The Fix-Perfect™ Precision Ground Insert Program Goes Above and Beyond™!

Primary Application

The breakthrough performance characteristics of these precision ground inserts enable outstanding indexing accuracy and excellent chip flow when machining steel, cast iron, and stainless steel workpiece materials.

Fix-Perfect Beyond Inserts are the ideal solution to machining operations in a multitude of industries, including fluid power, energy, automotive, heavy equipment, and general engineering applications.

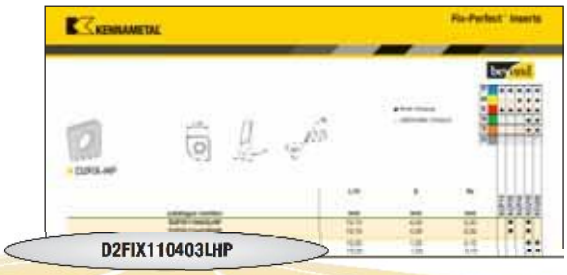
Features and Benefits

Features	Functions
Tangential design.	Stable system.
Rigid clamping system.	Very stable clamping system and quick and easy cutting edge switch.
Up to eight cutting edges (protected by pocket seat).	Use up to eight edges per insert.
Positive geometry.	Very low cutting forces and excellent chip control.
Precision ground insert.	Better indexing accuracy.

Benefits

- Process reliability and high productivity.
- Process reliability, high productivity, and reduced machine downtime.
- Higher productivity.
- Low vibrations, smooth cut, silent cut, no workpiece deformation, and high surface quality.
- Process reliability.

Beyond™ Identification System

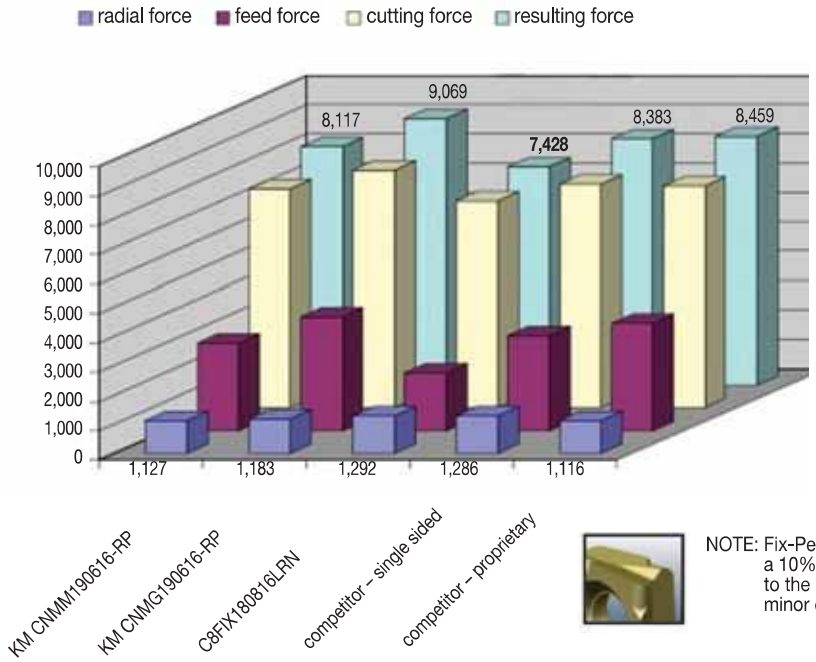


D	2	FIX	11	04	03	L	HP
Insert Shape (corner angle)	Number of Cutting Edges	Proprietary System	Cutting Edge Length	Thickness	Corner Radius	Hand of Insert	Chip Control

Application Specific

New Beyond Fix-Perfect Naming System

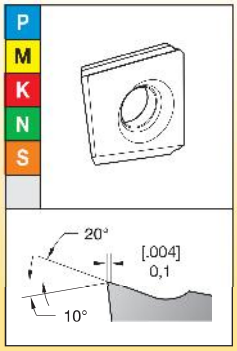
old catalogue number	description	new catalogue number
1.21101R151	insert with 2 positive cutting edges, corner radius e = 56°	D2FIX110403RMS

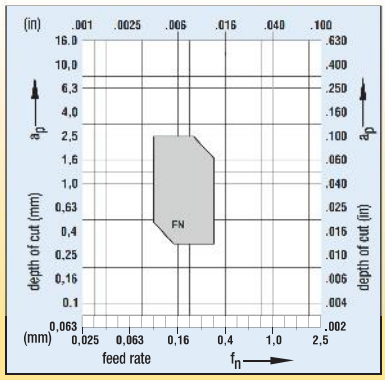


NOTE: Fix-Perfect achieves at least a 10% lower cutting force due to the positive rake and sloped minor edge.

Finishing

D2FIX-FN

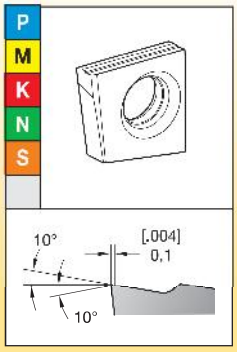


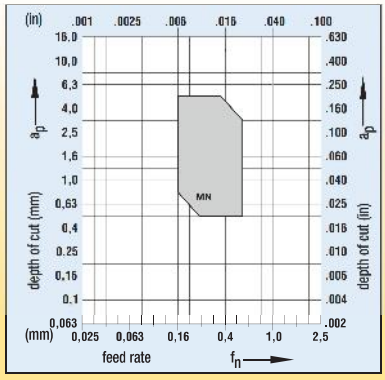


P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

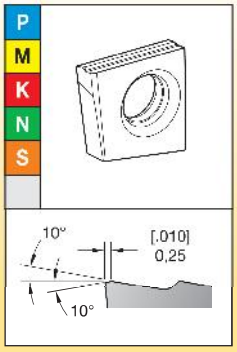
Medium Machining

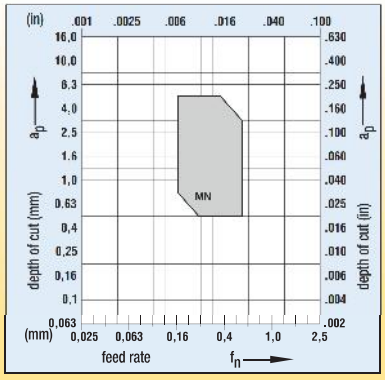
C2FIX15-MN



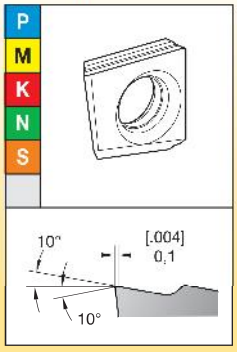


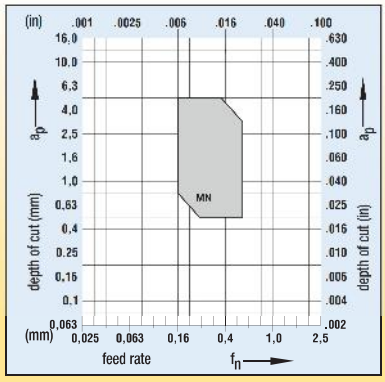
C2FIX18-MN



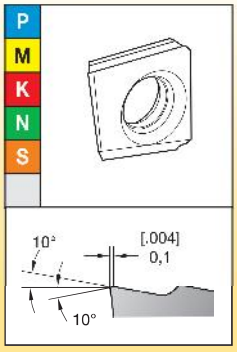


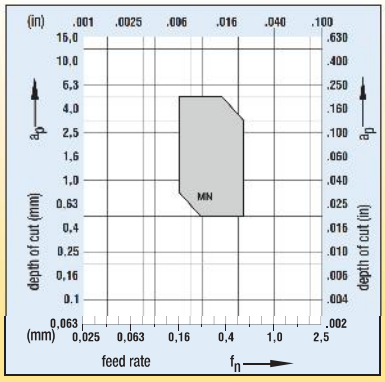
D2FIX-MN



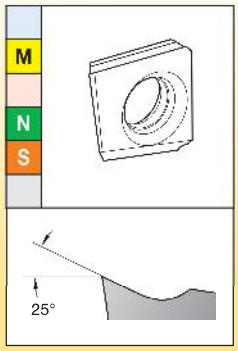


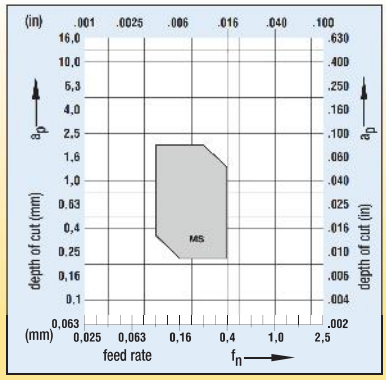
K2FIX-MN



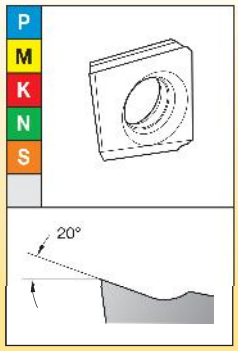


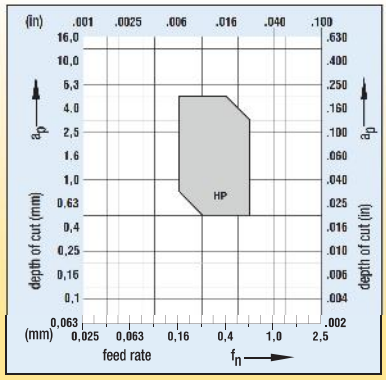
D2FIX-MS





D2FIX-HP





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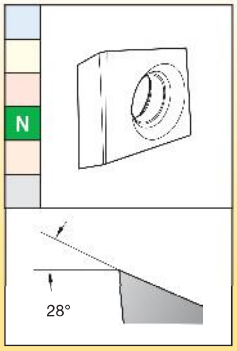
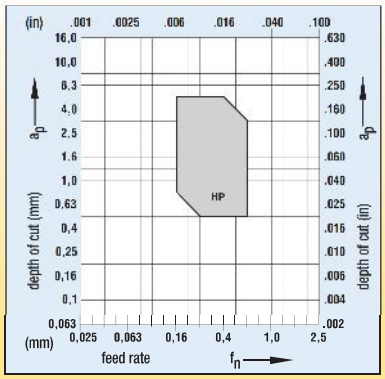
Medium Machining

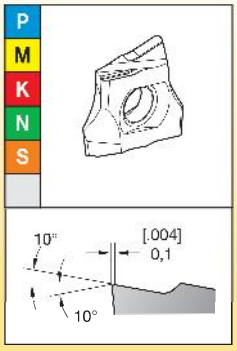
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

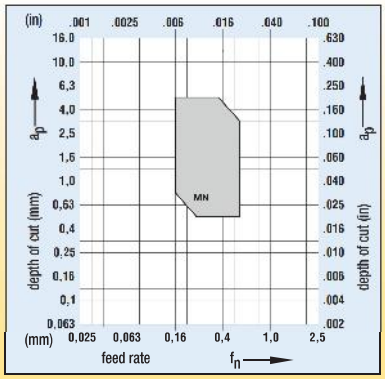
E2FIX-HP



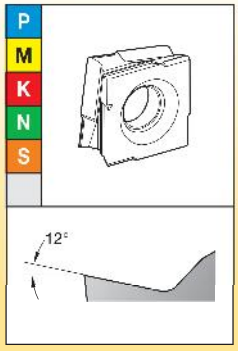


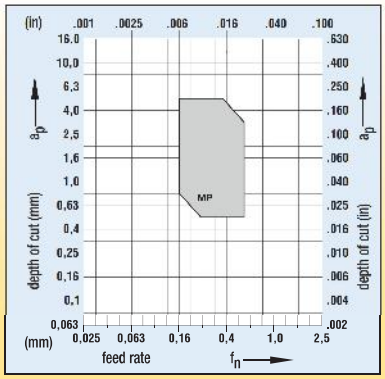
D4FIX-MN





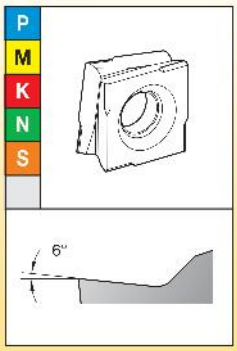
C8FIX-MP

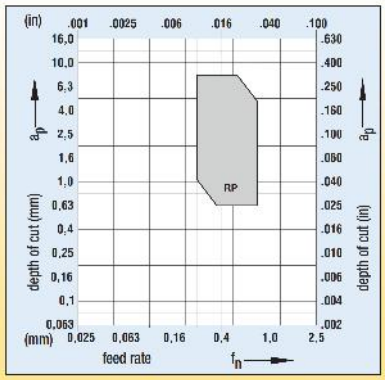




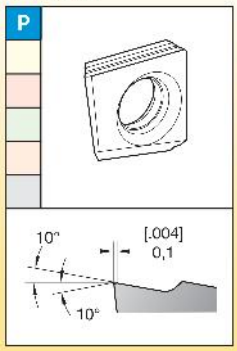
Roughing

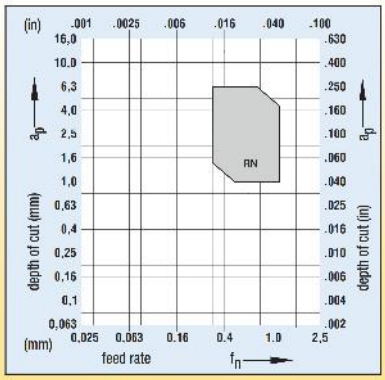
C8FIX-RP



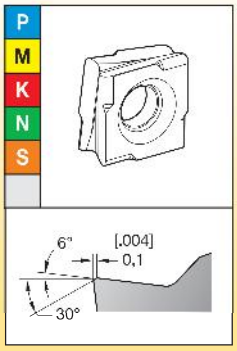


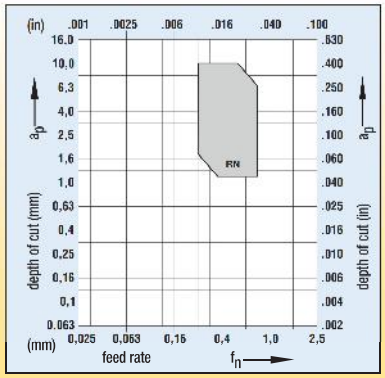
D2FIX-RN





C8FIX15-RN





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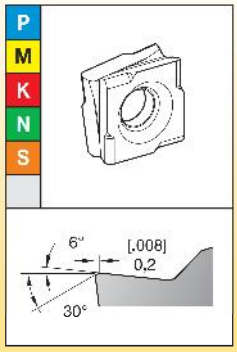
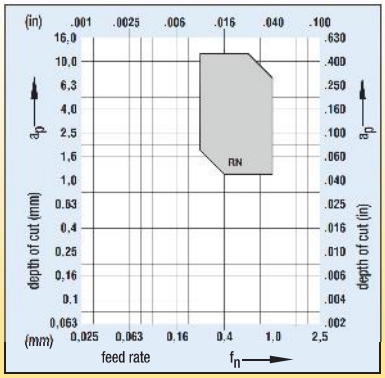
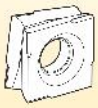




Select the Insert Geometry

8-Edged Inserts

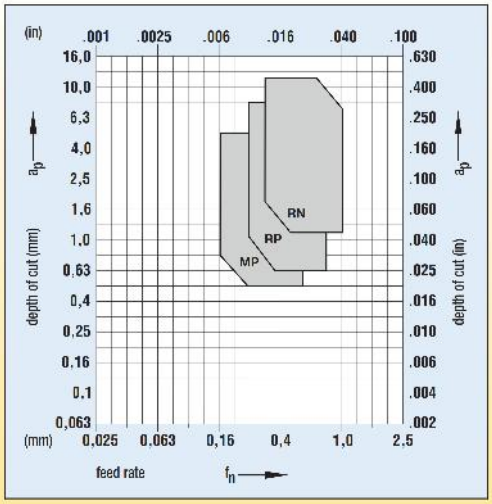
Roughing
Interrupted cut and/or heavy scale
USE: -RP OR -RN


-RP

-RN

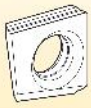
Medium Turning
Slightly interrupted cut and/or slight scale
USE: -MP

-MP



2- and 4-Edged Inserts

Roughing
Interrupted cut and/or heavy scale
USE: -RN

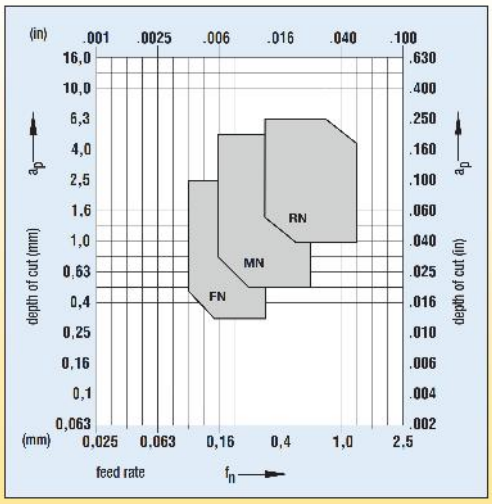

-RN

Medium Turning
Slightly interrupted cut and/or slight scale
USE: -MN

-MN

Finishing
Non-interrupted cut, no scale
USE: -FN

-FN

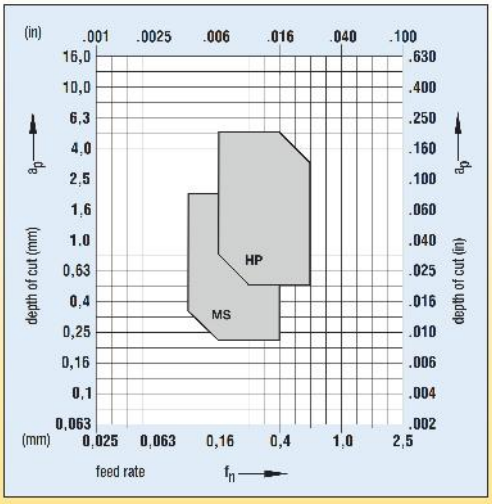


2-Edged Inserts, High Positive

Medium Turning
Slightly interrupted cut and/or slight scale
USE: -HP OR -MS

-HP

-MS



Select the Grade

	P	M	K	N	S	H
heavy interrupted	KCP40/KCU25	KCU25	KCP25/KCU25	KCU25	KCU25	—
lightly interrupted	KCP25/KCU25	KCU25	KCP25/KCU25	KCU25	KCU25	—
varying depths of cut	KCP10/KCU10	KCU10	KCP10/KCU10	KCU10	KCU10	KCU10
smooth	KCP10/KCU10	KCU10	KCP10/KCU10	KCU10	KCU10	KCU10

Select the Cutting Speed

Steel — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	60 (200)	90 (300)	120 (400)	150 (500)	185 (617)	215 (717)	245 (800)	275 (900)	300 (1000)	m/min	SFM
P	KCP40				◁▷						150	500
	KCU10						◁▷				200	650
	KCP25						◁▷				200	650
	KCP10							◁▷			250	800

Stainless Steel — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	45 (150)	70 (233)	90 (300)	115 (383)	140 (467)	165 (550)	185 (617)	210 (700)	230 (767)	m/min	SFM
M	KCP40					◁▷					140	450
	KCU25						◁▷				165	500
	KCU10							◁▷			185	600

Cast Iron — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)	m/min	SFM
K	KCU25			◁▷							165	500
	KCU10			◁▷							180	600
	KCP25				◁▷						230	750
	KCP10					◁▷					260	850

Non-Ferrous — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	150 (500)	225 (750)	300 (1000)	380 (1267)	460 (1533)	535 (1783)	610 (2033)	685 (2283)	760 (2533)	m/min	SFM
N	KCU10					◁▷					460	1500

High-Temperature Alloys — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	35 (117)	45 (150)	55 (183)	65 (217)	75 (250)	85 (283)	95 (317)	120 (400)	140 (467)	m/min	SFM
S	KCU25		◁▷								45	150
	KCU10			◁▷							60	200

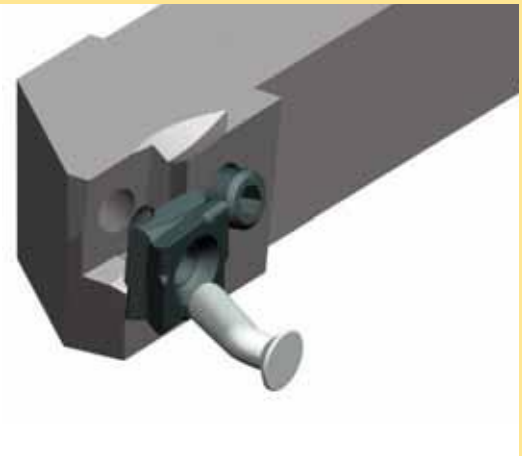
Hardened Steel — speed — m/min (SFM) — starting conditions ◁▷

material group	grade	5 (17)	15 (50)	25 (83)	35 (117)	45 (150)	55 (183)	65 (217)	75 (250)	85 (283)	m/min	SFM
H	KCU10			◁▷							30	100

Fix-Perfect Tool System

With 2, 4, or 8 edges, this tool system is the ideal supplement to ISO tools.

The examples on the following page show the range of possible applications.



Use of the Fix-Perfect system results in:

- Lower cutting forces.
- Smooth, open chips.
- Larger feed rates and depths of cut.

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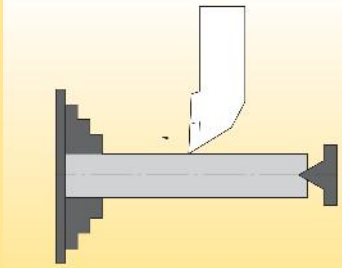
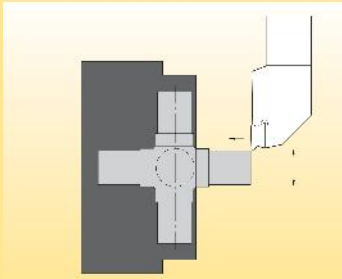
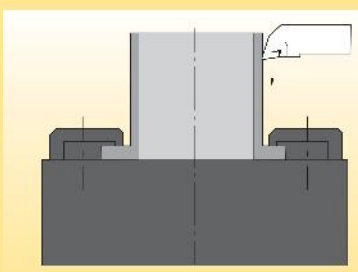


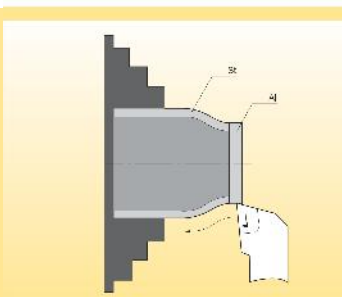
Turning slender shafts (clamping on one side also possible) with a workpiece length outside the chuck >8 x D with high geometric accuracy and surface finish.



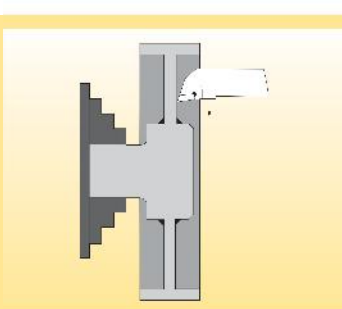
Machining of unstably chucked workpieces (e.g., in a swivel chuck).



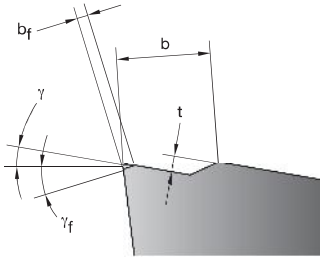
External machining of thin-walled workpieces.

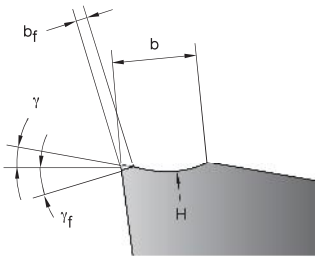


Turning material combinations of varying machinability, for example, aluminium combined with stainless and acid-proof steels.



Smoothing of welding seams with interrupted cuts.





old catalogue number	new catalogue number	b		t			b_f		
		mm	inch	mm	inch	γ°	mm	inch	γ_f°
NEW	**C2FIX110404LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX110404RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21103L171	**C2FIX110405LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21103R171	**C2FIX110405RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX110408LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX110408RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX150504LMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX150504RMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21503L171	**C2FIX150505LMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21503R171	**C2FIX150505RMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX150508LMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
NEW	**C2FIX150508RMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21503L172	**C2FIX150510LMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21503R172	**C2FIX150510RMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
NEW	**C2FIX150512LMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
NEW	**C2FIX150512RMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21803L171	**C2FIX180610LMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21803R171	**C2FIX180610RMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21803L172	**C2FIX180615LMN**	4,0	0.157	0,6	0.024	10	0,3	0.012	10
1.21803R172	**C2FIX180615RMN**	4,0	0.157	0,6	0.024	10	0,3	0.012	10
1.21501L152	**D2FIX150505LFN**	3,2	0.126	H	H	20	0,1	0.004	10
1.21501R152	**D2FIX150505RFN**	3,2	0.126	H	H	20	0,1	0.004	10
1.21101L173	**D2FIX110403LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21101R173	**D2FIX110403RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX110404LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX110404RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21101L171	**D2FIX110405LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21101R171	**D2FIX110405RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21501R175	**D2FIX150503RMN**	2,2*	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX150504LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX150504RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21501L171	**D2FIX150505LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21501R171	**D2FIX150505RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX150508LMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
NEW	**D2FIX150508RMN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21501L173	**D2FIX150510LMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21501R173	**D2FIX150510RMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21801L171	**D2FIX180610LMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21801R171	**D2FIX180610RMN**	3,2	0.126	0,5	0.020	10	0,2	0.008	10
1.21501L172	**D2FIX150505LRN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21501R172	**D2FIX150505RRN**	2,6	0.102	0,4	0.016	10	0,1	0.004	10
1.21501L154	**D2FIX150503LMS**	3,0	0.118	H	H	25**	Sharp	Sharp	Sharp
1.21501R154	**D2FIX150503RMS**	3,0	0.118	H	H	25**	Sharp	Sharp	Sharp
1.21501L155	**D2FIX150505LMS**	3,0*	0.118	H	H	25**	Sharp	Sharp	Sharp

(continued)

H – Hollow-ground.

* – Deviation from old catalogue number.

** – At mounting angle (clearance) 7°. Also 12° mounting angle possible (dependent on toolholder), then γ = 20°.

(continued)

old catalogue number	new catalogue number	b		t			b_f		
		mm	inch	mm	inch	γ °	mm	inch	γ_f°
1.21501R155	**D2FIX150505RMS**	3,0*	0.118	H	H	25**	Sharp	Sharp	Sharp
1.21101L151	**D2FIX110403LHP**	2,6	0.102	H	H	20	Sharp	Sharp	Sharp
1.21101R151	**D2FIX110403RHP**	2,6	0.102	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX110404LHP**	2,6	0.102	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX110404RHP**	2,6	0.102	H	H	20	Sharp	Sharp	Sharp
1.21501L151	**D2FIX150503LHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
1.21501R151	**D2FIX150503RHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX150504LHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX150504RHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX150508LHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
NEW	**D2FIX150508RHP**	3,0	0.118	H	H	20	Sharp	Sharp	Sharp
1.21500L145	**E2FIX100505LHP**	—	—	—	—	28	Sharp	Sharp	Sharp
1.21500R145	**E2FIX100505RHP**	—	—	—	—	28	Sharp	Sharp	Sharp
1.21500L171	**K2FIX150505LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.21500R171	**K2FIX150505RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.42002L173	**D4FIX140603LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.42002R173	**D4FIX140603RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D4FIX140604LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D4FIX140604RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.42002L171	**D4FIX140605LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.42002R171	**D4FIX140605RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D4FIX140608LMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
NEW	**D4FIX140608RMN**	2,2	0.087	0,4	0.016	10	0,1	0.004	10
1.81202L171	**C8FIX120503LMP**	1,6	0.063	0,3	0.012	12	—	—	—
1.81202R171	**C8FIX120503RMP**	1,6	0.063	0,3	0.012	12	—	—	—
1.81502L171	**C8FIX150603LMP**	2,0	0.079	0,3	0.012	12	—	—	—
1.81502R171	**C8FIX150603RMP**	2,0	0.079	0,3	0.012	12	—	—	—
1.81802L171	**C8FIX180805LMP**	2,3	0.091	0,4	0.016	12	—	—	—
1.81802R171	**C8FIX180805RMP**	2,3	0.091	0,4	0.016	12	—	—	—
1.81201L121	**C8FIX120503LRP**	—	—	—	—	6	—	—	—
1.81201R121	**C8FIX120503RRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120504LRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120504RRP**	—	—	—	—	6	—	—	—
1.81201L122	**C8FIX120505LRP**	—	—	—	—	6	—	—	—
1.81201R122	**C8FIX120505RRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120508LRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120508RRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120512LRP**	—	—	—	—	6	—	—	—
NEW	**C8FIX120512RRP**	—	—	—	—	6	—	—	—
1.81501L121	**C8FIX150605LRN**	—	—	—	—	6	0,1	0.004	30
1.81501R121	**C8FIX150605RRN**	—	—	—	—	6	0,1	0.004	30
1.81501L122	**C8FIX150608LRN**	—	—	—	—	6	0,1	0.004	30
1.81501R122	**C8FIX150608RRN**	—	—	—	—	6	0,1	0.004	30
NEW	**C8FIX150612LRN**	—	—	—	—	6	0,1	0.004	30
NEW	**C8FIX150612RRN**	—	—	—	—	6	0,1	0.004	30
1.81801L121	**C8FIX180808LRN**	—	—	—	—	6	0,2	0.008	30
1.81801R121	**C8FIX180808RRN**	—	—	—	—	6	0,2	0.008	30
1.81801L122	**C8FIX180812LRN**	—	—	—	—	6	0,2	0.008	30
1.81801R122	**C8FIX180812RRN**	—	—	—	—	6	0,2	0.008	30

H – Hollow-ground.

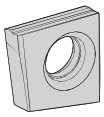
* – Deviation from old catalogue number.

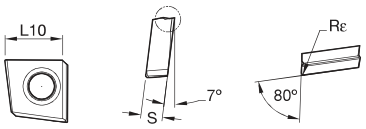
** – At mounting angle (clearance) 7°. Also 12° mounting angle possible (dependent on toolholder), then γ = 20°.

beyond

● first choice
○ alternate choice

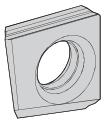
		KCP10	KCP25	KCP40	KCU10	KCU25
P		●	●	●	●	●
M		○	○	●	●	●
K		●	●	●	●	●
N					●	●
S				○	●	●
H						

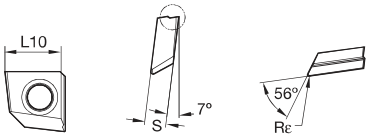




■ C2FIX-MN

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
C2FIX110404LMN	10,70	4,00	0,40	●	●	●	●	●
C2FIX110404RMN	10,70	4,00	0,40	●	●	●	●	●
C2FIX110405LMN	10,70	4,00	0,50		●	●	●	
C2FIX110405RMN	10,70	4,00	0,50		●	●		
C2FIX110408LMN	10,70	4,00	0,80	●	●	●	●	●
C2FIX110408RMN	10,70	4,00	0,80	●	●	●	●	●
C2FIX150504LMN	14,70	5,00	0,40	●	●	●	●	●
C2FIX150504RMN	14,70	5,00	0,40	●	●	●	●	●
C2FIX150505LMN	14,70	5,00	0,50		●	●	●	
C2FIX150505RMN	14,70	5,00	0,50		●	●		
C2FIX150508LMN	14,60	5,00	0,80	●	●	●	●	●
C2FIX150508RMN	14,60	5,00	0,80	●	●	●	●	●
C2FIX150510LMN	14,50	5,00	1,00		●	●		
C2FIX150510RMN	14,50	5,00	1,00		●	●		
C2FIX150512LMN	14,50	5,00	1,20	●	●	●	●	●
C2FIX150512RMN	14,50	5,00	1,20	●	●	●	●	●
C2FIX180610LMN	17,50	6,00	1,00		●	●	●	
C2FIX180610RMN	17,50	6,00	1,00		●	●	●	
C2FIX180615LMN	17,50	6,00	1,50		●	●		
C2FIX180615RMN	17,50	6,00	1,50		●	●		





● first choice
○ alternate choice

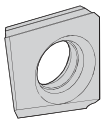
		KCP10	KCP25	KCP40	KCU10	KCU25
P		●	●	●	●	●
M		○	○	●	●	●
K		●	●	●	●	●
N					●	●
S				○	●	●
H						

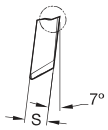
■ D2FIX-MN

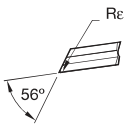
catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D2FIX110403LMN	10,70	4,00	0,30	●	●			
D2FIX110403RMN	10,70	4,00	0,30	●	●			
D2FIX110404LMN	10,60	4,00	0,40	●	●	●	●	●
D2FIX110404RMN	10,60	4,00	0,40	●	●	●	●	●
D2FIX110405LMN	10,50	4,00	0,50	●	●	●		
D2FIX110405RMN	10,50	4,00	0,50	●	●	●		
D2FIX150503RMN	14,70	5,00	0,30	●	●			
D2FIX150504LMN	14,60	5,00	0,40	●	●	●	●	●
D2FIX150504RMN	14,60	5,00	0,40	●	●	●	●	●
D2FIX150505LMN	14,50	5,00	0,50	●	●	●		
D2FIX150505RMN	14,50	5,00	0,50	●	●	●		
D2FIX150508LMN	14,20	5,00	0,80	●	●	●	●	●
D2FIX150508RMN	14,20	5,00	0,80	●	●	●	●	●
D2FIX150510LMN	14,00	5,00	1,00		●			
D2FIX150510RMN	14,00	5,00	1,00	●	●	●		
D2FIX180610LMN	17,00	6,00	1,00		●			
D2FIX180610RMN	17,00	6,00	1,00		●			

beyond

● first choice
○ alternate choice

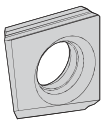


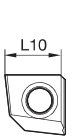


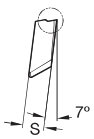


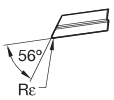
D2FIX-HP

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D2FIX110403LHP	10,10	4,00	0,30		●		●	
D2FIX110403RHP	10,10	4,00	0,30		●		●	
D2FIX110404LHP	10,00	4,00	0,40				●	●
D2FIX110404RHP	10,00	4,00	0,40				●	●
D2FIX150503LHP	14,10	5,00	0,30		●		●	
D2FIX150503RHP	14,10	5,00	0,30		●		●	
D2FIX150504LHP	14,00	5,00	0,40				●	●
D2FIX150504RHP	14,00	5,00	0,40				●	●
D2FIX150508LHP	13,60	5,00	0,80				●	●
D2FIX150508RHP	13,60	5,00	0,80				●	●



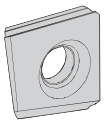


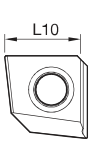


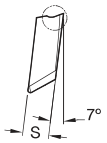


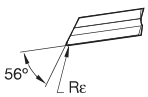
D2FIX-MS

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D2FIX150505RMS	13,90	5,00	0,50				●	
D2FIX150505LMS	13,90	5,00	0,50				●	
D2FIX150503RMS	14,10	5,00	0,30				●	
D2FIX150503LMS	14,10	5,00	0,30				●	









D2FIX-FN

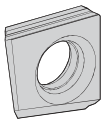
catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D2FIX150505RFN	13,90	5,00	0,50		●		●	
D2FIX150505LFN	13,90	5,00	0,50		●		●	

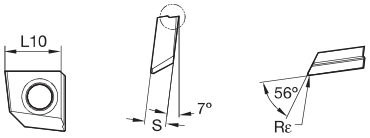
Application Specific

beyond

● first choice
○ alternate choice

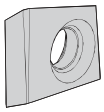
		KCP10	KCP25	KCP40	KCU10	KCU25
P		●	●	●	●	●
M		○	○	●	●	●
K		●	●	●	●	●
N					●	●
S				○	●	●
H						

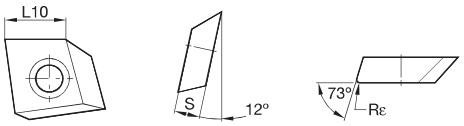




D2FIX-RN

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D2FIX150505LRN	14,50	5,00	0,50	●	●	●		
D2FIX150505RRN	14,50	5,00	0,50	●		●		





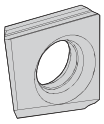
E2FIX-HP

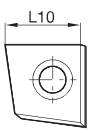
catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
E2FIX100505RHP	10,50	5,00	0,50				●	
E2FIX100505LHP	10,50	5,00	0,50				●	

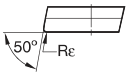
beyond

● first choice
○ alternate choice

		KCP10	KCP25	KCP40	KCU10	KCU25
P		●	●	●	●	●
M		○	○	●	●	●
K		●	●	●	●	●
N					●	●
S				○	●	●
H						

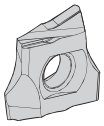


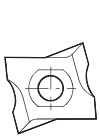


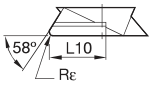


K2FIX-MN

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
K2FIX150505RMN	14,50	5,00	0,50		●		●	
K2FIX150505LMN	14,50	5,00	0,50		●			







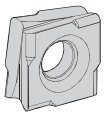
D4FIX-MN

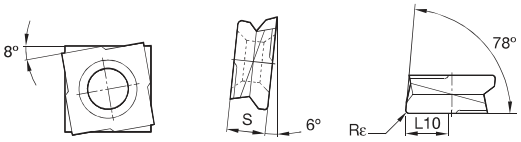
catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
D4FIX140603LMN	7,20	5,90	0,30		●			
D4FIX140603RMN	7,20	5,90	0,30	●	●			
D4FIX140604LMN	7,10	5,90	0,40	●	●	●	●	●
D4FIX140604RMN	7,10	5,90	0,40	●	●	●	●	●
D4FIX140605LMN	7,00	5,90	0,50		●			
D4FIX140605RMN	7,00	5,90	0,50	●	●			
D4FIX140608LMN	6,70	5,90	0,80	●	●	●	●	●
D4FIX140608RMN	6,70	5,90	0,80	●	●	●	●	●

beyond

● first choice
○ alternate choice

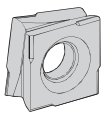
		KCP10	KCP25	KCP40	KCU10	KCU25
P		●	●	●	●	●
M		○	○	●	●	●
K		●	●	●	●	●
N					●	●
S				○	●	●
H						

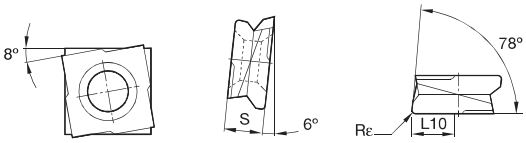




C8FIX-RN

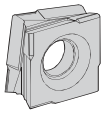
catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
C8FIX150605LRN	9,10	6,60	0,50	●	●	●	●	●
C8FIX150605RRN	9,10	6,60	0,50	●	●	●	●	●
C8FIX150608LRN	8,90	6,60	0,80	●	●	●	●	●
C8FIX150608RRN	8,90	6,60	0,80	●	●	●	●	●
C8FIX150612LRN	8,60	6,60	1,20	●	●	●	●	●
C8FIX150612RRN	8,60	6,60	1,20	●	●	●	●	●
C8FIX180808LRN	10,90	7,90	0,80	●	●	●	●	●
C8FIX180808RRN	10,90	7,90	0,80	●	●	●	●	●
C8FIX180812LRN	10,60	7,90	1,20	●	●	●	●	●
C8FIX180812RRN	10,60	7,90	1,20	●	●	●	●	●

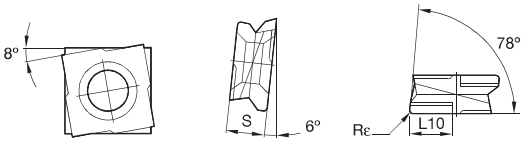




C8FIX-RP

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
C8FIX120503LRP	7,30	5,50	0,30		●	●	●	●
C8FIX120503RRP	7,30	5,50	0,30	●	●	●	●	●
C8FIX120504LRP	7,20	5,50	0,40	●	●	●	●	●
C8FIX120504RRP	7,20	5,50	0,40	●	●	●	●	●
C8FIX120505LRP	7,10	5,50	0,50	●	●	●	●	●
C8FIX120505RRP	7,10	5,50	0,50	●	●	●	●	●
C8FIX120508LRP	6,90	5,50	0,80	●	●	●	●	●
C8FIX120508RRP	6,90	5,50	0,80	●	●	●	●	●





C8FIX-MP

catalogue number	L10 mm	S mm	Rε mm	KCP10	KCP25	KCP40	KCU10	KCU25
C8FIX120503LMP	7,30	5,50	0,30	●	●	●	●	●
C8FIX120503RMP	7,30	5,50	0,30	●	●	●	●	●
C8FIX150603LMP	9,30	6,60	0,30	●	●	●	●	●
C8FIX150603RMP	9,30	6,60	0,30	●	●	●	●	●
C8FIX180805LMP	11,10	7,90	0,50	●	●	●	●	●
C8FIX180805RMP	11,10	7,90	0,80	●	●	●	●	●

Application Specific

Carbide Recycling

Help preserve and protect our planet!

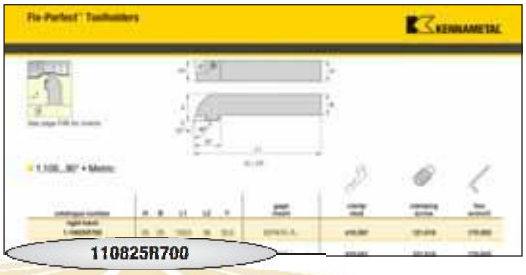
It's easy for your company to be environmentally conscious with the Kennametal Carbide Recycling Program.

By sending us your used carbide tools, you help preserve and protect the environment and ensure that these products are recycled responsibly. Kennametal accepts any coated or non-coated carbide items, including inserts, drills, reamers, and taps.

By using the Kennametal Carbide Recycling Program, you will receive:

- A partner who cares about a sustainable environment.
- Easy-to-use web portal to value your used carbide.
- Access to our popular Green Box™ options for carbide collection.
- Systematic and efficient disposal of carbide materials.
- Improved profitability.

Program is not currently available in all geographical areas.
For more information, please visit **www.kennametal.com/carbiderecycling.**



Application Specific

1	1	08	25	R	7	0	0
Turning Program	Number of Cutters	Version	Shaft Dimensions	Direction of Working	Insert Size and Type	Insert Shape	Clamping Screw Support

1 = Fix-Perfect

1 = Inserts with 2 cutting edges

3 = Inserts with 4 cutting edges

7 = Inserts with 8 cutting edges

R = Right
L = Left

0 = Activated from main cutting edge

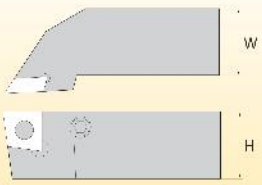
1 = Minor cutting edge

2 = Above

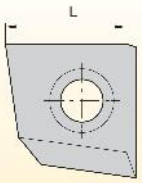
5 = Main cutting edge with sharp-edged full cartridge

6 = Minor cutting edge with sharp-edged full cartridge

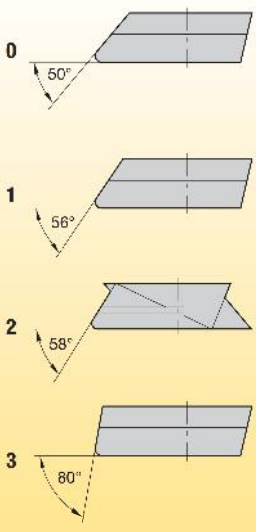
08 = 90° or 93° setting, for machining aluminium
16 = 92° setting angle
20 = 92° setting angle
22 = 92° setting angle
30 = 75° setting angle
71 = 75° setting angle
72 = 45° setting angle
77 = 90° setting angle
80 = 90° or 93° setting angle



Toolholder
10 = 10 x 10mm
11 = 40 x 40mm
16 = 16 x 16mm
20 = 20 x 20mm
21 = 50 x 50mm
35 = 25 x 25mm
32 = 32 x 25mm
32 x 32mm
40 = 40 x 32mm

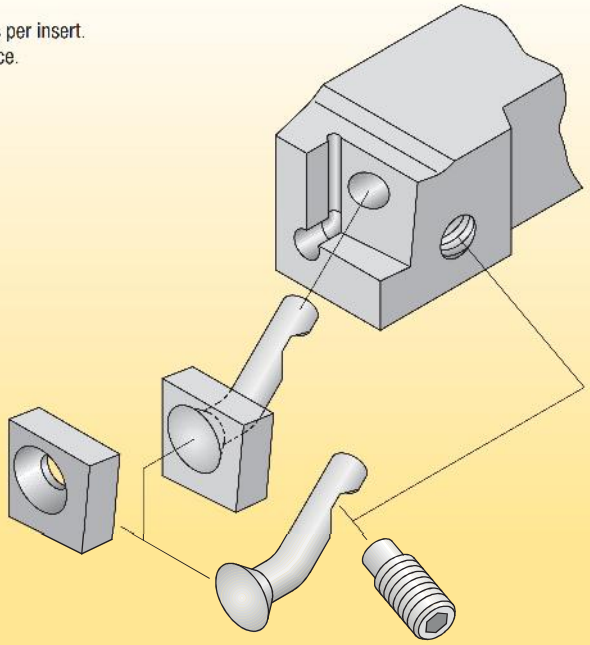


	L	cutting edges
0	8mm 20mm 25mm	4 4 4
1	10,5mm 12mm	2 8
3	14,5mm 15mm	2 8
4	17,5mm 18mm	2 8
5	23,5mm 21mm	2 8
7	10,5mm	2 Alu

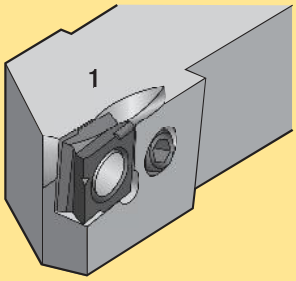


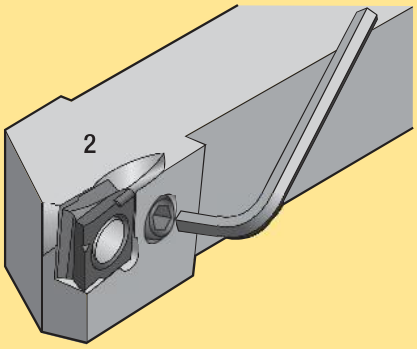
Features of the Fix-Perfect lathe tool system:

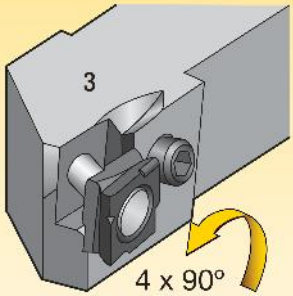
- Cost-effective use of inserts with up to eight positive cutting edges per insert.
- Indexable insert ground on all sides, thus requiring less cutting force.
- High stability due to upright insert for roughing and profiling tasks.
- Guaranteed rigid clamping of inserts.
- Optimum chip evacuation guaranteed.
- Cutting edges protected by insert seat.

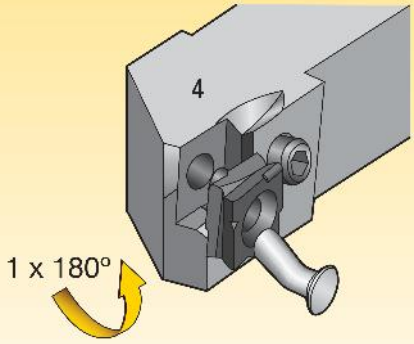


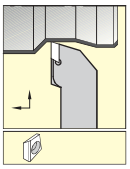
Quick and easy cutting edge switch —
just loosen the pin, no need to remove it.



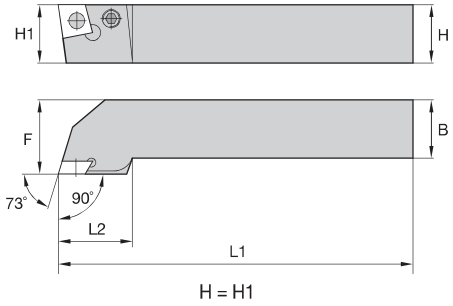








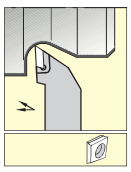
See page F26 for inserts.



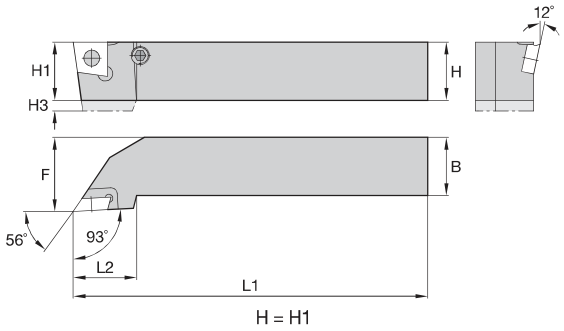
1.108...90° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.10825R700	25	25	150,0	36	32,0	E2FIX10..R..	**410.081**	**121.616**	**170.003**
left hand									
1.10825L700	25	25	150,0	36	32,0	E2FIX10..L..	**410.081**	**121.616**	**170.003**

Application Specific

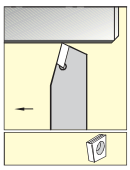


See page F25 for inserts.

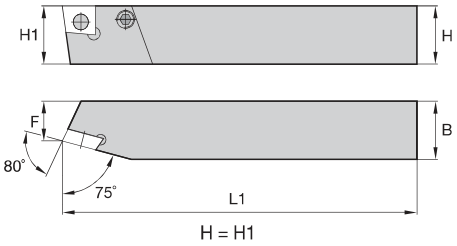


1.108...93° • Metric

catalogue number	H	H3	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand										
1.10820R310	20	5	20	125,0	26	25,0	D2FIX15..RHP/FN/MS	**112.403**	**121.612**	**170.003**
1.10825R310	25	—	25	150,0	26	32,0	D2FIX15..RHP/FN/MS	**112.404**	**121.616**	**170.003**
left hand										
1.10820L310	20	5	20	125,0	26	25,0	D2FIX15..LHP/FN/MS	**112.403**	**121.612**	**170.003**
1.10825L310	25	—	25	150,0	26	32,0	D2FIX15..LHP/FN/MS	**112.404**	**121.616**	**170.003**

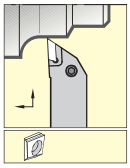


See page F23 for inserts.

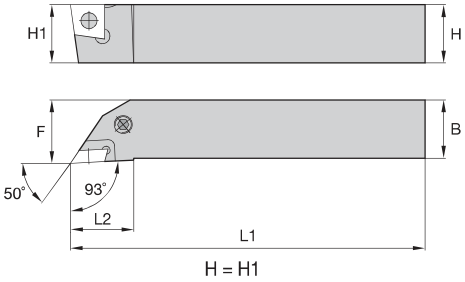


1.171...75° • Metric

catalogue number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.17120R130	20	20	125,0	15,0	C2FIX11..R..	**112.244**	**121.612**	**170.003**
1.17125R330	25	25	150,0	17,0	C2FIX15..R..	**112.404**	**121.616**	**170.003**
left hand								
1.17120L130	20	20	125,0	15,0	C2FIX11..L..	**112.244**	**121.612**	**170.003**
1.17125L330	25	25	150,0	17,0	C2FIX15..L..	**112.404**	**121.616**	**170.003**

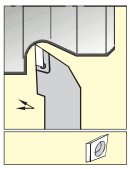


See page F27 for inserts.

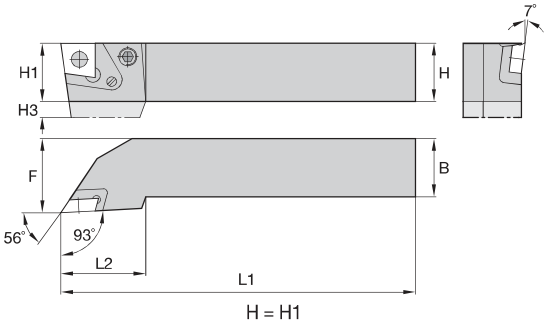


1.180...93° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.18025R302	25	20	150,0	36	26,0	K2FIX15..R..	**112.423**	**121.612**	**170.003**
left hand									
1.18025L302	25	20	150,0	36	26,0	K2FIX15..L..	**112.423**	**121.612**	**170.003**

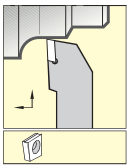


See page F24 for inserts.

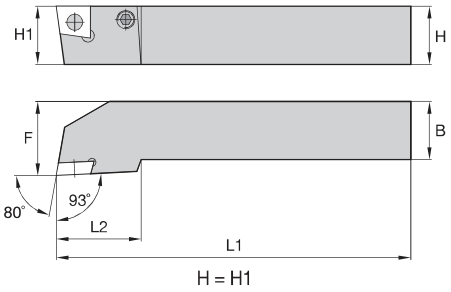


1.18 • Metric

catalogue number	H	H3	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench	steel nest assembly
right hand											
1.18016R110	16	4	16	100,0	28	24,0	D2FIX11..R..	112.244	121.612	170.003	–
1.18020R110	20	–	20	125,0	26	25,0	D2FIX11..R..	112.244	121.612	170.003	–
1.18020R310	20	5	20	125,0	26	26,0	D2FIX15..R..	112.403	121.612	170.003	–
1.18025R110	25	–	25	150,0	26	32,0	D2FIX11..R..	112.244	121.612	170.003	–
1.18025R310	25	–	25	150,0	26	32,0	D2FIX15..R..	112.404	121.616	170.003	–
1.18025R315	25	7	25	150,0	36	32,0	D2FIX15..R..	112.505	121.616	170.003	132.151
1.18032R315	32	–	25	170,0	36	32,0	D2FIX15..R..	112.505	121.616	170.003	132.151
1.18032R410	32	–	25	170,0	36	32,0	D2FIX18..R..	112.604	121.816	170.004	–
left hand											
1.18016L110	16	4	16	100,0	28	24,0	D2FIX11..L..	112.244	121.612	170.003	–
1.18020L110	20	–	20	125,0	26	25,0	D2FIX11..L..	112.244	121.612	170.003	–
1.18020L310	20	5	20	125,0	26	26,0	D2FIX15..L..	112.403	121.612	170.003	–
1.18025L110	25	–	25	150,0	26	32,0	D2FIX11..L..	112.244	121.612	170.003	–
1.18025L310	25	–	25	150,0	26	32,0	D2FIX15..L..	112.404	121.616	170.003	–
1.18025L315	25	7	25	150,0	36	32,0	D2FIX15..L..	112.505	121.616	170.003	132.156
1.18032L315	32	–	25	170,0	36	32,0	D2FIX15..L..	112.505	121.616	170.003	132.156
1.18032L410	32	–	25	170,0	36	32,0	D2FIX18..L..	112.604	121.816	170.004	–

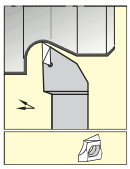


See page F23 for inserts.

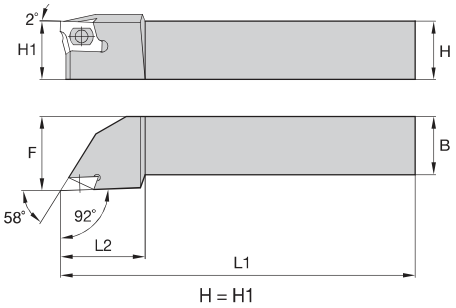


1.180...93° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.18020R130	20	20	125,0	26	26,0	C2FIX11..R..	112.244	121.612	170.003
1.18025R130	25	25	150,0	26	32,0	C2FIX11..R..	112.244	121.612	170.003
1.18025R330	25	25	150,0	36	32,0	C2FIX15..R..	112.404	121.616	170.003
1.18032R430	32	25	170,0	36	32,0	C2FIX18..R..	112.604	121.816	170.004
left hand									
1.18020L130	20	20	125,0	26	26,0	C2FIX11..L..	112.244	121.612	170.003
1.18025L130	25	25	150,0	26	32,0	C2FIX11..L..	112.244	121.612	170.003
1.18025L330	25	25	150,0	36	32,0	C2FIX15..L..	112.404	121.616	170.003
1.18032L430	32	25	170,0	36	32,0	C2FIX18..L..	112.604	121.816	170.004

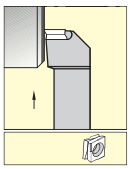


See page F27 for inserts.

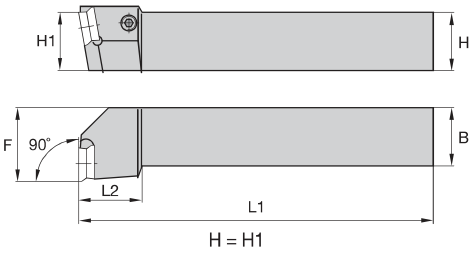


1.380...92° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.38020R021	20	20	125,0	35	25,0	D4FIX..R..	**114.111**	**121.812**	**170.004**
1.38025R021	25	25	150,0	36	32,0	D4FIX..R..	**114.111**	**121.816**	**170.004**
left hand									
1.38020L021	20	20	125,0	35	25,0	D4FIX..L..	**114.111**	**121.812**	**170.004**
1.38025L021	25	25	150,0	36	32,0	D4FIX..L..	**114.111**	**121.816**	**170.004**



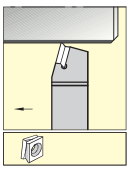
See page F28 for inserts.



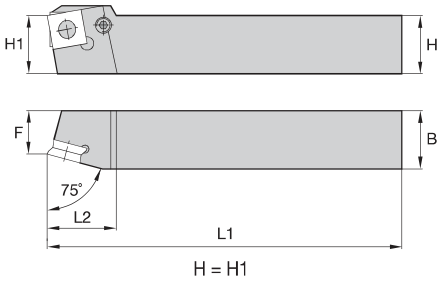
1.777...90° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.77720R101	20	20	125,0	26	25,5	1.81201L9	**118.214**	**121.612**	**170.003**
1.77725R301	25	25	150,0	26	32,0	C8FIX15..L..	**118.314**	**121.816**	**170.004**
left hand									
1.77720L101	20	20	125,0	26	25,5	1.81201R9	**118.214**	**121.612**	**170.003**

NOTE: Right-hand tool requires left-hand insert.

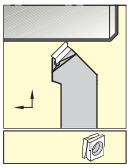


See page F28 for inserts.

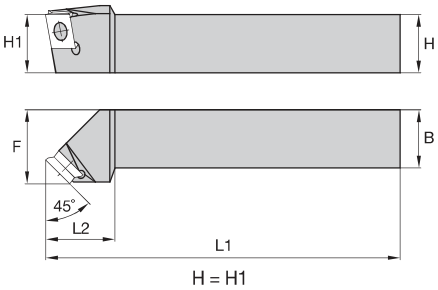


1.771...75° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.77120R100	20	20	125,0	20	17,0	C8FIX12..R..	**118.204**	**121.612**	**170.003**
1.77125R300	25	25	150,0	26	21,0	C8FIX15..R..	**410.084**	**121.816**	**170.004**
1.77132R400	32	32	170,0	38	27,0	C8FIX18..R..	**118.404**	**121.820**	**170.004**
left hand									
1.77120L100	20	20	125,0	20	17,0	C8FIX12..L..	**118.204**	**121.612**	**170.003**
1.77132L400	32	32	170,0	38	27,5	C8FIX18..L..	**118.404**	**121.820**	**170.004**



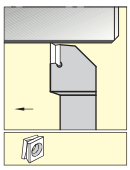
See page F28 for inserts.



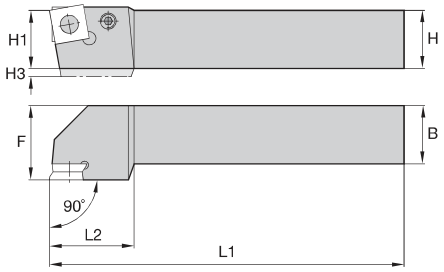
1.772...45° • Metric

catalogue number	H	B	L1	L2	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.77225R301	25	25	150,0	26	32,0	C8FIX15..L..	**118.314**	**121.816**	**170.004**

NOTE: C8FIX15..L.. is usable just for plunging.
For both plunging and turning C4FIX15..L.. has to be used.



See page F28 for inserts.



H = H1

1.780...90° • Metric

catalogue number	H	H3	B	L1	L2	F	gage insert	clamp stud	clamping screw	screw	hex wrench
right hand											
1.78012R103	12	–	12	80,0	20	14,0	C8FIX12..R..	–	–	**122.511**	**170.003**
1.78016R100	16	4	16	100,0	28	25,0	C8FIX12..R..	**118.204**	**121.616**	–	**170.003**
1.78020R100	20	–	20	125,0	26	25,0	C8FIX12..R..	**118.204**	**121.616**	–	**170.003**
1.78025R100	25	–	25	150,0	26	32,0	1.81201R...	**118.214**	**121.616**	–	**170.003**
1.78025R300	25	–	25	150,0	36	32,0	C8FIX15..R..	**410.084**	**121.816**	–	**170.004**
1.78032R400	32	–	32	170,0	36	40,0	C8FIX18..R..	**118.404**	**121.825**	–	**170.004**
left hand											
1.78025L100	25	–	25	150,0	26	32,0	1.81201L...	**118.214**	**121.616**	–	**170.003**
1.78025L300	25	–	25	150,0	36	32,0	C8FIX15..L..	**410.084**	**121.816**	–	**170.004**
1.78032L400	32	–	32	170,0	36	40,0	C8FIX18..L..	**118.404**	**121.825**	–	**170.004**