

ACHTECK • MILL

SNMX ^{New} SNGX Series Milling SNHX

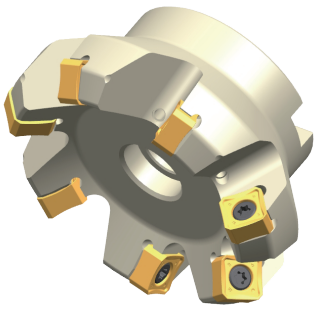


AFM45/75/88-SN12 Cutter Introduction

— General, Economic, Efficient

AFM45

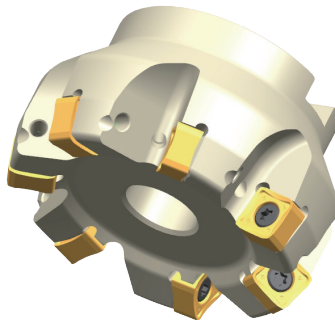
Enter angle: 45°



Max. cutting depth 6.5mm

AFM75

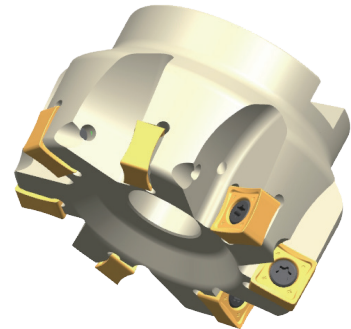
Enter angle: 75°



Max. cutting depth 8.0mm

AFM88

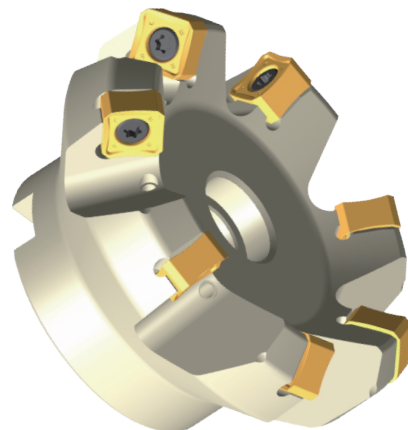
Enter angle: 88°



Max. cutting depth 10.0mm

◆ Cutter Structure Features

- Diameter range: 50-250mm
- Wide application: entering angle 45°, 75°, 88°;
- Economic: negative insert with 8 cutting edges
- Extensive application: coarse pitch, medium pitch, and close pitch.
- Work piece material: P, K, M, S
- Nickel-plated cutter has good corrosion resistance and wear resistance
- Dia. up to $\phi 125$ (including) are with internal coolant
- For roughing and semi-finishing



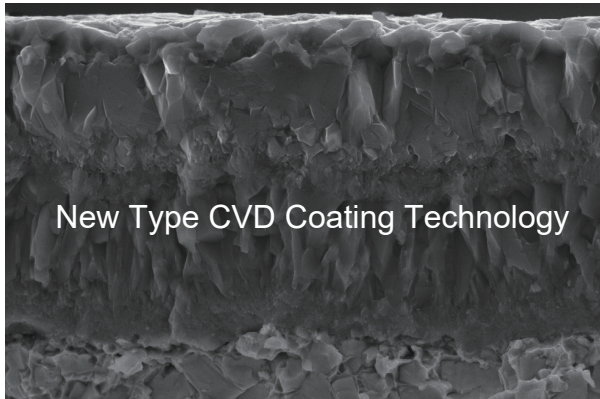
◆ Insert Features

Negative, double sided 8 cutting edges, economic.

Sharp cutting edge, light cutting.

It has extensive application in steel and cast iron roughing, semi-finishing and finishing.

◆ Coating Introduction

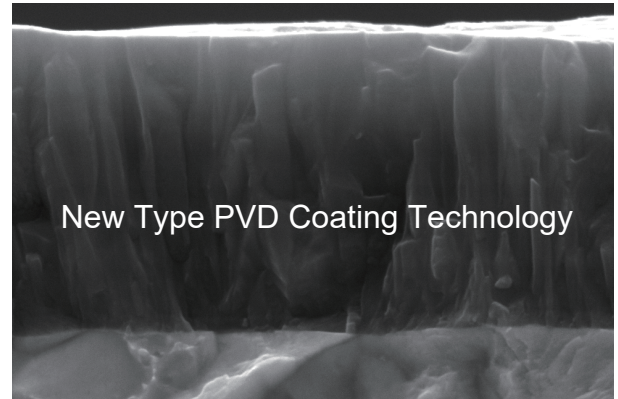


New Type CVD Coating Technology

Multi-layer coating structure with perfect toughness;
Good wear resistance and high temperature oxidation resistance

Smooth coating surface enhances work piece surface finish;

Good combination between coating layer and substrate, extended tool life.



New Type PVD Coating Technology

Alternate soft and hard nano structured-coating has both high hardness and good toughness;
Good high temperature resistance and oxidation resistance

Smooth coating surface enhances work piece surface finish;

Good combination between coating layer and substrate, extended tool life.

◆ Insert Chip Breaker Introduction

RR2 → Stable Type

Reliability technology, suitable for casting materials with sand inclusion or rough surface



MR6 → Stable Type

Suitable for unstable cutting conditions with best cutting edge stability; high feed rate



MM4 → General Type

Apply in most of the material machining under medium cutting conditions.



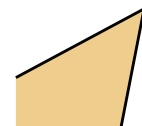
MM3 → Free-cutting Type

Apply in semi-finishing and finishing under good cutting conditions with low cutting force; medium feed rate.



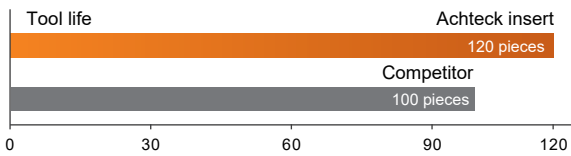
FM2 → Sharp Type

Designed for aluminum machining. Low cutting force, sharp cutting edges.



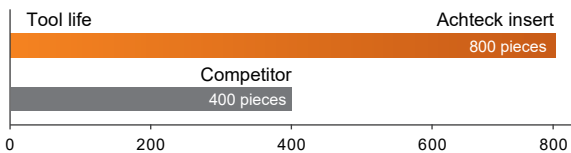
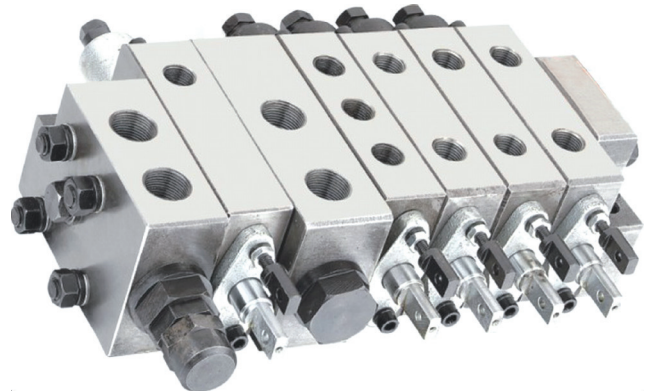
● Machining Case

Work piece: Engine cylinder block
Machining site: Top & Bottom face
Material: Gray cast iron
Hardness: HB180-220
Coolant: Emulsion
Cutter: AFM45-125-Z08-A40R-SN12-C
Insert: SNGX 1206ANN-MR6 AC301K
Cutting Parameter: $V_c=180\text{m/min}$ $f_z=0.22\text{mm/z}$
 $a_p=2.0\text{mm}$ $a_e=80-100\text{mm}$



Comparison: Achteck tool life is 20% longer than competitor

Work piece: Hydraulic part
Machining site: End face
Material: Carbon steel
Hardness: HB280-320
Coolant: Emulsion
Cutter: AFM45-063-Z06-A22R-SN12-C
Insert: SNGX 1206ANN-MM4 AC301P
Cutting Parameter: $V_c=160\text{m/min}$, $f_z=0.18\text{mm/z}$
 $a_p=1.5\text{mm}$ $a_e=63\text{mm}$

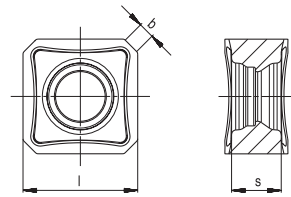


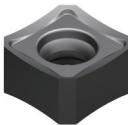



Comparison: Achteck tool life is 100% longer than competitor

Insert

SN.X12/19

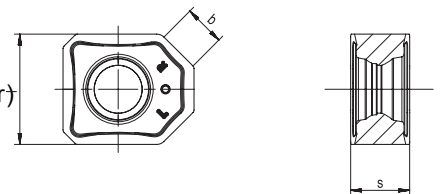
Negative insert with short wiper edge (applied with AFM45-SN12 milling cutter)

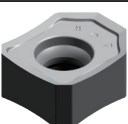


Insert	Product code	Dimensions (mm)			Grades						
					CVD coated		PVD coated			Uncoated	
		l	s	b	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNMX 1206ANN-MM3 	12.7	6.98	1.8	•	•	•	•		•	
	SNMX 1206ANN-MM4 	12.7	6.98	1.8	•	•	•	•		•	
	SNMX 1206ANN-MR6 	12.7	6.98	1.8	•	•	•	•		•	
	SNHX 1206ANN-FM2	12.7	6.98	1.8							•
	SNGX 1206ANN-MM3	12.7	6.98	1.8	•	•	•	•		•	
	SNGX 1206ANN-MM4	12.7	6.98	1.8	•	•	•	•		•	
	SNGX 1206ANN-MR6	12.7	6.98	1.8	•	•	•	•		•	
	SNGX 1206ANN-RR2	12.7	6.98	1.8	•	•	•	•		•	
	SNGX 1909ANN-MM3	19.05	9.52	2.9			•	•			
	SNGX 1909ANN-MR6	19.05	9.52	2.9				•			

SNHX12

Negative insert with long wiper edge (applied with AFM45-SN12 milling cutter)

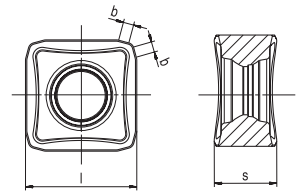


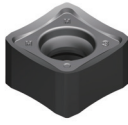

Insert	Product code	Dimensions (mm)			Grades						
					CVD coated		PVD coated			Uncoated	
		l	s	b	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNHX 1206ANN-W	12.7	6.98	6.7		•	•				

• Stocked

SN.X12

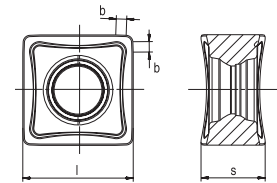
Negative insert with short wiper edge (applied with AFM75-SN12 milling cutter)

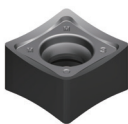


Insert	Product code	Dimensions (mm)			Grades							
		l	s	b	CVD coated		PVD coated			Uncoated		
					AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K	
	SNMX 1206ENN-MM4 	12.7	6.98	1.2	•							
	SNGX 1206ENN-MM3	12.7	6.98	1.2	•	•	•	•		•		
	SNGX 1206ENN-MM4	12.7	6.98	1.2	•	•	•	•		•		
	SNGX 1206ENN-MR6	12.7	6.98	1.2	•	•	•	•		•		

SN□X12

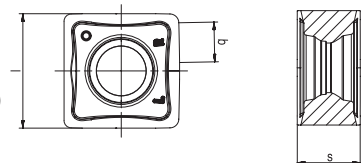
Negative insert with short wiper edge (applied with AFM88-SN12 milling cutter)




Insert	Product code	Dimensions (mm)			Grades							
		l	s	b	CVD coated		PVD coated			Uncoated		
					AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K	
	SNHX 1206ZNN-FM2	12.7	7.63	0.8								•
	SNGX 1206ZNN-MM3	12.7	6.98	1.2	•	•	•	•		•		
	SNGX 1206ZNN-MM4	12.7	6.98	1.2	•	•	•	•		•		
	SNGX 1206ZNN-MR6	12.7	6.98	1.2	•	•	•	•		•		

SNHX12

Negative insert with long wiper edge (applied with AFM88-SN12 milling cutter)

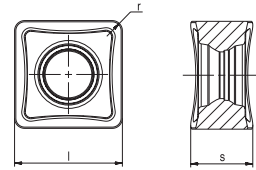


Insert	Product code	Dimensions (mm)			Grades							
		l	s	b	CVD coated		PVD coated			Uncoated		
					AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K	
	SNHX 1206ZNN-W	12.7	6.98	4.4		•	•					

• Stocked

SN.X12

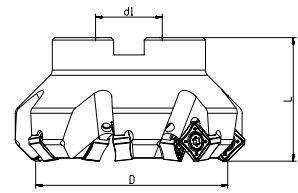
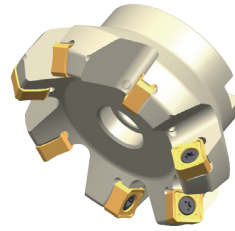
Negative insert with corner radius
(applied with AFM45/75/88-SN12 milling cutter)



Insert	Product code	Dimensions (mm)			Grades						
					CVD coated		PVD coated			Uncoated	
		l	s	r	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNGX 120608-MM4	12.7	6.98	0.8	•	•	•	•		•	
	SNGX 120612-MM4	12.7	6.98	1.2			•				
	SNMX 120608-MM4	12.7	6.98	0.8	•	•	•	•		•	
	SNMX 120612-MM3	12.7	6.98	1.2	•	•	•	•		•	
	SNMX 120612-MM4	12.7	6.98	1.2	•	•	•	•		•	
	SNMX 120612-MR6	12.7	6.98	1.2	•	•	•	•		•	
	SNMX 120612-RR2	12.7	6.98	1.2	•	•	•	•		•	
	SNMX 120620-MM4	12.7	6.98	2.0	•	•	•	•		•	
	SNMX 120620-RR2	12.7	6.98	2.0	•	•	•	•		•	

• Stocked

AFM45-SN12

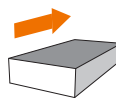


Product code	D	d1	L	apmax	Coolant	Z	Insert
AFM45-050-Z04-A22R-SN12-N-C	50	22	40	6.5		4	SN.X 1206ANN SN.X 1206..
AFM45-050-Z06-A22R-SN12-N-C	50	22	40	6.5		6	
AFM45-063-Z04-A22R-SN12-N-C	63	22	40	6.5		4	
AFM45-063-Z06-A22R-SN12-N-C	63	22	40	6.5		6	
AFM45-063-Z08-A22R-SN12-N-C	63	22	40	6.5		8	
AFM45-080-Z04-A27R-SN12-N-C	80	27	50	6.5		4	
AFM45-080-Z05-A27R-SN12-N-C	80	27	50	6.5		5	
AFM45-080-Z07-A27R-SN12-N-C	80	27	50	6.5		7	
AFM45-100-Z06-A32R-SN12-N-C	100	32	50	6.5		6	
AFM45-100-Z08-A32R-SN12-N-C	100	32	50	6.5		8	
AFM45-125-Z07-A40R-SN12-N-C	125	40	63	6.5		7	
AFM45-125-Z08-A40R-SN12-N-C	125	40	63	6.5		8	
AFM45-125-Z10-A40R-SN12-N-C	125	40	63	6.5		10	
AFM45-160-Z10-A40R-SN12-N	160	40	63	6.5		10	
AFM45-200-Z14-A60R-SN12-N	200	60	63	6.5		14	
AFM45-250-Z16-A60R-SN12-N	250	60	63	6.5		16	
AFM45-160-Z08-A40R-SN19	160	40	63	11		8	SNGX1909ANN
AFM45-200-Z10-A60R-SN19	200	60	63	11		10	
AFM45-250-Z12-A60R-SN19	250	60	63	11		12	

Remark: With internal coolant
 Without internal coolant

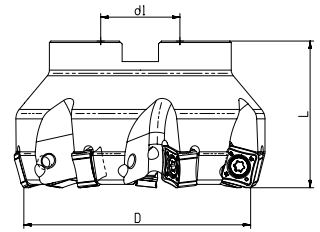
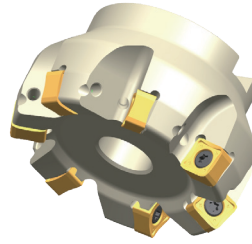
Dimensions	Spare parts		
	Screw	Wrench	Torque
φ 50- φ 250(SN..1206..)			
	AST411-60W-M		
φ 160- φ 250(SN..1909ANN)	AST618-70	ADT-T25	5.0Nm

Machining method



Face milling

AFM75-SN12



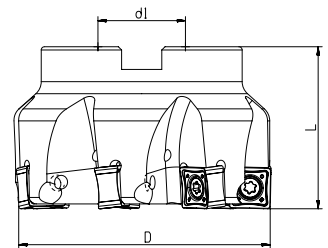
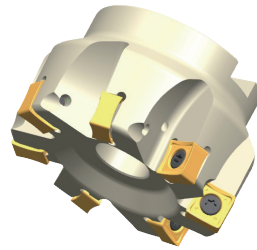
Product code	D	d1	L	apmax	Coolant	Z	Insert
AFM75-050-Z04-A22R-SN12-N-C	50	22	40	8.0		4	SN.X 1206ENN SN.X 1206..
AFM75-063-Z06-A22R-SN12-N-C	63	22	40	8.0		6	
AFM75-080-Z07-A27R-SN12-N-C	80	27	50	8.0		7	
AFM75-100-Z08-A32R-SN12-N-C	100	32	50	8.0		8	
AFM75-125-Z08-A40R-SN12-N-C	125	40	63	8.0		8	
AFM75-125-Z10-A40R-SN12-N-C	125	40	63	8.0		10	
AFM75-160-Z10-A40R-SN12-N	160	40	63	8.0		10	
AFM75-200-Z14-A60R-SN12-N	200	60	63	8.0		14	
AFM75-250-Z16-A60R-SN12-N	250	60	63	8.0		16	

Remark: With internal
 Without internal

Dimensions	Spare parts		
	Screw	Wrench	Torque
φ 50- φ 250			3.5Nm
	AST411-60W-M		

Machining method
 Face milling

AFM88-SN12

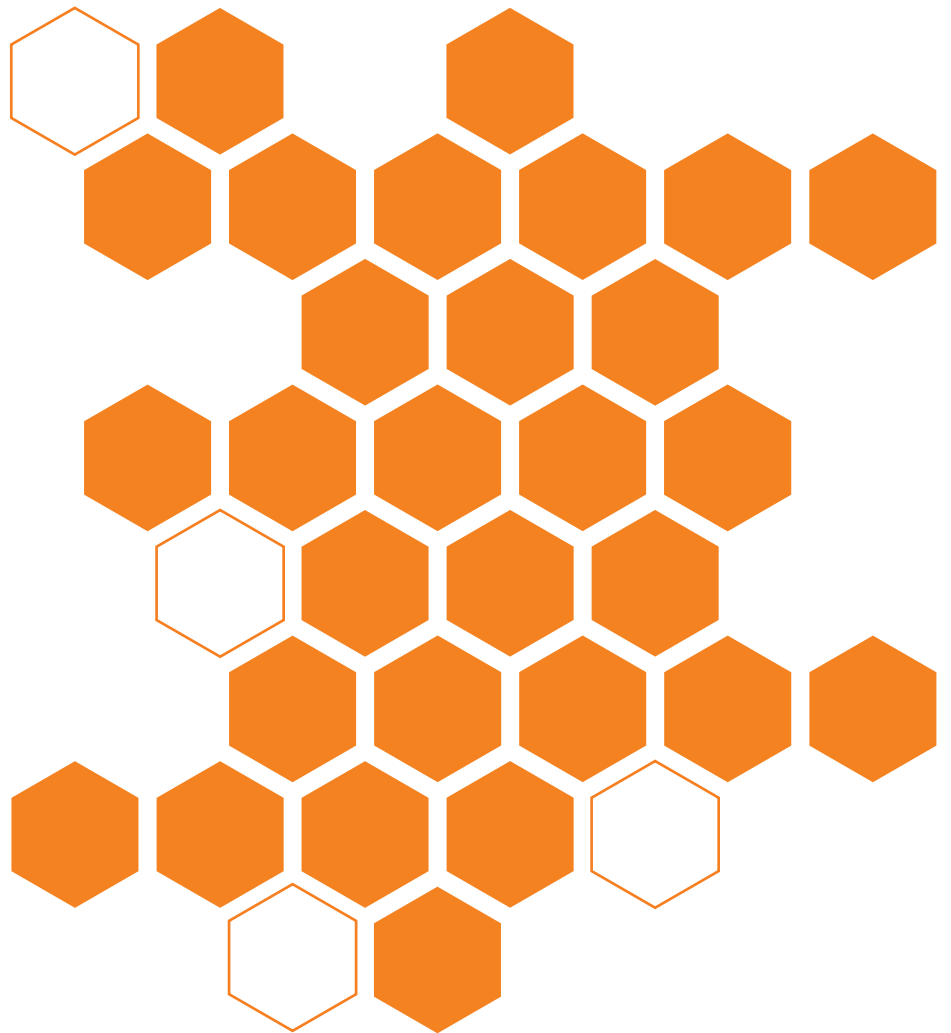


Product code	D	d1	L	apmax	Coolant	Z	Insert
AFM88-050-Z04-A22R-SN12-N-C	50	22	40	10.0		4	SN.X 1206ZNN SN.X 1206..
AFM88-063-Z04-A22R-SN12-N-C	63	22	40	10.0		4	
AFM88-063-Z06-A22R-SN12-N-C	63	22	40	10.0		6	
AFM88-080-Z04-A27R-SN12-N-C	80	27	50	10.0		4	
AFM88-080-Z07-A27R-SN12-N-C	80	27	50	10.0		7	
AFM88-100-Z08-A32R-SN12-N-C	100	32	50	10.0		8	
AFM88-100-Z11-A32R-SN12-N-C	100	32	50	10.0		11	
AFM88-125-Z10-A40R-SN12-N-C	125	40	63	10.0		10	
AFM88-125-Z13-A40R-SN12-N-C	125	40	63	10.0		13	
AFM88-160-Z12-A40R-SN12-N	160	40	63	10.0		12	
AFM88-200-Z14-A60R-SN12-N	200	60	63	10.0			

Remark: With internal coolant
Without internal coolant

Dimensions	Spare parts		
Cutter diameter	Screw	Wrench	Torque
φ 50- φ 200			3.5Nm
	AST411-60W-M	ADT-T15	

Machining method
<p>Face milling</p>



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