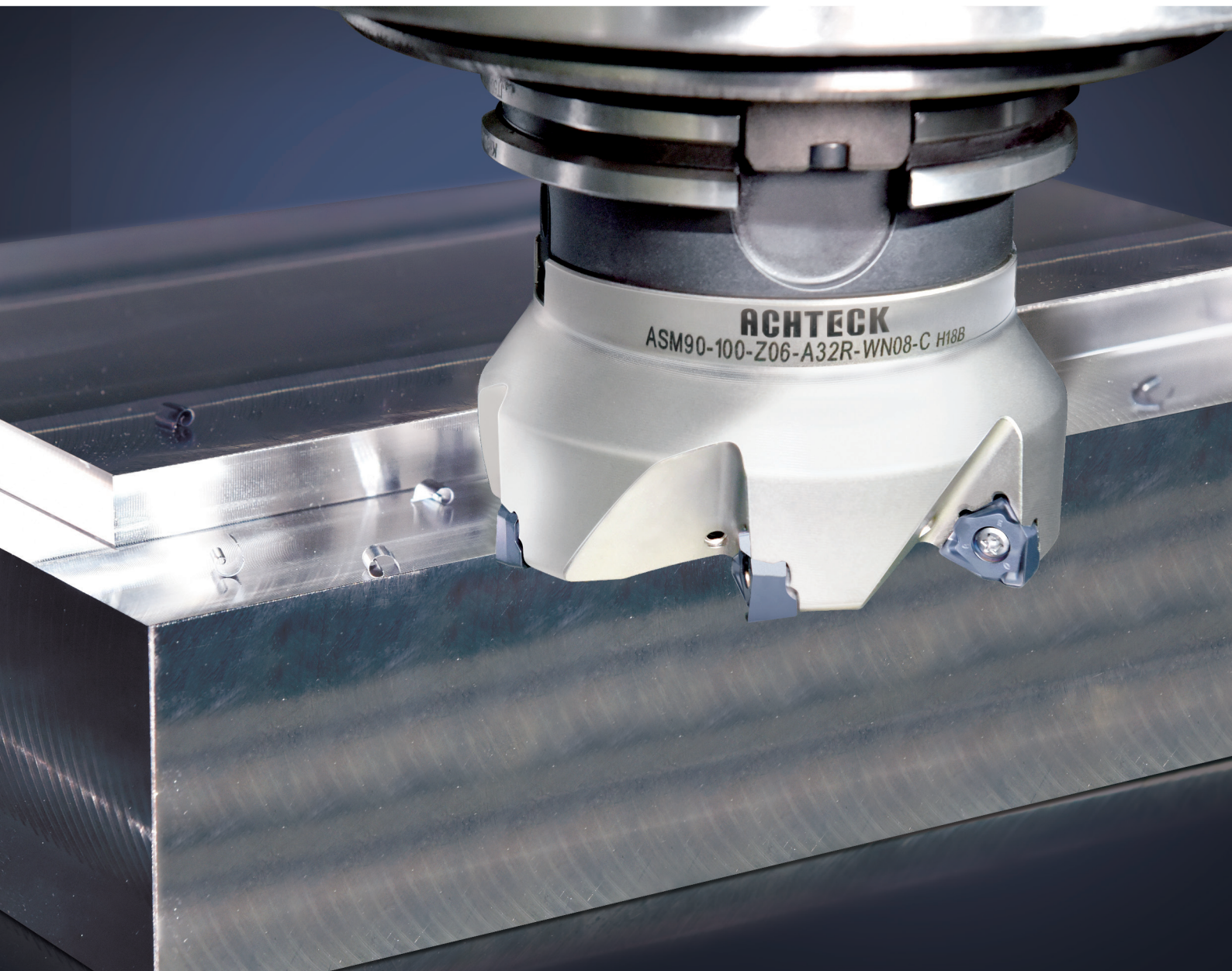


**NEW  
PRODUCT!**

# ASM90-WN08

**Shoulder Milling Cutter**

With 6 cutting edge insert



Achteck is launching a 90 degree shoulder milling cutter, with triangular negative insert, providing a very good shoulder milling solution. Six cutting edge insert provides an economic solution and reduces machining cost.

Three geometries MM3, MM4 and MR2 combined with Achteck CVD and PVD coating technology provide good performance.




ASM90-WN08 has excellent performance, tool life and surface quality, and is suitable for machining steel, stainless steel, cast iron, heat resistant alloy and other materials.

The insert WN08-W has a long wiper edge provides a good surface finish and high productivity.

## ◆ Product Features

- Six cutting edge negative inserts, economic, with big rake angle geometry
- Three geometries: MM3, MM4, MR2, all with short wiper cutting edge, obtain better surface finishing.
- Long wiper edge insert can obtain good surface finishing and machining efficiency.
- Corner radius of insert: R0.4/0.8/1.2/1.6;
- Positive rake angle insert reduce cutting force.
- 6 grades cover a wide application range: AP301U, AP351U, AP351K, AP401U, AC301P, AC301K;
- Precise 90 degree shoulder milling cutter, cutter body diameter range: Ø 40-Ø160 mm;
- Three kinds of pitch design: coarse pitch is mainly used for slot milling and shoulder milling, close pitch is mainly used for shoulder milling, and extra close pitch is mainly used for short chip materials and finish machining.
- Light cutting because of positive rake angle design;
- High-precision axial and radial run-out;
- Different coupling types: screw modular type, cylindrical type, Weldon type and shell mill (Arbor).
- Nickel-plated cutter has good corrosion resistance and wear resistance.

## • Chip breaker Features

Chip breaker	Edge shape	Features
<b>MR2</b> Stable type		<ul style="list-style-type: none"> <li>• Suitable for unstable cutting conditions</li> <li>• Best cutting edge stability</li> <li>• High feed rate</li> </ul>
<b>MM4</b> General type		<ul style="list-style-type: none"> <li>• Suitable for medium cutting conditions</li> <li>• First choice for general machining</li> </ul>
<b>MM3</b> Sharp type		<ul style="list-style-type: none"> <li>• For good cutting conditions and finish operation</li> <li>• Low cutting force (used in weak machine)</li> </ul>

## • Grade application

Grade	Coating	Material					
		P	M	K	S	N	H
AP301U	PVD	●	◐		○		
AP351U	PVD	●	◐		○		
AP401U	PVD		●		◐		
AC301P	CVD	●	◐	○			
AC301K	CVD			●			◐
AP351K	PVD			●			

● 1<sup>st</sup> Choice

◐ 2<sup>nd</sup> Choice

○ Supplementary application

## Case stories

Work piece: Bearing housing

Material: Gray cast iron

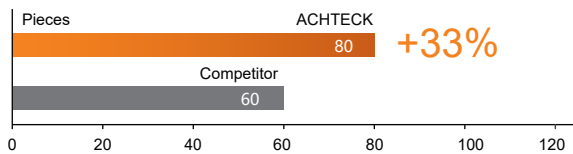
Hardness: HB220

**Insert: WNGU080608-MM4 AC301K**

Cutter: ASM90-063-Z07-A22R-WN08-C

parameters:  $V_c=260\text{m/min}$ ,  $f_z=0.12\text{mm/z}$

$a_p=2.0\text{mm}$ , Dry cutting



Tool life increased from 60pcs to 80pcs, 33% increase.

Work piece: Plate

Material: HB400 wear resistance steel

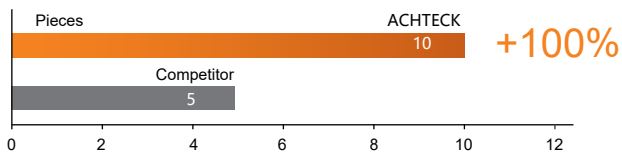
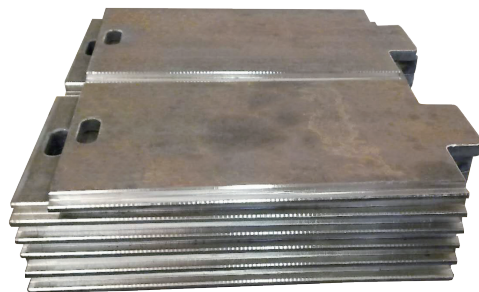
steel Hardness: > 380HB

**Insert: WNGU 080608R-MM4 AC301P**

Cutter: ASM90-080-Z07-A27R-WN08-C

parameters:  $V_c=97\text{m/min}$ ,  $f_z=0.10\text{mm/z}$

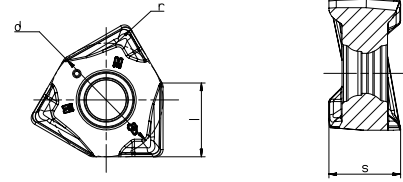
$a_p=5.0\text{mm}$ , Dry cutting

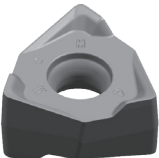


The tool life increased from 5 to 10 pcs, 100% increase.

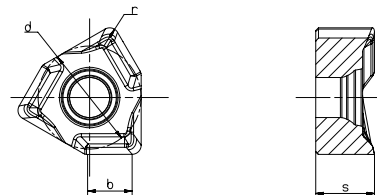
## Insert

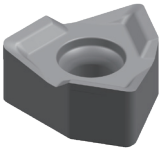
### WNGU 08



Insert	Product code	Dimensions (mm)				Grades							
		l	d	s	r	CVD coating		PVD coating			Uncoated		
						AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K	
	WNGU 080604R-MM3	8	12.5	7.88	0.8								●
	WNGU 080604R-MM3	8	12.5	7.88	0.4				●	●			
	WNGU 080608R-MM3	8	12.5	7.88	0.8			●	●	●			
	WNGU 080604R-MM4	8	12.5	7.88	0.4			●	●	●	●		
	WNGU 080608R-MM4	8	12.5	7.88	0.8	●	●	●	●	●	●		
	WNGU 080612R-MM4	8	12.5	7.88	1.2			●	●	●			
	WNGU 080616R-MM4	8	12.5	7.88	1.6			●	●	●			
	WNGU 080608R-MR2	8	12.5	7.88	0.8		●	●			●		
	WNGU 080612R-MR2	8	12.5	7.88	1.2			●			●		
	WNGU 080616R-MR2	8	12.5	7.88	1.6			●			●		

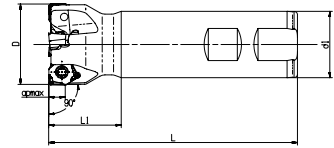
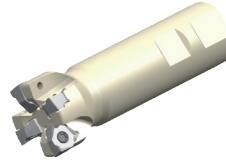
### WNHX 08



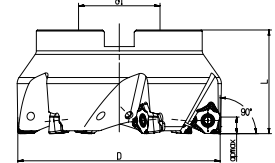
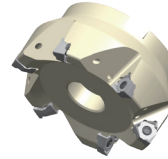
Insert	Product code	Dimensions (mm)				Grades							
		d	b	s	r	CVD coating		PVD coating			Uncoated		
						AC301P	AC301K	AP301U	AP351U	AP401U	AP351K	AW100K	
	WNHX 0806ZZR-W	11.3	4.8	6.47	1.0		●	●					

● stocked

● **Cutter**  
ASM90-WN08-C



Product code	Dimension					Coolant	Z	Insert
	D	d1	L	l1	apmax			
ASM90-040-Z03-W32R-WN08-C	40	32	120	35	8.0		3	WNGU 0806
ASM90-040-Z04-W32R-WN08-C	40	32	120	35	8.0		4	



Product code	Dimension				Coolant	Z	Insert
	D	d1	L	apmax			
ASM90-050-Z04-A22R-WN08-C	50	22	40	7		4	WN.U 0806
ASM90-050-Z05-A22R-WN08-C	50	22	40	7		5	
ASM90-063-Z04-A22R-WN08-C	63	22	40	7		4	
ASM90-063-Z06-A22R-WN08-C	63	22	40	7		6	
ASM90-063-Z07-A22R-WN08-C	63	22	40	7		7	
ASM90-080-Z05-A27R-WN08-C	80	27	50	7		5	
ASM90-080-Z07-A27R-WN08-C	80	27	50	7		7	
ASM90-080-Z09-A27R-WN08-C	80	27	50	7		9	
ASM90-100-Z06-A32R-WN08-C	100	32	50	7		8	
ASM90-100-Z08-A32R-WN08-C	100	32	50	7		8	
ASM90-100-Z11-A32R-WN08-C	100	32	50	7		11	
ASM90-125-Z07-A40R-WN08-C	125	40	63	7		7	
ASM90-125-Z11-A40R-WN08-C	125	40	63	7		11	
ASM90-125-Z13-A40R-WN08-C	125	40	63	7		13	
ASM90-160-Z08-A40R-WN08	160	40	63	7		8	
ASM90-160-Z12-A40R-WN08	160	40	63	7		12	
ASM90-200-Z14-A60R-WN08	200	60	63	7		14	
ASM90-200-Z16-A60R-WN08	250	60	63	7		16	

Dimensions	Cutter spare parts			
Cutter diameter	Screw	Wrench		Torque
φ40-φ80	AST4085-60	AWT-T15		3.5Nm
φ100-φ160	AST4085-60	ADT-T15		
		ADT-G16	BIT-T15	

Application			
Facing	Shoulder milling	Slotting	Plunging

With internal coolant  
 Without internal coolant

