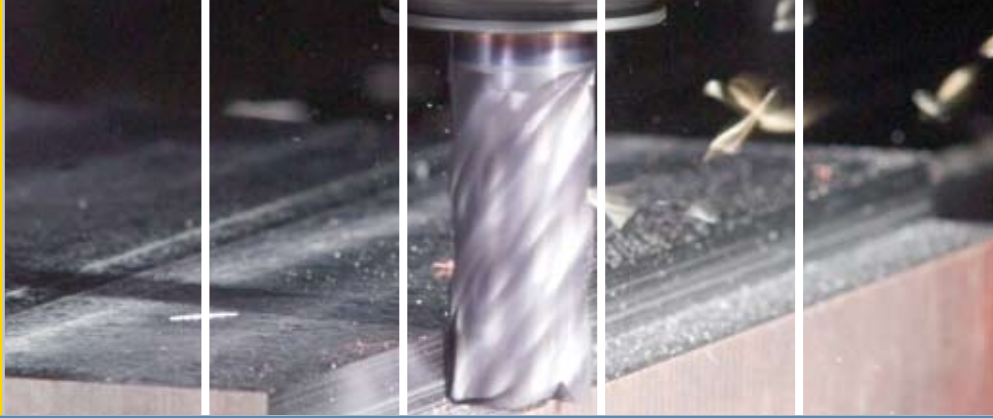


Engineering Your
Competitive Edge



KenFEED™ Solid Carbide End Mills Now Available 6 mm (.25") to 20 mm (.75") Diameter



...specifically engineered to machine hardened steel up to 67 HRC at higher speeds and feeds!

- New six-flute style for increased productivity!
- Necked shanks provide extended reach in deep cavities!
- Longer tool life and higher feed rates, up to 0,6 mm!
- Machine harder materials at 2x to 3x the metal removal rate of competitive end mills!

Distributed by:

Kennametal will significantly improve your milling performance!

 **KENNAMETAL®**
Engineering Your Competitive Edge

Markets and Applications

- Exceptional performance in die and mold and medical markets.
- Ideal for roughing and semi-finishing in hardened steels (37 HRC to 67 HRC):
 - Series KMDA for 37-52 HRC
 - Series KHDA for 52-67 HRC
- Use in profiling, circular plunging and ramping, three-dimensional (z-axis) milling, pocketing, and face milling.

Featured Application:

Operation: Pocket Milling

Customer: Die & Mold Manufacturer

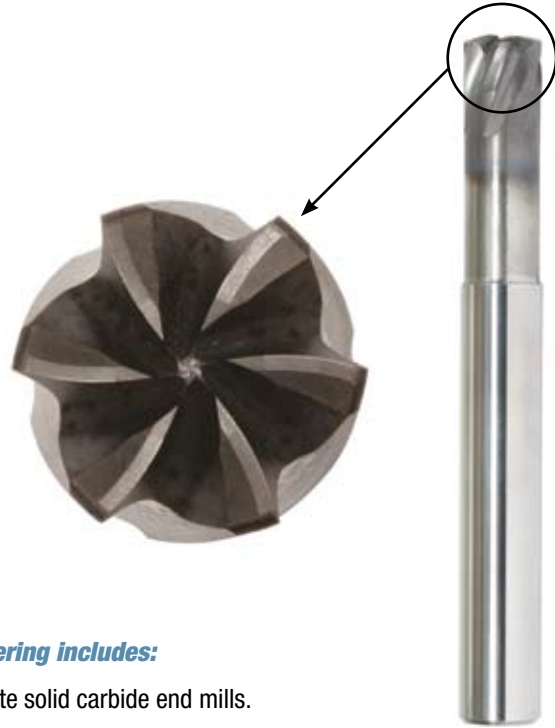
Material: medium hardened steel

Workpiece: Mold

- Results:
- 3x better metal removal rate than competitive tool!
 - Machined at more than 3x faster feed!

	COMPETITOR	KENNAMETAL
Tool:	4-flute H/P for die & mold	KMDA0500J6ANA 6-flute
Grade:	—	KC639M
Material:	medium hardened steel	medium hardened steel
Surface speed:	120 m/min (400 SFM)	160 m/min (530 SFM)
Feed per tooth:	0,34 mm (.013")	0,6 mm (.023")
Depth of cut:	0,8 mm (.031")	0,6 mm (.023")
Table feed:	4,331 mm/min (17 in/min)	15,287 mm/min (601.8 in/min)
Metal removal rate:	208 cm ³ /min (12.69 in ³ /min)	605 cm ³ /min (36.96 in ³ /min)

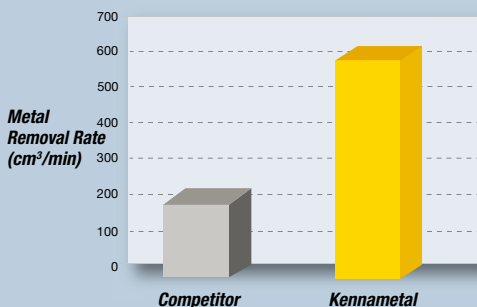
Engineering Your Competitive Edge



Our new offering includes:

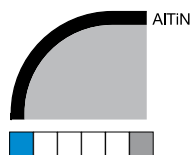
- New six-flute solid carbide end mills.
- Wide range of cutting diameters: 6 mm (1/4") to 20 mm (3/4").
- Unique geometry.
- Small diameters and neck shanks provide better reach in narrow applications like pocket milling.
- Speed rates up to:
 - Series KMDA: 0,6 mm (.024") per tooth
 - Series KHDA: 0,4 mm (.016") per tooth

INCREASED METAL REMOVAL RATE BY 191%



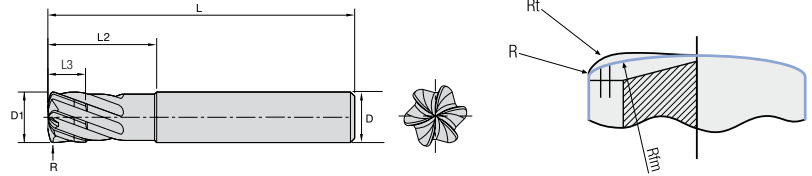
Recommended Grades

KC639M



KC639M grade is a PVD AlTiN-coated micrograin carbide with a very high hardness combined with excellent toughness.

Ordering Information

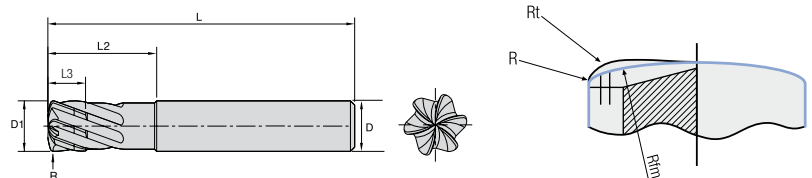


KenFEED™ Solid Carbide End Mills 37 HRC - 52 HRC

metric									
D1	D	L3	L2	R	Rfm	Rt (CAM)	L	catalog number	KC639M
6	6	4,5	18	0,375	6	0,697	63	KMDA0600A6ANA	•
8	8	6	24	0,500	8	0,929	76	KMDA0800A6ANA	•
10	10	7,5	30	0,625	10	1,161	89	KMDA1000A6ANA	•
12	12	9	36	0,750	12	1,393	100	KMDA1200A6ANA	•
16	16	10	48	1,000	16	1,858	110	KMDA1600A6ANA	•
20	20	10	60	1,250	20	2,322	125	KMDA2000A6ANA	•

inch										
Fraction	D1	D	L3	L2	R	Rfm	Rt (CAM)	L	catalog number	KC639M
1/4	.2500	.2500	.1570	.7500	.0156	.2500	.0290	2500	KMDA0250J6ANA	•
5/16	.3125	.3125	.2500	1.000	.0195	.3125	.0363	3.000	KMDA0312J6ANA	•
3/8	.3750	.3750	.3120	1.250	.0234	.3750	.0435	3.500	KMDA0375J6ANA	•
1/2	.5000	.5000	.3750	1.500	.0313	.5000	.0581	4.000	KMDA0500J6ANA	•
5/8	.6250	.6250	.3750	2.000	.0391	.6250	.0726	4.500	KMDA0625J6ANA	•
3/4	.7500	.7500	.4370	2.500	.0469	.7500	.0871	5.000	KMDA0750J6ANA	•

KenFEED™ Solid Carbide End Mills – 52 HRC - 67 HRC



metric									
D1	D	L3	L2	R	Rfm	Rt (CAM)	L	catalog number	KC639M
6	6	4,5	18	0,375	9	0,581	63	KHDA0600A6ANA	•
8	8	6	24	0,500	12	0,775	76	KHDA0800A6ANA	•
10	10	7,5	30	0,625	15	0,969	89	KHDA1000A6ANA	•
12	12	9	36	0,750	18	1,162	100	KHDA1200A6ANA	•
16	16	10	48	1,000	24	1,55	110	KHDA1600A6ANA	•
20	20	10	60	1,250	30	1,937	125	KHDA2000A6ANA	•

inch										
Fraction	D1	D	L3	L2	R	Rfm	Rt (CAM)	L	catalog number	KC639M
1/4	.2500	.2500	.1570	.7500	.0156	.3750	.0242	2500	KHDA0250J6ANA	•
5/16	.3125	.3125	.2500	1.000	.0195	.4688	.0303	3.000	KHDA0312J6ANA	•
3/8	.3750	.3750	.3120	1.250	.0234	.5625	.0363	3.500	KHDA0375J6ANA	•
1/2	.5000	.5000	.3750	1.500	.0313	.7500	.0485	4.000	KHDA0500J6ANA	•
5/8	.6250	.6250	.3750	2.000	.0391	.9375	.0606	4.500	KHDA0625J6ANA	•
3/4	.7500	.7500	.4370	2.500	.0469	1.1250	.0727	5.000	KHDA0750J6ANA	•

■ KenFEED™ Recommended Cutting Conditions – Metric

KenFEED for steels, 37 HRC to < 52 HRC

Group			Vc KC639M (mm/min)	Recommended fz- Feed Per Tooth (mm/tooth) D1 = Diameter (mm)						
DIN	AISI	ae		6	8	10	12	16	20	
H2	35CrMo4, 1.2330 (52 HRC)	P20 52	.55XD	120	0,2	0,3	0,3	0,4	0,5	0,6
H1	40NiCrMo6, 1.6565 (45 HRC)	4340 45	.55XD	160	0,3	0,4	0,5	0,5	0,6	0,7
			AP	0,3	0,4	0,5	0,6	0,8	1,0	
			catalog number	KMDA0600A6ANA	KMDA0800A6ANA	KMDA1000A6ANA	KMDA1200A6ANA	KMDA1600A6ANA	KMDA2000A6ANA	

KenFEED for hard steels 52 HRC - 67 HRC

Group			Vc KC639M (mm/min)	Recommended fz- Feed Per Tooth (mm/tooth) D1 = Diameter (mm)						
DIN	AISI	ae		6	8	10	12	16	20	
H3/4	X155CrV- Mo121, 1.2379 (62 HRC)	D2 62	.55XD	70	0,18	0,2	0,25	0,3	0,4	0,5
H2	35CrMo4, 1.2330 (52 HRC)	P20 52	.55XD	120	0,2	0,3	0,3	0,4	0,5	0,6
			AP	0,2	0,25	0,3	0,375	0,5	0,625	
			catalog number	KHDA0600A6ANA	KHDA0800A6ANA	KHDA1000A6ANA	KHDA1200A6ANA	KHDA1600A6ANA	KHDA2000A6ANA	

■ KenFEED™ Recommended Cutting Conditions – Inch

KenFEED for steels, 37 HRC to < 52 HRC

Group			Vc KC639M SFM	Recommended fz- Feed Per Tooth (Inch/th) D1 = Diameter (Inch)						
DIN	AISI	ae		.2500	.3125	.3750	.5000	.6250	.7500	
H2	35CrMo4, 1.2330 (52 HRC)	P20 52	.55XD	394	.0100	.0120	.0120	.0160	.0200	.0240
H1	40NiCrMo6, 1.6565 (45 HRC)	4340 45	.55XD	525	.0150	.0200	.0200	.0200	.0240	.2800
			AP	.0140	.0160	.0200	.0240	.3300	.0400	
			catalog number	KMDA0250J6ANA	KMDA0312J6ANA	KMDA0375J6ANA	KMDA0500J6ANA	KMDA0625J6ANA	KMDA0750J6ANA	

KenFEED for hard steels 52 HRC - 67 HRC

Group			Vc KC639M SFM	Recommended fz- Feed Per Tooth (Inch/th) D1 = Diameter (Inch)						
DIN	AISI	ae		.2500	.3125	.3750	.5000	.6250	.7500	
H3/4	X155CrV- Mo121, 1.2379 (62 HRC)	D2 67	.55XD	230	.0070	.0080	.0100	.0120	.0160	.0200
H2	35CrMo4, 1.2330 (52 HRC)	P20 52	.55XD	394	.0100	.0120	.0120	.0160	.0200	.0240
			AP	.0100	.0100	.0120	.0150	0.0200	.0250	
			catalog number	KHDA0250J6ANA	KHDA0312J6ANA	KHDA0375J6ANA	KHDA0500J6ANA	KHDA0625J6ANA	KHDA0750J6ANA	