ACHTECK

2026.05

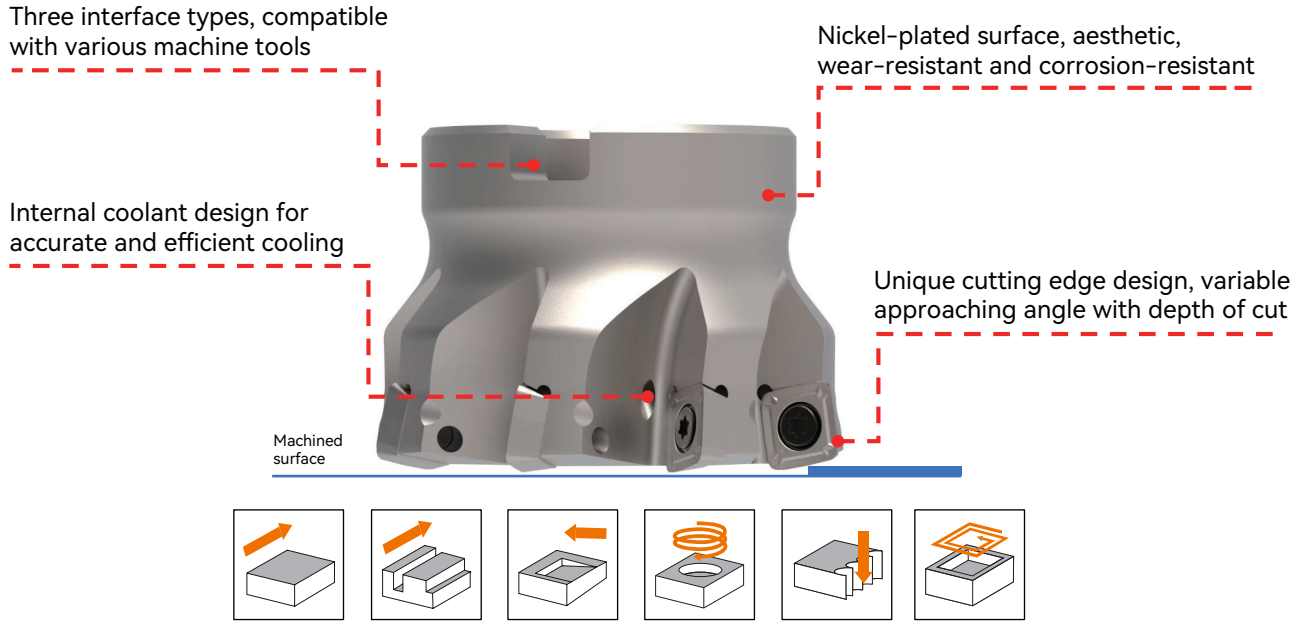
High Feed Milling Cutter with 10° Approaching Angle
--XO Series

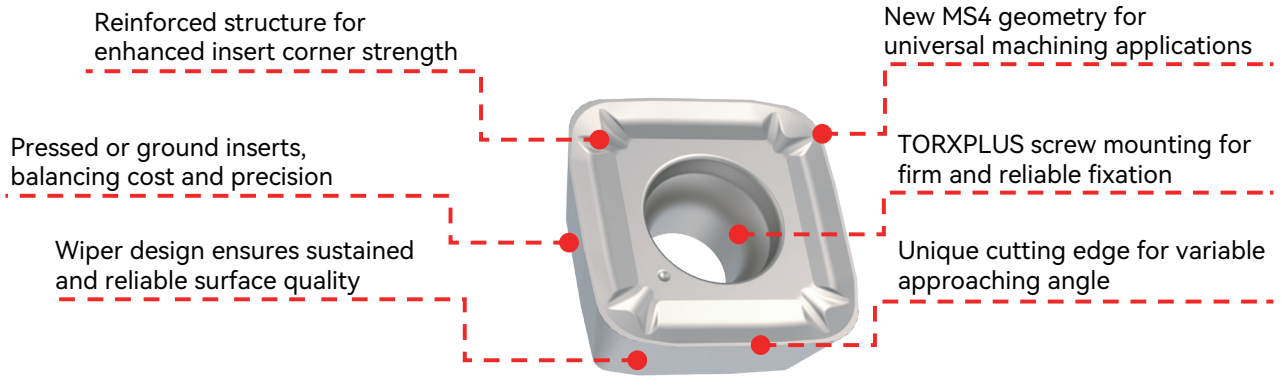
NO.116

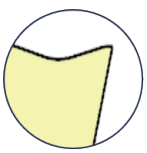
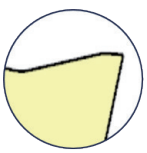
www.achtecktool.com

Product Introduction

Achteck Tool has newly launched the AHM10-XO09/12 series high-feed milling cutters, tackling critical cutting challenges in high-end manufacturing fields including aerospace and energy. With a 10° approaching angle, these cutters achieve a high metal removal rate to enhance machining efficiency, while ensuring stable axial force distribution and reducing vibration. The inserts are equipped with newly designed geometries and wear-resistant grades, delivering exceptional performance on difficult-to-machine materials. They are ideally suited for machining conditions featuring shallow depth of cut and high feed rate.

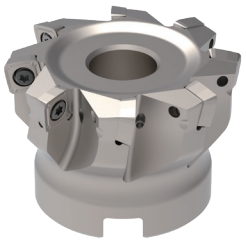


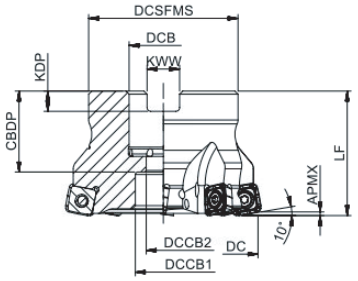


MS4 NEW	 Cutting edge  Corner radius	Universal primary cutting edge & reinforced corner radius design Protects and reinforces the cutting corner, offering remarkable advantages for difficult-to-machine materials

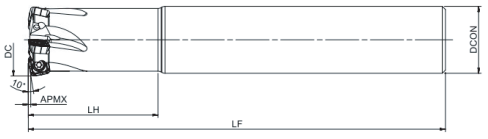
AHM10-XO09

10° Approaching angle high feed milling cutter

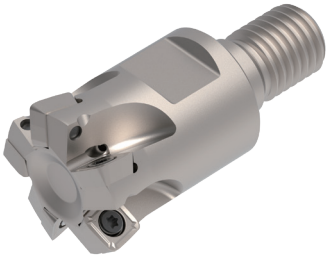


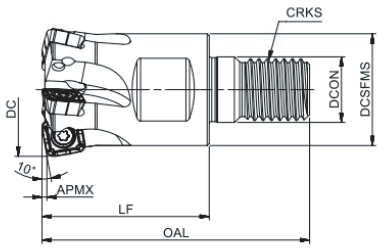


Product code	Dimensions (mm)										Internal coolant	Weight (kg)	Z	Inserts
	DC	DCSFMS	DCB	DCCB1	DCCB2	LF	CBDP	KDP	KWW	APMX				
AHM10-040-Z05-A16R-XO09-C	40	35	16	14	9	40	24	5.8	8.4	1.1	●	0.2	5	XO..09..
AHM10-050-Z06-A22R-XO09-C	50	45	22	18	11	40	26	6.5	10.4	1.1	●	0.4	6	
AHM10-063-Z08-A22R-XO09-C	63	48	22	18	11	40	26	6.5	10.4	1.1	●	0.5	8	



Product code	Dimensions (mm)					Internal coolant	Weight (kg)	Z	Inserts
	DC	DCON	LF	LH	APMX				
AHM10-032-Z04-C32R-XO09-L200-C	32	32	200	57	1.1	●	1.1	4	XO..09..
AHM10-035-Z05-C32R-XO09-L200-C	35	35	200	62	1.1	●	1.2	5	



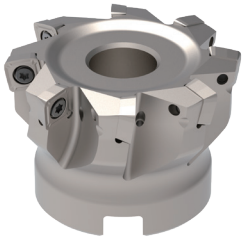


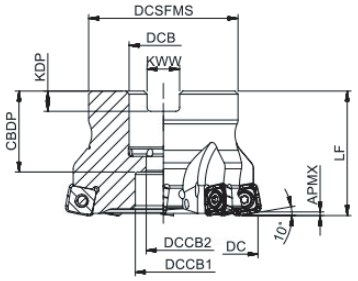
Product code	Dimensions (mm)							Internal coolant	Weight (kg)	Z	Inserts
	DC	DCSFMS	DCON	OAL	LF	CRKS	APMX				
AHM10-025-Z03-M12R-XO09-C	25	23	12.5	57	35	M12	1.1	●	0.2	3	XO..09..
AHM10-032-Z04-M16R-XO09-C	32	29	17	64	40	M16	1.1	●	0.3	4	
AHM10-035-Z05-M16R-XO09-C	35	29	17	64	40	M16	1.1	●	0.3	5	

Note: ● with internal coolant

AHM10-XO12

10° Approaching angle high feed milling cutter





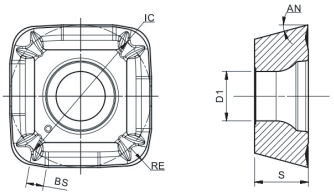
Product code	Dimensions (mm)										Internal coolant	Weight (kg)	Z	Inserts
	DC	DCSFMS	DCB	DCCB1	DCCB2	LF	CBDP	KDP	KWW	APMX				
AHM10-050-Z04-A22R-XO12-C	50	45	22	18	11	40	26	6.5	10.4	1.3	✓	0.3	4	XO..12..
AHM10-063-Z06-A22R-XO12-C	63	48	22	18	11	40	26	6.5	10.4	1.3	✓	0.5	6	
AHM10-080-Z08-A27R-XO12-C	80	60	27	20	14	50	29	7.2	12.4	1.3	✓	1.0	8	

Note: ✓ with internal coolant

Spare Parts

Cutter	Diameter (mm)	Screw	Wrench	Torque
				
AHM10-XO09	Ø 25-63	SP035078	DT-TP10	4.0 Nm
AHM10-XO12	Ø 50-80	SP040100H	DT-TP15	4.0 Nm

Inserts

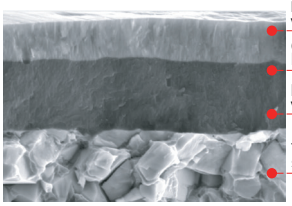


Product code	Dimensions (mm)					AN	Grade
	IC	S	RE	D1	BS		AP351S NEW
XOMT 09T312ER-MS4	9.525	3.97	1.2	4.2	1.9	15°	●
XOGT 09T312ER-MS4	9.525	3.97	1.2	4.2	1.9	15°	●
XOMT 120420ER-MS4	12.7	4.82	2.0	4.4	1.5	15°	○
XOGT 120420ER-MS4	12.7	4.82	2.0	4.4	1.5	15°	●

●: Stock available ○: Made to order

AP351S Characteristics

Material	Titanium Alloy/High-temperature alloy				Stainless Steel			
Application	Finishing ← → Roughing				Finishing ← → Roughing			
ISO	S10	S20	S30	S40	M10	M20	M30	M40
Range			S30-S40			M25-M35		
Vc	30-60 m/min				100-190 m/min			



- Inert coating surface, minimum chemical wear between chips and coating
- Optimized coating process to improve bonding of coating and substrate
- Designed coating structure to improve wear resistance
- Tougher substrate to handle thermal shock and thermal fatigue

Customer Benefits

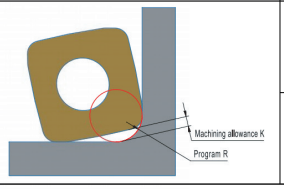
Application Flexibility
Diversified processing methods, suitable for multi-functional machining. It greatly reduces tool types and simplifies inventory management.

Superior Performance
Adopting innovative structures and materials to enhance insert strength and reduce axial force. It adapts to unstable working conditions and delivers longer service life.

Leading Efficiency
Achieves high material removal rate, significantly shortens single-piece machining cycle time, and maximizes machine tool utilization.

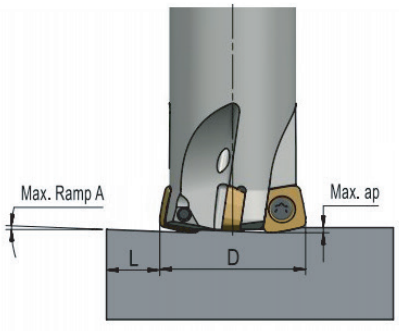
Cost Optimization
Under the same material removal rate and processing efficiency, it requires fewer tool changes and lowers resource consumption.

Technical Information for NC Program

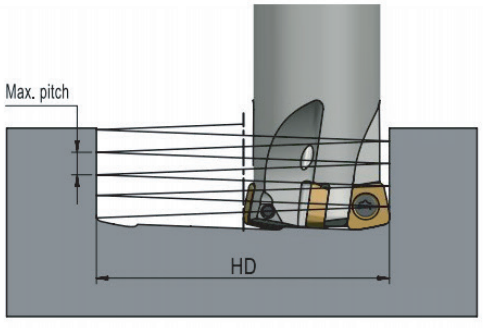
Figure	Inserts	Radius（mm）	Program R（mm）	Machining allowance K（mm）
	XO..09T312..	1.2	2.34	0.9
	XO..120420..	2.0	3.29	1.0

Application Information

Linear Ramping



Helical Interpolation



Cutter	Diameter D (mm)	Linear Ramping			Helical interpolation		
		Max. A	Min. L (mm)	Max. ap (mm)	Min. HD (mm)	Max. HD (mm)	Max. pitch (mm)
AHM10-XO09	25	3.8°	17.0	1.1	36.0	50.0	1.1
	32	2.0°	32.0	1.1	50.1	64.0	1.1
	35	1.6°	39.0	1.1	56.3	70.0	1.1
	40	1.3°	49.0	1.1	64.7	80.0	1.1
	50	0.9°	71.0	1.1	86.0	100.0	1.1
	63	0.6°	100.0	1.1	112.0	126.0	1.1
AHM10-XO12	50	1.3°	58.0	1.3	80.2	100.0	1.3
	63	0.9°	86.0	1.3	108.4	126.0	1.3
	80	0.6°	123.0	1.3	143.1	160.0	1.3

Case Story 1

Component: Aerospace Frame

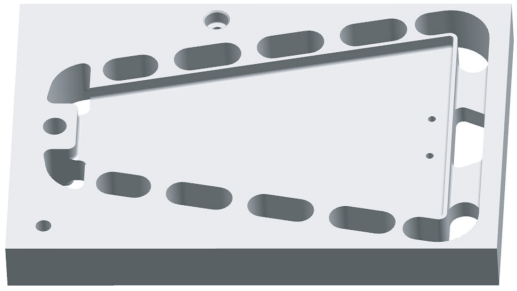
Material: TC4

Cutter: AHM10-040-Z05-A16R-XO09-C

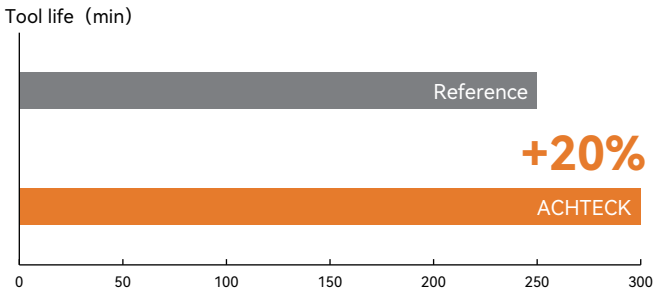
Insert: XOMT 09T312ER-MS4

Grade: AP351S

Operation: Roughing



Cutting Data	Reference	ACHTECK
Vc[m/min]	44	44
fz [mm/t]	1.14	1.14
ap [mm]	0.4	0.4
Coolant	Emulsion	Emulsion
Tool life [min]	250	300



Case Story 2

Component : Aerospace Forging

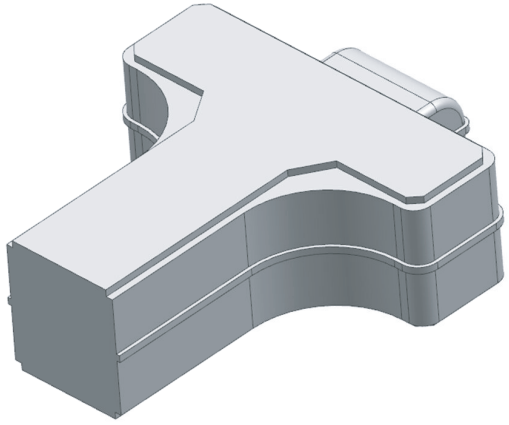
Material : TC21

Cutter: AHM10-063-Z08-A22R-XO09-C

Insert: XOMT 09T312ER-MS4

Grade: AP351S

Operation: Roughing



Cutting Data	Reference	ACHTECK
Vc[m/min]	79	79
fz [mm/t]	0.25	0.25
ap [mm]	0.2	0.2
Coolant	Emulsion	Emulsion
Tool life [min]	18	23