

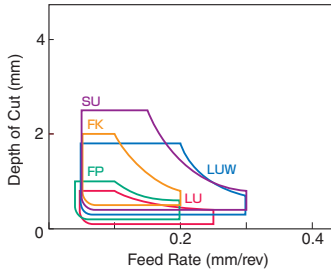
### Grades

Grades	Application Range			Work Materials					
	High Precision	Finishing to Light	Medium	General Steel	Stainless Steel	Cast Iron	Heat-Resistant Alloy	Hardened Steel	Non-Ferrous Metal
Coated Carbide (PVD)	ACZ150	AC510U AC520U AC530U AC1030U		⊙ ○ ○ ○ ○	⊙ ⊙ ⊙ ⊙ ⊙	○ ○ ○ ○ ○	⊙ ○ ○ ○ ○		○ ○ ○ ○ ○
Uncoated Cermet Coated Cermet		T1000A T1500A/T1500Z		⊙ ⊙	○ ○	⊙ ○	○ ○		○ ○
Carbide	BL130	H1 EH510		○ ○ ○	○ ○ ○	○ ○ ○	○ ○ ○		○ ○ ○
CBN (SUMIBORON)		BN1000/BN2000						⊙	○
PCD (SUMIDIA)		DA1000 DA2200							⊙ ⊙

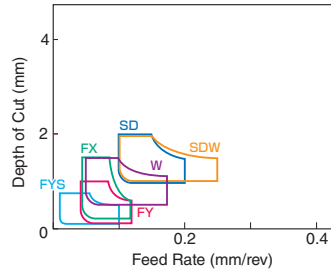
⊙1st recommendation ○2nd recommendation

### Chipbreakers

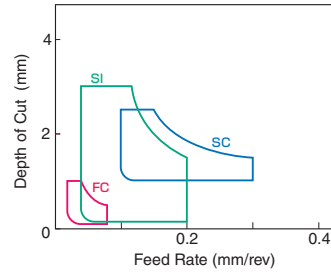
● M Class Finishing to Light



● G Class Ground Type



● G Class Chipbreakers



### Recommended Cutting Conditions

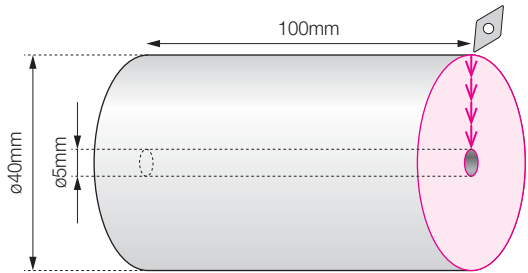
Grades	P Free-Cutting Steel		P Alloy Steel		M Stainless Steel		H Hardened Steel		N Aluminum		N Brass	
	$v_c$ (m/min)	$f$ (mm/rev)	$v_c$ (m/min)	$f$ (mm/rev)	$v_c$ (m/min)	$f$ (mm/rev)	$v_c$ (m/min)	$f$ (mm/rev)	$v_c$ (m/min)	$f$ (mm/rev)	$v_c$ (m/min)	$f$ (mm/rev)
ACZ150	50 to 200	0.02 to 0.10	50 to 150	0.01 to 0.08	50 to 150	0.01 to 0.05			70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
AC510U	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10					70 to 300	0.05 to 0.20
AC520U	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10					70 to 300	0.05 to 0.20
AC530U	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 200	0.02 to 0.10					70 to 300	0.05 to 0.20
AC1030U	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10					70 to 300	0.05 to 0.20
T1000A	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10			70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
T1500A	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10			70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
T1500Z	50 to 200	0.02 to 0.15	50 to 200	0.02 to 0.10	50 to 150	0.02 to 0.10			70 to 300	0.05 to 0.20	70 to 300	0.05 to 0.20
BN1000							50 to 200	0.02 to 0.10				
BN2000							50 to 120	0.02 to 0.10				
DA1000									70 to 300	0.02 to 0.10	70 to 300	0.02 to 0.10
DA2200									70 to 300	0.02 to 0.10	70 to 300	0.02 to 0.10

Values in red: 1st recommendation Values in blue: 2nd recommendation

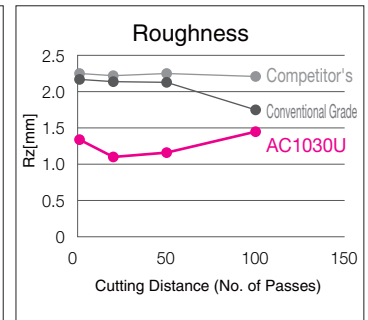
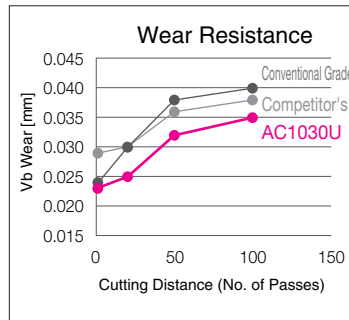
## Performance

**AC1030U** Employs Absotech Bronze, a new PVD coating, with a special tough carbide substrate. Achieving excellent machined surface quality with a high-quality cutting edge that reduces adhesion and micro-chipping.

### AC1030U Performance

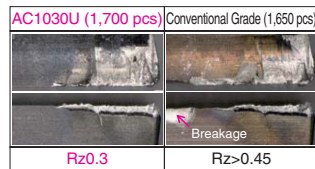
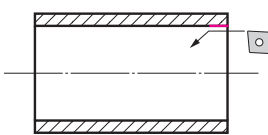


Work Material : SUS304 Insert : DCGT11T302R-FY  
Cutting Conditions:  $v_c=100\text{m/min}$   $f=0.05\text{mm/rev}$   $a_p=0.1\text{mm}$  Wet(Oil based)



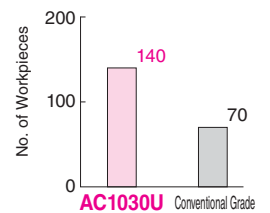
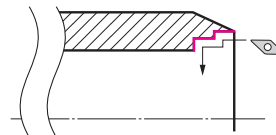
## Application Examples

### [STKM12C-EC Pipe]



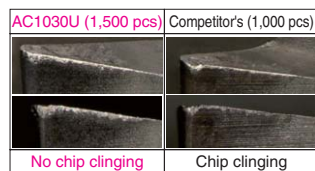
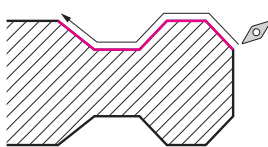
Insert: CCGT060201L-FX  
Cutting Conditions:  $v_c=196\text{m/min}$   $f=0.04\text{mm/rev}$   $a_p=0.4\text{mm}$

### [S45C Shaft Stator]



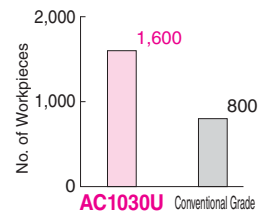
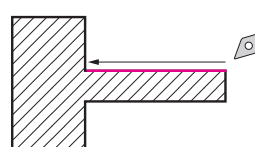
Insert: VPGT110302R-FX  
Cutting Conditions:  $v_c=195\text{m/min}$   $f=0.12\text{mm/rev}$   $a_p=0.175 - 0.25\text{mm}$  Wet

### [SUS304 Body Valve]



Insert: VCGT110301R-FY  
Cutting Conditions:  $v_c=31.5\text{m/min}$   $f=0.025\text{mm/rev}$   $a_p=0.2\text{mm}$  Wet

### [SUS430 Sensor Housing]



Insert: DCMT11T304MN-FC  
Cutting Conditions:  $v_c=50\text{m/min}$   $f=0.06\text{mm/rev}$   $a_p=0.2\text{mm}$