0,23–0,28	APKX 1604PDR-ME12 T350M	APMX 160408TR-M14 F40M	APMX 160408TR-ME11 T250M
21	0,16–0,25	APMX 160408TR-M14 F40M	APMX 160408TR-M14 T350M	APKX 1604PDR-ME12 T350M
22	0,23–0,28	APMX 160408TR-ME11 F40M	APMX 160408TR-M14 F40M	APKX 1604PDR-ME12 T350M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T150M			T200M			T250M/F15M			T350M/F20M			F30M			F40M			H15/HX		
	Feed rate, f_z (mm/tooth)																				
	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42	0,16	0,25	0,42
Cutting speed, v_c (m/min)																					
1	–	–	–	410	365	310	365	325	275	350	310	265	320	285	245	305	270	230	–	–	–
2	–	–	–	365	325	275	325	290	245	310	275	235	285	250	215	270	240	205	–	–	–
3	–	–	–	300	265	230	265	240	205	255	230	195	235	210	180	220	200	170	–	–	–
4	–	–	–	275	245	210	240	215	185	230	205	175	210	190	160	200	180	155	–	–	–
5	–	–	–	225	205	175	200	180	155	195	175	150	175	160	135	170	150	130	–	–	–
6	–	–	–	165	145	125	145	130	110	140	125	105	125	115	95	120	110	90	–	–	–
7	–	–	–	55	50	–	50	45	–	45	40	–	40	40	–	40	35	–	–	–	–
8	–	–	–	280	250	215	240	215	185	230	205	175	220	195	165	210	185	160	–	–	–
9	–	–	–	245	220	185	210	185	160	200	180	150	190	170	145	180	160	140	–	–	–
10	–	–	–	210	185	160	180	160	135	170	150	130	165	145	125	155	140	120	–	–	–
11	–	–	–	165	145	–	140	125	–	135	120	–	125	115	–	120	110	–	–	–	–
12	285	255	220	225	205	175	200	180	155	195	175	150	175	160	135	170	150	130	160	145	120
13	265	235	200	210	185	160	185	165	140	180	160	135	165	145	125	155	140	120	145	130	110
14	240	215	185	190	170	145	170	150	130	165	145	125	150	130	115	140	125	110	135	120	100
15	195	175	–	155	140	–	135	120	–	130	115	–	120	105	–	115	100	–	110	95	–
16	–	–	–	1180	1055	900	1050	935	800	1005	895	770	920	820	700	875	780	665	830	740	635
17	–	–	–	955	850	730	850	755	645	815	725	620	745	660	565	705	630	540	670	600	510
20	–	–	–	–	–	–	65	60	–	60	55	–	55	50	–	55	50	–	30	25	–
21	–	–	–	–	–	–	40	35	–	35	35	–	35	30	–	35	30	–	20	15	–
22	–	–	–	–	–	–	65	60	–	60	55	–	55	50	–	55	50	–	30	25	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,08	0,12	0,20	0,65
Side milling	2%	0,35	0,55	0,92	1,20
	5%	0,23	0,35	0,59	1,10
	10%	0,16	0,25	0,42	1,00
	20%	0,12	0,18	0,30	0,90
	30%	0,10	0,15	0,25	0,85
Average chip thickness h_m		0,05	0,08	0,13	–

Type of insert

	Insert size	a_p max mm
	1604	15

Insert selection – (R)335.18N/L-15H

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	335.18-..N-15H		335.18-..L-15H First choice
		First choice	First choice	
1	0,30–0,50	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
2	0,30–0,50	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
3	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
4	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
5	0,25–0,40	ACET 150612TR-M11 F40M	ACET 150612TL-M11 F40M	ACET 150612TL-M11 F40M
6	0,25–0,35	ACET 150612TR-M11 T250M	ACET 150612TL-M11 T250M	ACET 150612TL-M11 T250M
7	0,20–0,30	ACET 150612TR-M11 T250M	ACET 150612TL-M11 T250M	ACET 150612TL-M11 T250M
8	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
9	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
10	0,25–0,40	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
11	0,20–0,35	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
12	0,28–0,45	ACET 150612TR-M11 T150M	ACET 150612TL-M11 T150M	ACET 150612TL-M11 T150M
13	0,28–0,45	ACET 150612TR-M11 T150M	ACET 150612TL-M11 T150M	ACET 150612TL-M11 T150M
14	0,25–0,40	ACET 150612TR-M11 T150M	ACET 150612TL-M11 T150M	ACET 150612TL-M11 T150M
15	0,25–0,35	ACET 150612TR-M11 T150M	ACET 150612TL-M11 T150M	ACET 150612TL-M11 T150M
16	0,30–0,50	ACET 150612TR-ME10 F40M	ACET 150612TL-ME10 F40M	ACET 150612TL-ME10 F40M
17	0,30–0,50	ACET 150612TR-ME10 F40M	ACET 150612TL-ME10 F40M	ACET 150612TL-ME10 F40M
20	0,20–0,40	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
21	0,20–0,30	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M
22	0,25–0,35	ACET 150612TR-M14 F40M	ACET 150612TL-M14 F40M	ACET 150612TL-M14 F40M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades														
	T150M			T25M			F40M			T250M					
	Feed rate, f_z (mm/tooth)														
	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50			
Cutting speed, v_c (m/min)															
1	–	–	–	330	295	255	300	270	230	360	325	275			
2	–	–	–	295	265	225	270	240	205	320	290	245			
3	–	–	–	245	220	185	220	200	170	265	240	200			
4	–	–	–	220	200	170	200	180	155	240	215	185			
5	–	–	–	185	165	140	170	150	130	200	180	155			
6	–	–	–	135	120	–	120	110	–	145	130	–			
7	–	–	–	45	40	–	40	35	–	50	45	–			
8	–	–	–	230	205	175	210	185	160	240	215	180			
9	–	–	–	200	180	150	180	160	140	210	185	160			
10	–	–	–	170	150	130	155	140	115	180	160	135			
11	–	–	–	135	120	–	120	110	–	140	125	–			
12	285	255	215	185	165	140	170	150	130	200	180	155			
13	260	235	200	170	150	130	155	140	115	185	165	140			
14	240	215	180	155	140	120	140	125	105	170	150	130			
15	195	175	–	125	110	–	115	100	–	135	120	–			
16	–	–	–	960	860	730	875	780	665	1045	935	795			
17	–	–	–	775	695	590	705	630	535	845	755	645			
20	–	–	–	60	55	–	55	50	–	65	60	–			
21	–	–	–	35	35	–	35	30	–	40	35	–			
22	–	–	–	60	55	–	55	50	–	65	60	–			

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed	–	0,10	0,15	0,24	0,65
Side milling	2%	0,44	0,66	1,10	1,20
	5%	0,28	0,42	0,70	1,10
	10%	0,20	0,30	0,50	1,00
	20%	0,14	0,22	0,36	0,90
	30%	0,12	0,18	0,30	0,85
Average chip thickness h_m		0,06	0,09	0,16	–

Type of insert

	Insert size	Width of slot mm
	1506	20–29,2

Insert selection – (R)335.18R-15H

Universal insert: ACET 150612TR-M14 F40M

Seco material group No.	Recom. feed f_z mm/tooth $a_e/D_c = 10\%$	First choice	Alternatives	
			Difficult operations	Optimization
1	0,30–0,50	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 F40M	ACET 150612TR-ME10 T350M
2	0,30–0,50	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 F40M	ACET 150612TR-ME10 T350M
3	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TR-M11 F40M	ACET 150612TR-ME10 T350M
4	0,28–0,45	ACET 150612TR-M14 F40M	ACET 150612TR-M11 F40M	ACET 150612TR-ME10 T350M
5	0,25–0,40	ACET 150612TR-M11 T350M	ACET 150612TR-M11 F40M	ACET 150612TR-ME10 T350M
6	0,25–0,35	ACET 150612TR-MD15 T200M	ACET 150612TR-MD15 T200M	ACMT 150612TR-M14 T250M
7	0,20–0,30	ACET 150612TR-MD15 T200M	ACET 150612TR-MD15 T200M	ACMT 150612TR-M14 T250M
8	0,28–0,45	ACET 150612TR-ME10 F40M	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 T350M
9	0,28–0,45	ACET 150612TR-ME10 F40M	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 T350M
10	0,25–0,40	ACET 150612TR-ME10 F40M	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 T350M
11	0,20–0,35	ACET 150612TR-M16 F40M	ACET 150612TR-M14 F40M	ACET 150612TR-ME10 T350M
12	0,28–0,45	ACET 150612TR-M11 T150M	ACET 150612TR-M11 T200M	ACET 150612TR-M14 T150M
13	0,28–0,45	ACET 150612TR-M11 T150M	ACET 150612TR-M11 T200M	ACET 150612TR-M14 T150M
14	0,25–0,40	ACET 150612TR-M11 T150M	ACET 150612TR-MD15 T200M	ACET 150612TR-M14 T150M
15	0,25–0,35	ACET 150612TR-MD15 T200M	ACET 150612TR-MD15 T200M	ACET 150612TR-M14 T150M
16	0,30–0,50	ACET 150612TR-ME10 F40M	ACET 150612TR-ME10 T350M	ACET 150612TR-ME10 F40M
17	0,30–0,50	ACET 150612TR-ME10 F40M	ACET 150612TR-ME10 T350M	ACET 150612TR-ME10 F40M
20	0,20–0,40	ACET 150612TR-M14 F40M	ACET 150612TR-M14 T350M	ACMT 150612TR-M14 T250M
21	0,20–0,30	ACET 150612TR-M14 F40M	ACET 150612TR-M11 F40M	ACET 150612TR-M14 T350M
22	0,25–0,35	ACET 150612TR-ME10 F40M	ACET 150612TR-M14 F40M	ACET 150612TR-M14 T350M

Cutting data – 10% engagement width ($a_e/D_c = 10\%$)

Seco material group No.	Grades																				
	T150M			T200M			T250M			T350M			F25M			F40M			HX		
	Feed rate, f_z (mm/tooth)																				
	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50	0,20	0,30	0,50
	Cutting speed, v_c (m/min)																				
1	–	–	–	410	365	310	360	325	275	345	310	265	330	295	255	300	270	230	–	–	–
2	–	–	–	360	325	275	320	290	245	310	275	235	295	265	225	270	240	205	–	–	–
3	–	–	–	300	265	225	265	240	200	255	230	195	245	220	185	220	200	170	–	–	–
4	–	–	–	270	245	205	240	215	185	230	205	175	220	200	170	200	180	155	–	–	–
5	–	–	–	225	205	170	200	180	155	195	175	145	185	165	140	170	150	130	–	–	–
6	–	–	–	165	145	–	145	130	–	140	125	–	135	120	–	120	110	–	–	–	–
7	–	–	–	55	50	–	50	45	–	45	40	–	45	40	–	40	35	–	–	–	–
8	–	–	–	280	250	215	240	215	180	230	205	175	230	205	175	210	185	160	–	–	–
9	–	–	–	245	220	185	210	185	160	200	180	150	200	180	150	180	160	140	–	–	–
10	–	–	–	210	185	160	180	160	135	170	150	130	170	150	130	155	140	115	–	–	–
11	–	–	–	165	145	–	140	125	–	135	120	–	135	120	–	120	110	–	–	–	–
12	285	255	215	225	205	170	200	180	155	195	175	145	185	165	140	170	150	130	160	145	120
13	260	235	200	210	185	160	185	165	140	180	160	135	170	150	130	155	140	115	145	130	110
14	240	215	180	190	170	145	170	150	130	160	145	125	155	140	–	140	125	105	135	120	100
15	195	175	–	155	140	–	135	120	–	130	115	–	125	110	–	115	100	–	110	95	–
16	–	–	–	–	–	–	1045	935	795	1005	895	765	960	860	730	875	780	665	–	–	–
17	–	–	–	–	–	–	845	755	645	810	725	615	775	695	590	705	630	535	–	–	–
20	–	–	–	–	–	–	65	60	–	60	55	–	60	55	–	55	50	–	30	25	–
21	–	–	–	–	–	–	40	35	–	35	35	–	35	35	–	35	30	–	20	15	–
22	–	–	–	–	–	–	65	60	–	60	55	–	60	55	–	55	50	–	30	25	–

Cutting data – Side milling

Operations	a_e/D_c	Recom. feed f_z mm/tooth			Speed factor
Radial infeed Side milling	–	0,10	0,15	0,24	0,65
	2%	0,44	0,66	1,10	1,20
	5%	0,28	0,42	0,70	1,10
	10%	0,20	0,30	0,50	1,00
	20%	0,14	0,22	0,36	0,90
	30%	0,12	0,18	0,30	0,85
Average chip thickness h_m		0,06	0,09	0,16	–

Type of insert

	Insert size	a_p max mm
	1506	14,6

	d	s	m
ACE.	0,025	0,025	0,025
ACM.	0,08	0,13	0,08

Size	Dimensions in mm		
	~l	d	s
1506	15	12,7	6,35

Inserts	Part No.	r_E	Cutting rake	Prot. chamfer		Grades																					
				Width mm	Angle	Coated										Uncoated					Cermet						
						T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M				
E08	ACET	150612TR-ME10	1,2	22°	0,10	10°						■						■									
 		150612TR-M11	1,2	14°	0,09	20°	■	■	■	■	■				■			■									
		150612TR-M14	1,2	15°	0,12	15°	■		■	■								■				■					
		150612TR-MD15	1,2	15°	0,18	30°		■	■		■																
		150612TL-M11	1,2	14°	0,09	20°					■								■								
		150612TL-M14	1,2	15°	0,12	15°					■								■								
ME10	ACET	150630TR-M14	3,0	15°	0,12	15°																					
 		150630TR-MD15	3,0	15°	0,18	30°		■			■																
		150631TR-ME10	3,1	22°	0,10	10°				■																	
		150631TR-M11	3,1	14°	0,09	20°													■								
		150631TR-M14	3,1	15°	0,12	15°	■												■								
		150631TL-ME10	1,2	22°	0,10	10°				■																	
M11/M14/MD15		150631TL-M11	3,1	14°	0,09	20°													■								
		150631TL-M14	3,1	15°	0,12	15°	■												■								
	ACET	150660TR-M14	6,0	15°	0,12	15°	■		■		■								■								
 		150660TL-M14	6,0	15°	0,12	15°	■		■										■								
	ACMT	150612TR-M14	1,2	15°	0,14	15°					■	■							■								

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AP..16

Tolerances (± mm)				
	APEX	d	s	m
	APFT	0,025	0,025	0,025
	APKT	0,013	0,025	0,007
		0,050	0,025	0,013

Size	Dimensions in mm		
	~l	d	s
1604	17	9,525	4,76

Inserts	Part No.	r _E	Cutting rake	Prot. chamfer		Grades																	
				Width mm	Angle	Coated								Uncoated				Cermet					
						T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M
 	APEX 160408FR-E07	0,8	18°	—	—																		
	160408FR-E08	0,8	25°	—	—						■								■				
	160431FR-E08	3,1	25°	—	—						■									■			
			0,8	15°	0,10	0°			■		■					■				■			
 	APFT 1604PDR-M12							■		■						■				■			
		0,8	8°	0,10	10°		■	■		■			■		■	■				■			■
	APFT 1604PDTR-D15	0,8	8°	0,10	10°		■	■		■			■							■			
	1604PDTL-D15	0,8	13°	0,13	15°			■							■								
 	1604PDTR-E08																						
		1,6	15°	0,21	0°			■								■				■			
	APFT 160416R-M13	1,6	15°	0,21	0°			■								■							
	160416L-M13	2,4	15°	0,21	0°			■								■							
 	160424R-M13	3,0	15°	0,21	0°			■		■						■				■			
	160430R-M13	3,0	15°	0,21	12°					■													
	160430TR-MD15	3,0	15°	0,21	0°															■			
	160430L-M13	4,0	15°	0,21	0°											■							
 	160440R-M13	4,8	15°	0,21	0°			■								■							
	160448R-M13	6,0	15°	0,21	0°											■							
	160460R-M13																						
		0,4	22°	0,08	0°			■									■				■		
 	APKT 1604PDR-E12	0,4	22°	0,08	0°												■						
	1604PDL-E12	0,4	22°	0,15	12°				■		■						■				■		
	1604PDTR-M14	0,8	24°	0,14	10°		■	■	■		■					■				■			■
	1604PDTR-ME14	0,8	8°	0,10	10°		■																
 	160408TR-D15	0,8	22°	0,15	12°				■		■					■				■			
	160408TL-M14																						
 																							

■ Stock standard
 Subject to change refer to current price and stock-list
 When using inserts with radius > 3,0 mm, the cutter body must be modified.

AP..16

Tolerances (± mm)				
	APKX	d	s	m
	APMX	0,050	0,025	0,013
		0,050	0,050	–

Size	Dimensions in mm		
	~l	d	s
1604	17	9,525	5,67

Inserts	Part No.	r _ε	Cutting rake	Prot. chamfer		Grades																		
				Width mm	Angle	Coated										Uncoated					Cermet			
						T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M	
ME11/ME12  M14 	APKX 1604PDR-ME11	0,8	24°	0,13	0°											■								
	1604PDR-ME12	0,8	24°	0,13	0°	■		■	■	■						■	■			■				
	160416R-ME12	1,6	24°	0,13	0°			■									■							
	APMX 160408TR-ME11	0,8	24°	0,13	0°		■		■	■							■							
	160408TR-M14	0,8	24°	0,19	0°	■	■	■	■	■							■							
	160408TL-M14	0,8	24°	0,19	0°				■															
	160416TR-M14	1,6	24°	0,19	0°				■	■							■							
	160416TL-M14	1,6	24°	0,19	0°					■														
	160431TR-M14	3,1	24°	0,19	0°				■															
	APKX 160430R-ME12	3,0	24°	0,13	0°			■		■							■							
	160440R-ME12	4,0	24°	0,13	0°				■								■							

■ Stock standard
 Subject to change refer to current price and stock-list
 When using inserts with radius > 3,0 mm, the cutter body must be modified.

LNKT/LNKW

Tolerances (± mm)			
	LNKT/LNKW05	l	s
	LNKT/LKKW06/08	0,013	0,025
		0,013	0,025

Size	Dimensions in mm		
	l	s	s
0504	10	4,7	5,2
06	10	5	7,8
08	10	5	7,8

Inserts	Part No.	r _E	Nb**	Cutting rake	Prot. chamfer		Grades																	
					Width mm	Angle	Coated								Uncoated				Cermet					
							T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M
 	LNKT 050404PPN4-E05	0,4	4	23°	–	–																		
	050408PPN4-E05	0,8	4	23°	–	–																		
	LNKT 050404PPTN4-M06	0,4	4	15°	0,1	0°		■			■							■	■					
	050408PPTN4-M06	0,8	4	15°	0,1	0°		■			■							■	■					
	050416PPTN4-M06	1,6	4	15°	0,1	0°		■			■								■	■				
	050420PPTN4-M06	2,0	4	15°	0,1	0°		■			■									■	■			
	050424PPTN2-M06	2,4	2	15°	0,1	0°														■	■			
	050431PPTR1-M06	3,1	1	15°	0,1	0°														■	■			
	050431PPTL1-M0	3,1	1	15°	0,1	0°														■	■			
	LNKW 050404PPN4-MD07	0,4	4	0°	–	–			■			■												
050408PPN4-MD07	0,8	4	0°	–	–			■			■													
 	LNKT 060504PPN-E05	0,4	4	23°	–	–																	■	
	060508PPN-E05	0,8	4	23°	–	–																	■	
	060516PPN-E05	1,6	4	23°	–	–																	■	
	060531PPN-E05	3,1	2	23°	–	–																	■	
	060540PPR-E05	4,0	1	23°	–	–																	■	
	060540PPL-E05	4,0	1	23°	–	–																	■	
	LNKT 060504PPTN-M06	0,4	4	15°	0,1	0°	■				■	■								■	■			
	060508PPTN-M06	0,8	4	15°	0,1	0°	■				■	■									■	■		
	060516PPTN-M06	1,6	4	15°	0,1	0°															■	■		
	060531PPTN-M06	3,1	2	15°	0,1	0°															■	■		
	060540PPTR-M06	4,0	1	15°	0,1	0°		■													■	■		
	060540PPTL-M06	4,0	1	15°	0,1	0°		■													■	■		
	LNKW 060504PPN-MD08	0,4	4	0°	–	–	■														■			
	060508PPN-MD08	0,8	4	0°	–	–	■				■													
 	LNKT 080504PPN-E05	0,4	4	23°	–	–																	■	
	080508PPN-E05	0,8	4	23°	–	–																	■	
	080516PPN-E05	1,6	4	23°	–	–																	■	
	080520PPN-E05*	2,0	4	23°	–	–																	■	
	080524PPN-E05*	2,4	4	23°	–	–																	■	
	080531PPN-E05	3,1	2	23°	–	–																	■	
	080540PPN-E05	4,0	1	23°	–	–																	■	
	080540PPL-E05	4,0	1	23°	–	–																	■	
	LNKT 080504PPTN-M06	0,4	4	15°	0,1	0°					■	■											■	
	080508PPTN-M06	0,8	4	15°	0,1	0°	■				■	■											■	
	080516PPTN-M06	1,6	4	15°	0,1	0°	■																■	
	080520PPTN-M06*	2,0	4	15°	0,1	0°	■																■	
	080524PPTN-M06*	2,4	4	15°	0,1	0°	■																■	
	060531PPTN-M06	3,1	2	15°	0,1	0°	■																■	
	080540PPTN-M06	4,0	1	15°	0,1	0°		■															■	
	080540PPTL-M06	4,0	1	15°	0,1	0°		■															■	
	LNKW 080504PPN-MD08	0,4	4	0°	–	–	■																■	
	080508PPN-MD08	0,8	4	0°	–	–	■				■													

■ Stock standard
 Subject to change refer to current price and stock-list
 When using inserts with radius > 3,0 mm, the cutter body must be modified.

*Also used for slot width 10-12 mm.
 **Nb = Number of edges

Tolerances (± mm)				Dimensions in mm			
				Size	~l	ae	b
R335.15-.. ae 0 – +0,15 b 0 – +0,05							
				13160	13,50	2,20	1,63
				13185	13,50	2,20	1,88
				13215	13,50	3,10	2,18
				13265	13,50	3,10	2,68

R335.15-18..

Size	Dimensions in mm		
	$\sim l$	a_e	b
18315	18,0	3,55	3,20
18350	18,0	3,85	3,55
18400	18,0	4,55	4,05
18415	18,0	4,55	4,20
18500	18,0	5,50	5,05
18515	18,0	5,50	5,20

[illegible]

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RD..06/08/10

Tolerances (± mm)			
	RDHT	D	s
	RDHW	0,013	0,025
	RDKW	0,013	0,025
		0,05	0,025

Size	Dimensions in mm	
	D	s
06T1	6,0	2,18
0803	8,0	3,18
10T3	10,0	3,97

Inserts	Part No.	Cutting rake	Prot. chamfer		Grades																				
			Width mm	Angle	Coated										Uncoated				Cermet						
					T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M			
 	RDHT	06T1M0-E02	18°	—	—											■						■			
		0803M0-E03	20°	—	—					■							■						■		
		10T3M0-E04	20°	—	—					■							■						■		
		10T3M0T-M05	16°	0,05	15°					■							■								
		10T3M0T-M07	11°	0,10	8°					■							■								
 	RDHW	06T1M0-MD02	0°	—	—						■				■	■									
		0803M0-MD03	0°	—	—											■	■								
		10T3M0-MD04	0°	—	—												■	■							
	RDKW	0803M0T-MD05	0°	0,05	20°						■				■		■								
		10T3M0T-MD06	0°	0,05	15°		■				■				■		■								
 																									

■ Stock standard
 Subject to change refer to current price and stock-list

RP..12

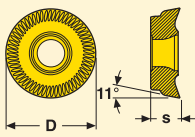
Tolerances (± mm)		
	RPHT	D 0,013
	RPH.	s 0,025
	RPKW	0,013
		0,08

Size	Dimensions in mm	
	D	s
1204	12,0	4,76

Inserts	Part No.	Cutting rake	Prot. chamfer		Grades																	
			Width mm	Angle	Coated										Uncoated					Cermets		
					T150M	T200M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M	
ME07 	RPHT 1204M0T-M08	16°	0,10	15°				■														
	1204M0T-M10	11°	0,12	8°					■					■								
	1204M0-E05	20°	—	—					■					■								
	1204M0T-ME07	20°	0,08	15°				■						■								
	1204M0T-M15	15°	0,20	0°	■			■				■		■								
E05/MD05 	RPHW 1204M0-MD05	0°	—	—										■	■							
	RPKW 1204M0T-MD10	0°	0,07	20°	■				■			■										
M08/M15/MD10 																						

■ Stock standard
Subject to change refer to current price and stock-list

RP..1605



Tolerances (± mm)

	D	s
RPHT	0,013	0,025
RPKW	0,010	0,025
RPHW	0,013	0,025

Size	Dimensions in mm	
	D	s
1605	16,0	5,56

Inserts	Part No.	Cutting rake	Prot. chamfer		Grades																			
			Width mm	Angle	Coated								Uncoated				Cermet							
					T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M		
ME11 	RPHT	1605M0T-ME11	21°	0,10	15°					■						■								
		1605M0-E08	21°	—	—																	■		
		1605M0T-M12	15°	0,12	15°					■							■							
		1605M0T-M18	15°	0,29	15°					■				■			■							
		RPKW	1605M0T-MD20	0°	0,30	7°				■				■										
M12/M18/MD08/MD20 	RPHW	1605M0T-MD08	0°	—	—											■	■							
E08 																								

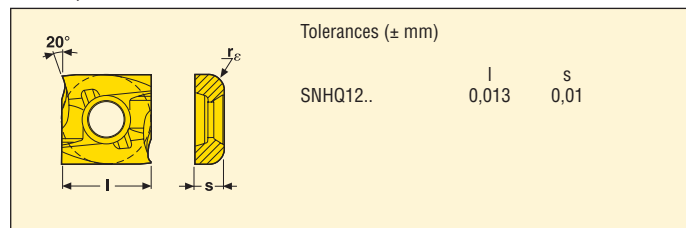
■ Stock standard
Subject to change refer to current price and stock-list

Size	Dimensions in mm	
	l	s
1102	11,0	2,3
1103	11,0	2,7
1203	12,7	3,2

Insert	Part No	Radius		Cutting rake	Prot. chamfer		Grades																		
		r _E	Nb*		With mm	Angle	Coated										Uncoated								
							T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25		
 	SNHQ 110202TL4-M07	0,2	4	20°	0,1	10°																			
	110202TR4-M07	0,2	4	20°	0,1	10°																			
	110202EL4-E05	0,2	4	20°	0,1	10°																			
	110202ER4-E05	0,2	4	20°	0,1	10°																			
	110204TL4-M07	0,4	4	20°	0,1	10°																			
	110204TR4-M07	0,4	4	20°	0,1	10°																			
	110208TL4-M07	0,8	4	20°	0,1	10°																			
	110208TR4-M07	0,8	4	20°	0,1	10°																			
	110212TL4-M07	1,2	4	20°	0,1	10°																			
	110212TR4-M07	1,2	4	20°	0,1	10°																			
 	110216TL4-M07	1,6	4	20°	0,1	10°																			
	110216TR4-M07	1,6	4	20°	0,1	10°																			
	SNHQ 110302TL4-M07	0,2	4	20°	0,1	10°																			
	110302TR4-M07	0,2	4	20°	0,1	10°																			
	110302EL4-E05	0,2	4	20°	0,1	10°																			
	110302ER4-E05	0,2	4	20°	0,1	10°																			
	110304TL4-M07	0,4	4	20°	0,1	10°																			
	110304TR4-M07	0,4	4	20°	0,1	10°																			
	110308TL4-M07	0,8	4	20°	0,1	10°																			
 	110308TR4-M07	0,8	4	20°	0,1	10°																			
	110312TL4-M07	1,2	4	20°	0,1	10°																			
	110312TR4-M07	1,2	4	20°	0,1	10°																			
	110316TL4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
	110316TR4-M07	1,6	4	20°	0,1	10°																			
110316TR4-M07	1,6	4	20°	0,1	10°																				
 	SNHQ 120302EL4-E05	0,2	4	20°	0,1	10°																			
	120302ER4-E05	0,2	4	20°	0,1	10°																			
	120302TL4-M07	0,2	4	20°	0,1	10°																			
	120302TR4-M07	0,2	4	20°	0,1	10°																			
	120304TL4-M07	0,4	4	20°	0,1	10°																			
	120304TR4-M07	0,4	4	20°	0,1	10°																			
	120308TL4-M07	0,8	4	20°	0,1	10°																			
	120308TR4-M07	0,8	4	20°	0,1	10°																			
	120312TL4-M07	1,2	4	20°	0,1	10°																			
	120312TR4-M07	1,2	4	20°	0,1	10°																			
120316TL4-M07	1,6	4	20°	0,1	10°																				
 	120316TR4-M07	1,6	4	20°	0,1	10°																			
	120320TL4-M07	2,0	4	20°	0,1	10°																			
	120320TR4-M07	2,0	4	20°	0,1	10°																			
	SNHQ 120320EL2-M07	2,0	2	20°	–	–																			
	120320ER2-M07	2,0	2	20°	–	–																			
	120324EL2-M07	2,4	2	20°	–	–																			
	120324ER2-M07	2,4	2	20°	–	–																			
	120330EL2-M07	3,0	2	20°	–	–																			
	120330ER2-M07	3,0	2	20°	–	–																			

75

SNHQ



Size	Dimensions in mm	
	l	s
1204	12,7	4,0
12045	12,7	4,5

Insert	Part No	Radius		Cutting rake	Prot. chamfer		Grades																	
		r _e	Nb*		With mm	Angle	Coated										Uncoated							
							T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	
	SNHQ 120402TL4-M07	0,2	4	20°	0,1	10°												■						
	120402TR4-M07	0,2	4	20°	0,1	10°												■						
	120404TL4-M07	0,4	4	20°	0,1	10°												■	■					
	120404TR4-M07	0,4	4	20°	0,1	10°												■	■					
	120404EL4-E05	0,4	4	20°	0,1	10°													■				■	
	120404ER4-E05	0,4	4	20°	0,1	10°													■				■	
	120408TL4-M07	0,8	4	20°	0,1	10°												■	■					
	120408TR4-M07	0,8	4	20°	0,1	10°												■	■					
	120412TL4-M07	1,2	4	20°	0,1	10°													■					
	120412TR4-M07	1,2	4	20°	0,1	10°													■					
	120416TL4-M07	1,6	4	20°	0,1	10°													■	■				
	120416TR4-M07	1,6	4	20°	0,1	10°													■	■				
	120420TL4-M07	2,0	4	20°	0,1	10°													■	■				
	120420TR4-M07	2,0	4	20°	0,1	10°													■	■				
	SNHQ 120424EL2-M07	2,4	2	20°	—	—														■				
	120424ER2-M07	2,4	2	20°	—	—														■				
	120431EL2-M07	3,1	2	20°	—	—														■				
	120431ER2-M07	3,1	2	20°	—	—														■				
	120435EL2-M07	3,5	2	20°	—	—														■				
120435ER2-M07	3,5	2	20°	—	—														■					
SNHQ 1204502TL4-M07	0,2	4	20°	0,1	10°														■					
1204502TR4-M07	0,2	4	20°	0,1	10°														■					
1204504TL4-M07	0,4	4	20°	0,1	10°														■	■				
1204504TR4-M07	0,4	4	20°	0,1	10°														■	■				
1204504EL4-E05	0,4	4	20°	0,1	10°														■	■			■	
1204504ER4-E05	0,4	4	20°	0,1	10°														■	■			■	
1204508TL4-M07	0,8	4	20°	0,1	10°														■	■				
1204508TR4-M07	0,8	4	20°	0,1	10°														■	■				
1204512TL4-M07	1,2	4	20°	0,1	10°															■				
1204512TR4-M07	1,2	4	20°	0,1	10°															■				
1204516TL4-M07	1,6	4	20°	0,1	10°														■	■				
1204516TR4-M07	1,6	4	20°	0,1	10°														■	■				
1204520TL4-M07	2,0	4	20°	0,1	10°														■	■				
1204520TR4-M07	2,0	4	20°	0,1	10°														■	■				
SNHQ 1204524EL2-M07	2,4	2	20°	—	—															■				
1204524ER2-M07	2,4	2	20°	—	—															■				
1204531EL2-M07	3,1	2	20°	—	—															■				
1204531ER2-M07	3,1	2	20°	—	—															■				
1204540EL2-M07	4,0	2	20°	—	—															■				
1204540ER2-M07	4,0	2	20°	—	—															■				

■ Stock standard
* Number of cutting edges

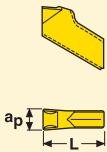
Tolerances ($\pm$ mm)	
	$\begin{matrix} l \\ s \end{matrix}$
SNHQ12..	$\begin{matrix} 0,013 \\ 0,01 \end{matrix}$

Size	Dimensions in mm	
	l	s
1205	12,7	5,4
1207	12,7	7,0

[illegible]

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150.10



Tolerances (± mm)

150.10-2.25/2.5	b 0,05
150.10-3/4	0,08

Size	Dimensions in mm	
	~L	ap
2N	9	2,24
2.5N	9	2,52
3N	9	3,11
4N	9	4,09

Inserts	Part No.		Cutting rake	Prot. chamfer		Grades																	
				Width mm	Angle	Coated										Uncoated				Cermet			
						T150M	T200M	T25M	T250M	T350M	F15M	F20M	F25M	F30M	F40M	CP600	S10M	S25M	S60M	HX	H15	H25	C15M
-12																							
	150.10	-2.5N-12	30°	—	—		■	■		■						■							
		-3N-12	30°	—	—		■	■		■						■							
		-4N-12	30°	—	—		■	■		■						■							
	150.10	-2.5N-14	21°	—	—			■		■						■							
		-3N-14	21°	—	—		■	■		■						■							
		-4N-14	21°	—	—		■	■		■						■							
	-14																						
	150.10	-2.25N-16	26°	—	—			■		■						■			■				
		-2.5N-16	26°	—	—			■		■						■			■				
		-3N-16	26°	—	—		■	■		■						■			■				
		-4N-16	26°	—	—		■	■		■						■			■				
																							
	-16																						
																							

■ Stock standard
Subject to change refer to current price and stock-list

335.18-

The image shows a technical drawing of a square insert. The front view is a square with side length A and a central circular hole with diameter s. The thickness of the insert is B. The side view shows the thickness B and the width s of the central hole.

Tolerances (± mm)

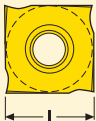
	I	s	A
335.18-10	0,013	0,025	0,013
335.18-13	0,025	0,025	0,013
335.18-16	0,025	0,025	0,013

Size	Dimensions in mm		
	I	s	A
-1005	10	5,4	10
-1305	12,7	5,4	10
-1606	16	6,4	12
-1005ZZ	10	5,4	10

Inserts	Part No.	B	Cutting rake	Prot. chamfer		Grades																				
				Width mm	Angle	Coated								Uncoated					Cermet							
						T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M			
 	335.18	-1005-E07	0,5	20°	–	–																				
		-1305-E08	0,5	20°	–	–																				
		-1606-E09	0,5	20°	–	–																				
 	335.18	-1005T-M10	0,5	10°	0,10	15°	■	■	■	■						■					■					
		-100508-M10	0,5	08°	0,10	15°					■															
		-1305T-M11	0,5	10°	0,10	15°	■	■	■	■							■					■				
		-130508-M11	0,5	08°	0,10	15°					■															
		-1606T-M12	0,5	10°	0,10	15°		■		■							■									
		-160608-M12	0,5	08°	0,10	15°					■															
 	335.18	-1005ZZ-MD10	–	0°	–	–															■					

■ Stock standard
 Subject to change refer to current price and stock-list

335.19-

Tolerances (± mm)		
		
335.19...	I 0,013	s 0,010

Size	Dimensions in mm	
	I	s
-1102.	11,0	2,3
-1103.	11,0	2,7
-1203.	12,7	3,2
-1204.	12,7	4,0
-12045.	12,7	4,5
-1205.	12,7	5,4
-1207.	12,7	7,0

Inserts	Part No.	Cutting rake	Prot. chamfer		Grades																		
			Width mm	Angle	Coated								Uncoated				Cermet						
					T150M	T200M	T25M	T250M	T350M	F15M	F17M	F20M	F25M	F30M	F40M	S10M	S25M	S60M	HX	H15	H25	C15M	
E07																							
 	335.19 -1102-E07	24°	—	—															■				
	-1103-E07	24°	—	—															■				
	-1203-E07	24°	—	—															■				
	-1204-E07	24°	—	—															■				
	-12045-E07	24°	—	—															■				
	-1205-E07	24°	—	—															■				
M08																			■				
 	335.19 -1102-M08	15°	0,11	0°					■						■				■				
	-1103-M08	15°	0,11	0°					■						■				■				
	-1203-M08	15°	0,13	0°					■						■				■				
	-1204-M08	15°	0,13	0°					■						■				■				
	-12045-M08	15°	0,13	0°					■						■				■				
	-1205-M08	15°	0,13	0°					■						■				■				
MD09																			■				
 	-1207-M08	15°	0,13	0°					■						■				■				
	335.19 -1102T-MD09	15°	0,15	15°		■	■	■															
	-1103T-MD09	15°	0,15	15°		■	■	■															
	-1203T-MD09	15°	0,15	15°		■	■	■															
	-1204T-MD09	15°	0,15	15°		■	■	■															
	-12045T-MD09	15°	0,15	15°		■	■	■															
	-1205T-MD09	15°	0,15	15°		■	■	■															
-1207T-MD09	15°	0,15	15°		■	■	■																

■ Stock standard
Subject to change refer to current price and stock-list

Steel

		R_m (N/mm ²)	k_c 1.1	m_c
1	Very soft low-carbon steels. Purely ferritic steels.	<450	1350	0,21
2	Free-cutting steels.	400 <700	1500	0,22
3	Structural steels. Ordinary carbon steels with low to medium carbon content (<0,5%C).	450 <550	1500	0,25
4	Carbon steels with high carbon content (>0,5%C). Medium hard steels for toughening. Ordinary low-alloy steels. Ferritic and martensitic stainless steels.	550 <700	1700	0,24
5	Normal tool steels. Harder steels for toughening. Martensitic stainless steels.	700 <900	1900	0,24
6	Difficult tool steels. High-alloy steels with high hardness. Martensitic stainless steels.	900 <1200	2000	0,24
7	Difficult high-strength steels with high hardness. Hardened steels from material group 3–6. Martensitic stainless steels.	>1200	2900	0,22

Stainless steels

8	Easy austenitic stainless steels. Free-cutting stainless steels. Calcium-treated stainless steels.		1750	0,22
9	Moderately difficult stainless steels. Austenitic and duplex stainless steels.		1900	0,20
10	Difficult stainless steels. Austenitic and duplex stainless steels.		2050	0,20
11	Very difficult stainless steels. Austenitic and duplex stainless steels.		2150	0,20

Cast iron

12	Medium hard cast iron. Grey iron.		1150	0,22
13	Low-alloy cast iron. Malleable cast iron. Nodular cast iron.		1225	0,25
14	Moderately difficult alloy cast iron. Moderately difficult malleable cast iron. Nodular cast iron.		1350	0,28
15	Difficult high-alloy cast iron. Difficult malleable cast iron. Nodular cast iron.		1470	0,30

Other materials

16	Free-cutting non-ferrous materials. Aluminium with <16% Si. Brass, Zinc, Magnesium.		700	0,25
17	Non-ferrous materials. Aluminium with >16% Si. Bronze, Cupro-nickel.		700	0,27
20	Nickel-, Cobalt- and Iron-based superalloys with hardness <30 HRc. Incoloy 800, Inconel 601, 617, 625. Monel 400.		2600	0,24
21	Nickel-, Cobalt- and Iron-based superalloys with hardness >30 HRc. Incoloy 925, Inconel 718, 750-X, Monel K-500.		3300	0,24
22	Titanium based alloys, Ti-6Al-4V.		1450	0,23

$k_{c1.1}$ -values with 0 degree effective cutting rake angle. For other rake angles, reduce the $k_{c1.1}$ -value by 1% for every degree increase in the cutting rake angle and vice versa, m_c is the exponent used for calculating power demand. Bear in mind that the R_m -value is only an aid in the selection of the material group when the material has been worked by rolling, drawing, heat treatment or other methods that increase the strength of the material.

Material Group	AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
1	1006	1.0201	St 36	-	Fd 5	1160	-	-	-
	1010	1.1121	Ck 10	045 M 10	XC 10	1265	F.1510	S 10 C	C10
	-	1.1121	St 37-1	4360 40 A	-	1300	-	S 10 C	-
	A27 65-35	1.0443	GS-45	A1	E 23-45 M	1305	F.221	-	-
	-	1.0416	GS-38	-	230-400 M	1306	-	-	-
	A570 36	1.0038	RSt 37-2	4360 40 C	E 24-2 Ne	1311	-	-	-
	A573-81 65	1.0116	St 37-3	4360 40 B	E 24-U	1312	-	-	Fe37-3
	A515 65	1.0345	H I	1501 161	A 37 CP	1330	F.1110	SGV 410, 450, 480, 490	-
	1015	1.0401	C 15	080 M 15	CC 12	1350	F.1110	S 15 C	C15:C16
	1022	1.1133	GS-20Mn 5	120 M 19	20 M 5	1410	F.1515	SMnC 420	G22Mn3
	A36	-	St 44-2	4360 43 A	NFA 35-501 E 28	1411	-	-	-
	A573-81	1.0144	St 44-3	4360 43 C	E 28-3	1412	-	SMH 400 A, B, C	-
	-	-	StE 320-3Z	1501 160	-	1421	-	-	-
	-	1.0425	H II	-	A 42 CP	1432	-	SGV 410, 450, 480	-
	1025	1.1158	Ck 25	050 A 20	XC 25	1450	F.1120	S 25 C	-
2	1213	1.0715	9 SMn 28	230 M 07	S 250	1912	-	SUM 22	CF9SMn28
	(12L13)	1.0718	9 SMnPb 28	-	S 250 Pb	1914	-	SUM 22 L	CF9SMnPb28
	-	1.0723	15 S 20	210 A 15	S 300	1922	-	SUM 32	-
	(12L14)	1.0737	9 SMnPb 36	-	S 300 Pb	1926	-	-	CF9SMnPb36
	(12L13)	1.0718	9 SMnPb 28	-	-	1940	-	(SUM 32 L)	CF9SMnPb28
	1140	1.0726	35 S 20	212 M 36	35 MF 4	1957	-	-	-
	1151	1.0727	45 S 20	212 M 44	45 MF 4	1973	-	-	-
3	1015	1.1141	Ck 15	080 M 15	XC 18	1370	F.1511	S 15 CK	C16
	A27 70-36	1.0551	GS-52	A2	280-480 M	1505	-	-	-
	1035	1.0501	C 35	060 A 35	AF 55 C 35	1550	F.1130	S 35 C	C35
	1035	1.1181	Ck 35	080 A 32	XC 38	1572	F.1135	S 35 C	C35
	A148 80-40	1.0553	GS-60	A3	320-560 M	1606	-	-	C45
	1043	1.0503	C 45	080 M 46	AF 65 C 45	1650	F.5110	S 45 C	C45
	1055	1.0535	C 55	070 M 55	-	1655	F.1150	S 55 C	C55
	1042	1.1191	Ck 45	080 A 47	XC 45	1660	F.1140	S 45 C	C45
	A537 1	1.0473	19 Mn 6	1501 224	A 52 CP	2101	F.1518	SGV 410, 450, 480	-
	A662 C	1.0436	AST 45	1501 224	A 48 FP	2103	-	-	-
	A738	1.0577	AST 52	1501 224	A 52 FP	2107	-	-	-
	-	1.0570	St 52-3	4360 50 B	E 36-3	2132	-	SM 490 A, B, C	Fe52BFN/Fe52CFN
	A572-60	-	17 MnV 6	4360 55 E	NFA 35-501 E 36	2142	-	-	-
	A572-60	1.8900	StE 380	4360 55 E	-	2145	-	-	FeE390KG
4	1045	1.1730	C 45W	En 43 B	-	1672	F.114	-	-
	1042	1.1191	Ck 45	080 M 46	-	1672	-	S 45 C	C45
	1064	1.1221	Ck 60	060 A 62	XC 65	1678	F.1150	S 58 C	C60
	1070	1.1231	Ck 67	070 A 72	XC 68	1770	F.5103	-	C70
	1080	1.1248	Ck 75	060 A 78	XC 75	1774	F.5107	-	-
	1095	1.1274	Ck 101	060 A 96	XC 100	1870	F.5117	SUP 4	-
	9254	1.0904	55 Si 7	250 A 53	55 S 7	2090	F.144	-	5SSi8
	1335	1.1167	36 Mn 5	150 M 36	40 M 5	2120	F.411	SMn 438(H)	-
	5120	1.0841	St 52-3	150 M 19	20 MC 5	2172	F.431	-	Fe52
	A387 12-2	1.7337	16 CrMo 4 4	1501 620	15 CD 4.5	2216	-	-	12CrMo910/
	A182 F-22	1.7380	10 CrMo 9 10	1501 622	12 CD 9.10	2218	F.155	-	G14CrMo910
	4130	1.7218	25 CrMo 4	CDS 110	25 CD 4	2225	F.1251	SCM 420	25CrMo4
	6150	1.8159	50 CrV 4	735 A 50	50 CV 4	2230	F.143	SUP 10	50CrV4
	4135	1.2330	35 CrMo 4	708 A 37	34 CD 4	2234	F.1250	SCM 432	-
	-	1.8515	31 CrMo 12	722 M 24	30 CD 12	2240	F.1712	-	30CrMo12
	4142	1.2332	47 CrMo 4	708 M 40	42 CD 4	2244	-	SCM 440	-
	4140	1.7225	42 CrMo 4	708 M 40	42 CD 4	2244	F.1252	SCM 440	42CrMo4
	5140	1.7045	42 Cr 41	530 A 40	42 C 4 TS	2245	F.1207	SCr 440	-
	5155	1.7176	55 Cr 31	527 A 60	55 C 3	2253	-	SUP 9(A)	55Cr31
	52100	1.3505	100 Cr 6	534 A 99	100 C 6	2258	F.5230	SUJ 2, SUJ 4	100Cr6
	8620	1.6523	21 NiCrMo 2	805 H 20	20 NCD 2	2506	F.1522	SNM 220(H)	20NiCrMo2
	5115	1.7131	16 MnCr 5	527 M 17	16 MC 5	2511	F.1516	-	16MnCr5
	A204A	1.5415	15 Mo 3	1501 240	15 D 3	2912	-	-	16Mo3
	A355A	1.8509	42 CrAlMo 7	905 M 39	40 CAD 6.12	2940	F.1740	-	41CrAlMo7
	403	1.4000	X6 Cr 13	403 S 17	Z 8 C 13	2301	-	SUS 403	X6Cr13
	(410S)	1.4001	X7 Cr 14	(403 S17)	Z 8 C 13	2301	F.3110	SUS 410 S	X6Cr13
	410	(1.4006)	G-X 10 Cr 13	410 S21	Z 10 C 13 M	2302	F.3401	SUS 410	X12Cr13
	P4	1.2341	X6 CrMo 4	-	-	-	-	-	-
	405	1.4724	X6 CrAl 13	405 S 17	Z 8 CA 12	-	-	SUS 405	X10CrAl12
	430	1.4016	X6 Cr 17	430 S 17	Z 8 C 17	2320	F.3113	SUS 430	X8Cr17
	434	1.4113	X6 CrMo 17	434 S 17	-	2325	-	SUS 434	X8CrMo17
	416	1.4005	X12 CrS 13	416 S 21	Z 11 CF 13	2380	F.3411	-	X12CrS13
	430F	1.4104	X12 CrMoS 17	420 S 37	Z 13 CF 17	2383	F.3117	SUS 430 F	X10CrS17
	409	1.4512	X5 CrTi 12	409 S 19	Z 6 CT 12	-	-	SUH 409	X6CrTi12
	430Ti	1.4510	X6 CrTi 17	-	Z 4 CT 17	-	-	-	X6CrTi17

Material Group	AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./I.H.A.	JIS	UNI
5	W1	1.1545	C105W1	BW1A	Y 105	1880	F.5118	-	C38KU
	420	1.4021	X42 Cr 13	420 S 37	Z 20 C 13	(2314)	F.3402	SUS 420 J1	X20Cr13
	-	1.2108	90 CrSi 5	-	-	2092	F.5230	-	C100KU
	L3	1.2210	115 CrV 3	BL 3	Y 100 C 6	(2140)	F.520 L	-	-
	P20 + 1	1.2312	40 CrMnMoS 8 6	-	-	-	X210CrW12	-	-
	O1	1.2510	100 MnCrW 4	BO1	8 Mo 8	2140	F.5220	-	95MnWCr5KU
	6 F7	1.2767	X45 NiCrMo 6 7	En 30 B	-	-	-	-	-
	-	-	31 NiCrMo 13 4	830 M 31	-	2534	F.1270	-	-
	4340	1.6582	34 CrNiMo 6	817 M 40	35 NCD 6	2541	F.1280	SNCM 447	35NiCrMo6KB
	-	1.6746	32 NiCrMo 14 5	830 M 31	35 NCD 14	-	F.1260	-	-
	S1	1.2542	45 WCrV 7	BS1	55 WC 20	2710	F.5241	-	45WCrV8KU
	420	1.4021	X20 Cr 13	420 S 37	Z 20 C 13	2303	F.5261	SUS 420 J 1	X20Cr13
	(420)	1.4028	X30 Cr 13	420 S 45	Z 30 C 13	(2304)	F.5263	(SUS 420 J 1)	X30Cr13/XG40Cr13
	(420)	1.4031	X40 Cr 13	-	Z 40 C 14	(2304)	F.3404	(SUS 420 J 1)	X40Cr14
	-	1.4923	X22 CrMoV 12 1	-	-	-	-	-	-
	431	1.4057	X20 CrNi 17 2	431 S 29	Z 15 CN 16-02	2321	F.313	SUS 431	X16CrNi16
	440B	1.4112	X90 CrMoV 18	-	-	-	-	SUS 440 B	-
6	P3	1.2080	X210 Cr 12	BD3	Z200 C 12	2710	F.5212	SKD 1	-
	P20	1.2311	40 CrMnMo 7	-	-	-	F.5263	-	-
	H13	1.2344	X40CrMoV 5 1	BH11	Z 38 CDV 5	2242	F.5318	SKD 61	X40CrMoV511KU
	A2	1.2363	X100 CrMoV 5 1	BA2	Z 100 CDV 5	2260	F.5227	SKD 12	X100CrMoV51KU
	D2	1.2379	X 155 CrMoV 12 1	BD2	Z 160 CDV 12	2310	F.5211	-	X155CrVMo121KU
	D4 (D6)	1.2436	X210 CrW 12	BD6	Z 200 CD 12	2312	F.5213	SKD 2	X215CrW121KU
	-	1.2713	55NiCrMoV 6	-	-	-	F.520.S	-	-
	L6	1.2721	50 NiCr 13	-	55 NCV 6	2550	F.528	SKT 4	-
	-	1.7321	20 MoCr 4	-	-	2625	F.1523	-	30CrMo4
	M 2	1.3343	S6/5/2	BM2	Z 85 WDCW	2722	F.5603	SKH 9	HS6-5-2-2
	M 35	1.3243	S6/5/2/5	-	6-5-2-5	2723	F.5613	SKH 55	HS6-5-5
	M 7	1.3348	S2/9/2	-	-	2782	-	-	HS2-9-2
	446	1.4749	X18 CrN 28	-	-	-	-	SUH 446	X16Cr26
	422	1.4935	X20 CrMoWV 12 1	-	-	-	-	-	-
	429	-	X10 CrNi 15	-	-	-	-	-	-
	440C	1.4125	X105 CrMo 17	-	Z 100 CD 17	-	-	SUS 440 C	-
7	A128 75	1.3401	G-X120 Mn 12	BW10	Z 120 M 12	2183	-	SCMnH 1	-
8	304	1.4301	X5 CrNi 18 10	304 S 10	Z 5 CN 18-09	2333	-	SUS 304	X5CrNi1810
	304H	1.4948	X6 CrNi 18 11	304 S 51	Z 5 CN 18-09	2333	-	SUS 304 H	-
	303	1.4305	X10 CrNiS 18 9	303 S 31	Z 8 CNF 18-09	2346	-	SUS 303	X10CrNiS1809
	304L	1.4306	X2 CrNi 18 10	304 S 11	Z 3 CN 19-11	2352	F.3504	SUS 304 L	X2CrNi1811
	305	1.4312	X8 CrNi 18 12	305 S 19	-	-	F.3503	SUS 305	X8CrNi1910
	302	-	X12 CrNi 18 9	302 S 31	Z 10 CN 18-09	2330	F.314	SUS 302	X10CrNi1809
	301	1.4310	X12 CrNi 17 7	301 S 21	Z 11 CN 17-08	2331	-	SUS 301	X12CrNi1707
	CF-8	1.4308	X6 CrNi 18 9	304 C 15	Z 6 CN 18-10M	2333	-	SCS 13	-
9	321	1.4541	X6 CrNiTi 18 10	321 S 31	Z 6 CNT 18-10	2337	F.3523	SUS 321	X6CrNiTi1811
	347	1.4550	X6 CrNiNb 1810	347 S 31	Z 6 CNNb 18-10	2338	-	SUS 347	X6CrNiNb1811
	316	1.4436	X5 CrNiMo 17 13 3	316 S 33	Z 6 CND 19-12-03	2343	-	SUS 316	X5CrNiMo1713
	316Ti	1.4571	X8 CrNiMoTi 17 12 2	320 S 31	-	-	-	-	X6CrNiTi1811
	316	1.4401	X5 CrNiMo 17 12 2	316 S 31	Z 7 CND 17-11-02	2347	-	SUS 316	X5CrNiMo1712
	316L	1.4404	X2 CrNiMo 17 13 2	316 S 11	Z 3 CND 17-12-02	2348	F.3533	SUS 316 L	X2CrNiMo1712
	316Ti	1.4571	X6 CrNiMoTi 17 12 2	320 S 31	Z 6 CNDT 17-12-02	2350	F.3535	-	X6CrNiMoTi1712
	316L	1.4435	X2 CrNiMo 18 14 3	316 S 13	Z 3 CND 18-14-03	2353	-	SUS 316 L	X2CrNiMo1713
	317	(1.4449)	X5 CrNiMo 17 13	317 S 16	-	-	-	SUS 317	-
	310S	1.4845	X12 CrNi 25 20	310 S 16	Z 12 CN 25-20	2361	-	SUH 310	X6CrNi2520
	317L	1.4428	X2 CrNiMo 18 16 4	317 S 12	Z 2 CND 19-15-04	2367	-	SUS 317 L	X2CrNiMo1816
	-	1.4418	X4 CrNiMo 16 5	-	Z 6 CND 16-04-01	2387	-	-	-
	304LN	1.4311	X2 CrNiN 18 10	304 S 61	Z 2 CN 18-10 AZ	2371	-	SUS 304 LN	X2CrNiN1811
	309S	1.4833	X6 CrNi 22 13	309 S 13	Z 15 CN 24-13	-	-	SUS 309 S	X6CrNi2314
	CF-8M	1.4408	X6 CrNiMo 18 10	304 C 15	-	2343	-	SCS 14	-
10	S44400	1.4521	X1CrMoTi 18 2	-	-	2326	-	SUS 444	-
	202	1.4371	X3 CrMnNiN 18 8 7	284 S 16	Z 8 CMN 18-08-05	-	-	SUS 202	-
	S30815	1.4893	X8 CrNiNb 11	-	-	2368	-	-	-
	CA6-NM	1.4313	(G)-X4 CrNi 13 4	(425 C 11)	Z 4 CND 13-04 M	2385	-	SCS 5	(G)X6CrNi304
	660	1.4980	X5 NiCrTi 25 15	-	Z 8 NCTV 25-15 B FF	2570	-	-	-
	(S31726)	1.4439	X2 CrNiMoN 17 13 5	-	Z 3 CND 18-14-06 AZ	-	-	-	-
	330	1.4864	X12 NiCrSi 16	NA 17	Z 12 NCS 35-16	-	-	SUH 330	-
	309	-	X15 CrNi 23 13	309 S 24	Z 15 CNS 20-12	-	-	-	-
	310	1.4841	X15 CrNiSi 25 20	314 S 31	Z 15 CNS 25-20	-	-	-	X16CrNiSi2520

Material Group	AISI	W-stoff	DIN	BS	AFNOR	SS	U.N.E./ I.H.A.	JIS	UNI
11	(329)	(1.4460)	X4 CrNiMo 27 5 2	-	Z 5 CND 27-05 AZ	2324	-	SUS 329 J 1	-
	S32304	1.4362	X2 CrNiN 23 4	-	Z 2 CN 23-04 AZ	2327	-	-	-
	S30415	1.4891	X5 CrNiNb 18 10	-	-	2372	-	-	-
	316LN	1.4406	X2 CrNiMoN 17 13 2	316 S 61	Z2 CND 17-12 Az	2375	-	SUS 316 LN	-
	316LN	1.4429	X2 CrNiMoN 17 13 2	316 S 63	Z2 CND 17-13 AZ	2375	-	SUS 316 LN	-
	S31500	1.4417	X2 CrNiMoSi 15	-	-	2376	-	-	-
	S31803	1.4462	X2 CrNiMoN 22 5 3	318 S 13	Z3 CND 22-05 Az	2377	-	-	-
	CN-7M	1.4539	(G-)X1 NiCrMoCu 25 20 5	-	Z1 NCDU 25-02 M	2564	-	-	-
	No8904	1.4539	X2 NiCrMoCu 25 20 5	904 S 13	Z1 NCDU 25-20	2562	-	-	-
	S31254	-	X1 CrNiMoN 20 18 7	-	-	2378	-	-	-
	S31753	-	X2 CrNiMoN 18 13 4	-	-	-	-	-	-
	-	-	X2 CrNiMoN 25 22 7	-	-	-	-	-	-
	S32750	1.4410	X3 CrNiMoN 25 7 4	-	-	-	-	-	-
	-	-	X5 NiCrN 35 25	-	-	2328	-	-	-
	S17400	1.4542	X5 CrNiCuNb 17 4	-	-	-	-	SCS 24	-
12	A48-25B	0.6015	GG-15	Grade 150	Ft 15 D	0115-00	FG 15	FC 150	G15
	60/40/18	0.7040	GGG-40	400/17	FGS 370/17	0717-02	FGE 38-17	FCD 400	GS 370-17
	60/40/18	0.7043	GGG-40.3	370/17	FGS 370/17	0717-15	-	-	-
	-	0.7033	GGG-35.3	350/22L40	FGS 370/17	0717-15	-	-	-
	A220-40010	0.8145	GTS-45-06	P440/7	Mn 450-6	0852-00	-	FCMP 440/490	GMN 45
13	A220-50005	0.8155	GTS-55-04	P510/4	Mn 550-4	0854-00	-	FCMP 540	GMN 55
	A48-30B	0.6020	GG-20	Grade 200	Ft 20 D	0120-00	FG 20	FC 200	G 20
	A48-40B	0.6025	GG-25	Grade 260	Ft 25 D	0125-00	FG 25	FC 250	G 25
	A436 Type 2	0.6660	GGL-NiCr 20 2	L-NiCuCr202	L- NC 202	0523-00	-	-	-
	65/45/12	0.7050	GGG-50	500/7	FGS 500/7	0727-02	FGE 50-7	FCD 500	GS 500-7
	80/55/06	0.7060	GGG-60	600/3	FGS 600/3	0727-03	FGE 60-2	FCD 600	GS 600-2
	-	0.7652	GGG-NiMn 13 7	S-NiMn 137	S-Mn 137	0772-00	-	-	-
	A220-50005	0.8155	GTS-55-04	P510/4	Mn 550-4	0854-00	-	FCMP 540	GMN 55
	A220-70003	0.8165	GTS-65-02	P570/3	Mn 650-3	0856-00	-	FCMP 590	GMN 65
	A48-45B	0.6030	GG-30	Grade 300	Ft 30 D	0130-00	FG 30	FC 300	G 30
14	100/70/03	0.7070	GGG-70	700/2	FGS 700/2	0737-01	FGE 70-2	FCD 700	GS 700-2
	A43D2	0.7660	GGG-NiCr 20 2	Grade S6	S-NC 202	0776-00	-	-	-
	A220-70003	0.8165	GTS-65-02	P570/3	Mn 650-3	0856-00	-	FCMP 590	GMN 65
	A220-80002	0.8170	GTS-70-02	P690/2	Mn 700-2	0862-00	-	FCMP 690	GMN 70
	A220-90001	0.8170	GTS-70-02	-	-	0864-00	-	-	GMN 70
15	A48-50B	0.6035	GG-35	Grade 350	Ft 35 D	0135-00	FG 35	FC 35	G 35
	A48-60B	0.6040	GG-40	Grade 400	Ft 40 D	0140-00	-	FC 40	-
	A220-90001	0.8170	GTS-70-02	-	Mn 700-2	0864-00	-	FCMP 690	GMN 70
16	Non-ferrous materials Aluminium <16% Si Brass, zinc, magnesium								
17	Non-ferrous materials Aluminium >16% Si Aluminium bronze, cupro-nickel								
20	Nickel, cobalt and iron based superalloys <30 Rc Incoloy 800, Inconel 601, 617, 625. Monel 400								
21	Nickel, cobalt and iron based superalloys >30 Rc Inconel 718, 750-X, Incoloy 925, Monel K-500								
22	Titanium based alloys Ti-6Al-4V								

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There is no handwriting or other markings on the page.

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