

**SPRING 2026** metric  
**INNOVATIONS**

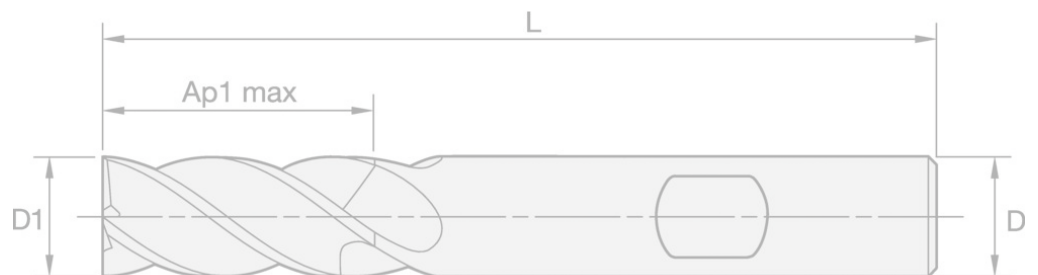
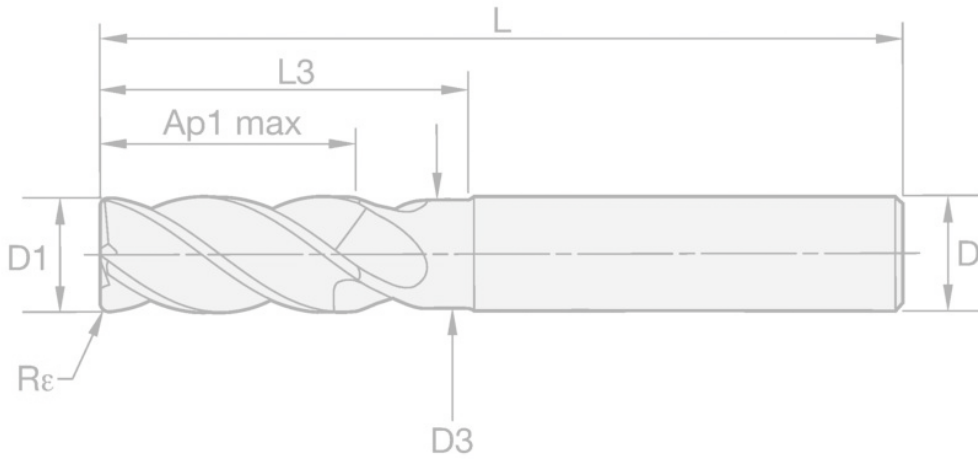
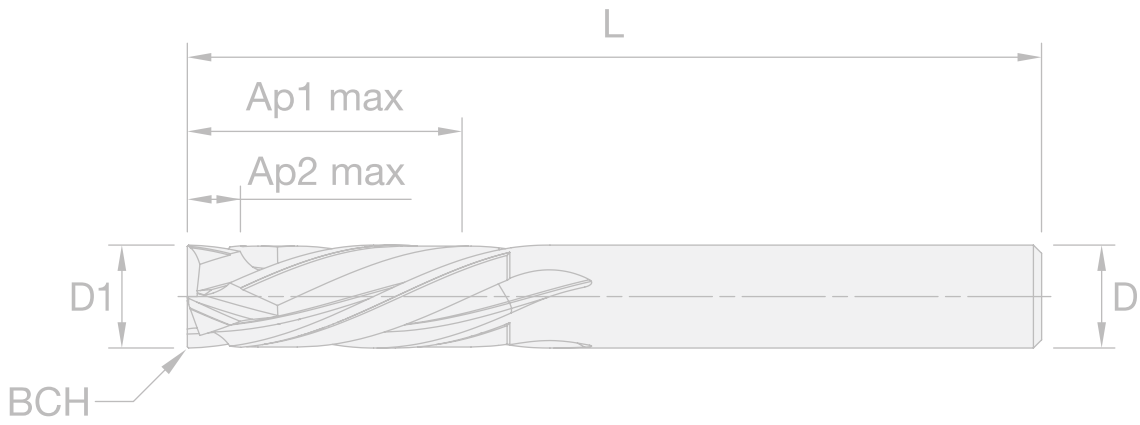


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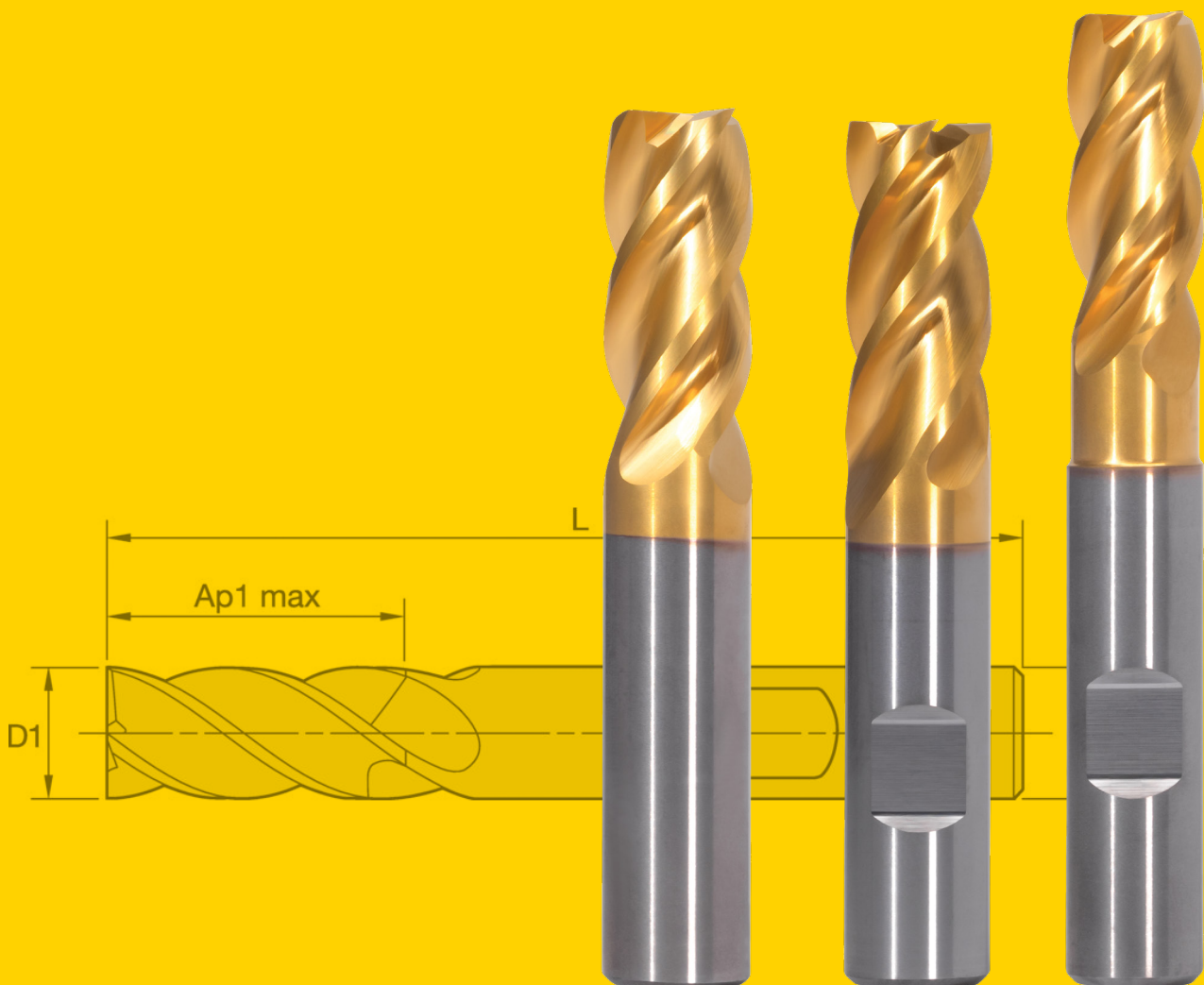
# MILLING



# G0mill™ PRO Solid End Mills

## Versatile 4-Flute End Mills with Multilayer TiN/TiAlN Coating

Kennametal's 4-flute G0mill PRO Solid Carbide End Mills are suited to become the go-to solution for small and medium sized shops. Designed for side and shoulder milling, helical milling, pocketing, slotting and shallow ramping, G0mill PRO delivers affordability, versatility and high performance for next level machining.



# Features & Benefits

- An asymmetric divided flute for better vibration control and tool life and smoother cutting
- A variable helix angle for better vibration control and tool life
- A tapered core for better chip evacuation and tool strength
- Multilayer TiN/TiAlN coating for high performance at medium-high cutting on steels, stainless steels and cast iron
- Special relief design for higher edge strength, better vibration control and workpiece material flexibility

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## Product

Cutting Diameter	Length of Cut	Grade	End Face Styles	Shank Styles
1,5 – 25mm	1xD – 5xD	KCU20	Square End, Chamfer, Radius, Ball Nose	Weldon® & Cylindrical Shanks

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## Materials

PRIMARY

**P** Steels

**K** Cast Iron

**M** Stainless Steels

SECONDARY

**S** High-Temp Alloys

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## Industries



General Engineering



Automotive



Wind & Solar



Oil & Gas



Medical

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## Applications



Side Milling/  
Shoulder  
Milling



Helical  
Milling



Pocketing



Slotting



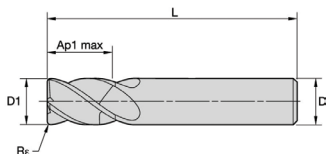
Ramping



Dynamic  
Milling

EXPLORE  
GOmill PRO





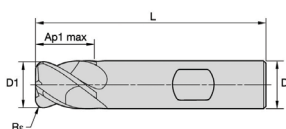
**KCU20**

P	●
M	●
K	●
N	●
S	○
H	○

**G0mill PRO • Radiused • 4 Flutes • Plain Shank**

- Primary
- Secondary

Catalog Number	D1	D	Ap1 max	L	Rc	KCU20
GOPR4RA0300S004HAR020M	3,00	6,00	4,00	50,00	0,20	7378690
GOPR4RA0400S005HAR020M	4,00	6,00	5,00	50,00	0,20	7378932
GOPR4RA0500S006HAR040M	5,00	6,00	6,00	50,00	0,40	7378934



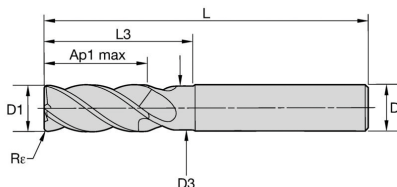
**KCU20**

P	●
M	●
K	●
N	●
S	○
H	○

**G0mill PRO • Radiused • 4 Flutes • Weldon Shank**

- Primary
- Secondary

Catalog Number	D1	D	Ap1 max	L	Rc	KCU20
GOPR4RA0300S004HBR020M	3,00	6,00	4,00	50,00	0,20	7378931
GOPR4RA0400S005HBR020M	4,00	6,00	5,00	50,00	0,20	7378933
GOPR4RA0500S006HBR040M	5,00	6,00	6,00	50,00	0,40	7378935



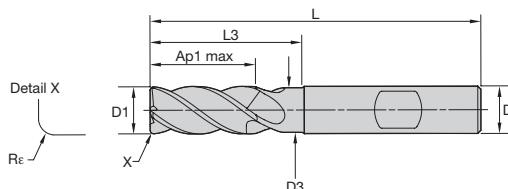
**KCU20**

P	●
M	●
K	●
N	●
S	○
H	○

**G0mill PRO • Radiused • 4 Flutes • Necked • Plain Shank**

- Primary
- Secondary

Catalog Number	D1	D	D3	Ap1 max	L	L3	Rc	KCU20
GOPR4RA0300N004HAR020M	3,00	6,00	2,82	4,00	50,00	7,00	0,20	7378942
GOPR4RA0400N005HAR020M	4,00	6,00	3,76	5,00	50,00	8,00	0,20	7378944
GOPR4RA0500N006HAR040M	5,00	6,00	4,70	6,00	57,00	18,00	0,40	7378946
GOPR4RA0600N007HAR040M	6,00	6,00	5,64	7,00	57,00	18,00	0,40	7378949
GOPR4RA0600N030HAR050M	6,00	6,00	5,64	30,00	76,00	36,00	0,50	7378873
GOPR4RA0600N030HAR100M	6,00	6,00	5,64	30,00	76,00	36,00	1,00	7378874
GOPR4RA0800N010HAR040M	8,00	8,00	7,52	10,00	63,00	24,00	0,40	7378951
GOPR4RA0800N032HAR050M	8,00	8,00	7,52	32,00	76,00	40,00	0,50	7378879
GOPR4RA0800N032HAR100M	8,00	8,00	7,52	32,00	76,00	40,00	1,00	7378880
GOPR4RA1000N012HAR040M	10,00	10,00	9,40	12,00	72,00	30,00	0,40	7378954
GOPR4RA1000N038HAR050M	10,00	10,00	9,40	38,00	89,00	44,00	0,50	7378886
GOPR4RA1000N038HAR100M	10,00	10,00	9,40	38,00	89,00	44,00	1,00	7378887
GOPR4RA1200N015HAR050M	12,00	12,00	11,28	15,00	83,00	36,00	0,50	7378956
GOPR4RA1200N050HAR050M	12,00	12,00	11,28	50,00	100,00	60,00	0,50	7378905
GOPR4RA1200N050HAR100M	12,00	12,00	11,28	50,00	100,00	60,00	1,00	7378906
GOPR4RA1600N020HAR050M	16,00	16,00	15,04	20,00	92,00	44,00	0,50	7378958
GOPR4RA1600N057HAR100M	16,00	16,00	15,04	57,00	125,00	69,00	1,00	7378915
GOPR4RA1600N057HAR200M	16,00	16,00	15,04	57,00	125,00	69,00	2,00	7378916
GOPR4RA2000N025HAR050M	20,00	20,00	18,80	25,00	125,00	60,00	0,50	7378960
GOPR4RA2000N057HAR100M	20,00	20,00	18,80	57,00	125,00	73,00	1,00	7378923
GOPR4RA2000N057HAR200M	20,00	20,00	18,80	57,00	125,00	73,00	2,00	7378924



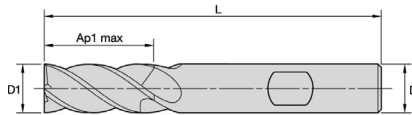
**KCU20**

P	●
M	●
K	●
N	●
S	○
H	○

● Primary  
○ Secondary

**GOMILL PRO • Radiused • 4 Flutes • Necked • Weldon Shank**

Catalog Number	D1	D	D3	Ap1 max	L	L3	Re	KCU20
GOPR4RA0300N004HBR020M	3,00	6,00	2,82	4,00	50,00	7,00	0,20	7378943
GOPR4RA0300N008HBR020M	3,00	6,00	2,82	8,00	57,00	15,00	0,20	7378793
GOPR4RA0400N005HBR020M	4,00	6,00	3,76	5,00	50,00	8,00	0,20	7378945
GOPR4RA0400N011HBR020M	4,00	6,00	3,76	11,00	57,00	16,00	0,20	7378794
GOPR4RA0400N011HBR050M	4,00	6,00	3,76	11,00	57,00	16,00	0,50	7378795
GOPR4RA0400N011HBR100M	4,00	6,00	3,76	11,00	57,00	21,00	1,00	7378796
GOPR4RA0500N006HBR040M	5,00	6,00	4,70	6,00	57,00	18,00	0,40	7378948
GOPR4RA0500N013HBR020M	5,00	6,00	4,70	13,00	57,00	18,00	0,20	7378797
GOPR4RA0500N013HBR050M	5,00	6,00	4,70	13,00	57,00	18,00	0,50	7378798
GOPR4RA0500N013HBR100M	5,00	6,00	4,70	13,00	57,00	18,00	1,00	7378799
GOPR4RA0600N007HBR040M	6,00	6,00	5,64	7,00	57,00	18,00	0,40	7378950
GOPR4RA0600N013HBR050M	6,00	6,00	5,64	13,00	57,00	21,00	0,50	7378800
GOPR4RA0600N013HBR100M	6,00	6,00	5,64	13,00	57,00	21,00	1,00	7378871
GOPR4RA0600N013HBR150M	6,00	6,00	5,64	13,00	57,00	21,00	1,50	7378872
GOPR4RA0800N010HBR040M	8,00	8,00	7,52	10,00	63,00	24,00	0,40	7378952
GOPR4RA0800N019HBR050M	8,00	8,00	7,52	19,00	63,00	27,00	0,50	7378875
GOPR4RA0800N019HBR100M	8,00	8,00	7,52	19,00	63,00	27,00	1,00	7378876
GOPR4RA0800N019HBR150M	8,00	8,00	7,52	19,00	63,00	27,00	1,50	7378877
GOPR4RA0800N019HBR200M	8,00	8,00	7,52	19,00	63,00	27,00	2,00	7378878
GOPR4RA1000N012HBR040M	10,00	10,00	9,40	12,00	72,00	30,00	0,40	7378955
GOPR4RA1000N022HBR050M	10,00	10,00	9,40	22,00	72,00	32,00	0,50	7378881
GOPR4RA1000N022HBR100M	10,00	10,00	9,40	22,00	72,00	32,00	1,00	7378882
GOPR4RA1000N022HBR150M	10,00	10,00	9,40	22,00	72,00	32,00	1,50	7378883
GOPR4RA1000N022HBR200M	10,00	10,00	9,40	22,00	72,00	32,00	2,00	7378884
GOPR4RA1000N022HBR250M	10,00	10,00	9,40	22,00	72,00	32,00	2,50	7378885
GOPR4RA1200N015HBR050M	12,00	12,00	11,28	15,00	83,00	36,00	0,50	7378957
GOPR4RA1200N026HBR050M	12,00	12,00	11,28	26,00	83,00	38,00	0,50	7378888
GOPR4RA1200N026HBR100M	12,00	12,00	11,28	26,00	83,00	38,00	1,00	7378889
GOPR4RA1200N026HBR150M	12,00	12,00	11,28	26,00	83,00	38,00	1,50	7378890
GOPR4RA1200N026HBR200M	12,00	12,00	11,28	26,00	83,00	38,00	2,00	7378901
GOPR4RA1200N026HBR250M	12,00	12,00	11,28	26,00	83,00	38,00	2,50	7378903
GOPR4RA1200N026HBR300M	12,00	12,00	11,28	26,00	83,00	38,00	3,00	7378904
GOPR4RA1200N026HBR400M	12,00	12,00	11,28	26,00	83,00	38,00	4,00	7378902
GOPR4RA1400N026HBR050M	14,00	14,00	13,16	26,00	89,00	40,00	0,50	7378907
GOPR4RA1400N026HBR100M	14,00	14,00	13,16	26,00	89,00	40,00	1,00	7378908
GOPR4RA1600N020HBR050M	16,00	16,00	15,04	20,00	92,00	44,00	0,50	7378959
GOPR4RA1600N032HBR050M	16,00	16,00	15,04	32,00	92,00	44,00	0,50	7378913
GOPR4RA1600N032HBR100M	16,00	16,00	15,04	32,00	92,00	44,00	1,00	7378909
GOPR4RA1600N032HBR200M	16,00	16,00	15,04	32,00	92,00	44,00	2,00	7378910
GOPR4RA1600N032HBR250M	16,00	16,00	15,04	32,00	92,00	44,00	2,50	7378914
GOPR4RA1600N032HBR300M	16,00	16,00	15,04	32,00	92,00	44,00	3,00	7378911
GOPR4RA1600N032HBR400M	16,00	16,00	15,04	32,00	92,00	44,00	4,00	7378912
GOPR4RA2000N025HBR050M	20,00	20,00	18,80	25,00	125,00	60,00	0,50	7378961
GOPR4RA2000N038HBR050M	20,00	20,00	18,80	38,00	104,00	53,00	0,50	7378921
GOPR4RA2000N038HBR100M	20,00	20,00	18,80	38,00	104,00	53,00	1,00	7378917
GOPR4RA2000N038HBR200M	20,00	20,00	18,80	38,00	104,00	53,00	2,00	7378918
GOPR4RA2000N038HBR250M	20,00	20,00	18,80	38,00	104,00	53,00	2,50	7378922
GOPR4RA2000N038HBR300M	20,00	20,00	18,80	38,00	104,00	53,00	3,00	7378919
GOPR4RA2000N038HBR400M	20,00	20,00	18,80	38,00	104,00	53,00	4,00	7378920



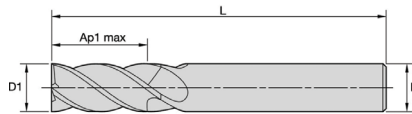
**KCU20**

P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	○
H	Grey	○

● Primary  
○ Secondary

**GOmill PRO • Square End • 4 Flutes • Weldon Shank**

Catalog Number	D1	D	Ap1 max	L	KCU20
GOPR4SE1000R025HBM	10,00	10,00	25,00	72,00	7378470
GOPR4SE1200R030HBM	12,00	12,00	30,00	83,00	7378491
GOPR4SE1400R026HBM	14,00	14,00	26,00	83,00	7378492



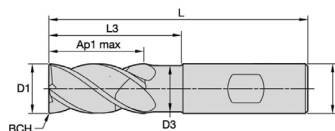
**KCU20**

P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	○
H	Grey	○

● Primary  
○ Secondary

**GOmill PRO • Square End • 4 Flutes • Plain Shank**

Catalog Number	D1	D	Ap1 max	L	KCU20
GOPR4SE0150R006HAM	1,50	6,00	6,00	57,00	7378469



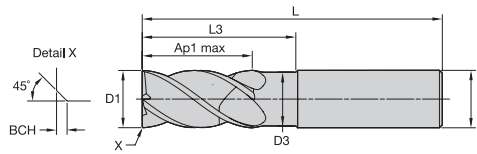
**KCU20**

P	●
M	●
K	●
N	●
S	○
H	○

● Primary  
○ Secondary

**G0mill PRO • Chamfered • 4 Flutes • Necked • Weldon Shank**

Catalog Number	D1	D	D3	Ap1 max	L	L3	BCH	KCU20
GOPR4CH0150N004HBM	1,50	6,00	1,40	4,00	57,00	8,00	0,15	7378494
GOPR4CH0150N005HBM	1,50	6,00	1,40	5,00	57,00	11,00	0,15	7378532
GOPR4CH0200N007HBM	2,00	6,00	1,88	7,00	57,00	11,00	0,15	7378534
GOPR4CH0200N008HBM	2,00	6,00	1,88	8,00	63,00	16,00	0,15	7378832
GOPR4CH0200N010HBM	2,00	6,00	1,88	10,00	63,00	18,00	0,15	7378630
GOPR4CH0300N004HBM	3,00	6,00	2,82	4,00	54,00	11,00	0,15	7378513
GOPR4CH0300N010HBM	3,00	6,00	2,82	10,00	57,00	16,00	0,15	7378536
GOPR4CH0300N012HBM	3,00	6,00	2,82	12,00	63,00	18,00	0,15	7378833
GOPR4CH0300N015HBM	3,00	6,00	2,82	15,00	63,00	21,00	0,15	7378851
GOPR4CH0400N005HBM	4,00	6,00	3,76	5,00	57,00	15,00	0,15	7378515
GOPR4CH0400N013HBM	4,00	6,00	3,76	13,00	57,00	17,00	0,15	7378538
GOPR4CH0400N016HBM	4,00	6,00	3,76	16,00	63,00	21,00	0,15	7378834
GOPR4CH0400N020HBM	4,00	6,00	3,76	20,00	63,00	24,00	0,15	7378852
GOPR4CH0500N006HBM	5,00	6,00	4,70	6,00	57,00	17,00	0,15	7378517
GOPR4CH0500N016HBM	5,00	6,00	4,70	16,00	57,00	20,00	0,15	7378540
GOPR4CH0500N020HBM	5,00	6,00	4,70	20,00	63,00	25,00	0,15	7378835
GOPR4CH0500N025HBM	5,00	6,00	4,70	25,00	76,00	35,00	0,15	7378853
GOPR4CH0600N007HBM	6,00	6,00	5,64	7,00	57,00	19,00	0,15	7378519
GOPR4CH0600N019HBM	6,00	6,00	5,64	19,00	63,00	27,00	0,15	7378542
GOPR4CH0600N024HBM	6,00	6,00	5,64	24,00	76,00	30,00	0,15	7378836
GOPR4CH0600N030HBM	6,00	6,00	5,64	30,00	76,00	38,00	0,15	7378854
GOPR4CH0800N009HBM	8,00	8,00	7,52	9,00	58,00	20,00	0,20	7378521
GOPR4CH0800N025HBM	8,00	8,00	7,52	25,00	76,00	34,00	0,20	7378544
GOPR4CH0800N032HBM	8,00	8,00	7,52	32,00	76,00	40,00	0,20	7378837
GOPR4CH0800N040HBM	8,00	8,00	7,52	40,00	87,00	48,00	0,20	7378855
GOPR4CH1000N011HBM	10,00	10,00	9,40	11,00	66,00	24,00	0,20	7378523
GOPR4CH1000N031HBM	10,00	10,00	9,40	31,00	89,00	45,00	0,20	7378546
GOPR4CH1000N040HBM	10,00	10,00	9,40	40,00	89,00	50,00	0,20	7378838
GOPR4CH1000N050HBM	10,00	10,00	9,40	50,00	100,00	60,00	0,20	7378856
GOPR4CH1200N014HBM	12,00	12,00	11,28	14,00	76,00	30,00	0,20	7378525
GOPR4CH1200N036HBM	12,00	12,00	11,28	36,00	100,00	48,00	0,20	7378548
GOPR4CH1200N048HBM	12,00	12,00	11,28	48,00	100,00	55,00	0,20	7378839
GOPR4CH1200N060HBM	12,00	12,00	11,28	60,00	150,00	72,00	0,20	7378857
GOPR4CH1600N018HBM	16,00	16,00	15,04	18,00	82,00	34,00	0,35	7378527
GOPR4CH1600N022HBM	16,00	16,00	15,04	22,00	82,00	34,00	0,35	7378503
GOPR4CH1600N048HBM	16,00	16,00	15,04	48,00	110,00	60,00	0,35	7378550
GOPR4CH1600N064HBM	16,00	16,00	15,04	64,00	125,00	76,00	0,35	7378840
GOPR4CH1600N080HBM	16,00	16,00	15,04	80,00	141,00	92,00	0,35	7378858
GOPR4CH2000N022HBM	20,00	20,00	18,80	22,00	92,00	40,00	0,35	7378529
GOPR4CH2000N060HBM	20,00	20,00	18,80	60,00	125,00	75,00	0,35	7378583
GOPR4CH2000N080HBM	20,00	20,00	18,80	80,00	150,00	100,00	0,35	7378841



**KCU20**

P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	○
H	Grey	○

● Primary  
○ Secondary

**GOmill PRO • Chamfered • 4 Flutes • Necked • Plain Shank**

Catalog Number	D1	D	D3	Ap1 max	L	L3	BCH	KCU20
GOPR4CH0150N004HAM	1,50	6,00	1,40	4,00	57,00	8,00	0,15	7378493
GOPR4CH0150N005HAM	1,50	6,00	1,40	5,00	57,00	11,00	0,15	7378531
GOPR4CH0200N004HAM	2,00	6,00	1,88	4,00	57,00	8,00	0,15	7378495
GOPR4CH0200N007HAM	2,00	6,00	1,88	7,00	57,00	11,00	0,15	7378533
GOPR4CH0300N004HAM	3,00	6,00	2,82	4,00	54,00	11,00	0,15	7378512
GOPR4CH0300N008HAM	3,00	6,00	2,82	8,00	57,00	15,00	0,15	7378496
GOPR4CH0300N010HAM	3,00	6,00	2,82	10,00	57,00	16,00	0,15	7378535
GOPR4CH0400N005HAM	4,00	6,00	3,76	5,00	57,00	15,00	0,15	7378514
GOPR4CH0400N011HAM	4,00	6,00	3,76	11,00	57,00	16,00	0,15	7378497
GOPR4CH0400N013HAM	4,00	6,00	3,76	13,00	57,00	17,00	0,15	7378537
GOPR4CH0500N006HAM	5,00	6,00	4,70	6,00	57,00	17,00	0,15	7378516
GOPR4CH0500N013HAM	5,00	6,00	4,70	13,00	57,00	18,00	0,15	7378498
GOPR4CH0500N016HAM	5,00	6,00	4,70	16,00	57,00	20,00	0,15	7378539
GOPR4CH0600N007HAM	6,00	6,00	5,64	7,00	57,00	19,00	0,15	7378518
GOPR4CH0600N012HAM	6,00	6,00	5,64	12,00	100,00	42,00	0,15	7378483
GOPR4CH0600N013HAM	6,00	6,00	5,64	13,00	57,00	21,00	0,15	7378499
GOPR4CH0600N019HAM	6,00	6,00	5,64	19,00	63,00	27,00	0,15	7378541
GOPR4CH0800N009HAM	8,00	8,00	7,52	9,00	58,00	20,00	0,20	7378520
GOPR4CH0800N016HAM	8,00	8,00	7,52	16,00	100,00	62,00	0,20	7378484
GOPR4CH0800N019HAM	8,00	8,00	7,52	19,00	63,00	27,00	0,20	7378500
GOPR4CH0800N025HAM	8,00	8,00	7,52	25,00	76,00	34,00	0,20	7378543
GOPR4CH1000N011HAM	10,00	10,00	9,40	11,00	66,00	24,00	0,20	7378522
GOPR4CH1000N020HAM	10,00	10,00	9,40	20,00	100,00	60,00	0,20	7378485
GOPR4CH1000N022HAM	10,00	10,00	9,40	22,00	72,00	32,00	0,20	7378501
GOPR4CH1000N031HAM	10,00	10,00	9,40	31,00	89,00	45,00	0,20	7378545
GOPR4CH1200N014HAM	12,00	12,00	11,28	14,00	76,00	30,00	0,20	7378524
GOPR4CH1200N024HAM	12,00	12,00	11,28	24,00	150,00	73,00	0,20	7378486
GOPR4CH1200N026HAM	12,00	12,00	11,28	26,00	83,00	38,00	0,20	7378502
GOPR4CH1200N036HAM	12,00	12,00	11,28	36,00	100,00	48,00	0,20	7378547
GOPR4CH1600N018HAM	16,00	16,00	15,04	18,00	82,00	34,00	0,35	7378526
GOPR4CH1600N032HAM	16,00	16,00	15,04	32,00	92,00	44,00	0,35	7378504
GOPR4CH1600E032HAM	16,00	16,00	15,04	32,00	150,00	100,00	0,35	7378487
GOPR4CH1600N048HAM	16,00	16,00	15,04	48,00	110,00	60,00	0,35	7378549
GOPR4CH1800N035HAM	18,00	18,00	16,92	35,00	100,00	53,00	0,35	7378505
GOPR4CH2000N022HAM	20,00	20,00	18,80	22,00	92,00	40,00	0,35	7378528
GOPR4CH2000N038HAM	20,00	20,00	18,80	38,00	104,00	53,00	0,35	7378506
GOPR4CH2000N060HAM	20,00	20,00	18,80	60,00	125,00	75,00	0,35	7378582
GOPR4CH2500N045HAM	25,00	25,00	23,50	45,00	121,00	65,00	0,35	7378507



## GOmill PRO Application Data • Regular

Material Group	Side Milling		Slotting		KCU20 Cutting Speed Vc m/min		Recommended Feed per Tooth (Fz=mm/th) is for Side Milling (A), For Slotting (B) Reduce Fz by 20%.													
	ap	ae	ap	Min	Max	mm	D1 - Diameter													
							2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	14,0	16,0	18,0	20,0	25,0	
P	P0	Ap1Max	0,4xD	1xD	150	200	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,101	0,108	0,114	0,124
	P1	Ap1Max	0,4xD	1xD	150	200	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,101	0,108	0,114	0,124
	P2	Ap1Max	0,4xD	1xD	140	190	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,101	0,108	0,114	0,124
	P3	Ap1Max	0,4xD	1xD	120	160	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,087	0,095	0,101	0,114
	P4	Ap1Max	0,4xD	0,75xD	90	150	Fz	0,010	0,016	0,021	0,027	0,033	0,045	0,054	0,062	0,070	0,077	0,083	0,088	0,098
	P5	Ap1Max	0,4xD	1xD	60	100	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,070	0,076	0,081	0,091
M	P6	Ap1Max	0,4xD	0,75xD	50	75	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,057	0,061	0,065	0,071
	M1	Ap1Max	0,4xD	1xD	90	115	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,087	0,095	0,101	0,114
	M2	Ap1Max	0,4xD	1xD	60	80	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,070	0,076	0,081	0,091
K	M3	Ap1Max	0,4xD	1xD	60	70	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,057	0,061	0,065	0,071
	K1	Ap1Max	0,4xD	1xD	120	150	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,101	0,108	0,114	0,124
	K2	Ap1Max	0,4xD	1xD	110	140	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,087	0,095	0,101	0,114
S	K3	Ap1Max	0,4xD	1xD	110	130	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,070	0,076	0,081	0,091
	S1	Ap1Max	0,4xD	0,3xD	50	90	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,087	0,095	0,101	0,114
	S2	Ap1Max	0,4xD	0,3xD	25	50	Fz	0,006	0,009	0,013	0,016	0,019	0,026	0,032	0,037	0,042	0,046	0,050	0,054	0,061
	S3	Ap1Max	0,4xD	1xD	25	40	Fz	0,006	0,009	0,013	0,016	0,019	0,026	0,032	0,037	0,042	0,046	0,050	0,054	0,061
H	S4	Ap1Max	0,4xD	1xD	50	60	Fz	0,007	0,011	0,016	0,021	0,026	0,037	0,045	0,052	0,058	0,064	0,069	0,074	0,084
	H1	Ap1Max	0,4xD	0,75xD	80	140	Fz	0,010	0,016	0,021	0,027	0,033	0,045	0,054	0,062	0,070	0,077	0,083	0,088	0,098
	H2	Ap1Max	0,4xD	0,5xD	70	120	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,057	0,061	0,065	0,071

NOTE:

These guidelines may require variations to achieve optimum results.

Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.

Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.

Above parameters are based on ideal conditions. For smaller taper machining centers, please adjust parameters accordingly on diameters greater than 12mm.

For better surface finish reduce feed per tooth.

Side milling applications - for longest reach (L3) tools, reduce Ae by 30%.

Slot milling applications - for longest reach (L3) tools, reduce Ae by 30%.

Sharp corner tools are not recommended for slotting applications.

## GOmill PRO Application Data • Adjustment Factor Table for Feed and Speed Calculation

	Ae/D	2%	4%	5%	8%	10%	12%	20%	30%	40%
Speed Factor	Kv	2-3,3	1,45- 2,73	1,45-2,27	1,45	1,27	1,25	1,18	1,09	1,00
Feed Factor	KFz	3,51	2,51	2,25	1,80	1,64	1,51	1,23	1,07	1,00
phi [°]		16,26	23,07	25,84	32,86	36,87	40,54	53,13	66,42	78,46

NOTE:

These calculations are for roughing/semi-finishing cuts when used with the recommended base fz.

For light finishing cuts requiring improved surface quality it is recommended to reduce the base fz approximately 50% and then apply these factors.

For an Ae/D ratio of 5% or less there is range given for speed factor Kv, which allows the user to either be more conservative at the lower value or more aggressive with the higher value.

This can also be considered based on machinability of the material, from difficult to free cutting.

To calculate application specific cutting data, please use above Kv coefficient for adaptation of cutting speed and KFz for feed respectively.

Vc new=Vc\*Kv  
Fz new=Fz\*KFz

Calculation Example:

Application:	D1=	14,0mm
	Material Group	P5
	Ae=	20% of D
Cutting data recommendation:	Vc=	80 m/min
	Fz=	0,063 mm/th
Adjustment coefficient:	Kv=	1,18
	KFz=	1,23

Final cutting data recommendation:

Vc new= 80 \* 1,18 = 94,40 m/min  
Fz new= 0,063 \* 1,23 = 0,078 mm/th



## GOmill PRO Application Data • Ramping

Material Group	Helical Interpolation / Ramping 0° - 5°	Recommended feed per tooth (fz = mm/z) for Helical Interpolation and Ramping - Zef=2																		
		KCU20		D1 - Diameter																
		Cutting Speed Vc		min-max	2,3-4,3	3,5-6,5	4,6-7,6	5,8-9,5	6,9-11,4	8,1-13,3	9,2-15,2	9,2-15,2	11,5-19,0	13,8-22,8	16,1-26,6	18,4-30,4	20,7-34,2	23,0-38,0	28,8-47,5	
		m/min	mm																	2,0
Max Depth	Min	Max	mm	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0	12,0	14,0	16,0	18,0	20,0	25,0		
P	P0	1,25 x D1	150	200	Fz	0,015	0,023	0,031	0,040	0,048	0,057	0,066	0,073	0,079	0,091	0,102	0,111	0,119	0,125	0,136
	P1	1,25 x D1	150	200	Fz	0,015	0,023	0,031	0,040	0,048	0,057	0,066	0,073	0,079	0,091	0,102	0,111	0,119	0,125	0,136
	P2	1,25 x D1	140	190	Fz	0,015	0,023	0,031	0,040	0,048	0,057	0,066	0,073	0,079	0,091	0,102	0,111	0,119	0,125	0,136
	P3	1,25 x D1	120	160	Fz	0,012	0,019	0,026	0,033	0,040	0,047	0,055	0,061	0,067	0,077	0,087	0,096	0,104	0,111	0,125
	P4	1,25 x D1	90	150	Fz	0,012	0,017	0,024	0,030	0,036	0,043	0,049	0,054	0,059	0,069	0,077	0,084	0,091	0,097	0,107
	P5	1,25 x D1	60	100	Fz	0,010	0,016	0,021	0,027	0,032	0,038	0,044	0,049	0,053	0,062	0,070	0,077	0,083	0,089	0,100
M	M1	1,25 x D1	90	115	Fz	0,012	0,019	0,026	0,033	0,040	0,047	0,055	0,061	0,067	0,077	0,087	0,096	0,104	0,111	0,125
	M2	1,25 x D1	60	80	Fz	0,010	0,016	0,021	0,027	0,032	0,038	0,044	0,049	0,053	0,062	0,070	0,077	0,083	0,089	0,100
	M3	1,0 x D1	60	70	Fz	0,009	0,013	0,018	0,022	0,027	0,032	0,037	0,041	0,044	0,051	0,057	0,063	0,067	0,071	0,078
K	K1	1,0 x D1	120	150	Fz	0,015	0,023	0,031	0,040	0,048	0,057	0,066	0,073	0,079	0,091	0,102	0,111	0,119	0,125	0,136
	K2	1,0 x D1	110	140	Fz	0,012	0,019	0,026	0,033	0,040	0,047	0,055	0,061	0,067	0,077	0,087	0,096	0,104	0,111	0,125
	K3	1,0 x D1	110	130	Fz	0,010	0,016	0,021	0,027	0,032	0,038	0,044	0,049	0,053	0,062	0,070	0,077	0,083	0,089	0,100
S	S1	0,75 x D1	50	90	Fz	0,012	0,019	0,026	0,033	0,040	0,047	0,055	0,061	0,067	0,077	0,087	0,096	0,104	0,111	0,125
	S2	0,75 x D1	25	50	Fz	0,007	0,010	0,014	0,018	0,021	0,025	0,029	0,032	0,035	0,041	0,046	0,051	0,055	0,059	0,067
	S3	0,5 x D1	25	40	Fz	0,007	0,010	0,014	0,018	0,021	0,025	0,029	0,032	0,035	0,041	0,046	0,051	0,055	0,059	0,067
	S4	1,25 x D1	50	60	Fz	0,008	0,013	0,017	0,023	0,028	0,034	0,040	0,045	0,049	0,057	0,064	0,071	0,076	0,082	0,092
H	H1	1,0 x D1	80	140	Fz	0,012	0,017	0,024	0,030	0,036	0,043	0,049	0,054	0,059	0,069	0,077	0,084	0,091	0,097	0,107
	H2	1,0 x D1	70	120	Fz	0,009	0,013	0,018	0,022	0,027	0,032	0,037	0,041	0,044	0,051	0,057	0,063	0,067	0,071	0,078



## GOmill PRO Application Data • Long

Material Group	Side Milling		KCU20 Cutting Speed Vc m/min		Recommended Feed per Tooth (Fz=mm/th) is for Side Milling (A). No Slotting operations recommended.															
	ap	ae	Min	Max	mm	D1 - Diameter														
						2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	14,0	18,0	20,0	25,0			
P	P0	Ap1Max 0,2xD	150	200	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,108	0,114	0,124			
	P1	Ap1Max 0,2xD	150	200	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,108	0,114	0,124			
	P2	Ap1Max 0,2xD	140	190	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,108	0,114	0,124			
	P3	Ap1Max 0,2xD	120	160	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,095	0,101	0,114			
	P4	Ap1Max 0,2xD	90	150	Fz	0,010	0,016	0,021	0,027	0,033	0,045	0,054	0,062	0,070	0,083	0,088	0,098			
	P5	Ap1Max 0,2xD	60	100	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,076	0,081	0,091			
M	P6	Ap1Max 0,15xD	50	75	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,061	0,065	0,071			
	M1	Ap1Max 0,2xD	90	115	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,095	0,101	0,114			
	M2	Ap1Max 0,2xD	60	80	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,076	0,081	0,091			
K	M3	Ap1Max 0,2xD	60	70	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,061	0,065	0,071			
	K1	Ap1Max 0,2xD	120	150	Fz	0,014	0,021	0,028	0,036	0,044	0,060	0,072	0,083	0,092	0,108	0,114	0,124			
	K2	Ap1Max 0,2xD	110	140	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,095	0,101	0,114			
S	K3	Ap1Max 0,2xD	110	130	Fz	0,009	0,014	0,019	0,024	0,029	0,040	0,048	0,056	0,063	0,076	0,081	0,091			
	S1	Ap1Max 0,1xD	50	90	Fz	0,011	0,017	0,023	0,030	0,036	0,050	0,061	0,070	0,079	0,095	0,101	0,114			
	S2	Ap1Max 0,1xD	25	50	Fz	0,006	0,009	0,013	0,016	0,019	0,026	0,032	0,037	0,042	0,050	0,054	0,061			
	S3	Ap1Max 0,1xD	25	40	Fz	0,006	0,009	0,013	0,016	0,019	0,026	0,032	0,037	0,042	0,050	0,054	0,061			
H	S4	Ap1Max 0,15xD	50	60	Fz	0,007	0,011	0,016	0,021	0,026	0,037	0,045	0,052	0,058	0,069	0,074	0,084			
	H1	Ap1Max 0,15xD	80	140	Fz	0,010	0,016	0,021	0,027	0,033	0,045	0,054	0,062	0,070	0,083	0,088	0,098			
H2	Ap1Max 0,15xD	70	120	Fz	0,008	0,012	0,016	0,020	0,025	0,034	0,040	0,047	0,052	0,061	0,065	0,071				

NOTE:

These guidelines may require variations to achieve optimum results.

Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.

Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.

For better surface finish reduce feed per tooth.

# G0mill PRO Solid End Mills

LET'S TAKE YOUR MANUFACTURING  
TO THE NEXT LEVEL

[kenametal.com/G0millPRO](http://kenametal.com/G0millPRO)



# ROCO™ COMPRESSION ROUTERS

## Now Featuring 25° and 35° Helix Angle Compression Styles

Kennametal continues to boost its comprehensive composites machining offering with two new compression routers for the high-performance ROCO lineup—stamping the platform as the reliable, one stop shop for all composite routing needs. Two helix angle options provide the best quality surface finish on the top and bottom of the part across different material matrixes.



# Features & Benefits

- Compression style geometry for stable cutting conditions in trimming applications
- Up cut/down cut geometry directs cutting forces into the workpiece to prevent delamination
- Protected with enhanced KCC05A grade for longer, more consistent tool life
- Now offering 25° and 35° helix angle style compression routers for more comprehensive, versatile performance

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## Materials

### PRIMARY






**C** Composite Materials

### SECONDARY

**N** Non-Ferrous Materials

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## Industries

-  Aerospace
-  Automotive
-  Oil & Gas
-  Wind & Solar
-  General Engineering

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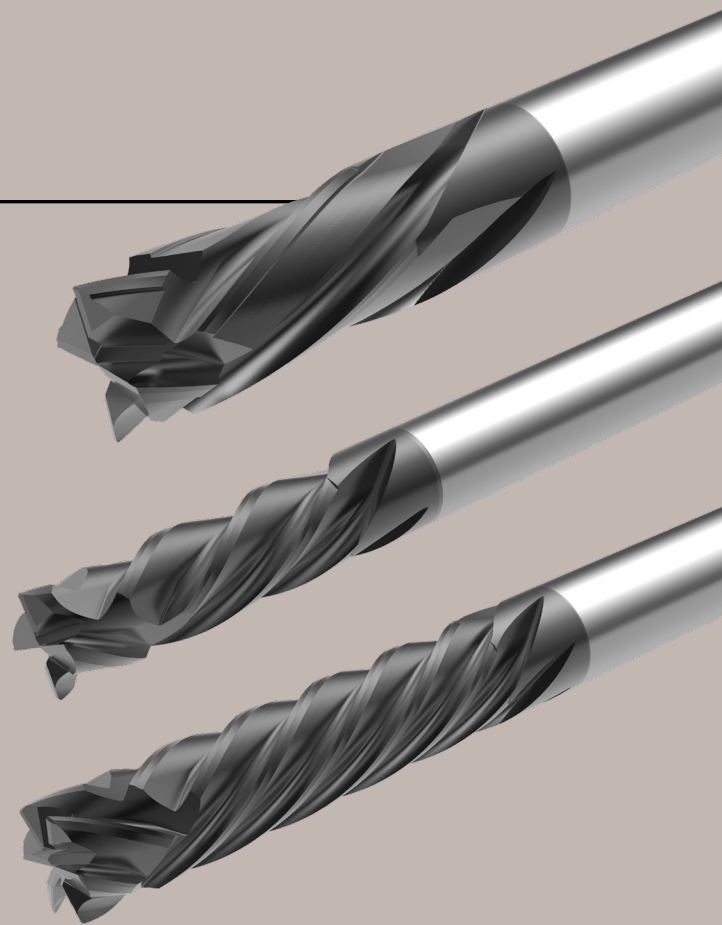
## Applications

### PRIMARY

-  Trimming/  
Side Milling
-  Helical  
Milling
-  Pocketing
-  Slotting
-  Ramping

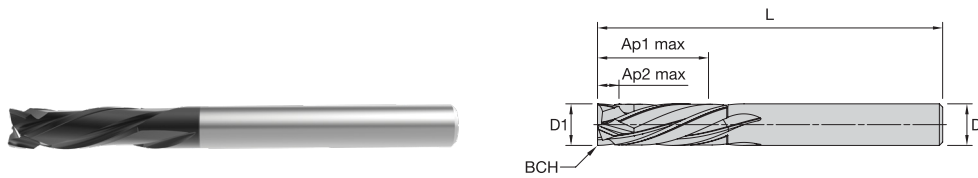
### SECONDARY

-  Drilling



EXPLORE  
ROCO





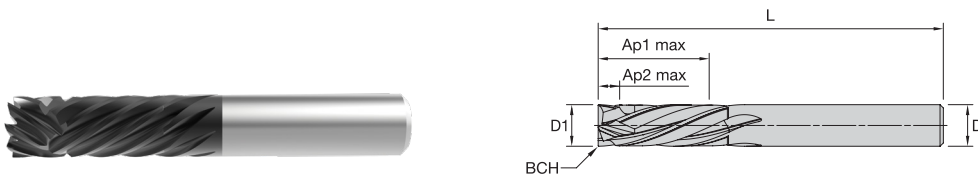
**ROCO CS • Compression Slow Helix • Chamfered**  
**• 3-4 Flutes • Plain Shank**

● Primary  
 ○ Secondary

**KCC05A**

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey
C	Black

Catalog Number	D1	D	Ap1 Max	Ap2 Max	L	BCH	Z U	KCC05A
ROCS3CH0600R018HAM	6,00	6,00	18,00	3,00	63,00	0,13	3	7380369
ROCS4CH1000S016HAM	10,00	10,00	16,00	5,00	75,00	0,13	4	7380426
ROCS4CH1000R026HAM	10,00	10,00	26,00	5,00	83,00	0,13	4	7380427
ROCS4CH1200S016HAM	12,00	12,00	16,00	6,00	75,00	0,13	4	7380428
ROCS4CH1200R038HAM	12,00	12,00	38,00	6,00	100,00	0,13	4	7380429



**ROCO CM • Compression Medium Helix • Chamfered**  
**• 4-8 Flutes • Plain Shank**

● Primary  
 ○ Secondary

**KCC05A**

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey
C	Black

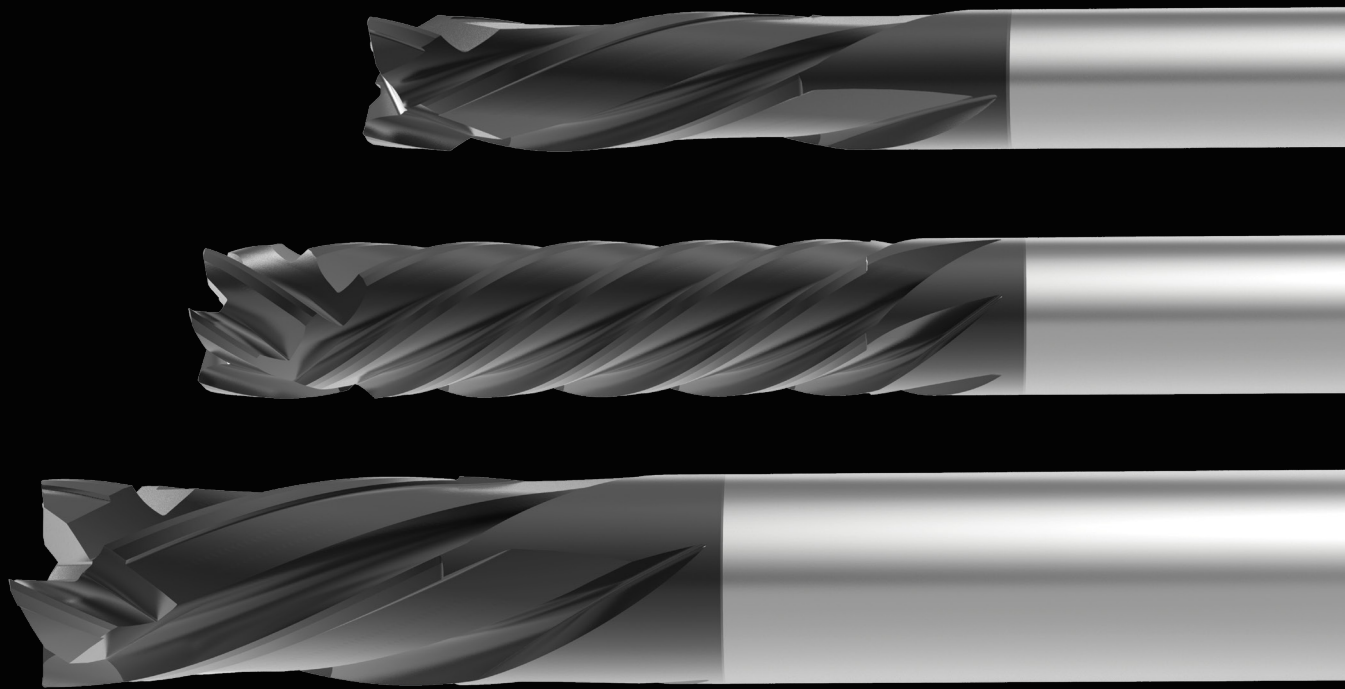
Catalog Number	D1	D	Ap1 Max	Ap2 Max	L	BCH	Z U	KCC05A
ROCM4CH0600R018HAM	6,00	6,00	18,00	4,50	63,00	0,13	4	7380402
ROCM6CH1000S016HAM	10,00	10,00	16,00	7,50	75,00	0,13	6	7380403
ROCM6CH1000R026HAM	10,00	10,00	26,00	7,50	83,00	0,13	6	7380404
ROCM8CH1200S016HAM	12,00	12,00	16,00	9,00	75,00	0,13	8	7380405
ROCM8CH1200R038HAM	12,00	12,00	38,00	9,00	100,00	0,13	8	7380406

**ROCO CM & ROCO CS**  
**Application Data • Metric**

Material Group						KCC05A		Recommended Feed per Tooth (Fz=mm/tn) is for Side Milling (A). For Slotting (B) Reduce Fz by 20%.		
		Side Milling		Slotting		Cutting Speed Vc				
		m/min						D1 Diameter		
		Ap	Ae	Ap		min	max	mm	6.0	10.0
N	N6	Ap1 Max	0,5xD	1,0xD	100	150	Fz	0,018	0,030	0,036
C	C1	Ap1 Max	0,5xD	1,0xD	100	150	Fz	0,018	0,030	0,036

Maximum ramping capability is 2°.

# ROCO COMPRESSION ROUTERS



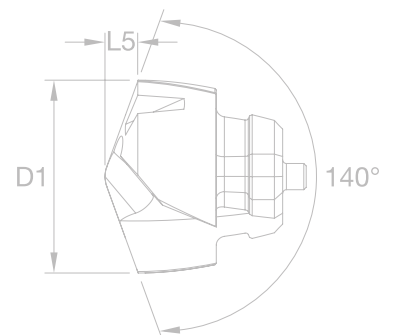
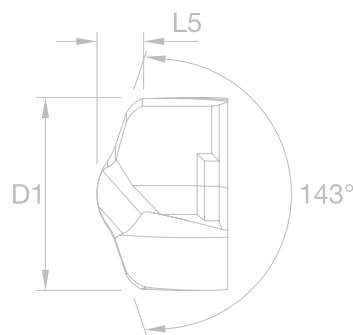
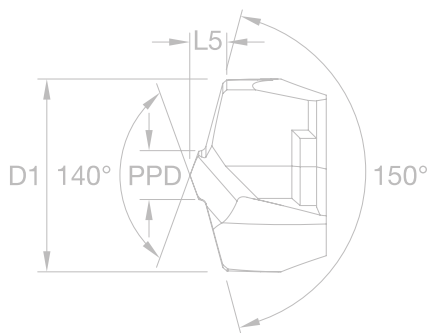
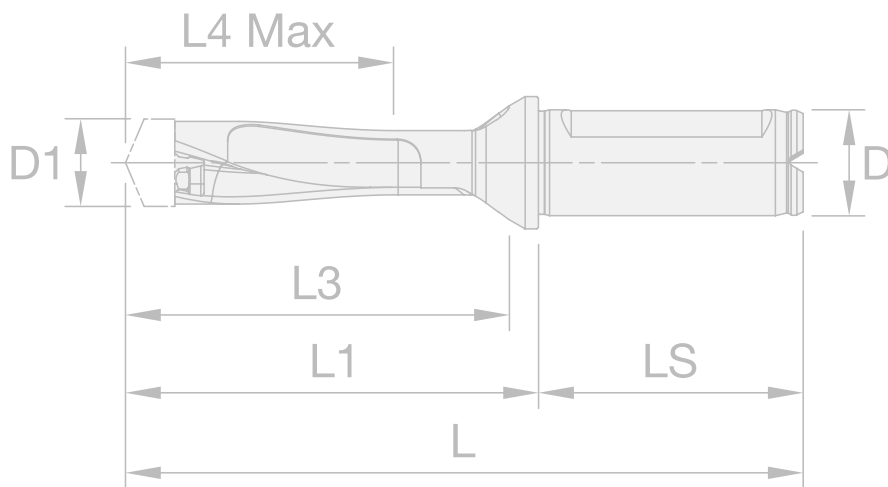
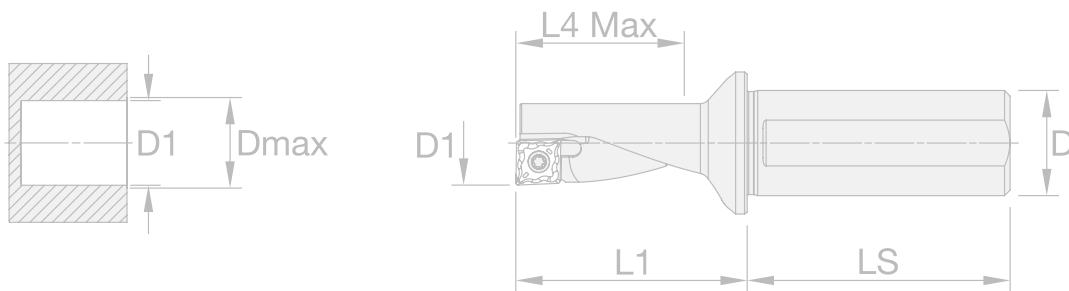
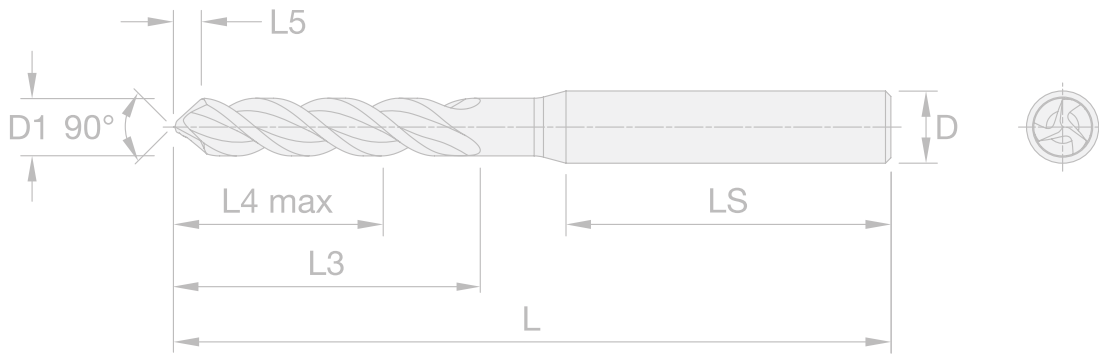
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LET'S TAKE YOUR MANUFACTURING  
TO THE NEXT LEVEL

[kennametal.com/ROCO](http://kennametal.com/ROCO)



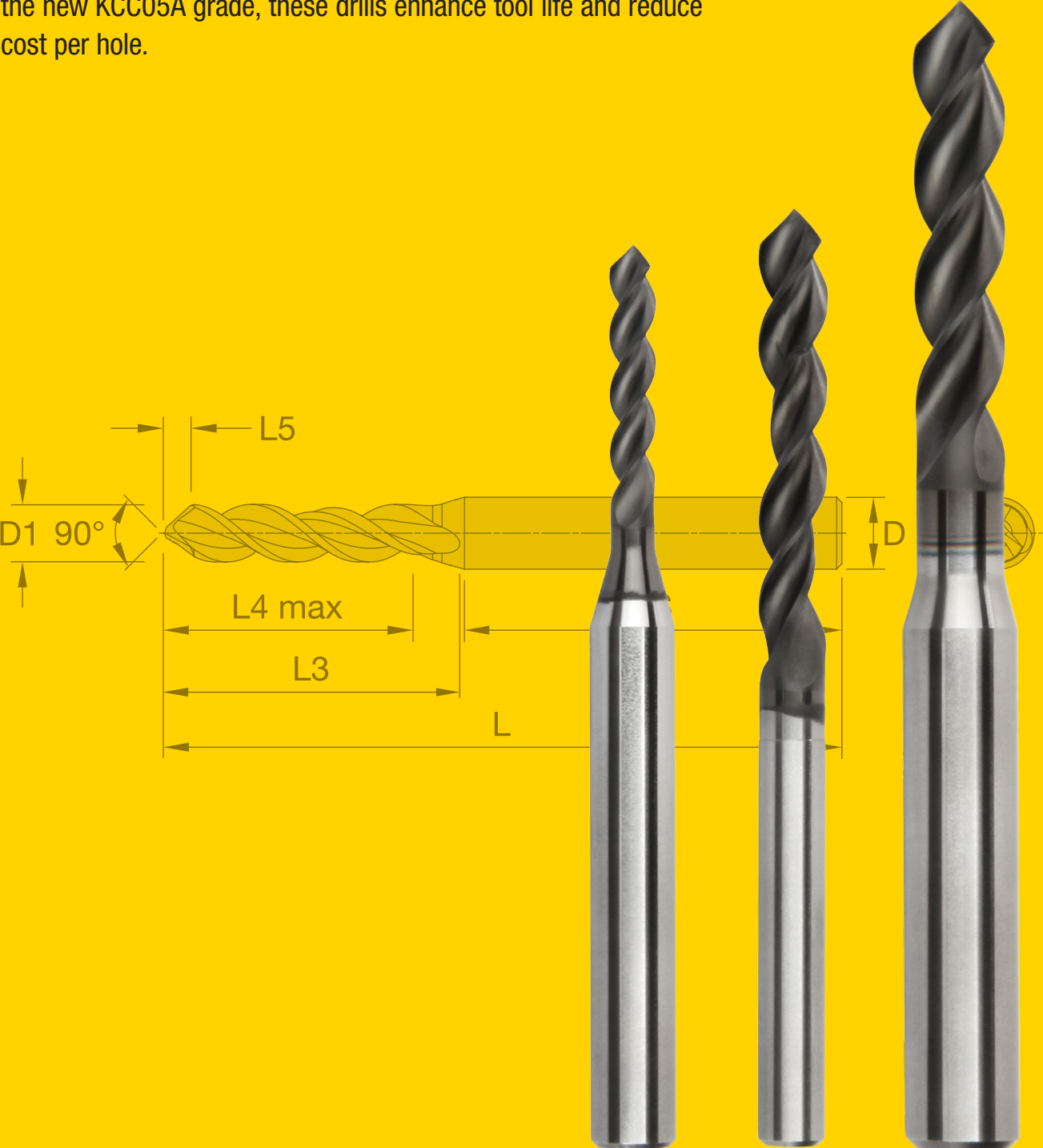
# HOLEMAKING



# KenDrill™ CSF

## Achieve a Clean Cut in Composites Aerospace Machining

KenDrill CSF delivers high-performance cuts in composites and carbon fiber reinforced polymer (CFRP) materials to ensure clean entry and exit points with reduced delamination. Designed with the new KCC05A grade, these drills enhance tool life and reduce cost per hole.



## Features & Benefits

- Three-flute drill design for extraordinary hole positioning and cylindricity
- 90° point angle lowers axial forces and prevents delamination
- 40° helix angle prevents uncut fibers on hole exit
- Advanced margin land design reduces heat and improves hole quality
- KCC05A grade provides superb tool life in highly abrasive fiber reinforced materials
- Available with straight cylindrical shanks as well as for Kennametal's HiPACS combination tool

## Materials

### PRIMARY

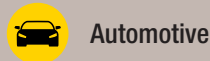
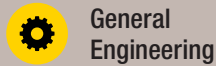
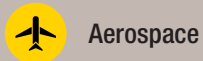
**C1** Carbon-Fiber-Reinforced Polymers (CFRP)

### SECONDARY

**N5** Nylon, Plastics, Phenolics, Resins, Fiberglass

**N6** Carbon, Graphite, Composites

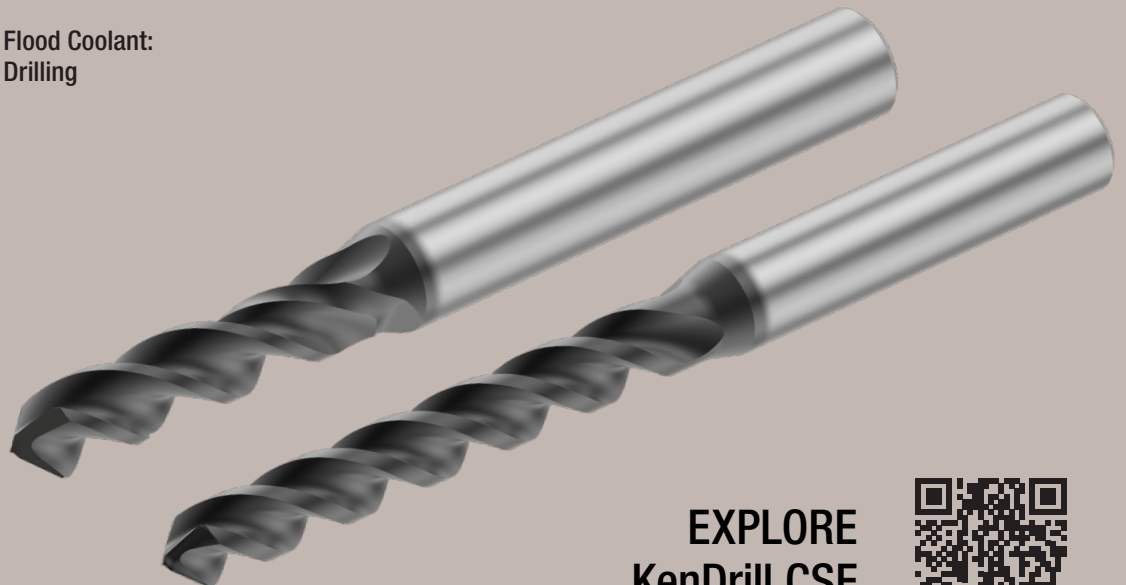
## Industries



## Machine Tools



## Applications



EXPLORE  
KenDrill CSF



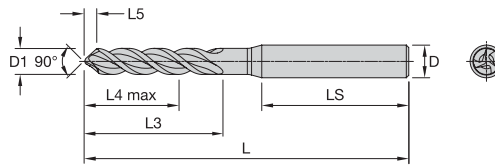
**PRIMARY**

**C1** Carbon-Fiber-Reinforced Polymers (CFRP)

**SECONDARY**

**N5** Nylon, Plastics, Phenolics, Resins, Fiberglass

**N6** Carbon, Graphite, Composites



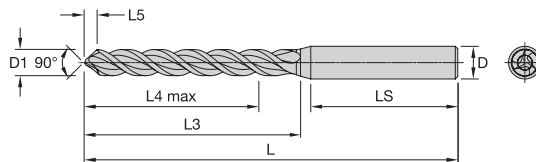
**KenDrill CSF • B521 • 3 x D • Straight Shank**

- Primary
- Secondary

C1	●
N5	○
N6	○

KCC05A

Catalog Number	D1	L4 max	L3	L	L5	LS	D	KCC05A
B521A02502CSF	2,502	11,00	16,00	50,00	1,32	28,00	4,00	7318527
B521A03200CSF	3,200	14,00	20,00	62,00	1,77	36,00	6,00	7397154
B521A03300CSF	3,300	14,00	20,00	62,00	1,83	36,00	6,00	7397155
B521A04000CSF	4,000	17,00	24,00	66,00	2,19	36,00	6,00	7397156
B521A04864CSF	4,864	20,00	28,00	66,00	2,52	36,00	6,00	7318528
B521A05000CSF	5,000	20,00	28,00	66,00	2,71	36,00	6,00	7397157
B521A06000CSF	6,000	20,00	28,00	66,00	3,23	36,00	6,00	7397158
B521A06376CSF	6,376	24,00	34,00	79,00	3,29	36,00	8,00	7318529
B521A06400CSF	6,400	24,00	34,00	79,00	3,43	36,00	8,00	7397192
B521A07938CSF	7,938	29,00	41,00	79,00	4,22	36,00	8,00	7397193
B521A07963CSF	7,963	29,00	41,00	79,00	4,09	36,00	8,00	7318530
B521A09551CSF	9,551	35,00	47,00	89,00	4,88	40,00	10,00	7318531
B521A11138CSF	11,138	40,00	55,00	102,00	5,68	45,00	12,00	7318532
B521A12725CSF	12,725	43,00	60,00	107,00	6,47	45,00	14,00	7318533



**KenDrill CSF • B522 • 5 x D • Straight Shank**

- Primary
- Secondary

C1	●
N5	○
N6	○

KCC05A

Catalog Number	D1	L4 max	L3	L	L5	LS	D	KCC05A
B522A02502CSF	2,502	17,00	22,00	58,00	1,32	28,00	4,00	7318534
B522A03600CSF	3,600	23,00	28,00	66,00	1,98	36,00	6,00	7397194
B522A04864CSF	4,864	35,00	44,00	82,00	2,52	36,00	6,00	7318535
B522A06376CSF	6,376	43,00	53,00	91,00	3,29	36,00	8,00	7318536
B522A07200CSF	7,200	43,00	53,00	91,00	3,85	36,00	8,00	7397197
B522A07963CSF	7,963	43,00	53,00	91,00	4,09	36,00	8,00	7318537

HOLEMAKING

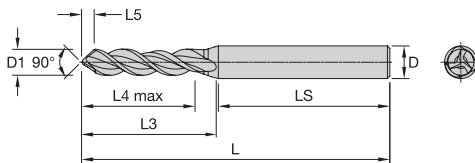
PRIMARY

SECONDARY

**C1** Carbon-Fiber-Reinforced Polymers (CFRP)

**N5** Nylon, Plastics, Phenolics, Resins, Fiberglass

**N6** Carbon, Graphite, Composites



**KenDrill CSF • B521 • HiPACS Version • Straight Shank**

● Primary  
○ Secondary

C1	●
N5	○
N6	○

KCC05A

Catalog Number	D1	L4 max	L3	L	L5	LS	D	KCC05A
B521H04864CSFP	4,864	25,00	33,00	75,00	2,64	42,00	6,00	7318516
B521H06376CSFP	6,376	25,00	33,00	75,00	3,42	42,00	8,00	7318517
B521H07963CSFP	7,963	25,00	33,00	75,00	4,24	42,00	8,00	7318518
B521H09551CSFP	9,551	25,00	33,00	75,00	5,05	42,00	10,00	7318519

# HiPACS

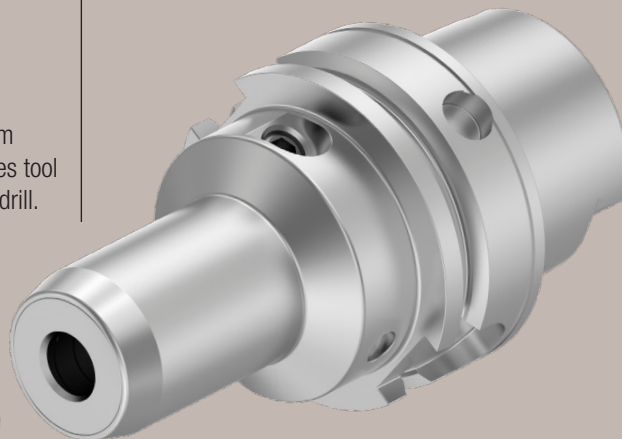
## Aerospace Fastener Hole Drilling and Countersinking System

The straight shank enables length adjustment of 10mm.

Designed to be clamped in a standard hydraulic chuck.

Replaces expensive custom solution step drill, separates tool life and cost of insert and drill.

PCD-tipped drills provide best tool life in stable conditions with high runout accuracy, ex: gantry machines and machining centers.



True 360° clamping through hydraulic chuck clamping mechanism.

Cost-effective solution, easy and fast to assemble.

High-precision system to drill and chamfer in one operation.


Diamond coated carbide drills offer competitive tool life in less stable conditions like on robot end effectors.

**EXPLORE HiPACS**



**CSF Drills • B52\_ Series • Grade KCC05A • Dry Applications**  
**Drill Diameters 2,5 mm – 12,7 mm**  
**Application Data**

HOLEMAKING

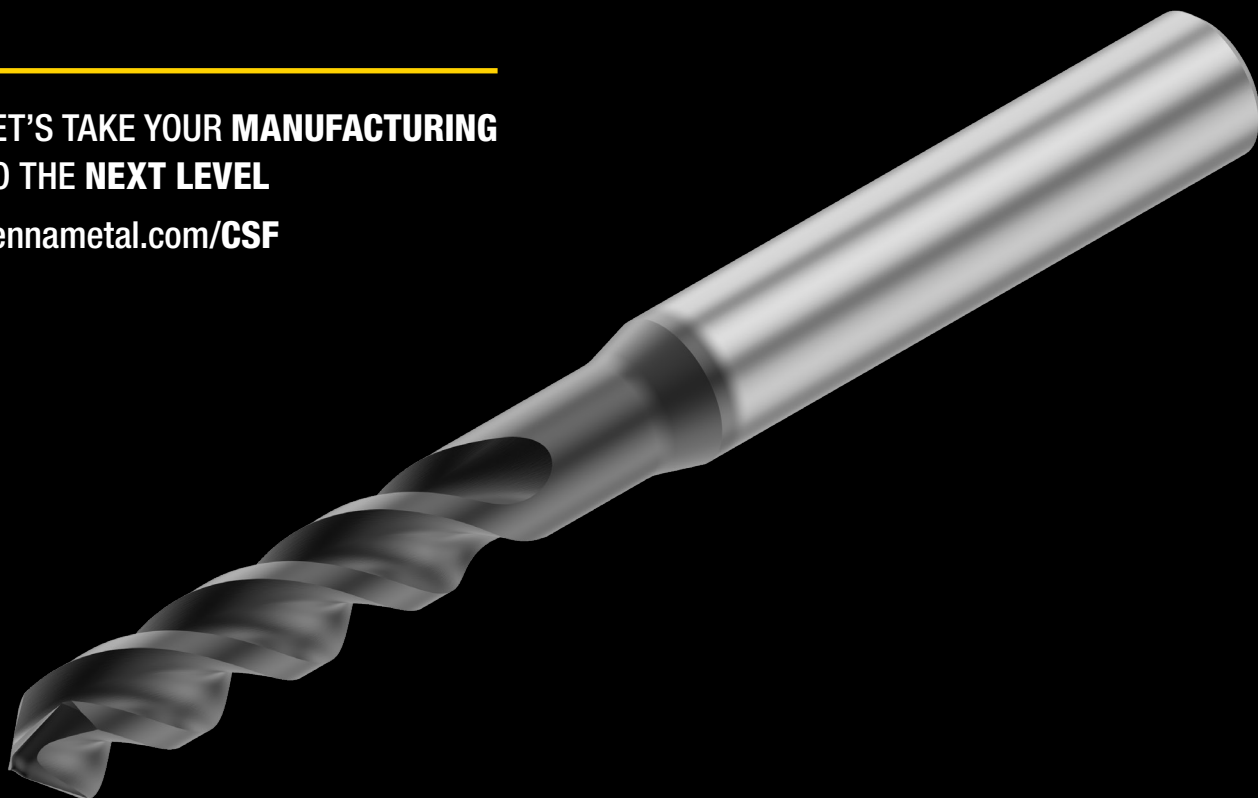
												
Material Group	Cutting Speed - Vc		Metric									
	Range - m/min		Recommended Feed Rate by Revolution									
	min	max		2,5	4,0	6,0	8,0	10,0	12,0	16,0	20,0	
C	1	90	150	mm/r	0,03-0,10	0,04-0,12	0,04-0,14	0,05-0,16	0,05-0,18	0,06-0,20	–	–
N	5	For cutting data recommendations for other material groups, please contact your Kennametal representative.										
N	6											

# KenDrill CSF

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TO THE NEXT LEVEL

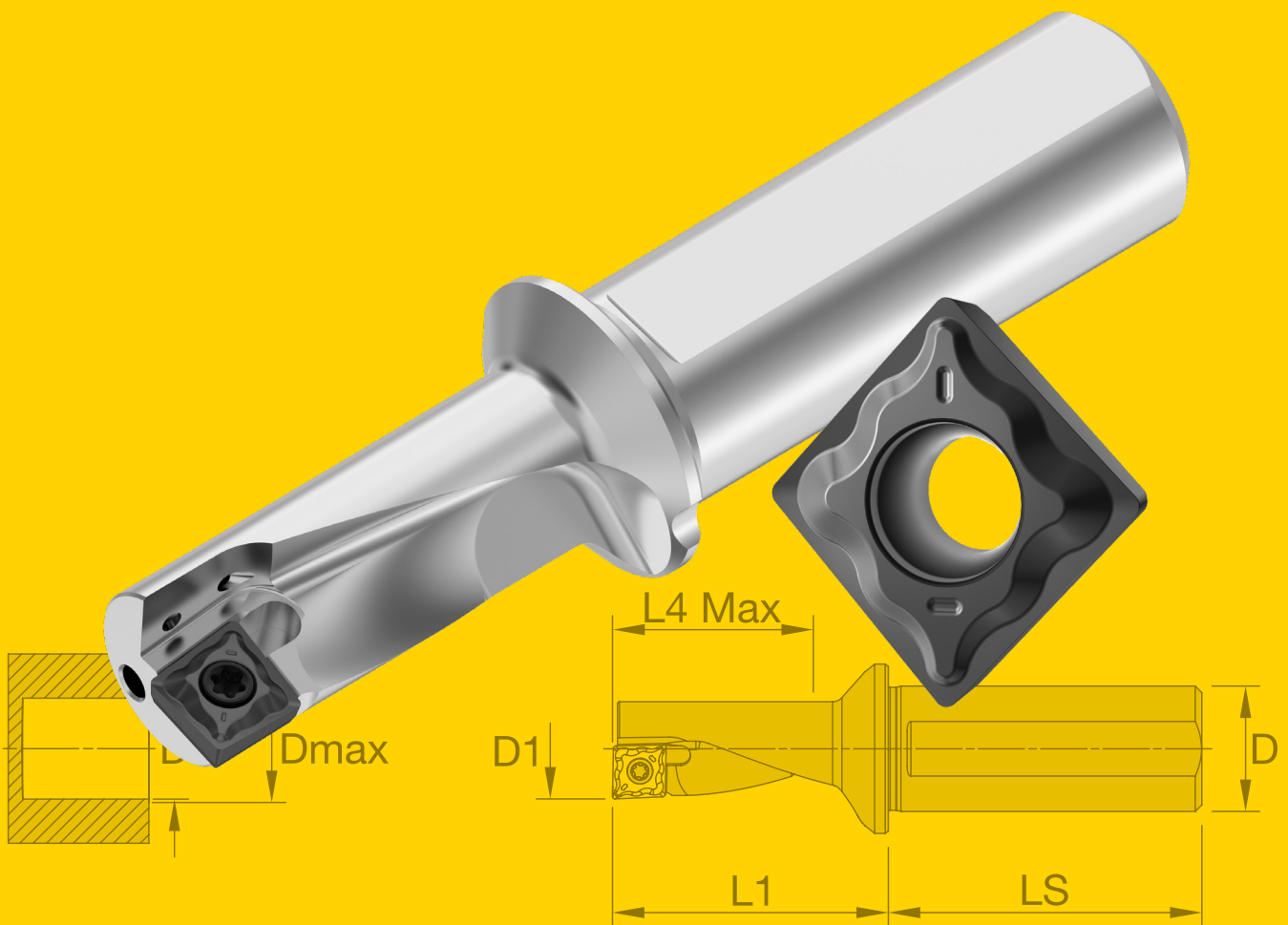
[kennametal.com/CSF](http://kennametal.com/CSF)



# Drill Fix MULTI™

## Cut Through Complexity

Experience new levels of productivity with Drill Fix MULTI. This innovative platform combines multiple operations like drilling, internal/external turning and facing into a single, high-performance tool, reducing setup time, minimizing tool changes and maximizing productivity. Whether it's for small to medium-sized components, this tooling system delivers consistent, high-quality results across several materials.



## Features & Benefits

- Reduces cycle time and the number of tool changes
- Can be used in small parts production with small lathes and Swiss-type machines
- For drilling, internal turning, external turning, facing and chamfering
- Insert grade KCU30 is the first choice generally and where drilling is the focus
- Insert grade KCPK25 is the first choice where turning is the focus, delivering higher productivity
- Ideal for general engineering and transportation industry machining
- 9 metric cutting diameters ranging from 8mm to 32mm

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## Materials



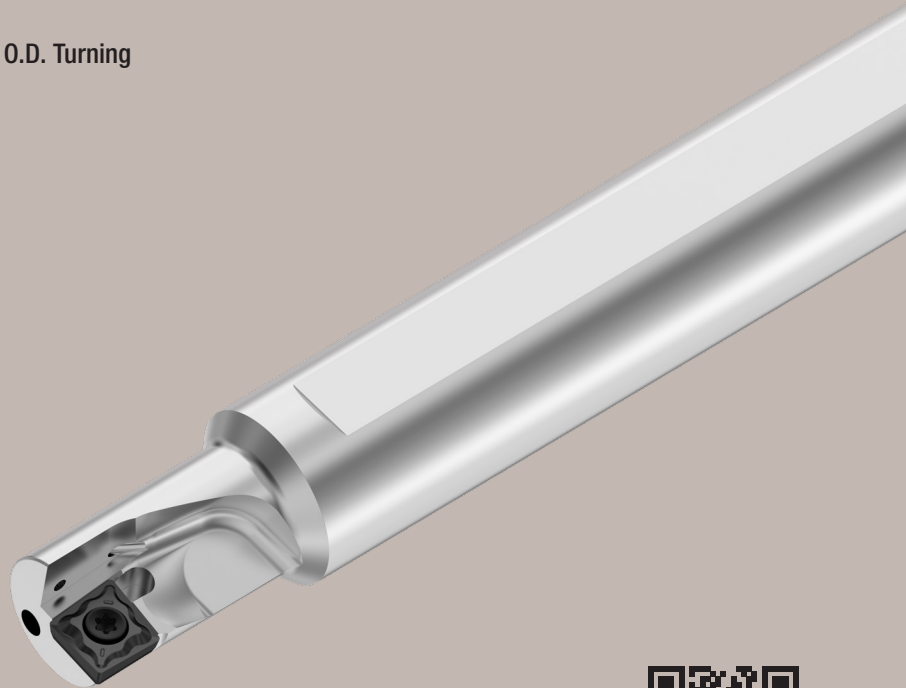
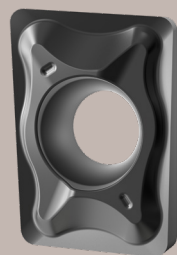
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## Industries



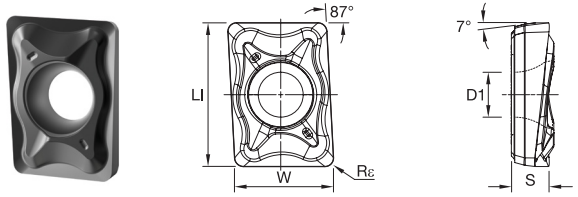
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## Applications

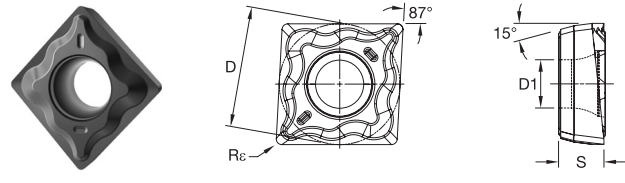


EXPLORE  
Drill Fix MULTI





Valid for smallest insert  
DFM04...R (RH only)



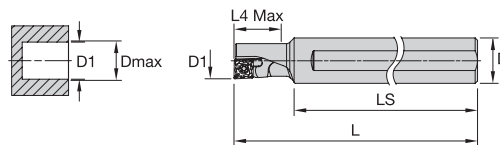
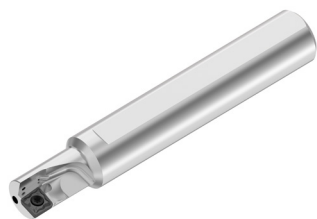
Valid for remaining larger sizes  
DFM(>04)...N (Neutral RH – LH)

		KCU30	KCPK25
P	●	○	○
M	●	○	○
K	●	○	○
N	●	○	○
S	●	○	○
H	●	○	○

Drill Fix MULTI • Carbide Insert • MP Geometry

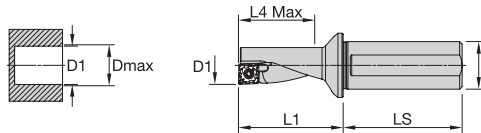
- Primary
- Secondary

ISO Catalog Number	D	LI	W	D1	S	R <sub>c</sub>	KCU30	KCPK25
DFM040104MPR	—	6,40	4,40	2,00	1,69	0,40	7381729	7381928
DFM050204MPN	5,65	—	—	2,00	1,98	0,40	7381730	7381929
DFM060204MPN	6,40	—	—	2,45	2,30	0,40	7381921	7381930
DFM070304MPN	7,50	—	—	2,80	3,10	0,40	7381922	7381941
DFM080304MPN	8,40	—	—	3,35	3,15	0,40	7381923	7381942
DFM09T304MPN	9,45	—	—	3,40	3,90	0,40	7381924	7381943
DFM10T308MPN	10,40	—	—	4,40	3,80	0,80	7381925	7381944
DFM130408MPN	13,35	—	—	5,30	4,70	0,80	7381926	7381945
DFM170508MPN	17,30	—	—	5,30	5,45	0,80	7381927	7381946



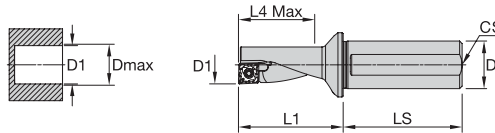
Drill Fix MULTI • Drill Body • 1,5 x D • Weldon Shank

Order Number	ISO Catalog Number	D1	D1 Max	L	L4 Max	LS	D	Insert
7387807	DFM08R150WB12M	7,85	8,30	80,00	12,00	62,10	12,00	DFM040104MPR
7387808	DFM10R150WB12M	9,85	10,50	90,00	15,00	71,70	12,00	DFM050204MPN
7387809	DFM12R150WB16M	12,50	11,85	100,00	18,00	75,90	16,00	DFM060204MPN
7387810	DFM14R150WB16M	13,80	14,50	110,00	21,00	85,50	16,00	DFM070304MPN
7387821	DFM16R150WB20M	15,80	16,50	125,00	24,00	96,50	20,00	DFM080304MPN
7387822	DFM18R150WB25M	17,80	18,50	135,00	27,00	103,20	25,00	DFM09T304MPN
7387824	DFM20R150WB25M	19,75	20,50	150,00	30,00	115,90	25,00	DFM10T308MPN
7387825	DFM25R150WB32M	24,75	25,80	180,00	37,50	136,40	32,00	DFM130408MPN
7387826	DFM32R150WB40M	31,75	33,00	200,00	48,00	143,20	40,00	DMF170508MPN



**Drill Fix MULTI • Drill Body • 2,25 x D • Weldon Shank**

Order Number	ISO Catalog Number	D1	D1 Max	L1	L	L4 Max	LS	D	Insert 1 Outside
7387827	DFM08R225WB10M	7,85	8,30	60,00	60,00	18,00	38,00	10,00	DFM040104MPR
7387828	DFM10R225WB12M	9,85	10,50	69,50	69,50	22,50	42,00	12,00	DFM050204MPN
7387829	DFM12R225WB16M	11,85	12,50	78,00	78,00	27,00	45,00	16,00	DFM060204MPN
7387830	DFM14R225WB16M	13,80	14,50	83,50	83,50	31,50	45,00	16,00	DFM070304MPN
7387831	DFM16R225WB20M	15,80	16,50	94,00	94,00	36,00	50,00	20,00	DFM080304MPN
7387832	DFM18R225WB25M	17,80	18,50	109,50	109,50	40,50	56,00	25,00	DFM09T304MPN
7387833	DFM20R225WB25M	19,75	20,50	111,00	111,00	45,00	56,00	25,00	DFM10T308MPN
7387834	DFM25R225WB32M	24,75	25,80	129,00	129,00	56,25	60,00	32,00	DFM130408MPN
7387835	DFM32R225WB40M	31,75	33,00	158,00	158,00	72,00	70,00	40,00	DMF170508MPN



**Drill Fix MULTI • Drill Body • 2,25 x D • Weldon Shank • Swiss Machines**

Order Number	ISO Catalog Number	D1	D1 Max	L1	L	L4 Max	LS	D	CS	Insert 1 Outside
7387846	DFM08R225WB22M	7,85	8,30	85,00	85,00	18,00	60,00	22,00	G 1/8	DFM040104MPR
7387847	DFM10R225WB22M	9,85	10,50	90,00	90,00	22,50	60,00	22,00	G 1/8	DFM050204MPN
7387848	DFM12R225WB22M	11,85	12,50	95,00	95,00	27,00	60,00	22,00	G 1/8	DFM060204MPN
7387849	DFM14R225WB22M	13,80	14,50	98,50	98,50	31,50	60,00	22,00	G 1/8	DFM070304MPN
7387850	DFM16R225WB22M	15,80	16,50	104,00	104,00	36,00	60,00	22,00	G 1/8	DFM080304MPN
7387851	DFM18R225WB22M	17,80	18,50	114,00	114,00	40,50	60,00	22,00	G 1/8	DFM09T304MPN
7387852	DFM20R225WB22M	19,75	20,50	115,00	115,00	45,00	60,00	22,00	G 1/8	DFM10T308MPN

## Drill Fix MULTI • Face Turning • Drill Diameters 8,0 mm to 32 mm

### Application Data

HOLEMAKING

Material Group	Cutting Speed - Vc					Feed - fz mm/rev	Recommended Feed Rate by Diameter																	
	Range - m/min						Ø8mm		Ø10mm		Ø12mm		Ø14mm		Ø16mm		Ø18mm		Ø20mm		Ø25mm		Ø32mm	
	KCU30		KCPK25				DFM-040104MPR	DFM-050204MPN		DFM-060204MPN		DFM-070304MPN		DFM-080304MPN		DFM09T-304MPN		DFM10T-308MPN		DFM-130408MPN		DFM-170508MPN		
	Min	Max	Min	Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
P	0	95	220	95	240	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	1	95	220	95	240	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	2	95	220	95	240	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	3	80	210	80	230	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	4	70	200	70	220	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	5	60	190	60	210	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
M	6	60	190	60	210	mm/r	0,03	0,09	0,03	0,12	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,03	0,22	0,04	0,24	0,04	0,27
	1	70	210	70	230	mm/r	0,03	0,07	0,03	0,10	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,04	0,20	0,04	0,22
	2	65	205	65	225	mm/r	0,03	0,07	0,03	0,10	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,04	0,20	0,04	0,22
S	3	55	190	55	210	mm/r	0,03	0,07	0,03	0,10	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,04	0,20	0,04	0,22
A <sub>p</sub>						mm	0,50-1,90		0,50-2,20		0,70-2,70		0,80-3,00		0,90-3,40		0,90-3,80		1,00-4,20		1,00-5,00		1,00-6,00	

For unstable and interrupted cuts, reduce maximum feed rate and starting feed rate (mean value between minimum and maximum) by 20%.  
For unstable and interrupted cuts, start with minimum cutting speed.

## Drill Fix MULTI • Int/Ext Turning • Drill Diameters 8,0 mm to 32 mm

### Application Data

Material Group	Cutting Speed - Vc					Feed - fz mm/rev	Recommended Feed Rate by Diameter																	
	Range - m/min						Ø8mm		Ø10mm		Ø12mm		Ø14mm		Ø16mm		Ø18mm		Ø20mm		Ø25mm		Ø32mm	
	KCU30		KCPK25				DFM-040104MPR	DFM-050204MPN		DFM-060204MPN		DFM-070304MPN		DFM-080304MPN		DFM09T-304MPN		DFM10T-308MPN		DFM-130408MPN		DFM-170508MPN		
	Min	Max	Min	Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
P	0	95	220	95	240	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	1	95	220	95	240	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	2	95	220	95	240	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	3	80	210	80	230	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	4	70	200	70	220	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	5	60	190	60	210	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
M	6	60	190	60	210	mm/r	0,03	0,13	0,03	0,15	0,03	0,16	0,03	0,18	0,03	0,2	0,03	0,22	0,03	0,24	0,04	0,26	0,04	0,3
	1	70	210	70	230	mm/r	0,03	0,11	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,04	0,22	0,04	0,25
	2	65	205	65	225	mm/r	0,03	0,11	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,04	0,22	0,04	0,25
S	3	55	190	55	210	mm/r	0,03	0,11	0,03	0,12	0,03	0,13	0,03	0,14	0,03	0,16	0,03	0,18	0,03	0,20	0,04	0,22	0,04	0,25
A <sub>p</sub>						mm	0,50-2,70		0,50-3,20		0,70-3,70		0,80-4,00		0,90-4,20		0,90-4,70		1,00-5,30		1,00-6,50		1,00-7,00	

For unstable and interrupted cuts, reduce maximum feed rate and starting feed rate (mean value between minimum and maximum) by 20%.  
For unstable and interrupted cuts, start with minimum cutting speed.

## Drill Fix MULTI • Holemaking • Drill Diameters 8,0 mm to 32 mm

### Application Data

Material Group	Cutting Speed - Vc					Feed - fz mm/rev	Recommended Feed Rate by Diameter																			
	Range - m/min						Ø8mm		Ø10mm		Ø12mm		Ø14mm		Ø16mm		Ø18mm		Ø20mm		Ø25mm		Ø32mm			
	KCU30		KCPK25				DFM-040104MPR	DFM-050204MPN		DFM-060204MPN		DFM-070304MPN		DFM-080304MPN		DFM09T-304MPN		DFM10T-308MPN		DFM-130408MPN		DFM-170508MPN				
	Min	Max	Min	Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
P	0	95	220	95	240	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	1	95	220	95	240	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	2	95	220	95	240	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	3	80	210	80	230	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	4	70	200	70	220	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	5	60	190	60	210	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
M	6	60	190	60	210	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	1	70	210	70	230	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
	2	65	205	65	225	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
S	3	55	190	55	210	mm/r	0,03	0,06	0,03	0,06	0,03	0,07	0,03	0,08	0,03	0,08	0,03	0,09	0,03	0,10	0,04	0,12	0,04	0,15		
A <sub>p</sub>						mm	0,03		0,06		0,03		0,07		0,03		0,08		0,03		0,09		0,03		0,10	

For unstable and interrupted cuts, reduce maximum feed rate and starting feed rate (mean value between minimum and maximum) by 20%.  
For unstable and interrupted cuts, start with minimum cutting speed.

# Drill Fix MULTI

LET'S TAKE YOUR MANUFACTURING  
TO THE NEXT LEVEL

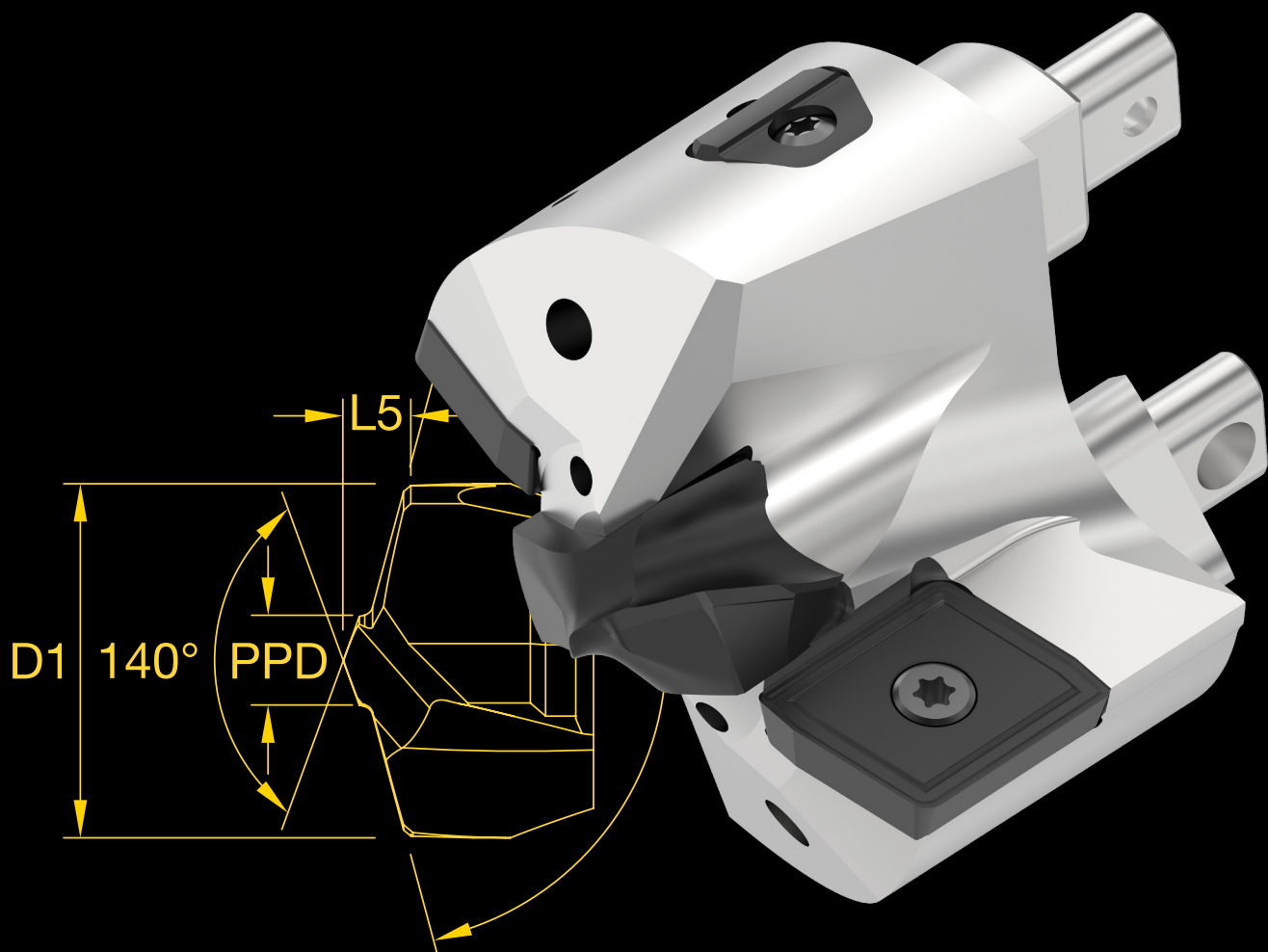
[kennametal.com/Drill-Fix-MULTI](http://kennametal.com/Drill-Fix-MULTI)



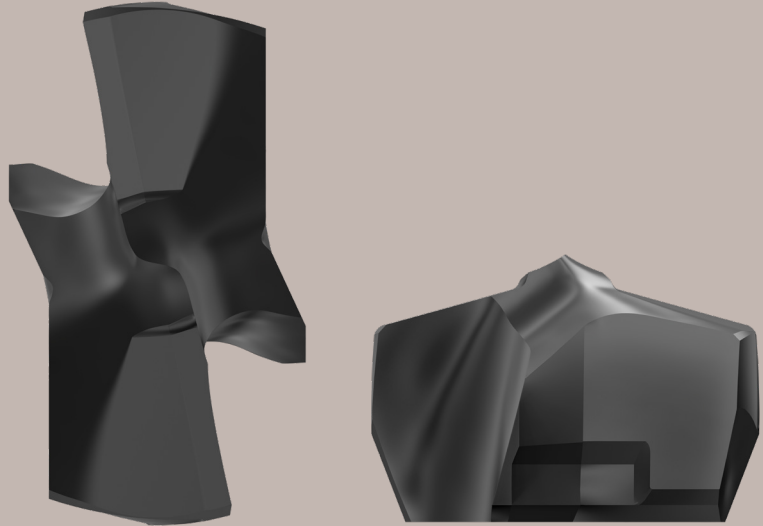
# KSEM PLUS™ HPP INSERTS

## Large & Deep-Hole Drilling Without Pilot Holes

The KSEM PLUS lineup is getting bigger and better. The new HPP inserts feature a raised center point that supports deep-hole drilling without the need for pilot holes, delivering significantly faster machining capabilities. Developed with leaders in the energy industry, these inserts are ideal for manufacturers that are drilling hundreds of large and deep holes on a daily basis.



# PUT PILOT HOLES IN THE PAST



## Features & Benefits

- KC7315: TiAlN coated wear-resistant fine-grain carbide for premium tool life under regular drilling conditions
- KCPM45: TiAlN coated medium-grain carbide with maximum chipping resistance for best-in-class tool life under unstable cutting conditions

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## Materials

PRIMARY

SECONDARY



Steels



Cast Iron

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## Industries



Oil & Gas



Wind & Solar



General Engineering

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## Applications

PRIMARY

SECONDARY



Drilling



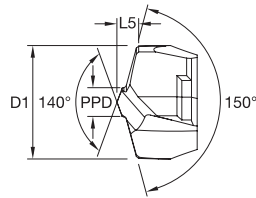
Drilling Inclined Exit



Drilling Stacked Plates

EXPLORE  
KSEM PLUS





**KSEM PLUS • Center Insert • HPP Geometry • Steel and Cast Iron  
• Deep Hole Drilling**

					<b>KC7315</b>	<b>KCPM45</b>
P	●	○	○	○	○	○
M	●	○	○	○	○	○
K	●	○	○	○	○	○
N	●	○	○	○	○	○
S	●	○	○	○	○	○
H	●	○	○	○	○	○

● Primary  
○ Secondary

ISO Catalog Number	D1	L5	PPD	Insert Size	KC7315	KCPM45
KSEMP1300HPPM	13,00	2,55	3,06	C	7331873	7331970
KSEMP1400HPPM	14,00	2,72	3,29	B	7331874	7332111
KSEMP1500HPPM	15,00	2,91	3,53	A	7331875	7332112
KSEMP1600HPPM	16,00	3,15	4,00	1	7331876	7332113
KSEMP1700HPPM	17,00	3,28	4,00	1	7331877	7332114
KSEMP1800HPPM	18,00	3,42	4,00	1	7331878	7332115
KSEMP1900HPPM	19,00	3,63	4,47	2	7331879	7332116
KSEMP2000HPPM	20,00	3,87	4,93	3	7331880	7332117
KSEMP2100HPPM	21,00	4,01	4,93	3	7332071	7332118
KSEMP2200HPPM	22,00	4,14	4,93	3	7332072	7332119
KSEMP2300HPPM	23,00	4,36	5,41	4	7332073	7332120
KSEMP2400HPPM	24,00	4,50	5,41	4	7332074	7332121
KSEMP2500HPPM	25,00	4,73	5,88	5	7332075	7332122
KSEMP2600HPPM	26,00	4,86	5,88	5	7332076	7332123
KSEMP2700HPPM	27,00	5,10	6,35	6	7332077	7332124
KSEMP2800HPPM	28,00	5,23	6,35	6	7332078	7332125
KSEMP2900HPPM	29,00	5,45	6,82	7	7332079	7332126
KSEMP3000HPPM	30,00	5,59	6,82	7	7332080	7332127
KSEMP3100HPPM	31,00	5,82	7,29	8	7332091	7332128
KSEMP3200HPPM	32,00	5,96	7,29	8	7332092	7332129
KSEMP3300HPPM	33,00	6,23	7,99	9	7332093	7332130
KSEMP3400HPPM	34,00	6,36	7,99	9	7332094	7332131
KSEMP3500HPPM	35,00	6,50	7,99	9	7332095	7332132
KSEMP3600HPPM	36,00	6,63	7,99	9	7332096	7332133
KSEMP3700HPPM	37,00	6,96	8,93	10	7332097	7332134
KSEMP3800HPPM	38,00	7,09	8,93	10	7332098	7332135
KSEMP3900HPPM	39,00	7,22	8,93	10	7332099	7332136
KSEMP4000HPPM	40,00	7,36	8,93	10	7332100	7332137

HOLEMAKING

# KSEM PLUS • HPP Geometry

## Application Data

Material Group	Condition	Cutting Speed - Vc		KSEM PLUS METRIC Recommended Feed Rate by Revolution											
		Range - m/min		Ø	KSEM 14...17 DFR/ DFC 04... 28,00 - 31,74		KSEM 15...18 DFT/DFC 05... 31,75 - 35,99		KSEM 13...22 DFT/DFC 06... 36,00 - 44,99		KSEM 18...28 DFT/DFC 07... 45,00 - 55,99		KSEM 20...40 DFT/DFC 06 to 09... 56,00 - 102,35		
		min	max		min	max	min	max	min	max	min	max	min	max	
P	0	S	90	230	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
		U	70	170	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
		I	50	110	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
	1	S	90	230	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
		U	70	170	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
		I	50	110	mm/r	0,130	0,250	0,130	0,250	0,160	0,320	0,160	0,340	0,180	0,400
	2	S	90	230	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		U	70	170	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		I	50	110	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
	3	S	90	230	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		U	70	170	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		I	50	105	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
	4	S	90	220	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		U	70	160	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		I	50	110	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
	5	S	90	210	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		U	70	150	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
		I	50	100	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450
6	S	70	180	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450	
	U	50	120	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450	
	I	40	100	mm/r	0,130	0,280	0,130	0,280	0,160	0,320	0,160	0,400	0,180	0,450	
K	1	S	90	230	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		U	60	160	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		I	40	90	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
	2	S	90	220	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		U	60	160	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		I	40	100	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
	3	S	90	210	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		U	60	150	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480
		I	35	90	mm/r	0,180	0,300	0,180	0,300	0,210	0,360	0,240	0,420	0,300	0,480

HOLEMAKING

# KSEM PLUS HPP Inserts



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**LET'S TAKE YOUR MANUFACTURING  
TO THE NEXT LEVEL**

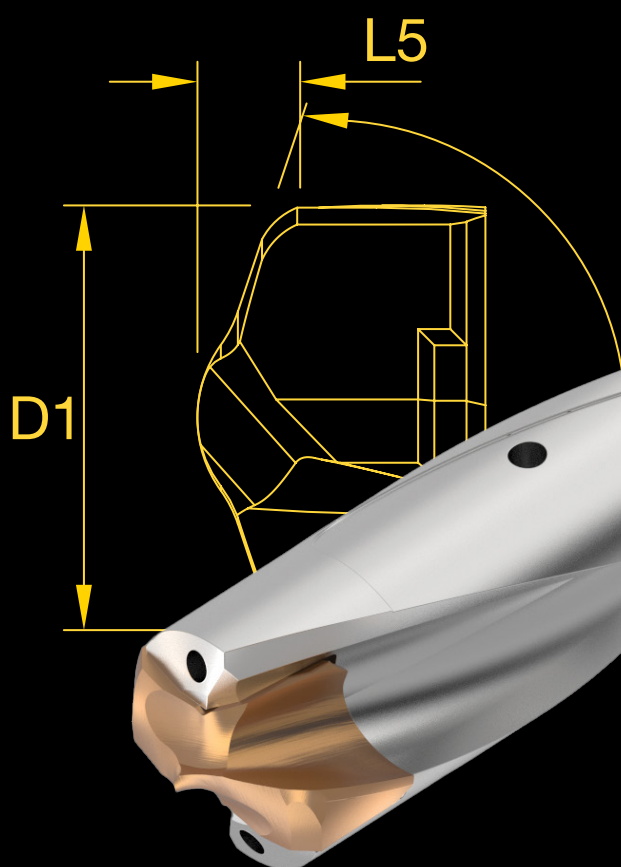
**[kennametal.com/KSEMPPLUS](http://kennametal.com/KSEMPPLUS)**



# KSEM™ HPR Inserts

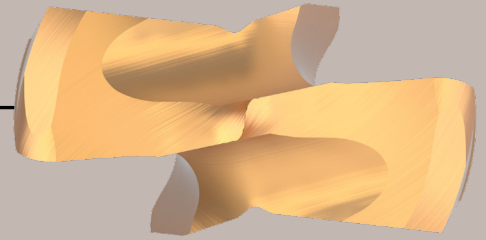
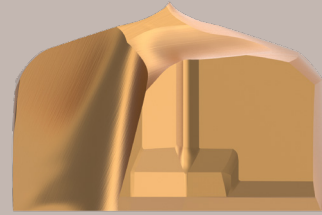
## High-Performance Modular Drilling

We are enhancing the KSEM portfolio with the proven HPR geometry, delivering next-level drilling performance in cast iron and steels. The HPR point geometry enables drilling at the highest feed rates and delivers excellent centering capabilities for achieving maximum metal removal rates and precision-hole positioning.



# Features & Benefits

- Featuring the proven HPR geometry for maximum productivity and precision
- Advanced HPR corner radius for superior tool life and surface finish
- KCPK15A grade provides exceptional wear resistance and enhances process reliability



## Materials

PRIMARY

SECONDARY



Cast Iron



Steels

## Industries



General Engineering



Automotive



EV



Oil & Gas



Wind & Solar

## Applications

PRIMARY

SECONDARY



Drilling



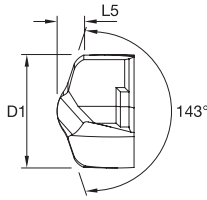
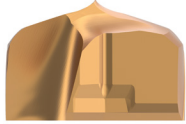
Drilling Inclined Exit



Drilling Stacked Plates

EXPLORE  
KSEM





KCPK15A

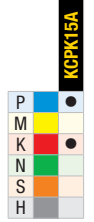
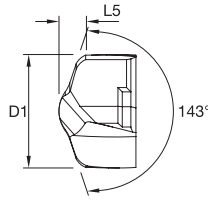
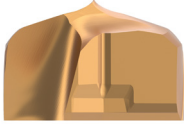
P	●
M	●
K	●
N	●
S	●
H	●

- Primary
- Secondary

## KSEM • Carbide Insert • HPR Geometry

ISO Catalog Number	D1	L5	Insert Size	KCPK15A
KSEM1250HPRM	12,50	3,13	C	7382534
KSEM1270HPRM	12,70	3,18	C	7382535
KSEM1300HPRM	13,00	3,25	C	7382536
KSEM1350HPRM	13,50	3,38	C	7382537
KSEM1400HPRM	14,00	3,50	B	7382538
KSEM1420HPRM	14,20	3,55	B	7382539
KSEM1429HPRM	14,29	3,57	B	7382540
KSEM1450HPRM	14,50	3,63	B	7382541
KSEM1500HPRM	15,00	3,75	A	7382542
KSEM1550HPRM	15,50	3,88	A	7382543
KSEM1560HPRM	15,60	3,90	A	7382544
KSEM1588HPRM	15,88	3,97	1	7382545
KSEM1600HPRM	16,00	4,00	1	7382546
KSEM1609HPRM	16,09	4,02	1	7382547
KSEM1650HPRM	16,50	4,13	1	7382548
KSEM1667HPRM	16,67	4,17	1	7382550
KSEM1700HPRM	17,00	4,25	1	7382551
KSEM1746HPRM	17,46	4,37	1	7382552
KSEM1750HPRM	17,50	4,38	1	7382553
KSEM1786HPRM	17,86	4,47	1	7382554
KSEM1800HPRM	18,00	4,50	1	7382555
KSEM1826HPRM	18,26	4,57	2	7382556
KSEM1850HPRM	18,50	4,63	2	7382557
KSEM1900HPRM	19,00	4,75	2	7382558
KSEM1905HPRM	19,05	4,76	2	7382559
KSEM1925HPRM	19,25	4,81	2	7382560
KSEM1927HPRM	19,27	4,82	2	7382571
KSEM1945HPRM	19,45	4,86	2	7382572
KSEM1950HPRM	19,50	4,88	2	7382573
KSEM1984HPRM	19,84	4,96	2	7382574
KSEM2000HPRM	20,00	5,00	3	7382575
KSEM2024HPRM	20,24	5,06	3	7382576
KSEM2050HPRM	20,50	5,13	3	7382577
KSEM2064HPRM	20,64	5,16	3	7382578
KSEM2100HPRM	21,00	5,25	3	7382579
KSEM2120HPRM	21,20	5,30	3	7382580
KSEM2150HPRM	21,50	5,38	3	7382581
KSEM2200HPRM	22,00	5,50	3	7382565
KSEM2223HPRM	22,23	5,56	4	7382566
KSEM2250HPRM	22,50	5,63	4	7382568
KSEM2300HPRM	23,00	5,75	4	7382569
KSEM2350HPRM	23,50	5,88	4	7382570
KSEM2381HPRM	23,81	5,95	4	7382591
KSEM2400HPRM	24,00	6,00	4	7382592
KSEM2450HPRM	24,50	6,13	5	7382593
KSEM2500HPRM	25,00	6,25	5	7382594
KSEM2540HPRM	25,40	6,32	5	7382595
KSEM2550HPRM	25,50	6,34	5	7382596
KSEM2560HPRM	25,60	6,36	5	7382597
KSEM2567HPRM	25,67	6,37	5	7382598
KSEM2600HPRM	26,00	6,43	5	7382599
KSEM2619HPRM	26,19	6,46	6	7382600
KSEM2650HPRM	26,50	6,52	6	7382601
KSEM2700HPRM	27,00	6,61	6	7382602
KSEM2750HPRM	27,50	6,70	6	7382603
KSEM2800HPRM	28,00	6,79	6	7382604
KSEM2850HPRM	28,50	6,88	7	7382605
KSEM2858HPRM	28,58	6,89	7	7382606
KSEM2900HPRM	29,00	6,97	7	7382607
KSEM3000HPRM	30,00	7,15	7	7382608
KSEM3016HPRM	30,16	7,17	8	7382609
KSEM3100HPRM	31,00	7,33	8	7382610
KSEM3175HPRM	31,75	7,46	8	7382611

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**KSEM • Carbide Insert • HPR Geometry • Continued**

● Primary  
○ Secondary

ISO Catalog Number	D1	L5	Insert Size	KCPK15A
KSEM3200HPRM	32,00	7,50	8	7382612
KSEM3300HPRM	33,00	7,68	9	7382614
KSEM3334HPRM	33,34	7,74	9	7382615
KSEM3400HPRM	34,00	7,86	9	7382616
KSEM3493HPRM	34,93	8,03	9	7382617
KSEM3500HPRM	35,00	8,04	9	7382618
KSEM3600HPRM	36,00	8,22	9	7382619
KSEM3700HPRM	37,00	8,40	10	7382620
KSEM3800HPRM	38,00	8,58	10	7382621
KSEM3810HPRM	38,10	8,60	10	7382622
KSEM3900HPRM	39,00	8,76	10	7382623
KSEM4000HPRM	40,00	8,94	10	7382624

HOLEMAKING

# KSEM HPR Inserts

## Application Data

Material Group	Cutting Speed - Vc		Metric	Recommended Feed Rate by Revolution						
	Range - m/min			12,5	16,0	20,0	25,4	32,0	40,0	
	Min	Max								
P	0	75	140	mm/r	0,125 - 0,238	0,146 - 0,290	0,170 - 0,350	0,202 - 0,431	0,242 - 0,530	0,290 - 0,650
	1	75	140	mm/r	0,150 - 0,338	0,171 - 0,390	0,195 - 0,450	0,227 - 0,531	0,267 - 0,630	0,315 - 0,750
	2	90	150	mm/r	0,150 - 0,338	0,171 - 0,390	0,195 - 0,450	0,227 - 0,531	0,267 - 0,630	0,315 - 0,750
	3	50	100	mm/r	0,150 - 0,288	0,171 - 0,340	0,195 - 0,400	0,227 - 0,481	0,267 - 0,580	0,315 - 0,700
	4	55	95	mm/r	0,123 - 0,300	0,140 - 0,342	0,160 - 0,390	0,187 - 0,455	0,220 - 0,534	0,260 - 0,630
	5	50	80	mm/r	0,080 - 0,169	0,094 - 0,188	0,110 - 0,210	0,132 - 0,240	0,158 - 0,276	0,190 - 0,320
K	6	50	80	mm/r	0,123 - 0,235	0,140 - 0,270	0,160 - 0,310	0,187 - 0,364	0,220 - 0,430	0,260 - 0,500
	1	80	200	mm/r	0,188 - 0,440	0,198 - 0,510	0,210 - 0,590	0,226 - 0,698	0,246 - 0,830	0,270 - 0,990
	2	60	180	mm/r	0,188 - 0,440	0,198 - 0,510	0,210 - 0,590	0,226 - 0,698	0,246 - 0,830	0,270 - 0,990
	3	40	100	mm/r	0,138 - 0,428	0,176 - 0,494	0,220 - 0,570	0,279 - 0,673	0,352 - 0,798	0,440 - 0,950

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# KSEM HPR Inserts

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LET'S TAKE YOUR MANUFACTURING  
TO THE NEXT LEVEL

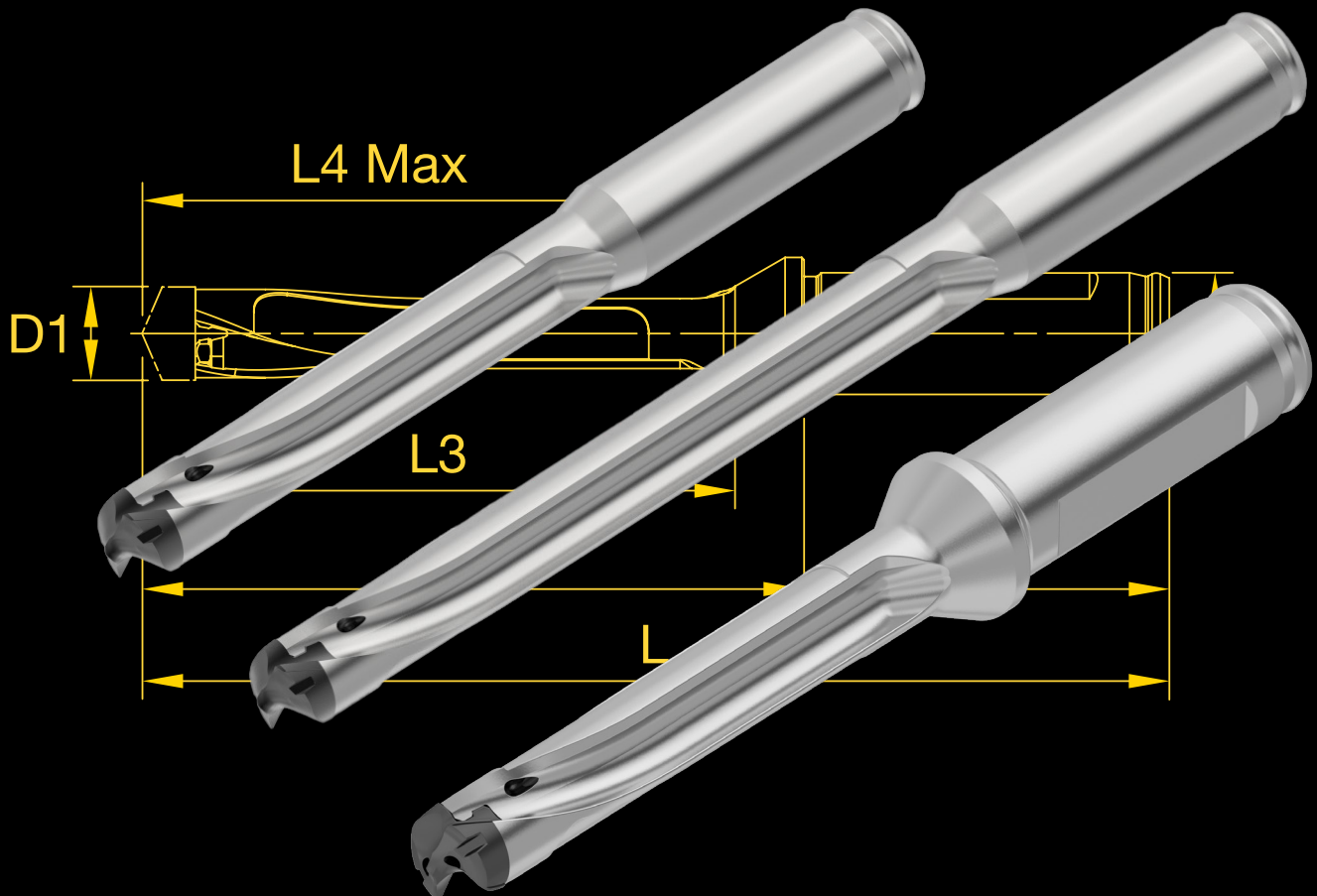
[kennametal.com/KSEM](http://kennametal.com/KSEM)



# KenTIP™ FS STRAIGHT FLUTE DRILL BODIES

## Get More Stability and Versatility in Modular Drilling Operations

Available with SCF shanks in 3xD, 5xD, 8xD and SS shanks in 5xD and 8xD, the expanded KenTIP FS straight flute drill body lineup is designed to boost both versatility and performance. Engineered for seamless integration on mills and lathes, these new additions deliver precision and reliability.



# Features & Benefits

- For drilling applications on mills or lathes
- Straight chip flutes guarantee hassle-free chip evacuation
- 4-exit coolant delivery system provides excellent temperature control
- Clamping system allows for quick and easy insert change to reduce machine downtime

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# Materials

UNIVERSAL



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# Industries



General Engineering



Automotive

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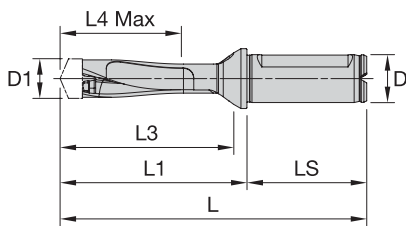
# Applications



Drilling

EXPLORE  
KenTIP FS

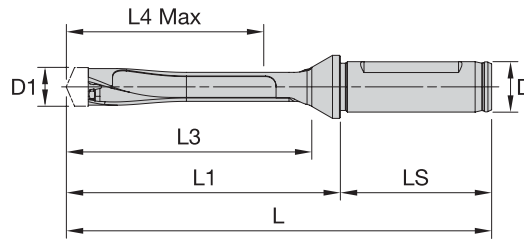




**KenTIP FS • Drill Body • 3 x D • Straight Flute • Flanged Shank with Flat**

Order Number	Catalog Number	D1	D1 max	L	L4 max	L3	L1	LS	D	SSC
7303491	KTFS080S03SCF12M	8,00	8,50	92,0	26,0	41,5	47,0	45,0	12,0	F
7303492	KTFS085S03SCF12M	8,50	9,00	93,0	27,0	42,5	48,0	45,0	12,0	G
7303493	KTFS090S03SCF12M	9,00	9,50	95,0	29,0	44,5	50,0	45,0	12,0	H
7303494	KTFS095S03SCF12M	9,50	10,00	96,0	30,0	45,5	51,0	45,0	12,0	I
7303495	KTFS100S03SCF16M	10,00	10,50	104,0	32,0	50,5	56,0	48,0	16,0	J
7303496	KTFS105S03SCF16M	10,50	11,00	105,0	33,0	51,5	57,0	48,0	16,0	K
7303497	KTFS110S03SCF16M	11,00	11,50	107,0	35,0	53,5	59,0	48,0	16,0	L
7303498	KTFS115S03SCF16M	11,50	12,00	108,0	36,0	54,5	60,0	48,0	16,0	M
7303499	KTFS120S03SCF16M	12,00	12,50	110,0	38,0	56,5	62,0	48,0	16,0	N
7303500	KTFS125S03SCF16M	12,50	13,00	111,0	39,0	57,5	63,0	48,0	16,0	O
7303501	KTFS130S03SCF16M	13,00	13,50	113,0	41,0	59,5	65,0	48,0	16,0	P
7303502	KTFS135S03SCF16M	13,50	14,00	114,0	42,0	60,5	66,0	48,0	16,0	Q
7303503	KTFS140S03SCF16M	14,00	14,50	116,0	44,0	62,5	68,0	48,0	16,0	R
7303504	KTFS145S03SCF16M	14,50	15,00	117,0	45,0	63,5	69,0	48,0	16,0	S
7303505	KTFS150S03SCF20M	15,00	16,00	125,0	48,0	69,5	75,0	50,0	20,0	T
7303506	KTFS160S03SCF20M	16,00	17,00	128,0	51,0	72,5	78,0	50,0	20,0	U
7303507	KTFS170S03SCF20M	17,00	18,00	131,0	54,0	75,5	81,0	50,0	20,0	V
7303508	KTFS180S03SCF25M	18,00	19,00	143,0	57,0	81,5	87,0	56,0	25,0	W
7303509	KTFS190S03SCF25M	19,00	20,00	146,0	60,0	84,5	90,0	56,0	25,0	X
7303510	KTFS200S03SCF25M	20,00	21,00	149,0	63,0	87,5	93,0	56,0	25,0	Y
7303511	KTFS210S03SCF25M	21,00	22,00	152,0	66,0	90,5	96,0	56,0	25,0	Z
7303512	KTFS220S03SCF25M	22,00	23,00	155,0	69,0	93,5	99,0	56,0	25,0	ZA
7303513	KTFS230S03SCF25M	23,00	24,00	158,0	72,0	96,5	102,0	56,0	25,0	ZB
7303514	KTFS240S03SCF25M	24,00	25,00	161,0	75,0	99,5	105,0	56,0	25,0	ZC
7303515	KTFS250S03SCF25M	25,00	26,00	164,0	78,0	102,5	108,0	56,0	25,0	ZD

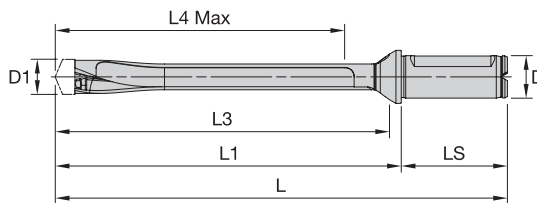
HOLEMAKING



**KenTIP FS • Drill Body • 5 x D • Straight Flute • Flanged Shank with Flat**

Order Number	Catalog Number	D1	D1 max	L	L4 max	L1	LS	L5	D	SSC
6953931	KTFS080S05SCF12M	8,00	8,50	109,0	43,0	64,0	45,0	1,6	12,0	F
6953932	KTFS085S05SCF12M	8,50	9,00	111,0	45,0	66,0	45,0	1,7	12,0	G
6953933	KTFS090S05SCF12M	9,00	9,50	114,0	48,0	69,0	45,0	1,8	12,0	H
6953934	KTFS095S05SCF12M	9,50	10,00	116,0	50,0	71,0	45,0	1,9	12,0	I
6953935	KTFS100S05SCF16M	10,00	10,50	125,0	53,0	77,0	48,0	2,0	16,0	J
6953936	KTFS105S05SCF16M	10,50	11,00	127,0	55,0	79,0	48,0	2,1	16,0	K
6953937	KTFS110S05SCF16M	11,00	11,50	130,0	58,0	82,0	48,0	2,2	16,0	L
6953938	KTFS115S05SCF16M	11,50	12,00	132,0	60,0	84,0	48,0	2,3	16,0	M
6953939	KTFS120S05SCF16M	12,00	12,50	135,0	63,0	87,0	48,0	2,4	16,0	N
6953940	KTFS125S05SCF16M	12,50	13,00	137,0	65,0	89,0	48,0	2,5	16,0	O
6953941	KTFS130S05SCF16M	13,00	13,50	140,0	68,0	92,0	48,0	2,6	16,0	P
6953942	KTFS135S05SCF16M	13,50	14,00	142,0	70,0	94,0	48,0	2,7	16,0	Q
6953943	KTFS140S05SCF16M	14,00	14,50	145,0	73,0	97,0	48,0	2,8	16,0	R
6953944	KTFS145S05SCF16M	14,50	15,00	147,0	75,0	99,0	48,0	2,9	16,0	S
6953945	KTFS150S05SCF20M	15,00	16,00	157,0	80,0	107,0	50,0	3,0	20,0	T
6953946	KTFS160S05SCF20M	16,00	17,00	162,0	85,0	112,0	50,0	3,2	20,0	U
6953947	KTFS170S05SCF20M	17,00	18,00	167,0	90,0	117,0	50,0	3,4	20,0	V
6953948	KTFS180S05SCF25M	18,00	19,00	181,0	95,0	125,0	56,0	3,6	25,0	W
6953949	KTFS190S05SCF25M	19,00	20,00	186,0	100,0	130,0	56,0	3,8	25,0	X
6953950	KTFS200S05SCF25M	20,00	21,00	191,0	105,0	135,0	56,0	4,0	25,0	Y
6953951	KTFS210S05SCF25M	21,00	22,00	196,0	110,0	140,0	56,0	4,2	25,0	Z
6953952	KTFS220S05SCF25M	22,00	23,00	201,0	115,0	145,0	56,0	4,4	25,0	ZA
6953953	KTFS230S05SCF25M	23,00	24,00	206,0	120,0	150,0	56,0	4,5	25,0	ZB
6953954	KTFS240S05SCF25M	24,00	25,00	211,0	125,0	155,0	56,0	4,8	25,0	ZC
6953955	KTFS250S05SCF25M	25,00	26,00	216,0	130,0	160,0	56,0	4,9	25,0	ZD

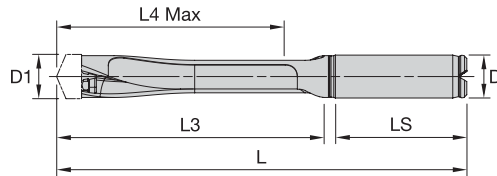
HOLEMAKING



**KenTIP FS • Drill Body • 8 x D • Straight Flute • Flanged Shank with Flat**

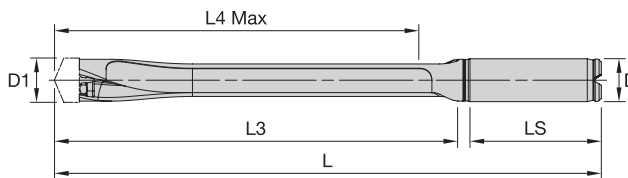
Order Number	Catalog Number	D1	D1 max	L	L4 max	L3	L1	LS	D	SSC
7303438	KTFS080S08SCF12M	8,00	8,50	134,0	68,0	83,5	89,0	45,0	12,0	F
7303439	KTFS085S08SCF12M	8,50	9,00	138,0	72,0	87,5	93,0	45,0	12,0	G
7303440	KTFS090S08SCF12M	9,00	9,50	142,0	76,0	91,5	97,0	45,0	12,0	H
7303551	KTFS095S08SCF12M	9,50	10,00	146,0	80,0	95,5	101,0	45,0	12,0	I
7303552	KTFS100S08SCF16M	10,00	10,50	156,0	84,0	102,5	108,0	48,0	16,0	J
7303553	KTFS105S08SCF16M	10,50	11,00	160,0	88,0	106,5	112,0	48,0	16,0	K
7303554	KTFS110S08SCF16M	11,00	11,50	164,0	92,0	110,5	116,0	48,0	16,0	L
7303555	KTFS115S08SCF16M	11,50	12,00	168,0	96,0	114,5	120,0	48,0	16,0	M
7303556	KTFS120S08SCF16M	12,00	12,50	172,0	100,0	118,5	124,0	48,0	16,0	N
7303557	KTFS125S08SCF16M	12,50	13,00	176,0	104,0	122,5	128,0	48,0	16,0	O
7303558	KTFS130S08SCF16M	13,00	13,50	180,0	108,0	126,5	132,0	48,0	16,0	P
7303559	KTFS135S08SCF16M	13,50	14,00	184,0	112,0	130,5	136,0	48,0	16,0	Q
7303560	KTFS140S08SCF16M	14,00	14,50	188,0	116,0	134,5	140,0	48,0	16,0	R
7303561	KTFS145S08SCF16M	14,50	15,00	192,0	120,0	138,5	144,0	48,0	16,0	S
7303562	KTFS150S08SCF20M	15,00	16,00	205,0	128,0	149,5	155,0	50,0	20,0	T
7303563	KTFS160S08SCF20M	16,00	17,00	213,0	136,0	157,5	163,0	50,0	20,0	U
7303564	KTFS170S08SCF20M	17,00	18,00	221,0	144,0	165,5	171,0	50,0	20,0	V
7303565	KTFS180S08SCF25M	18,00	19,00	238,0	152,0	176,5	182,0	56,0	25,0	W
7303566	KTFS190S08SCF25M	19,00	20,00	246,0	160,0	184,5	190,0	56,0	25,0	X
7303567	KTFS200S08SCF25M	20,00	21,00	254,0	168,0	192,5	198,0	56,0	25,0	Y
7303568	KTFS210S08SCF25M	21,00	22,00	262,0	176,0	200,5	206,0	56,0	25,0	Z
7303569	KTFS220S08SCF25M	22,00	23,00	270,0	184,0	208,5	214,0	56,0	25,0	ZA
7303570	KTFS230S08SCF25M	23,00	24,00	278,0	192,0	216,5	222,0	56,0	25,0	ZB
7303581	KTFS240S08SCF25M	24,00	25,00	286,0	200,0	224,5	230,0	56,0	25,0	ZC
7303582	KTFS250S08SCF25M	25,00	26,00	294,0	208,0	232,5	238,0	56,0	25,0	ZD

HOLEMAKING



**KenTIP FS • Drill Body • 5 x D • Straight Flute • Straight Round Shank**

Order Number	Catalog Number	D1	D1 max	L	L4 max	L3	LS	D	SSC
7303521	KTFS080S05SS10M	8,00	8,50	98,0	43,0	54,0	41,0	10,0	F
7303522	KTFS085S05SS10M	8,50	9,00	100,0	45,0	56,0	41,0	10,0	G
7303523	KTFS090S05SS10M	9,00	9,50	103,0	48,0	59,0	41,0	10,0	H
7303524	KTFS095S05SS10M	9,50	10,00	105,0	50,0	61,0	41,0	10,0	I
7303525	KTFS100S05SS12M	10,00	10,50	115,0	53,0	66,0	46,0	12,0	J
7303526	KTFS105S05SS12M	10,50	11,00	117,0	55,0	68,0	46,0	12,0	K
7303527	KTFS110S05SS12M	11,00	11,50	120,0	58,0	71,0	46,0	12,0	L
7303528	KTFS115S05SS12M	11,50	12,00	122,0	60,0	73,0	46,0	12,0	M
7303529	KTFS120S05SS14M	12,00	12,50	127,0	63,0	78,0	46,0	14,0	N
7303530	KTFS125S05SS14M	12,50	13,00	129,0	65,0	80,0	46,0	14,0	O
7303531	KTFS130S05SS14M	13,00	13,50	132,0	68,0	83,0	46,0	14,0	P
7303532	KTFS135S05SS14M	13,50	14,00	134,0	70,0	85,0	46,0	14,0	Q
7303533	KTFS140S05SS16M	14,00	14,50	141,0	73,0	89,0	49,0	16,0	R
7303534	KTFS145S05SS16M	14,50	15,00	143,0	75,0	91,0	49,0	16,0	S
7303535	KTFS150S05SS16M	15,00	16,00	148,0	80,0	96,0	49,0	16,0	T
7303536	KTFS160S05SS16M	16,00	17,00	153,0	85,0	101,0	49,0	16,0	U
7303537	KTFS170S05SS20M	17,00	18,00	163,0	90,0	109,0	51,0	20,0	V
7303538	KTFS180S05SS20M	18,00	19,00	168,0	95,0	114,0	51,0	20,0	W
7303539	KTFS190S05SS20M	19,00	20,00	173,0	100,0	119,0	51,0	20,0	X



**KenTIP FS • Drill Body • 8 x D • Straight Flute • Straight Round Shank**

Order Number	Catalog Number	D1	D1 max	L	L4 max	L3	LS	D	SSC
7303583	KTFS080S08SS10M	8,00	8,50	123,0	68,0	79,0	41,0	10,0	F
7303584	KTFS085S08SS10M	8,50	9,00	127,0	72,0	83,0	41,0	10,0	G
7303585	KTFS090S08SS10M	9,00	9,50	131,0	76,0	87,0	41,0	10,0	H
7303587	KTFS095S08SS10M	9,50	10,00	135,0	80,0	91,0	41,0	10,0	I
7303588	KTFS100S08SS12M	10,00	10,50	146,0	84,0	97,0	46,0	12,0	J
7303589	KTFS105S08SS12M	10,50	11,00	150,0	88,0	101,0	46,0	12,0	K
7303590	KTFS110S08SS12M	11,00	11,50	154,0	92,0	105,0	46,0	12,0	L
7303592	KTFS115S08SS12M	11,50	12,00	158,0	96,0	109,0	46,0	12,0	M
7303593	KTFS120S08SS14M	12,00	12,50	164,0	100,0	115,0	46,0	14,0	N
7303594	KTFS125S08SS14M	12,50	13,00	168,0	104,0	119,0	46,0	14,0	O
7303595	KTFS130S08SS14M	13,00	13,50	172,0	108,0	123,0	46,0	14,0	P
7303596	KTFS135S08SS14M	13,50	14,00	176,0	112,0	127,0	46,0	14,0	Q
7303597	KTFS140S08SS16M	14,00	14,50	184,0	116,0	132,0	49,0	16,0	R
7303598	KTFS145S08SS16M	14,50	15,00	188,0	120,0	136,0	49,0	16,0	S
7303599	KTFS150S08SS16M	15,00	16,00	196,0	128,0	144,0	49,0	16,0	T
7303600	KTFS160S08SS16M	16,00	17,00	204,0	136,0	152,0	49,0	16,0	U
7303601	KTFS170S08SS20M	17,00	18,00	217,0	144,0	163,0	51,0	20,0	V
7303602	KTFS180S08SS20M	18,00	19,00	225,0	152,0	171,0	51,0	20,0	W
7303603	KTFS190S08SS20M	19,00	20,00	233,0	160,0	179,0	51,0	20,0	X

HOLEMAKING

# KenTIP FS Straight Flute Drill Bodies



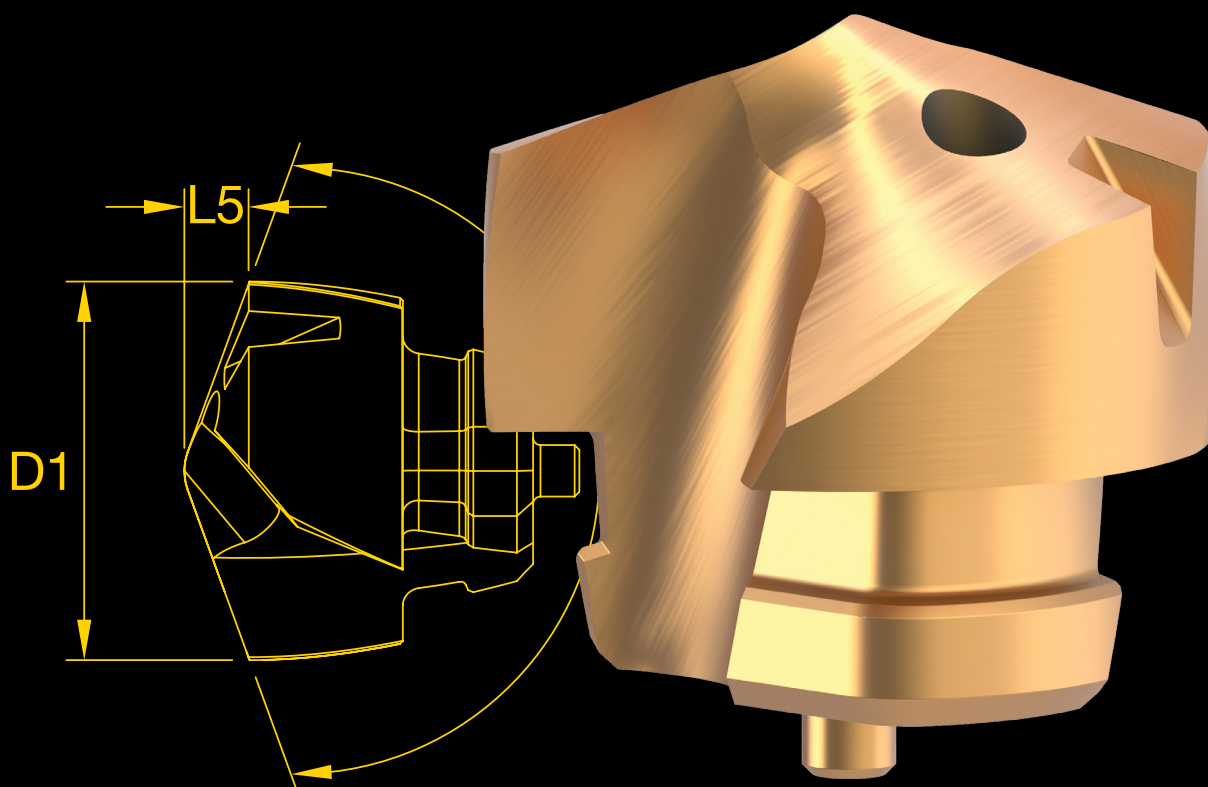
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TO THE NEXT LEVEL

[kennametal.com/KenTIPFS](http://kennametal.com/KenTIPFS)

# KenTIP™ FS HP Inserts

## Experience the Perfect Blend of Performance and Versatility

When it comes to modular drilling, KenTIP FS HP inserts stand out across a wide range of steel applications. Engineered with internal coolant channels, an advanced design enhances thermal control and lubrication at the insert's cutting edge, improving wear resistance and maintaining strength under high-temperature conditions.



# Features & Benefits

- HP geometry enables high productivity in a wide range of materials
- KCPK15A coating provides superior wear resistance and enhances tool life
- Clamping system allows for quick and easy insert change to reduce machine downtime
- 2-margin lands ensure tool stability, providing excellent surface finish and hole straightness

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## Materials

PRIMARY

SECONDARY



Steels



Cast Iron

---

## Industries



General Engineering



Automotive



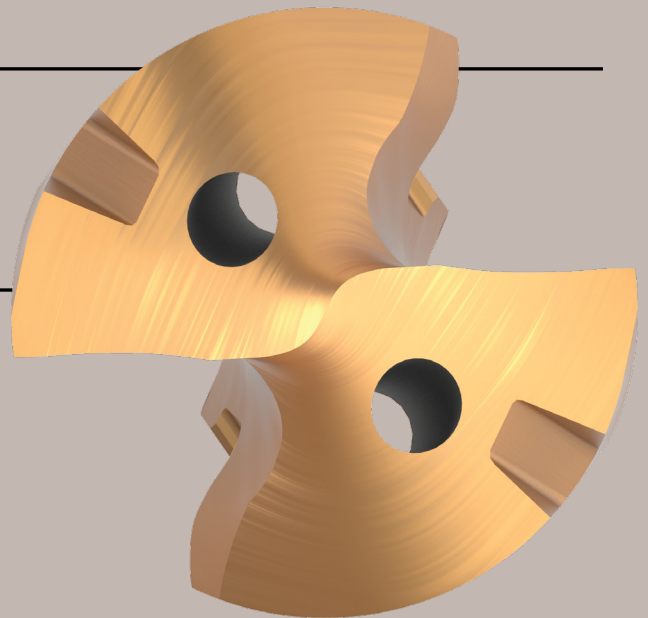
EV

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## Applications

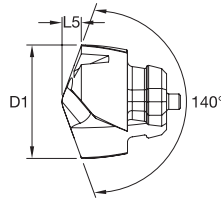
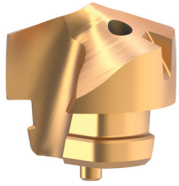


Drilling



EXPLORE  
KenTIP FS





KCPK15A

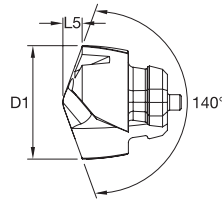
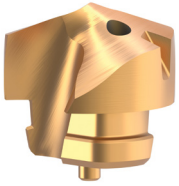
P	●
M	○
K	○
N	○
S	○
H	○

- Primary
- Secondary

**KenTIP FS • Insert • HP Geometry • Steel and Cast Iron**

ISO Catalog Number	D1	L5	Insert Size	KCPK15A
KTFST07938HPM	7,94	1,37	E	7383137
KTFST08000HPM	8,00	1,38	F	7383138
KTFST08500HPM	8,50	1,47	G	7383139
KTFST09000HPM	9,00	1,55	H	7383140
KTFST09500HPM	9,50	1,64	I	7383201
KTFST09525HPM	9,53	1,64	I	7383202
KTFST09900HPM	9,90	1,71	I	7383203
KTFST10000HPM	10,00	1,72	J	7383204
KTFST10200HPM	10,20	1,76	J	7383205
KTFST10300HPM	10,30	1,78	J	7383206
KTFST10400HPM	10,40	1,80	J	7383208
KTFST10500HPM	10,50	1,81	K	7383209
KTFST10600HPM	10,60	1,83	K	7383210
KTFST10800HPM	10,80	1,86	K	7383211
KTFST11000HPM	11,00	1,90	L	7383212
KTFST11100HPM	11,10	1,91	L	7383213
KTFST11113HPM	11,11	1,92	L	7383214
KTFST11200HPM	11,20	1,93	L	7383215
KTFST11300HPM	11,30	1,95	L	7383216
KTFST11500HPM	11,50	1,98	M	7383217
KTFST11800HPM	11,80	2,04	M	7383218
KTFST12000HPM	12,00	2,07	N	7383219
KTFST12500HPM	12,50	2,16	O	7383220
KTFST12600HPM	12,60	2,17	O	7383221
KTFST12700HPM	12,70	2,19	O	7383222
KTFST12800HPM	12,80	2,21	O	7383165
KTFST13000HPM	13,00	2,24	P	7383166
KTFST13096HPM	13,10	2,26	P	7383167
KTFST13200HPM	13,20	2,28	P	7383168
KTFST13300HPM	13,30	2,30	P	7383169
KTFST13380HPM	13,38	2,31	P	7383170
KTFST13492HPM	13,49	2,33	P	7383231
KTFST13500HPM	13,50	2,33	Q	7383232
KTFST13600HPM	13,60	2,35	Q	7383233
KTFST13700HPM	13,70	2,36	Q	7383234
KTFST13800HPM	13,80	2,38	Q	7383235
KTFST14000HPM	14,00	2,41	R	7383236
KTFST14200HPM	14,20	2,45	R	7383237
KTFST14288HPM	14,29	2,47	R	7383238
KTFST14500HPM	14,50	2,50	S	7383239
KTFST14600HPM	14,60	2,52	S	7383240
KTFST15000HPM	15,00	2,59	T	7383241
KTFST15100HPM	15,10	2,60	T	7383242
KTFST15200HPM	15,20	2,62	T	7383243
KTFST15300HPM	15,30	2,64	T	7383244
KTFST15479HPM	15,48	2,67	T	7383245
KTFST15500HPM	15,50	2,68	T	7383246
KTFST15875HPM	15,88	2,75	T	7383247
KTFST16000HPM	16,00	2,76	U	7383248
KTFST16500HPM	16,50	2,85	U	7383249
KTFST16600HPM	16,60	2,87	U	7383150
KTFST16670HPM	16,67	2,88	U	7383261
KTFST16800HPM	16,80	2,90	U	7383262
KTFST17000HPM	17,00	2,93	V	7383263
KTFST17100HPM	17,10	2,95	V	7383264
KTFST17200HPM	17,20	2,97	V	7383265
KTFST17463HPM	17,46	3,02	V	7383266
KTFST17500HPM	17,50	3,02	V	7383267
KTFST17600HPM	17,60	3,04	V	7383268
KTFST17700HPM	17,70	3,06	V	7383270
KTFST18000HPM	18,00	3,10	W	7383271
KTFST19000HPM	19,00	3,28	X	7383272

HOLEMAKING



● Primary  
○ Secondary

**KenTIP FS • Insert • HP Geometry • Steel and Cast Iron • Continued**

ISO Catalog Number	D1	L5	Insert Size	KCPK15A
KTFST19500HPM	19,50	3,37	X	7383273
KTFST20000HPM	20,00	3,45	Y	7383274
KTFST20638HPM	20,64	3,56	Y	7383275
KTFST21000HPM	21,00	3,62	Z	7383276
KTFST21500HPM	21,50	3,71	Z	7383277
KTFST22000HPM	22,00	3,79	ZA	7383278
KTFST22225HPM	22,23	3,83	ZA	7383279
KTFST22500HPM	22,50	3,88	ZA	7383280
KTFST23000HPM	23,00	3,97	ZB	7383281
KTFST24000HPM	24,00	4,14	ZC	7383282
KTFST25000HPM	25,00	4,31	ZD	7383283
KTFST25400HPM	25,40	4,38	ZD	7383284
KTFST26000HPM	26,00	4,48	ZD	7383285

HOLEMAKING

# KenTIP FS HP Inserts

## Application Data

HOLEMAKING

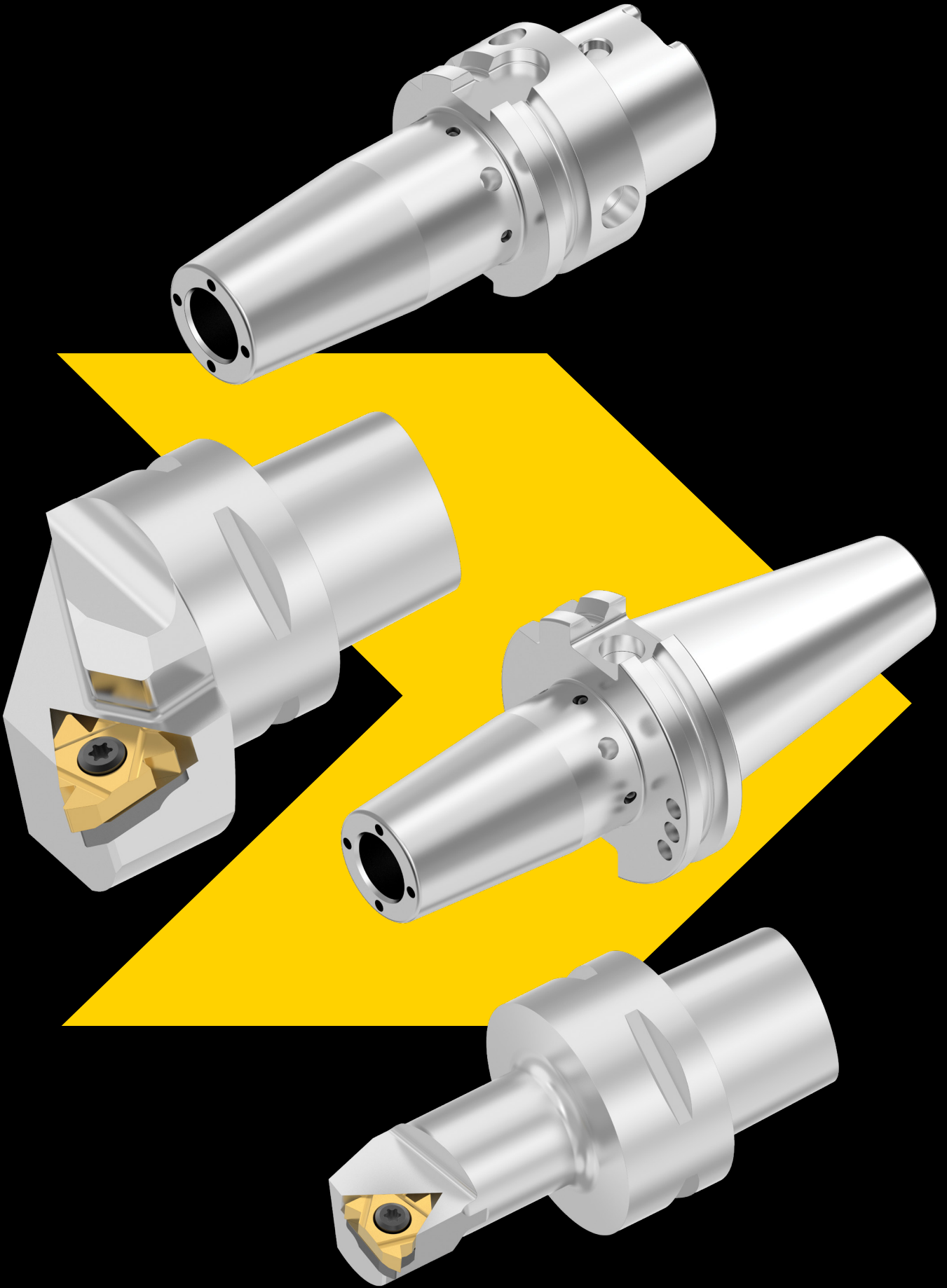
Material Group	Cutting Speed - Vc		Metric									
	Range - m/min		Recommended Feed Rate by Revolution									
	min	max		6,0	8,0	10,0	12,0	16,0	20,0	24,0	26,0	
P	0	80	160		0,09 - 0,18	0,12 - 0,24	0,14 - 0,28	0,16 - 0,33	0,20 - 0,41	0,23 - 0,47	0,26 - 0,53	0,28 - 0,56
	1	80	160		0,09 - 0,18	0,12 - 0,24	0,14 - 0,28	0,16 - 0,33	0,20 - 0,41	0,23 - 0,47	0,26 - 0,53	0,28 - 0,56
	2	80	160		0,09 - 0,18	0,12 - 0,24	0,14 - 0,28	0,16 - 0,33	0,20 - 0,41	0,23 - 0,47	0,26 - 0,53	0,28 - 0,56
	3	60	130		0,09 - 0,18	0,12 - 0,24	0,14 - 0,28	0,16 - 0,33	0,20 - 0,41	0,23 - 0,47	0,26 - 0,53	0,28 - 0,56
	4	60	130		0,09 - 0,18	0,12 - 0,24	0,14 - 0,28	0,16 - 0,33	0,20 - 0,41	0,23 - 0,47	0,26 - 0,53	0,28 - 0,56
	5	50	100		0,07 - 0,14	0,10 - 0,19	0,12 - 0,24	0,14 - 0,28	0,18 - 0,36	0,21 - 0,43	0,24 - 0,49	0,26 - 0,52
M	1	30	70		0,06 - 0,10	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,14 - 0,20	0,16 - 0,23	0,18 - 0,26	0,19 - 0,27
	2	30	70		0,06 - 0,10	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,14 - 0,20	0,16 - 0,23	0,18 - 0,26	0,19 - 0,27
	3	20	60		0,06 - 0,10	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,14 - 0,20	0,16 - 0,23	0,18 - 0,26	0,19 - 0,27
K	1	100	180		0,12 - 0,27	0,15 - 0,32	0,18 - 0,38	0,21 - 0,42	0,26 - 0,50	0,30 - 0,58	0,34 - 0,64	0,36 - 0,67
	2	90	170		0,12 - 0,27	0,15 - 0,32	0,18 - 0,38	0,21 - 0,42	0,26 - 0,50	0,30 - 0,58	0,34 - 0,64	0,36 - 0,67
	3	70	110		0,10 - 0,20	0,13 - 0,26	0,15 - 0,30	0,18 - 0,34	0,22 - 0,41	0,26 - 0,48	0,29 - 0,54	0,31 - 0,56
S	1	10	30		0,05 - 0,09	0,06 - 0,10	0,07 - 0,12	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,12 - 0,19	0,13 - 0,21
	2	10	30		0,05 - 0,09	0,06 - 0,10	0,07 - 0,12	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,12 - 0,19	0,13 - 0,21
	3	15	35		0,05 - 0,09	0,06 - 0,10	0,07 - 0,12	0,08 - 0,13	0,10 - 0,15	0,11 - 0,17	0,12 - 0,19	0,13 - 0,21
	4	20	40		0,04 - 0,07	0,05 - 0,09	0,05 - 0,10	0,07 - 0,12	0,08 - 0,13	0,08 - 0,13	0,09 - 0,15	0,10 - 0,17

# KenTIP FS HP Inserts

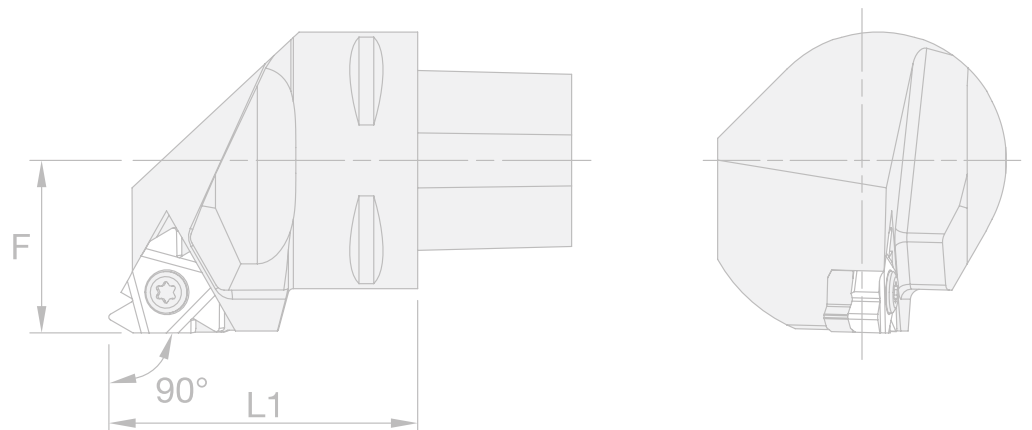
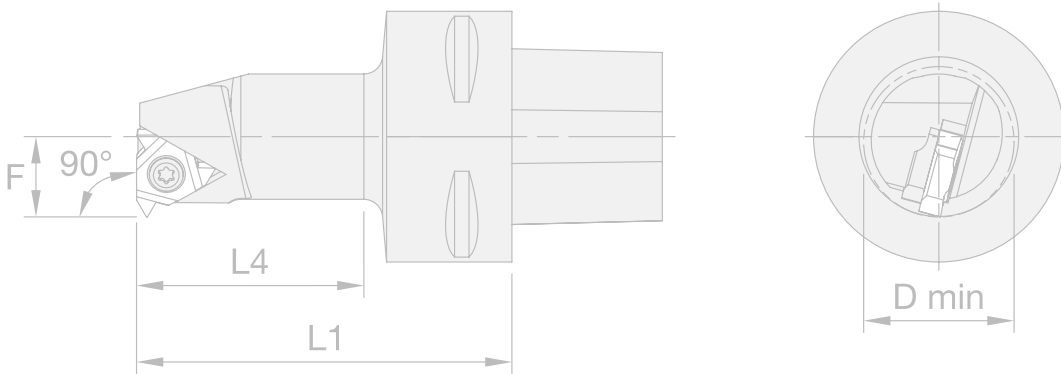
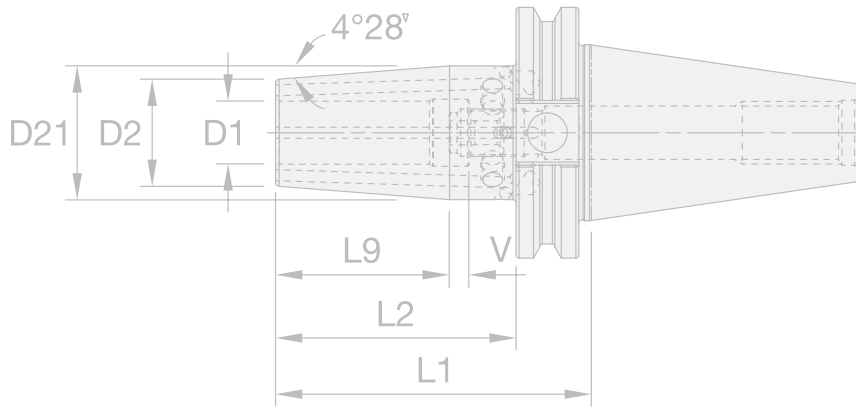
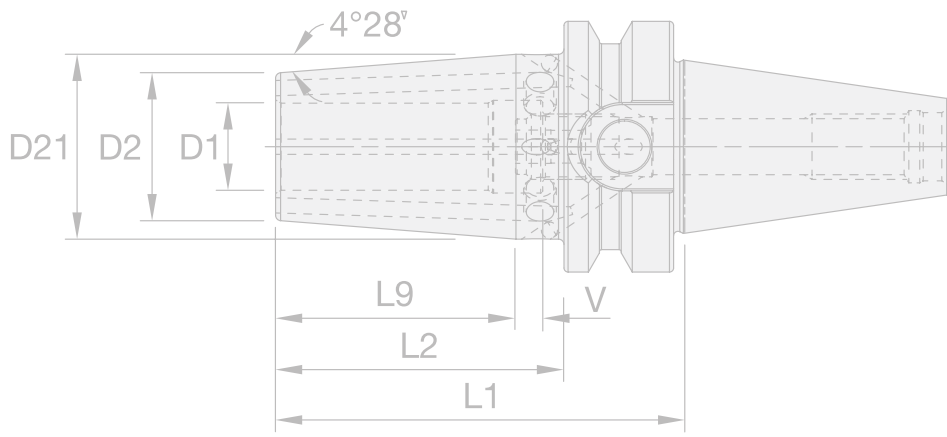
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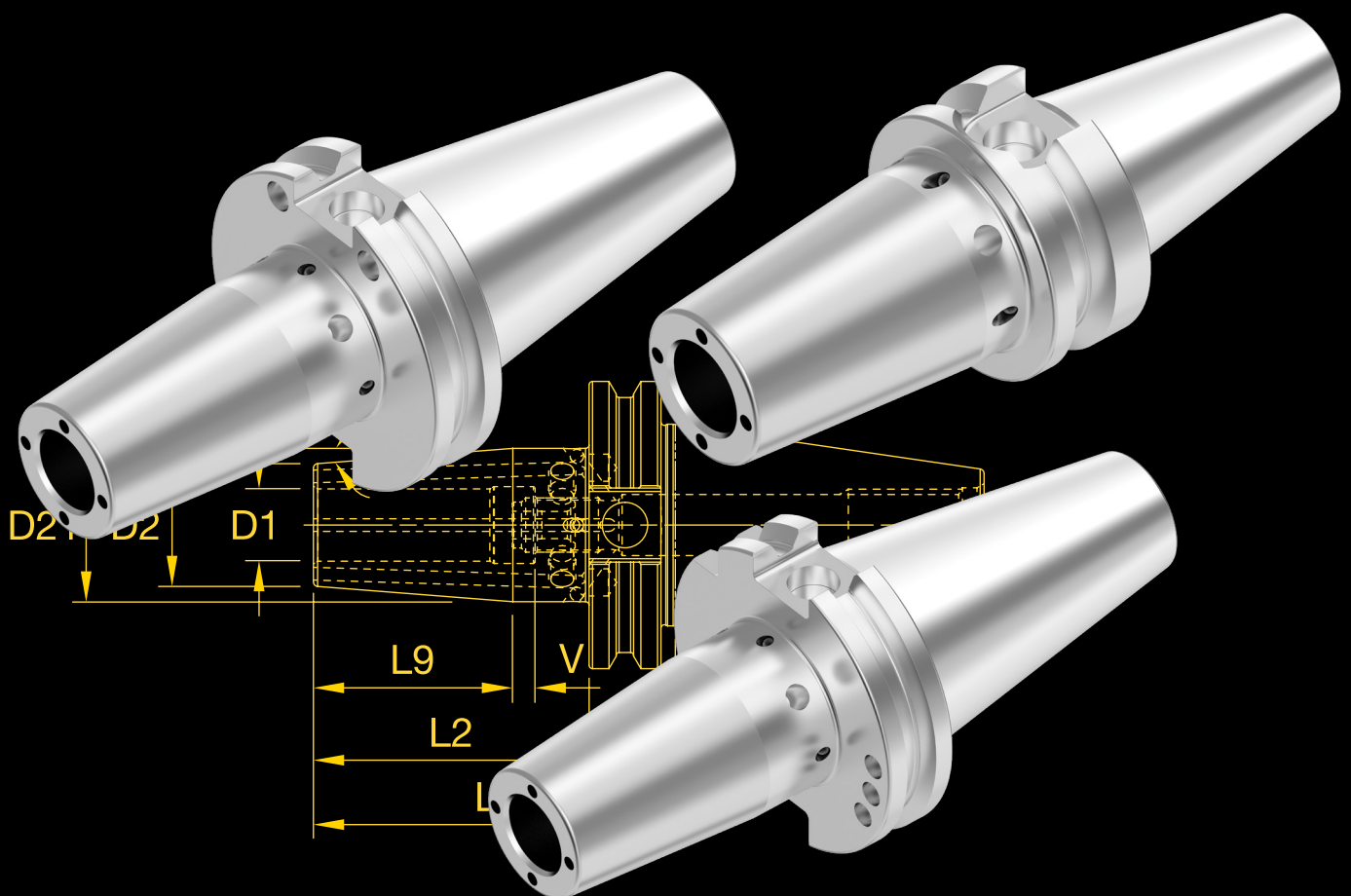
# SYSTEMS



# Shrink Fit Adapters

## Now Featuring Face Coolant

This tooling system features a benchmark-proven design that's built for the most demanding applications and now can deliver direct coolant flow to the cutting area for efficient chip clearance.



# Materials

UNIVERSAL



# Industries

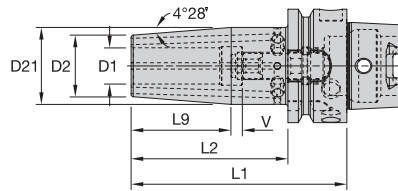


# Applications



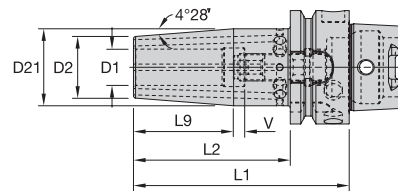
**EXPLORE**  
**Shrink Fit Adapters**





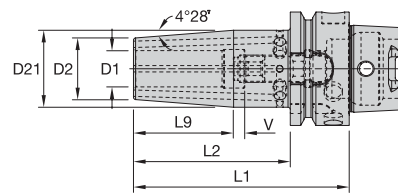
### HSK50A Shrink Fit Toolholders • FC Line

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375161	HSK50ATTC06080M	6	21	27	80	54	26	10	0,57
7375162	HSK50ATTC08080M	8	21	27	80	54	26	10	0,56
7375163	HSK50ATTC10085M	10	24	32	85	59	31	10	0,64
7375164	HSK50ATTC12090M	12	24	32	90	64	36	10	0,65
7375165	HSK50ATTC16095M	16	27	34	95	69	39	10	0,70
7375166	HSK50ATTC20100M	20	33	41	100	74	41	10	0,88



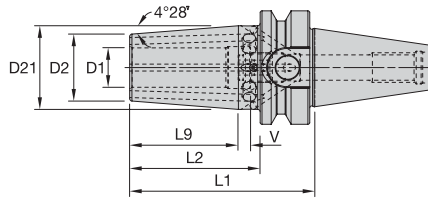
### HSK63A Shrink Fit Toolholders • FC Line

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375075	HSK63ATTC06080M	6	21	27	80	54	26	10	0,82
7375076	HSK63ATTC08080M	8	21	27	80	54	26	10	0,82
7375077	HSK63ATTC10085M	10	24	32	85	59	31	10	0,89
7375078	HSK63ATTC12090M	12	24	32	90	64	36	10	0,90
7375079	HSK63ATTC16095M	16	27	34	95	69	39	10	0,96
7375080	HSK63ATTC20100M	20	33	42	100	74	41	10	1,15
7375101	HSK63ATTC25115M	25	44	53	115	89	47	10	1,71



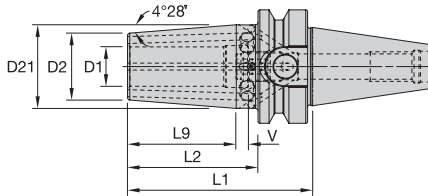
### HSK100A Shrink Fit Toolholders • FC Line

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375084	HSK100ATTC06085M	6	21	27	85	56	26	10	2,18
7375085	HSK100ATTC08085M	8	21	27	85	56	26	10	2,17
7375086	HSK100ATTC10090M	10	24	32	90	61	31	10	2,25
7375087	HSK100ATTC12095M	12	24	32	95	66	36	10	2,26
7375088	HSK100ATTC16100M	16	27	34	100	71	39	10	2,31
7375089	HSK100ATTC20105M	20	33	42	105	76	41	10	2,51
7375090	HSK100ATTC25115M	25	44	53	115	86	47	10	3,03



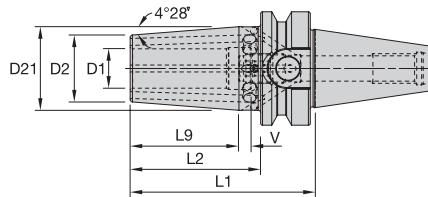
**BT30 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7380277	BT30TTFC06075M	6	21	27	75	53	26	10	0,55
7380278	BT30TTFC08075M	8	21	27	75	53	26	10	0,54
7380279	BT30TTFC10075M	10	24	31	75	53	31	10	0,59
7380280	BT30TTFC12075M	12	24	31	75	53	36	10	0,57
7380341	BT30TTFC16075M	16	27	34	75	53	39	10	0,58
7380342	BT30TTFC20090M	20	33	41	90	68	41	10	0,81



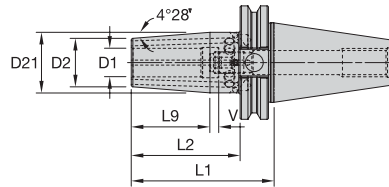
**BT40 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7374926	BT40TTFC06090M	6	21	27	90	63	26	10	1,16
7374927	BT40TTFC08090M	8	21	27	90	63	26	10	1,15
7374928	BT40TTFC10090M	10	24	32	90	63	31	10	1,21
7374929	BT40TTFC12090M	12	24	32	90	63	36	10	1,19
7374930	BT40TTFC16090M	16	27	34	90	63	39	10	1,22
7375131	BT40TTFC20090M	20	33	41	90	63	41	10	1,33
7375132	BT40TTFC25100M	25	44	53	100	73	47	10	1,75



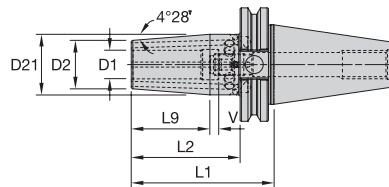
**BT50 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375141	BT50TTFC06100M	6	21	27	100	62	26	10	3,71
7375142	BT50TTFC08100M	8	21	27	100	62	26	10	3,70
7375143	BT50TTFC10100M	10	24	32	100	62	31	10	3,76
7375144	BT50TTFC12100M	12	24	32	100	62	36	10	3,74
7375145	BT50TTFC16100M	16	27	34	100	62	39	10	3,76
7375146	BT50TTFC20100M	20	33	41	100	62	41	10	3,87
7375147	BT50TTFC25100M	25	44	52	100	62	47	10	4,15



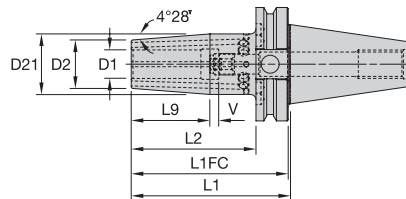
**CV40 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375509	CV40TTFC06M315	6	21	27	80	61	26	10	1,01
7375510	CV40TTFC08M315	8	21	27	80	61	26	10	1,00
7375591	CV40TTFC10M315	10	24	32	80	61	31	10	1,06
7375592	CV40TTFC12M315	12	24	32	80	61	36	10	1,04
7375593	CV40TTFC16M315	16	27	34	80	61	39	10	1,06
7375594	CV40TTFC20M315	20	33	41	80	61	41	10	1,17
7375595	CV40TTFC25M394	25	44	53	100	81	47	10	1,66



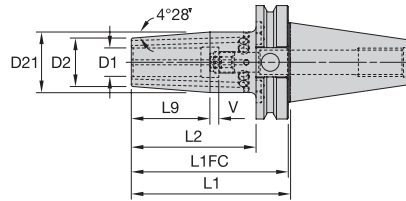
**CV50 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375484	CV50TTFC06M315	6	21	27	80	61	26	10	2,72
7375485	CV50TTFC08M315	8	21	27	80	61	26	10	2,71
7375486	CV50TTFC10M315	10	24	32	80	61	31	10	2,77
7375487	CV50TTFC12M315	12	24	32	80	61	36	10	2,74
7375488	CV50TTFC16M315	16	27	34	80	61	39	10	2,76
7375489	CV50TTFC20M315	20	33	42	80	61	41	10	2,88
7375490	CV50TTFC25M394	25	44	53	100	81	47	10	3,43



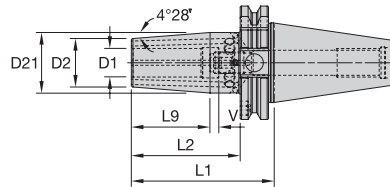
**CVKV40 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L1FC	L2	L9	V	kg
7375551	CVKV40TTFC06M350	6	21	27	89	88	70	26	10	1,07
7375552	CVKV40TTFC08M350	8	21	27	89	88	70	26	10	1,06
7375553	CVKV40TTFC10M350	10	24	32	89	88	70	31	10	1,13
7375554	CVKV40TTFC12M350	12	24	32	89	88	70	36	10	1,11
7375555	CVKV40TTFC16M350	16	27	34	89	88	70	39	10	1,14
7375556	CVKV40TTFC20M400	20	33	42	102	101	83	41	10	1,40
7375557	CVKV40TTFC25M400	25	44	53	102	101	83	47	10	1,70



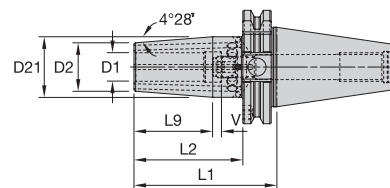
**CVKV50 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L1FC	L2	L9	V	kg
7375472	CVKV50TTFC06M350	6	21	27	89	87	70	26	10	3,19
7375473	CVKV50TTFC08M350	8	21	27	89	87	70	26	10	3,18
7375474	CVKV50TTFC10M375	10	24	32	95	94	76	31	10	3,27
7375475	CVKV50TTFC12M400	12	24	32	102	100	83	36	10	3,29
7375476	CVKV50TTFC16M400	16	27	34	102	100	83	39	10	3,31
7375477	CVKV50TTFC20M400	20	33	42	102	100	83	41	10	3,43
7375478	CVKV50TTFC25M400	25	44	53	102	100	83	47	10	3,74



**DV40 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7375112	DV40TTFC06080M	6	21	27	80	61	26	10	1,00
7375113	DV40TTFC08080M	8	21	27	80	61	26	10	0,99
7375114	DV40TTFC10080M	10	24	32	80	61	31	10	1,05
7375115	DV40TTFC12080M	12	24	32	80	61	36	10	1,03
7375116	DV40TTFC16080M	16	27	34	80	61	39	10	1,05
7375117	DV40TTFC20080M	20	33	41	80	61	41	10	1,16
7375118	DV40TTFC25100M	25	44	53	100	81	47	10	1,63



**DV50 Shrink Fit Toolholders • FC Line • Through Coolant Form AD**

Order Number	Catalog Number	D1	D2	D21	L1	L2	L9	V	kg
7380307	DV50TTFC06080M	6	21	27	80	61	26	10	2,74
7380308	DV50TTFC08080M	8	21	27	80	61	26	10	2,73
7380309	DV50TTFC10080M	10	24	32	80	61	31	10	2,79
7380310	DV50TTFC12080M	12	24	32	80	61	36	10	2,77
7380351	DV50TTFC16080M	16	27	34	80	61	39	10	2,80
7380352	DV50TTFC20080M	20	33	41	80	61	41	10	2,90
7380353	DV50TTFC25100M	25	44	53	100	81	47	10	3,47

# Shrink Fit Adapters



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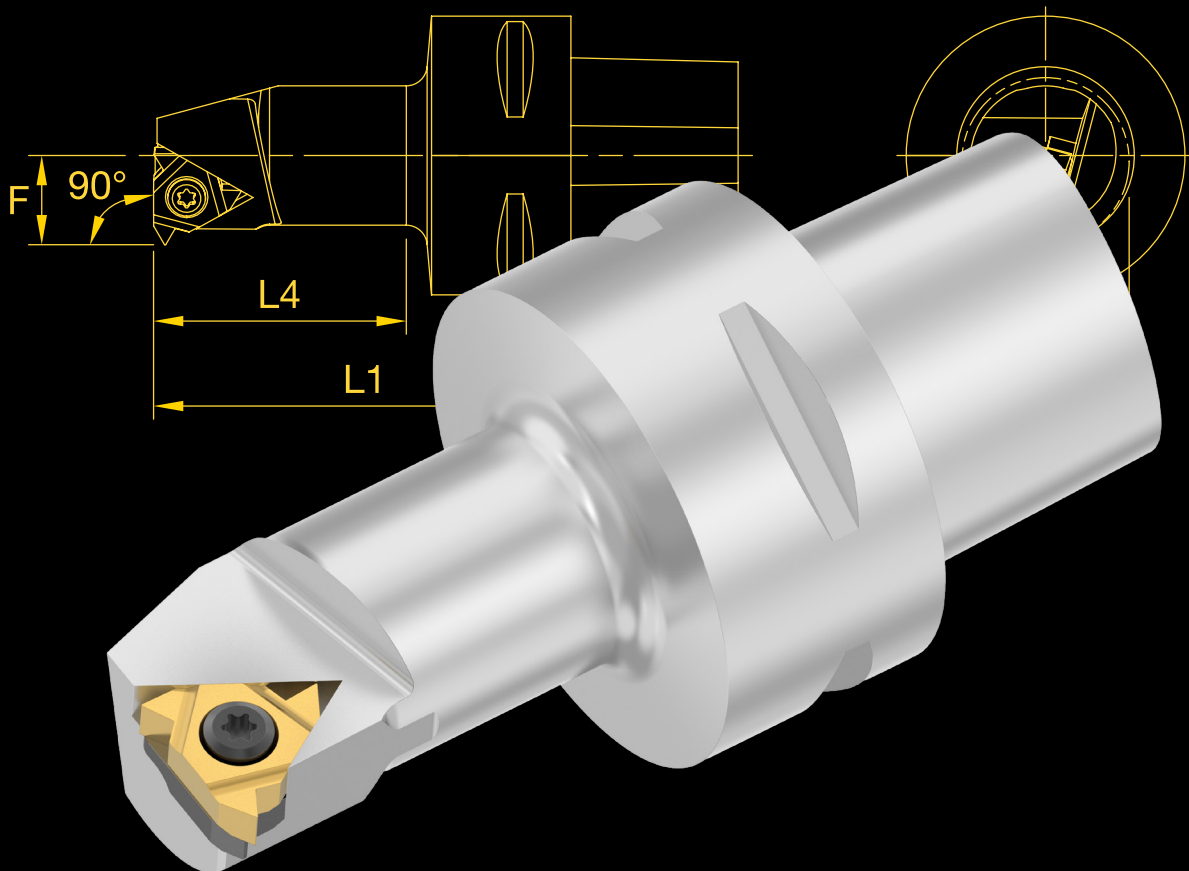
[kennametal.com](http://kennametal.com)



# PSC32 & PSC40 Laydown Threading Cutting Units

## Efficient Threading for Smaller Machines

Designed to maximize threading efficiency in compact setups and multifunctional lathes, the PSC32 and PSC40 LT units guarantee faster setups for less downtime in your machining.



# Materials

UNIVERSAL

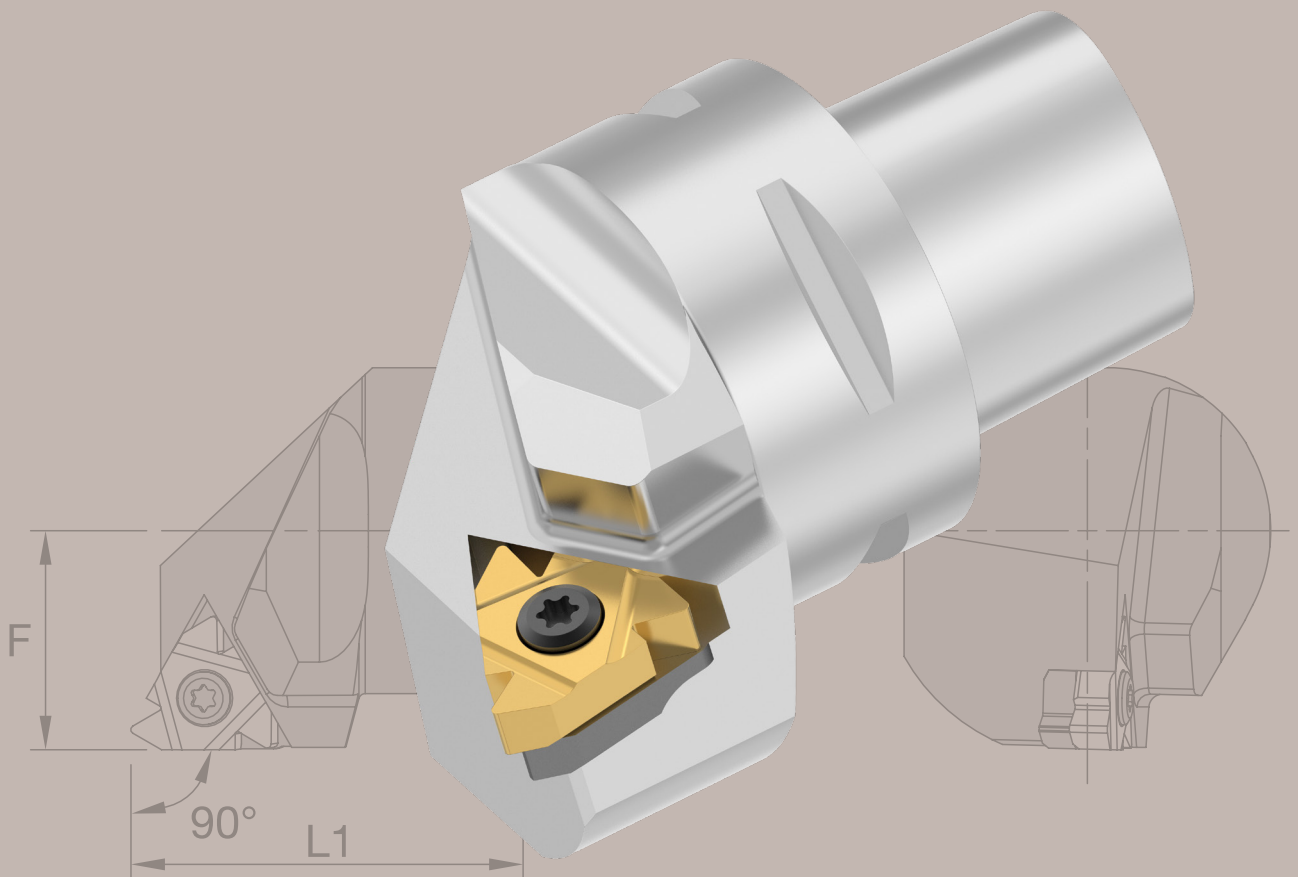


## Industries

- Aerospace
- Oil & Gas
- Wind & Solar
- General Engineering
- Automotive
- EV
- Earthworks

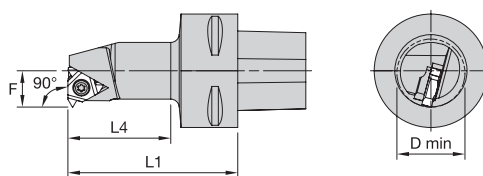
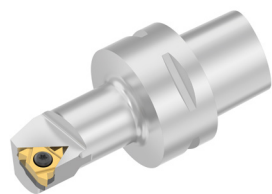
## Applications

- Threading



EXPLORE  
PSC32 & PCS40

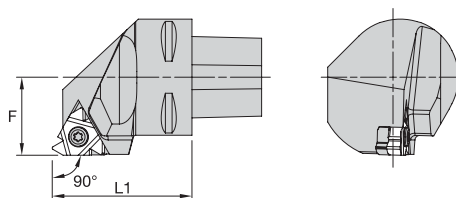
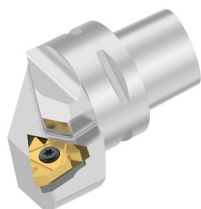




### PSC32 Cutting Units • Laydown Threading LSE Style • Internal

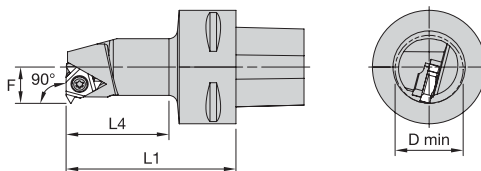
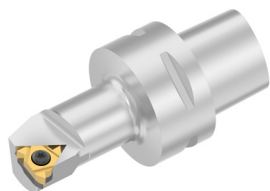
Order Number	Catalog Number	D min	L1	L4	F	Gage Insert
<b>Right Hand</b>						
7389759	PSC32S16CLSER16	20,0	50,0	31,9	12,0	LT-16NR
7389760	PSC32S20DLSER16	25,0	60,0	42,0	14,0	LT-16NR
7389811	PSC32S32FLSER16	40,0	85,0	85,0	22,0	LT-16NR

SYSTEMS



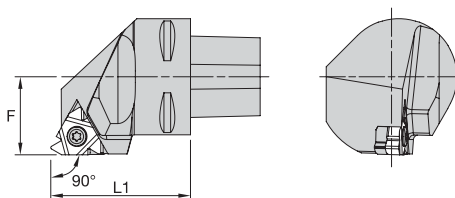
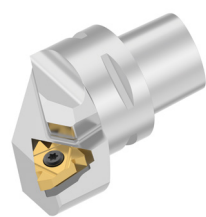
### PSC32 Cutting Units • Laydown Threading LSS Style • External

Order Number	Catalog Number	L1	F	Gage Insert
<b>Right Hand</b>				
7389852	PSC32LSSR16	40,0	22,0	LT-16ER
7389854	PSC32LSSR22	40,0	22,0	LT-22ER
<b>Left Hand</b>				
7389853	PSC32LSSL16	40,0	22,0	LT-16ER



**PSC40 Cutting Units • Laydown Threading LSE Style • Internal**

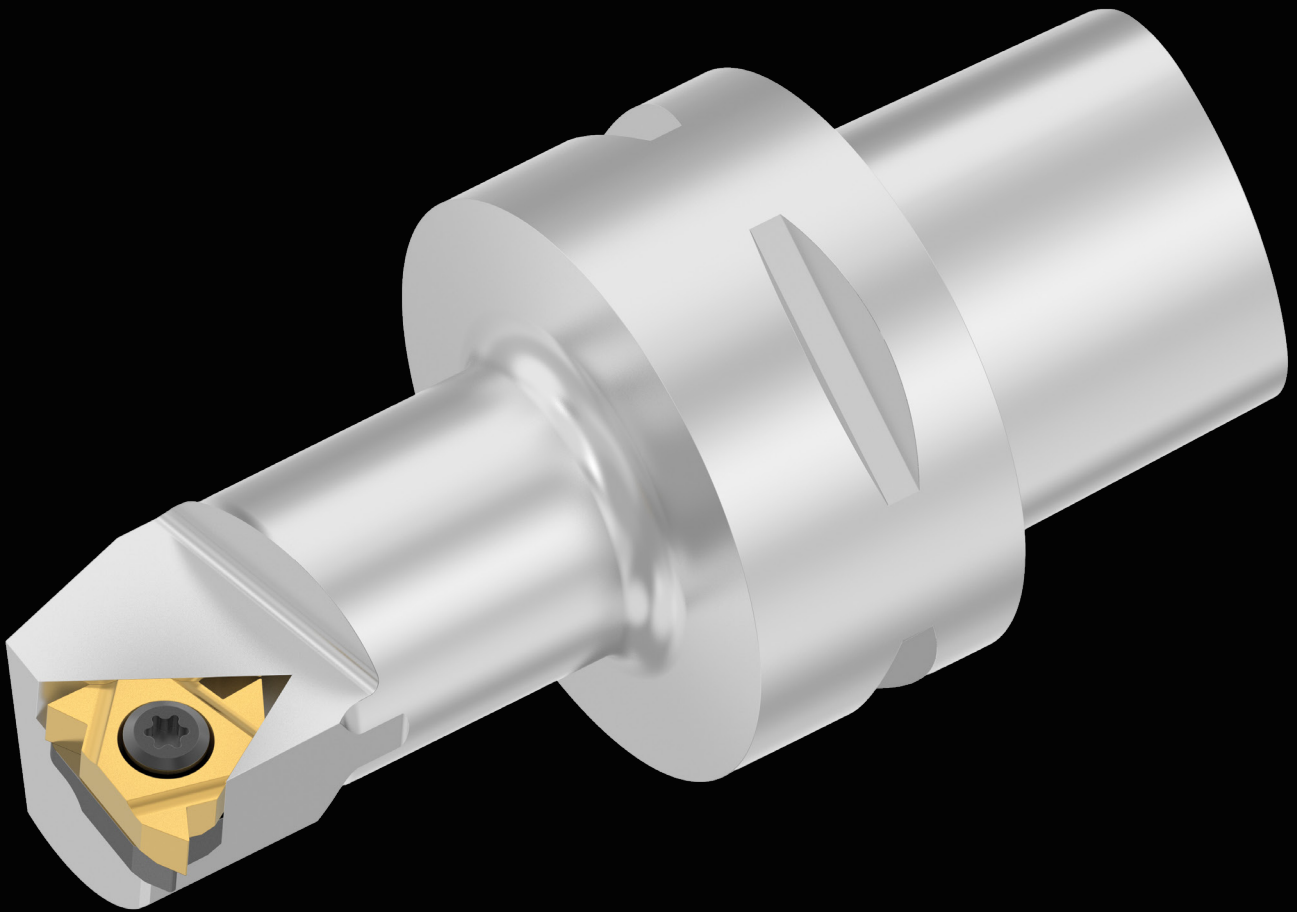
Order Number	Catalog Number	D min	L1	L4	F	Gage Insert
<b>Right Hand</b>						
7389290	PSC40S16DLSER16	20,0	60,0	—	12,0	LT-16NR
7389821	PSC40S20DLSER16	25,0	60,0	36,3	14,0	LT-16NR
7389825	PSC40S20DLSER22	25,0	65,0	41,3	15,0	LT-22NR
7389822	PSC40S25ELSER16	32,0	70,0	46,4	17,0	LT-16NR
7389826	PSC40S25ELSER22	32,0	70,0	46,5	19,0	LT-22NR
7389823	PSC40S32GLSER16	40,0	90,0	66,8	22,0	LT-16NR
7389827	PSC40S32GLSER22	40,0	90,0	66,8	22,0	LT-22NR
7389824	PSC40S40FLSER16	50,0	80,0	80,0	27,0	LT-16NR
7389828	PSC40S40FLSER22	50,0	70,0	80,0	27,0	LT-22NR



**PSC40 Cutting Units • Laydown Threading LSS Style • External**

Order Number	Catalog Number	L1	F	Gage Insert
<b>Right Hand</b>				
7389855	PSC40LSSR16	50,0	27,0	LT-16ER
7389857	PSC40LSSR22	50,0	27,0	LT-22ER
<b>Left Hand</b>				
7389856	PSC40LSSL16	50,0	27,0	LT-16ER

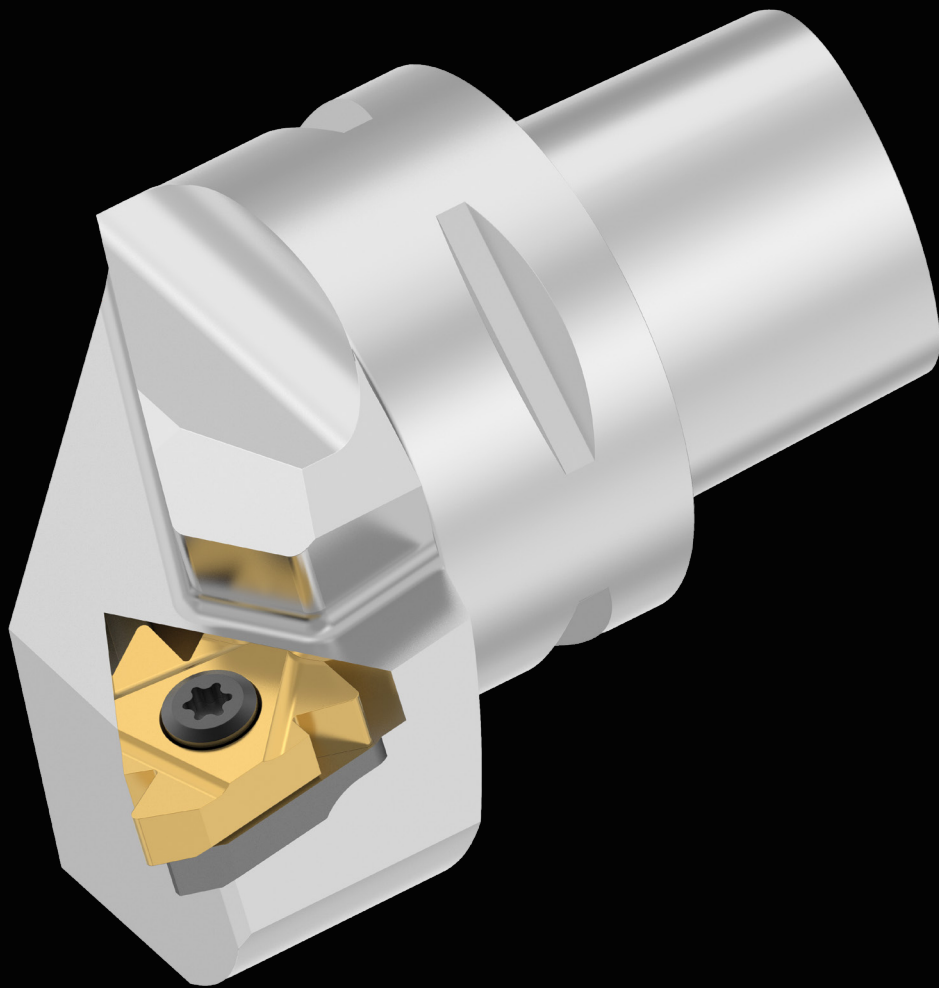
# PSC32 & PSC40 Laydown Threading Cutting Units



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TO THE NEXT LEVEL**

[kennametal.com](http://kennametal.com)



# WE'VE BEEN CUTTING METAL SINCE 1938.



## Our Story Is One of Continuous Innovation

It starts in 1938 with our founder, metallurgist Philip M. McKenna, who after years of research created revolutionary tungsten-titanium carbide alloy cutting tools specifically for working with steel. That single development not only led to a new class of machining tools that cut faster, lasted longer and drove productivity in everything from the automobile to the airplane, but also led to the opening of McKenna Metals Company in Latrobe, Pennsylvania, United States. Today, that company is Kennametal Inc.—a recognized leader in metalworking serving customers across continents and industries including transportation, construction, aerospace and defense, machining and cutting, energy and general engineering. We have a reputation for building innovative solutions for our customers' most challenging applications. The name Kennametal is synonymous for high-quality, high-performance tools that can withstand the most strenuous conditions and bring ease to a wide range of machining operations. We help our customers' operations run longer, faster and with greater precision.

WE DON'T CUT CORNERS. WE CUT METAL. **YOUR TOUGHEST MATERIALS DON'T STAND A CHANCE.**

# METAL CUTTING SAFETY

## IMPORTANT SAFETY INSTRUCTIONS

Read before using the tools in this catalog!

### PROJECTILE AND FRAGMENTATION HAZARDS:

Modern metal cutting operations involve high spindle and cutter speeds and high temperatures and cutting forces. Hot metal chips may fly off the workpiece during metal cutting. Although cutting tools are designed and manufactured to withstand high cutting forces and temperatures, they can sometimes fragment, particularly if they are subjected to over-stress, severe impact, or other abuse.

- Always wear appropriate personal protective equipment, including safety goggles, when operating metal cutting machines or working nearby.
- Always make sure all machine guards are in place.

### BREATHING AND SKIN CONTACT HAZARDS:

Grinding carbide or other advanced cutting tool materials produces dust or mist containing metallic particles. Breathing this dust or mist — especially over an extended period — can cause temporary or permanent lung disease or make existing medical conditions worse. Contact with this dust or mist can irritate eyes, skin, and mucous membranes and may make existing skin conditions worse.

- Always wear breathing protection and safety goggles when grinding.
- Provide ventilation control and collect and properly dispose of dust, mist, or sludge from grinding.
- Avoid skin contact with dust or mist.

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**For more information, read the applicable Material Safety Data Sheet provided by Kennametal and consult General Industry Safety and Health Regulations, Part 1910, Title 29 of the Code of Federal Regulations.**

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These safety instructions are general guidelines. Many variables affect machining operations. It is impossible to cover every specific situation. The technical information included in this catalog and recommendations on machining practices may not apply to your particular operation. For more information, consult the Kennametal Metal Cutting Safety booklet, available free from Kennametal at 724 539 5747 or fax 724 539 5439. For specific product safety and environmental questions, contact our Corporate Environmental Health and Safety Office at 724 539 5066 or fax 724 539 5372.

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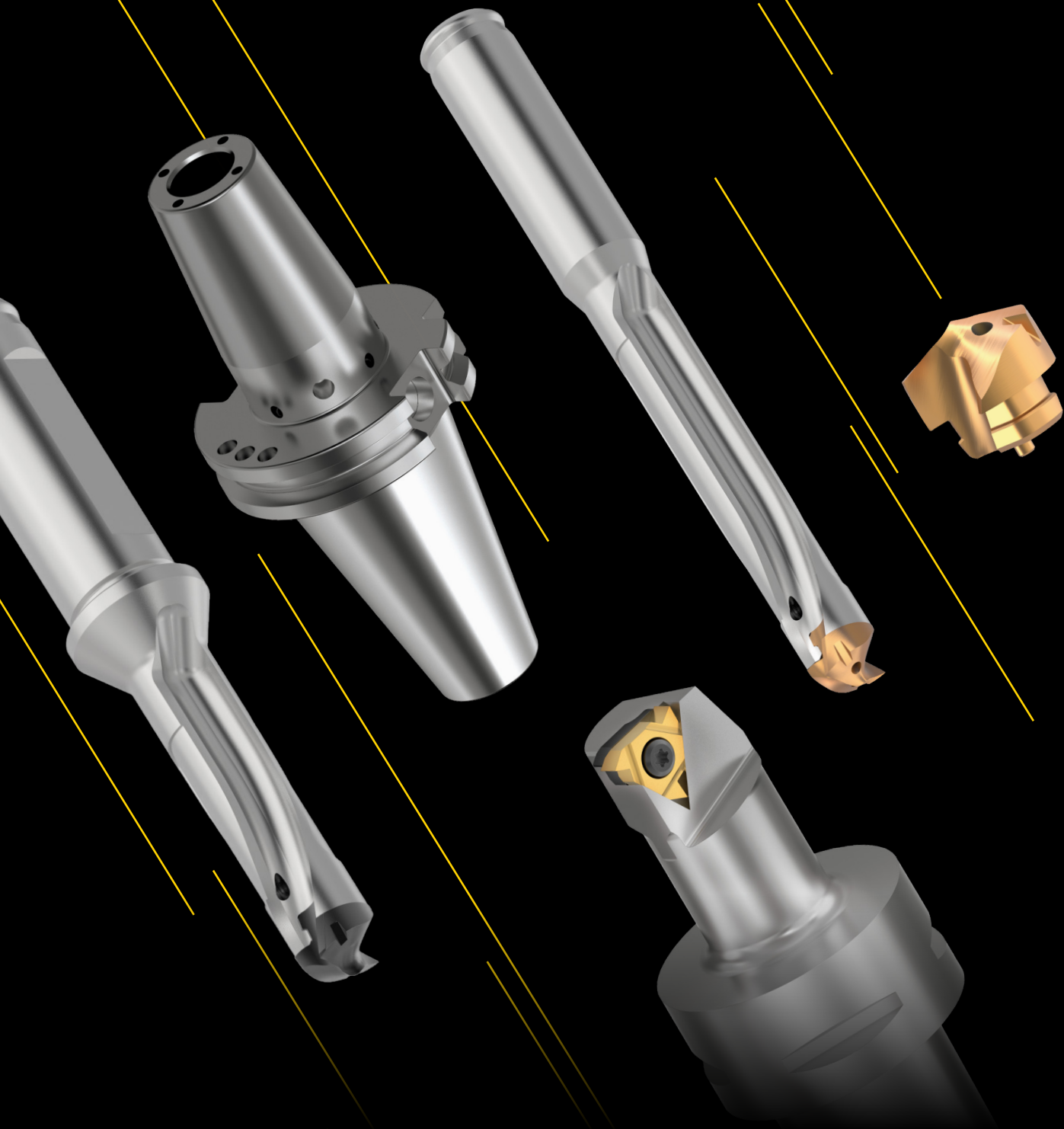
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