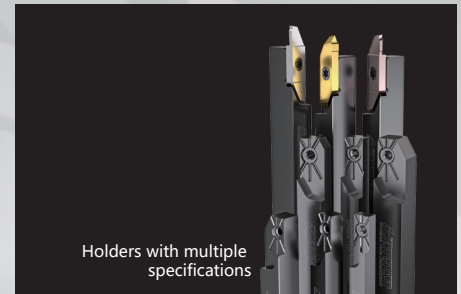
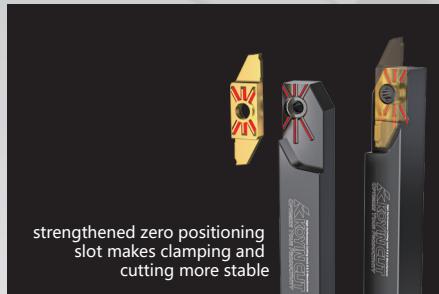
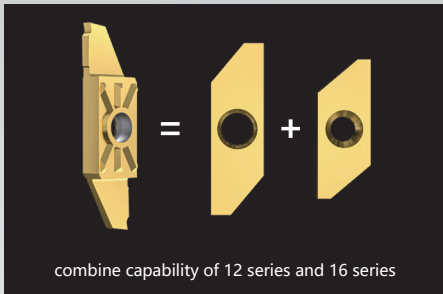


KX116

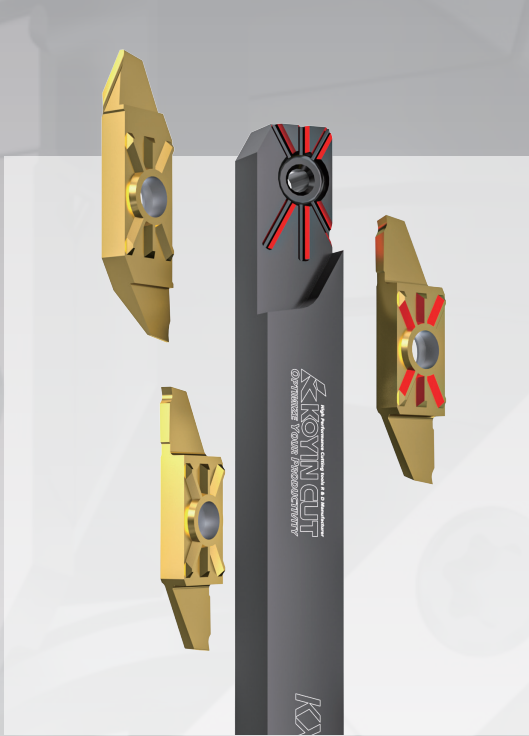
KX116 CNC PRECISION AUTOMATIC LATHE SPECIAL SMALL PARTS CUTTING TOOL SERIES



FEATURES AND ADVANTAGES

- combine capability of 12 series and 16 series
- tools with multiple purposes (parting, grooving, back-turning, threading)
- grades vary from different machined materials (stainless steel, titanium alloy, soft iron, carbide, nonferrous and etc.)
- holders with different specifications (8*8/10*10/12*12/16*16) and customization

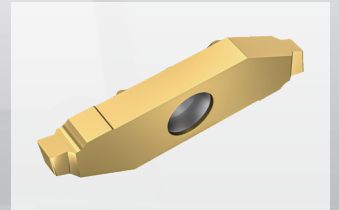
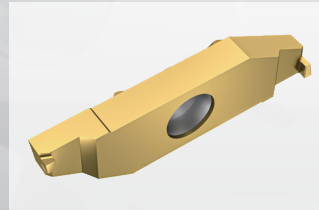
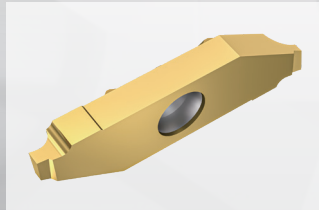
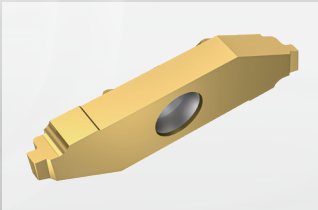




More stable cutting performance with strengthened zero positioning slot to eliminate longitudinal machining force

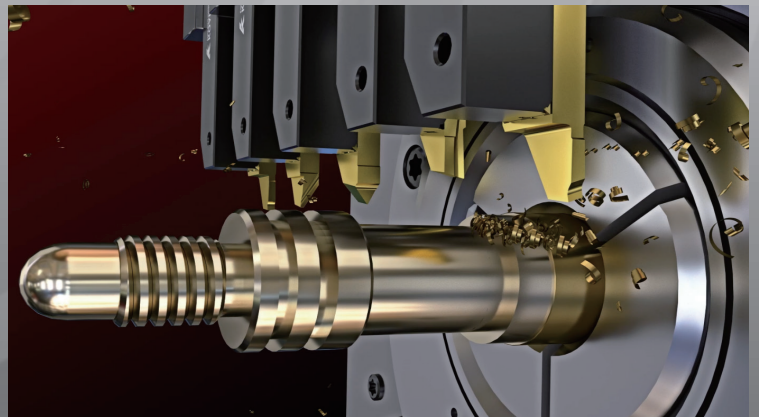
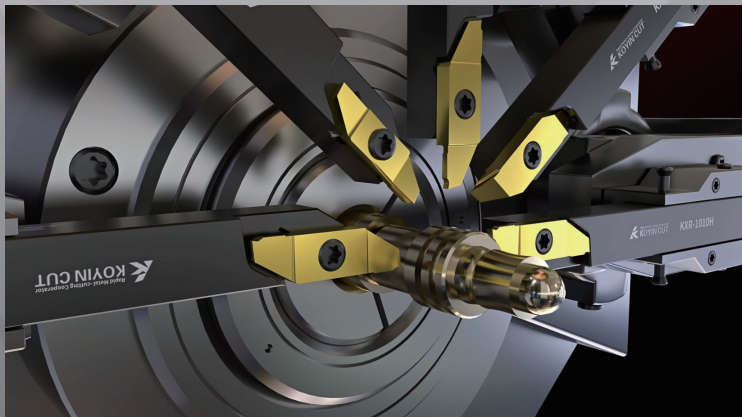
"Precise positioning and repeatable accuracy with strengthened zero positioning slot one holder for different inserts"

■ Display of customized tools

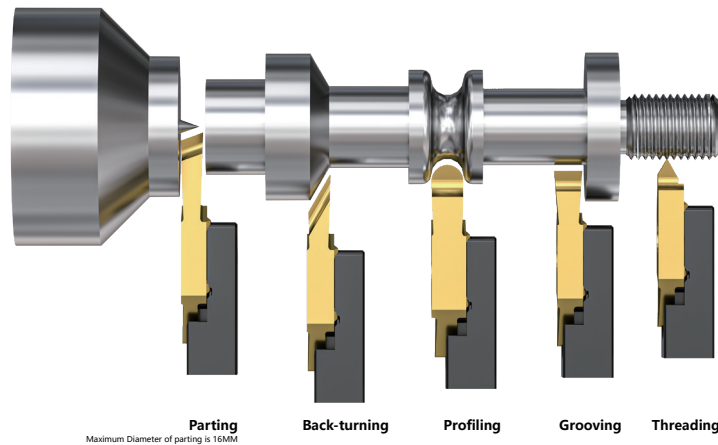


KX16 Tools Dedicated for Precision Small Parts

■ Simulated application scenario



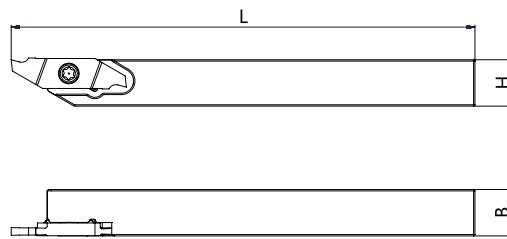
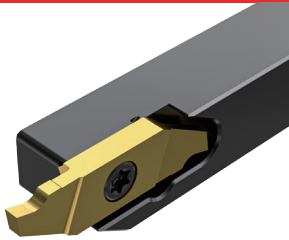
Processing Application



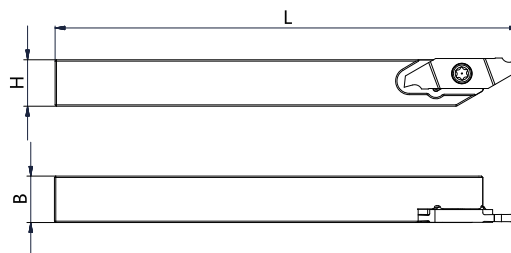
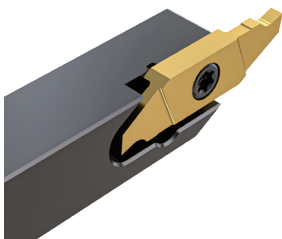
Symbols of KX116 Tool Holders

						M : 150
						JX : 120
						J : 110
						H : 100
KX116: KX116 Series	N/A: Standard holders S: halved holders	R: right handed L: left handed				
Series	Halved holders	Holder Direction	—	Holder Height	Holder Width	Tool Length
KX116	S	R	—	12	12	JX

Regular Holders



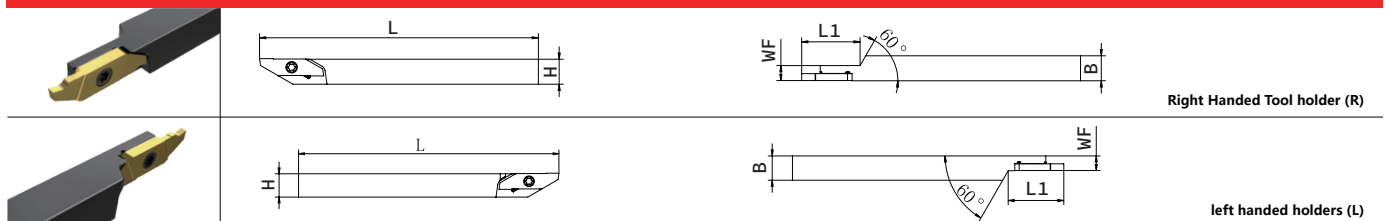
Right Handed Tool holder (R)



left handed holders (L)

Type	Size(mm)			Accessories		Corresponding Insert
	H	B	L	Screw	Wrenth	
KX116%L -0808H	8	8	100	KS-3504-T	KW-T15	KX116□%L □□□
KX116%L -1010JX	10	10	120	KS-35065-T	KW-T15	KX116□%L □□□
KX116%L -1212JX	12	12	120	KS-35065-T	KW-T15	KX116□%L □□□
KX116%L -1616JX	16	16	120	KS-35065-T	KW-T15	KX116□%L □□□
KX116%L -2020JX	20	20	120	KS-35065-T	KW-T15	KX116□%L □□□
KX116%L -2525M	25	25	150	KS-35065-T	KW-T15	KX116□%L □□□

Halved Holders



Type	Size(mm)					Accessories		Corresponding Insert
	H	B	WF	L1	L	Screw	Wrenth	
KX116S% -0808H	8	8	7.2	26	100	KS-3504-T	KW-T15	KX116□% □□□
KX116S% -1010JX	10	10	7.2	26	120	KS-3504-T	KW-T15	KX116□% □□□
KX116S% -1212JX	12	12	7.2	26	120	KS-3504-T	KW-T15	KX116□% □□□
KX116S% -1616JX	16	16	7.2	26	120	KS-3504-T	KW-T15	KX116□% □□□

Symbols of KX116 Tools for grooving, circular grooving, axial grooving and back-turning

KX116: KX116 Series	B: Back-turning tools						
	BT: Back-turning tools						
	GT: Back-turning tools						
	R: Circular Grooving Tools	R: right handed	050: 0.5		280: 2.8		035: R0.35
	G: Grooving tools	L: left handed	125: 1.25		400: 4.0		005: R0.05
Series	Insert Type	Insert Direction	Tip width	—	Effective cutting depth	—	Nose Radius
KX116	G	R	125	—	400	—	005

116G Grooving Tools

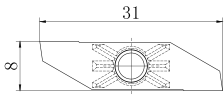
Workblank	Application Examples		P	Soft steel	◆	◆	◆	◆	◆	◆	◆	◆
			M	Carbide	◆	◆	◆	◆	◆	◆	◆	◆
			M	Austenitic	◆	◆	◆	◆	◆	◆	◆	◆
			M	Martensitic	◆	◆	◆	◆	◆	◆	◆	◆
			K	Grey Cast Iron	◆	◆	◆	◆	◆	◆	◆	◆
			K	Ductile Cast Iron	◆	◆	◆	◆	◆	◆	◆	◆
			N	Nonferrous	◆	◆	◆	◆	◆	◆	◆	◆
			S	Heat Resisting Alloy	◆	◆	◆	◆	◆	◆	◆	◆
			S	Titanium Alloy	◆	◆	◆	◆	◆	◆	◆	◆
			H	Hardened Materials	◆	◆	◆	◆	◆	◆	◆	◆
Shape Right Handed Tool	Type	Size			PVD Coated Cemented Carbide							Cemented carbide
		W	L	R	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
	KX116G% 070-300-005	0.7	3.0	0.05		●	●					
	KX116G% 100-400-005	1.0	4.0	0.05		●	●					
	KX116G% 100-400-010	1.0	4.0	0.1		●	●					
	KX116G% 125-400-005	1.25	4.0	0.05		●	●					
	KX116G% 125-400-010	1.25	4.0	0.1		●	●					
	KX116G% 150-500-005	1.5	5.0	0.05		●	●					
	KX116G% 150-500-010	1.5	5.0	0.1		●	●					
	KX116G% 150-500-020	1.5	5.0	0.2		●	●					
	KX116G% 200-600-005	2.0	6.0	0.05		●	●					
	KX116G% 200-600-010	2.0	6.0	0.1		●	●					
	KX116G% 200-600-020	2.0	6.0	0.2		●	●					
	KX116G% 250-800-005	2.5	8.0	0.05		●	●					
	KX116G% 250-800-010	2.5	8.0	0.1		●	●					
	KX116G% 250-800-020	2.5	8.0	0.2		●	●					
	KX116G% 300-800-005	3.0	8.0	0.05		●	●					
	KX116G% 300-800-010	3.0	8.0	0.1		●	●					
	KX116G% 300-800-020	3.0	8.0	0.2		●	●					

Grades: ◆ Recommended ◆ Suitable ◇ Applicable

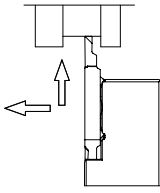
● Standard Stock

116GT Back-turning Tools

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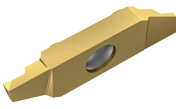


Application Examples



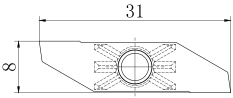
◆ Recommended
◆ Suitable
◇ Applicable

P	Soft steel	◆	◇	◆		◆	◆		
	Carbide	◆	◇	◆		◆	◆		
M	Austenitic	◆	◆	◆	◆	◆			
	Martensitic	◇	◆	◆	◆	◆			
K	Grey Cast Iron			◇					
	Ductile Cast Iron			◇					
N	Nonferrous							◆	◆
S	Heat Resisting Alloy		◆	◆	◆	◆			
	Titanium Alloy		◆	◆	◆	◆			
H	Hardened Materials			◆					

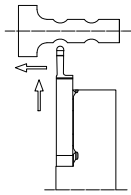
Shape Right Handed Tool	Type	Size			PVD Coated Cemented Carbide							Cemented carbide
		W	L	R	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
	KX116GT% 100-250-010	1	2.5	0.1		●	●					
	KX116GT% 125-300-010	1.25	3	0.1		●	●					
	KX116GT% 150-300-010	1.5	3	0.1		●	●					
	KX116GT% 150-300-020	1.5	3	0.2		●	●					
	KX116GT% 175-400-010	1.75	4	0.1		●	●					
	KX116GT% 175-400-020	1.75	4	0.2		●	●					
	KX116GT% 200-400-010	2	4	0.1		●	●					
	KX116GT% 200-400-020	2	4	0.2		●	●					
	KX116GT% 250-600-010	2.5	6	0.1		●	●					
	KX116GT% 250-600-020	2.5	6	0.2		●	●					
	KX116GT% 300-700-010	3	7	0.1		●	●					
	KX116GT% 300-700-020	3	7	0.2		●	●					

116R Circular Grooving Tools

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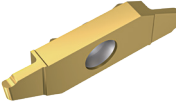


Application Examples



◆ Recommended
◆ Suitable
◇ Applicable

P	Soft steel	◆	◇	◆		◆	◆		
	Carbide	◆	◇	◆		◆	◆		
M	Austenitic	◆	◆	◆	◆	◆			
	Martensitic	◇	◆	◆	◆	◆			
K	Grey Cast Iron			◇					
	Ductile Cast Iron			◇					
N	Nonferrous							◆	◆
S	Heat Resisting Alloy		◆	◆	◆	◆			
	Titanium Alloy		◆	◆	◆	◆			
H	Hardened Materials			◆					

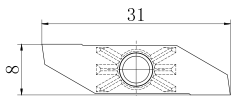
Shape Right Handed Tool	Type	Size			PVD Coated Cemented Carbide							Cemented carbide
		W	L	R	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
	KX116R% 070-300-035	0.7	3.0	0.35		●	●					
	KX116R% 100-400-050	1	4.0	0.5		●	●					
	KX116R% 150-500-075	1.5	5.0	0.75		●	●					
	KX116R% 200-600-100	2	6.0	1		●	●					
	KX116R% 250-800-125	2.5	8.0	1.25		●	●					
	KX116R% 300-800-150	3	8.0	1.5		●	●					

Grades: ◆ Recommended ◆ Suitable ◇ Applicable

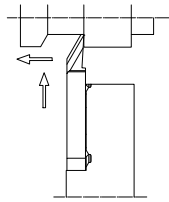
● Standard Stock

116B Back-turning Tools

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Application Examples



Recommended
 Suitable
 Applicable

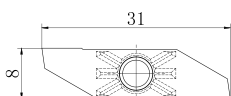
P	Soft steel	◆	◇	◆		◆	◆		
	Carbide	◆	◇	◆		◆	◆		
M	Austenitic	◆	◆	◆	◆	◆			
	Martensitic	◇	◆	◆	◆	◆			
K	Grey Cast Iron			◇					
	Ductile Cast Iron			◇					
N	Nonferrous								◆
S	Heat Resisting Alloy		◆	◆	◆	◆			
	Titanium Alloy		◆	◆	◆	◆			
H	Hardened Materials			◆					

Shape Right Handed Tool	Type	Size				PVD Coated Cemented Carbide							Cemented carbide
		W	L	R	B	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
	KX116B%/ 025-280-005	0.25	2.8	<0.05	2		●	●					
	KX116B%/ 030-460-005	0.3	4.6	<0.05	4.1		●	●					
	KX116B%/ 030-460-010	0.3	4.6	<0.1	4.1		●	●					
	KX116B%/ 030-460-015	0.3	4.6	<0.15	4.1		●	●					
	KX116B%/ 030-630-005	0.3	6.3	<0.05	4.5		●	●					
	KX116B%/ 030-630-010	0.3	6.3	<0.1	4.5		●	●					
	KX116B%/ 030-630-015	0.3	6.3	<0.15	4.5		●	●					

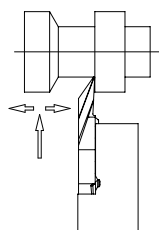
Grades: ◆ Recommended ◆ Suitable ◇ Applicable ● Standard Stock

116BT Back-turning Tools

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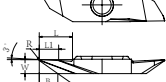


Application Examples



Recommended
 Suitable
 Applicable

P	Soft steel	◆	◇	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Carbide	◆	◇	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
M	Austenitic	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Martensitic	◇	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
K	Grey Cast Iron				◇								
	Ductile Cast Iron				◇								
N	Nonferrous											◆	◆
S	Heat Resisting Alloy			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
	Titanium Alloy			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
H	Hardened Materials				◆								

Shape Right Handed Tool		Type	Size					PVD Coated Cemented Carbide							Cemented carbide
			W	L	R	B	L1	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
		KX116BTR 320-450-005	3.2	7.5	<0.05	4.5	4		●	●					
		KX116BTR 320-440-010	3.2	7.5	<0.1	4.4	3.9		●	●					
		KX116BTR 320-420-020	3.2	7.5	<0.2	4.2	3.7		●	●					

Grades: ◆ Recommended ◆ Suitable ◇ Applicable ● Standard Stock

Symbols of KX116 Flat Parting Tools

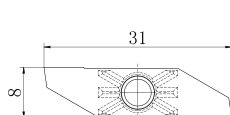
KX116: KX116 Series	C: Parting	R: right handed	050: 0.5	-	S: R0.03-R0.05
		L: left handed	125: 1.25		P: R0.08
Series	Insert Type	Insert Direction	Tip width	-	Nose Radius
KX116	C	R	125	-	S

Symbols of KX116 Parting Tools With lead Angle

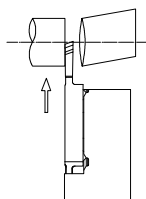
KX116: KX116 Series	C: Parting	R: right handed	050: 0.5	20D: 20°	R: right lead	-	N: without chipbreaking slot and nose radius
		L: left handed	125: 1.25	16D: 16°			
				11D: 11°	L: left lead	-	S: R0.03-R0.05
							P: R0.08
Series	Insert Type	Insert Direction	Tip width	lead angle	lead direction	-	Nose Radius/other
KX116	C	R	125	16D	R	-	S

116C Parting Tools

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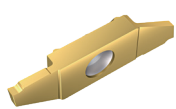
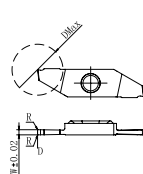
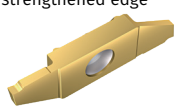
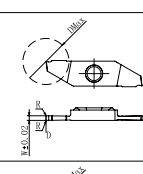
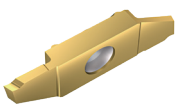
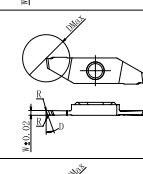
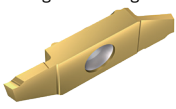
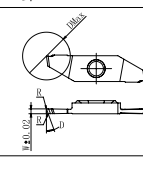
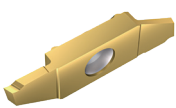
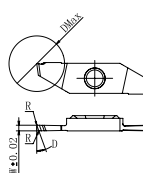
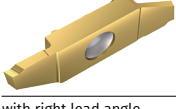
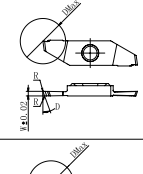
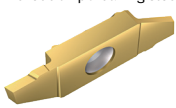
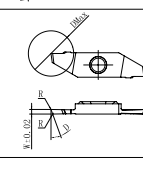


Application Examples



◆ Recommended
◆ Suitable
◇ Applicable

P	Soft steel	◆	◇	◆		◆	◆		
	Carbide	◆	◇	◆		◆	◆		
M	Austenitic	◆	◆	◆	◆	◆			
	Martensitic	◇	◆	◆	◆	◆			
K	Grey Cast Iron			◇					
	Ductile Cast Iron			◇					
N	Nonferrous							◆	◆
S	Heat Resisting Alloy		◆	◆	◆	◆			
	Titanium Alloy		◆	◆	◆	◆			
H	Hardened Materials			◆					

Shape Right Handed Tool	Type	Size				PVD Coated Cemented Carbide							Cemented carbide
		W	DMax	R	D	KPM30N	KXM15S	KHS10M	KMS20	KMS15C	KCP10P	KCN10D	KCN10
flat 	 KX116C %L 050-S	0.5	5	0.03-0.05	0°		●	●					
	KX116C %L 070-S	0.7	8	0.03-0.05	0°		●	●					
	KX116C %L 100-S	1	12	0.03-0.05	0°		●	●					
	KX116C %L 125-S	1.25	12	0.03-0.05	0°		●	●					
	KX116C %L 150-S	1.5	16	0.03-0.05	0°		●	●					
	KX116C %L 200-S	2	16	0.03-0.05	0°		●	●					
flat strengthened edge 	 KX116C %L 100-P	1	12	0.08±0.01	0°		●	●					
	KX116C %L 150-P	1.5	16	0.08±0.01	0°		●	●					
	KX116C %L 200-P	2	16	0.08±0.01	0°		●	●					
	KX116C %L 200-200-P	2	20	0.08±0.01	0°								
with right lead angle 	 KX116C %L 100-11DR-S	1	12	0.03-0.05	11°		●	●					
	KX116C %L 125-11DR-S	1.25	12	0.03-0.05	11°		●	●					
	KX116C %L 150-11DR-S	1.5	16	0.03-0.05	11°		●	●					
with right lead angle strengthened edge 	 KX116C %L 100-11DR-P	1	12	0.08±0.01	11°		●	●					
	KX116C %L 125-11DR-P	1.25	12	0.08±0.01	11°		●	●					
	KX116C %L 150-11DR-P	1.5	16	0.08±0.01	11°		●	●					
with right lead angle 	 KX116C %L 050-16DR-S	0.5	5	0.03-0.05	16°		●	●					
	KX116C %L 070-16DR-S	0.7	8	0.03-0.05	16°		●	●					
	KX116C %L 100-16DR-S	1	12	0.03-0.05	16°		●	●					
	KX116C %L 125-16DR-S	1.25	12	0.03-0.05	16°		●	●					
	KX116C %L 150-16DR-S	1.5	16	0.03-0.05	16°		●	●					
	KX116C %L 200-16DR-S	2	16	0.03-0.05	16°		●	●					
with right lead angle strengthened edge 	 KX116C %L 100-16DR-P	1	12	0.08±0.01	16°		●	●					
	KX116C %L 150-16DR-P	1.5	16	0.08±0.01	16°		●	●					
	KX116C %L 200-16DR-P	2	16	0.08±0.01	16°		●	●					
with right lead angle without chipbreaking slot 	 KX116C %L 070-20DR-N	0.7	8	0	20°		●	●					
	KX116C %L 100-20DR-N	1	12	0	20°		●	●					
	KX116C %L 150-20DR-N	1.5	16	0	20°		●	●					

Grades: ◆ Recommended ◆ Suitable ◇ Applicable ● Standard Stock

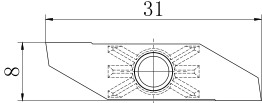
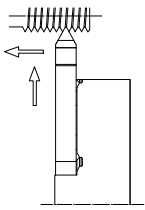
NOTE: KX116C %L 200-200-P, Relief angle is needed for holders

KX116 Tools Dedicated
for Precision Small Parts

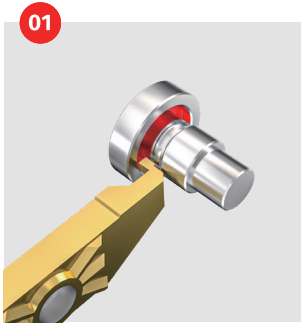
Symbols of KX116 Threading Tools

KX116: KX116Series	T: Threading		040: 0.4		A: left				005: R0.05
		R: right handed	080: 0.8		B: right		55: 55°		010: R0.1
		L: left handed	165: 1.65		N: central		60: 60°		020: R0.2
Series	Insert Type	Insert Direction	Tip width	—	Blade shape	—	Thread Angle	—	Nose Radius
KX116	T	R	040	—	A	—	60	—	005

116T Threading Tools

Workblank 		Application Examples 		Recommended  Suitable  Applicable 		P Soft steel Carbide M Austenitic Martensitic K Grey Cast Iron Ductile Cast Iron N Nonferrous S Heat Resisting Alloy Titanium Alloy H Hardened Materials		        	        	        	        	        	        	        	        	        	        	        	        	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	 	
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Display of Customized Inserts



Customize according to needs
especially suitable for automotive components,
small parts of medical apparatus, watch and smartphone

Recommend Parameters For Machining-KX116

116GT Back-turning Tools		
Edge width	Radial feed f(mm/rev)	Parameters for cross feed
1.0-1.5	0.01-0.05	AP: W*0.2 f: 0.01-0.03
1.75-2.5	0.02-0.08	AP: W*0.2 f: 0.02-0.07
3	0.02-0.1	AP: W*0.2 f: 0.02-0.11

116G Grooving Tools	
Edge width	Feeding Speed f(mm/rev)
0.7-1.25	0.01-0.05
1.5-3.0	0.02-0.1

116R Circular Grooving Tools	
Edge width	Feeding Speed f(mm/rev)
0.7-1.0	0.01-0.05
1.5-3.0	0.02-0.1

116C Parting Tools	
Edge width	Feeding Speed f(mm/rev)
0.5-1.0	0.008-0.04
1.25-2	0.015-0.06

116B Back-turning Tools	
Cutting Depth Ap(mm)	Feeding Speed f(mm/rev)
0.05-6.0	0.02-0.08

116T Threading Tools	
Type	Cutting Depth Ap(mm)
A Type	0.02-0.05
B Type	0.02-0.05
N Type	0.03-0.08