

MEGA  **TEC**



GROOVING AND PARTING OFF

MEGATEC grades for grooving and parting off

CPM140 (ISO P30, K30, M25, N20)

- Universal grade for steel, cast iron and easy-to-cut stainless steel at medium to high speed
- PVD coated
- Suitable for slightly interrupted turning

CPM250 (ISO P45, M40, S40)

- Designed for super alloy, stainless steel and steel turning under interrupted cutting and unfavorable conditions
- High application security and high toughness
- Good wear resistance

Chipbreakers

PK (ISO P, K)

- Negative chamfer chipbreaker for most types of steel and cast iron
- Applicable for unfavorable cutting conditions (interrupted cutting, thick peel)
- Suitable for all steel materials with high strength

MS (ISO P, M, N)

- High positive geometry provides low cutting forces
- Excellent chip control also at low feed
- Designed for sticky materials machining
- Suitable for parting off tubes and thin-walled workpieces

SM (ISO M, S)

- Special geometry combines cutting edge strength and low cutting forces
- First choice for stainless steel, super alloy and sticky materials machining
- Problem solver for steel machining

UT (ISO P, K, M, S)

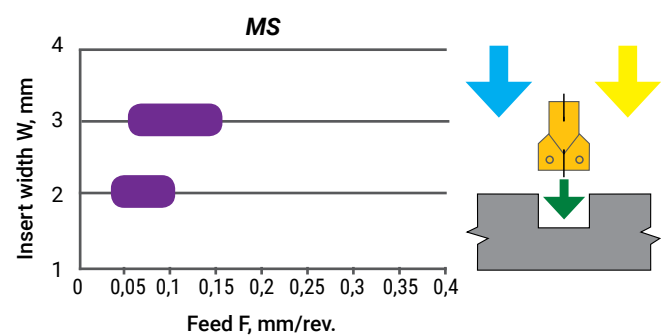
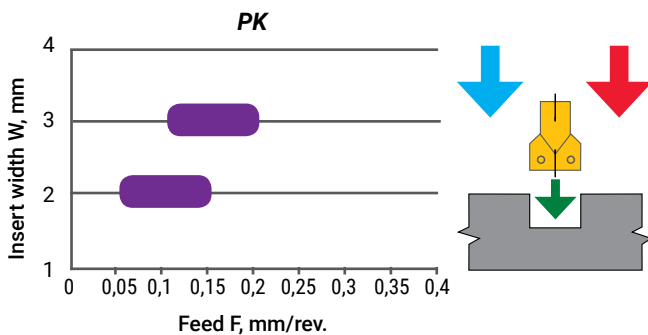
- Positive geometry provides reliable chip control for most workpiece materials.
- First choice for parting off, radial turning and grooving

UR (ISO P, K, M, S)

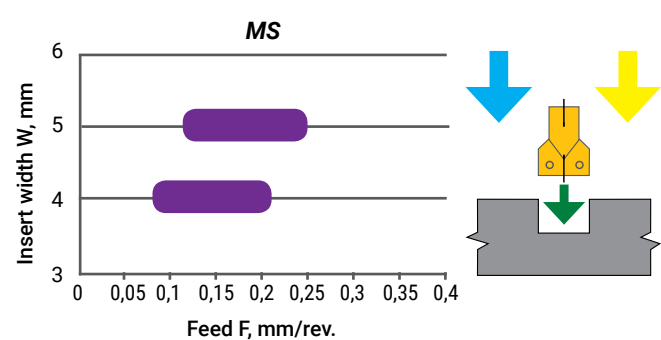
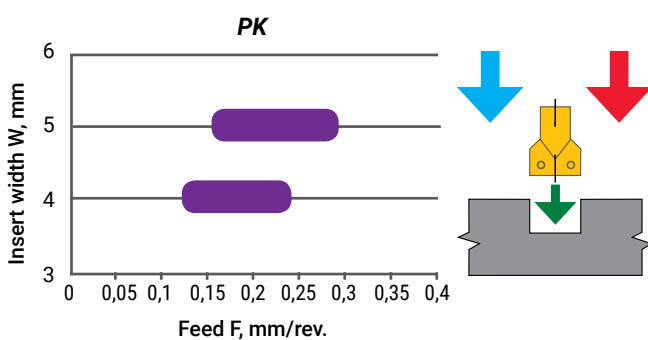
- UT-like full radius geometry
- For radius grooves and profiling

PK and MS chipbreakers			Cutting Speed Vc, m/min	
ISO Group	Workpiece material	Hardness, HB	CPM140	CPM250
P	Low carbon steel and structural steel	150-250	80-180	80-150
	Low alloyed steel (alloying elements < 5%)	250-300	60-150	70-120
	High alloyed steel and tool steel	350	50-120	60-100
M	Ferritic stainless steel	200	50-200	100-180
	Martensitic stainless steel	180	50-180	80-150
	Austenitic and duplex stainless steel	230-260	50-100	70-110
K	Cast iron	180	100-200	
S	Super alloy (Ni- and Cr-based)			
	Titanium Alloy			

Feeds for 2 and 3 mm inserts (PK and MS chipbreaker as signed)

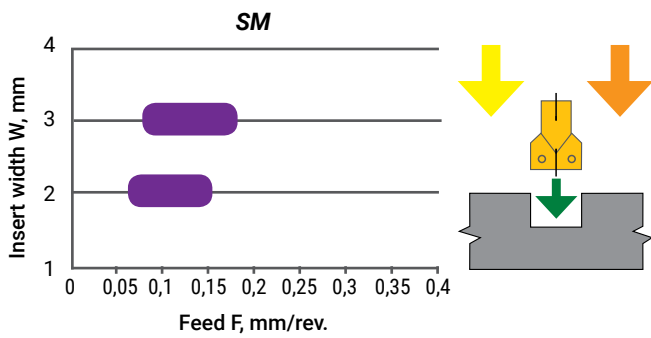


Feeds for 4 and 5 mm inserts (PK and MS chipbreaker as signed)

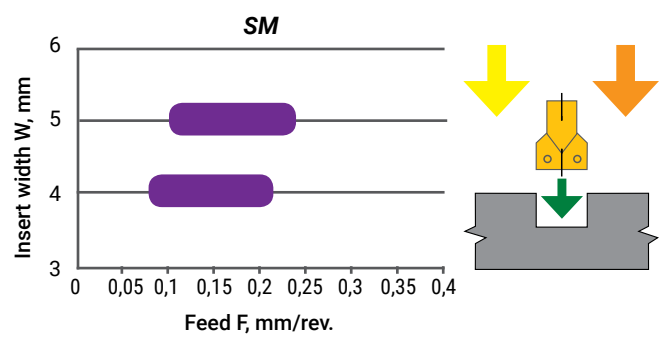


SM chipbreaker			Cutting Speed Vc, m/min	
ISO Group	Workpiece material	Hardness, HB	CPM140	CPM250
P	Low carbon steel and structural steel			
	Low alloyed steel (alloying elements < 5%)			
	High alloyed steel and tool steel			
M	Ferritic stainless steel	200	50-200	100-180
	Martensitic stainless steel	180	50-180	80-150
	Austenitic and duplex stainless steel	230-260	50-100	70-110
K	Cast iron			
S	Heat-resistant alloy (iron-based)	200		20-45
	Super alloy (Ni- and Cr-based)	250		15-25
	Titanium Alloy			50-120

Feeds for 2 and 3 mm inserts

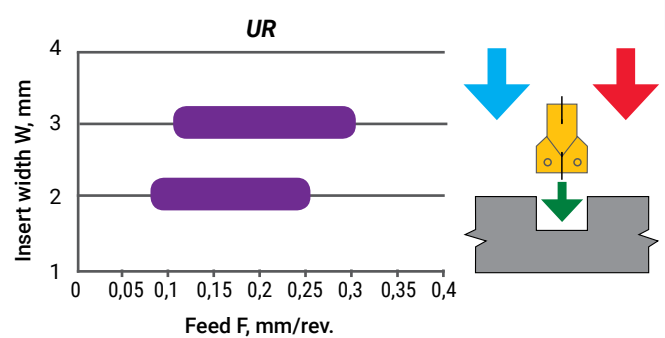
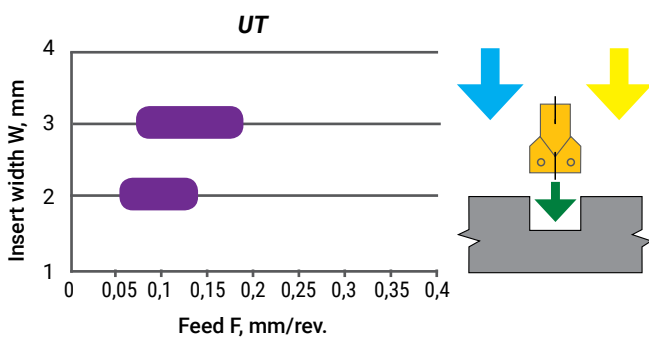


Feeds for 4 and 5 mm inserts

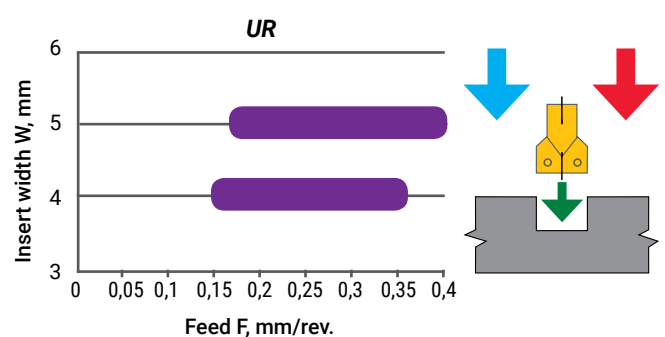
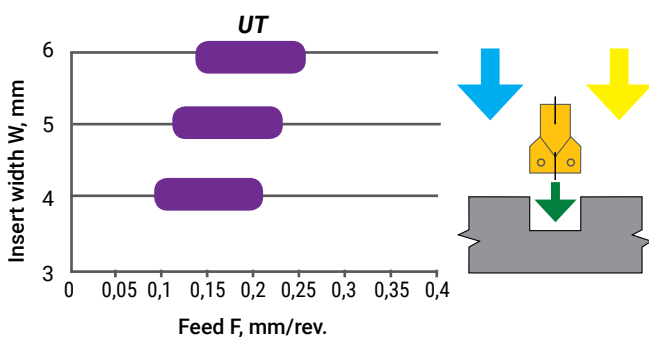


UT and UR chipbreakers			Cutting Speed Vc, m/min	
ISO Group	Workpiece material	Hardness, HB	CPM140	CPM250
P	Low carbon steel and structural steel	150-250	80-180	80-150
	Low alloyed steel (alloying elements < 5%)	250-300	60-150	70-120
	High alloyed steel and tool steel	350	50-120	60-100
M	Ferritic stainless steel	200	50-200	100-180
	Martensitic stainless steel	180	50-180	80-150
	Austenitic and duplex stainless steel	230-260	500-100	70-110
K	Cast iron	180	100-200	

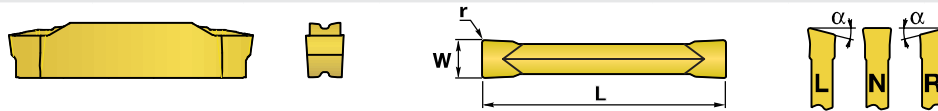
Feeds for 2 and 3 mm inserts (UT and UR chipbreaker as signed)



Feeds for 4; 5 and 6 mm inserts (UT and UR chipbreaker as signed)

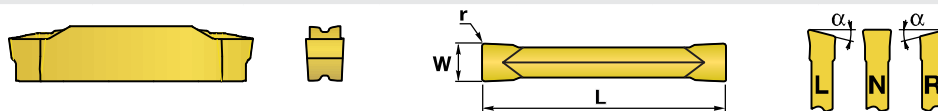


PK chipbreaker



Insert	Mounting size	Insert dimensions				CPM140	CPM250
		Width W, mm	Radius r, mm	Length L, mm	Cutting angle α , deg.		
MN20.02/00-22-2E-PK	E	2.00	0.20	22	0	•	
MR20.00/06-22-2E-PK	E	2.00	0	22	6°	•	◦
ML20.00/06-22-2E-PK	E	2.00	0	22	6°	•	
MN30.02/00-22-2G-PK	G	3.00	0.20	22	0	•	•
MR30.00/06-22-2G-PK	G	3.00	0	22	6°	•	•
ML30.00/06-22-2G-PK	G	3.00	0	22	6°	•	•
MN40.03/00-25-2H-PK	H	4.00	0.30	25	0	•	•
MR40.00/04-25-2H-PK	H	4.00	0	25	4°	•	•
ML40.00/04-25-2H-PK	H	4.00	0	25	4°	•	•
MN50.04/00-25-2J-PK	J	5.00	0.40	25	0	•	•
MR50.00/04-25-2J-PK	J	5.00	0	25	4°	•	
ML50.00/04-25-2J-PK	J	5.00	0	25	4°	•	
Single edge insert							
MN30.02/00-22-1G-PK	H	3.00	0.20	22	0	•	•
MN40.03/00-25-1H-PK	H	4.00	0.30	25	0	•	•

MS chipbreaker



Insert	Mounting size	Insert dimensions				CPM140	CPM250
		Width W, mm	Radius r, mm	Length L, mm	Cutting angle α , deg.		
MN20.02/00-22-2E-MS	E	2.00	0.20	22	0	•	
MR20.00/06-22-2E-MS	E	2.00	0	22	6°	•	◦
ML20.00/06-22-2E-MS	E	2.00	0	22	6°	•	
MN30.02/00-22-2G-MS	G	3.00	0.20	22	0	•	•
MR30.00/06-22-2G-MS	G	3.00	0	22	6°	•	
ML30.00/06-22-2G-MS	G	3.00	0	22	6°	•	•
MN40.03/00-25-2H-MS	H	4.00	0.30	25	0	•	•
MR40.00/04-25-2H-MS	H	4.00	0	25	4°	•	•
ML40.00/04-25-2H-MS	H	4.00	0	25	4°	•	•
MN50.04/00-25-2J-MS	J	5.00	0.40	25	0	•	•
MR50.00/04-25-2J-MS	J	5.00	0	25	4°	•	
ML50.00/04-25-2J-MS	J	5.00	0	25	4°	•	

Order example: MN20.02/00-22-2E-PK CPM140

SM chipbreaker



Insert	Mounting size	Insert dimensions				CPM140	CPM250
		Width W, mm	Radius r, mm	Length L, mm	Cutting angle α , deg.		
MN20.02/00-22-2E-SM	E	2.00	0.20	22	0	•	•
MN30.03/00-22-2G-SM	G	3.00	0.30	22	0	•	•
MN40.04/00-25-2H-SM	H	4.00	0.40	25	0	•	•

UT chipbreaker



Insert	Mounting size	Insert dimensions				CPM140	CPM250
		Width W, mm	Radius r, mm	Length L, mm	Cutting angle α , deg.		
MN20.02/00-22-2E-UT	E	2.00	0.20	22	0	•	
MN30.03/00-22-2G-UT	G	3.00	0.30	22	0	•	
MN40.04/00-25-2H-UT	H	4.00	0.40	25	0	•	
MN50.04/00-25-2J-UT	J	5.00	0.40	25	0	•	
MN60.04/00-25-2K-UT	K	6.00	0.40	25	0	◦	

UR chipbreaker



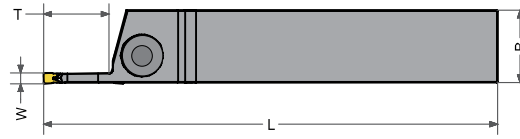
Insert	Mounting size	Insert dimensions				CPM140	CPM250
		Width W, mm	Radius r, mm	Length L, mm	Cutting angle α , deg.		
MN20.10/00-22-2E-UR	E	2.00	1.00	22	0	•	
MN30.15/00-22-2G-UR	G	3.00	1.50	22	0	•	
MN40.20/00-25-2H-UR	H	4.00	2.00	25	0	•	
MN50.25/00-25-2J-UR	J	5.00	2.50	25	0	•	

Order example: MN20.02/00-22-2E-SM CPM140

External turning



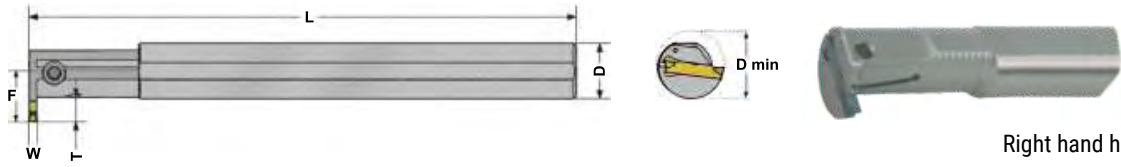
Right hand holder shown



Insert	Dimensions						Screw	Key
	Insert width W, mm	Mounting size	Max. cutting depth T, mm	H, mm	B, mm	L, mm		
MGER/L 1212-2E-12P	2	E	12	12	12	125	M4×7M	T15
MGER/L 1616-2E-14P	2	E	14	16	16	125	M5×20M	Hex4
MGER/L 1616-2E-17P	2	E	17	16	16	125	M5×20M	Hex4
MGER/L 2020-2E-17P	2	E	17	20	20	125	M6×20M	Hex5
MGER/L 2525-2E-17P	2	E	17	25	25	150	M6×20M	Hex5
MGER/L 1616-3G-20P	3	G	20	16	16	125	M5×20M	Hex4
MGER/L 2020-3G-09P	3	G	9	20	20	125	M6×20M	Hex5
MGER/L 2020-3G-20P	3	G	20	20	20	125	M6×20M	Hex5
MGER/L 2525-3G-09P	3	G	9	25	25	150	M6×20M	Hex5
MGER/L 2525-3G-20P	3	G	20	25	25	150	M6×20M	Hex5
MGER/L 2020-4H-10P	4	H	10	20	20	125	M6×20M	Hex5
MGER/L 2020-4H-20P	4	H	20	20	20	125	M6×20M	Hex5
MGER/L 2525-4H-10P	4	H	10	25	25	150	M6×20M	Hex5
MGER/L 2525-4H-20P	4	H	20	25	25	150	M6×20M	Hex5
MGER/L 2525-5J-12P	5	J	12	25	25	150	M6×20M	Hex5
MGER/L 2525-5J-25P	5	J	25	25	25	150	M6×20M	Hex5

Order example:
 Right hand MGER 1212-2E-12P
 Left hand MGEL 1212-2E-12P

Internal turning



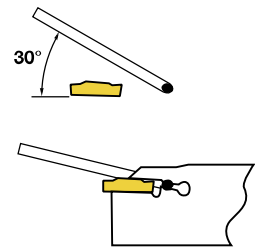
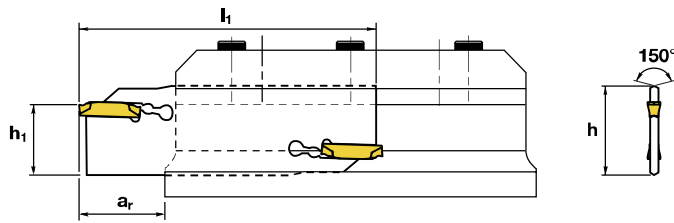
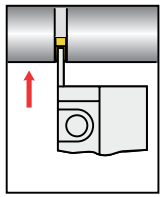
Right hand holder shown

Insert	Dimensions							Screw	Key
	Insert width W, mm	Mounting size	D min, mm	Max. cutting depth T, mm	D, mm	F, mm	L, mm		
MGIR/L 0020-2E-06P*	2	E	25	6	20	15	180	M5×20M	Hex4
MGIR/L 0025-2E-07P*	2	E	32	7	25	21.5	200	M5×20M	Hex4
MGIR/L 0020-3G-06P*	3	G	25	6	20	15	180	M5×20M	Hex4
MGIR/L 0025-3G-07P*	3	G	32	7	25	21.5	200	M5×20M	Hex4
MGIR/L 0032-3G-11P*	3	G	40	11	32	27	250	M6×20M	Hex5
MGIR/L 0025-4H-09P*	4	H	32	9	25	21.5	200	M5×20M	Hex4
MGIR/L 0032-4H-11P*	4	H	40	11	32	27	250	M6×20M	Hex5
MGIR/L 0040-4H-11P*	4	H	50	11	40	38	300	M6×20M	Hex5

*Side coolant supply

Order example:
 Right hand MGIR 0020-2E-06P
 Left hand MGIL 0020-2E-06P

Blade



Dimensions	Dimensions							Key
	Insert width W, mm	H, mm	h1, mm	b, mm	b1, mm	L1, mm	ar*, mm	
MLFR2602-22	2	26	21	1.4	2.4	110	18	EX2345
MLFR3202-22	2	32	25	1.4	2.4	150	18	EX2345
MLFN2603-22	3	26	21	2.4		110	45	EX2345
MLFN3203-22	3	32	25	2.4		150	55	EX2345
MLFN2604-25	4	26	21	3		110	45	EX2345
MLFN3204-25	4	32	25	3		150	55	EX2345
MLFN2605-25	5	26	21	4		110	45	EX2345
MLFN3205-25	5	32	25	4		150	55	EX2345

* Max. cutting depth is available with single edge insert.
Example: MN30.02/00-22-1G-PK.

EX2345 key is ordering separately

Order example:
Right hand MLFR2602-22
Neutral MLFN2603-22