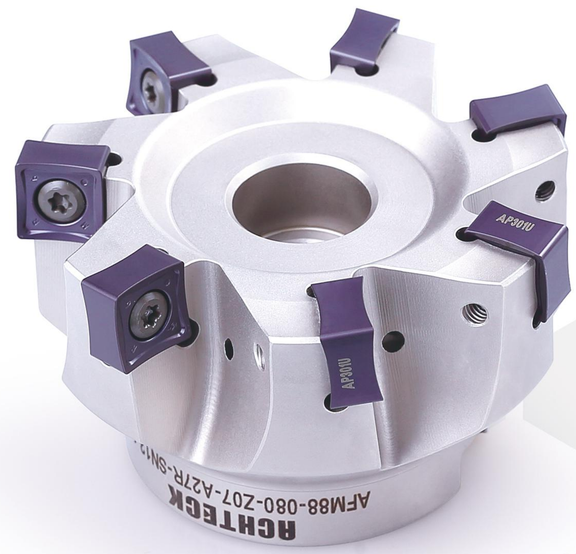
ACHTECK·MILL

NEW PRODUCT!

SNGX12/19

Face Milling



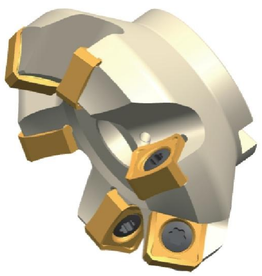
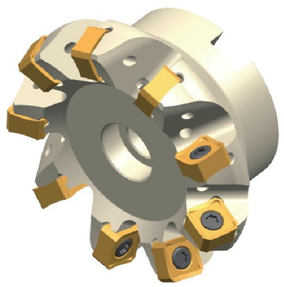
GANZHOU ACHTECK TOOL TECHNOLOGY CO.,LTD.

Address : Ganzhou Economic Development Area,Jiangxi,China
Tele : 0086-797-8166368 Fax : 0086-797-8166100 E-mail : alloysales@achtecktool.com

www.achtecktool.com

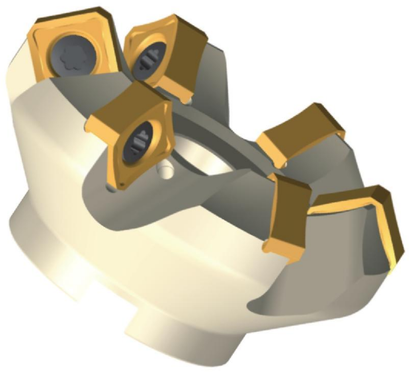
SNGX/SNMX (Фреза и ее вариации

AFM45/75/88-SN (Фреза имеет широкое применение, экономична и высокопроизводительна

AFM45 Enter angle: 45°	AFM75 Enter angle: 75°	AFM88 Enter angle: 88°
		
Max. cutting depth 6.5mm	Max. cutting depth 8.0mm	Max. cutting depth 10.0mm

Особенности фрезы

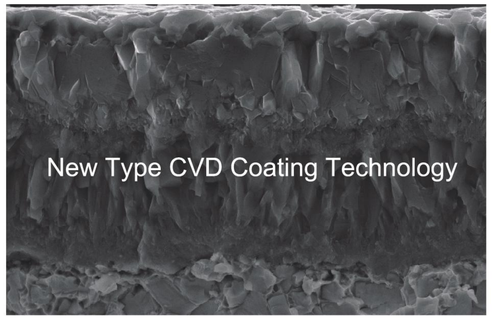
Диапазон диаметров 50-250мм
Широкое применение: угол в плане 45°, 75°, 88°
Экономия: негативная пластина с 8 режущими кромками
Широкое применение: мелкий, средний и крупный шаг обрабатываемый материал: сталь, чугун, нержавеющая сталь, жаропрочные сплавы
Фреза с блестящим никелевым покрытием обладает хорошей коррозионной стойкостью и износостойкостью
Внутрений подвод СОЖ для размеров до 125 мм
Для черновой и финишной обработки



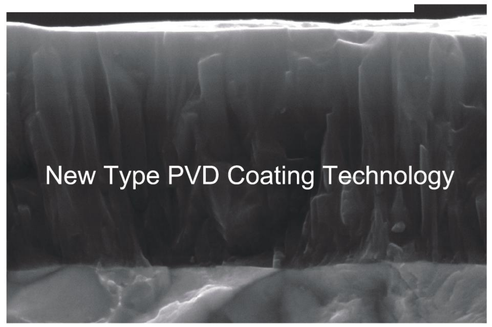
•Особенности пластины

Негативная, Двухсторонняя с 8 режущими углами, экономичная.

Острая режущая кромка обеспечивает плавное резание.
Широко применяется для черновой обработки, получистовой и чистовой и обработки стали и чугуна.

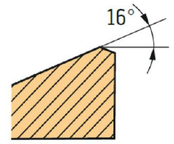
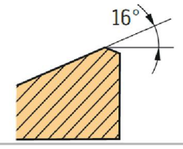
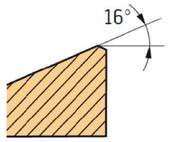
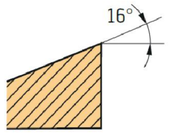


Многослойная структура покрытия с идеальной ударной вязкостью;
Хорошая износостойкость и стойкость к высокотемпературному окислению
Гладкое покрытие улучшает обработку поверхностей;
Увеличен срок службы инструмента.



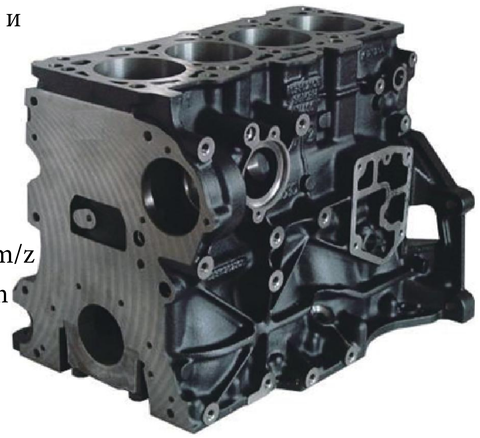
Структура чередующихся мягких и твердых нано-покрытий имеет высокую твердость и хорошую прочность;
Хорошая термостойкость и стойкость к окислению
Гладкое покрытие улучшает обработку поверхностей;
Увеличен срок службы инструмента.

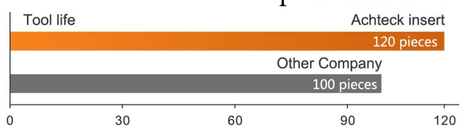
Особенности стружколомов

RR2 Надежная технология, подходящая для резки материалов из песчаных включений	
MR6 Подходит для нестабильных условий обработки и для черновой обработки стали и чугуна	
MM4 Применяется для обработки большинства типов материалов при средних условиях резания	
MM3 Применяется для чистовой обработки с низкой силой резания и средней скоростью подачи	

Примеры применения

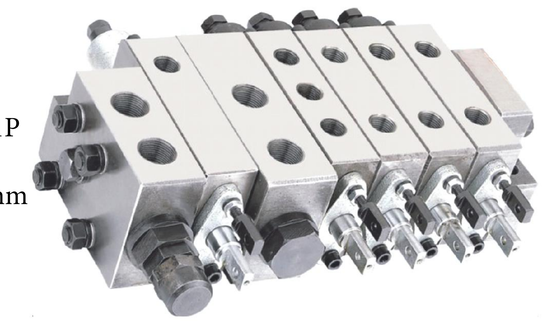
Обрабатываемая деталь: Блок цилиндров двигателя Механическая обработка: Верхняя и нижняя поверхность
Материал: Серый чугун
Твердость: HB180-220
Тип охлаждающей жидкости: Эмульсия
Фреза: AFM45-125-Z08-A40R-SN12-C
Пластины: SNGX 1206ANN-MR6 AC301K
Параметры резания: Vc=180m/min fz=0.22mm/z
ap=2.0mm ae=80-100mm

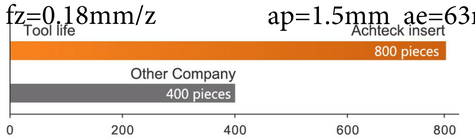




Comparison Result: Achteck tool life is 20% higher than competitor

Обрабатываемая деталь: Гидравлическая часть
Механическая обработка: торцевая сторона
Материал: углеродистая сталь
Твердость: HB20-320
Тип охлаждающей жидкости: Эмульсия
Фреза: AFM45-063-Z06-A22R-SN12-C
Пластины: SNGX 1206ANN-MM4 AC301P
Параметры резания: Vc=160m/min
fz=0.18mm/z ap=1.5mm ae=63mm

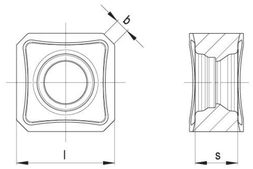




Comparison Result: Achteck tool life is 100% higher than competitor

Пластины

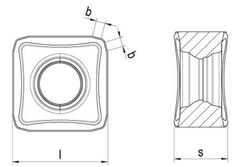
SNGX12/19



Insert	Designation	Dimensions			Grades						
					CVD coating		PVD coating				Uncoated
		l	s	b	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNGX 1206ANN-MM3	12.7	6.98	1.8	●	●	●	●		●	
	SNGX 1206ANN-MM4				●	●	●	●		●	
	SNGX 1206ANN-MR6				●	●	●	●		●	
	SNGX 1206ANN-RR2				●	●	●	●		●	
	SNGX 1909ANN-MM3	19.05	9.52	2.9			●	●			

Remark: ● Represent for standard stock

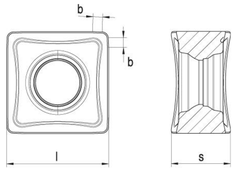
SNGX12



Insert	Designation	Dimensions			Grades						
					CVD coating		PVD coating				Uncoated
		l	s	b	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNGX 1206ENN-MM3	12.7	6.98	1.2	●	●	●	●		●	
	SNGX 1206ENN-MM4				●	●	●	●		●	
	SNGX 1206ENN-MR6				●	●	●	●		●	

Remark: ● Represent for standard stock

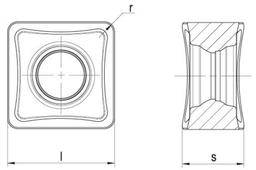
SNGX12



Insert	Designation	Dimensions			Grades						
					CVD coating		PVD coating				Uncoated
		l	s	b	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNGX 1206ZNN-MM3	12.7	6.98	1.2	●	●	●	●		●	
	SNGX 1206ZNN-MM4				●	●	●	●		●	
	SNGX 1206ZNN-MR6				●	●	●	●		●	

Remark: ● Represent for standard stock

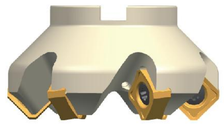
SNGX/SNMX12

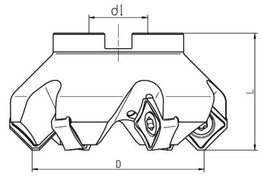


Insert	Designation	Dimensions			Grades						
					CVD coating		PVD coating				Uncoated
		l	s	r	AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K
	SNGX 120608-MM4	12.7	6.98	0.8	●	●	●	●		●	
	SNGX 120612-MM4	12.7	6.98	1.2			●				
	SNMX 120612-MM3				●	●	●	●		●	
	SNMX 120612-MM4				●	●	●	●		●	
	SNMX 120612-MR6				●	●	●	●		●	
	SNMX 120612-RR2				●	●	●	●		●	
	SNMX 120620-MM4	12.7	6.98	2.0	●	●	●	●		●	
	SNMX 120620-RR2				●	●	●	●		●	

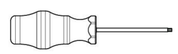
Remark: ● Represent for standard stock

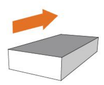
AFM45-SN12



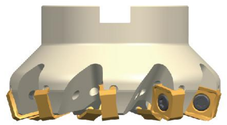


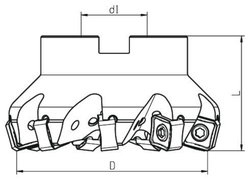
Designation	D	d1	L	l1	apmax	Coolant	Z	Insert
AFM45-050-Z04-A22R-SN12-C	50	22	40	-	6.5	●	4	SNGX1206ANN SN□X1206..
AFM45-050-Z06-A22R-SN12-C	50	22	40	-	6.5	●	6	
AFM45-063-Z06-A22R-SN12-C	63	22	40	-	6.5	●	6	
AFM45-063-Z08-A22R-SN12-C	63	22	40	-	6.5	●	8	
AFM45-080-Z05-A27R-SN12-C	80	27	50	-	6.5	●	5	
AFM45-080-Z07-A27R-SN12-C	80	27	50	-	6.5	●	7	
AFM45-100-Z06-A32R-SN12-C	100	32	50	-	6.5	●	6	
AFM45-100-Z08-A32R-SN12-C	100	32	50	-	6.5	●	8	
AFM45-125-Z08-A40R-SN12-C	125	40	63	-	6.5	●	8	
AFM45-125-Z10-A40R-SN12-C	125	40	63	-	6.5	●	10	
AFM45-160-Z10-A40R-SN12	160	40	63	-	6.5	✖	10	
AFM45-160-Z12-A40R-SN12	160	40	63		6.5	✖	12	
AFM45-200-Z14-A60R-SN12	200	60	63		6.5	✖	14	
AFM45-250-Z16-A60R-SN12	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	

Dimensions	spare parts		
Cutter diameter	Screw	Wrench	Torque
50-250	AST411-60W	AWF-T15	3.0Nm
			

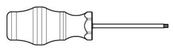
Machining method
 Facing

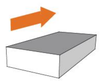
AFM75-SN12





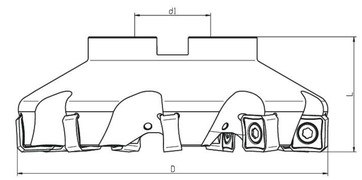
Designation	D	d1	L	l1	apmax	Coolant	Z	Insert
AFM75-050-Z04-A22R-SN12-C	50	22	40	-	8.0	●	4	SNGX1206ENN SN□X1206..
AFM75-063-Z06-A22R-SN12-C	63	22	40	-	8.0	●	6	
AFM75-080-Z05-A27R-SN12-C	80	27	50	-	8.0	●	5	
AFM75-080-Z07-A27R-SN12-C	80	27	50	-	8.0	●	7	
AFM75-100-Z06-A32R-SN12-C	100	32	50	-	8.0	●	6	
AFM75-100-Z08-A32R-SN12-C	100	32	50	-	8.0	●	8	
AFM75-125-Z08-A40R-SN12-C	125	40	63	-	8.0	●	8	
AFM75-125-Z10-A40R-SN12-C	125	40	63	-	8.0	●	10	
AFM75-160-Z10-A40R-SN12	160	40	63	-	8.0	✖	10	
AFM75-160-Z12-A40R-SN12	160	40	63	-	8.0	✖	12	
AFM75-200-Z16-A60R-SN12	200	60	63	-	8.0	✖	16	
AFM75-250-Z16-A40R-SN12	250	60	63		8.0	✖	16	

Dimensions	spare parts		
Cutter diameter	Screw	Wrench	Torque
50-250	AST411-60W	AWF-T15	3.0Nm
			

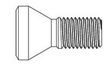
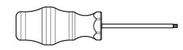
Machining method
 Facing

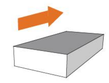
ACHTECK MILL

AFM88-SN12



Designation	D	d1	L	l1	apmax	Coolant	Z	Insert
AFM88-050-Z04-A22R-SN12-C	50	22	40	-	10.0	●	4	SNGX1206ZNN SN□X1206..
AFM88-063-Z06-A22R-SN12-C	63	22	40	-	10.0	●	6	
AFM88-063-Z08-A22R-SN12-C	63	22	40	-	10.0	●	8	
AFM88-080-Z07-A27R-SN12-C	80	27	50	-	10.0	●	7	
AFM88-080-Z10-A27R-SN12-C	80	27	50	-	10.0	●	10	
AFM88-100-Z08-A32R-SN12-C	100	32	50	-	10.0	●	8	
AFM88-100-Z12-A32R-SN12-C	100	32	50	-	10.0	●	12	
AFM88-125-Z10-A40R-SN12-C	125	40	63	-	10.0	●	10	
AFM88-125-Z14-A40R-SN12-C	125	40	63	-	10.0	●	14	
AFM88-160-Z12-A40R-SN12	160	40	63	-	10.0	✖	12	
AFM88-160-Z20-A40R-SN12	160	40	63	-	10.0	✖	20	
AFM88-200-Z14-A60R-SN12	200	60	63		10.0	✖	14	
AFM88-200-Z22-A60R-SN12	200	60	63		10.0	✖	22	

Dimensions	spare parts		
Cutter diameter	Screw	Wrench	Torque
50-200	AST411-60W	AWF-T15	3.0Nm
			

Machining method
 Facing

AFM45-SN12/19 Recommended Cutting Conditions

ISO	Classification	Materials group	Hardness/type		PVD			PVD			PVD			CVD			CVD			PVD			Uncoated			Cutting depth and feed SNGX 1206..						Cutting depth and feed SNGX 1909..	
					AP301U			**AP351U**			**AP401U**			**AC301P**			**AC301K**			**AP351K**			**AW100K**			ap	MM3	MM4	MR6	RR2	FM2	ap	MM3
					P01-20			P20-40			P40-50			P10-30			-			-			-										
					M05-20			M15-30			M30-45			M10-25			-			-			-										
					K30-45			K35-45			-			-			K10-40			K25-45			-										
					S05-20			S15-30			S25-40			-			-			-			-										
					-			-			-			-			-			-			N05-20										
					H10-25			-			-			-			H10-20			-			-										
					feed（mm/rev）																						fz	fz	fz	fz	fz		fz
					0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	min-max	min-max	min-max	min-max	min-max	min-max	min-max	min-max
P	A	Non-alloy steels	<600 N/mm	<180HBN	450	340	290	230	205	170	150	0.3	90	430	230	120										0.6 - 6 - 7	0.12 - 0.40	0.18 - 0.45	-	-	-	0.6 - 10-12	0.14 - 0.47
P	B		<950 N/mm	<280HBN	320	240	200	200	180	160	120	120	80	380	220	120													0.22 - 0.50	0.27 - 0.55	-		
P	C	Alloyed steels	700-950 N/mm	200-280 HBN	290	210	185	200	155	110	120	100	75	340	240	120											0.10 - 0.35	0.15 - 0.40	0.20 - 0.45	0.25 - 0.50	-		0.12 - 0.41
P	D		950-1200 N/mm	280-355 HBN	280	210	200	180	130	90	100	95	65	260	150	80											0.10 - 0.25	0.15 - 0.35	0.18 - 0.40	0.22 - 0.45	-		0.12 - 0.29
P	E		1200-1400 N/mm	355-415 HBN	210	170	110	140	105	70	80	80	40	145	105	65											-	0.12 - 0.25	0.15 - 0.30	0.18 - 0.35	-		-
M	H	Stainless steels	Austenitic + Ferritic	300 series	165	150	130	270	215	155	150	60	100	225	180	125											0.15 - 0.40	0.22 - 0.35	-	-	-		0.18 - 0.47
M	G		Martensitic	400 series	270	185	90	260	180	90	190	125	50	210	145	75											0.12 - 0.35	0.18 - 0.35	0.20 - 0.40	0.24 - 0.45	-		0.14 - 0.41
M	Y		Precipitation-hardening stainless steel	P.H.	300	225	165	170	150	110	100	120	65	140	130	90											0.12 - 0.25	0.15 - 0.30	-	-	-		0.14 - 0.29
K	I	Cast iron	Gray cast iron	Ft - GG	370	280	130	290	220	150		82					480	310	140	390	280	130					0.15 - 0.40	0.18 - 0.50	0.22 - 0.60	0.26 - 0.70	-		0.18 - 0.47
K	J		Cast iron nodular	GGG 40-70 -FGS	370	260	130	180	130	70							450	295	140	420	300	140					0.15 - 0.35	0.18 - 0.45	0.22 - 0.50	0.26 - 0.60	-		0.18 - 0.41
K	S		Malleable cast iron	GTS - MN/MP	410	320	210	390	300	190							500	365	230	430	290	230					0.18 - 0.40	0.22 - 0.50	0.26 - 0.60	0.30 - 0.60	-		0.21 - 0.47
S	Q	High temperature alloys	Fe based alloy		50	40	30	45	40	30	40		20														0.10 - 0.25	0.12 - 0.30	0.15 - 0.35	0.18 - 0.35	-		0.12 - 0.29
S	K		Co based alloy	Waspaloy	45	38	30	45	40	30	40	30	20														-	0.04 - 0.13	0.04 - 0.15	-	-		-
S	R		Ni based	Incoloy	45	38	30	45	40	30	40	30	20														0.04 - 0.15	0.07 - 0.20	0.12 - 0.22	-	-		0.05 - 0.18
S	T		Ti based	TiAl6V4	100	75	30	100	70	45		30															0.06 - 0.20	0.10 - 0.25	-	-	-		0.06 - 0.23
N	L	Aluminum and aluminum alloys	<6% Si	AU4G																			2750	1525	300		-	-	-	-	0.04 - 0.40		-
N	M	Aluminum +Silicon	>6% Si																				2000	1125	250		-	-	-	-	0.06 - 0.40		-
H	F	Hardened steels	>1400 N/mm	>415 HBN	70	55	40																				0.06 - 0.15	0.10 -0.20	0.12 - 0.25	0.15 - 0.30	-		0.07 - 0.18
H	P	Chilled cast iron	1400 N/mm	400 HBN	110	95	80																										

1. * The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, work piece clamping and coolants. Average chip thickness=hm(hm=fzxSin KappaR)
2. ** Fine-pitch cutter fzmax=0.4
3. *** apmax = 6 for SN..1206-ANN and apmax = 7 for SNMX120612，*** apmax = 10 for SN..1909-ANN and apmax=12 for SNMX190920
4. **** Dry cutting

AFM75-SN12 Recommended Cutting Conditions

ISO	Classification	Materials group	Hardness/type		PVD			PVD			PVD			CVD			CVD			PVD			Uncoated			Cutting depth and feed SNGX 1206..					
					AP301U			**AP351U**			**AP401U**			**AC301P**			**AC301K**			**AP351K**			**AW100K**			ap	MM3	MM4	MR6	RR2	FM2
					P01-20			P20-40			P40-50			P10-30			-			-			-								
					M05-20			M15-30			M30-45			M10-25			-			-			-								
					K30-45			K35-45			-			-			K10-40			K25-45			-								
					S05-20			S15-30			S25-40			-			-			-			-								
					-			-			-			-			-			-			N05-20								
					H10-25			-			-			-			H10-20			-			-								
					feed（mm/rev）																						fz	fz	fz	fz	fz
					0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	min-max	min-max	min-max	min-max	min-max	min-max
P	A	Non-alloy steels	<600 N/mm	<180HBN	450	340	290	230	205	170	150	0.3	90	430	230	120										0.8 - 8-9.5	0.09 - 0.29	0.13 - 0.33	-	-	-
P	B		<950 N/mm	<280HBN	320	240	200	200	180	160	120	120	80	380	220	120													0.16 - 0.37	0.20 - 0.40	-
P	C	Alloyed steels	700-950 N/mm	200-280 HBN	290	210	185	200	155	110	120	100	75	340	240	120											0.07 - 0.26	0.11 - 0.29	0.15 - 0.33	0.18 - 0.37	-
P	D		950-1200 N/mm	280-355 HBN	280	210	200	180	130	90	100	95	65	260	150	80											0.07 - 0.18	0.11 - 0.26	0.13 - 0.29	0.16 - 0.33	-
P	E		1200-1400 N/mm	355-415 HBN	210	170	110	140	105	70	80	80	40	145	105	65											-	0.09 - 0.18	0.11 - 0.22	0.13 - 0.26	-
M	H	Stainless steels	Austenitic + Ferritic	300 series	165	150	130	270	215	155	150	60	100	225	180	125											0.11 - 0.29	0.16 - 0.26	-	-	-
M	G		Martensitic	400 series	270	185	90	260	180	90	190	125	50	210	145	75											0.09 - 0.26	0.13 - 0.26	0.15 - 0.29	0.18 - 0.33	-
M	Y		Precipitation-hardening stainless steel	P.H.	300	225	165	170	150	110	100	120	65	140	130	90											0.09 - 0.18	0.11 - 0.22	-	-	-
K	I	Cast iron	Gray cast iron	Ft - GG	370	280	130	290	220	150		82					480	310	140	390	280	130					0.11 - 0.29	0.13 - 0.37	0.16 - 0.44	0.19 - 0.51	-
K	J		Cast iron nodular	GGG 40-70 -FGS	370	260	130	180	130	70							450	295	140	420	300	140					0.11 - 0.26	0.13 - 0.33	0.16 - 0.37	0.19 - 0.44	-
K	S		Malleable cast iron	GTS - MN/MP	410	320	210	390	300	190							500	365	230	430	290	230					0.13 - 0.29	0.16 - 0.37	0.19 - 0.44	0.22 - 0.44	-
S	Q	High temperature alloys	Fe based alloy		50	40	30	45	40	30	40		20														0.07 - 0.18	0.09 - 0.22	0.11 - 0.26	0.13 - 0.26	-
S	K		Co based alloy	Waspaloy	45	38	30	45	40	30	40	30	20														-	0.03 - 0.10	0.03 - 0.11	-	-
S	R		Ni based	Incoloy	45	38	30	45	40	30	40	30	20														0.03 - 0.11	0.05 - 0.15	0.09 - 0.16	-	-
S	T		Ti based	TiAl6V4	100	75	30	100	70	45		30															0.04 - 0.15	0.07 - 0.18	-	-	-
N	L	Aluminum and aluminum alloys	<6% Si	AU4G																			2750	1525	300		-	-	-	-	0.03 - 0.30
N	M	Aluminum +Silicon	>6% Si																				2000	1125	250		-	-	-	-	0.04 - 0.30
H	F	Hardened steels	>1400 N/mm	>415 HBN	70	55	40																				0.06 - 0.11	0.07 -0.15	0.09 - 0.18	0.11 - 0.22	-
H	P	Chilled cast iron	1400 N/mm	400 HBN	110	95	80																								

1. * The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, work piece clamping and coolants. Average chip thickness=hm(hm=fzxSin KappaR)
2. ** Fine-pitch cutter fzmax=0.4
3. *** apmax = 8 for SN...1206-ENN and apmax = 9.5 for SNMX120612
4. **** Dry cutting

AFM88-SN12 Recommended Cutting Conditions

ISO	Classification	Materials group	Hardness/type		PVD			PVD			PVD			CVD			CVD			PVD			Uncoated			Cutting depth and feed SNGX 1206..					
					AP301U			**AP351U**			**AP401U**			**AC301P**			**AC301K**			**AP351K**			**AW100K**			ap	MM3	MM4	MR6	RR2	FM2
					P01-20			P20-40			P40-50			P10-30			-			-			-								
					M05-20			M15-30			M30-45			M10-25			-			-			-								
					K30-45			K35-45			-			-			K10-40			K25-45			-								
					S05-20			S15-30			S25-40			-			-			-			-								
					-			-			-			-			-			-			N05-20								
					H10-25			-			-			-			H10-20			-			-								
					feed（mm/rev）																						fz	fz	fz	fz	fz
					0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.5	min-max	min-max	min-max	min-max	min-max	min-max
P	A	Non-alloy steels	<600 N/mm	<180HBN	450	340	290	230	205	170	150	0.3	90	430	230	120										0.8 - 8.5-10	0.08 - 0.28	0.13 - 0.32	-	-	-
P	B	Non-alloy steels	<950 N/mm	<280HBN	320	240	200	200	180	160	120	120	80	380	220	120													0.16 - 0.35	0.19 - 0.39	-
P	C	Alloyed steels	700-950 N/mm	200-280 HBN	290	210	185	200	155	110	120	100	75	340	240	120											0.07 - 0.25	0.11 - 0.28	0.14 - 0.45	0.18 - 0.35	-
P	D	Alloyed steels	950-1200 N/mm	280-355 HBN	280	210	200	180	130	90	100	95	65	260	150	80											0.07 - 0.18	0.11 - 0.25	0.13 - 0.40	0.16 - 0.32	-
P	E	Alloyed steels	1200-1400 N/mm	355-415 HBN	210	170	110	140	105	70	80	80	40	145	105	65											-	0.08 - 0.18	0.11 - 0.30	0.13 - 0.25	-
M	H	Stainless steels	Austenitic + Ferritic	300 series	165	150	130	270	215	155	150	60	100	225	180	125											0.11 - 0.28	0.16 - 0.25	-	-	-
M	G	Stainless steels	Martensitic	400 series	270	185	90	260	180	90	190	125	50	210	145	75											0.08 - 0.25	0.13 - 0.25	0.14 - 0.40	0.17 - 0.32	-
M	Y	Stainless steels	Precipitation-hardening stainless steel	P.H.	300	225	165	170	150	110	100	120	65	140	130	90											0.08 - 0.18	0.11 - 0.21	-	-	-
K	I	Cast iron	Gray cast iron	Ft - GG	370	280	130	290	220	150		82					480	310	140	390	280	130					0.11 - 0.28	0.13 - 0.35	0.16 - 0.60	0.18 - 0.49	-
K	J	Cast iron	Cast iron nodular	GGG 40-70 -FGS	370	260	130	180	130	70							450	295	140	420	300	140					0.11 - 0.25	0.13 - 0.32	0.16 - 0.50	0.18 - 0.42	-
K	S	Cast iron	Malleable cast iron	GTS - MN/MP	410	320	210	390	300	190							500	365	230	430	290	230					0.13 - 0.28	0.16 - 0.35	0.18 - 0.60	0.21 - 0.42	-
S	Q	High temperature alloys	Fe based alloy		50	40	30	45	40	30	40		20														0.07 - 0.18	0.08 - 0.21	0.11 - 0.35	0.13 - 0.25	-
S	K	High temperature alloys	Co based alloy	Waspaloy	45	38	30	45	40	30	40	30	20														-	0.03 - 0.09	0.03 - 0.15	-	-
S	R	High temperature alloys	Ni based	Incoloy	45	38	30	45	40	30	40	30	20														0.03 - 0.11	0.05 - 0.14	0.08 - 0.22	-	-
S	T	High temperature alloys	Ti based	TiAl6V4	100	75	30	100	70	45		30															0.04 - 0.14	0.07 - 0.18	-	-	-
N	L	Aluminum and aluminum alloys	<6% Si	AU4G																			2750	1525	300		-	-	-	-	0.03 - 0.30
N	M	Aluminum +Silicon	>6% Si																				2000	1125	250		-	-	-	-	0.04 - 0.30
H	F	Hardened steels	>1400 N/mm	>415 HBN	70	55	40																				0.04 - 0.11	0.07 -0.14	0.08 - 0.25	0.11 - 0.21	-
H	P	Chilled cast iron	1400 N/mm	400 HBN	110	95	80																								

1. * The recommended cutting conditions always refer to general conditions. These cutting conditions should be adjusted according to the practical machine rigidity, tools, work piece clamping and coolants. Average chip thickness=hm(hm=fzxSin KappaR)
2. ** Fine-pitch cutter fzmax=0.4
3. *** apmax = 8.5 for SN...1206-ZNN and apmax = 10 for SNMX120612
4. **** Dry cutting

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