more options

Wide scope of applications:
grooving, parting off, copying, turning
Double ended inserts
Reduced set-up time

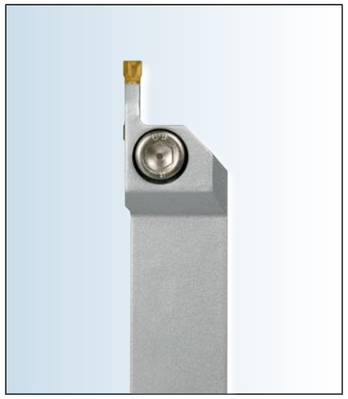
GROOVING AND PARTING OFF PROGRAM

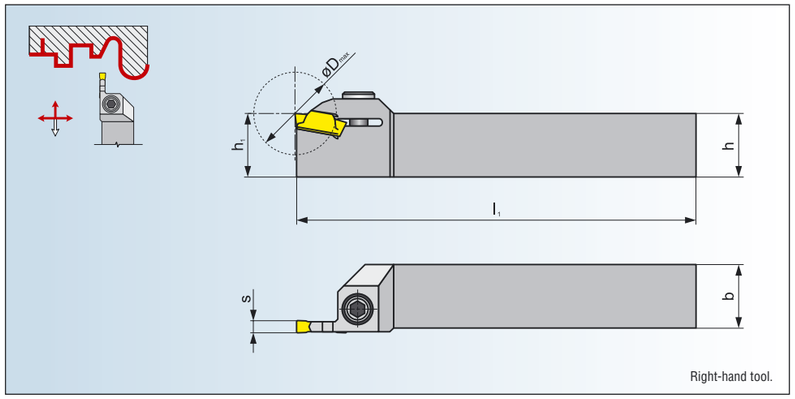
Pramet Tools, s.r.o., Unicovska 2, 787 53 Sumperk, Czech Republic
Phone: +420 / 583 381 111, 583 381 530-5, Fax: +420 / 583 215 401, E-mail: pramet.info.cz@pramet.com

www.pramet.com

GFIR/L

External Toolholders



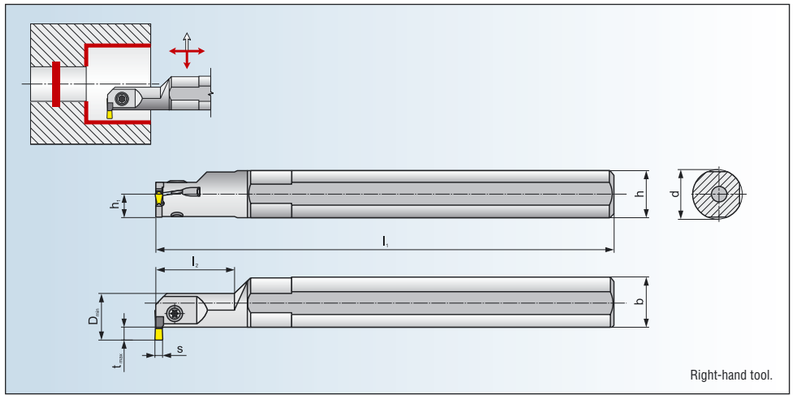


Right-hand tool.

Specifications	R/L	Dimensions h=h1	b	l1	s	Dmax	[kg]	Spare parts Screw	Spare parts Key	Cutting inserts
GFIR/L 1616H03	●/●	16	16	100	3	18	0,30	HS 0616C	HXK 5	LCMF 0316..
GFIR/L 2020K03	●/●	20	20	125			0,40	HS 0620C		
GFIR/L 2525M03	●/●	25	25	150			0,60	HS 0625C		
GFIR/L 1616H04	●/●	16	16	100	4	24	0,30	HS 0616C	HXK 5	LCMF 0416..
GFIR/L 2020K04	●/●	20	20	125			0,40	HS 0620C		
GFIR/L 2525M04	●/●	25	25	150			0,60	HS 0625C		
GFIR/L 2020K05	●/●	20	20	125	5	28	0,40	HS 0620C	HXK 5	LCMF 0516..
GFIR/L 2525M05	●/●	25	25	150			0,60	HS 0625C		
GFIR/L 2020K06	●/●	20	20	125	6	28	0,40	HS 0620C	HXK 5	LCMF 0616..
GFIR/L 2525M06	●/●	25	25	150			0,60	HS 0625C		

GG.R/L

Internal Toolholders*



Right-hand tool.

*** - SALE FROM 1.10.2006**

Specifications	R/L	Dimensions d	h	h1	b	l1	l2	s	tmax	Dmin	[kg]	Spare parts Screw	Spare parts Screwdriver	Cutting inserts
A16Q-GGER/L 0313	●/●	16	15	7,5	15,5	180	25	3	3	16	0,30	SR 85011-T15P	SDR T15P	LCMF 0313..
A20R-GGFR/L 0313	●/●	20	18	9,0	19	200	30	3	5,5	20	0,40	SR 85011-T15P	SDR T15P	LCMF 0313..
A25S-GGHR/L 0313	●/●	25	23	11,5	24	250	40	3	7,5	25	0,75	SR 85011-T15P	SDR T15P	LCMF 0313..
A25S-GGFR/L 0413	●/●	25	23	11,5	24	250	40	4	7,5	25	0,75	SR 85011-T15P	SDR T15P	LCMF 0413..
A32T-GGHR/L 0413	●/●	32	30	15,0	31	300	50	4	10,5	32	1,55	SR 85011-T15P	SDR T15P	LCMF 0413..

● Stock assortment ○ Non-stock assortment

All dimensions in [mm]

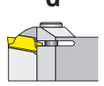
ISO Identifications System

● EXTERNAL TOOLHOLDER

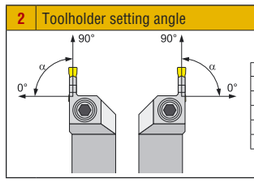
G	F	I	L	25	25	M	03	R	030	017
1	2	3	4	5	6	7	8	9	10	11

1 Insert clamping

G



2 Toolholder setting angle

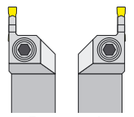


α	
G = 0°	K = 75°
R = 15°	F = 90°
T = 30°	B = 105°
S = 45°	E = 120°
W = 60°	D = 135°

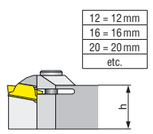
3 Maximum grooving / turning depth

G = 2,0 × a	N = 5,5 × a
H = 2,5 × a	O = 6,0 × a
I = 3,0 × a	P = 6,5 × a
J = 3,5 × a	Q = 7,0 × a
K = 4,0 × a	R = 7,5 × a
L = 4,5 × a	S = 8,0 × a
M = 5,0 × a	T = 8,5 × a

4 Version (Right / Left)

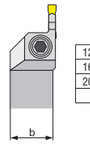


5 Shank height



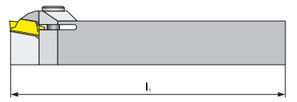
12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

6 Shank width



12 = 12 mm
16 = 16 mm
20 = 20 mm
etc.

7 Tool lenght

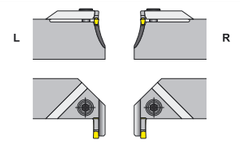


H = 100 mm
K = 125 mm
M = 150 mm
P = 170 mm
R = 200 mm

8 Seat size

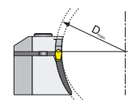
03 = 2,3 mm
04 = 3,1 mm
05 = 4,1 mm
06 = 5,1 mm
08 = 6,8 mm

9 Blade curvature direction



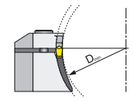
Additional information for axial machining.

10 Maximum diameter



Additional information for axial machining.

11 Minimum diameter



Additional information for axial machining.

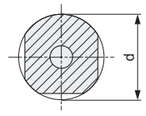
● INTERNAL TOOLHOLDER

A	16	Q	-	G	G	E	L	0313
1	2	3		4	5	6	7	8

1 Type of tool

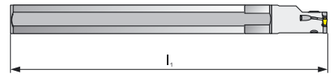
A = Steel shank with coolant hole

2 Diameter of shank



16 = 16 mm
20 = 20 mm
25 = 25 mm
etc.

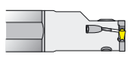
3 Total lenght



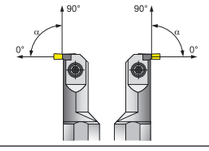
K = 125 mm	R = 200 mm
L = 140 mm	S = 250 mm
M = 150 mm	T = 300 mm
N = 160 mm	U = 350 mm
P = 170 mm	V = 400 mm
Q = 180 mm	

4 Insert clamping

G



5 Toolholder setting angle

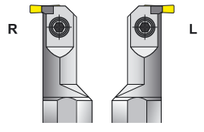


α	
G = 0°	K = 75°
R = 15°	F = 90°
T = 30°	B = 105°
S = 45°	E = 120°
W = 60°	D = 135°

6 Maximum grooving / turning depth

E = 1,0 × a	J = 3,5 × a
F = 1,5 × a	K = 4,0 × a
G = 2,0 × a	L = 4,5 × a
H = 2,5 × a	M = 5,0 × a
I = 3,0 × a	N = 5,5 × a
X = Special	

7 Version (Right / Left)



8 Seat size

0313 = 2,4 mm
0413 = 3,4 mm

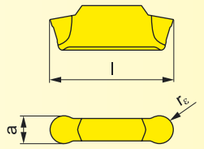
Cutting Indexable Inserts

chip breaker

MP

LCMF 16MP

Tolerance
a = ± 0,05
l = ± 0,08



ISO	Grade	Dimensions			Grooving		Turning				Cutting speed [m.min^{-1}]	
		a	l	r_ε	feed [mm.rev^{-1}]		feed [mm.rev^{-1}]		depth of cut [mm]			
					f_{min}	f_{max}	f_{min}	f_{max}	$a_{p\,min}$	$a_{p\,max}$	$v_{c\,min}$	$v_{c\,max}$
LCMF 0316MO-MP	6630	3,00	17,50	1,50	0,15	0,40	0,15	0,40	0,50	1,50	200	340
LCMF 0316MO-MP	8030				0,10	0,40	0,10	0,40	0,50	1,50	145	255
LCMF 0416MO-MP	6630	4,00	17,60	2,00	0,15	0,60	0,15	0,60	0,80	2,00	160	325
LCMF 0416MO-MP	8030				0,10	0,60	0,10	0,60	0,80	2,00	115	245
LCMF 0516MO-MP	6630	5,00	18,30	2,50	0,15	0,70	0,15	0,70	0,80	2,50	150	325
LCMF 0516MO-MP	8030				0,10	0,70	0,10	0,70	0,80	2,50	110	245
LCMF 0616MO-MP	6630	6,00	18,50	3,00	0,15	0,80	0,15	0,80	1,00	3,00	140	320
LCMF 0616MO-MP	8030				0,10	0,80	0,10	0,80	1,00	3,00	100	240

Cutting conditions are valid for materials group "P", machining with cooling.

All dimensions in [mm]

Technical Information

ADVANTAGES:

1. Wide scope of applications:
   - Grooving
   - Parting off
   - Copying
   - Turning

   Lower No. of items kept of stock.

2. Reduced set-up time
   - shorter time of machining
   - lower machining cost

3. Simple solution for grooving and turning of workpiece with various diameter.

4. Grooving program = toolholders + inserts for external, internal radial and axial machining.

CHIP BREAKERS:

F

deep grooving
finishing

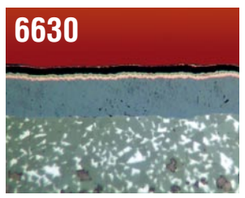
M

shallow grooving
semiroughing

MP

medium grooving
semiroughing
medium copying

CUTTING GRADES:

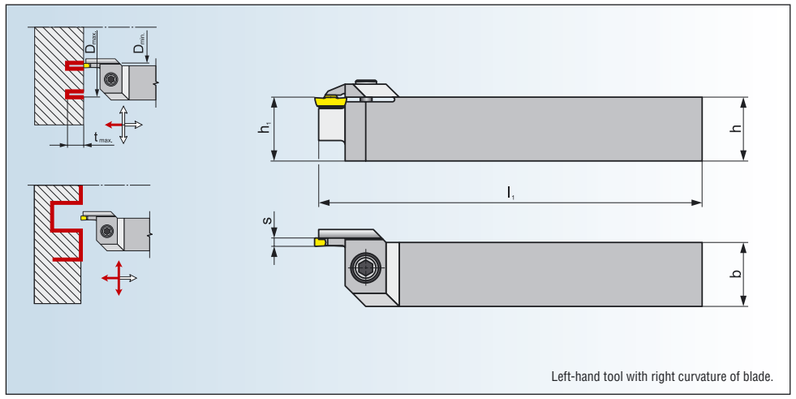


- the most universal grade among 6000 grades
- functional gradient substrate
- MTCVD coated grade with main layer of TiCN
- finishing up to roughing
- machining of materials groups P,M,K, conditionally also for group S
- medium and conditionally higher cutting speed
- continuous and interrupted cut

- submicron substrate type H
- nanostructural coating applied by PVD method
- combines good wear resistance and good operational reliability
- general-purpose grade
- medium cutting speed
- for less favourable cutting conditions

GFIR/L

Axial Toolholder*



Left-hand tool with right curvature of blade.

*** - SALE FROM 1.10.2006**

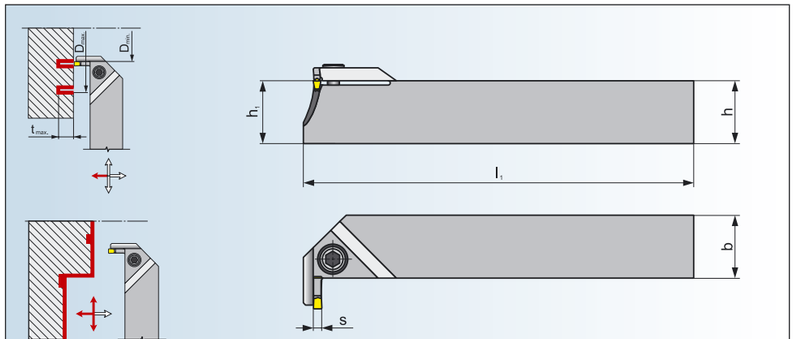
Specifications	R/L	Dimensions							[kg]	Spare parts		Cutting inserts
		h=h_1	b	l_1	s	t_{max}	D_{min}	D_{max}		Screw	Key	
GFIR 2525M 03L030017	○	25	25	150	3	9,5	17	30	0,75	HS 0520C	HXK 4	LCMF 0313..
GFIR 2525M03L039024	○					9,5	24	39				
GFIR 2525M03L050033	○					11	33	50				
GFIR 2525M03L060043	○					11	43	60				
GFIR 2525M03L076053	○					11	53	76				
GFIR 2525M03L100070	○	25	25	150	3	9	70	100	0,75	HS 0620C	HXK 5	LCMF 0316..
GFIR 2525M03L130090	○					9	90	130				
GFIR 2525M03L170110	○					9	110	170				
GFIL 2525M03R030017	●	25	25	150	3	9,5	17	30	0,75	HS 0520C	HXK 4	LCMF 0313..
GFIL 2525M03R039024	●					9,5	24	39				
GFIL 2525M03R050033	●					11	33	50				
GFIL 2525M03R060043	●					11	43	60				
GFIL 2525M03L076053	●					11	53	76				
GFIL 2525M03R100070	○	25	25	150	3	9	70	100	0,75	HS 0620C	HXK 5	LCMF 0316..
GFIL 2525M03R130090	○					9	90	130				
GFIL 2525M03R170110	○					9	110	170				
GFIR 2525M04L030017	○	25	25	150	4	9,5	17	30	0,75	HS 0520C	HXK 4	LCMF 0413..
GFIR 2525M04L034021	○					9,5	21	34				
GFIR 2525M04L040026	○					11	26	40				
GFIR 2525M04L050032	○					11	32	50				
GFIR 2525M04L060042	○					11	42	60				
GFIR 2525M04L075052	○					11	52	75				
GFIR 2525M04L100070	○	25	25	150	4	12	70	100	0,75	HS 0620C	HXK 5	LCMF 0416..
GFIR 2525M04L130090	○					12	90	130				
GFIR 2525M04L170110	○					12	110	170				
GFIR 2525M04L230140	○					12	140	230				
GFIL 2525M04R030017	○	25	25	150	4	9,5	17	30	0,75	HS 0520C	HXK 4	LCMF 0413..
GFIL 2525M04R034021	○					9,5	21	34				
GFIL 2525M04R040026	○					11	26	40				
GFIL 2525M04R050032	○					11	32	50				
GFIL 2525M04R060042	○					11	42	60				
GFIL 2525M04R075052	○					11	52	75				
GFIL 2525M04R100070	●	25	25	150	4	12	70	100	0,75	HS 0620C	HXK 5	LCMF 0416..
GFIL 2525M04R130090	●					12	90	130				
GFIL 2525M04R170110	●					12	110	170				
GFIL 2525M04R230140	●					12	140	230				

● Stock assortment ○ Non-stock assortment

All dimensions in [mm]

GGIR/L

Axial Toolholder 90°



Right-hand tool with right curvature of blade.

*** - SALE FROM 1.10.2006**

Specifications	R/L	Dimensions h=h_1	b	l_1	s	t_{max}	D_{min}	D_{max}	[kg]	Spare parts Screw	Spare parts Key	Cutting inserts
GGIR 2525M03R030017	●	25	25	150	3	9,5	17	30	0,80	HS 0520C	HXK 4	LCMF 0313..
GGIR 2525M03R039024	●					9,5	24	39				
GGIR 2525M03R050033	●					11	33	50				
GGIR 2525M03R060043	●					11	43	60				
GGIR 2525M03R076053	●					11	53	76				
GGIR 2525M03R100070	○	25	25	150	3	9	70	100	0,80	HS 0620C	HXK 5	LCMF 0316..
GGIR 2525M03R130090	○					9	90	130				
GGIR 2525M03R170110	○					9	110	170				
GGIL 2525M03L030017	●	25	25	150	3	9,5	17	30	0,80	HS 0520C	HXK 4	LCMF 0313..
GGIL 2525M03L039024	●					9,5	24	39				
GGIL 2525M03L050033	●					11	33	50				
GGIL 2525M03L060043	●					11	43	60				
GGIL 2525M03L076053	●					11	53	76				
GGIL 2525M03L100070	○	25	25	150	3	9	70	100	0,80	HS 0620C	HXK 5	LCMF 0316..
GGIL 2525M03L130090	○					9	90	130				
GGIL 2525M03L170110	○					9	110	170				

● Stock assortment ○ Non-stock assortment

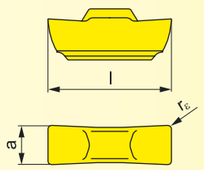
All dimensions in [mm]

Cutting Indexable Inserts

chip breaker
F

LCMF 13 F*

Tolerance
a = ± 0,05
l = ± 0,08



*** - SALE FROM 1.10.2006**

ISO	Grade	Dimensions a	l	r_ε	Grooving feed [mm.rev⁻¹] f_{min}	Grooving feed [mm.rev⁻¹] f_{max}	Turning feed [mm.rev⁻¹] f_{min}	Turning feed [mm.rev⁻¹] f_{max}	Turning depth of cut [mm] $a_{p\,min}$	Turning depth of cut [mm] $a_{p\,max}$	Cutting speed [m.min⁻¹] $v_{c\,min}$	Cutting speed [m.min⁻¹] $v_{c\,max}$
LCMF 031304-F	6630	3,00	12,60	0,40	0,10	0,25	0,10	0,25	0,50	2,50	110	200
LCMF 031304-F	8030				0,05	0,25	0,05	0,25	0,50	2,50	110	250
LCMF 041304-F	6630	4,00	12,60	0,40	0,10	0,25	0,10	0,25	0,50	2,50	110	185
LCMF 041304-F	8030				0,05	0,25	0,05	0,25	0,50	2,50	110	235

Cutting conditions are valid for materials group “P”, machining with cooling.

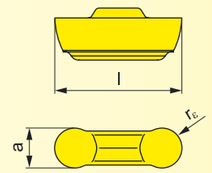
All dimensions in [mm]

Cutting Indexable Inserts

chip breaker
MP

LCMF 13 MP*

Tolerance
a = ± 0,05
l = ± 0,08



*** - SALE FROM 1.10.2006**

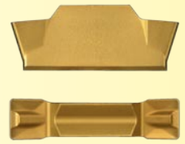
ISO	Grade	Dimensions l	r_ε	Grooving feed [mm.rev⁻¹] f_{min}	Grooving feed [mm.rev⁻¹] f_{max}	Turning feed [mm.rev⁻¹] f_{min}	Turning feed [mm.rev⁻¹] f_{max}	Turning depth of cut [mm] $a_{p\,min}$	Turning depth of cut [mm] $a_{p\,max}$	Cutting speed [m.min⁻¹] $v_{c\,min}$	Cutting speed [m.min⁻¹] $v_{c\,max}$
LCMF 0313MO-MP	8030	12,60	1,50	0,05	0,30	0,05	0,35	0,50	1,50	160	325
LCMF 0413MO-MP	8030	12,60	2,00	0,05	0,35	0,05	0,35	0,50	2,00	145	325

Cutting conditions are valid for materials group “P”, machining with cooling.

All dimensions in [mm]

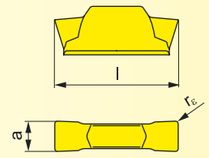
chip breaker
F

chip breaker
M



LCMF 16 F,M

Tolerance
a = ± 0,05
l = ± 0,05



ISO	Grade	Dimensions a	l	r_ε	Grooving feed [mm.rev⁻¹] f_{min}	Grooving feed [mm.rev⁻¹] f_{max}	Turning feed [mm.rev⁻¹] f_{min}	Turning feed [mm.rev⁻¹] f_{max}	Turning depth of cut [mm] $a_{p\,min}$	Turning depth of cut [mm] $a_{p\,max}$	Cutting speed [m.min⁻¹] $v_{c\,min}$	Cutting speed [m.min⁻¹] $v_{c\,max}$
LCMF 031602-F	6630	3,00	16,40	0,20	0,10	0,20	0,10	0,17	0,30	3,00	180	290
LCMF 031602-F	8030				0,10	0,20	0,05	0,17	0,30	3,00	120	235
LCMF 031602-M	6630				0,10	0,25	0,10	0,25	0,30	3,00	155	290
LCMF 031602-M	8030				0,10	0,25	0,10	0,25	0,30	3,00	105	185
LCMF 031604-F	6630			0,40	0,10	0,20	0,10	0,17	0,50	3,00	195	310
LCMF 031604-F	8030				0,10	0,20	0,05	0,17	0,50	3,00	130	250
LCMF 031604-M	6630				0,10	0,25	0,10	0,25	0,50	3,00	165	310
LCMF 031604-M	8030				0,10	0,25	0,10	0,25	0,50	3,00	110	200
LCMF 041604-F	6630	4,00	16,40	0,40	0,10	0,25	0,10	0,25	0,50	3,00	165	295
LCMF 041604-F	8030				0,10	0,25	0,08	0,25	0,50	3,00	110	200
LCMF 041604-M	6630				0,12	0,30	0,15	0,35	0,50	3,00	140	245
LCMF 041604-M	8030				0,12	0,30	0,15	0,35	0,50	3,00	100	160
LCMF 041608-F	6630			0,80	0,10	0,25	0,10	0,25	1,00	3,00	195	350
LCMF 041608-F	8030				0,10	0,25	0,08	0,25	1,00	3,00	130	240
LCMF 041608-M	6630				0,12	0,30	0,15	0,35	1,00	3,00	170	295
LCMF 041608-M	8030				0,12	0,30	0,15	0,35	1,00	3,00	120	190
LCMF 051608-F	6630	5,00	16,40	0,80	0,10	0,30	0,10	0,30	1,00	3,00	180	295
LCMF 051608-F	8030				0,10	0,30	0,10	0,30	1,00	3,00	125	220
LCMF 051608-M	6630				0,13	0,35	0,18	0,43	1,00	3,00	155	270
LCMF 051608-M	8030				0,13	0,35	0,18	0,43	1,00	3,00	110	180
LCMF 061608-F	6630	6,00	16,40	0,80	0,15	0,35	0,15	0,35	1,00	3,00	170	295
LCMF 061608-F	8030				0,10	0,35	0,10	0,35	1,00	3,00	120	220
LCMF 061608-M	6630				0,15	0,40	0,20	0,50	1,00	3,00	145	260
LCMF 061608-M	8030				0,15	0,40	0,20	0,50	1,00	3,00	105	175

Cutting conditions are valid for materials group “P”, machining with cooling.

All dimensions in [mm]