

ACHTTECK










www.achtecktool.com/en

THE EXPERTS OF DIFFICULT MACHINING



Milling Cutters










Overview of Milling Products

Product family			AFM42-OD06	AFM40-ON05	AFM45-SN12	AFM75-SN12
Page			P196	P198	P200	P202
Approach angle			42°	40°	45°	75°
Max.ap (in)			0.177	0.138	0.256	0.315
Diameter range (in)			Ø 2.000-6.000	Ø 2.000-6.000	Ø 2.000-6.000	Ø 2.000-10.000
Insert type			OD..0605..	ON..0504..	SN..1206..	SN..1206..
Application	Face milling		●	●	●	●
	Square Shoulder milling					
	Slot milling					
	Ramping		●			
	Helical interpolate milling		●			
	Plunging					
	Profile milling					
	Chamfer milling					
	Pocket milling		●			

Remark: ● Recommended application

Milling cutters

Overview of Milling Products

Product family			AFM88-SN12	AFM45-XN07	AFM45-XN09	AFM45-XN09(W)
Page			P204	P206	P208	P209
Approach angle			88°	45°	45°	45°
Max.ap (in)			0.394	0.173	0.236	0.236
Diameter range (in)			Ø2.000-6.000	Ø2.000-4.000	Ø2.500-8.000	Ø 3.000-8.000
Insert type			SN..1206..	XN..0705..	XN..0906..	XN..0906..
Application	Face milling		●	●	●	●
	Square Shoulder milling					
	Slot milling					
	Ramping					
	Helical interpolate milling					
	Plunging					
	Profile milling					
	Chamfer milling					
	Pocket milling					

Remark: ● Recommended application










Overview of Milling Products

Product family			ASM90-LN09	ASM90-LN13	ASM90-WN08-N	ASM90-AP17
Page			P211	P214	P216	P219
Approach angle			90°	90°	90°	90°
Max.ap (in)			0.314	0.472	0.275	0.630
Diameter range (in)			Ø 1.000-3.000	Ø 2.000-4.000	Ø 1.500-6.000	Ø 1.000-2.500
Insert type			LNHU 0904..	LNHU 1306..	WNMU 0806..	APKT 1705..
Application	Face milling		●	●	●	●
	Square Shoulder milling		●	●	●	●
	Slot milling		●	●	●	●
	Ramping					●
	Helical interpolate milling					●
	Plunging					
	Profile milling					
	Chamfer milling					
	Pocket milling					●

Remark: ● Recommended application










Milling cutters

Overview of Milling Products

Product family			ASM90-TD15	ASM90-AO12	APE90-LN13	AHM20-LN06
Page			P221	P223	P225	P228
Approach angle			90°	90°	90°	20°
Max.ap (in)			0.433	0.433	1.339-2.520	0.026
Diameter range (in)			Ø 1.250-8.000	Ø 0.750-3.000	Ø 1.500-3.000	Ø 0.625-2.000
Insert type			TD.T 1505..	AOMT 1204..	LNHU 1306..	LN..0604..
Application	Face milling		●	●	●	●
	Square Shoulder milling		●	●	●	
	Slot milling		●	●		●
	Ramping		●	●		●
	Helical interpolate milling		●	●		●
	Plunging					●
	Profile milling					
	Chamfer milling					
	Pocket milling		●	●		●

Remark: ● Recommended application

Overview of Milling Products

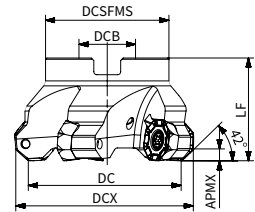
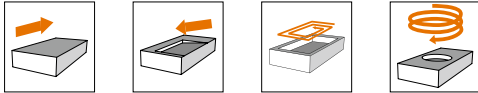
Product family			AHM25-LN10	APM00-RO10	APM00-RO12
Page			P230	P232	P234
Approach angle			25°	-	-
Max.ap (in)			0.047	0.197	0.236
Diameter range (in)			Ø 1.000-5.000	Ø 1.000-2.000	Ø 1.250-3.000
Insert type			LN..1005..	RO..10T3..	RO..1204..
Application	Face milling		●	●	●
	Square Shoulder milling				
	Slot milling		●		
	Ramping		●	●	●
	Helical interpolate milling		●	●	●
	Plunging		●		
	Profile milling			●	●
	Chamfer milling				
	Pocket milling		●	●	●

Remark: ● Recommended application

Milling cutters

AFM42-OD06

42 °Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM42-02000-Z04-A0750R-OD06-C	2.000	2.409	0.750	1.654	1.575	0.177		4	OD..0605..
AFM42-02500-Z05-A1000R-OD06-C	2.500	2.909	1.000	2.165	1.969	0.177		5	
AFM42-03000-Z05-A1000R-OD06-C	3.000	3.409	1.000	2.165	1.969	0.177		5	
AFM42-03000-Z06-A1000R-OD06-C	3.000	3.409	1.000	2.165	1.969	0.177		6	
AFM42-04000-Z06-A1500R-OD06-C	4.000	4.409	1.500	3.740	2.480	0.177		6	
AFM42-04000-Z07-A1500R-OD06-C	4.000	4.409	1.500	3.740	2.480	0.177		7	
AFM42-05000-Z07-A1500R-OD06-C	5.000	5.409	1.500	3.740	2.480	0.177		7	
AFM42-05000-Z08-A1500R-OD06-C	5.000	5.409	1.500	3.740	2.480	0.177		8	
AFM42-06000-Z10-A2000R-OD06	6.000	6.409	2.000	4.724	2.480	0.177		10	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM42-050-Z04-A16R-OD06-C	50	60.4	16	40	40	4.5		4	OD..0605..
AFM42-063-Z05-A22R-OD06-C	63	73.4	22	48	40	4.5		5	
AFM42-080-Z05-A27R-OD06-C	80	90.4	27	62	50	4.5		5	
AFM42-080-Z06-A27R-OD06-C	80	90.4	27	62	50	4.5		6	
AFM42-100-Z06-A32R-OD06-C	100	110.4	32	80	50	4.5		6	
AFM42-100-Z07-A32R-OD06-C	100	110.4	32	80	50	4.5		7	
AFM42-125-Z07-A40R-OD06-C	125	135.4	40	87	63	4.5		7	
AFM42-125-Z08-A40R-OD06-C	125	135.4	40	87	63	4.5		8	
AFM42-160-Z10-A40R-OD06	160	170.4	40	107	63	4.5		10	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
ø2.000-6.000			44 in lbs
	SP04512043	DT-TP20	

Note: With internal coolant
 Without internal coolant

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
ODET 0605APFN-FM2	0.031	0.063							●
ODMT 060508EN-MM3	0.031	-	●	●	●		●	●	
ODMT 060512EN-MM3	0.047	-	●						
ODHT 0605APEN-MM3	-	0.063	●	●			●	●	
ODEW 0605APSR-HR2	-	0.063					●	●	
ODMW 060512EN-HR2	0.047	-					●	●	

●: Stock available

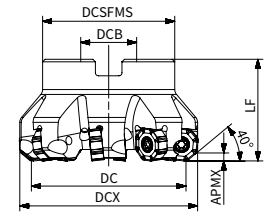
Materials				Cutting depth and feed									
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	OD..0605..									
				ap	Geometry			fz					
		HR2	MM3		FM2								
				(in)									
		min	max	min	max	min	max	min	max				
P	Unalloyed steel	<87,022	<180	0.008	0.177	0.006	0.016	0.005	0.014	-	-		
		<137,785	<280										
	Alloyed steel	101,526-137,785	200-280			0.005	0.014	0.004	0.012	-	-		
		137,785-174,044	280-355										
	174,044-203,052	355-415											
M	Duplex stainless steel	112,839	230										
	Austenitic stainless steel	97,900	200			-	-	0.003	0.011	-	-		
	Precipitation-hardening stainless steel	146,923	300										
K	Grey cast iron	101,526	220					0.006	0.016	0.005	0.014	-	-
	Nodular cast iron	127,633	260										
	Malleable cast iron	116,030	250										
N	Aluminum	37,709	75									0.004	0.014
	Aluminum alloy	64,831	130										
S	Fe-based alloy	136,770	280										
	Co-based alloy	156,060	320										
	Ni-based alloy	170,709	350										
	Ti-alloy	183,037	370										
H	Hardened steel	-	50-60HRC			0.004	0.010	-	-	-	-		
	Chilled cast iron	-	55HRC										

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM40-ON05

40° Approaching angle face milling cutter




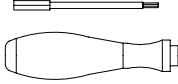
Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM40-02000-Z04-A0750R-ON05-N-C	2.000	2.346	0.750	1.654	1.575	0.137		4	ON..0504..
AFM40-02000-Z06-A0750R-ON05-N-C	2.000	2.346	0.750	1.654	1.575	0.137		6	
AFM40-02500-Z05-A1000R-ON05-N-C	2.500	2.846	1.000	2.165	1.969	0.137		5	
AFM40-02500-Z06-A1000R-ON05-N-C	2.500	2.846	1.000	2.165	1.969	0.137		6	
AFM40-02500-Z08-A1000R-ON05-N-C	2.500	2.846	1.000	2.165	1.969	0.137		8	
AFM40-03000-Z06-A1000R-ON05-N-C	3.000	3.346	1.000	2.165	1.969	0.137		6	
AFM40-03000-Z08-A1000R-ON05-N-C	3.000	3.346	1.000	2.165	1.969	0.137		8	
AFM40-03000-Z09-A1000R-ON05-N-C	3.000	3.346	1.000	2.165	1.969	0.137		9	
AFM40-04000-Z07-A1500R-ON05-N-C	4.000	4.346	1.500	3.740	2.480	0.137		7	
AFM40-04000-Z09-A1500R-ON05-N-C	4.000	4.346	1.500	3.740	2.480	0.137		9	
AFM40-04000-Z11-A1500R-ON05-N-C	4.000	4.346	1.500	3.740	2.480	0.137		11	
AFM40-05000-Z07-A1500R-ON05-N-C	5.000	5.346	1.500	3.740	2.480	0.137		7	
AFM40-05000-Z09-A1500R-ON05-N-C	5.000	5.346	1.500	3.740	2.480	0.137		9	
AFM40-05000-Z14-A1500R-ON05-N-C	5.000	5.346	1.500	3.740	2.480	0.137		14	
AFM40-06000-Z10-A2000R-ON05-N	6.000	6.346	2.000	4.724	2.480	0.137		10	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM40-050-Z04-A22R-ON05-N-C	50	58.8	22	47	40	3.5		4	ON..0504..
AFM40-050-Z06-A22R-ON05-N-C	50	58.8	22	47	40	3.5		6	
AFM40-063-Z05-A22R-ON05-N-C	63	71.8	22	52	40	3.5		5	
AFM40-063-Z06-A22R-ON05-N-C	63	71.8	22	52	40	3.5		6	
AFM40-063-Z08-A22R-ON05-N-C	63	71.8	22	52	40	3.5		8	
AFM40-080-Z06-A27R-ON05-N-C	80	88.8	27	62	50	3.5		6	
AFM40-080-Z08-A27R-ON05-N-C	80	88.8	27	62	50	3.5		8	
AFM40-080-Z09-A27R-ON05-N-C	80	88.8	27	62	50	3.5		9	
AFM40-100-Z07-A32R-ON05-N-C	100	108.8	32	77	50	3.5		7	
AFM40-100-Z09-A32R-ON05-N-C	100	108.8	32	77	50	3.5		9	
AFM40-100-Z11-A32R-ON05-N-C	100	108.8	32	77	50	3.5		11	
AFM40-125-Z07-A40R-ON05-N-C	125	133.8	40	90	63	3.5		7	
AFM40-125-Z09-A40R-ON05-N-C	125	133.8	40	90	63	3.5		9	
AFM40-125-Z14-A40R-ON05-N-C	125	133.8	40	90	63	3.5		14	
AFM40-160-Z10-A40R-ON05-N	160	168.8	40	107	63	3.5		10	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 2.000-6.000			35 in lbs
	SP040090	DT-TP15	

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
ONHU 050408-MM3	0.031	-	●						
ONMU 050408-MM4	0.031	-	●	●			●	●	
ONHU 0504ZNR-MM3	0.031	0.055	●						

●: Stock available

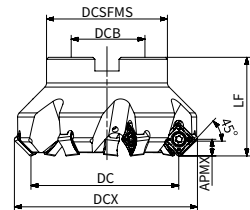
Materials				Cutting depth and feed					
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	ON..0504..					
				ap		Geometry		fz	
						MM3	MM4		
				(in)					
				min	max	min	max	min	max
P	Unalloyed steel	<87,022	<180	0.008	0.138	0.004	0.010	0.006	0.014
		<137,785	<280						
	Alloyed steel	101,526-137,785	200-280						
		137,785-174,044	280-355						
		174,044-203,052	355-415						
M	Duplex stainless steel	112,839	230						
	Austenitic stainless steel	97,900	200						
	Precipitation-hardening stainless steel	146,923	300						
K	Grey cast iron	101,526	220						
	Nodular cast iron	127,633	260						
	Malleable cast iron	116,030	250						
N	Aluminum	37,709	75			-	-	-	-
	Aluminum alloy	64,831	130						
S	Fe-based alloy	136,770	280						
	Co-based alloy	156,060	320						
	Ni-based alloy	170,709	350						
	Ti-alloy	183,037	370						
H	Hardened steel	-	50-60HRC			-	-	-	-
	Chilled cast iron	-	55HRC						

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM45-SN12

45° Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-02000-Z04-A0750R-SN12-C	2.000	2.548	0.750	1.654	1.575	0.255		4	SN..1206ANN.. SN..1206..
AFM45-02000-Z06-A0750R-SN12-C	2.000	2.548	0.750	1.654	1.575	0.255		6	
AFM45-02500-Z06-A1000R-SN12-C	2.500	3.048	1.000	2.165	1.969	0.255		6	
AFM45-03000-Z05-A1000R-SN12-C	3.000	3.548	1.000	2.165	1.969	0.255		5	
AFM45-03000-Z07-A1000R-SN12-C	3.000	3.548	1.000	2.165	1.969	0.255		7	
AFM45-04000-Z06-A1500R-SN12-C	4.000	4.548	1.500	3.740	2.480	0.255		6	
AFM45-04000-Z08-A1500R-SN12-C	4.000	4.548	1.500	3.740	2.480	0.255		8	
AFM45-05000-Z08-A1500R-SN12-C	5.000	5.548	1.500	3.740	2.480	0.255		8	
AFM45-05000-Z10-A1500R-SN12-C	5.000	5.548	1.500	3.740	2.480	0.255		10	
AFM45-06000-Z10-A2000R-SN12	6.000	6.548	2.000	4.724	2.480	0.255		10	
AFM45-06000-Z12-A2000R-SN12	6.000	6.548	2.000	4.724	2.480	0.255		12	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-050-Z04-A22R-SN12-N-C	50	63.9	22	47	40	6.5		4	SN..1206ANN.. SN..1206..
AFM45-050-Z06-A22R-SN12-N-C	50	63.9	22	47	40	6.5		6	
AFM45-063-Z04-A22R-SN12-N-C	63	76.9	22	52	40	6.5		4	
AFM45-063-Z06-A22R-SN12-N-C	63	76.9	22	52	40	6.5		6	
AFM45-063-Z08-A22R-SN12-N-C	63	76.9	22	52	40	6.5		8	
AFM45-080-Z04-A27R-SN12-N-C	80	93.9	27	62	50	6.5		4	
AFM45-080-Z05-A27R-SN12-N-C	80	93.9	27	62	50	6.5		5	
AFM45-080-Z07-A27R-SN12-N-C	80	93.9	27	62	50	6.5		7	
AFM45-100-Z06-A32R-SN12-N-C	100	113.9	32	77	50	6.5		6	
AFM45-100-Z08-A32R-SN12-N-C	100	113.9	32	77	50	6.5		8	
AFM45-125-Z07-A40R-SN12-N-C	125	138.9	40	90	63	6.5		7	
AFM45-125-Z08-A40R-SN12-N-C	125	138.9	40	90	63	6.5		8	
AFM45-125-Z10-A40R-SN12-N-C	125	138.9	40	90	63	6.5		10	
AFM45-160-Z10-A40R-SN12-N	160	173.9	40	107	63	6.5		10	
AFM45-200-Z14-A60R-SN12-N	200	213.9	60	130	63	6.5		14	
AFM45-250-Z16-A60R-SN12-N	250	263.9	60	180	63	6.5		16	
AFM45-315-Z14-A60R-SN12-M	315	328.5	60	220	63	6.5		14	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 2.000-6.000			31 in lbs
	SP050120	DT-TP20	

Note: With internal coolant
 Without internal coolant

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP25TU	AP35TU	AC301P	AP403M	AC301K	AP25TK	AW100K
SNGX 1206ANN-MM3	0.016	0.071	●	●	●		●	●	
SNGX 1206ANN-MM4	0.016	0.071	●	●	●	●	●	●	
SNGX 1206ANN-MR6	0.016	0.071	●	●	●		●	●	
SNGX 1206ANN-RR2	0.020	0.071	●	●	●		●	●	
SNGX 120608-MM4	0.031	-	●	●	●		●	●	
SNGX 120612-MM4	0.047	-	●	●	●		●	●	
SNMX 1206ANN-MM3	0.016	0.071	●	●	●		●	●	
SNMX 1206ANN-MM4	0.016	0.071	●	●	●	●	●	●	
SNMX 1206ANN-MR6	0.016	0.071	●	●	●		●	●	
SNMX 120608-MM4	0.031	-	●	●	●		●	●	
SNMX 120612-MM3	0.047	-	●	●	●		●	●	
SNMX 120612-MM4	0.047	-	●	●	●		●	●	
SNMX 120612R-MM4	0.047	-	●	●	●	●	●	●	
SNMX 120612-MR6	0.047	-	●	●	●		●	●	
SNMX 120612-RR2	0.047	-	●	●	●		●	●	
SNMX 120620-MM4	0.079	-	●	●	●		●	●	
SNMX 120620-RR2	0.079	-	●	●	●		●	●	
SNHX 1206ANN-FM2	0.020	0.071							●
SNHX 1206ANN-W	0.047	0.264	●				●		

●: Stock available

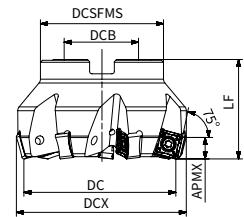
Materials				Cutting depth and feed													
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	SN.. 1206..													
				ap	Geometry					fz							
					MM3	MM4	MR6	RR2	FM2								
				(in)													
min	max	min	max	min	max	min	max	min	max	min	max	min	max				
P	Unalloyed steel	<87,022	<180	0.008	0.256	0.006	0.014	0.007	0.015	0.007	0.016	0.007	0.018	-	-		
		<137,785	<280														
	Alloyed steel	101,526-137,785	200-280			0.005	0.013	0.006	0.014	0.006	0.015	0.006	0.015	-	-		
		137,785-174,044	280-355														
	174,044-203,052	355-415															
M	Duplex stainless steel	112,839	230														
	Austenitic stainless steel	97,900	200			0.005	0.012	0.005	0.013	-	-	-	-	-	-	-	-
	Precipitation-hardening stainless steel	146,923	300														
K	Grey cast iron	101,526	220														
	Nodular cast iron	127,633	260														
	Malleable cast iron	116,030	250														
N	Aluminum	37,709	75														
	Aluminum alloy	64,831	130										0.006	0.014			
S	Fe-based alloy	136,770	280														
	Co-based alloy	156,060	320														
	Ni-based alloy	170,709	350														
	Ti-alloy	183,037	370														
H	Hardened steel	-	50-60HRC														
	Chilled cast iron	-	55HRC														

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM75-SN12

75° Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM75-02000-Z04-A0750R-SN12-C	2.000	2.252	0.750	1.654	1.575	0.315		4	SN..1206ENN.. SN..1206..
AFM75-02500-Z06-A1000R-SN12-C	2.500	2.752	1.000	2.165	1.969	0.315		6	
AFM75-03000-Z07-A1000R-SN12-C	3.000	3.252	1.000	2.165	1.969	0.315		7	
AFM75-04000-Z08-A1500R-SN12-C	4.000	4.252	1.500	3.740	2.480	0.315		8	
AFM75-05000-Z08-A1500R-SN12-C	5.000	5.252	1.500	3.740	2.480	0.315		8	
AFM75-05000-Z10-A1500R-SN12-C	5.000	5.252	1.500	3.740	2.480	0.315		10	
AFM75-06000-Z10-A2000R-SN12	6.000	6.252	2000	4.724	2.480	0.315		10	
AFM75-08000-Z14-A2500R-SN12	8.000	8.252	2.500	5.118	2.480	0.315		14	
AFM75-10000-Z16-A2500R-SN12	10.000	10.252	2.500	6.299	2.480	0.315		16	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM75-050-Z04-A22R-SN12-N-C	50	56.4	22	42	40	8		4	SN..1206ENN.. SN..1206..
AFM75-063-Z06-A22R-SN12-N-C	63	69.4	22	52	40	8		6	
AFM75-080-Z07-A27R-SN12-N-C	80	86.4	27	62	50	8		7	
AFM75-100-Z08-A32R-SN12-N-C	100	106.4	32	67	50	8		8	
AFM75-125-Z08-A40R-SN12-N-C	125	131.4	40	90	63	8		8	
AFM75-125-Z10-A40R-SN12-N-C	125	131.4	40	90	63	8		10	
AFM75-160-Z10-A40R-SN12-N	160	166.4	40	107	63	8		10	
AFM75-200-Z14-A60R-SN12-N	200	206.4	60	130	63	8		14	
AFM75-250-Z16-A60R-SN12-N	250	256.4	60	180	63	8		16	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 2.000-10.000			31 in lbs
	SP050120	DT-TP20	

Note: With internal coolant
 Without internal coolant

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
SNGX 1206ENN-MM3	0.031	0.047	●	●	●		●	●	
SNGX 1206ENN-MM4	0.031	0.047	●	●	●		●	●	
SNGX 1206ENN-MR6	0.031	0.047	●	●	●		●	●	
SNGX 120608-MM4	0.031	-	●	●	●		●	●	
SNGX 120612-MM4	0.047	-	●						
SNMX 1206ENN-MM4	0.031	0.047			●			●	
SNMX 120608-MM4	0.031	-	●	●	●		●	●	
SNMX 120612-MM3	0.047	-	●	●	●		●	●	
SNMX 120612-MM4	0.047	-	●	●	●		●	●	
SNMX 120612R-MM4	0.047	-	●	●	●	●	●	●	
SNMX 120612-MR6	0.047	-	●	●	●		●	●	
SNMX 120612-RR2	0.047	-	●	●	●		●	●	
SNMX 120620-MM4	0.079	-	●	●	●		●	●	
SNMX 120620-RR2	0.079	-	●	●	●		●	●	
SNHX 1206ENN-W	0.024	0.189	●				●		

●: Stock available

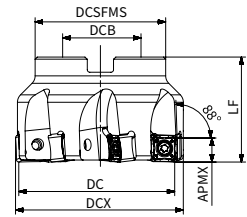
Materials				Cutting depth and feed										
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	SN..1206..										
				ap	Geometry				fz					
					MM3		MM4		MR6		RR2			
					(in)									
				min	max	min	max	min	max	min	max	min	max	
P	Unalloyed steel	<87,022	<180	0.008	0.315	0.005	0.013	0.007	0.014	0.006	0.015	0.007	0.016	
		<137,785	<280											
	Alloyed steel	101,526-137,785	200-280			0.004	0.012	0.005	0.013	0.004	0.014	0.006	0.014	
		137,785-174,044	280-355											
174,044-203,052	355-415													
M	Duplex stainless steel	112,839	230											
	Austenitic stainless steel	97,900	200			0.004	0.011	0.004	0.012	-	-	-	-	
	Precipitation-hardening stainless steel	146,923	300											
K	Grey cast iron	101,526	220											
	Nodular cast iron	127,633	260											
	Malleable cast iron	116,030	250											
N	Aluminum	37,709	75											
	Aluminum alloy	64,831	130											
S	Fe-based alloy	136,770	280											
	Co-based alloy	156,060	320											
	Ni-based alloy	170,709	350	0.004	0.009	0.004	0.010	-	-	-	-			
	Ti-alloy	183,037	370											
H	Hardened steel	-	50-60HRC											
	Chilled cast iron	-	55HRC											

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM88-SN12

88° Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM88-02000-Z04-A0750R-SN12-C	2.000	2.031	0.750	1.654	1.575	0.393		4	SN..1206ZNN.. SN..1206..
AFM88-02500-Z06-A1000R-SN12-C	2.500	2.531	1.000	2.165	1.969	0.393		6	
AFM88-03000-Z07-A1000R-SN12-C	3.000	3.031	1.000	2.165	1.969	0.393		7	
AFM88-04000-Z08-A1500R-SN12-C	4.000	4.037	1.500	3.740	2.480	0.393		8	
AFM88-04000-Z11-A1500R-SN12-C	4.000	4.037	1.500	3.740	2.480	0.393		11	
AFM88-05000-Z10-A1500R-SN12-C	5.000	5.037	1.500	3.740	2.480	0.393		10	
AFM88-05000-Z13-A1500R-SN12	5.000	5.037	1.500	3.740	2.480	0.393		13	
AFM88-06000-Z12-A2000R-SN12	6.000	6.030	2.000	4.724	2.480	0.393		12	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM88-050-Z04-A22R-SN12-N-C	50	51.2	22	42	40	10		4	SN..1206ZNN.. SN..1206..
AFM88-063-Z04-A22R-SN12-N-C	63	64.2	22	52	40	10		4	
AFM88-063-Z06-A22R-SN12-N-C	63	64.2	22	62	40	10		6	
AFM88-080-Z04-A27R-SN12-N-C	80	81.2	27	62	50	10		4	
AFM88-080-Z07-A27R-SN12-N-C	80	81.2	27	62	50	10		7	
AFM88-100-Z08-A32R-SN12-N-C	100	101.2	32	77	50	10		8	
AFM88-100-Z11-A32R-SN12-N-C	100	101.2	32	77	50	10		11	
AFM88-125-Z10-A40R-SN12-N-C	125	126.2	40	90	63	10		10	
AFM88-125-Z13-A40R-SN12-N-C	125	126.2	40	90	63	10		13	
AFM88-160-Z12-A40R-SN12-N	160	161.2	40	108	63	10		12	
AFM88-200-Z14-A60R-SN12-N	200	201.2	60	130	63	10		14	
AFM88-250-Z12-A60R-SN12-M	250	250.9	60	180	63	10		12	
AFM88-315-Z14-A60R-SN12-M	315	315.9	60	220	63	10		14	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 2.000-6.000			31 in lbs
	SP050120	DT-TP20	

Note: With internal coolant
 Without internal coolant

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
SNGX 1206ZNN-MM3	0.031	0.047	●	●	●		●	●	
SNGX 1206ZNN-MM4	0.031	0.047	●	●	●	●	●	●	
SNGX 1206ZNN-MR6	0.031	0.047	●	●	●		●	●	
SNGX 120608-MM4	0.031	-	●	●	●		●	●	
SNGX 120612-MM4	0.047	-	●						
SNMX 120608-MM4	0.031	-	●	●	●		●	●	
SNMX 120612-MM3	0.047	-	●	●	●		●	●	
SNMX 120612-MM4	0.047	-	●	●	●		●	●	
SNMX 120612R-MM4	0.047	-	●	●	●	●	●	●	
SNMX 120612-MR6	0.047	-	●	●	●		●	●	
SNMX 120612-RR2	0.047	-	●	●	●		●	●	
SNMX 120620-MM4	0.079	-	●	●	●		●	●	
SNMX 120620-RR2	0.079	-	●	●	●		●	●	
SNHX 1206ZNN-FM2	0.031	0.047							●
SNHX 1206ZNN-W	0.039	0.173	●				●		

● : Stock available

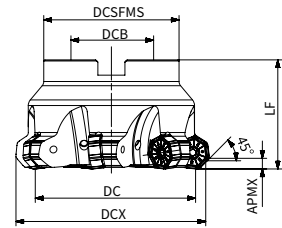
Materials				Cutting depth and feed												
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	SN.. 1206..												
				ap	Geometry					fz						
					MM3	MM4	MR6	RR2	FM2							
				(in)												
				min	max	min	max	min	max	min	max	min	max	min	max	
P	Unalloyed steel	<87,022	<180	0.008	0.394	0.005	0.013	0.007	0.014	0.006	0.015	0.007	0.016	-	-	
		<137,785	<280													
	Alloyed steel	101,526-137,785	200-280			0.004	0.012	0.005	0.013	0.004	0.014	0.006	0.014	-	-	
		137,785-174,044	280-355													
	174,044-203,052	355-415														
M	Duplex stainless steel	112,839	230													
	Austenitic stainless steel	97,900	200			0.004	0.011	0.004	0.012	-	-	-	-	-	-	
	Precipitation-hardening stainless steel	146,923	300													
K	Grey cast iron	101,526	220													
	Nodular cast iron	127,633	260			0.005	0.013	0.006	0.014	0.005	0.014	0.007	0.016	-	-	
	Malleable cast iron	116,030	250													
N	Aluminum	37,709	75													
	Aluminum alloy	64,831	130									0.005	0.013			
S	Fe-based alloy	136,770	280													
	Co-based alloy	156,060	320													
	Ni-based alloy	170,709	350	0.004	0.009	0.004	0.010	-	-	-	-	-	-			
	Ti-alloy	183,037	370													
H	Hardened steel	-	50-60HRC													
	Chilled cast iron	-	55HRC													

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM45-XN07

45° Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-02000-Z04-A0750R-XN07-C	2.000	2.380	0.750	1.654	1.575	0.173		4	XN..0705..
AFM45-02000-Z05-A0750R-XN07-C	2.000	2.380	0.750	1.654	1.575	0.173		5	
AFM45-03000-Z06-A1000R-XN07-C	3.000	3.380	1.000	2.165	1.969	0.173		6	
AFM45-03000-Z07-A1000R-XN07-C	3.000	3.380	1.000	2.165	1.969	0.173		7	
AFM45-04000-Z07-A1500R-XN07-C	4.000	4.380	1.500	3.740	2.480	0.173		7	
AFM45-04000-Z08-A1500R-XN07-C	4.000	4.380	1.500	3.740	2.480	0.173		8	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-040-Z03-A16R-XN07-C	40	49.7	16	35	40	4.4		3	XN..0705..
AFM45-050-Z04-A22R-XN07-C	50	59.7	22	42	40	4.4		4	
AFM45-050-Z05-A22R-XN07-C	50	59.7	22	42	40	4.4		5	
AFM45-063-Z05-A22R-XN07-C	63	72.7	22	48	40	4.4		5	
AFM45-063-Z06-A22R-XN07-C	63	72.7	22	48	40	4.4		6	
AFM45-080-Z06-A27R-XN07-C	80	89.7	27	62	50	4.4		6	
AFM45-080-Z07-A27R-XN07-C	80	89.7	27	62	50	4.4		7	
AFM45-100-Z07-A32R-XN07-C	100	109.7	32	77	50	4.4		7	
AFM45-100-Z08-A32R-XN07-C	100	109.7	32	77	50	4.4		8	
AFM45-125-Z08-A40R-XN07-C	125	134.7	40	87	63	4.4		8	
AFM45-125-Z10-A40R-XN07-C	125	134.7	40	87	63	4.4		10	
AFM45-160-Z09-A40R-XN07	160	169.7	40	107	63	4.4		9	
AFM45-160-Z12-A40R-XN07	160	169.7	40	107	63	4.4		12	
AFM45-200-Z14-A60R-XN07	200	209.3	60	130	63	4.4		14	
AFM45-250-Z14-A60R-XN07-S	250	259.6	60	180	63	4.4		14	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 2.000-4.000			27 in lbs
	SP035120H	DT-TP15	

Product code	Dimension (in)		P			M	K		N
	corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
XNGU 0705ANN-MM3	0.031	0.043	●	●			●		
XNGU 0705ANN-MM4	0.031	0.043	●				●		
XNMU 0705ANN-MM4	0.031	0.043	●	●	●		●	●	
XNMU 0705ANN-MR6	0.031	0.043	●	●			●	●	
XNMU 070508-MM4	0.031	-	●	●		●	●	●	
XNGX 0705ANN-W	0.039	0.220	●				●		

● : Stock available

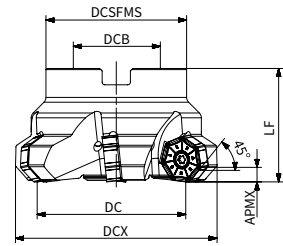
Materials				Cutting depth and feed								
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	XN.. 0705..								
				ap	Geometry			fz				
			MM3			MM4		MR6				
				(in)								
				min	max	min	max	min	max	min	max	
P	Unalloyed steel	<87,022	<180	0.008	0.173	0.006	0.014	7.000	0.015	0.007	0.016	
		<137,785	<280									
	Alloyed steel	101,526-137,785	200-280			0.005	0.013	0.006	0.014	0.006	0.015	
		137,785-174,044	280-355									
	174,044-203,052	355-415										
M	Duplex stainless steel	112,839	230									
	Austenitic stainless steel	97,900	200			0.005	0.012	0.005	0.013	-	-	
	Precipitation-hardening stainless steel	146,923	300									
K	Grey cast iron	101,526	220									
	Nodular cast iron	127,633	260			0.006	0.014	0.007	0.015	0.007	0.016	
	Malleable cast iron	116,030	250									
N	Aluminum	37,709	75									
	Aluminum alloy	64,831	130	-	-	-	-	-	-			
S	Fe-based alloy	136,770	280									
	Co-based alloy	156,060	320	0.004	0.010	0.005	0.011	-	-			
	Ni-based alloy	170,709	350									
	Ti-alloy	183,037	370									
H	Hardened steel	-	50-60HRC									
	Chilled cast iron	-	55HRC	-	-	-	-	-	-			

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

AFM45-XN09

45° Approaching angle face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-02500-Z05-A1000R-XN09-C	2.500	2.980	1.000	2.165	1.969	0.236		5	XN..0906..
AFM45-03000-Z06-A1000R-XN09-C	3.000	3.480	1.000	2.165	1.969	0.236		6	
AFM45-04000-Z07-A1500R-XN09-C	4.000	4.480	1.500	3.740	2.480	0.236		7	
AFM45-04000-Z08-A1500R-XN09-C	4.000	4.480	1.500	3.740	2.480	0.236		8	
AFM45-05000-Z08-A1500R-XN09-C	5.000	5.480	1.500	3.740	2.480	0.236		8	
AFM45-05000-Z10-A1500R-XN09-C	5.000	5.480	1.500	3.740	2.480	0.236		10	
AFM45-06000-Z09-A2000R-XN09	6.000	6.480	2.000	4.724	2.480	0.236		9	
AFM45-06000-Z11-A2000R-XN09	6.000	6.480	2.000	4.724	2.480	0.236		11	
AFM45-08000-Z12-A2500R-XN09	8.000	8.480	2.500	5.118	2.480	0.236		12	

Metric

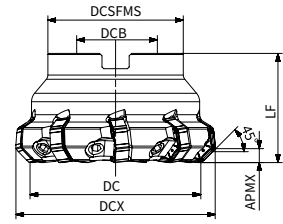
Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-063-Z05-A22R-XN09-C	63	75.2	22	48	40	6		5	XN..0906..
AFM45-080-Z06-A27R-XN09-C	80	92.2	27	62	50	6		6	
AFM45-100-Z07-A32R-XN09-C	100	112.2	32	80	50	6		7	
AFM45-100-Z08-A32R-XN09-C	100	112.2	32	80	50	6		8	
AFM45-125-Z08-A40R-XN09-C	125	137.2	40	87	63	6		8	
AFM45-125-Z10-A40R-XN09-C	125	137.2	40	87	63	6		10	
AFM45-160-Z09-A40R-XN09	160	172.2	40	107	63	6		9	
AFM45-160-Z11-A40R-XN09	160	172.2	40	107	63	6		11	
AFM45-200-Z12-A60R-XN09	200	212.2	60	130	63	6		12	
AFM45-250-Z12-A60R-XN09-S	250	262.8	60	180	63	6		12	
AFM45-315-Z14-A60R-XN09-S	315	328.2	60	240	63	6		14	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
ø 2.500-8.000			44 in lbs
	SP050130	DT-TP20	

AFM45-XN09-W

45° Wedge clamping face milling cutter



Inch

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-03000-Z09-A1000R-XN09-W	3.000	3.502	1.000	2.165	1.969	0.236		9	XN..0906..
AFM45-04000-Z12-A1500R-XN09-W	4.000	4.502	1.500	3.740	2.480	0.236		12	
AFM45-05000-Z16-A1500R-XN09-W	5.000	5.502	1.500	3.740	2.480	0.236		16	
AFM45-05000-Z16-A1500L-XN09-W	5.000	5.502	1.500	3.740	2.480	0.236		16	
AFM45-06000-Z20-A2000R-XN09-W	6.000	6.502	2.000	4.724	2.480	0.236		20	
AFM45-06000-Z20-A2000L-XN09-W	6.000	6.502	2.000	4.724	2.480	0.236		20	
AFM45-08000-Z26-A2500R-XN09-W	8.000	8.502	2.500	5.118	2.480	0.236		26	
AFM45-08000-Z26-A2500L-XN09-W	8.000	8.502	2.500	5.118	2.480	0.236		26	

Metric

Product code	DC	DCX	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
AFM45-080-Z09-A27R-XN09-W	80	92.7	27	62	50	6		9	XN..0906..
AFM45-100-Z12-A32R-XN09-W	100	112.7	32	80	50	6		12	
AFM45-125-Z16-A40R-XN09-W	125	137.7	40	87	63	6		16	
AFM45-125-Z16-A40L-XN09-W	125	137.7	40	87	63	6		16	
AFM45-160-Z20-A40R-XN09-W	160	172.7	40	107	63	6		20	
AFM45-160-Z20-A40L-XN09-W	160	172.7	40	107	63	6		20	
AFM45-200-Z26-A60R-XN09-W	200	212.7	60	130	63	6		26	
AFM45-200-Z26-A60L-XN09-W	200	212.7	60	130	63	6		26	
AFM45-250-Z30-A60R-XN09-W	250	262.7	60	170	63	6		30	
AFM45-315-Z39-A60R-XN09-W	315	327.7	60	250	63	6		39	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts			
Cutter diameter	Wedge	Screw	Wrench	Touque
∅ 3.000-8.000				62 in lbs
	AWG-8H	WD080320F	AWH4	

Product code	Dimension (in)		P			M	K		N
	Corner radius	Wiper length	AP251U	AP351U	AC301P	AP403M	AC301K	AP251K	AW100K
XNGU 0906ANN-MM3	0.031	0.055	●	●	●		●		
XNGU 0906ANN-MM4	0.031	0.055	●	●	●		●		
XNMU 0906ANN-MR6	0.031	0.055	●				●	●	
XNMF 0906ANN-MR6	0.031	0.055					●	●	
XNMU 090612-MM4	0.047	-	●	●		●	●	●	
XNGX 0906ANN-W	0.039	0.295	●				●		

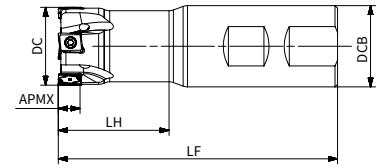
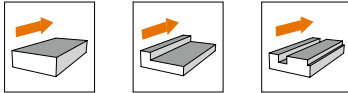
●: Stock available

Materials				Cutting depth and feed								
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	XN..0906..								
				ap	Geometry			fz				
			MM3			MM4			MR6			
				(in)								
				min	max	min	max	min	max	min	max	
P	Unalloyed steel	<87,022	<180	0.008	0.236	0.006	0.014	0.007	0.015	0.007	0.016	
		<137,785	<280									
	Alloyed steel	101,526-137,785	200-280			0.005	0.013	0.015	0.014	0.006	0.015	
		137,785-174,044	280-355									
	174,044-203,052	355-415										
M	Duplex stainless steel	112,839	230									
	Austenitic stainless steel	97,900	200			0.005	0.012	0.005	0.013	-	-	
	Precipitation-hardening stainless steel	146,923	300									
K	Grey cast iron	101,526	220									
	Nodular cast iron	127,633	260			0.006	0.014	0.007	0.015	0.007	0.016	
	Malleable cast iron	116,030	250									
N	Aluminum	37,709	75									
	Aluminum alloy	64,831	130	-	-	-	-	-	-			
S	Fe-based alloy	136,770	280									
	Co-based alloy	156,060	320	0.004	0.010	0.005	0.011	-	-			
	Ni-based alloy	170,709	350									
	Ti-alloy	183,037	370									
H	Hardened steel	-	50-60HRC									
	Chilled cast iron	-	55HRC	-	-	-	-	-	-			

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

ASM90-LN09

Square shoulder milling cutter



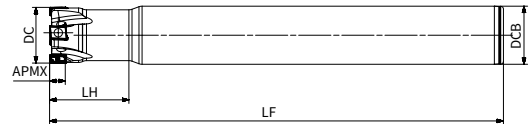
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-01000-Z03-W1000R-LN09-C	1.000	1.000	4.000	1.719	0.314		3	LNHU 0904..
ASM90-01000-Z04-W1000R-LN09-C	1.000	1.000	4.000	1.719	0.314		4	
ASM90-01250-Z04-W1250R-LN09-C	1.250	1.250	4.000	1.719	0.314		4	
ASM90-01250-Z05-W1250R-LN09-C	1.250	1.250	4.000	1.719	0.314		5	
ASM90-01500-Z04-W1500R-LN09-C	1.500	1.250	4.000	1.200	0.314		4	
ASM90-01500-Z06-W1500R-LN09-C	1.500	1.250	4.000	1.200	0.314		6	

Metric

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-025-Z03-W25R-LN09-C	25	25	100	39	8		3	LNHU 0904..
ASM90-025-Z04-W25R-LN09-C	25	25	100	39	8		4	
ASM90-032-Z04-W32R-LN09-C	32	32	110	44	8		4	
ASM90-032-Z05-W32R-LN09-C	32	32	110	44	8		5	
ASM90-040-Z04-W32R-LN09-C	40	32	110	25	8		4	
ASM90-040-Z06-W32R-LN09-C	40	32	110	25	8		6	

Milling cutters



Inch

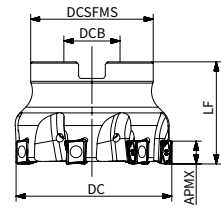
Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-00750-Z02-C0750R-LN09-L4500	0.750	0.750	4.500	1.220	0.314		2	LNHU 0904..
ASM90-00750-Z03-C0750R-LN09-L4500	0.750	0.750	4.500	1.220	0.314		3	
ASM90-01000-Z03-C1000R-LN09-L8000-C	1.000	1.000	8.000	1.574	0.314		3	
ASM90-01000-Z04-C1000R-LN09-L8000-C	1.000	1.000	8.000	1.574	0.314		4	
ASM90-01250-Z04-C1250R-LN09-L10000-C	1.250	1.250	10.000	1.968	0.314		4	
ASM90-01250-Z05-C1250R-LN09-L10000-C	1.250	1.250	10.000	1.968	0.314		5	

Metric

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-020-Z02-C20R-LN09-L110	20	20	110	30	8		2	LNHU 0904..
ASM90-020-Z03-C20R-LN09-L110	20	20	110	30	8		3	
ASM90-021-Z02-C20R-LN09-L200	21	20	200	30	8		2	
ASM90-025-Z03-C25R-LN09-L200-C	25	25	200	34	8		3	
ASM90-025-Z04-C25R-LN09-L200-C	25	25	200	34	8		4	
ASM90-026-Z03-C25R-LN09-L200-C	26	25	200	34	8		3	
ASM90-028-Z03-C25R-LN09-L110-C	28	25	110	34	8		3	
ASM90-032-Z04-C32R-LN09-L250-C	32	32	250	45	8		4	
ASM90-032-Z05-C32R-LN09-L250-C	32	32	250	45	8		5	
ASM90-033-Z04-C32R-LN09-L250-C	33	32	250	45	8		4	

ASM90-LN09

Square shoulder milling cutter



Inch

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-01500-Z04-A0750R-LN09-C	1.500	0.750	1.575	1.378	0.314		4	LNHU 0904..
ASM90-01500-Z06-A0750R-LN09-C	1.500	0.750	1.575	1.378	0.314		6	
ASM90-02000-Z05-A0750R-LN09-C	2.000	0.750	1.575	1.654	0.314		5	
ASM90-02000-Z07-A0750R-LN09-C	2.000	0.750	1.575	1.654	0.314		7	
ASM90-02500-Z07-A1000R-LN09-C	2.500	1.000	1.969	2.165	0.314		7	
ASM90-02500-Z10-A1000R-LN09-C	2.500	1.000	1.969	2.165	0.314		10	
ASM90-03000-Z09-A1000R-LN09-C	3.000	1.000	1.969	2.165	0.314		9	
ASM90-03000-Z13-A1000R-LN09-C	3.000	1.000	1.969	2.165	0.314		13	

Metric

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-040-Z04-A16R-LN09-C	40	16	40	35	8		4	LNHU 0904..
ASM90-040-Z06-A16R-LN09-C	40	16	40	35	8		6	
ASM90-050-Z05-A22R-LN09-C	50	22	40	42	8		5	
ASM90-050-Z07-A22R-LN09-C	50	22	40	42	8		7	
ASM90-063-Z07-A22R-LN09-C	63	22	40	48	8		7	
ASM90-063-Z10-A22R-LN09-C	63	22	40	48	8		10	
ASM90-080-Z09-A27R-LN09-C	80	27	50	62	8		9	
ASM90-080-Z13-A27R-LN09-C	80	27	50	62	8		13	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 0.750-3.000			16 in lbs
	SP030083	DT-TP09	

Product code	Dimension (in)		P		M		K		N
	Corner radius	Wiper length	AP251U	AP351U	AP351M	AP403M	AC301K	AP251K	AW100K
LNHU 090404ER-FM2	0.016	0.073							●
LNHU 090404ER-MM3	0.016	0.073		●		●			
LNHU 090404ER-MR2	0.016	0.073	●	●		●	●	●	
LNHU 090408ER-MR2	0.031	0.051	●	●		●	●	●	
LNHU 090412ER-MR2	0.047	0.039	●			●	●		
LNHU 090416ER-MR2	0.063	0.026	●			●	●		
LNHU 090420ER-MR2	0.079	0.026	●			●	●		
LNHU 0904PDER-W	0.016	0.142	●				●		

●: Stock available

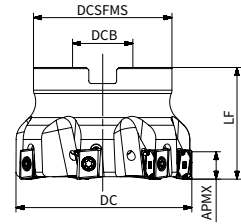
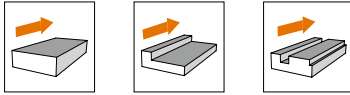
Materials				Cutting depth and feed									
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	LNHU 0904..									
				ap	Geometry			fz					
					MR2	MM4	FM2	(in)					
						min	max	min	max	min	max	min	max
P	Unalloyed steel	<87,022	<180	0.008	0.314	0.003	0.011	0.003	0.010	-	-		
		<137,785	<280										
	Alloyed steel	101,526-137,785	200-280			0.002	0.009	0.002	0.008	-	-		
		137,785-174,044	280-355										
M	Duplex stainless steel	112,839	230										
	Austenitic stainless steel	97,900	200			0.002	0.009	0.002	0.008	-	-		
	Precipitation-hardening stainless steel	146,923	300										
K	Grey cast iron	101,526	220					0.003	0.012	0.003	0.011	-	-
	Nodular cast iron	127,633	260										
	Malleable cast iron	116,030	250										
N	Aluminum	37,709	75					-	-	-	-	0.002	0.010
	Aluminum alloy	64,831	130										
S	Fe-based alloy	136,770	280					0.003	0.006	-	-		
	Co-based alloy	156,060	320										
	Ni-based alloy	170,709	350										
	Ti-alloy	183,037	370										
H	Hardened steel	-	50-60HRC			-	-	-	-	-	-		
	Chilled cast iron	-	55HRC										

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

ASM90-LN13

Square shoulder milling cutter




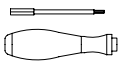


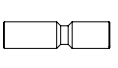
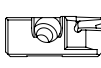

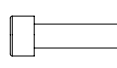
Inch

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-02000-Z05-A0750R-LN13-C	2.000	0.750	1.575	1.654	0.472		5	LNHU 1306..
ASM90-02000-Z06-A0750R-LN13-C	2.000	0.750	1.575	1.654	0.472		6	
ASM90-03000-Z07-A1000R-LN13-C	3.000	1.000	1.969	2.165	0.472		7	
ASM90-03000-Z10-A1000R-LN13-C	3.000	1.000	1.969	2.165	0.472		10	
ASM90-04000-Z09-A1500R-LN13-C	4.000	1.500	2.480	3.740	0.472		9	
ASM90-04000-Z13-A1500R-LN13	4.000	1.500	2.480	3.740	0.472		13	

Metric

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-040-Z04-A16R-LN13-C	40	16	40	35	12		4	LNHU 1306..
ASM90-040-Z05-A16R-LN13-C	40	16	40	35	12		5	
ASM90-050-Z05-A22R-LN13-C	50	22	40	42	12		5	
ASM90-050-Z06-A22R-LN13-C	50	22	40	42	12		6	
ASM90-063-Z04-A22R-LN13-C	63	22	40	48	12		4	
ASM90-063-Z06-A22R-LN13-C	63	22	40	48	12		6	
ASM90-063-Z08-A22R-LN13-C	63	22	40	48	12		8	
ASM90-080-Z05-A27R-LN13-C	80	27	50	62	12		5	
ASM90-080-Z07-A27R-LN13-C	80	27	50	62	12		7	
ASM90-080-Z10-A27R-LN13-C	80	27	50	62	12		10	
ASM90-100-Z07-A32R-LN13-C	100	32	50	80	12		7	
ASM90-100-Z09-A32R-LN13-C	100	32	50	80	12		9	
ASM90-100-Z13-A32R-LN13-C	100	32	50	80	12		13	
ASM90-125-Z09-A40R-LN13-C	125	40	63	87	12		9	
ASM90-125-Z11-A40R-LN13-C	125	40	63	87	12		11	
ASM90-125-Z16-A40R-LN13-C	125	40	63	87	12		16	
ASM90-160-Z09-A40R-LN13	160	40	63	107	12		9	
ASM90-160-Z13-A40R-LN13	160	40	63	107	12		13	
ASM90-200-Z12-A60R-LN13	200	60	63	140	12		12	
ASM90-250-Z12-A60R-LN13-M	250	60	63	180	12		12	
ASM90-315-Z14-A60R-LN13-M	315	60	63	220	12		14	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts								Torque
	Cutter diameter	Screw	Wrench	Wedge	Wedge wrench	Wedge screw	Cartridge	Cartridge wrench	
Ø 2.000-4.000									3.5Nm
	SP040115	DT-TP15	AWG-6H-6	LT-H3	AWCH624	C-LN1342-62-90	LT-H5	ACH622	

Product code	Dimension (in)		P		M		K		N
	Corner radius	Wiper length	AP251U	AP351U	AP351M	AP403M	AC301K	AP251K	AW100K
LNHU 130608ER-FM2	0.031	0.106		●					●
LNHU 130608ER-MM3	0.031	0.106		●		●			
LNHU 130608ER-MR2	0.031	0.106	●	●	●	●	●	●	
LNHU 130612ER-MR2	0.047	0.091	●	●	●	●	●		
LNHU 130616ER-MR2	0.063	0.075	●	●	●	●	●	●	
LNHU 130620ER-MR2	0.079	0.059	●	●	●	●			
LNHU 130624ER-MR2	0.094	0.039		●	●	●			
LNHU 130631ER-MR2	0.122	0.016		●	●	●	●		
LNHU 1306PDR-W	0.031	0.220	●				●		

●: Stock available

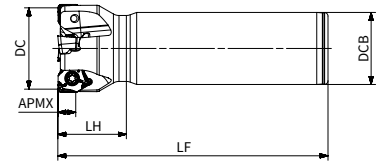
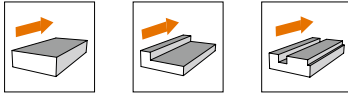
Materials				Cutting depth and feed											
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	LNHU..1306..											
				ap	Geometry										
					MM3		MR2								
					fz										
(in)						min	max	min	max	min	max				
P	Unalloyed steel	<87,022	<180	0.012	0.472	0.004	0.012	0.005	0.014						
		<137,785	<280												
	Alloyed steel	101,526-137,785	200-280							0.003	0.010	0.004	0.012		
		137,785-174,044	280-355												
		174,044-203,052	355-415												
M	Duplex stainless steel	112,839	230							0.002	0.008	0.003	0.010		
	Austenitic stainless steel	97,900	200												
	Precipitation-hardening stainless steel	146,923	300												
K	Grey cast iron	101,526	220							-	-	0.005	0.014		
	Nodular cast iron	127,633	260												
	Malleable cast iron	116,030	250												
N	Aluminum	37,709	75							-	-	-	-		
	Aluminum alloy	64,831	130												
S	Fe-based alloy	136,770	280	0.002	0.007	0.003	0.009								
	Co-based alloy	156,060	320												
	Ni-based alloy	170,709	350												
	Ti-alloy	183,037	370												
H	Hardened steel	-	50-60HRC	-	-	0.003	0.008								
	Chilled cast iron	-	55HRC												

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

Milling cutters

ASM90-WN08-N

Square shoulder milling cutter



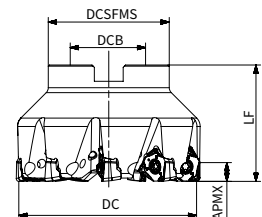
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-01500-Z03-W1250R-WN08-N-C	1.500	1.250	4.500	1.378	0.275		3	WNMU 0806..
ASM90-01500-Z04-W1250R-WN08-N-C	1.500	1.250	4.500	1.378	0.275		4	

Metric

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-040-Z03-W32R-WN08-N-C	40	32	120	30	7		3	WNMU 0806..
ASM90-040-Z04-W32R-WN08-N-C	40	32	120	30	7		4	

Inch



Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-02000-Z04-A0750R-WN08-N-C	2.000	0.750	1.575	1.654	0.275		4	WNMU 0806..
ASM90-02000-Z05-A0750R-WN08-N-C	2.000	0.750	1.575	1.654	0.275		5	
ASM90-02500-Z04-A1000R-WN08-N-C	2.500	1.000	1.969	2.165	0.275		4	
ASM90-02500-Z06-A1000R-WN08-N-C	2.500	1.000	1.969	2.165	0.275		6	
ASM90-02500-Z07-A1000R-WN08-N-C	2.500	1.000	1.969	2.165	0.275		7	
ASM90-03000-Z05-A1000R-WN08-N-C	3.000	1.000	1.969	2.165	0.275		5	
ASM90-03000-Z07-A1000R-WN08-N-C	3.000	1.000	1.969	2.165	0.275		7	
ASM90-03000-Z09-A1000R-WN08-N-C	3.000	1.000	1.969	2.165	0.275		9	
ASM90-04000-Z06-A1500R-WN08-N-C	4.000	1.500	2.480	3.740	0.275		6	
ASM90-04000-Z08-A1500R-WN08-N-C	4.000	1.500	2.480	3.740	0.275		8	
ASM90-04000-Z11-A1500R-WN08-N	4.000	1.500	2.480	3.740	0.275		11	
ASM90-05000-Z07-A1500R-WN08-N-C	5.000	1.500	2.480	3.740	0.275		7	
ASM90-05000-Z11-A1500R-WN08-N-C	5.000	1.500	2.480	3.740	0.275		11	
ASM90-05000-Z13-A1500R-WN08-N	5.000	1.500	2.480	3.740	0.275		13	
ASM90-06000-Z08-A2000R-WN08-N	6.000	2.000	2.480	4.724	0.275		8	
ASM90-06000-Z12-A2000R-WN08-N	6.000	2.000	2.480	4.724	0.275		12	

Metric

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-050-Z04-A22R-WN08-N-C	50	22	40	42	7		4	WNMU 0806..
ASM90-050-Z05-A22R-WN08-N-C	50	22	40	42	7		5	
ASM90-063-Z04-A22R-WN08-N-C	63	22	40	48	7		4	
ASM90-063-Z06-A22R-WN08-N-C	63	22	40	48	7		6	
ASM90-063-Z07-A22R-WN08-N-C	63	22	40	48	7		7	
ASM90-080-Z05-A27R-WN08-N-C	80	27	50	62	7		5	
ASM90-080-Z07-A27R-WN08-N-C	80	27	50	62	7		7	
ASM90-080-Z09-A27R-WN08-N-C	80	27	50	62	7		9	
ASM90-100-Z06-A32R-WN08-N-C	100	32	50	80	7		6	
ASM90-100-Z08-A32R-WN08-N-C	100	32	50	80	7		8	
ASM90-100-Z11-A32R-WN08-N-C	100	32	50	80	7		11	
ASM90-125-Z07-A40R-WN08-N-C	125	40	63	87	7		7	
ASM90-125-Z11-A40R-WN08-N-C	125	40	63	87	7		11	
ASM90-125-Z13-A40R-WN08-N-C	125	40	63	87	7		13	
ASM90-160-Z08-A40R-WN08-N	160	40	63	107	7		8	
ASM90-160-Z12-A40R-WN08-N	160	40	63	107	7		12	
ASM90-200-Z14-A60R-WN08-N	200	60	63	140	7		14	
ASM90-250-Z16-A60R-WN08-N	250	60	63	180	7		16	

Note: With internal coolant
 Without internal coolant

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
Ø 1.500-6.000			3.5Nm
	SP040112	DT-TP15	

Product code	Dimension (in)		P	M		K	
	Corner radius	Wiper length	AP251U	AP351M	AP403M	AC301K	AP251K
WNMU 080608R-MR2	0.031	0.091	●	●	●	●	●
WNMU 080608R-MM4	0.031	0.091	●	●	●	●	●
WNMU 080608R-MM3	0.031	0.091	●	●	●	●	●
WNMU 080612R-MR2	0.047	0.047	●	●		●	●
WNMU 080612R-MM4	0.047	0.046	●	●	●		●
WNMU 080616R-MR2	0.063	0.032	●		●		
WNMU 080616R-MM4	0.063	0.031	●		●		

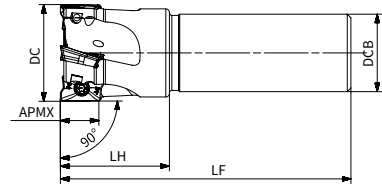
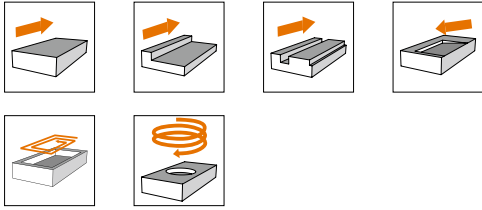
●: Stock available

Materials				Cutting depth and feed							
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	WNMU 0806..							
				ap	MM3		MM4		MR2		
					(in)						
		min	max	min	max	min	max	min	max		
P	Unalloyed steel	<87,022	<180	0.023	0.275	0.005	0.010	0.005	0.011	0.005	0.012
		<137,785	<280								
	Alloyed steel	101,526-137,785	200-280			0.004	0.008	0.004	0.010	0.004	0.011
		137,785-174,044	280-355								
	174,044-203,052	355-415									
M	Duplex stainless steel	112,839	230								
	Austenitic stainless steel	97,900	200			0.08	0.007	0.003	0.007	-	-
	Precipitation-hardening stainless steel	146,923	300								
K	Grey cast iron	101,526	220								
	Nodular cast iron	127,633	260			0.003	0.008	0.004	0.011	0.006	0.012
	Malleable cast iron	116,030	250								
S	Fe-based alloy	136,770	280								
	Co-based alloy	156,060	320								
	Ni-based alloy	170,709	350	0.005	0.005	0.004	0.006	-	-		
	Ti-alloy	183,037	370								
H	Hardened steel	-	50-60HRC								
	Chilled cast iron	-	55HRC								

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

ASM90-AP17

Square shoulder milling cutter



Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-01000-Z02-C1000R-AP17-L4000-C	1.000	1.000	4.000	1.750	0.630		2	APKT 1705..
ASM90-01250-Z03-C1250R-AP17-L4500-C	1.250	1.250	4.500	2.250	0.630		3	
ASM90-01500-Z04-C1500R-AP17-L10000-C	1.500	1.500	10.000	2.250	0.630		4	

Metric

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-025-Z02-C25R-AP17-L100-C	25	25	100	39	16		2	APKT 1705..
ASM90-032-Z03-C32R-AP17-L110-C	32	32	110	40	16		3	
ASM90-032-Z03-C32R-AP17-L200-C	32	32	200	40	16		3	
ASM90-040-Z04-C32R-AP17-L120-C	40	32	120	45	16		4	

Inch

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-02000-Z05-A0750R-AP17-C	2.000	0.750	1.575	1.654	0.630		5	APKT 1705..
ASM90-02500-Z06-A1000R-AP17-C	2.500	1.000	1.969	2.165	0.630		6	

Metric

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-050-Z05-A22R-AP17-C	50	22	40	45	16		5	APKT 1705..
ASM90-063-Z06-A22R-AP17-C	63	22	40	55	16		6	
ASM90-080-Z06-A27R-AP17-C	80	27	50	62	16		6	
ASM90-100-Z08-A32R-AP17-C	100	32	50	78	16		8	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 1.000	SP040084	DT-TP15	4.0Nm
∅ 1.250-2.500	SP040100H		

Note: With internal coolant
 Without internal coolant

Milling cutters

Product code	Dimension (in)		P		M		K		S	N
	Corner radius	Wiper length	AP251U	AP351U	AP351M	AP403M	AC301K	AP251K	AP403S	AW100K
APKT 1705PDER-DT	0.031	0.085	●	●		●		●		●
APKT 170516R-DT	0.063	0.067	●					●		
APKT 170524R-DT	0.094	0.037	●		●	●		●		
APKT 170530R-DT	0.118	0.019	●		●	●		●		
APKT 170540R-DT	0.157	-	●		●	●				

●: Stock available

Materials				Cutting depth and feed					
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	APKT..1705..					
				ap		DT			
						fz			
				(in)					
				min	max	min	max		
P	Unalloyed steel	<87,022	<180	0.004	0.630	0.003	0.010		
		<137,785	<280						
	Alloyed steel	101,526-137,785	200-280					0.002	0.009
		137,785-174,044	280-355						
		174,044-203,052	355-415						
M	Duplex stainless steel	112839	230			0.002	0.008		
	Austenitic stainless steel	97900	200						
	Precipitation-hardening stainless steel	146923	300						
K	Grey cast iron	101,526	220	0.003	0.010				
	Nodular cast iron	127,633	260						
	Malleable cast iron	116,030	250						
N	Aluminum	37,709	75	0.002	0.012				
	Aluminum alloy	64,831	130						
S	Fe-based alloy	136,770	280	0.002	0.007				
	Co-based alloy	156,060	320						
	Ni-based alloy	170,709	350						
	Ti-alloy	183,037	370						
H	Hardened steel	-	50-60HRC	-	-				
	Chilled cast iron	-	55HRC						

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

ASM90-TD15

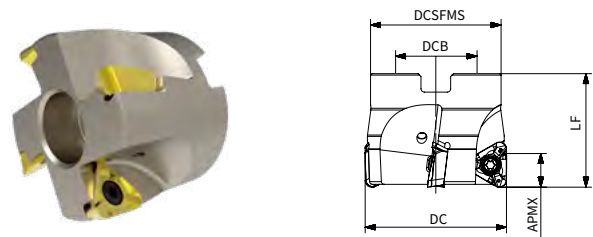
Square shoulder milling cutter



Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-01250-Z02-C1250R-TD15-C	1.250	1.250	5.125	2.750	0.433		2	TD.T 1505..
ASM90-01250-Z02-C1250R-TD15-L8000-C	1.250	1.250	8.000	2.750	0.433		2	
ASM90-01500-Z03-C1250R-TD15-C	1.500	1.250	4.724	1.575	0.433		3	
ASM90-01500-Z03-C1250R-TD15-L8000-C	1.500	1.250	8.000	1.575	0.433		3	


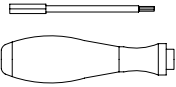
Inch

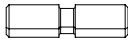




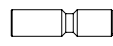




Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-01500-Z04-A0750R-TD15-C	1.500	0.750	1.575	1.378	0.433		4	TD.T 1505..
ASM90-02000-Z04-A0750R-TD15-C	2.000	0.750	1.575	1.654	0.433		4	
ASM90-02000-Z05-A0750R-TD15-C	2.000	0.750	1.575	1.654	0.433		5	
ASM90-02500-Z04-A1000R-TD15-C	2.500	1.000	1.969	2.165	0.433		4	
ASM90-02500-Z05-A1000R-TD15-C	2.500	1.000	1.969	2.165	0.433		5	
ASM90-02500-Z06-A1000R-TD15-C	2.500	1.000	1.969	2.165	0.433		6	
ASM90-03000-Z05-A1000R-TD15-C	3.000	1.000	1.969	2.165	0.433		5	
ASM90-03000-Z06-A1000R-TD15-C	3.000	1.000	1.969	2.165	0.433		6	
ASM90-03000-Z07-A1000R-TD15-C	3.000	1.000	1.969	2.165	0.433		7	
ASM90-04000-Z06-A1500R-TD15-C	4.000	1.500	2.480	3.740	0.433		6	
ASM90-04000-Z08-A1500R-TD15-C	4.000	1.500	2.480	3.740	0.433		8	
ASM90-05000-Z07-A1500R-TD15-C	5.000	1.500	2.480	3.740	0.433		7	
ASM90-05000-Z09-A1500R-TD15-C	5.000	1.500	2.480	3.740	0.433		9	
ASM90-06000-Z08-A2000R-TD15	6.000	2.000	2.480	4.724	0.433		8	
ASM90-06000-Z10-A2000R-TD15	6.000	2.000	2.480	4.724	0.433		10	
ASM90-08000-Z09-A2500R-TD15	8.000	2.500	2.480	5.118	0.433		9	
ASM90-08000-Z11-A2500R-TD15	8.000	2.500	2.480	5.118	0.433		11	

Note: With internal coolant
 Without internal coolant

Milling cutters

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 1.250-8.000			3.5Nm
	SP040100H	DT-TP15	
ASM90-01500-Z04-A0750R-TD15-C	WD080300	LT-H4	

Mounting bolt	Mounting bolt wrench	Cartridge screw	Cartridge screw wrench	Wedge	Wedge screw	Wedge screw wrench	Cartridge
							
WD080300	LT-H4	ACH622	LT-H5	AWG-6H-6	AWCH624	LT-H3	C-TD1540-62-90

Product code	Dimension (in)		P	M		K		N
	Corner radius	Wiper length	AP251U	AP351M	AP403M	AC301K	AP251K	AW100K
TDMT 150508R-MM4	0.031	0.059	●	●	●	●	●	
TDMT 150512R-MM4	0.047	0.039	●	●	●	●	●	
TDMT 150516R-MM4	0.063	0.037	●	●	●	●	●	
TDMT 150520R-MM4	0.079	0.028	●		●		●	
TDMT 150524R-MM4	0.094	0.023	●		●		●	
TDMT 150531R-MM4	0.122	0.016	●		●		●	
TDMT 150540R-MM4	0.157	0.016	●		●		●	
TDMT 150508R-MM3	0.031	0.059	●		●		●	
TDHT 150508R-MM4	0.031	0.059	●				●	

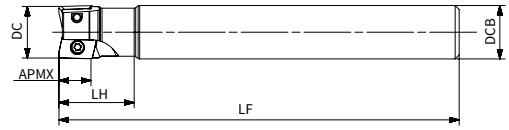
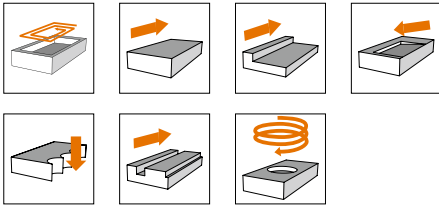
● : Stock available

Materials				Cutting depth and feed					
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	TD.T 1505..					
				ap		fz			
				(in)					
		min	max	min	max				
P	Unalloyed steel	<87,022	<180	0.004	0.433	0.003	0.010		
		<137,785	<280						
	Alloyed steel	101,526-137,785	200-280					0.002	0.009
		137,785-174,044	280-355						
M	Duplex stainless steel	112,839	230			0.002	0.008		
		174,044-203,052	355-415						
	Austenitic stainless steel	97,900	200						
	Precipitation-hardening stainless steel	146,923	300						
K	Grey cast iron	101.526	220	0.003	0.010				
	Nodular cast iron	127.633	260						
	Malleable cast iron	116.030	250						
N	Aluminum	37,709	75	0.002	0.012				
	Aluminum alloy	64,831	130						
S	Fe-based alloy	136,77	280	0.002	0.007				
	Co-based alloy	156,060	320						
	Ni-based alloy	170,709	350						
	Ti-alloy	183,037	370						
H	Hardened steel	-	50-60HRC	-	-				
	Chilled cast iron	-	55HRC						

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinker.

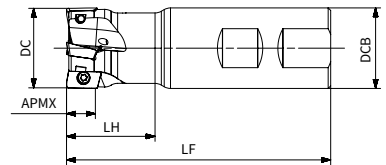
ASM90-A012

Square shoulder milling cutter



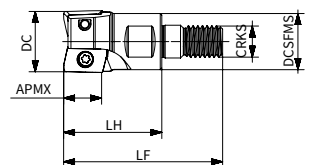
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-00750-Z02-C0750R-A012-L6000-C	0.750	0.750	6.000	1.102	0.433		2	AO.T 1204..
ASM90-01000-Z03-C1000R-A012-L6700-C	1.000	1.000	6.700	1.299	0.433		3	
ASM90-01250-Z04-C1250R-A012-L10000-C	1.250	1.250	10.000	1.378	0.433		4	



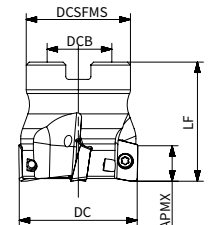
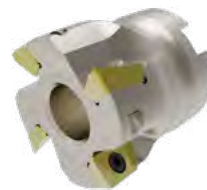
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
ASM90-00750-Z02-W0750R-A012-C	0.750	0.750	3.346	1.181	0.433		2	AO.T 1204..
ASM90-01000-Z03-W0750R-A012-C	1.000	0.750	3.740	1.378	0.433		3	
ASM90-01250-Z04-W1250R-A012-C	1.250	1.250	4.134	1.575	0.433		4	
ASM90-01500-Z04-W1250R-A012-C	1.500	1.500	4.724	1.772	0.433		4	



Inch

Product code	DC	LF	LH	CRKS	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-00750-Z02-M10R-A012-C	0.750	2.008	1.220	M10	0.709	0.433		2	AO.T 1204..
ASM90-01000-Z03-M12R-A012-C	1.000	2.323	1.457	M12	0.906	0.433		3	
ASM90-01250-Z04-M16R-A012-C	1.250	2.835	1.890	M16	1.142	0.433		4	

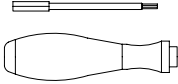


Inch

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Z	Inserts
ASM90-01500-Z04-A0750R-A012-C	1.500	0.750	1.575	1.378	0.433		4	AO.T 1204..
ASM90-02000-Z05-A0750R-A012-C	2.000	0.750	1.575	1.654	0.433		5	
ASM90-02000-Z07-A0750R-A012-C	2.000	0.750	1.575	1.654	0.433		7	
ASM90-02500-Z06-A1000R-A012-C	2.500	1.000	1.969	2.165	0.433		6	
ASM90-02500-Z08-A1000R-A012-C	2.500	1.000	1.969	2.165	0.433		8	
ASM90-03000-Z07-A1000R-A012-C	3.000	1.000	1.969	2.165	0.433		7	
ASM90-03000-Z10-A1000R-A012-C	3.000	1.000	1.969	2.165	0.433		10	

Note: With internal coolant
 Without internal coolant

Milling cutters

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 0.750-1.250	SP035078		4.0Nm
∅ 1.500-3.000	SP035086	DT-TP10	

Product code	Dimension (in)		P	M		K	S	
	Corner radius	Wiper length	AP251U	AP351M	AP403M	AC301K	AP251K	AP403S
AOGU 120408ER-MM3	0.031	-	●	●	●			●
AOMT 120408ER-MM4	0.031	0.061	●	●	●		●	●
AOMT 120412ER-MM4	0.047	0.046		●	●			●
AOMT 120416ER-MM4	0.063	0.046		●	●			●
AOMT 120420ER-MM4	0.079	0.038	●	●	●			●
AOMT 120424ER-MM4	0.094	0.037	●	●	●			●
AOMT 120431ER-MM4	0.122	0.023		●	●			●
AOMT 120440ER-MM4	0.157	0.030		●	●			●

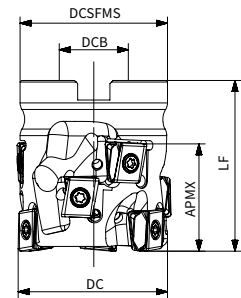
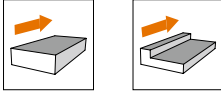
●: Stock available

Materials				Cutting depth and feed					
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	AO.T 1204..					
				ap		fz			
				(in)					
				min	max	min	max		
P	Unalloyed steel	<87,022	<180	0.004	0.433	0.003	0.010		
		<137,785	<280						
	Alloyed steel	101,526-137,785	200-280					0.002	0.009
		137,785-174,044	280-355						
		174,044-203,052	355-415						
M	Duplex stainless steel	112839	230			0.002	0.008		
	Austenitic stainless steel	97900	200						
	Precipitation-hardening stainless steel	146923	300						
K	Grey cast iron	101,526	220	0.003	0.010				
	Nodular cast iron	127,633	260						
	Malleable cast iron	116,030	250						
N	Aluminum	37,709	75	0.002	0.012				
	Aluminum alloy	64,831	130						
S	Fe-based alloy	136,770	280	0.002	0.007				
	Co-based alloy	156,060	320						
	Ni-based alloy	170,709	350						
	Ti-alloy	183,037	370						
H	Hardened steel	-	50-60HRC	-	-				
	Chilled cast iron	-	55HRC						

*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

APE90-LN13

Square shoulder porcupine milling cutter

**Inch**

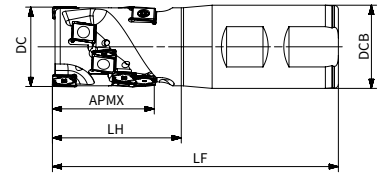
Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Clamping screw	Z	Row	Insert QTY	Inserts
APE90-01500-Z02-A0750R-LN13-L1339-F-C	1.500	0.750	2.165	1.535	1.339		SH100400	2	3	6	LNHU 1306..
APE90-01500-Z02-A0750R-LN13-L1772-F-C	1.500	0.750	2.559	1.535	1.772		SH100450	2	4	8	
APE90-02000-Z03-A0750R-LN13-L1339-F-C	2.000	0.750	2.165	1.870	1.339		SH100400	3	3	9	
APE90-02000-Z03-A0750R-LN13-L1772-F-C	2.000	0.750	2.559	1.870	1.772		SH100450	3	4	12	
APE90-02500-Z04-A1000R-LN13-L2205-F-C	2.500	1.000	3.150	2.343	2.205		SH120600	4	5	20	
APE90-02500-Z04-A1000R-LN13-L1772-F-C	2.500	1.000	2.756	2.343	1.772		SH120500	4	4	16	
APE90-03000-Z05-A1500R-LN13-L2205-F-C	3.000	1.500	3.346	2.976	2.205		SH160650	5	5	25	

Metric

Product code	DC	DCB	LF	DCSFMS	APMX	Internal coolant	Clamping screw	Z	Row	Insert QTY	Inserts
APE90-040-Z02-A16R-LN13-L34-F-C	40	16	55	39	34		SH100400	2	3	6	LNHU 1306..
APE90-040-Z02-A16R-LN13-L45-F-C	40	16	65	39	45		SH100450	2	4	8	
APE90-050-Z03-A22R-LN13-L34-F-C	50	22	55	47.5	34		SH100400	3	3	9	
APE90-050-Z03-A22R-LN13-L45-F-C	50	22	65	47.5	45		SH100450	3	4	12	
APE90-063-Z04-A27R-LN13-L56-F-C	63	27	80	59.5	56		SH120600	4	5	20	
APE90-063-Z04-A27R-LN13-L45-F-C	63	27	70	59.5	45		SH120500	4	4	16	
APE90-080-Z05-A32R-LN13-L56-F-C	80	32	85	75.6	56		SH160650	5	5	25	

APE90-LN13

Square shoulder porcupine milling cutter



Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Row	Insert QTY	Inserts
APE90-01500-Z02-W1500R-LN13-L1339-F-C	1.500	1.500	4.724	2.126	1.339		2	3	6	LNHU 1306..
APE90-01500-Z02-W1500R-LN13-L1772-F-C	1.500	1.500	5.315	2.520	1.772		2	4	8	

Metric

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Row	Insert QTY	Inserts
APE90-040-Z02-W40R-LN13-L34-F-C	40	40	120	54	34		2	3	6	LNHU 1306..
APE90-040-Z02-W40R-LN13-L45-F-C	40	40	135	64	45		2	4	8	

Clamping screw	Product code	Screw type	Clamping torque
	SH080400	M8*40	41N-m
	SH080500	M8*50	41N-m
	SH100550	M10*55	81N-m
	SH100400	M10*40	81N-m
	SH100450	M10*45	81N-m
	SH120500	M12*50	142N-m
	SH120600	M12*60	142N-m
	SH160650	M16*65	350N-m

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 1.500-3.000			3.5Nm
	SP040115	DT-TP15	

Note: With internal coolant
 Without internal coolant

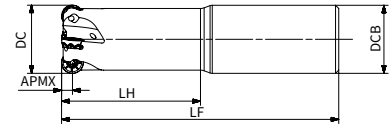
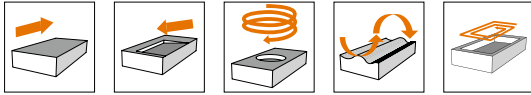
Product code	Dimension (in)		P		M		K		N
	Corner radius	Wiper length	AP251U	AP351U	AP351M	AP403M	AC301K	AP251K	AW100K
LNHU 130608ER-FM2	0.031	0.106							●
LNHU 130608ER-MM3	0.031	0.106		●		●			
LNHU 130608ER-MR2	0.031	0.106	●	●	●	●	●	●	
LNHU 130612ER-MR2	0.047	0.091	●	●	●	●	●	●	
LNHU 130616ER-MR2	0.063	0.075	●	●	●	●		●	
LNHU 130620ER-MR2	0.079	0.059		●	●	●	●		
LNHU 130624ER-MR2	0.094	0.039		●	●	●	●		
LNHU 130631ER-MR2	0.122	0.016		●	●	●	●		
LNHU 1306PDR-W	0.031	0.220	●					●	

●: Stock available

Materials				Cutting depth and feed									
ISO	Material classification	Tensile strength (lbs/in ²)	Hardness (HB)	LNHU..1306..									
				ap		MM3		MR2					
						fz							
				(in)									
min		max		min		max							
P	Unalloyed steel	<87,022	<180	0.012	0.472	0.004	0.012	0.005	0.014				
		<137,785	<280										
	Alloyed steel	101,526-137,785	200-280							0.003	0.010	0.004	0.012
		137,785-174,044	280-355										
M	Duplex stainless steel	112839	230			0.002	0.008	0.003	0.010				
	Austenitic stainless steel	97900	200										
	Precipitation-hardening stainless steel	146923	300										
K	Grey cast iron	101,526	220			-	-	0.005	0.014				
	Nodular cast iron	127,633	260										
	Malleable cast iron	116,030	250										
N	Aluminum	37,709	75			-	-	-	-				
	Aluminum alloy	64,831	130										
S	Fe-based alloy	136,770	280	0.002	0.007	0.003	0.009						
	Co-based alloy	156,060	320										
	Ni-based alloy	170,709	350										
	Ti-alloy	183,037	370										
H	Hardened steel	-	50-60HRC	-	-	0.003	0.008						
	Chilled cast iron	-	55HRC										

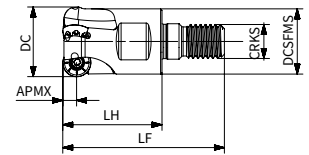
*The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, workpiece clamping and coolant. Average chip thickness (hm)=fz x sinkr.

APM00-RO10
Profile milling



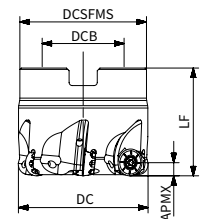
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
APM00-01000-Z03-C1000R-RO10-L5125-C	1.000	1.000	5.125	2.200	0.197		3	R0..10T3..
APM00-01250-Z04-C1250R-RO10-L5125-C	1.250	1.250	5.125	2.559	0.197		4	



Inch

Product code	DC	CRKS	DCSFMS	LF	LH	APMX	Internal coolant	Z	Inserts
APM00-01000-Z03-M12R-RO10-C	1.000	M12	0.906	2.244	1.378	0.197		3	R0..10T3..
APM00-01250-Z04-M16R-RO10-C	1.250	M16	1.142	2.520	1.575	0.197		4	



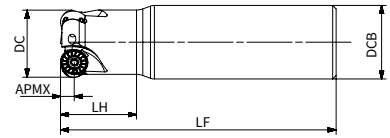
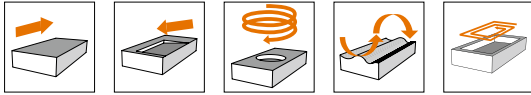
Inch

Product code	DC	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
APM00-01500-Z05-A0750R-RO10-C	1.500	0.750	1.378	1.575	0.197		5	R0..10T3..
APM00-02000-Z06-A0750R-RO10-C	2.000	0.750	1.654	1.575	0.197		6	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 1.000-2.000			18 in lbs
	SP030072H	DT-TP09	

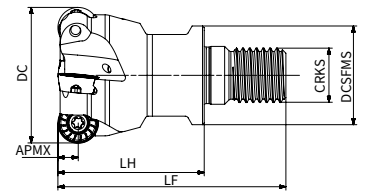
Note: With internal coolant
 Without internal coolant

APM00-RO12
Profile milling



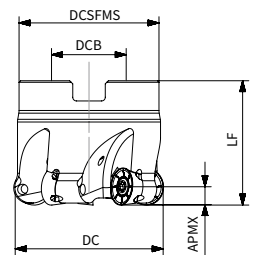
Inch

Product code	DC	DCB	LF	LH	APMX	Internal coolant	Z	Inserts
APM00-01250-Z03-C1250R-RO12-L6000-C	1.250	1.250	6.000	2.704	0.236		3	RO..1204..



Inch

Product code	DC	CRKS	DCSFMS	LF	LH	APMX	Internal coolant	Z	Inserts
APM00-01500-Z04-M16R-RO12-C	1.500	M16	1.142	2.756	1.811	0.236		4	RO..1204..



Inch

Product code	DC	DCB	DCSFMS	LF	APMX	Internal coolant	Z	Inserts
APM00-02000-Z05-A0750R-RO12-C	2.000	0.750	1.654	1.575	0.236		5	RO..1204..
APM00-02500-Z06-A1000R-RO12-C	2.500	1.000	2.165	1.969	0.236		6	
APM00-03000-Z07-A1000R-RO12-C	3.000	1.000	2.165	1.969	0.236		7	

Dimension (in)	Spare parts		
Cutter diameter	Screw	Wrench	Torque
∅ 1.250-3.000			36 in lbs
	SP040085H	DT-TP10	









Note: With internal coolant
 Without internal coolant

Milling Insert Denomination System

A
1

O
2








1- Shape/Code

A	H	M	O	R
				
S	T	Z	X	Special
				

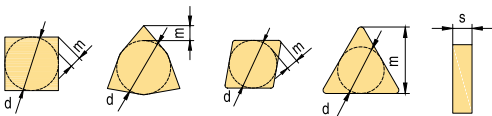
M
3

T
4

2- Clearance Angle

C	D	E	F
			
G	N	P	O
			Other clearance angle

3- Tolerance

















Class	Unit	In. Circle dimension d	Nose height m	Thickness s
A	in	± 0,0010	± 0,0002	± 0,0010
C	in	± 0,0010	± 0,0005	± 0,0010
E	in	± 0,0010	± 0,0010	± 0,0010
F	in	± 0,0005	± 0,0002	± 0,0010
G	in	± 0,0010	± 0,0010	± 0,0050
H	in	± 0,0005	± 0,0005	± 0,0250
J	in	*	± 0,0002	± 0,0010
K	in	*	± 0,0005	± 0,0010
L	in	*	± 0,0010	± 0,0010
M	in	*	*	± 0,0050
U	in	*	*	± 0,0050
N	in	*	*	± 0,0010

* For details refer to right and below tables

IC	Shape: C, E, H, M, O, P, S, T, R, W			
	d		m	
	J, K, L, M, N	U	M, N	U
3/16	± 0,0020	± 0,0030	± 0,0030	± 0,0050
7/32	± 0,0020	± 0,0030	± 0,0030	± 0,0050
0.236	± 0,0020	± 0,0030	± 0,0030	± 0,0050
1/4	± 0,0020	± 0,0030	± 0,0030	± 0,0050
5/16	± 0,0020	± 0,0030	± 0,0030	± 0,0050
0.315	± 0,0020	± 0,0030	± 0,0030	± 0,0050
3/8	± 0,0020	± 0,0030	± 0,0030	± 0,0050
0.394	± 0,0020	± 0,0030	± 0,0030	± 0,0050
0.472	± 0,0030	± 0,0050	± 0,0050	± 0,0080
1/2	± 0,0030	± 0,0050	± 0,0050	± 0,0080
5/8	± 0,0040	± 0,0070	± 0,0060	± 0,0110
0.630	± 0,0040	± 0,0070	± 0,0060	± 0,0110
3/4	± 0,0040	± 0,0070	± 0,0060	± 0,0110
0.787	± 0,0040	± 0,0070	± 0,0060	± 0,0110
0.984	± 0,0050	± 0,0100	± 0,0070	± 0,0150
1	± 0,0050	± 0,0100	± 0,0070	± 0,0150
1 1/4	± 0,0060	± 0,0100	± 0,0080	± 0,0150
1.260	± 0,0060	± 0,0100	± 0,0080	± 0,0150

M&N shape	D shape		V shape	
IC	d	m	d	m
7/32	± 0,0020	± 0,0043		
1/4	± 0,0020	± 0,0043	± 0,0020	± 0,0060
5/16	± 0,0020	± 0,0043	± 0,0020	± 0,0060
3/8	± 0,0020	± 0,0043	± 0,0020	± 0,0060
1/2	± 0,0030	± 0,0060	± 0,0030	± 0,0080
5/8	± 0,0040	± 0,0070	± 0,0040	± 0,0110
3/4	± 0,0040	± 0,0070	± 0,0040	± 0,0110

4- Clamping Type

A	B	C	F	G
				
H	J	M	N	Q
				
R	T	U	W	Z
				Special

12	04	08					
5	6	7					
5- Cutting edge length							
In. Circle dimension (mm)	H	M	O	R	S	T	Z
0.125						05	
0.157						06	
0.196			05				
7/32						09	
0.236			06				
1/4						11	
5/16						13	
0.315			08				
3/8			09	09	16		
0.394			10				
0.472			12				
1/2		04	12	12	22		
5/8			15	15	27		
0.630		06	16				
3/4			19	19	33		
0.787			20				
0.984			25	25			
1			25				
1 1/4			31				
1.260			32				

7-Corner radius and wiper edge	
	00 = sharp 24 = 0.093 01 = 0.004 28 = 0.109 02 = 0.008 32 = 0.125 04 = 0.015 40 = 0.157 08 = 0.031 48 = 0.188 12 = 0.047 56 = 0.220 16 = 0.062 64 = 0.251 20 = 0.078 X = others
	Round insert:MO refers to metric dia. size
1 2	2 Clearance angle of wiper edge (n) A = 3° B = 5° C = 7° D = 15° E = 20° F = 25° G = 30° N = 0° P = 11° Z = Others
1 Approach angle(Entering angle) (kr) A = 45° D = 60° E = 75° F = 85° P = 90° Z = Others	

E	R	-	MM4
8	9	-	10
6- Insert thickness			
			01=1/16in
			T1=5/64in
			02=3/32in
			T2=0.109in
			03=1/8in
			T3=5/32in
			04=3/16in
			05=7/32in
			06=1/4in
			07=5/16in
			09=3/8in

8- Edge Preparation		
Sharp cutting edge	Honed cutting edge	Negative land
Double negative land	Negative land +honed	Double negative land +honed

9-Hand of Tool		
Right hand	Left hand	Neutral

10-Geometry Refers to Geometry Introduction

Marked: if it has corner radius, the information needs to put between thickness and wipers.
 Example: APET 160408PDFR-FM2

Milling cutters