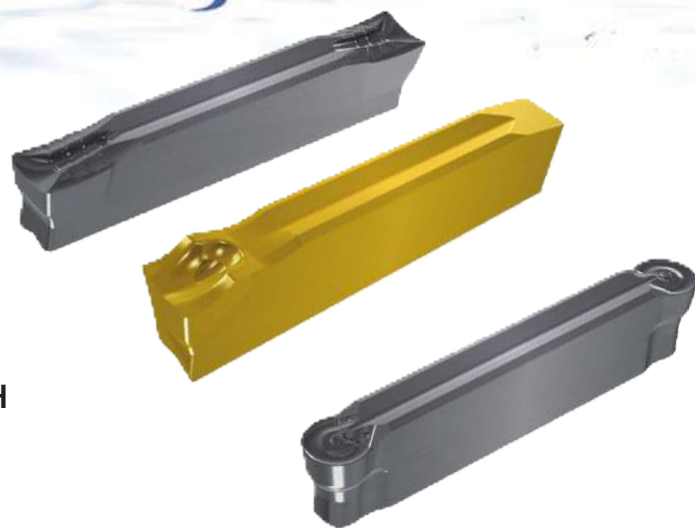




VG-Cut

Системне рішення для
обробки канавок і відрізки



При купівлі **20** стандартних
канавочних або відрізних пластин
VG-Cut **одного артикулу**

знижка 50%

на будь-яку відповідну суцільну державку *

* окрім державок серії PH-C

АКЦІЯ

01 січня -
30 червня 2021

Контактна інформація:

т. +380-50-396-90-96, +380-68-149-39-94

e-mail: info@smarttec.com.ua

Додаткова інформація і умови розміщені
на сайті www.vargus.com.ua



EXTERNAL MACHINING | **SEMI FINISHING**

VG-Cut

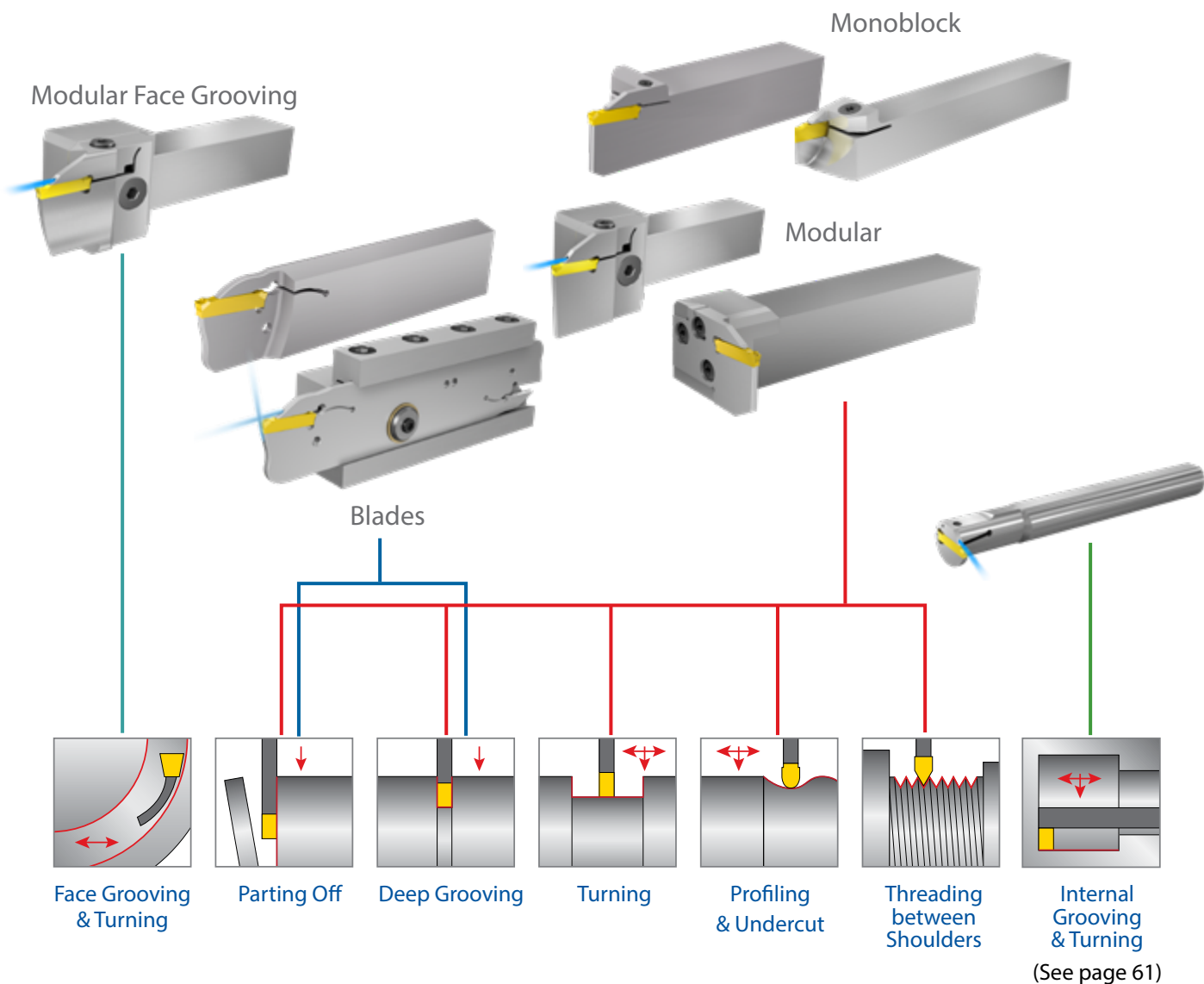
Deep Grooving, Threading, Turning,
Parting Off & Face Grooving Applications

VG-Cut | Complete Range of Turning Solutions

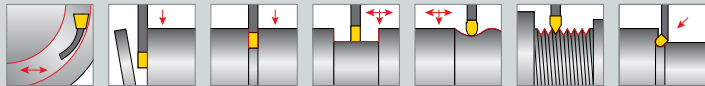
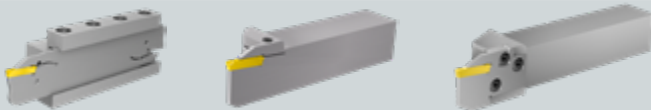
Deep Grooving, Threading, Parting Off, Boring and Face Grooving

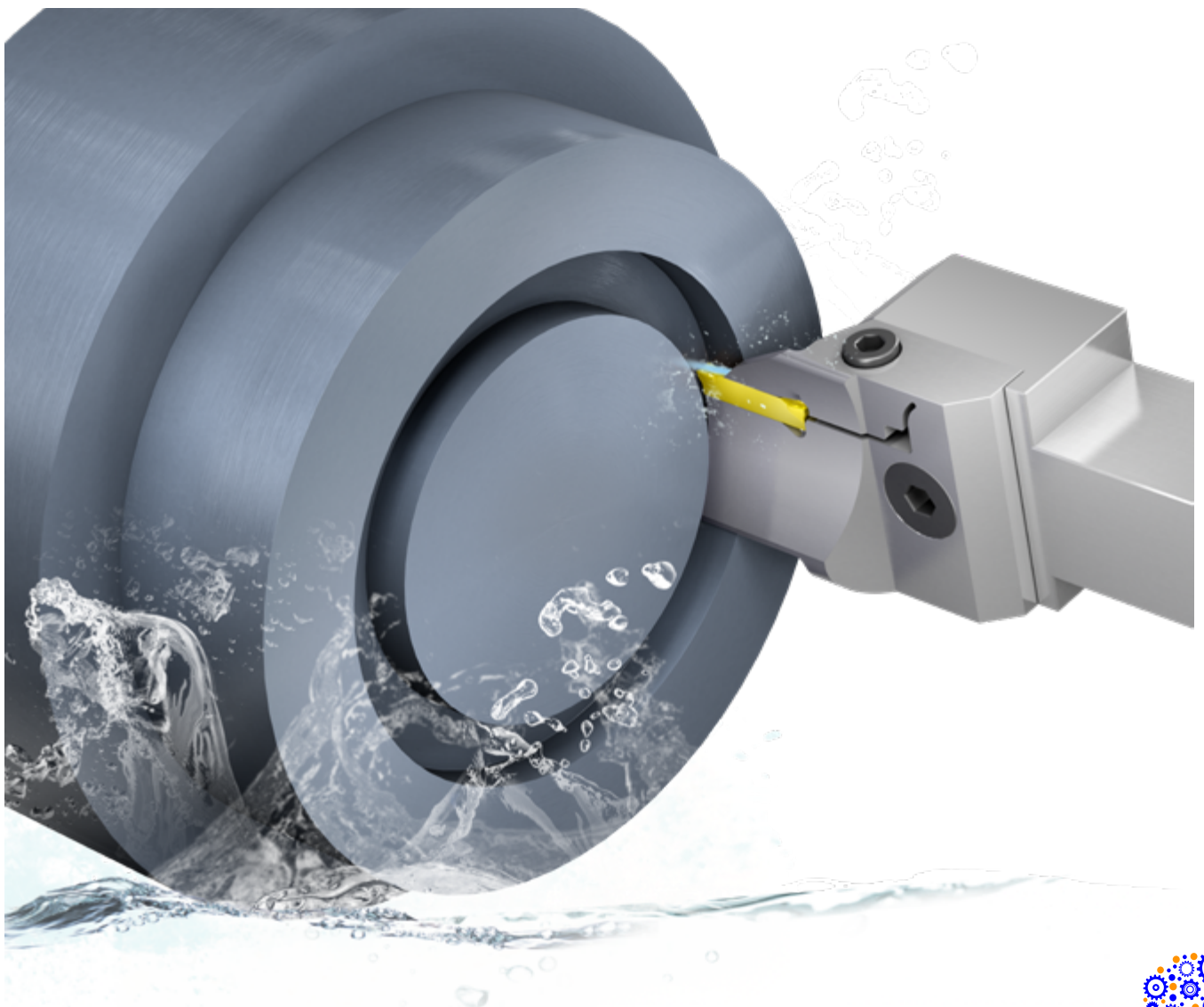
VG-Cut tools provide a wider range of applications and options within the same insert pocket of Deep Grooving, Parting Off, Turning, Profiling, Boring, Face Grooving and Threading. VG-Cut inserts also offer a variety of chip formers and carbide grades, making the **VG-Cut** program a distinctly versatile system. **VG-Cut** inserts are designed with a unique multifunctional and diverse geometry, to minimize inventory for the end-user.

VG-Cut tools cover a wide range of Threading Standards for machining between shoulders and close to the spindle for up to shoulder depth of 10.0 mm.

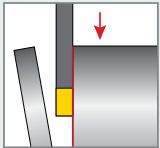
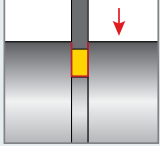


Insert, Tool and Cutting Data Selection Guide

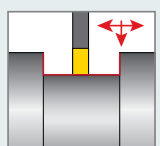
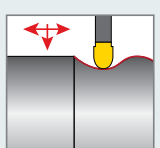
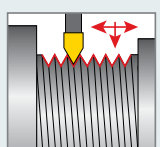
A	Identify the Application																																																			
B	Identify the Designated Work Piece Material	P Alloy Steel	M Stainless Steel	K Cast Iron	N Non-Ferrous	S Heat Resistance	H Hardened Material																																													
C	Designated Chip Former Geometry for Selected Applications							Page 10																																												
D	Designated Carbide Grade for Desired Application	VKG VPG VMG						Page 11																																												
E	Selecting Insert and Tool as Required by Operation							Pages 23 - 39																																												
F	Cutting Data According to Selected Items	<table><tr><td rowspan="4">Stainless Steel</td><td>15</td><td>Stainless Steel</td><td>Non Hardened</td><td>200</td><td>50-120</td><td>60-160</td></tr><tr><td>16</td><td>Stainless Steel Cast Ferritic</td><td>Hardened</td><td>330</td><td>40-100</td><td>50-140</td></tr><tr><td>17</td><td>Stainless Steel Cast Austenitic</td><td>Austenitic</td><td>200</td><td>50-120</td><td>60-160</td></tr><tr><td>18</td><td>Stainless Steel Cast Austenitic</td><td>Hardened</td><td>330</td><td>40-100</td><td>50-140</td></tr><tr><td rowspan="3">K</td><td>28</td><td>Malleable Cast Iron</td><td>Ferritic (short chips)</td><td>130</td><td>160-240</td><td>160-280</td></tr><tr><td>29</td><td>Cast Iron</td><td>Pearlitic (long chips)</td><td>230</td><td>140-220</td><td>140-260</td></tr><tr><td>30</td><td>Cast Iron</td><td>Low Tensile Strength</td><td>180</td><td>160-240</td><td>160-280</td></tr></table>						Stainless Steel	15	Stainless Steel	Non Hardened	200	50-120	60-160	16	Stainless Steel Cast Ferritic	Hardened	330	40-100	50-140	17	Stainless Steel Cast Austenitic	Austenitic	200	50-120	60-160	18	Stainless Steel Cast Austenitic	Hardened	330	40-100	50-140	K	28	Malleable Cast Iron	Ferritic (short chips)	130	160-240	160-280	29	Cast Iron	Pearlitic (long chips)	230	140-220	140-260	30	Cast Iron	Low Tensile Strength	180	160-240	160-280	Pages 12-19
Stainless Steel	15	Stainless Steel	Non Hardened	200	50-120	60-160																																														
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	30	Cast Iron	Low Tensile Strength	180	160-240	160-280																																														



Designated Chip Former Geometry for Parting Off and Grooving

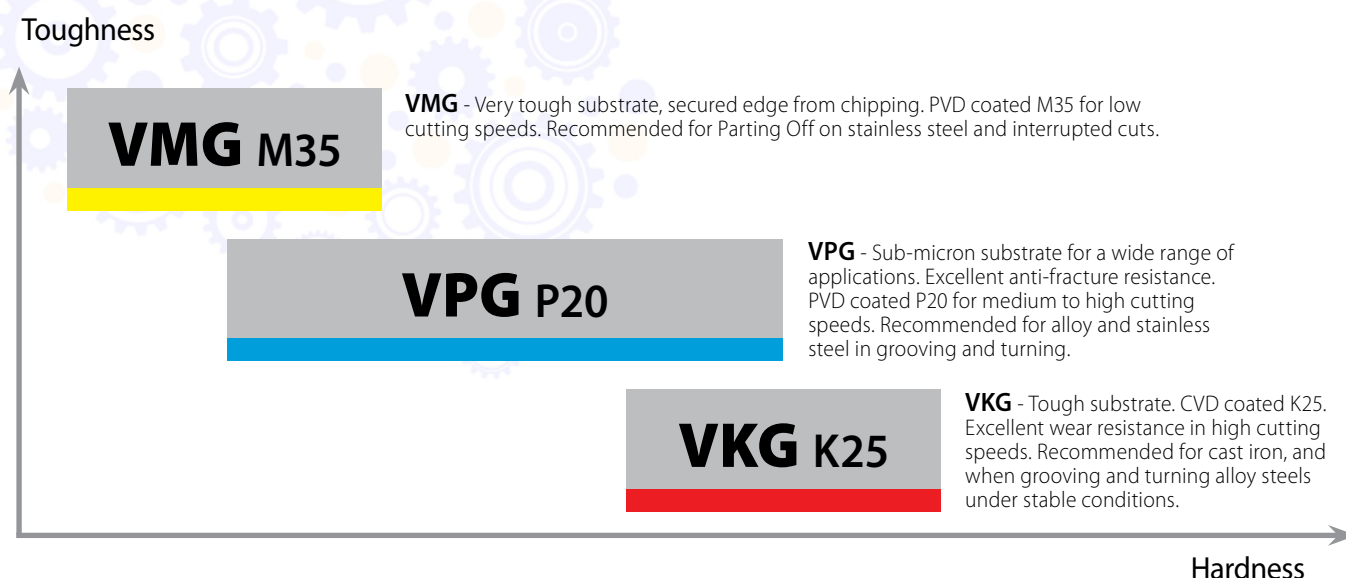
Application	Material Group	Standard Conditions	Extreme Conditions
 Parting Off	P Alloy Steel K Cast Iron H Hardened Material	 GT Recommended choice for machining alloy and stainless steel. Positive rake chip former leads to low cutting forces during cutting. A multifunctional chip former for parting, grooving and turning.	 GP Recommended choice for machining cast iron, for interrupted cuts and for unstable applications where accuracy and overall machining stability are not clear. Reinforced cutting edge for parting off and grooving.
 Grooving	M Stainless Steel N Non-Ferrous S Heat Resistance P Mild Steel	 GM/GF Recommended choice for stainless steel. Positive sharp cutting edge decreases build-up on edge for parting off and grooving in low feeds. GM2 Ideal use for parting off and grooving in very low feeds	 GT Recommended choice for machining alloy and stainless steel. Positive rake chip former leads to low cutting forces during cutting, with multifunctional chip former for parting, grooving and turning.

Designated Chip Former Geometry for Turning, Profiling and Threading

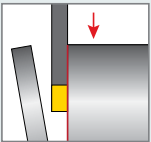
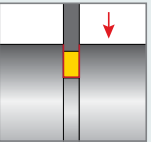
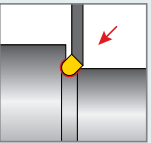
Application	Standard Conditions
 Turning	 GT Recommended choice for machining alloy and stainless steel. Positive rake chip former leads to low cutting forces during cutting, with multifunctional chip former for parting off, grooving and turning.
 Profiling	 GR Recommended choice for grooving, undercut and profiling. Round shape geometric for profiling, and positive rake chip former with multifunctional chip control.
 Threading	 RS/LS Varied range of threading standards for machining between shoulders and close to the spindle.

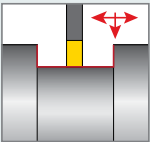
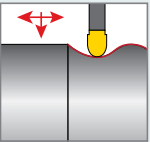
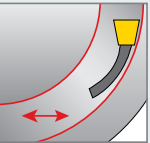
Designated Carbide Grade for Desired Application

Toughness vs. Hardness



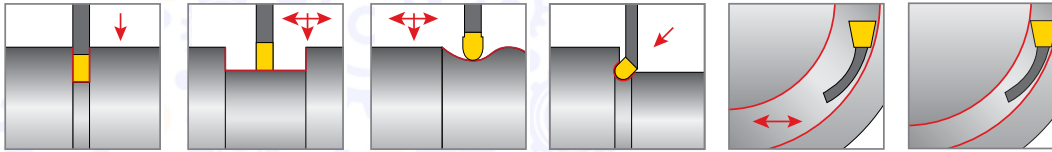
Recommended Carbide Grade for Designated Application

Application	Improved Chipping Resistance	Improved Wear Resistance
 Parting Off	VMG M35 ↔ VPG P20	
 Grooving	VPG P20 ↔ VKG K25	
 Undercut	VMG M35 ↔ VPG P20	

Application	Improved Chipping Resistance	Improved Wear Resistance
 Turning	VPG P20 ↔ VKG K25	
 Profiling	VPG P20 ↔ VKG K25	
 Face Turning	VPG P20 ↔ VKG K25	

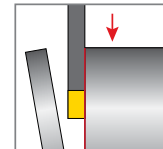
Technical Data

Recommended Cutting Speeds Vc [m/min]



Material Group	Vargus No.	Material		Hardness Brinell HB	Carbide Grade		
					VMG PVD M35	VPG PVD P20	VKG CVD K25
P Steel	1	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	100-160	120-260	120-280
	2		Medium Carbon (C=0.25-0.55%)	150	80-140	90-220	90-250
	3		High Carbon (C=0.55-0.85%)	170	80-140	90-220	90-250
	4	Low Alloy Steel (alloying elements ≤ 5%)	Non Hardened	180	80-140	90-220	90-250
	5		Hardened	275	50-120	60-150	60-180
	6	High Alloy Steel (alloying elements > 5%)	Annealed	200	50-100	90-150	90-250
	7		Hardened	325	40-70	50-100	60-160
	8	Cast Steel	Low Alloy (alloying elements < 5%)	200	50-100	90-150	90-250
	9		High Alloy (alloying elements > 5%)	225	50-100	60-150	60-180
	10						
M Stainless Steel	11	Stainless Steel Ferritic	Non Hardened	200	50-80	60-160	
	12		Hardened	330	40-80	50-140	
	13	Stainless Steel Austenitic	Austenitic	180	50-80	60-160	
	14		Super Austenitic	200	50-80	60-160	
	15	Stainless Steel Cast Ferritic	Non Hardened	200	50-80	60-160	
	16		Hardened	330	40-80	50-140	
	17	Stainless Steel Cast Austenitic	Austenitic	200	50-80	60-160	
	18		Hardened	330	40-80	50-140	
K Cast Iron	28	Malleable Cast Iron	Ferritic (short chips)	130		160-200	160-280
	29		Pearlitic (long chips)	230		140-220	140-260
	30	Grey Cast Iron	Low Tensile Strength	180		160-200	160-280
	31		High Tensile Strength	260		100-200	100-240
	32	Nodular Sg Iron	Ferritic	160		100-200	100-240
	33		Pearlitic	260		100-200	100-240
N(k) Non-Ferrous Metals	34	Aluminium Alloys Wrought	Non Aging	60	150-300		
	35		Aged	100	150-250		
	36	Aluminium Alloys	Cast	75	150-300		
	37		Cast & Aged	90	150-300		
	38	Aluminium Alloys	Cast Si 13-22%	130	150-250		
	39	Copper and Copper Alloys	Brass	90	150-300		
	40		Bronze And Non Lead Copper	100	150-300		
S(m) Heat Resistant Material	19	High Temperature Alloys	Annealed (iron based)	200	25-40	30-50	
	20		Aged (iron based)	280	25-35	20-50	
	21		Annealed (nickel or cobalt based)	250	25-35	20-50	
	22		Aged (nickel or cobalt based)	350	25-35	20-50	
	23	Titanium Alloys	Pure 99.5 Ti	400Rm	25-40	30-50	
	24		α+β Alloys	1050Rm	25-60	30-70	
H(k) Hardened Material	25	Extra Hard Steel	Hardened & Tempered	45-50HRC		20-40	30-50
	26			51-55HRC		15-30	25-45

Vc [m/min] for Parting Off

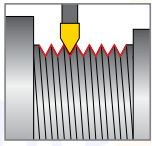


For Parting Off, improved chip forming and chip evacuation; **reduce speed by ≈ 30%.**

For gummy materials, such as stainless steel and heat resistant metals or in case of build up on edge (cold welding), **increase speed by ≈ 20%.**

Technical Data

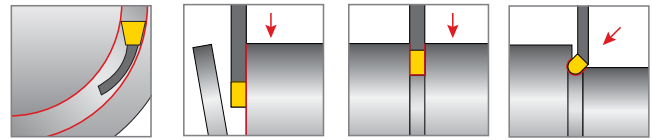
Recommended Cutting Speeds Vc [m/min] for Threading



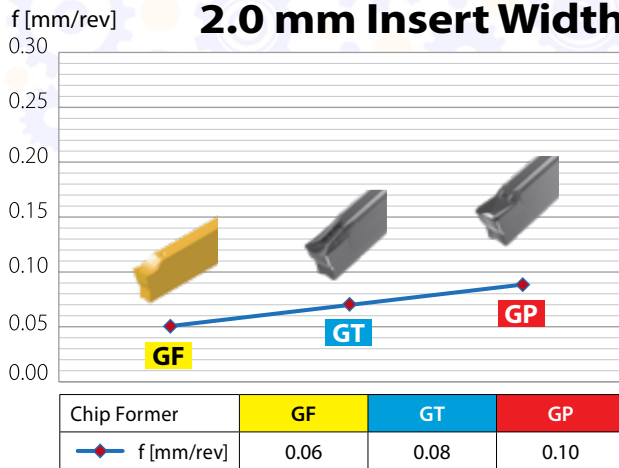
Material Group	Vargus No.	Material		Hardness Brinell HB	Carbide Grade
					VPG
					PVD P20
P Steel	1	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	120-260
	2		Medium Carbon (C=0.25-0.55%)	150	90-220
	3		High Carbon (C=0.55-0.85%)	170	90-220
	4	Low Alloy Steel (alloying elements ≤ 5%)	Non Hardened	180	90-220
	5		Hardened	275	60-160
	6		Hardened	350	50-100
	7	High Alloy Steel (alloying elements > 5%)	Annealed	200	90-220
	8		Hardened	325	50-100
	9	Cast Steel	Low Alloy (alloying elements < 5%)	200	90-220
	10		High Alloy (alloying elements > 5%)	225	60-160
M Stainless Steel	11	Stainless Steel Ferritic	Non Hardened	200	60-160
	12		Hardened	330	50-140
	13	Stainless Steel Austenitic	Austenitic	180	60-160
	14		Super Austenitic	200	60-160
	15	Stainless Steel Cast Ferritic	Non Hardened	200	60-160
	16		Hardened	330	50-140
	17	Stainless Steel Cast Austenitic	Austenitic	200	60-160
	18		Hardened	330	50-140
K Cast Iron	28	Malleable Cast Iron	Ferritic (short chips)	130	160-240
	29		Pearlitic (long chips)	230	140-220
	30	Grey Cast Iron	Low Tensile Strength	180	160-240
	31		High Tensile Strength	260	100-200
	32	Nodular Sg Iron	Ferritic	160	100-200
	33		Pearlitic	260	100-200
N(K) Non-Ferrous Metals	34	Aluminium Alloys Wrought	Non Aging	60	200-450
	35		Aged	100	200-350
	36	Aluminium Alloys	Cast	75	200-450
	37		Cast & Aged	90	200-450
	38	Aluminium Alloys	Cast Si 13-22%	130	200-350
	39	Copper and Copper Alloys	Brass	90	200-450
	40		Bronze And Non Lead Copper	100	200-450
S(M) Heat Resistant Material	19	High Temperature Alloys	Annealed (iron based)	200	30-50
	20		Aged (iron based)	280	20-50
	21		Annealed (nickel or cobalt based)	250	20-50
	22		Aged (nickel or cobalt based)	350	20-50
	23	Titanium Alloys	Pure 99.5 Ti	400Rm	30-50
	24		α+β Alloys	1050Rm	30-70
H(K) Hardened Material	25	Extra Hard Steel	Hardened & Tempered	45-50HRC	20-40
	26			51-55HRC	15-30



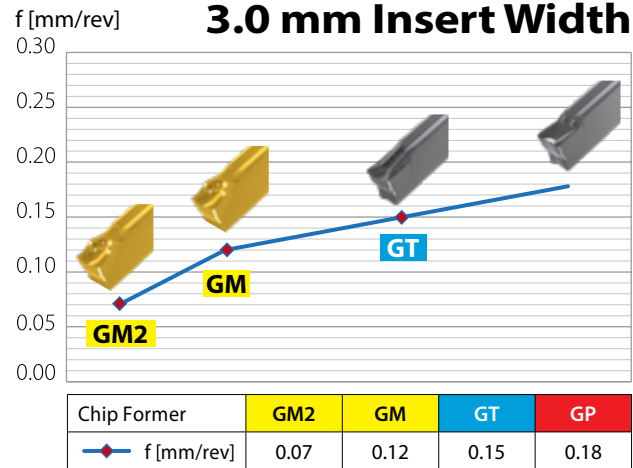
Feed Rate (f) Starting Point for Deep Grooving, Face Grooving & Parting Off



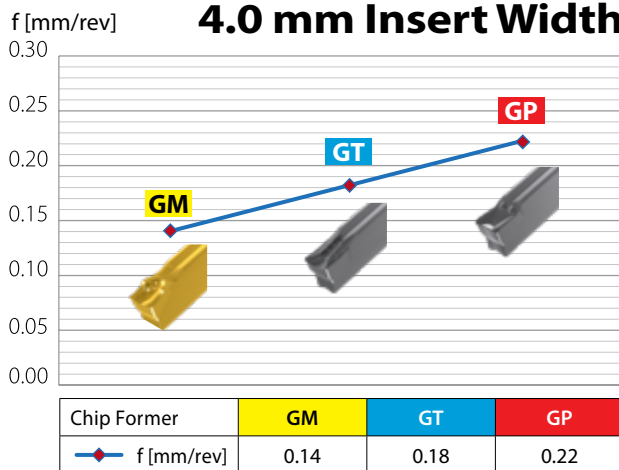
2.0 mm Insert Width



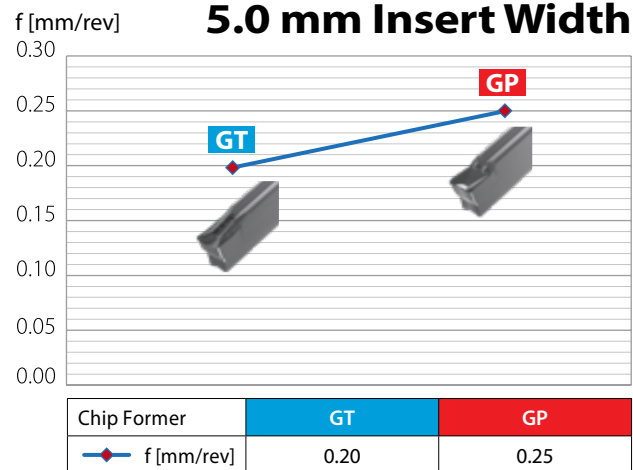
3.0 mm Insert Width



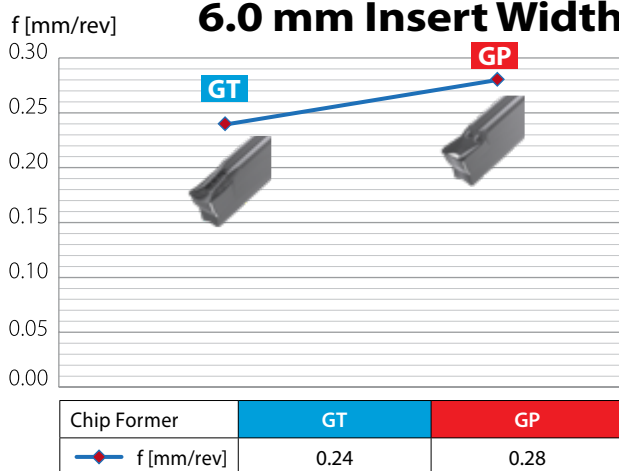
4.0 mm Insert Width



5.0 mm Insert Width



6.0 mm Insert Width



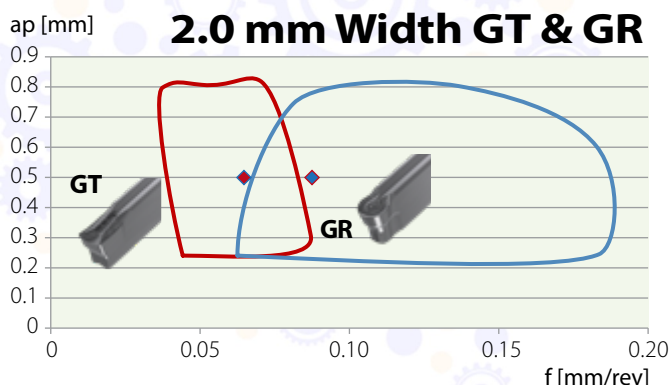
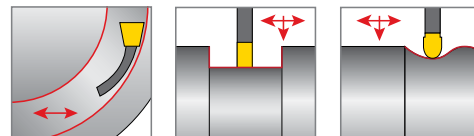
Correct chip forming is essential for chip evacuation. Low feed rates with sufficient chip evacuation improve process stability and tool life. Feed rate should be increased only when improved evacuation is needed to prevent wall scratching or chip entanglement.

For Parting Off, it is recommended to reduce feed rate by 30% while using R / L inserts.

For Parting Off, it is recommended to reduce feed rate by 50% as the insert approaches rotation center. Reduce feed when the insert approaches approx. 3.0 mm diameter.

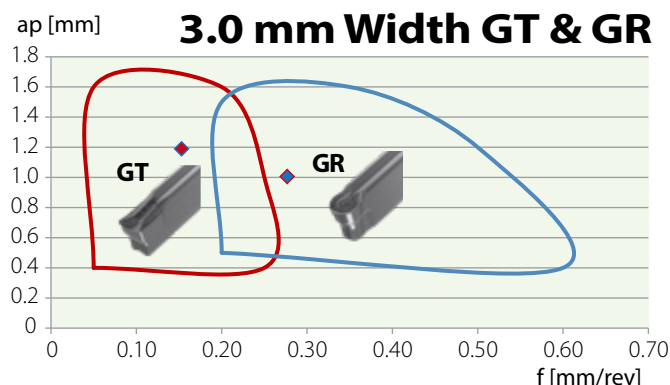
For better chip evacuation in **Face Grooving**, creating short chips is preferable. It is therefore recommended to work in short intervals (pecking), at a maximum grooving depth of twice the insert width. Taking into consideration the workpiece material and groove diameter, it is recommended to begin the first cut at no longer than the insert's width.

Feed Rate (f) and Depth of Cuts for Axial Turning, Profiling and Face Grooving



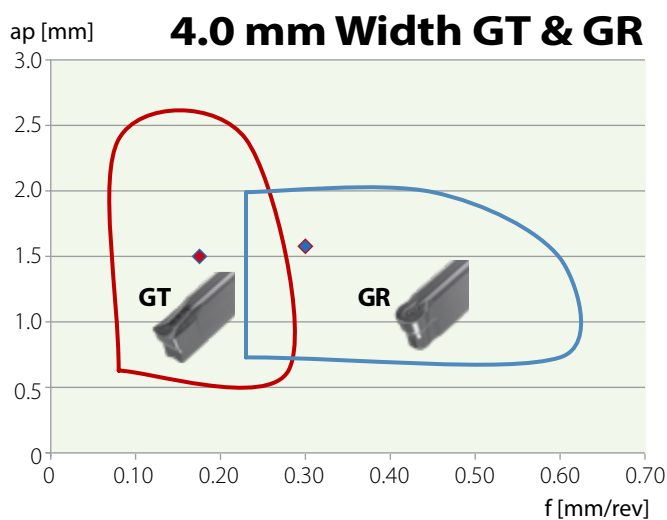
Recommended Starting Point:

	GT 2.0 mm	GR 2.0 mm
ap [mm]	0.5	0.5
f [mm/rev]	0.06	0.08



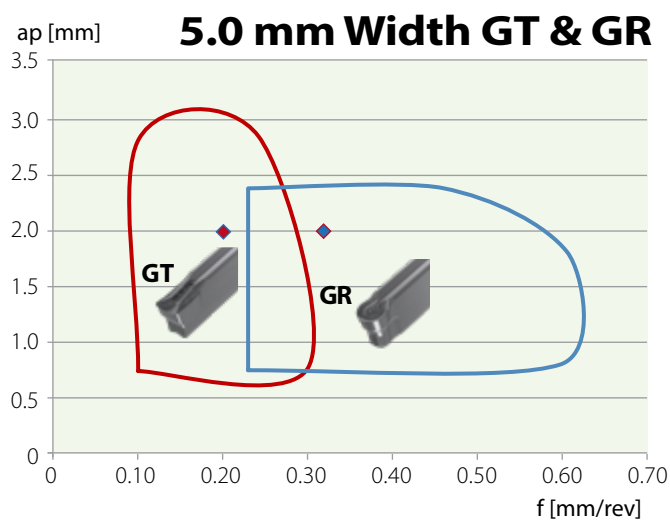
Recommended Starting Point:

	GT 3.0 mm	GR 3.0 mm
ap [mm]	1.20	1.00
f [mm/rev]	0.14	0.25



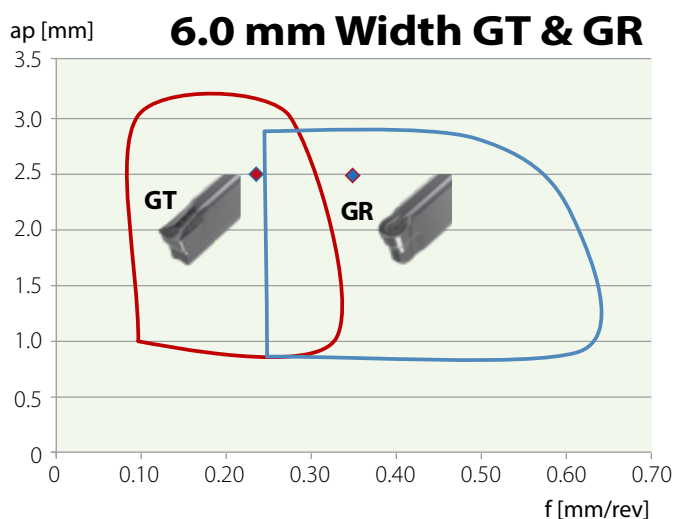
Recommended Starting Point:

	GT 4.0 mm	GR 4.0 mm
ap [mm]	1.50	1.60
f [mm/rev]	0.18	0.30



Recommended Starting Point:

	GT 5.0 mm	GR 5.0 mm
ap [mm]	2.0	2.0
f [mm/rev]	0.20	0.32



Recommended Starting Point:

	GT 6.0 mm	GR 6.0 mm
ap [mm]	2.50	2.50
f [mm/rev]	0.24	0.35

Radial Groove and Turn Machining Recommendations

Roughing:

Method 1:

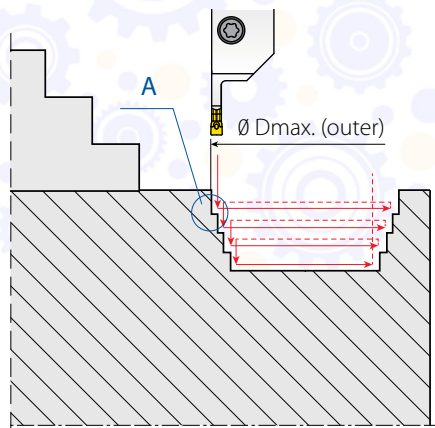


Figure A

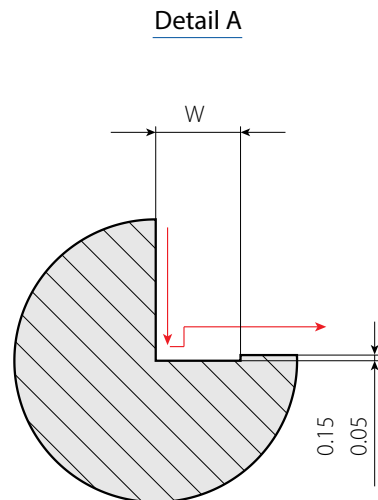


Figure B

1. Start by radial grooving close to spindle.
2. Radial retract back by 0.10 mm (see Figure B), followed by longitudinal turning from spindle.
3. Radial retract by 0.10 mm and return towards spindle.
4. Repeat the above cycle (1, 2 & 3), each time deeper into the workpiece, with a maximum grooving depth 0.2 - 0.45 of insert width.
5. Keep about 0.4 mm of additional material on workpiece, which will be removed in the finishing operation as recommended in the next page.

Method 2:

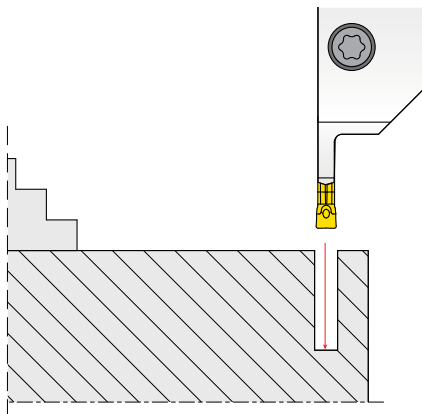


Figure A

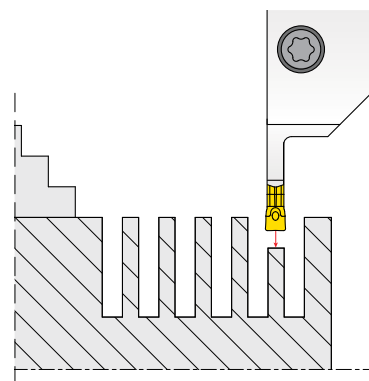


Figure B

1. Start by radial grooving far from spindle (Figure A), making sure that the material is always being machined at the center of the insert.
2. Continue to work towards spindle, leaving excess material between each groove. The excess material should not be wider than the insert's width minus 2 times the radius: $W - R \times 2 = \text{max. grooving width}$.
3. Radial groove the excess material (Figure B).

See the following page for Finishing Recommendations.

Radial Groove and Turn Machining Recommendations

Finishing:

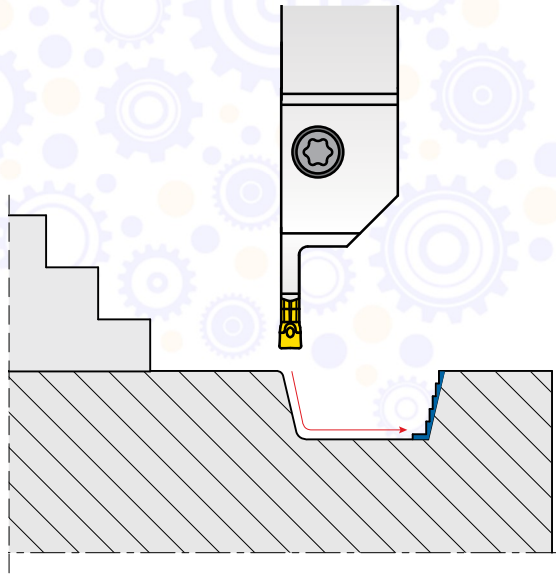


Figure A

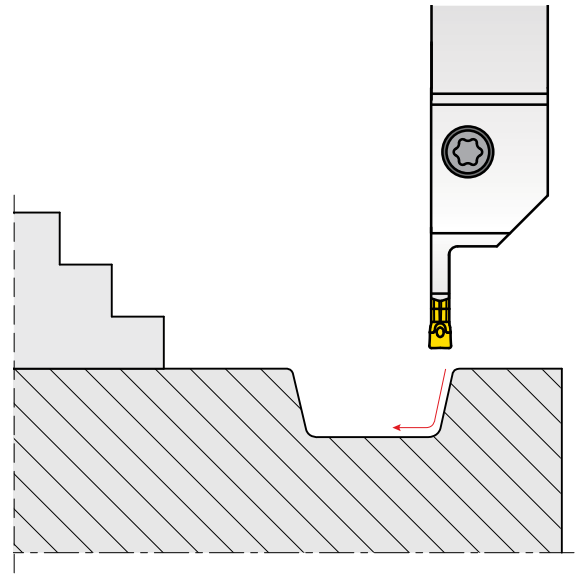


Figure B

1. Start the profiling operation close to spindle, and towards the workpiece's inner diameter. Generate the desired radius followed by longitudinal turning close to the tangential point of the second inner radius (Figure A).
2. Start the Profiling operation far from spindle, and towards the workpiece's inner diameter. Generate the desired radius as needed (Figure B).

Face Groove and Turn Machining Recommendations

Roughing:

Method 1:

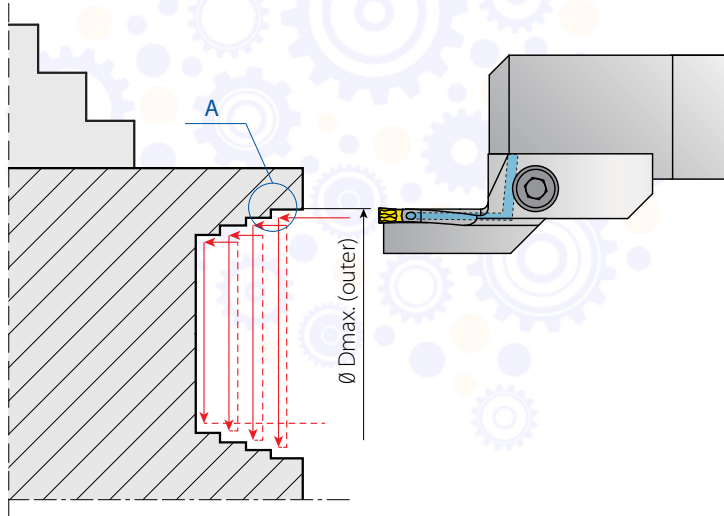


Figure A

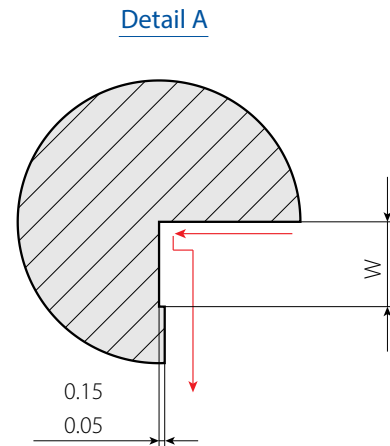


Figure B

1. Start by face grooving close to outer diameter.
2. Retract back by 0.10 mm (see Figure B), followed by face turning towards the center.
3. Axial retract away from the workpiece for about 0.1 mm.
4. Repeat the above cycle (1, 2 & 3), each time deeper into the workpiece, with a maximum grooving depth 0.2 - 0.45 insert width.
5. Keep about 0.4 mm of additional material on workpiece, which will be removed in the finishing operation as recommended below.

Method 2:

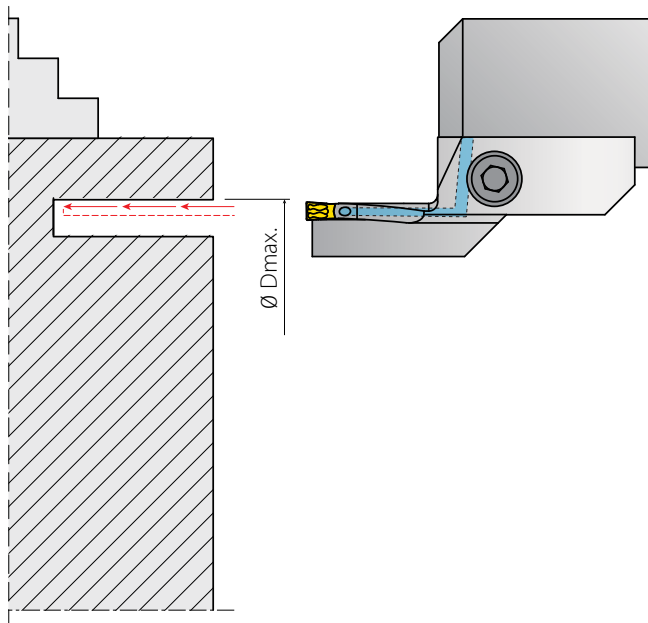


Figure A

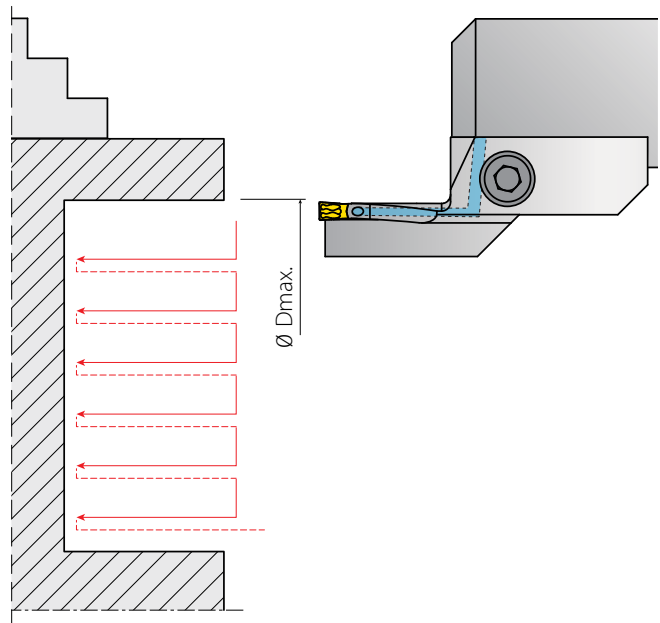


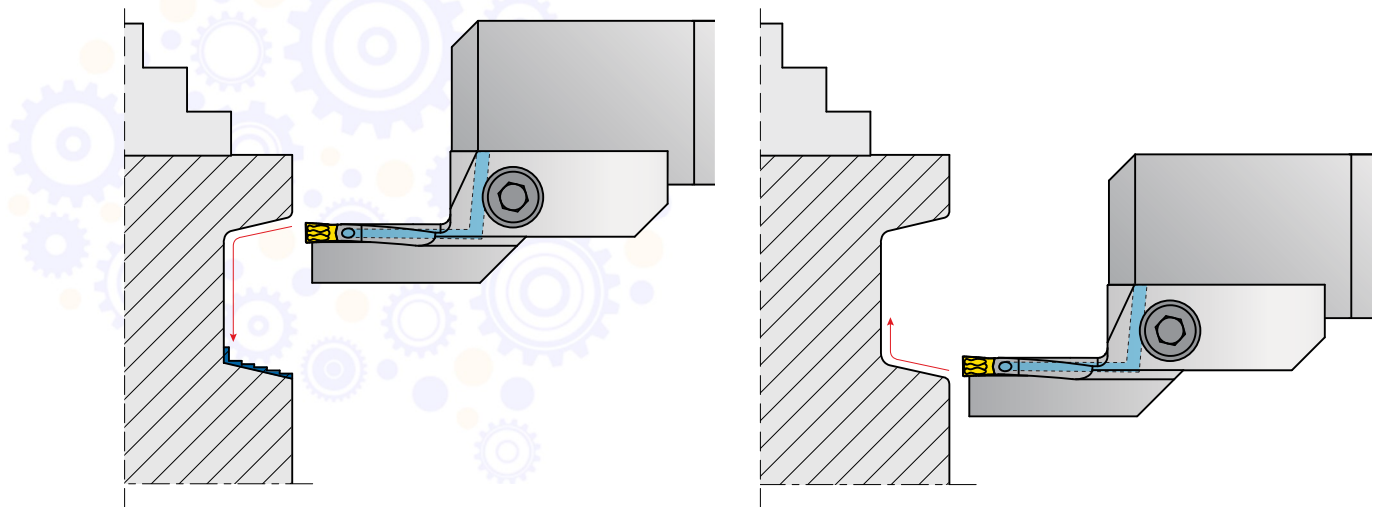
Figure B

1. Start by face grooving close to outer diameter (Figure A). Work in short intervals (pecking) at maximum grooving depth of twice the insert width.
2. Follow this by face grooving towards the center of the workpiece as required for covering the entire pocket shape (Figure B). Each additional groove width should be smaller than the insert width by approx. 0.3 mm.
3. Only the first groove (Figure A) is done in short intervals (pecking) for better chip evacuation. Other grooves can be done continuously based on recommended feeds for the application.
4. Recommended chip forming for Alloy Steel is GP. For Stainless Steel please use GT.

See the following page for Finishing Recommendations.

Face Groove and Turn Machining Recommendations

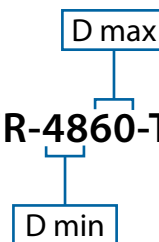
Finishing:



1. Start the Profiling operation from the outer diameter of the workpiece and work in. Generate the desired radius followed by the face turning operation close to the tangential point of the inner radius.
2. Start the Profiling operation from the inner diameter towards the bottom of the workpiece, generate the desired radius as needed.

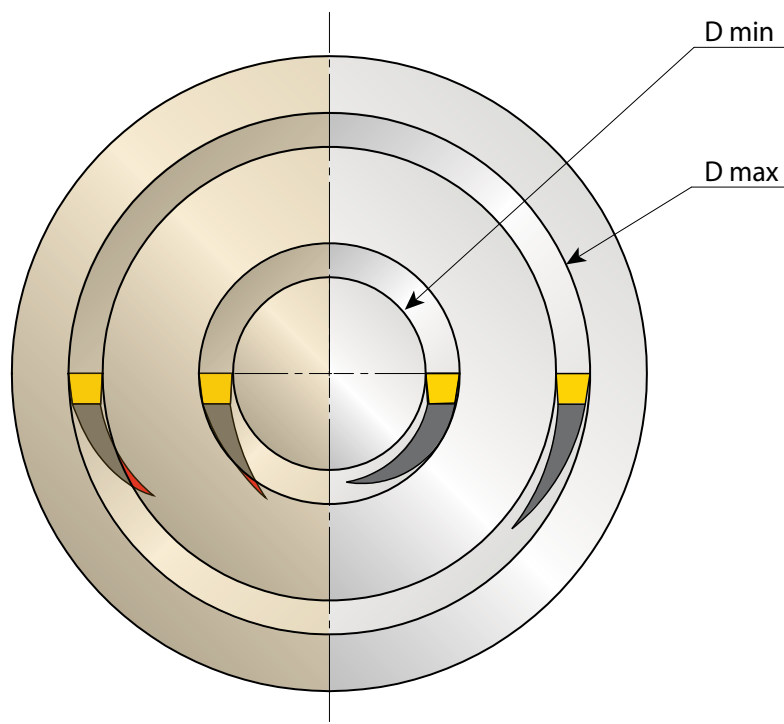
Selecting the Correct Face Grooving Module

VG Cut Ordering Code Example: **VGFR-4860-T24-4C**



Wrong Support

Correct Support



User Guide for Modular System

Choosing the Correct Holder for the Application (Body + Module):

* High pressure coolant system shown.

Parallel Right Tools

Right Body



Radial

Face

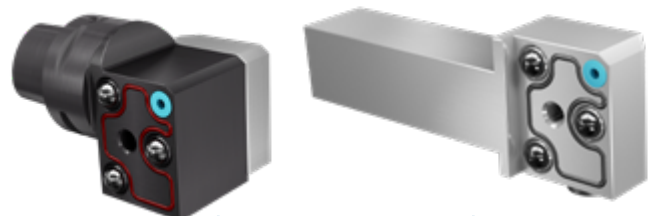


Right Module

Left Module

Parallel Left Tools

Left Body



Radial

Face

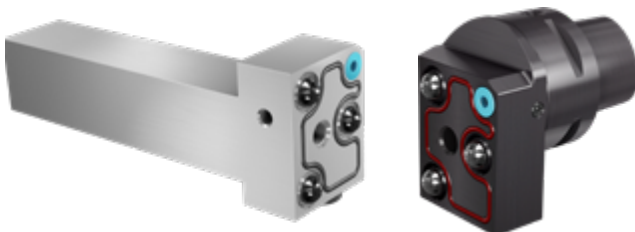


Left Module

Right Module

90° Right Tools

Right Body



Radial

Face



Left Module

Right Module

90° Left Tools

Left Body



Radial

Face



Right Module

Left Module

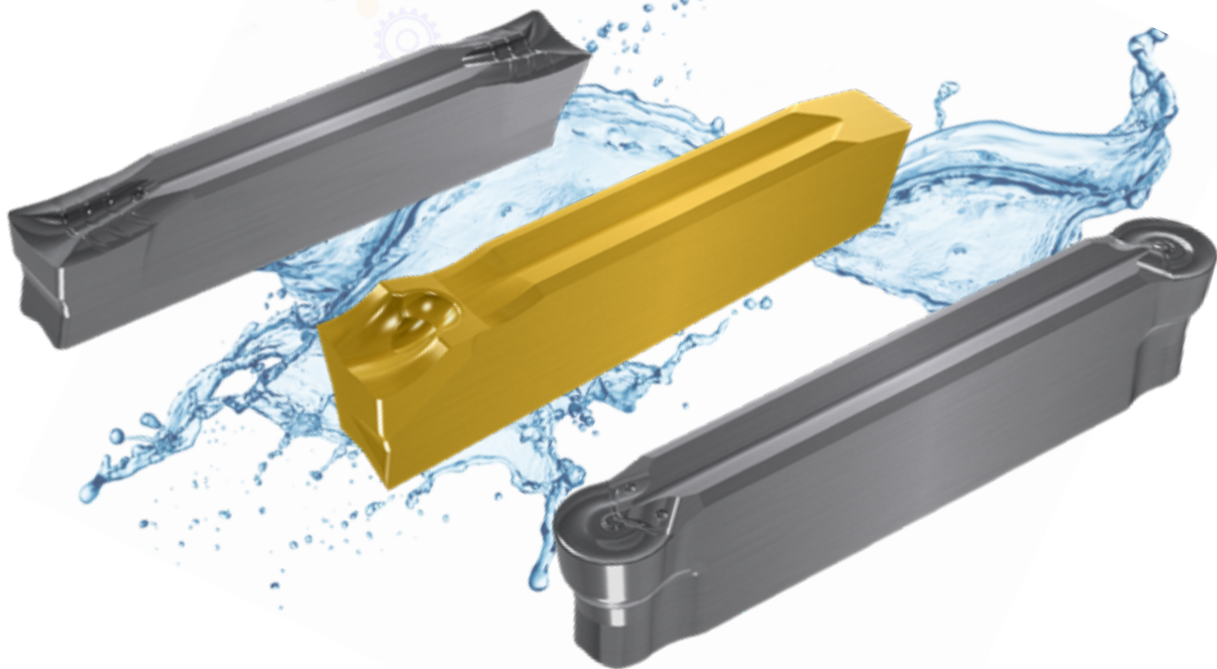
High Pressure Coolant Accessories and Spare Parts

Image	Ordering Code	Item Number	Relevant Tools
	Tube Connector 25-6P	013-00941	VG-Cut Blade Holders See page 33 VG-Cut / GrooVical Modular Bodies See page 38 VG-Cut / GrooVical V-Cap Bodies See page 39
	Angled Fitting G1_8x6P	013-00947	
	Straight Fitting G1_8x6P	013-00942	
	Plug G1/8"P	013-00948	VG-Cut Blade Holders See page 33
	Plug DIN 916 GALV M6x8P	013-00940	
	Coolant Sleeve	013-00946	VG-Cut / GrooVical Modular Bodies See page 38 VG-Cut / GrooVical V-Cap Bodies See page 39
	O-RING Body Seal	013-00944	



VG-Cut Inserts

Parting Off & Deep Grooving - Double Sided Inserts (2.0 - 6.0 mm)	24
Parting Off & Deep Grooving - Single Sided Inserts (2.0 - 4.0 mm)	25
Turning & Profiling (2.0 - 6.0 mm)	26
Threading (3.0 mm)	27



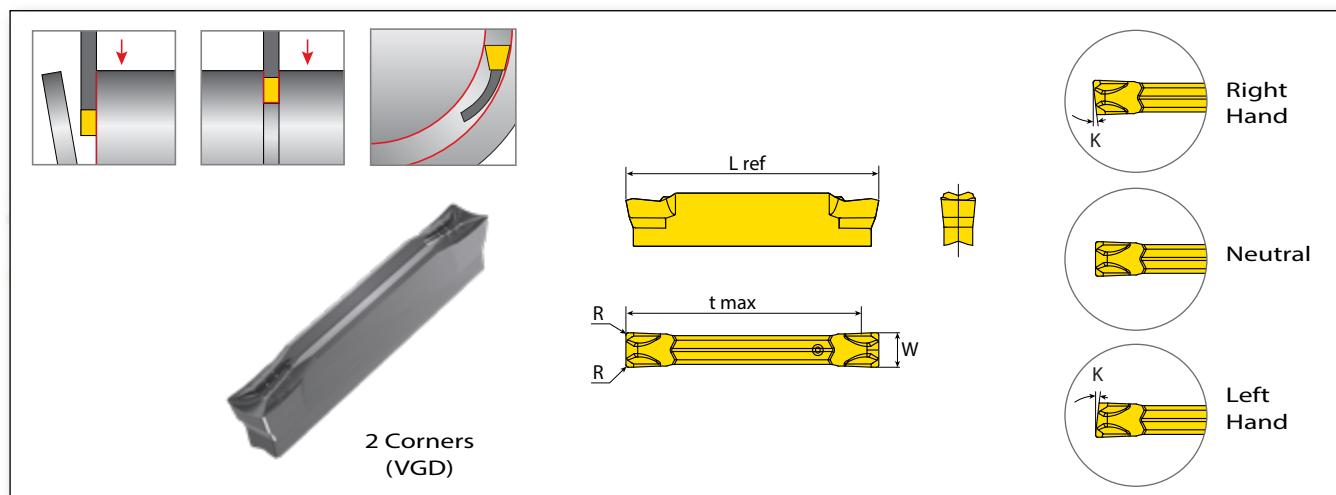
VG-Cut Inserts Ordering Code

VG	D	3.00	020	6R	GP	VPG
1	2	3	4	5	6	7

1 – Line Name VG - Deep Grooving & Parting Off	2 – Number of Cutting Corners D - Double S - Single	3 – Insert Width 2.0, 3.0, 4.0, 5.0, 6.0 mm	4 – Corner Radius 0.20 mm Threading Standard
5 – RH or LH (for Grooving) 4, 6, 15 Deg. RH or LH None - Neutral	5 – RH or LH (for Threading) RH Helix LH Helix	6 – Top Rake Geometry GP, GM, GM2, GT, GR RS - Close to right shoulder LS - Close to left shoulder	7– Carbide Grade VPG, VMG, VKG

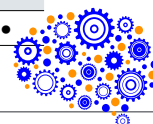
Parting Off & Deep Grooving - Double Sided Inserts

2.0 - 6.0 mm Width



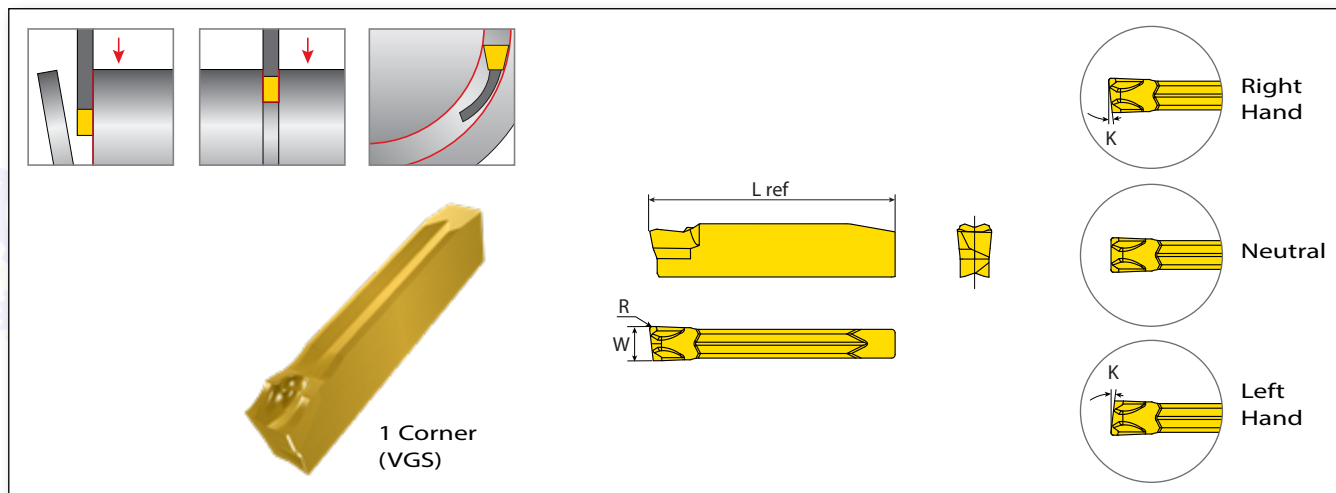
		Pocket Size	Ordering Code	Dimensions mm				Feed Range (mm/rev)	Grade			
				W±0.04	R	t max	K°	L ref	VPG	VMG	VKG	
Positive cutting edge, for small parts, thin wall pipes & soft materials		2	VGD2.00-020-GF	2.00	0.20	20.0	0.0	22.0	0.03 - 0.10	●	●	○
		2	VGD2.00-015-6R-GF	2.00	0.15	20.0	6.0	22.0	0.03 - 0.10	●	○	○
		2	VGD2.00-015-6L-GF	2.00	0.15	20.0	6.0	22.0	0.03 - 0.10	●	○	○
		2	VGD2.00-020-15R-GF	2.00	0.20	20.0	15.0	22.0	0.03 - 0.08	●	○	○
		2	VGD2.00-020-15L-GF	2.00	0.20	20.0	15.0	22.0	0.03 - 0.08	●	○	○
Positive sharp cutting edge, for low feed & speed		3	VGD3.00-015-GM	3.00	0.15	20.0	0.0	22.0	0.06 - 0.16	●	○	●
		3	VGD3.00-030-GM	3.00	0.30	20.0	0.0	22.0	0.08 - 0.22	●	●	●
		3	VGD3.00-030-GM2	3.00	0.30	20.0	0.0	22.0	0.04 - 0.12	○	●	○
		3	VGD3.00-020-6R-GM	3.00	0.20	20.0	6.0	22.0	0.05 - 0.16	●	●	○
		3	VGD3.00-020-6L-GM	3.00	0.20	20.0	6.0	22.0	0.05 - 0.16	●	●	○
		4	VGD4.00-040-GM	4.00	0.40	23.0	0.0	25.0	0.08 - 0.25	●	●	○
Multipurpose geometry, for general use		2	VGD2.00-020-GT	2.00	0.20	20.0	0.0	22.0	0.03 - 0.12	●	○	●
		3	VGD3.00-030-GT	3.00	0.30	20.0	0.0	22.0	0.05 - 0.15	●	○	●
		4	VGD4.00-020-GT	4.00	0.20	23.0	0.0	25.0	0.05-0.15	●	○	○
		4	VGD4.00-040-GT	4.00	0.40	23.0	0.0	25.0	0.05 - 0.18	●	○	●
		4	VGD4.00-080-GT	4.00	0.80	23.0	0.0	25.0	0.05 - 0.22	●	○	○
		5	VGD5.00-040-GT	5.00	0.40	23.0	0.0	25.0	0.08 - 0.25	●	○	●
		6	VGD6.00-040-GT	6.00	0.40	23.0	0.0	25.0	0.10 - 0.25	●	○	●
Round multipurpose geometry for profiling & undercut		2	VGD2.00-100-GR	2.00	1.00	18.0	0.0	22.0	0.03 - 0.12	●	○	●
		3	VGD3.00-150-GR	3.00	1.50	18.0	0.0	22.0	0.05 - 0.15	●	○	●
		4	VGD4.00-200-GR	4.00	2.00	20.0	0.0	25.0	0.05 - 0.18	●	○	●
		6	VGD6.00-300-GR	6.00	3.00	20.0	0.0	25.0	0.06 - 0.20	●	○	○
Blunt reinforced cutting edge for high feed & speed		2	VGD2.00-020-GP	2.00	0.20	20.0	0.0	22.0	0.03 - 0.14	●	●	●
		2	VGD2.00-020-15R-GP	2.00	0.20	20.0	15.0	22.0	0.03 - 0.10	○	●	○
		2	VGD2.00-020-15L-GP	2.00	0.20	20.0	15.0	22.0	0.03 - 0.10	○	●	○
		3	VGD3.00-020-GP	3.00	0.20	20.0	0.0	22.0	0.06 - 0.20	●	●	●
		3	VGD3.00-015-6R-GP	3.00	0.15	20.0	6.0	22.0	0.06 - 0.16	●	●	○
		3	VGD3.00-015-6L-GP	3.00	0.15	20.0	6.0	22.0	0.06 - 0.16	○	●	○
		4	VGD4.00-030-GP	4.00	0.30	23.0	0.0	25.0	0.08 - 0.24	●	●	●
		4	VGD4.00-020-4R-GP	4.00	0.20	23.0	4.0	25.0	0.06 - 0.22	○	●	○
		4	VGD4.00-020-4L-GP	4.00	0.20	23.0	4.0	25.0	0.06 - 0.22	○	●	○
		5	VGD5.00-040-GP	5.00	0.40	23.0	0.0	25.0	0.08 - 0.28	●	○	●
6	VGD6.00-040-GP	6.00	0.40	23.0	0.0	25.0	0.10 - 0.30	●	○	●		

● In stock ○ Available upon request



Parting Off & Deep Grooving - Single Sided Inserts

2.0 - 4.0 mm Width

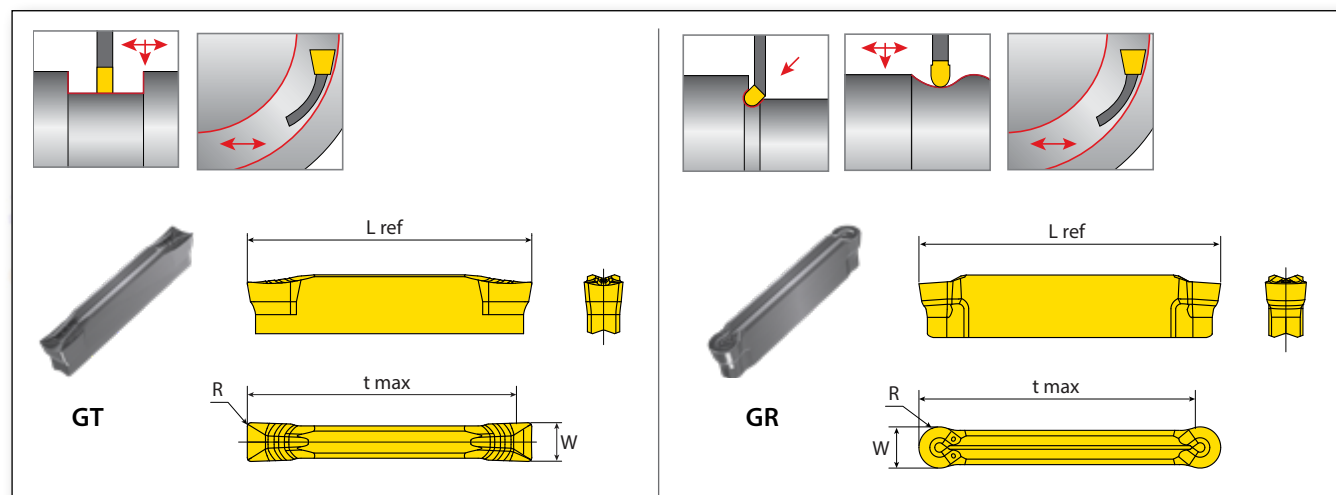


		Pocket Size	Ordering Code	Dimensions mm					Feed Range (mm/rev)	Grade		
				W ± 0.04	R	t max	K°	L ref		VPG	VMG	VKG
Positive cutting edge, for small parts, thin wall pipes & soft materials	GF 	2	VGS2.00-015-6R-GF	2.00	0.15	∞	6.0	21.3	0.03 - 0.10	○	●	○
		2	VGS2.00-015-6L-GF	2.00	0.15	∞	6.0	21.3	0.03 - 0.10	○	●	○
Positive sharp cutting edge, for low feed & speed	GM 	3	VGS3.00-020-GM	3.00	0.20	∞	0.0	22.0	0.08 - 0.22	●	●	○
		3	VGS3.00-020-6R-GM	3.00	0.20	∞	6.0	21.3	0.05 - 0.16	○	●	○
		3	VGS3.00-020-6L-GM	3.00	0.20	∞	6.0	21.3	0.05 - 0.16	○	●	○
		4	VGS4.00-040-GM	4.00	0.40	∞	0.0	25.0	0.08 - 0.25	●	●	○
		4	VGS4.00-040-4R-GM	4.00	0.40	∞	4.0	24.3	0.06 - 0.18	○	●	○
		4	VGS4.00-040-4L-GM	4.00	0.40	∞	4.0	24.3	0.06 - 0.18	○	●	○
Blunt reinforced cutting edge for high feed & speed	GP 	3	VGS3.00-020-GP	3.00	0.20	∞	0.0	22.0	0.06 - 0.20	●	●	○
		3	VGS3.00-020-6R-GP	3.00	0.20	∞	6.5	21.3	0.06 - 0.16	○	●	○
		3	VGS3.00-020-6L-GP	3.00	0.20	∞	6.5	21.3	0.06 - 0.16	○	●	○
		4	VGS4.00-030-GP	4.00	0.30	∞	0.0	25.0	0.08 - 0.24	●	●	○
		4	VGS4.00-030-4R-GP	4.00	0.30	∞	4.0	24.3	0.06 - 0.22	○	●	○
		4	VGS4.00-030-4L-GP	4.00	0.30	∞	4.0	24.3	0.06 - 0.22	○	●	○

● In stock ○ Available upon request

Turning & Profiling

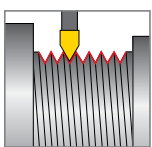
2.0 - 6.0 mm Width



	Pocket Size	Ordering Code	Dimensions mm					Feed Range (mm/rev)	Grade		
			W ± 0.05	R	t max	K°	L ref		VPG	VMG	VKG
Positive rake chip former with multifunctional chip control. Low cutting forces during cutting. 	2	VG2.00-020-GT	2.00	0.20	20.0	-	22.0	0.05 - 0.10	•	◦	•
	3	VG3.00-030-GT	3.00	0.30	20.0	-	22.0	0.05 - 0.25	•	◦	•
	4	VG4.00-020-GT	4.00	0.20	23.0	-	25.0	0.05 - 0.18	•	◦	◦
	4	VG4.00-040-GT	4.00	0.40	23.0	-	25.0	0.08 - 0.28	•	◦	•
	4	VG4.00-080-GT	4.00	0.80	23.0	-	25.0	0.05 - 0.22	•	◦	◦
	5	VG5.00-040-GT	5.00	0.40	23.0	-	25.0	0.08 - 0.25	•	◦	•
Round shape geometric design for profiling. Positive rake chip former and multifunctional chip control for undercut and profiling. 	6	VG6.00-040-GT	6.00	0.40	23.0	-	25.0	0.10 - 0.28	•	◦	•
	2	VG2.00-100-GR	2.00	1.00	18.0	-	22.0	0.06 - 0.12	•	◦	•
	3	VG3.00-150-GR	3.00	1.50	18.0	-	22.0	0.06 - 0.18	•	◦	•
	4	VG4.00-200-GR	4.00	2.00	20.0	-	25.0	0.06 - 0.20	•	◦	•
	6	VG6.00-300-GR	6.00	3.00	20.0	-	25.0	0.06 - 0.20	•	◦	◦

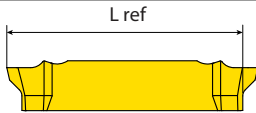
• In stock ◦ Available upon request

Threading 3.0 mm Width



RS/LS Varied range of threading standards for machining between shoulders and close to spindle.

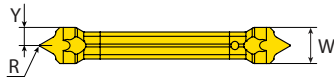





RS Full Profile



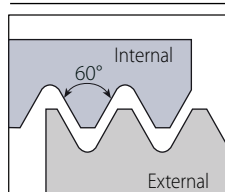
LS Full Profile



Partial Profile

To be used with Monoblock tools (VGE..T08 or T12) or reinforced monoblock tools (PH) only.

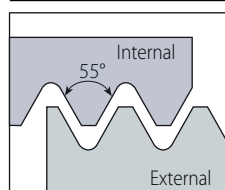
Partial Profile 60°



Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch mm	R	Y	L ref		Deg	VPG	
3	VGD3.0A60RH	3.00	0.5-1.5	0.05	1.68	21.9	5 - 8	1.5°	•	Partial Profile A60

• In stock ◦ Available upon request

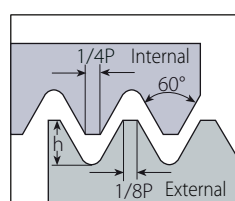
Partial Profile 55°



Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch TPI	R	Y	L ref		Deg	VPG	
3	VGD3.0A55RH	3.00	48-16	0.05	1.68	21.9	5 - 8	1.5°	•	Partial Profile A55

• In stock ◦ Available upon request

ISO Metric

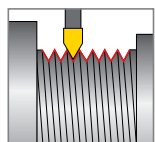


Defined by: R262 (DIN 13)
Tolerance class: 6g

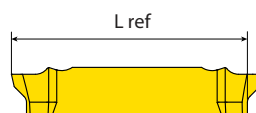
Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch mm	h min	Y	L ref		Deg	VPG	
3	VGD3.0ISO0.50RH-RS/LS		0.50	0.31	0.53		5 - 7		•	M3x0.5
3	VGD3.0ISO0.75RH-RS/LS		0.75	0.46	0.64		5 - 8		•	M5x0.75
3	VGD3.0ISO1.00RH-RS/LS		1.00	0.61	0.74		5 - 9		•	M6x1
3	VGD3.0ISO1.25RH-RS/LS		1.25	0.77	0.85		6 - 10		•	M8x1.25
3	VGD3.0ISO1.50RH-RS/LS		1.50	0.92	1.10		7 - 12		•	M10x1.5 Coarse
3	VGD3.0ISO1.75RH-RS/LS		1.75	1.07	1.20		8 - 14		•	M12x1.75 Coarse
3	VGD3.0ISO2.00RH-RS/LS		2.00	1.23	1.30		9 - 14		•	M16x2.0 Coarse
3	VGD3.0ISO2.50RH-RS/LS		2.50	1.53	1.55		8 - 14		•	M18x2.5 Coarse

• In stock ◦ Available upon request

Threading 3.0 mm Width (con't)



RS/LS Varied range of threading standards for machining between shoulders and close to spindle.



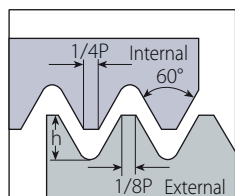
RS Full Profile



LS Full Profile

To be used with Monoblock tools (VGE..T08 or T12) or reinforced monoblock tools (PH) only.

American UN

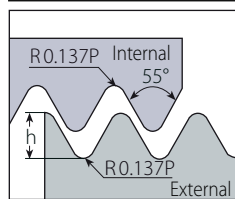


Defined by: ANSI B1.1:74
Tolerance class: 2A

Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch TPI	h min	Y	L ref		Deg	VPG	
3	VGD3.0UN32RH-RS/LS	3.00	32	0.49	0.66	21.9	5 - 8	2.5°	•	5/32"-32UNC
3	VGD3.0UN28RH-RS/LS		28	0.56	0.71		5 - 9		•	3/16"-28UNC
3	VGD3.0UN24RH-RS/LS		24	0.65	0.77		5 - 9		•	7/32"-24UNC
3	VGD3.0UN20RH-RS/LS		20	0.78	0.86		6 - 10		•	1/4"-20UNC
3	VGD3.0UN18RH-RS/LS		18	0.87	0.93		7 - 12		•	5/16"-18UNC
3	VGD3.0UN16RH-RS/LS		16	0.97	1.10		7 - 12		•	3/8"-16UNC
3	VGD3.0UN14RH-RS		14	1.11	1.09		8 - 14		•	7/16"-14UNC
3	VGD3.0UN14RH-LS		14	1.11	1.09		8 - 14		•	7/16"-14UNC
3	VGD3.0UN12RH-RS		12	1.30	1.30		8 - 14		•	9/16"-14UNC
3	VGD3.0UN12RH-LS		12	1.30	1.30		8 - 14		•	9/16"-14UNC

• In stock ◦ Available upon request | LH Helix threads available upon request

Whitworth

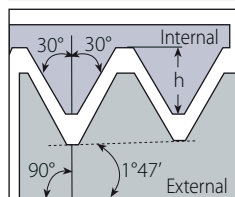


Defined by: B.S.84:1956,
DIN 259, ISO228/1:1982
Tolerance class: Medium class A

Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch TPI	h min	Y	L ref		Deg	VPG	
3	VGD3.0W19RH-RS/LS	3.00	19	0.86	0.95	21.9	7 - 12	2.5°	•	1/2"-19BSW
3	VGD3.0W14RH-RS/LS		14	1.16	1.15		8 - 14		•	1/2"-14BSW
3	VGD3.0W11RH/LH		11	1.48	1.68		8-14		•	5/8"-11BSW

• In stock ◦ Available upon request | LH Helix threads available upon request

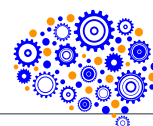
NPT



Defined by:
USAS B2.1:1968
Tolerance class: Standard NPT

Pocket Size	Ordering Code	Dimensions mm					No. of Passes	Helix	Grade	Min. Thread Diameter
		W ref	Pitch TPI	h min	Y	L ref		Deg	VPG	
3	VGD3.0NPT18RH-RS/LS	3.00	18	1.01	1.20	21.9	7 - 12	1.5°	•	1/4"-18NPT
3	VGD3.0NPT14RH-RS/LS		14	1.33	1.40		8 - 14		•	1/2"-14NPT
3	VGD3.0NPT11.5RH-RS/LS		11.5	1.64	1.60		9 - 15		◦	1"-11.5NPT

• In stock ◦ Available upon request | LH Helix threads available upon request



VG-Cut Tools

External Monoblock Tools.....	30
Reinforced External Monoblock Tools.....	31
Blades for Grooving & Parting Off.....	32
Blade Holders.....	33
Radial Modules.....	34
Modular Bodies.....	35
Radial Modules with HPC.....	36
Face Grooving Modules with HPC.....	37
Modular Bodies with HPC.....	38
Modular V-CAP Holders with HPC NEW	39

VG-Cut Tools Ordering Code

Monoblock Toolholders

VG	E	R	2525	3	T12	PH	C
1	2	9	3	4	5	10	11

Blades

VG	P	32	4	D	C
1	2	7	4	8	11

Modules

VG	A	R	20	T25	4	S	C
1	2	9	7	5	4	8	11

Face Grooving Modules

VG	F	R	4860	T24	4	C
1	2	9	12	5	4	11

Blade Holders / Modular Bodies

VB	A	R	2525	32	C
1	6	9	3	7	11

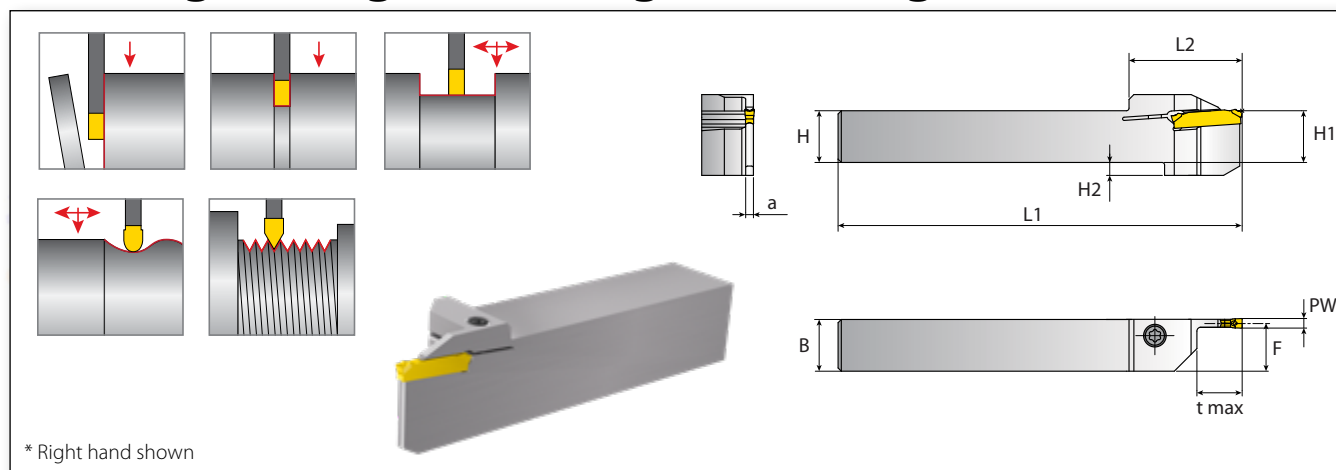
V-CAP Bodies

VB	C	R	C5	-	90	-	C
1	2	9	3		7		11

1 – Tools/Holders VG - Holders, Blades, Modules VB - Blade Holders, Modular Bodies	2 – Type A - Radial module C - V-CAP body E - External tool F - Face module M - Square body P - Universal blade W - Reinforced blade	3 – For External Holders Shank Size	4 – Pocket Size 2, 3, 4, 5, 6
5 – Depth of Cut T12 - Limit Depth of Cut 12 mm	6 – Holders A - Universal	3 – For V-CAP Holders Polygon Size (C4, C5, C6)	
9 – RH or LH R - RH L - LH None - Neutral	10 – PH PH - Reinforced blade structure	7 – Blade Height 20, 25, 26, 32 00, 45, 90 Approach angle	8 – Number of Pockets D - Double S - Single
		11 – Coolant C - Coolant	12 – Dmin - Dmax Dmin - Dmax (For Face Grooving)

External Monoblock Tools

Grooving, Parting Off, Turning & Threading



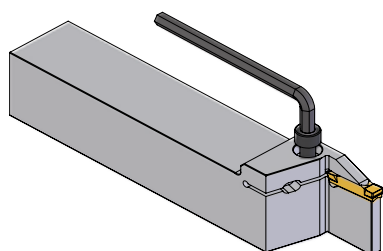
* Right hand shown

Ordering Code										Spare Parts		
Dimensions mm												
RH/LH	PW	t max	HXB	H1	F	L1	L2	a	H2	Cylindrical Screw*	Key	Key
VGER/L1616-2T12	2	12	16x16	16	15.3	125	35	1.75	4.0	SM4x16-T20	K4TF	-
VGER/L2020-2T12			20x20	20	19.3	125	35	1.75	---	SM4x18-T20		
VGER/L2525-2T08		8	25x25	25	24.3	125	35	1.75	---	SM4x18-T20		
VGER/L1212-3T08	3	8	12x12	12	10.8	125	35	2.5	4.0	SM3.5x14-T15	-	KT-15
VGER/L1212-3T12		12	12x12	12	10.8	125	35	2.5	4.0	SM4x16-T20		K6T
VGER/L1616-3T12		12	16x16	16	14.8	125	35	2.5	4.0	SM4x16-T20		
VGER/L1616-3T21		21	16x16	16	14.8	125	35	2.5	4.0	SM4x18-T20		
VGER/L2020-3T08		8	20x20	20	18.8	125	35	2.5	---	SM4x18-T20		
VGER/L2020-3T12		12	20x20	20	18.8	125	35	2.5	---	SM4x18-T20		
VGER/L2020-3T21		21	20x20	20	18.8	125	35	2.5	---	SM4x18-T20		
VGER/L2525-3T08		8	25x25	25	23.8	125	35	2.5	---	SM4x18-T20		
VGER/L2525-3T12		12	25x25	25	23.8	125	35	2.5	---	SM4x18-T20		
VGER/L2525-3T21		21	25x25	25	23.8	125	35	2.5	---	SM4x18-T20		
VGER/L1616-4T21	4	21	16x16	16	14.5	125	35	3.4	4.0	SM4x18-T20	-	K6T
VGER/L2020-4T21		21	20x20	20	18.5	125	35	3.4	---	SM4x18-T20		
VGER/L2525-4T08		8	25x25	25	23.52	125	35	3.4	---	SM4x18-T20		
VGER/L2525-4T12		12	25x25	25	23.5	125	35	3.4	---	SM4x18-T20		
VGER/L2525-4T21		21	25x25	25	23.5	125	35	3.4	---	SM4x18-T20		
VGER/L3232-4T21		21	32x32	32	32.52	125	35	3.4	---	SM4x18-T20		
VGER/L2525-5T22**	5	22	25x25	25	23.0	150	43	4.0	---	SM6x20	-	K5H
VGER/L3232-5T22**			32x32	32	30.0	170	43	4.0	---			K5H
VGER/L2525-6T24**	6	24	25x25	25	22.5	150	45	5.0	---			K5H
VGER/L3232-6T24**			32x32	32	29.5	170	45	5.0	---			K5H

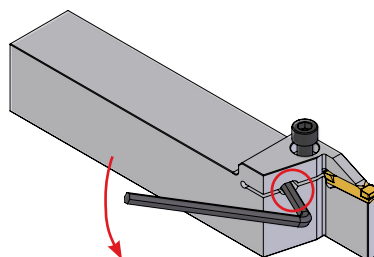
* Tightening Torque: T15 screws - 5 Nm max, T20 screws - 7 Nm max, SM6x20 screw - 10 Nm max.

** Mounting and Replacing Inserts for 5mm & 6mm Monoblock Toolholders:

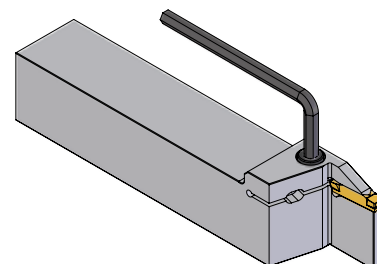
- 1 Unlock the top screw using the key provided.



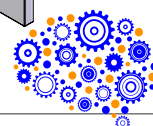
- 2 Place the same key in the "pocket" Turn and hold the key to loosen the pocket and remove the insert. Place the new insert in the pocket.



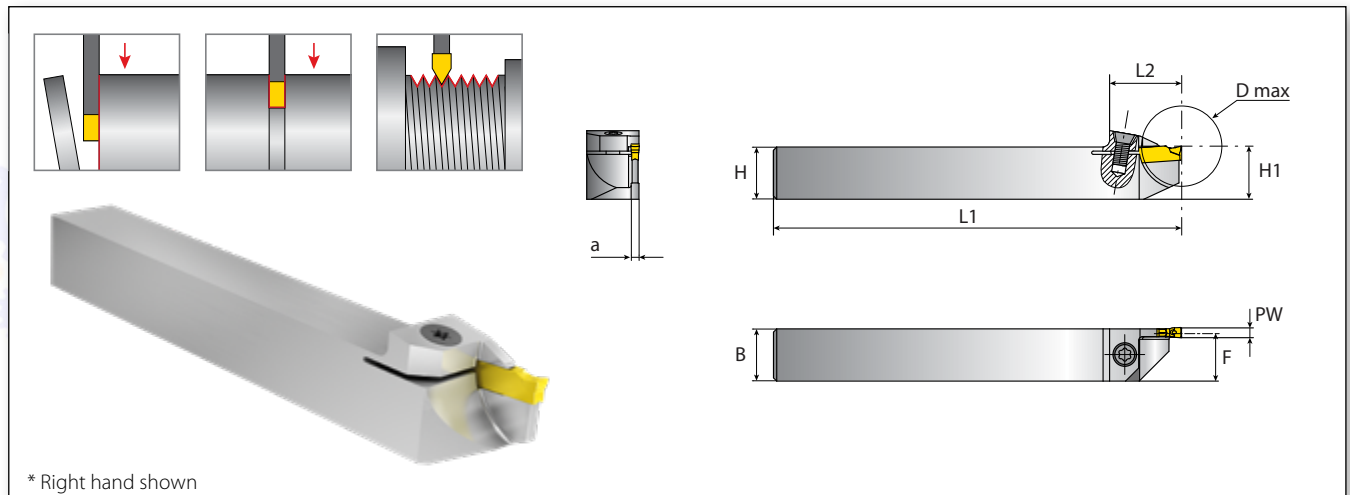
- 3 Now remove the key from the pocket and secure the insert by firmly locking the top screw.



Tools should not be clamped without an insert inside the pocket.



Reinforced Monoblock Tools Grooving, Parting Off & Threading

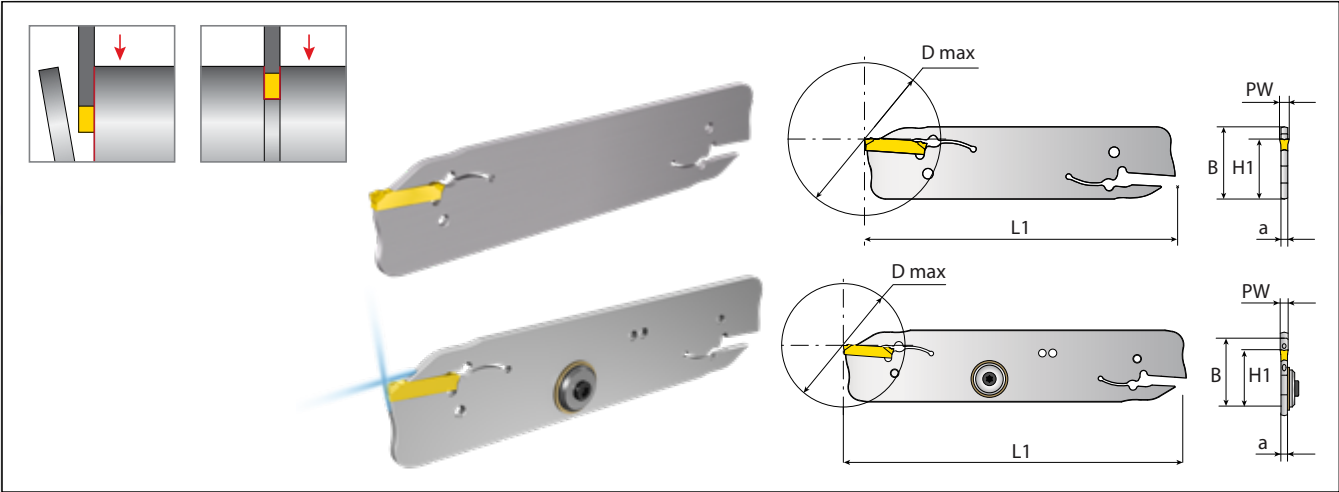


Ordering Code									Spare Parts		
Dimensions mm											
RH/LH	PW	D max	HXB	H1	F	L1	L2	a	Cylindrical Screw*	Key	
VGER/L1212-2T12PH	2	26	12x12	12	11.3	125	22	1.75	SM4x14 T15	K3TF	-
VGER/L1616-2T12PH		26	16x16	16	15.3	125	22	1.75			
VGER/L1616-2T21PH		42	16x16	16	15.3	125	30	1.75			
VGER/L2020-2T12PH		26	20x20	20	19.3	125	22	1.75			
VGER/L2020-2T21PH		42	20x20	20	19.3	125	30	1.75			
VGER/L2525-2T21PH		42	25x25	25	24.3	125	30	1.75			
VGER/L1616-3T12PH	3	26	16x16	16	14.8	125	22	2.5		-	KT-15
VGER/L1616-3T21PH		42	16x16	16	14.75	125	30	2.5			
VGER/L2020-3T12PH		26	20x20	20	18.8	125	22	2.5			
VGER/L2020-3T21PH		42	20x20	20	18.8	125	30	2.5			
VGER/L2525-3T12PH		26	25x25	25	18.8	125	22	2.5			
VGER/L2525-3T21PH		42	25x25	25	23.8	125	30	2.5			

* Tightening Torque: K3TF Key - 3 Nm max; KT-15 Key - 5 Nm max.

Tools should not be clamped without an insert inside the pocket.

Blades for Grooving & Parting Off



Ordering Code							Spare Parts		
Dimensions mm									
	B	PW	D max*	H1	L1	a	Key**	Sealing Cap Key***	Sealing Cap
VGP26-2D	26	2	50	21.4	110	1.8	VP-3	-	-
VGP32-2D	32	2	50	24.8	150	1.8		-	-
VGP26-3D	26	3	70	21.4	110	2.5		Key WS-15IP	WS-15IP
VGP26-3DC	26	3	70	21.4	110	2.5		-	-
VGP32-3D	32	3	100	24.8	150	2.5		Key WS-15IP	WS-15IP
VGP32-3DC	32	3	100	24.8	150	2.5		-	-
VGP35-3S	35	3	100	33.5	150	2.5	VP-4	-	-
VGP32-4D	32	4	100	24.8	150	3.4		Key WS-15IP	WS-15IP
VGP32-4DC	32	4	100	24.8	150	3.4	VP-G	-	-
VGP32-5D	32	5	100	24.8	150	4.0		-	-
VGP32-6D	32	6	100	24.8	150	5.2		-	-

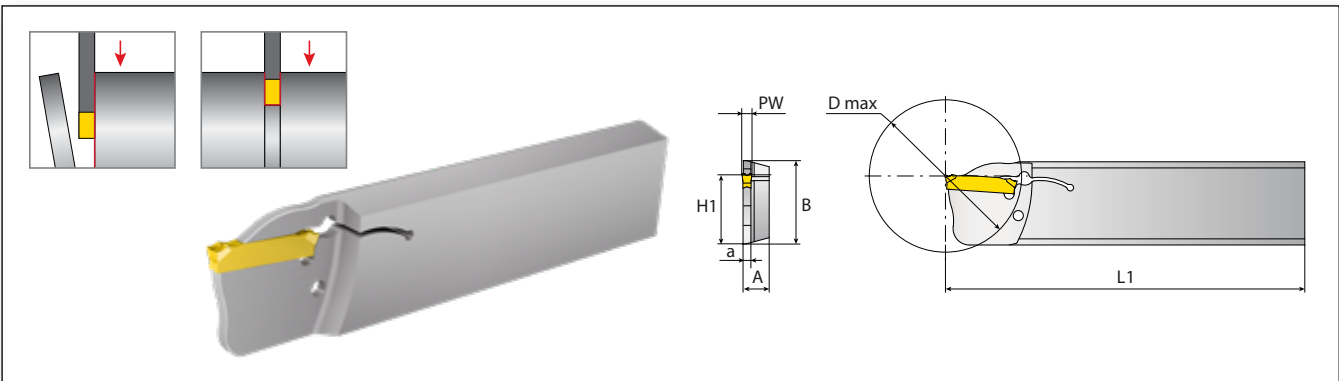
! Blades marked with C are offered with High Pressure Coolant.

* D max figures presented are for single sided insert (VGS).

** Not included. Please order separately.

*** Tightening Torque: 5 Nm max

Reinforced Blades for Grooving & Parting Off



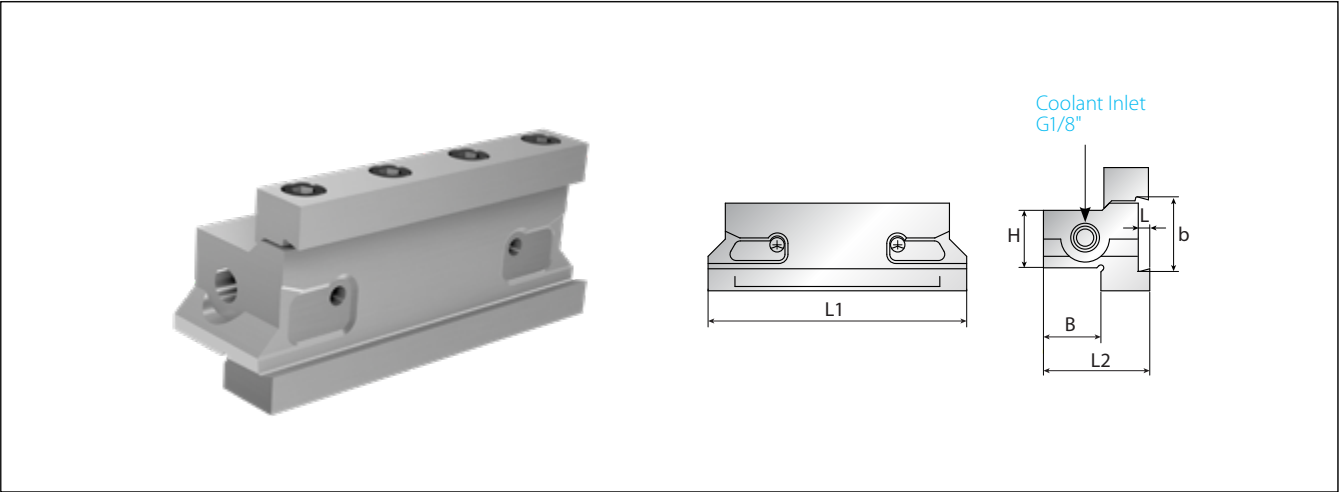
Ordering Code								Spare Parts	
Dimensions mm									
	RH/LH	B	PW	D max*	H1	L1	A	a	Key**
VGWR/L26-2S		26	2	50	21.4	110	8.0	1.8	VP-3
VGWR/L32-2S		32	2	50	24.7	110	8.0	1.8	
VGWR/L26-3S		26	3	50	21.4	110	8.0	2.5	
VGWR/L32-3S		32	3	50	24.7	110	8.0	2.5	

* D max figures presented are for single sided insert (VGS).

** Not included. Please order separately.



Blade Holders



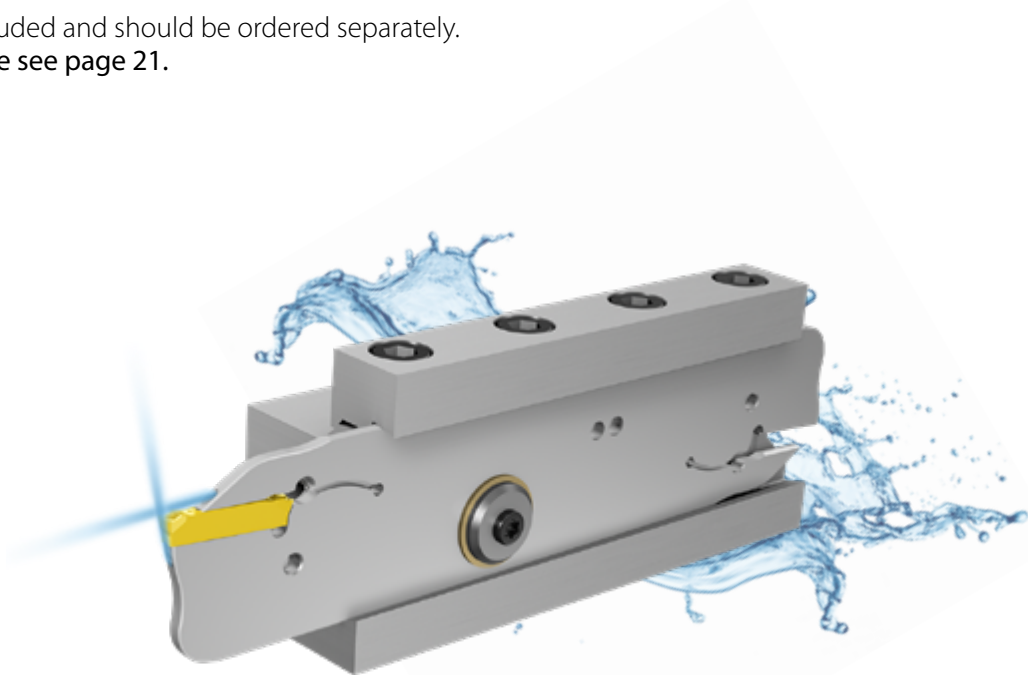
Ordering Code							Spare Parts	
Dimensions mm								
	b	H	B	L	L1	L2	Clamping Screw*(x4)	Key
VBA 2020-26	26	20	20	4	90	37.0	M6x1.0x25	K5H
VBA 2520-32	32	25	20	5.2	110	37.7		

* Tightening Torque: 10 Nm max

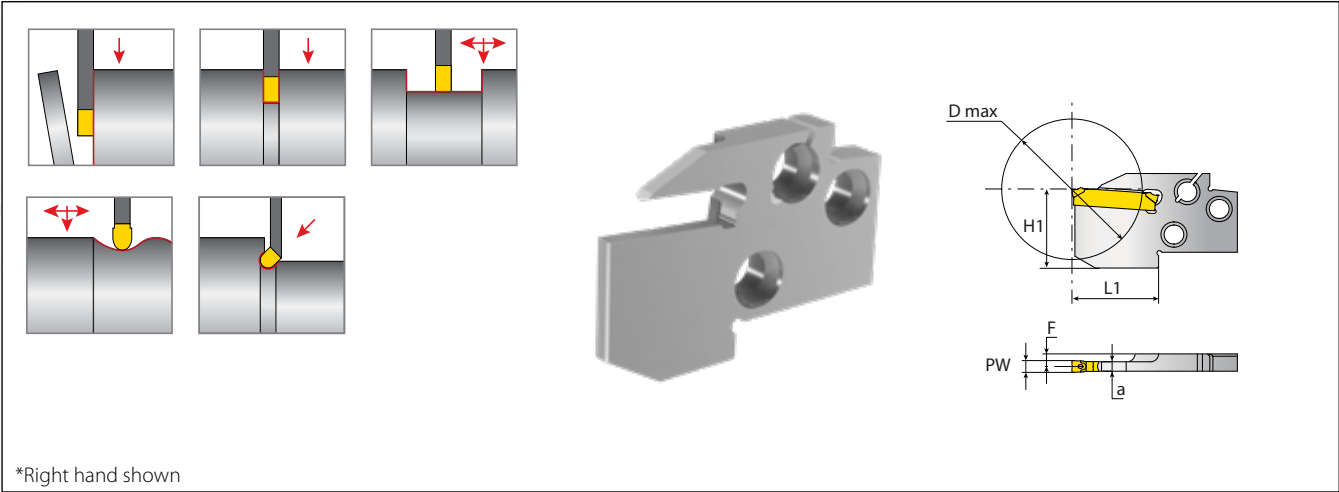
Necessary Parts When Using Blades with High Pressure Coolant Thru:

- 1. Plug G1/8"P (x1)
- 2. Plug DIN 916 GALV M6x8P (x1)
- 3. Tube Connector 25-6P (x1)
- 4. Fittings (x2): Straight Fitting G1_8x6P or Angled Fitting G1_8x6P

The above items are not included and should be ordered separately.
For more information please see page 21.



Modules for Grooving, Parting Off & Turning



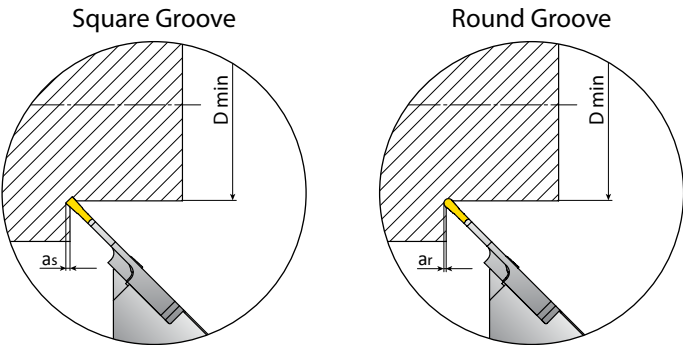
Ordering Code		Dimensions mm				
RH/LH	PW	D max	H1	F	L1	a
VGAR/L20T25-2S	2	40	20	3.7	22	1.4
VGAR/L20T25-3S	3	40	20	3.2	24	2.4
VGAR/L20T25-4S	4	44	20	2.9	24	3.0
VGAR/L25T25-2S	2	40	25	5.2	22	1.4
VGAR/L25T25-3S	3	40	25	4.7	24	2.4
VGAR/L25T25-4S	4	44	25	4.4	24	3.0

Radial (0°-90°) Module Limitations

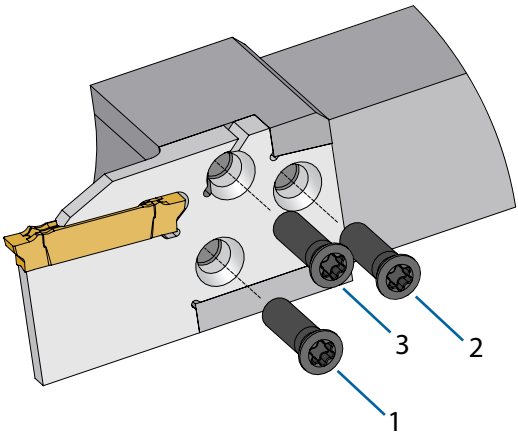
Dimensions mm	
D max	t max
50	20.0
100	17.0
150	16.0
200	15.2

45° (Undercut) Module Limitations

Dimensions mm			
Pocket Width PW	Square Groove as max	Round Groove ar max	D min
2	0.91	0.5	48
3	1.12		
4	1.32		

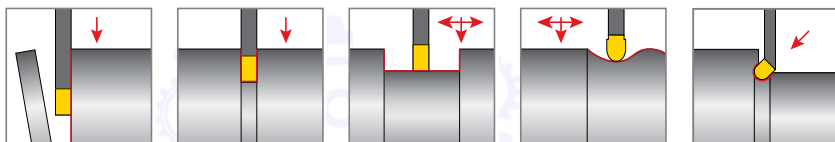


Mounting and Replacing Modules:

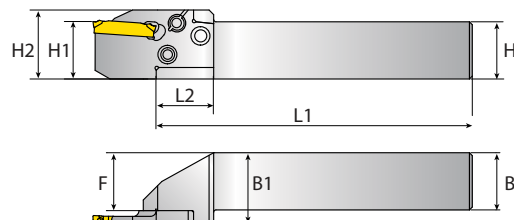
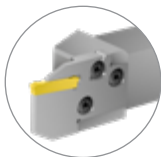
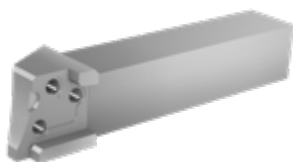


1. Clamp the module using screws 1, 2 and 3.
2. Clamp module to body with screw no. 1, followed by screw no. 2.
3. Finally, clamp the insert to the holder using screw no. 3.

Modular Bodies for Grooving, Parting Off & Turning



Parallel Square Bodies

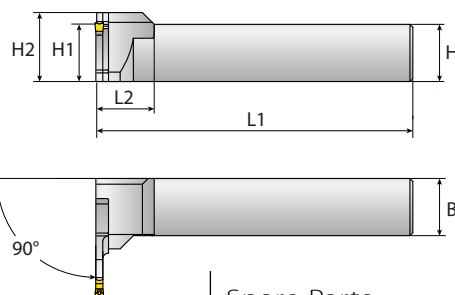
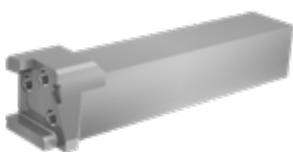


* Right hand shown

Spare Parts

Ordering Code		Dimensions mm							
RH/LH	H/H1	B	B1	H2	F	L1	L2	Conical Screw*	Key
VBMR/L2020-00	20	20.0	24.3	24	20.15	110	20	SM4x14 T15	KT-15
VBMR/L2525-00	25	25.0	31.0	30	25.50	140	25	SM5x18 T20	K6T

90° Square Bodies



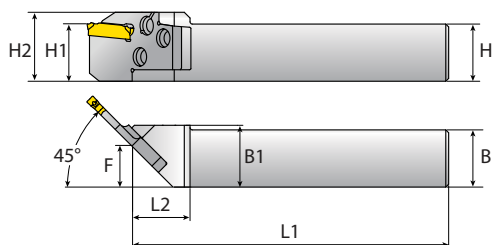
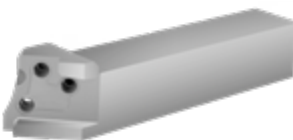
* Right hand shown

Spare Parts

Ordering Code						Dimensions mm			
RH/LH	H/H1	B	H2	L1	L2	Conical Screw*		Key	
VBMR/L2020-90	20	20.0	24	110	20	SM4x14 T15		KT-15	
VBMR/L2525-90	25	25.0	30	140	28	SM5x18 T20		K6T	

For 90° Right-hand Tool: Use right-hand body with left-hand module.

45° Square Bodies



* Left hand shown

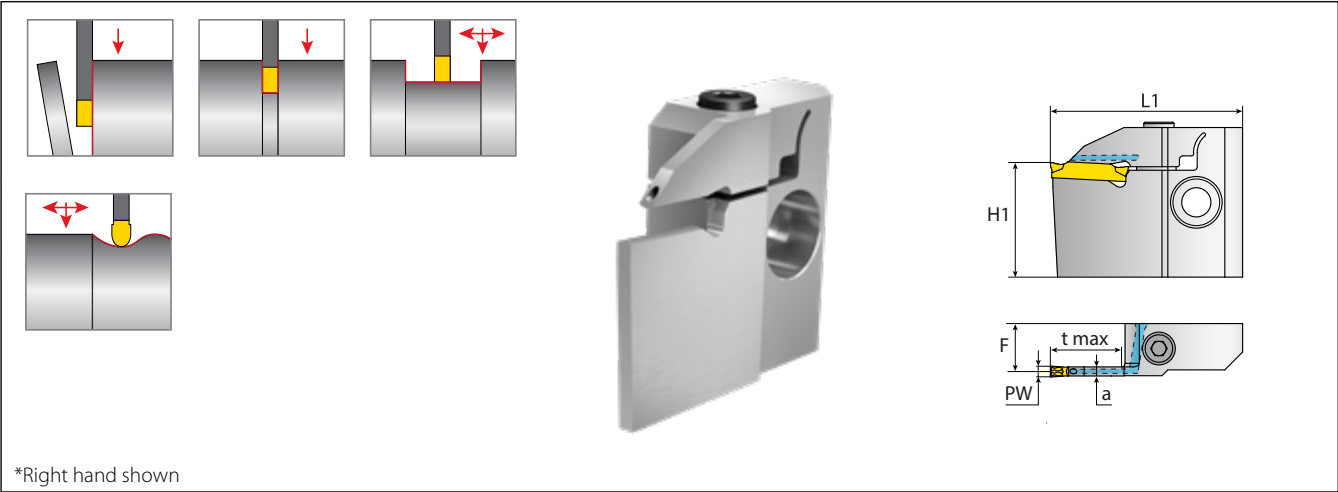
Spare Parts

Ordering Code		Dimensions mm							
RH/LH	H/H1	B	B1	H2	L1	L2	F	Conical Screw*	Key
VBMR/L2020-45	20	20.0	21.5	24	110	20	14.5	SM4x10.5 T15 SM4x14 T15	KT-15
VBMR/L2525-45	25	25.0	26.0	30	140	25	18	SM5x13.5 T20 SM5x18 T20	K6T

For 45° Right-hand Tool: Use right-hand body with left-hand module.

* Tightening Torque: T15 screws - 5 Nm max , T20 screws - 7 Nm max.

Radial Grooving Modules with High Pressure Coolant Thru

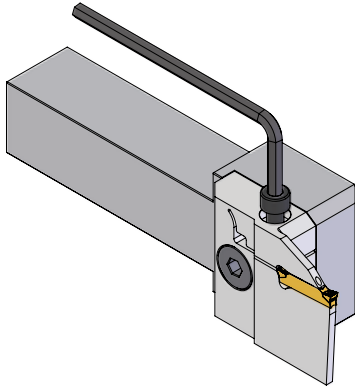


Ordering Code							Spare Parts	
Dimensions mm								
RH/LH	PW	t max	H1	F	L1	a	Screw*	Key
VGAR/L-T09-2C	2	9	32	13.9	43	1.58	SM5x16	K4H
VGAR/L-T18-2C	2	18	32	13.9	52	1.58		
VGAR/L-T10-3C	3	10	32	13.3	44	2.48		
VGAR/L-T20-3C	3	20	32	13.3	54	2.48		
VGAR/L-T12-4C	4	12	32	13.0	46	3.10		
VGAR/L-T24-4C	4	24	32	13.0	58	3.10		
VGAR/L-T15-5C	5	15	32	13.5	49	4.00		
VGAR/L-T30-5C	5	30**	32	12.5	64	4.00		
VGAR/L-T20-6C	6	20	32	13.0	54	5.00		
VGAR/L-T40-6C	6	40**	32	13.0	74	5.00		

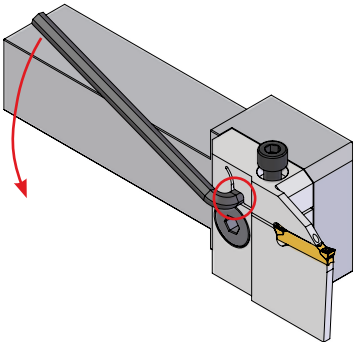
* Tightening Torque: PW 2 mm - 4 Nm max; PW 3, 4, 5, 6 mm - 7 Nm max.
 ** T max figures presented for single sided inserts (VGS).

Mounting and Replacing Inserts for Radial and Face Grooving Modules with High Pressure Coolant Thru:

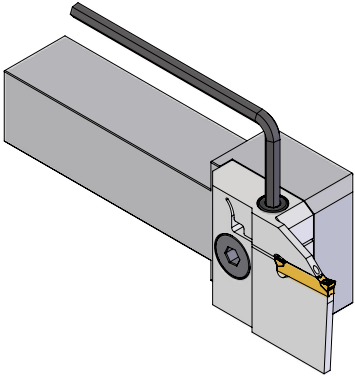
1

Unlock the top screw using the key provided.
 

2

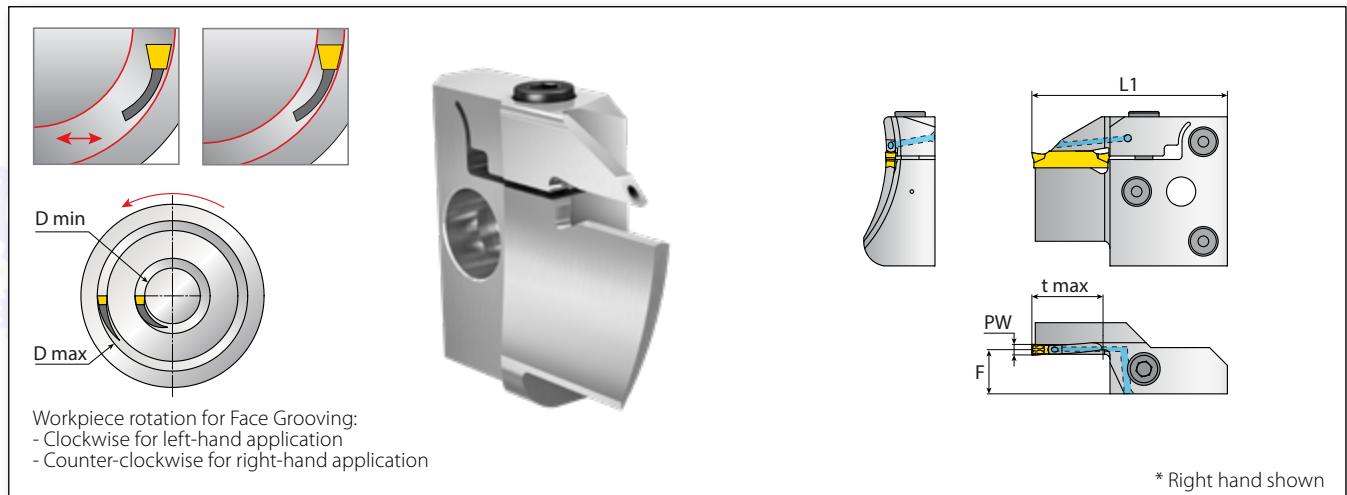
Place the same key in the "pocket." Turn and hold the key to loosen the pocket and remove the insert. Place the new insert in the pocket.
 

3

Now remove the key from the pocket and secure the insert by firmly locking the top screw.
 

| Tools should not be clamped without an insert inside the pocket.

Face Grooving Modules with High Pressure Coolant Thru

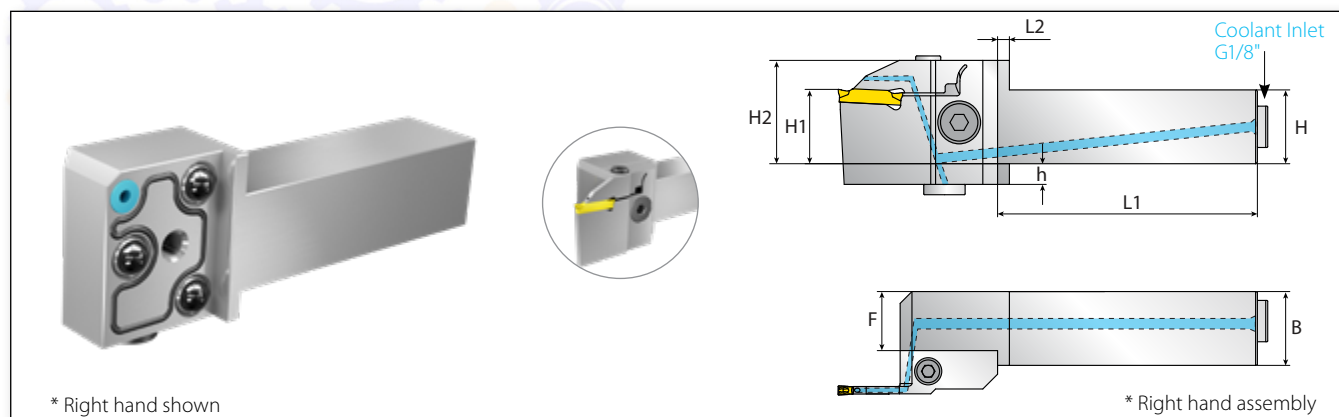
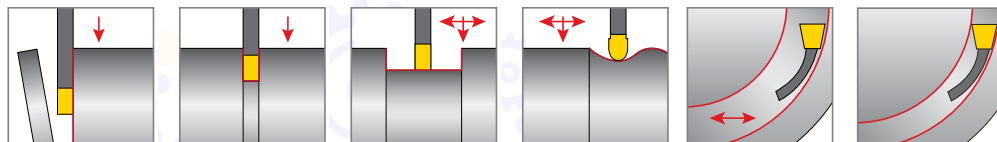


							Spare Parts		
Ordering Code			Dimensions mm						
RH/LH	PW	t max	D min	D max	F	L1	Screw*	Key	
VGFR/L-2530-T10-3C	3	10	23.50	32.00	12.5	45	SM5x16	K4H	
VGFR/L-3038-T10-3C			28.60	40.40					
VGFR/L-3848-T10-3C			36.60	50.40					
VGFR/L-4860-T10-3C			46.60	62.80					
VGFR/L-6075-T10-3C			58.70	78.20					
VGFR/L-75100-T10-3C		20	73.70	103.20		55			
VGFR/L-100200-T10-3C			99.20	204.60					
VGFR/L-6075-T20-3C			58.30	77.50					
VGFR/L-75100-T20-3C			73.70	103.20					
VGFR/L-100200-T20-3C			99.20	204.60					
VGFR/L-3048-T12-4C	4	12	27.60	49.00	12	47			
VGFR/L-4860-T12-4C			44.50	60.50					
VGFR/L-6075-T12-4C			55.60	75.10					
VGFR/L-75100-T12-4C			69.60	99.60					
VGFR/L-100150-T12-4C			92.30	147.70					
VGFR/L-150->-T12-4C		24	134.50	285.50		59			
VGFR/L-3048-T24-4C			27.60	49.00					
VGR/LF-4860-T24-4C			44.50	60.50					
VGFR/L-6075-T24-4C			55.60	75.10					
VGFR/L-75100-T24-4C			69.60	99.60					
VGFR/L-100150-T24-4C	5	22	92.30	147.70		13.5			60
VGFR/L-150->-T24-4C			134.50	275.50					
VGFR/L-4255-T22-5C			38.40	61.00					
VGFR/L-5575-T22-5C			51.10	81.90					
VGFR/L-75130-T22-5C			70.30	143.90					
VGFR/L-130200-T22-5C		45	123.10	222.30					92
VGFR/L-200 ->-T22-5C			189.00	788.40					
VGFR/L-130200-T45-5C			123.10	222.30					
VGFR/L-200400-T45-5C			189.00	475.90					
VGFR/L-450->-T45-5C			400.70	911.80					
VGFR/L-4255-T22-6C	6	22	36.50	63.30	13	60			
VGFR/L-5575-T22-6C			49.00	83.50					
VGFR/L-75130-T22-6C			68.20	145.00					
VGFR/L-130200-T22-6C			121.10	223.90					
VGFR/L-200 ->-T22-6C			188.40	813.10					
VGFR/L-130200-T45-6C		45	121.10	223.90		92			
VGFR/L-200400-T45-6C			189.10	492.00					
VGFR-450->-T45-6C			408.90	973.60					

* Tightening Torque 7 Nm max.

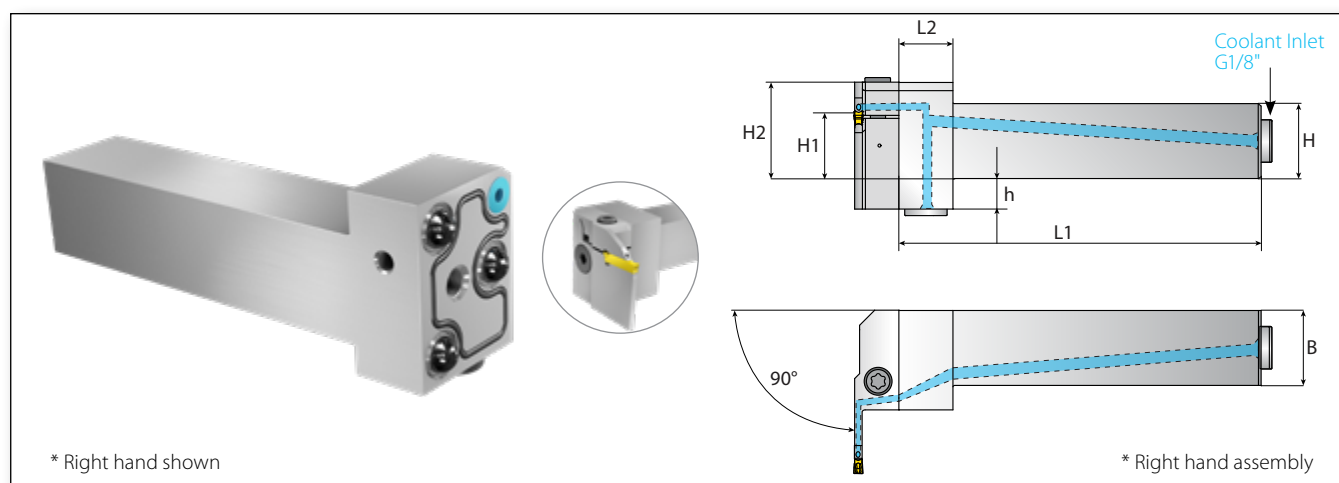
| Tools should not be clamped without an insert inside the pocket.

Modular Bodies with High Pressure Coolant for Grooving, Face Grooving, Parting Off and Turning



Parallel Square Bodies with HPC

Ordering Code		Dimensions mm						Spare Parts				
	H/H1	B	H2	h	F	L1	L2					
VBMR/L2020-00-C	20	20	30	12	15	106	4	SM8x25	K6H	Plug G1/8"	Coolant Sleeve	O-RING Body Seal
VBMR/L2525-00-C	25	25	35	7	20	121	4					
VBMR/L3225-00-C	32	25	42	0	20	136	4					



90° Square Bodies with HPC

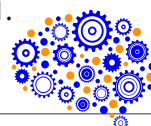
Ordering Code		Dimensions mm						Spare Parts				
	RH/LH	H/H1	B	H2	h	L1	L2					
VBMR/L2020-90-C		20	20	30	12	111	18	SM8x25	K6H	Plug G1/8"	Coolant Sleeve	O-RING Body Seal
VBMR/L2525-90-C		25	25	35	7	120	18					
VBMR/L3232-90-C		32	32	42	0	130	18					

* Tightening Torque: 26 NM max.

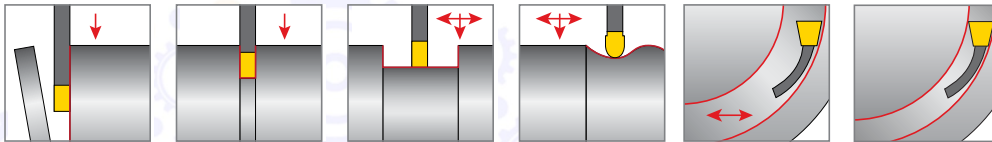
Necessary Parts When Using Modules with High Pressure Coolant Thru:

1. Tube Connector 25-6P (x1)
2. Fittings (x2): Straight Fitting G1_8x6P or Angled Fitting G1_8x6P

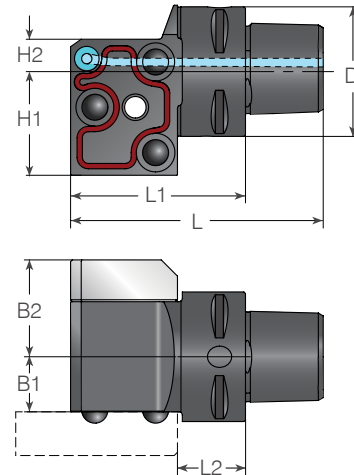
The above items are not included and should be ordered separately. For more information please see page 21.



Modular V-CAP Holders with HPC



* Right hand shown



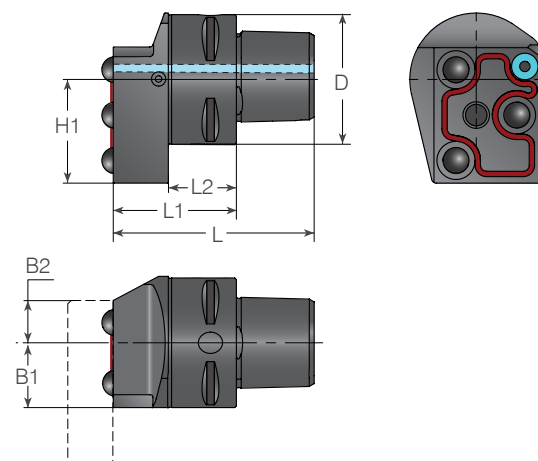
Parallel V-CAP Bodies with HPC

Spare Parts

Ordering Code		Dimensions mm										
	D	L	L1	L2	B1	B2	H1	Clamping Screw* (x2)	Key	Modular Cover	Coolant Seal	Anti Vibration O-Ring
VBC C4-00-C	40	78	54	21	17	29.9	32	SM8x18	K6H	VG-MC	Coolant Sleeve	O-RING Body Seal
VBC C5-00-C	50	88	58	21	19.5	32.4						
VBC C6-00-C	63	98	60	23	24.5	37.4						



* Right hand shown



90° V-CAP Bodies with HPC

Spare Parts

Ordering Code								Dimensions mm							
RH/LH	D	L	L1	L2	B1	B2	H1	Clamping Screw*	Key	Coolant Seal	Anti Vibration O-Ring				
VBCR/L C4-90-C	40	64	40	21	20	13.0	32	SM8x18	K6H	Coolant Sleeve	O-RING Body Seal				
VBCR/L C5-90-C	50	70	40	21	26.5	6.75									
VBCR/L C6-90-C	63	78	40	23	32.7	0.5									

V-CAP holders are according to ISO 26623.

* Tightening Torque: 26 Nm max.

