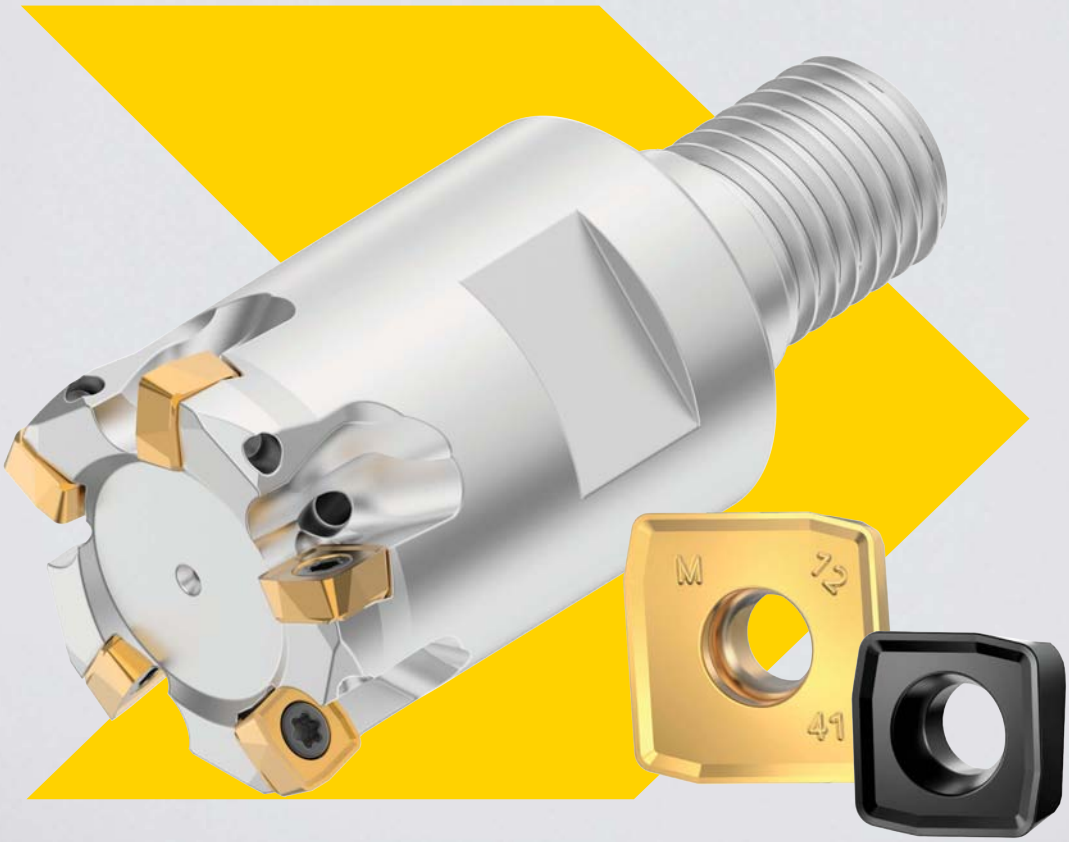
KENNAMETAL®

7792VX
INDEXABLE MILLING INSERTS



Straight Edge Design for
Expanded Application Range

Applications

- Face Milling
- Helical Milling
- Plunge Milling
- Pocketing
- Ramping
- Counterboring

Materials

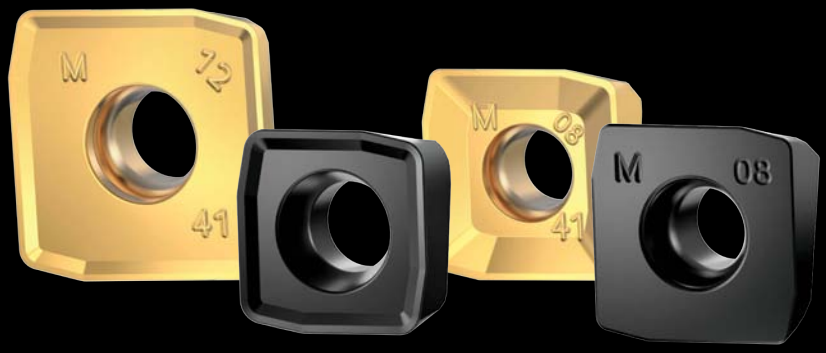
PRIMARY

- P — Steels
- M — Stainless Steels
- S — High-Temp Alloys

Industries

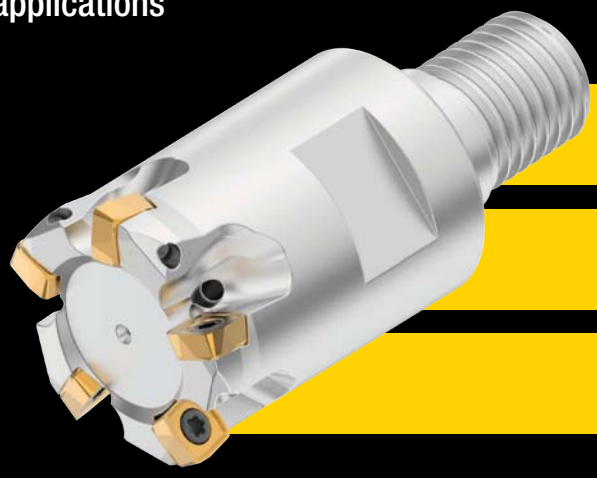
- Aerospace
- Die & Mold
- General Engineering

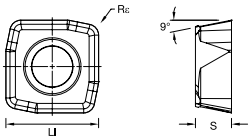
The **7792VX** inserts grow the Stellram 7792VX family and deliver a wider application range and better tool life in stainless steels and difficult-to-machine materials. They feature a new, straight edge design that better maintains chip thickness and improves performance in lighter depth-of-cut applications than curved designs. All new 7792VX inserts fit existing pockets.



The new straight edge inserts include:

- **IC 06, 09, 12, 16 INSERTS** with straight cutting edge for consistent chip thickness for all depth-of-cut applications
- **FLAT TOP GEOMETRY (-M)** with the strongest cutting edge for longer tool life
- **POSITIVE RAKE FACE (-M41)** with chip control for better chip clearance



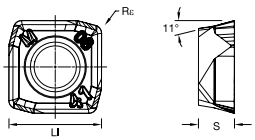


● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX06 • XPET-M41 • Precision Ground

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XPET060308ERM41	6.83	0.269	3.17	0.125	0.8	0.031	●	-	-	-	●	●	-

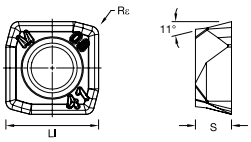


● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX09 • XPET-M41 • Precision Ground

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDET090408ERM41	9.27	0.365	4.76	0.187	0.8	0.032	●	-	-	-	●	●	●
XDET090412ERM41	9.23	0.363	4.76	0.187	1.2	0.047	●	-	-	-	●	●	●

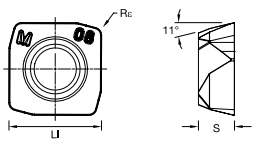


● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX09 • XDPT-M41 • Precision Pressed

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDPT090408ERM41	9.23	0.363	4.76	0.187	0.8	0.031	●	-	-	-	●	●	-
XDPT090412ERM41	9.23	0.363	4.76	0.187	1.2	0.047	●	-	-	-	●	●	-

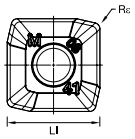


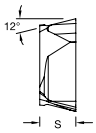
● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX09 • XDPW-M • Precision Pressed

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDPW090408SRM	9.22	0.363	4.76	0.187	0.8	0.032	●	●	●	●	●	-	-



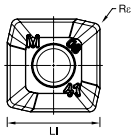


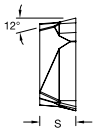
● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX12 • XDET-M41 • Precision Ground

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDET120508ERM41	12.17	0.479	5.56	0.219	0.8	0.032	●	-	-	-	●	●	●
XDET120512ERM41	12.17	0.479	5.56	0.219	1.2	0.047	●	-	-	-	●	●	●



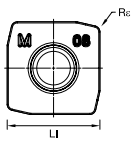


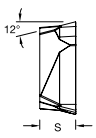
● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX12 • XDPT-M41 • Precision Pressed

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDPT120508ERM41	12.17	0.479	5.56	0.219	0.8	0.031	●	-	-	-	●	●	-
XDPT120512ERM41	12.17	0.479	5.56	0.219	1.2	0.047	●	-	-	-	●	●	-
XDPT120520ERM41	12.17	0.479	5.56	0.219	2.0	0.079	●	-	-	-	●	●	-



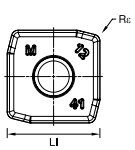


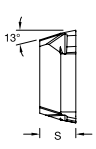
● Primary
○ Secondary

		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX12 • XDPW-M • Precision Pressed

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XDPW120508SRM	12.15	0.479	5.56	0.219	0.8	0.032	●	●	●	●	●	-	-





● Primary
○ Secondary

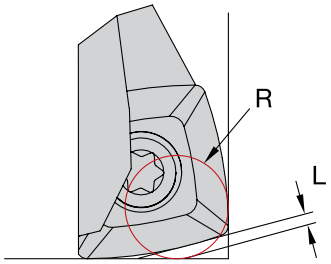
		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
P		○		○	●	●	○	○
M		●			○	○	●	●
K		○	●	●	○			
N								
S		●					●	●
H								

7792VX16 • XEET-M41 • Precision Ground

catalog number	L1		S		Rε		KC522M	KCK20B	KCKP10	KCPK30	KCPM40	KCSM40	X500
	mm	in	mm	in	mm	in							
XEET160512ERM41	16.3	0.642	5.56	0.219	1.2	0.047	●	-	-	-	●	●	-

PROGRAMMING AND RAMPING APPLICATION DATA

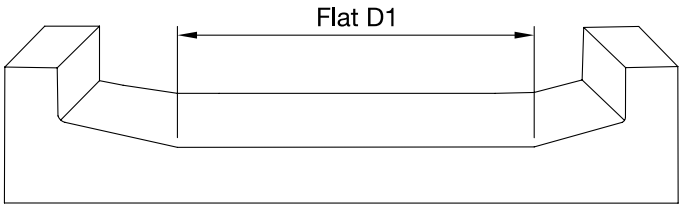
For Programming Data



Programming data for Insert "M" (Metric)			
Insert IC	**Corner Radius**	**R**	**L**
6	0.8	1.46	0.529
9	0.8	2.13	1.025
	1.2	2.25	0.95
12	0.8	2.46	1.33
	1.2	2.79	1.27
	2	3.42	1.13
16	12	3.56	1.82

Programming data for Insert "M" (Inch)			
Insert IC	**Corner Radius**	**R**	**L**
6	0.8	.0574"	0.0208"
9	0.8	.0838"	.0403"
	1.2	.088"	.037"
12	0.8	.0968"	.0523"
	1.2	.109"	.05"
	2	.134"	.044"
16	1.2	.1401"	.0716"

For Ramping Application Data



For Ramping Application Data
(Pages 6, 7, 8 and 9)

INSERT SELECTION & FEED

7792 Series • IC06 • Insert Selection Guide

Material Group	Light Machining		Medium Machining		Heavy Machining	
P1–P2	...M41	KCPM40	**...D41**	**SP6519**	...D41	X400
P3–P4	...M41	KCPM40	**…D**	**KC522M**	…D	KCPM40
P5–P6	...M41	KCPM40	**...D41**	**X500**	...D41	X500
M1–M2	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
M3	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
K1–K2	…D	KCPK30	**…D**	**KCPK30**	…D	KCPK30
K3	…D	KCPK30	**…D**	**KCPK30**	…D	KCPK30
N1–N2	–	–	**–**	**–**	–	–
N3	–	–	**–**	**–**	–	–
S1–S2	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
S3	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
S4	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
H1	…D	KCKP10	**…D**	**KCKP10**	…D	KCPM40

METRIC

7792 Series • IC06 • Feed Rates [mm]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	0,9	0,31	**0,62**	0,92	0,28	**0,56**	0,84
.S..D	0,6	0,35	**0,70**	1,04	0,32	**0,64**	0,94
.S..D	0,5	0,38	**0,75**	1,12	0,34	**0,69**	1,02
.E..D41	0,9	0,17	**0,46**	0,77	0,16	**0,42**	0,70
.E..D41	0,6	0,19	**0,52**	0,87	0,18	**0,48**	0,79
.E..D41	0,5	0,21	**0,56**	0,94	0,19	**0,52**	0,85
.E..M41	0,8	0,17	**0,46**	0,77	0,16	**0,42**	0,70
.E..M41	0,6	0,19	**0,52**	0,87	0,18	**0,48**	0,79
.E..M41	0,5	0,21	**0,56**	0,94	0,19	**0,52**	0,85
L = Light Machining; M = Medium Machining; H = Heavy Machining.							

7792 Series • IC06 • Plunging Feed Rates [mm]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of 3mm Radial Engagement (ae)		
	L	M	H
.S..D	0,10	**0,20**	0,30
.E..D41	0,06	**0,15**	0,25
.E..M41	0,06	**0,15**	0,25
L = Light Machining; M = Medium Machining; H = Heavy Machining.			

Ramping Application Data • Curved Edge Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
16	5.90°	7.6	3	22	30
20	3.40°	11.6	3	30	38
25	2.20°	16.6	3	42	50
32	1.40°	23.6	3	54	62
35	1.30°	23.6	3	60	68

Ramping Application Data • Straight-Edged Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
16	7.00°	7.6	3	22	30
20	4.30°	11.6	3	30	38
25	2.60°	16.6	3	42	50
32	1.70°	23.6	3	54	62
35	1.30°	23.6	3	60	68
NOTE: Maximum ramp angle decreases as nose radius increases.					

INCH

7792 Series • IC06 • Feed Rates [IPT]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	0.035	0.012	**0.024**	0.036	0.011	**0.022**	0.033
.S..D	0.025	0.014	**0.029**	0.043	0.013	**0.026**	0.039
.S..D	0.02	0.016	**0.032**	0.048	0.015	**0.029**	0.043
.E..D41	0.035	0.007	**0.019**	0.031	0.006	**0.017**	0.028
.E..D41	0.025	0.008	**0.022**	0.037	0.007	**0.020**	0.033
.E..D41	0.02	0.009	**0.025**	0.041	0.008	**0.022**	0.037
.E..M41	0.031	0.007	**0.019**	0.031	0.006	**0.017**	0.028
.E..M41	0.025	0.008	**0.022**	0.037	0.007	**0.020**	0.033
.E..M41	0.02	0.009	**0.025**	0.041	0.008	**0.022**	0.037
L = Light Machining; M = Medium Machining; H = Heavy Machining.							

7792 Series • IC06 • Plunging Feed Rates [IPT]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of .118" Radial Engagement (ae)		
	L	M	H
.S..D	0.004	**0.008**	0.012
.E..D41	0.002	**0.006**	0.010
.E..M41	0.002	**0.006**	0.010
L = Light Machining; M = Medium Machining; H = Heavy Machining.			

Ramping Application Data • Curved Edge Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
0.63	8.20°	0.26	0.118	0.856	1.171
0.75	6.70°	0.38	0.118	1.106	1.421
1.00	4.30°	0.63	0.118	1.606	1.921
1.25	2.60°	0.88	0.118	2.106	2.421
35	1.30°	23.6	3	60	68

Ramping Application Data • Straight-Edged Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
0.63	7.20°	0.282	0.118	0.856	1.171
0.75	4.80°	0.380	0.118	1.106	1.421
1.00	2.50°	0.630	0.118	1.606	1.921
1.25	1.70°	0.880	0.118	2.106	2.421
NOTE: Maximum ramp angle decreases as nose radius increases.					

7792 Series • IC09 • Insert Selection Guide

Material Group	Light Machining		Medium Machining		Heavy Machining	
P1–P2	...M41	KCPM40	**...M41**	**KCPM40**	...GP	KCPM40
P3–P4	...M41	KCPM40	**...D411**	**SP6519**	...D41	KCPM40
P5–P6	...M41	KCPM40	**...D41**	**SP6519**	...D41	X500
M1–M2	...M41	KCSM40	**...D411**	**KCSM40**	...D41	KCSM40
M3	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
K1–K2	...M	KCK20B	**...M**	**KCK20B**	...D	KCPK30
K3	...M	KCK20B	**...M**	**KCK20B**	...D	KCPK30
N1–N2	-	-	**-**	**-**	-	-
N3	-	-	**-**	**-**	-	-
S1–S2	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
S3	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
S4	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
H1	...M	KCKP10	**...M**	**KCKP10**	...D	KCPM40

METRIC

7792 Series • IC09 • Feed Rates [mm]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	1.5	0,25	**0,55**	0,88	0,23	**0,50**	0,80
.S..D	1.1	0,30	**0,64**	1,02	0,27	**0,59**	0,93
.S..D	0.9	0,33	**0,71**	1,12	0,30	**0,64**	1,03
.E..D41	1.5	0,18	**0,50**	0,75	0,16	**0,46**	0,69
.E..D41	1.1	0,21	**0,58**	0,87	0,19	**0,53**	0,80
.E..D41	0.9	0,23	**0,64**	0,96	0,21	**0,59**	0,88
.E..D411	1.5	0,18	**0,50**	0,75	0,16	**0,46**	0,69
.E..D411	1.1	0,21	**0,58**	0,87	0,19	**0,53**	0,80
.E..D411	0.9	0,23	**0,64**	0,96	0,21	**0,59**	0,88
.S..GP	1.5	0,25	**0,55**	0,89	0,23	**0,51**	0,81
.S..GP	1.1	0,30	**0,64**	1,03	0,27	**0,59**	0,94
.S..GP	0.9	0,33	**0,71**	1,14	0,30	**0,65**	1,04
.S...M	1.5	0,25	**0,55**	0,88	0,23	**0,50**	0,80
.S...M	1.1	0,30	**0,64**	1,02	0,27	**0,59**	0,93
.S..M	0.9	0,33	**0,71**	1,12	0,30	**0,64**	1,03
.E..M41	1.5	0,18	**0,50**	0,75	0,16	**0,46**	0,69
.E...M41	1.1	0,21	**0,58**	0,87	0,19	**0,53**	0,80
.E..M41	0.9	0,23	**0,64**	0,96	0,21	**0,59**	0,88
L = Light Machining; M = Medium Machining; H = Heavy Machining.							

7792 Series • IC09 • Plunging Feed Rates [mm]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of 6mm Radial Engagement (ae)		
	L	M	H
.S..D	0,10	**0,22**	0,35
.E..D41	0,07	**0,20**	0,30
.E..D411	0,07	**0,20**	0,30
.S..GP	0,10	**0,22**	0,35
.S..M	0,10	**0,22**	0,35
.E..M41	0,07	**0,20**	0,30
L = Light Machining; M = Medium Machining; H = Heavy Machining.			

Ramping Application Data • Curved Edge Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
25	2.80°	11.75	6	34	48
32	1.50°	18.75	6	48	62
35	1.30°	21.75	6	54	68
40	0.80°	26.75	6	64	78
42	1.00°	28.75	6	68	82
50	0.70°	36.75	6	84	98
52	0.70°	38.75	6	88	102
63	0.50°	49.75	6	110	124
66	0.50°	52.75	6	116	130

Ramping Application Data • Straight-Edged Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
25	3.60°	12.85	6	34	48
32	1.95°	19.85	6	48	62
35	1.65°	22.85	6	54	68
40	1.30°	27.85	6	64	78
42	1.20°	29.85	6	68	82
50	0.90°	37.85	6	84	98
52	0.85°	39.85	6	88	102
63	0.60°	50.85	6	110	124
66	0.60°	53.85	6	116	130
NOTE: Maximum ramp angle decreases as nose radius increases.					

INCH

7792 Series • IC09 • Feed Rates [IPT]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	0.06	0.010	**0.022**	0.035	0.009	**0.020**	0.032
.S..D	0.04	0.012	**0.027**	0.042	0.011	**0.024**	0.039
.S..D	0.03	0.014	**0.031**	0.049	0.013	**0.028**	0.044
.E..D41	0.06	0.007	**0.020**	0.030	0.006	**0.018**	0.027
.E..D41	0.04	0.009	**0.024**	0.036	0.008	**0.022**	0.033
.E..D41	0.03	0.010	**0.028**	0.042	0.009	**0.025**	0.038
.E..D411	0.06	0.007	**0.020**	0.030	0.006	**0.018**	0.027
.E..D411	0.04	0.009	**0.024**	0.036	0.008	**0.022**	0.033
.E..D411	0.03	0.010	**0.028**	0.042	0.009	**0.025**	0.038
.S..GP	0.06	0.010	**0.022**	0.035	0.009	**0.020**	0.032
.S..GP	0.04	0.012	**0.026**	0.042	0.011	**0.024**	0.038
.S..GP	0.03	0.014	**0.030**	0.048	0.013	**0.028**	0.044
.S..M	0.06	0.010	**0.022**	0.035	0.009	**0.020**	0.032
.S..M	0.04	0.012	**0.027**	0.042	0.011	**0.024**	0.039
.S...M	0.03	0.014	**0.031**	0.049	0.013	**0.028**	0.044
.E..M41	0.06	0.007	**0.020**	0.030	0.006	**0.018**	0.027
.E...M41	0.04	0.009	**0.024**	0.036	0.008	**0.022**	0.033
.E..M41	0.03	0.010	**0.028**	0.042	0.009	**0.025**	0.038
L = Light Machining; M = Medium Machining; H = Heavy Machining.							

7792 Series • IC09 • Plunging Feed Rates [IPT]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of .236" Radial Engagement (ae)		
	L	M	H
.S..D	0.004	**0.009**	0.014
.E..D41	0.003	**0.008**	0.012
.E..D411	0.003	**0.008**	0.012
.S..GP	0.004	**0.009**	0.014
.S..M	0.004	**0.009**	0.014
.E..M41	0.003	**0.008**	0.012
L = Light Machining; M = Medium Machining; H = Heavy Machining.			

Ramping Application Data • Curved Edge Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.00	2.70°	0.478	0.236	1.369	1.921
1.25	1.50°	0.728	0.236	1.869	2.421
1.50	1.10°	0.98	0.236	2.369	2.921
2.00	0.70°	1.478	0.236	3.369	3.921

Ramping Application Data • Straight-Edged Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.00	3.45°	0.522	0.236	1.369	1.921
1.25	2.00°	0.773	0.236	1.869	2.421
1.50	1.40°	1.021	0.236	2.369	2.921
2.00	0.90°	1.521	0.236	3.369	3.921
NOTE: Maximum ramp angle decreases as nose radius increases.					

7792 Series • IC12 • Insert Selection Guide

Material Group	Light Machining		Medium Machining		Heavy Machining	
P1–P2	...M41	KCPM40	**...M41**	**KCPM40**	...GP	KCPM40
P3–P4	...M41	KCPM40	**...D411**	**SP6519**	...D41	KCPM40
P5–P6	...M41	KCPM40	**...D41**	**SP6519**	...D41	X500
M1–M2	...M41	KCSM40	**...D411**	**KCSM40**	...D41	KCSM40
M3	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
K1–K2	...M	KCK20B	**...M**	**KCK20B**	...D	KCPK30
K3	...M	KCK20B	**...M**	**KCK20B**	...D	KCPK30
N1–N2	-	-	**-**	**-**	-	-
N3	-	-	**-**	**-**	-	-
S1–S2	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
S3	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
S4	...M41	X500	**...D411**	**KCSM40**	...D41	KCSM40
H1	...M	KCKP10	**...M**	**KCKP10**	...D	KCPM40

METRIC

7792 Series • IC12 • Feed Rates [mm]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	2.5	0,24	**0,61**	0,89	0,22	**0,55**	0,82
.S..D	1.7	0,29	**0,73**	1,08	0,27	**0,67**	0,98
.S..D	1.3	0,33	**0,83**	1,22	0,30	**0,76**	1,12
.E..D41	2.5	0,17	**0,54**	0,83	0,15	**0,49**	0,76
.E..D41	1.7	0,20	**0,64**	1,00	0,19	**0,59**	0,92
.E..D41	1.3	0,23	**0,73**	1,14	0,21	**0,67**	1,04
.E..D411	2.5	0,17	**0,54**	0,83	0,15	**0,49**	0,76
.E..D411	1.7	0,20	**0,64**	1,00	0,19	**0,59**	0,92
.E..D411	1.3	0,23	**0,73**	1,14	0,21	**0,67**	1,04
.S..GP	2.5	0,24	**0,61**	0,91	0,22	**0,55**	0,83
.S..GP	1.7	0,29	**0,73**	1,10	0,27	**0,67**	1,00
.S..GP	1.3	0,33	**0,83**	1,25	0,30	**0,76**	1,14
.S..M	1.84	0,24	**0,61**	0,89	0,22	**0,55**	0,82
.S..M	1.3	0,33	**0,83**	1,22	0,30	**0,76**	1,12
.E..M41	1.84	0,17	**0,54**	0,83	0,15	**0,49**	0,76
.E..M41	1.3	0,23	**0,73**	1,14	0,21	**0,67**	1,04

L = Light Machining; M = Medium Machining; H = Heavy Machining.

7792 Series • IC12 • Plunging Feed Rates [mm]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of 9mm Radial Engagement (ae)		
	L	M	H
.S..D	0,10	**0,25**	0,38
.E..D41	0,07	**0,23**	0,35
.E..D411	0,07	**0,23**	0,35
.S..GP	0,10	**0,25**	0,38
.S..M	0,10	**0,25**	0,38
.E..M41	0,07	**0,23**	0,35

L = Light Machining; M = Medium Machining; H = Heavy Machining.

Ramping Application Data • Curved Edge Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
32	1.80°	10.6	9.2	42	62
35	1.80°	16.6	9.2	48	68
40	1.40°	21.6	9.2	58	78
42	1.30°	23.6	9.2	62	82
50	0.90°	31.6	9.2	78	98
52	0.80°	33.6	9.2	82	102
63	0.60°	44.6	9.2	104	124
66	0.50°	47.6	9.2	110	130
80	0.50°	61.6	9.2	138	158
100	0.30°	81.6	9.2	178	198
125	0.20°	106.6	9.2	228	248
160	0.20°	141.6	9.2	298	318

Ramping Application Data • Straight-Edged Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
32	3.10°	15.6	9.2	42	62
35	2.45°	18.6	9.2	48	68
40	1.80°	23.6	9.2	58	78
42	1.60°	25.6	9.2	62	82
50	1.10°	33.6	9.2	78	98
52	1.10°	35.6	9.2	82	102
63	0.80°	46.6	9.2	104	124
66	0.75°	49.6	9.2	110	130
80	0.55°	63.6	9.2	138	158
100	0.40°	83.6	9.2	178	198
125	0.30°	108.6	9.2	228	248
160	0.25°	143.6	9.2	298	318

NOTE: Maximum ramp angle decreases as nose radius increases.

INCH

7792 Series • IC12 • Feed Rates [IPT]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	0.1	0.009	**0.024**	0.036	0.009	**0.022**	0.032
.S..D	0.7	0.011	**0.028**	0.042	0.010	**0.026**	0.038
.S..D	0.55	0.013	**0.031**	0.047	0.012	**0.029**	0.043
.E..D41	0.1	0.007	**0.021**	0.033	0.006	**0.019**	0.030
.E..D41	0.7	0.008	**0.025**	0.039	0.007	**0.023**	0.036
.E..D41	0.55	0.009	**0.028**	0.044	0.008	**0.026**	0.040
.E..D411	0.1	0.007	**0.021**	0.033	0.006	**0.019**	0.030
.E..D411	0.7	0.008	**0.025**	0.039	0.007	**0.023**	0.036
.E..D411	0.55	0.009	**0.028**	0.044	0.008	**0.026**	0.040
.S..GP	0.1	0.009	**0.024**	0.035	0.009	**0.022**	0.032
.S..GP	0.7	0.011	**0.028**	0.042	0.010	**0.026**	0.038
.S..GP	0.55	0.013	**0.031**	0.047	0.012	**0.029**	0.043
.S..M	0.072	0.009	**0.024**	0.036	0.009	**0.022**	0.032
.S..M	0.55	0.013	**0.031**	0.047	0.012	**0.029**	0.043
.E..M41	0.072	0.007	**0.021**	0.033	0.006	**0.019**	0.030
.E..M41	0.55	0.009	**0.028**	0.044	0.008	**0.026**	0.040

L = Light Machining; M = Medium Machining; H = Heavy Machining.

7792 Series • IC12 • Plunging Feed Rates [IPT]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of .354" Radial Engagement (ae)		
	L	M	H
.S..D	0.004	**0.010**	0.015
.E..D41	0.003	**0.009**	0.014
.E..D411	0.003	**0.009**	0.014
.S..GP	0.004	**0.010**	0.015
.S..M	0.004	**0.010**	0.015
.E..M41	0.003	**0.009**	0.014

L = Light Machining; M = Medium Machining; H = Heavy Machining.

Ramping Application Data • Curved Edge Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.25	1.85°	0.526	0.362	1.133	1.921
1.50	0.95°	0.770	0.362	2.133	2.921
2.00	0.90°	1.276	0.362	3.133	3.921
2.50	0.60°	1.776	0.362	4.133	4.921
3.00	0.45°	2.276	0.362	5.133	5.921
4.00	0.31°	3.270	0.362	7.133	7.921
5.00	0.24°	4.270	0.362	9.133	9.921
6.00	0.19°	5.270	0.362	11.133	11.921

Ramping Application Data • Straight-Edged Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.25	3.56°	0.604	0.362	1.133	1.921
1.50	2.22°	0.854	0.362	2.133	2.921
2.00	1.25°	1.354	0.362	3.133	3.921
2.50	0.86°	1.854	0.362	4.133	4.921
3.00	0.66°	2.354	0.362	5.133	5.921
4.00	0.45°	3.354	0.362	7.133	7.921
5.00	0.34°	4.354	0.362	9.133	9.921
6.00	0.27°	5.354	0.362	11.133	11.921

NOTE: Maximum ramp angle decreases as nose radius increases.

7792 Series • IC16 • Insert Selection Guide

Material Group	Light Machining		Medium Machining		Heavy Machining	
P1–P2	...M41	KCPM40	**...M41**	**KCPM40**	...D41	KCPM40
P3–P4	...M41	KCPM40	**…D**	**KCPM40**	…D41	KCPM40
P5–P6	...M41	KCPM40	**...D41**	**KCPM40**	...D41	KCPM40
M1–M2	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
M3	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
K1–K2	…D	KCK15	**…D**	**KCK15**	…D	KCPK30
K3	…D	KCPK30	**…D**	**KCPK30**	…D	KCPK30
N1–N2	–	–	–	–	–	–
N3	–	–	–	–	–	–
S1–S2	...M41	KCSM40	**...D41**	**KCSM40**	...D41	KCSM40
S3	KCSM40	SP6519	**...D41**	**KCSM40**	...D41	KCSM40
S4	KCSM40	SP6519	**...D41**	**KCSM40**	...D41	KCSM40
H1	…D	KC522M	**…D**	**KC522M**	…D	KC522M

METRIC

7792 Series • IC16 • Feed Rates [mm]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	3.5	0,21	**0,52**	0,83	0,19	**0,47**	0,76
.S..D	2.5	0,24	**0,61**	0,97	0,22	**0,55**	0,89
.S..D	2	0,27	**0,67**	1,08	0,25	**0,62**	0,99
.E..D41	3.5	0,14	**0,46**	0,76	0,13	**0,42**	0,70
.E..D41	2.5	0,17	**0,54**	0,89	0,15	**0,49**	0,82
.E..D41	2	0,19	**0,60**	0,99	0,17	**0,55**	0,91
.E..M41	2.7	0,14	**0,46**	0,76	0,13	**0,42**	0,70
.E..M41	2	0,19	**0,60**	0,99	0,17	**0,55**	0,91

L = Light Machining; M = Medium Machining; H = Heavy Machining.

7792 Series • IC16 • Plunging Feed Rates [mm]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of 13mm Radial Engagement (ae)		
	L	M	H
.S..D	0,10	**0,25**	0,41
.E..D41	0,07	**0,23**	0,38
.E..M41	0,07	**0,23**	0,38

L = Light Machining; M = Medium Machining; H = Heavy Machining.

Ramping Application Data • Curved Edge Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
40	2.55°	16.3	13	50	78
50	1.36°	26.1	13	70	98
52	1.24°	28	13	74	102
63	0.86°	39	13	96	124
66	0.8°	41.9	13	102	130
80	0.58°	55.9	13	130	158
100	0.42°	75.9	13	170	198
125	0.32°	100.9	13	220	248
160	0.23°	135.8	13	290	318

Ramping Application Data • Straight-Edged Inserts

Dia. D (mm)	Ramping Angle	Facing Pitch D1 (mm)	Ae max Plunging (mm)	Hole Min (mm)	Hole Max (mm)
40	3.70°	17.85	12,3	50	78
50	2.25°	27.72	12,3	70	98
52	1.65°	29.82	12,3	74	102
63	1.40°	40.8	12,3	96	124
66	1.30°	43.7	12,3	102	130
80	0.80°	57.7	12,3	130	158
100	0.65°	77.53	12,3	170	198
125	0.50°	102.5	12,3	220	248
160	0.27°	137.46	12,3	290	318

NOTE: Maximum ramp angle decreases as nose radius increases.

INCH

7792 Series • IC16 • Feed Rates [IPT]

Insert Geometry		Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)					
		30%			40–100%		
	DOC	L	M	H	L	M	H
.S..D	0.14	0.008	**0.020**	0.032	0.007	**0.019**	0.030
.S..D	0.1	0.009	**0.024**	0.038	0.009	**0.022**	0.035
.S..D	0.08	0.011	**0.026**	0.042	0.010	**0.024**	0.039
.E..D41	0.14	0.006	**0.018**	0.030	0.005	**0.017**	0.028
.E..D41	0.1	0.007	**0.021**	0.036	0.006	**0.019**	0.032
.E..D41	0.08	0.007	**0.024**	0.039	0.007	**0.022**	0.036
.E..M41	0.107	0.006	**0.018**	0.030	0.005	**0.017**	0.028
.E..M41	0.08	0.007	**0.024**	0.039	0.007	**0.022**	0.036

L = Light Machining; M = Medium Machining; H = Heavy Machining.

7792 Series • IC16 • Plunging Feed Rates [IPT]

Insert Geometry	Feed per Tooth (Fz) in Relation to a max. of .512" Radial Engagement (ae)		
	L	M	H
.S..D	0.004	**0.010**	0.016
.E..D41	0.003	**0.009**	0.015
.E..M41	0.003	**0.009**	0.015

L = Light Machining; M = Medium Machining; H = Heavy Machining.

Ramping Application Data • Curved Edge Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.5	3.00°	0.55	0.512	1.818	2.921
2.0	2.85°	1.05	0.512	2.818	3.921
2.5	1.00°	1.56	0.512	3.818	4.921
3.0	0.58°	1.96	0.512	4.818	5.921
4.0	0.51°	2.96	0.512	6.818	7.921
5.0	0.37°	3.96	0.512	8.818	9.921
6.0	0.27°	4.96	0.512	10.818	11.921

Ramping Application Data • Straight-Edged Inserts

Dia. D (in)	Ramping Angle	Facing Pitch D1 (in)	Ae max Plunging (in)	Hole Min (in)	Hole Max (in)
1.5	4.53°	0.628	0.484	1.818	2.921
2.0	2.44°	1.122	0.484	2.818	3.921
2.5	1.51°	1.626	0.484	3.818	4.921
3.0	0.96°	2.122	0.484	4.818	5.921
4.0	0.62°	3.114	0.484	6.818	7.921
5.0	0.52°	4.114	0.484	8.818	9.921
6.0	0.32°	5.115	0.484	10.818	11.921

NOTE: Maximum ramp angle decreases as nose radius increases.

NOVO™

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We've Been Cutting Metal Since 1938.

Our Story Is One of Continous Innovation

It starts in 1938 with our founder, metallurgist Philip M. McKenna, who after years of research created a tungsten-titanium carbide alloy specifically for cutting tools. 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, 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.

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