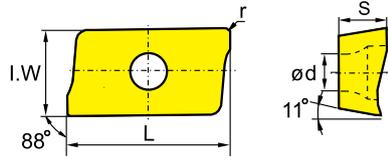


## AP□□



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

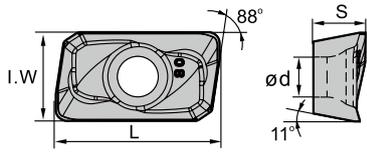
Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating					Cermet		Cemented carbide							
		L	I.W	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	APKT11T304-PF	12.24	6.5	3.6	2.8	0.4	●	★	○	○			○	○	○											
	APKT11T308-PF	12.24	6.5	3.6	2.8	0.8		★	○				○	○												
	APKT11T312-PF	12.24	6.5	3.6	2.8	1.2		★						○												
	APKT11T316-PF	12.24	6.5	3.6	2.8	1.6		★						○												
	APKT160408-PF	17.877	9.33	5.76	4.4	0.8	●	★	○	○			○	○												
	APKT11T304-PM	12.24	6.5	3.6	2.8	0.4	●	★	●	●			★	★	★											
	APKT11T308-PM	12.24	6.5	3.6	2.8	0.8	●	★	●	○		★	★	★	★											
	APKT11T312-PM	12.24	6.5	3.6	2.8	1.2		★	○				○	★	○											
	APKT11T316-PM	12.24	6.5	3.6	2.8	1.6		★	○				○	★	○											
	APKT160408-PM	17.877	9.33	5.76	4.4	0.8	●	★	●	●		○	★	★	★											
	APKT11T304-PR	12.24	6.5	3.6	2.8	0.4	●	★	●	●			○	○	○											
	APKT11T308-PR	12.24	6.5	3.6	2.8	0.8		★							○											
	APKT11T312-PR	12.24	6.5	3.6	2.8	1.2		★							○											
	APKT11T316-PR	12.24	6.5	3.6	2.8	1.6		★							○											
	APKT160408-PR	17.877	9.33	5.76	4.4	0.8		★							○											
	APKT11T304-LH	12.24	6.5	3.6	2.8	0.4																		★	★	
	APKT11T308-LH	12.24	6.5	3.6	2.8	0.8																		★	○	
	APKT160408-LH	17.877	9.33	5.76	4.4	0.8																		★	★	

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## AP□□



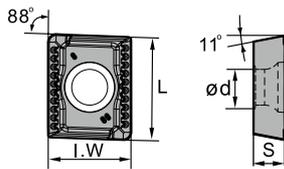
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition Indicators																							
	Steel						Stainless steel						Cast iron						Non-ferrous metal					
P Steel	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
M Stainless steel	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
K Cast iron	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
N Non-ferrous metal	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					

Insert shape	Type	Basic dimensions(mm)					CVD Coating						PVD Coating				Cermet	Cemented carbide							
		L	I.W	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC305	YD051	YD101	YD201
	<b>APMT1135PDR</b>	11.25	6.2	3.5	2.8	0.8		○						○	●	★	○								
	<b>APMT160408PDER</b>	17.25	9.25	4.76	4.4	0.8								●	★	○									

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## AP□□



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

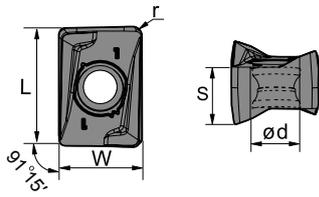
Workpiece material	Working Condition Indicators																							
	Steel						Stainless steel						Cast iron						Non-ferrous metal					
P Steel	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
M Stainless steel	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
K Cast iron	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
N Non-ferrous metal	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊						😊😊😊😊😊😊					

Insert shape	Type	Basic dimensions(mm)					CVD Coating						PVD Coating				Cermet	Cemented carbide						
		L	I.W	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC305	YD051	YD101
	<b>APKT150412-PM</b>	16.33	12.7	4.76	5.4	1.2											●							
	<b>APKT150412-KM</b>	16.33	12.7	4.76	5.4	1.2				★							●	○						

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

# B MILLING Indexable Milling Tools

## AN



☺ Good working condition    😐 Normal working condition    ☹ Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
M Stainless steel	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
K Cast iron	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
N Non-ferrous metal	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
S Heat resistant alloy, Ti alloy	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺

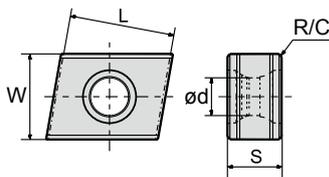
Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating				Cermet		Cemented carbide								
		L	W	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	ANGX110504PNR-GM	11.85	8.4	5.7	3.5	0.4			★	★				★												
	ANGX110508PNR-GM	11.85	8.4	5.7	3.5	0.8			★	★				★												
	ANGX150608PNR-GM	15.43	11.0	7.3	4.4	0.8			★	★				★												
	ANGX150616PNR-GM	15.43	11.0	7.3	4.4	1.6			★	★				★												

★Recommended grade (always stock available)    ●Available grade (always stock available)    ○Make-to-order

Indexable milling tools

Milling inserts

## CN



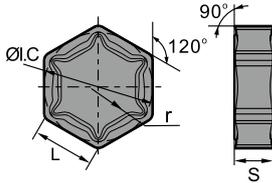
☺ Good working condition    😐 Normal working condition    ☹ Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
M Stainless steel	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
K Cast iron	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
N Non-ferrous metal	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺
S Heat resistant alloy, Ti alloy	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺	☺☺☺☺☺☺

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating				Cermet		Cemented carbide								
		L	W	S	R/C	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	CNE121006A	12.8	10.0	6.35	0.4	4.4				●	○															
	CNE121006B	12.0	10.0	6.35	0.6	4.4				●	○															

★Recommended grade (always stock available)    ●Available grade (always stock available)    ○Make-to-order

**HN**



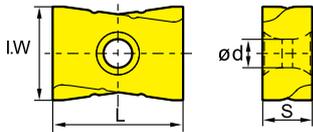
😊 Good working condition    😊 Normal working condition    ☹️ Bad working condition

Workpiece material	Working condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron						😊	😊	😊			😊	😊	😊				😊	😊	
<b>N</b> Non-ferrous metal																	😊	😊	
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating			Cermet	Cemented carbide							
		L	ØI.C	S	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101
	<b>HNEX090512-DF</b>	9.16	15.875	5.56	1.2						★												
	<b>HNEX090512-DM</b>	9.16	15.875	5.56	1.2						★												
	<b>HNEX090512-DR</b>	9.16	15.875	5.56	1.2					○	★												

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

**LN**



😊 Good working condition    😊 Normal working condition    ☹️ Bad working condition

Workpiece material	Working condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron						😊	😊	😊			😊	😊	😊				😊	😊	
<b>N</b> Non-ferrous metal																	😊	😊	
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

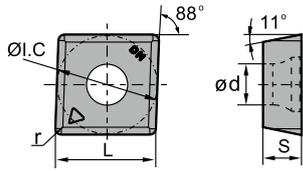
Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating			Cermet	Cemented carbide							
		L	I.W	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101
	<b>LNKT1506EN-ZR</b>	15.875	14	6.35	4.6						○	○				★							
	<b>LNKT2007DN-ZR</b>	20	17	7.94	4.6						○	○				★							
	<b>LNKT2510-ZR</b>	25	18	9.525	5.5						○	○				★							

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## MP



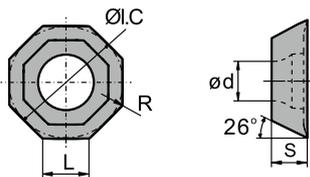
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating			Cermet	Cemented carbide										
		ØI.C	L	S	Ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	MPHT060304-DM	6.35	6.35	3.18	2.8	0.4											★									
	MPHT080305-DM	8.3	8.3	3.18	3.4	0.5											★									
	MPHT120408-DM	12.7	12.7	4.76	5.56	0.8											★									

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## OF



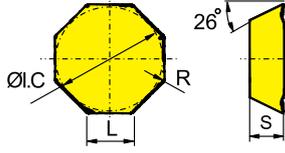
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating			Cermet	Cemented carbide										
		L	ØI.C	S	Ød	R	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	OFKT05T3-DF	5.26	12.7	3.97	4.4	0.5								○	★											
	OFKT05T3-DM	5.26	12.7	3.97	4.4	0.5			○					★	★	★										
	OFKT05T3-LH	5.26	12.7	3.97	4.4	0.5																		○		

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

OF □ □



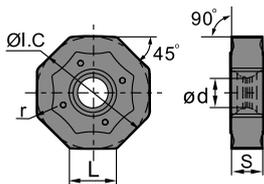
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating				Cermet	Cemented carbide										
		L	ØI.C	S	R	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	OFKR0704-DF	7.45	17.94	4.76	0.8		●	○					○												
	OFKR0704-DM	7.45	17.94	4.76	0.8	●		●	○	●		○	○	★		★									

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

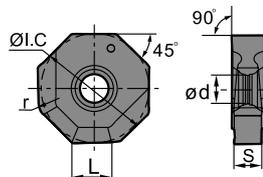
ON □ □



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating				PVD Coating				Cermet	Cemented carbide									
		L	ØI.C	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	ONHU060408-PF	6.58	15.875	4.76	4.4	0.83		★						★											
	ONHU08T508-PF	8.37	20.2	5.77	5.3	0.83		★						★											
	ONHU060408-PM	6.58	15.875	4.76	4.4	0.83		★	★		★														
	ONHU08T508-PM	8.37	20.2	5.79	5.3	0.83		★	★		★														
	ONHU08T508-W	6.9	20.5	6.00	5.3	0.80		★						★											



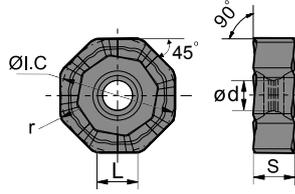
★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

# B MILLING Indexable Milling Tools

## ON



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating			Cermet	Cemented carbide										
		L	ØI.C	S	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	<b>ONHU08T624R-GM</b>	6.38	20.2	6.3	5.3	2.4			★		★				★											

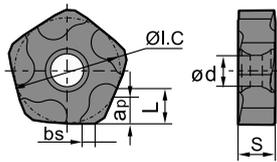
★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Note: FMA12 is compatible with our ONHU08T508-PF/ONHU08T508-PM inserts.

Indexable milling tools

Milling inserts

## PN



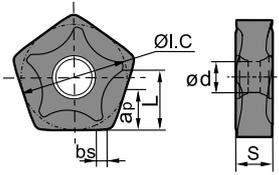
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)						CVD Coating					PVD Coating			Cermet	Cemented carbide										
		L	ØI.C	S	ød	bs	apmax	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	<b>PNEG110512R-CF</b>	5.4	15.875	5.56	4.64	1.6	5																				
	<b>PNEG110512L-CF</b>	5.4	15.875	5.56	4.64	1.6	5																				
	<b>PNEG110512R-CM</b>	5.4	15.875	5.56	4.64	1.6	5																				
	<b>PNEG110512L-CM</b>	5.4	15.875	5.56	4.64	1.6	5																				
	<b>PNEG110512R-CR</b>	5.4	15.875	5.56	4.64	1.6	5																				
	<b>PNEG110512L-CR</b>	5.4	15.875	5.56	4.64	1.6	5																				

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## PN □ □



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

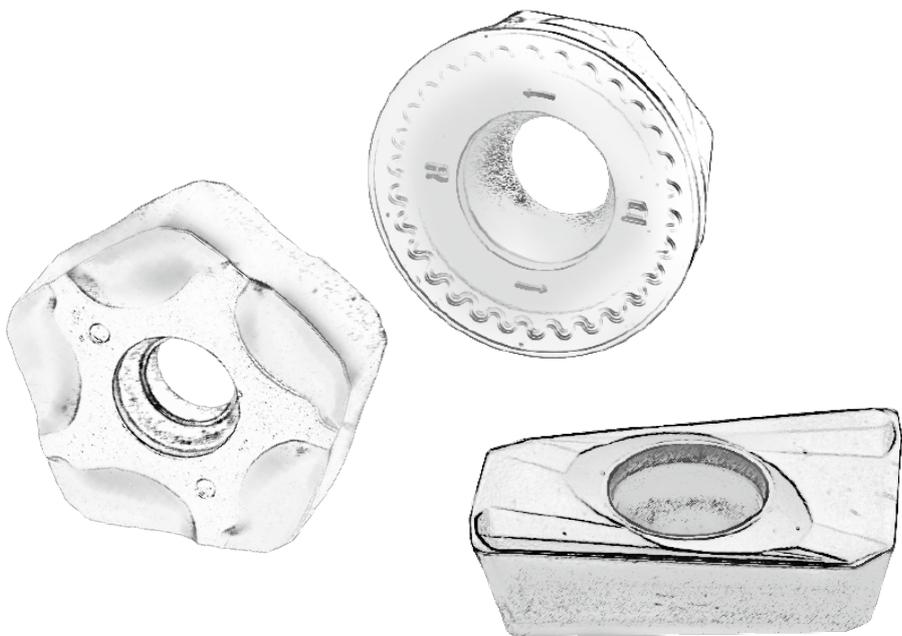
Workpiece material	Working Condition															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>N</b> Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>S</b> Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Insert shape	Type	Basic dimensions(mm)						CVD Coating				PVD Coating				Cermet	Cemented carbide									
		L	ØI.C	S	ød	bs	apmax	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102		YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101
	<b>PNEG110512R-PF</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	
	<b>PNEG110512L-PF</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	
	<b>PNEG110512R-PM</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	
	<b>PNEG110512L-PM</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	
	<b>PNEG110512R-PR</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	
	<b>PNEG110512L-PR</b>	7.5	15.875	5.56	4.64	1.4	7.5	★	●																	

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

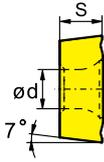
Indexable milling tools

Milling inserts



# B MILLING Indexable Milling Tools

**RC□□**



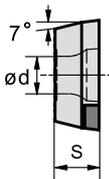
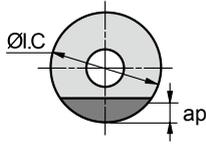
😊 Good working condition   😐 Normal working condition   ☹ Bad working condition

Workpiece material	Steel	Stainless steel	Cast iron	Non-ferrous metal	Heat resistant alloy, Ti alloy
P	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
S	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)			CVD Coating				PVD Coating				Cermet		Cemented carbide									
		Øl.C	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	RCKT10T3MO-DM	10.0	3.97	4.4	●							●	★											
	RCKT1204MO-DM	12.0	4.76	4.0	●		●		●	○		●	★	●										
	RCKT1606MO-DM	16.0	6.35	5.56	●									●										
	RCKT1204MO-DR	12.0	4.76	4.0	○		○		○			●	★											
	RCKT1606MO-DR	16.0	6.35	5.56	●				●	○		●	★											
	RCKT2006MO-DR	20.0	6.35	6.55	●				●	○		○	★	●										
	RCKT1204MO-ER	12.0	4.76	4.0																				
	RCKT1606MO-ER	16.0	6.35	5.56																				
	RCKT2006MO-ER	20.0	6.35	6.55																				

★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

**RC□□**



😊 Good working condition   😐 Normal working condition   ☹ Bad working condition

Workpiece material	Super hard material	Cast iron	Non-ferrous metal
H	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

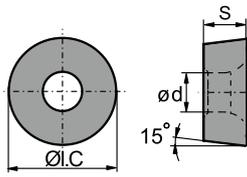
Insert shape	Type	Basic dimensions(mm)				PCBN				Cemented carbide		
		Øl.C	S	ød	apmax	YCB011	YCB012	YCB121	YCB211	YD051	YD101	YD201
	RCMW1204MO-PCBN	12.0	4.76	4.1	2.7	○	●		●			

★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

Indexable  
milling tools

Milling inserts

**RD** □ □



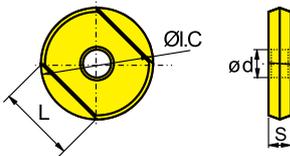
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron						😊	😊	😊				😊	😊				😊	😊	
<b>N</b> Non-ferrous metal																	😊	😊	
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

Insert shape	Type	Basic dimensions(mm)			CVD Coating				PVD Coating				Cermet	Cemented carbide									
		ØI.C	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	<b>RDKW0702MO</b>	7	2.38	2.8			○		●			●											
	<b>RDKW0803MO</b>	8	3.18	3.4	○				○			●	★	○									
	<b>RDKW10T3MO</b>	10	3.97	4.4	○				●			●	★										
	<b>RDKW1204MO</b>	12	4.76	4.4	●	●	●	●	●			●	★	●									
	<b>RDKW1605MO</b>	16	5.56	5.5	○				○			○	★	○									
	<b>RDKW2006MO</b>	20	6.35	6.5	○				○				○										

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

**RO** □ □



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron								😊	😊	😊				😊	😊			😊	😊
<b>N</b> Non-ferrous metal																		😊	😊
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

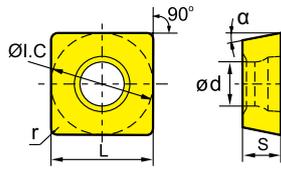
Insert shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating				Cermet	Cemented carbide										
		ØI.C	L	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	<b>ROHX1203</b>	12	8.5	3	4																○				
	<b>ROHX1604</b>	16	11.3	4	5																	○			
	<b>ROHX2005</b>	20	14.1	5	5																	○			

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## SD



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

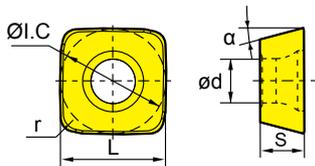
Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet		Cemented carbide						
		r	L	ØI.C	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	<b>SDMT090308</b>	0.8	9.525	9.525	3.18	4.4	15°		○								○									

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## SD



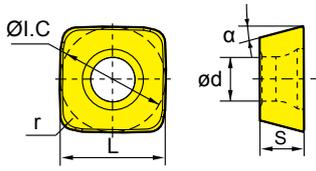
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet		Cemented carbide						
		ØI.C	L	r	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	<b>SDMT06T208-DM</b>	6.35	6.35	0.8	2.58	2.5	15°	★		★							○									
	<b>SDMT09T312-DM</b>	9.525	9.525	1.2	3.97	4.0	15°	★		★							○									
	<b>SDMT120412-DM</b>	12.7	12.7	2.0	4.76	4.4	15°	★		★							○									
	<b>SDMT150520-DM</b>	15.875	15.875	2.0	5.56	5.5	15°	★		★							○									

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

**SD** □ □



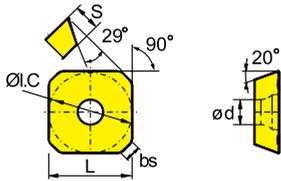
😊 Good working condition   😐 Normal working condition   ☹ Bad working condition

Workpiece material	Working condition															
	P	M	K	N	S	1	2	3	4	5	6	7	8	9	10	11
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>N</b> Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>S</b> Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Insert shape	Type	Basic dimensions(mm)						CVD Coating					PVD Coating				Cermet	Cemented carbide										
		ØI.C	L	r	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	<b>SDMT06T208-PM</b>	6.35	6.35	0.8	2.58	2.5	15°	★	○								●											
	<b>SDMT09T312-PM</b>	9.525	9.525	1.2	3.97	4.0	15°	★	●								●											
	<b>SDMT120412-PM</b>	12.7	12.7	2.0	4.76	4.4	15°	★	●								●											
	<b>SDMT150520-PM</b>	15.875	15.875	2.0	5.56	5.5	15°	★	●								●											

★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

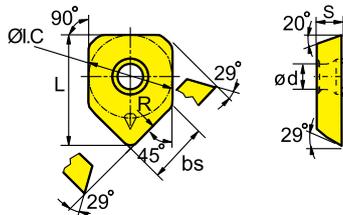
**SE** □ □



😊 Good working condition   😐 Normal working condition   ☹ Bad working condition

Workpiece material	Working condition															
	P	M	K	N	S	1	2	3	4	5	6	7	8	9	10	11
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>N</b> Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>S</b> Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

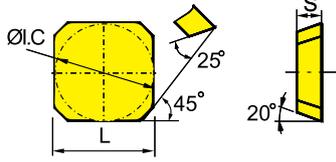
Insert shape	Type	Basic dimensions(mm)						CVD Coating					PVD Coating				Cermet	Cemented carbide									
		L	ØI.C	S	ød	bs	R	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	<b>SEET12T3-DF</b>	13.40	13.40	3.97	4.1	2.55		●	★	●						★	○										
	<b>SEET12T3-CF</b>	13.40	13.40	3.97	4.1	2.55							○		★	○	○										
	<b>SEET12T3-EF</b>	13.40	13.40	3.97	4.1	2.55										○	○										
	<b>SEET12T3-DM</b>	13.40	13.40	3.97	4.1	2.55		●	★	●	○				★	★											
	<b>SEET12T3-CM</b>	13.40	13.40	3.97	4.1	2.55							★		★	○											
	<b>SEET12T3-EM</b>	13.40	13.40	3.97	4.1	2.55				●	●				○	★											
	<b>SEET12T3-DR</b>	13.40	13.40	3.97	4.1	2.55		●	★		●				★	★											
	<b>SEET12T3-CR</b>	13.40	13.40	3.97	4.1	2.55		●					★			★											
	<b>SEET12T3-LH</b>	13.40	13.40	3.97	4.1	2.55																			○	★	
	<b>SEET12T3-W</b>	17.82	13.40	3.97	4.1	9.46	500	★	●				★		★						★						



★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

Indexable milling tools  
Milling inserts

## SE □ □



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Good working condition (😊)												Normal working condition (😐)												Bad working condition (😞)											
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S											
Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊												
Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊												
Cast iron																																				
Non-ferrous metal																																				
Heat resistant alloy, Ti alloy																																				

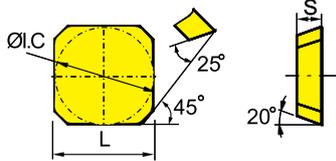
Insert shape	Type	Basic dimensions(mm)			CVD Coating						PVD Coating						Cermet	Cemented carbide						
		L	ØI.C	S	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	SEEN1203AFTN	12.7	12.7	3.18								○						●						
	SEKN1203AFFN	12.7	12.7	3.18							★													
	SEKN1203AFN	12.7	12.7	3.18	●							○								●			○	
	SEKN1203AFTN	12.7	12.7	3.18	●	●	●					★	○							●			●	
	SEKN1504AFN	15.875	15.875	4.76	●	●																	●	
	SEKN1504AFTN	15.875	15.875	4.76	○	●	●							○						●			●	

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## SE □ □



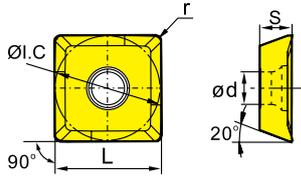
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Good working condition (😊)												Normal working condition (😐)												Bad working condition (😞)											
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S											
Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊												
Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊												
Cast iron																																				
Non-ferrous metal																																				
Heat resistant alloy, Ti alloy																																				

Insert shape	Type	Basic dimensions(mm)			CVD Coating						PVD Coating						Cermet	Cemented carbide						
		L	ØI.C	S	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	SEKR1203AFN	12.7	12.7	3.18	●							○		○										
	SEKR1504AFN	15.875	15.875	4.76							★			★						●				

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## SE □ □



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

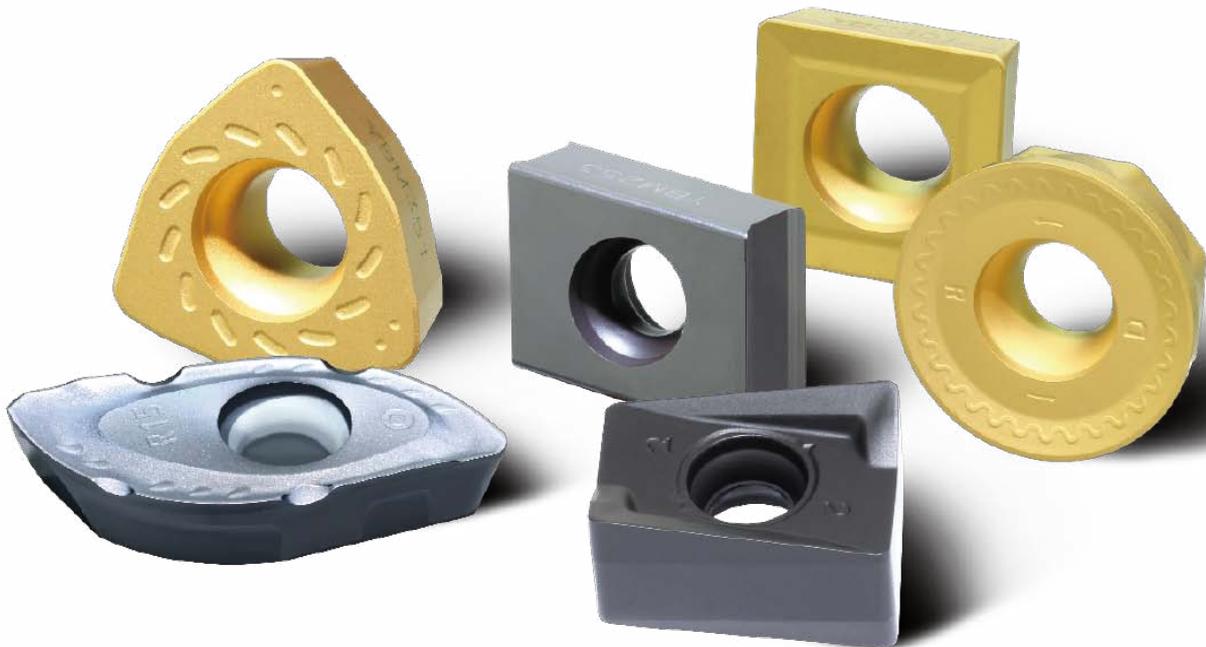
Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating				Cermet		Cemented carbide								
		L	ØI.C	S	Ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	SEET09T308PER-PF	9.525	9.525	4.01	3.3	0.8								★												
	SEET09T308PER-PM	9.525	9.525	4.01	3.3	0.8						○		★												
	SEET09T308PER-PR	9.525	9.525	4.01	3.3	0.8					★			○												
	SEET120308PER-PF	13.308	13.308	4.04	4.1	0.8									○											
	SEET120308PER-PM	13.308	13.308	4.04	4.1	0.8		●				★	★	★		★										
	SEET120308PER-PR	13.308	13.308	4.04	4.1	0.8					○		★	★		★										

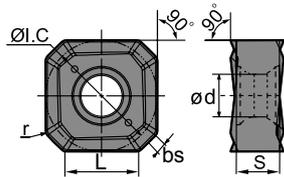
★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts



## SN □ □



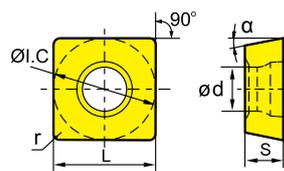
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition														
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron															
N Non-ferrous metal															
S Heat resistant alloy, Ti alloy															

Insert shape	Type	Basic dimensions(mm)						CVD Coating					PVD Coating				Cermets		Cemented carbide									
		L	ØI.C	S	bs	ød	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	SNEG1205ANR-GM	7.6	12.0	4.76	1.05	4.6	0.8	★	★	★							★											
	SNEG1506ANR-GM	7.6	15.0	5.54	1.30	5.5	0.9	★	★	★							★											
	SNEG1506ANR-GR	9.4	15.0	5.54	1.30	5.5	0.9	★	★	★							★											
	SNEG1907ANR-GR	12.1	19.0	7.0	1.67	7.2	1.0	★	★	★							★											

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## SP □ □



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

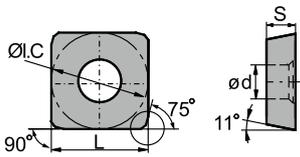
Workpiece material	Working Condition														
	P	M	K	N	S	P	M	K	N	S	P	M	K	N	S
P Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
M Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
K Cast iron															
N Non-ferrous metal															
S Heat resistant alloy, Ti alloy															

Insert shape	Type	Basic dimensions(mm)						CVD Coating					PVD Coating				Cermets		Cemented carbide									
		r	L	ØI.C	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	SPMT060304	0.4	6.35	6.35	3.18	2.8	11°			○								○										
	SPMT120408	0.8	12.7	12.70	4.76	5.5	11°	●	●	●								★								○		
	SPMT120408-PM	0.8	12.7	12.70	4.76	5.5	11°				★							●										
	SPMT120408-KM	0.8	12.7	12.70	4.76	5.5	11°												●	○								
	SPKT1204EDR	-	12.7	12.7	4.76	5.56	11°											★										

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order



## SP□W



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

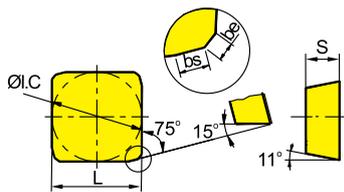
Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet	Cemented carbide							
		r	L	ØI.C	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	SPKW1204EDFR	---	12.7	12.7	4.76	5.56	11°																			
	SPKW1204EDSR	---	12.7	12.7	4.76	5.56	11°																			

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## SP□R



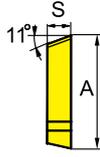
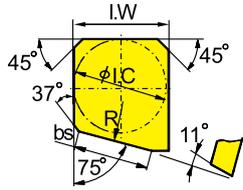
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating						PVD Coating				Cermet	Cemented carbide							
		L	ØI.C	S	be	bs	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	SPKR1203EDR-GM	12.7	12.7	3.18	1	1.4			●						★	★						●			●
	SPKR1203EDL-GM	12.7	12.7	3.18	1	1.4			●						★	★						●			●
	SPKR1504EDR-GM	15.875	15.875	4.76	1	1.4			●						★	★						●			●
	SPKR1504EDL-GM	15.875	15.875	4.76	1	1.4			●						★	★						●			●

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## SPEX



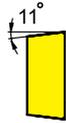
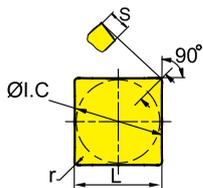
😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet	Cemented carbide									
		A	ØI.C	I.W	S	bs	R	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	SPEX1203EDL-1	15	12.7	12.7	3.18	10	500																				●	
	SPEX1203EDR-1	15	12.7	12.7	3.18	10	500																				●	
	SPEX1504EDL-1	18.2	15.875	15.875	4.76	10	500																				○	●
	SPEX1504EDR-1	18.2	15.875	15.875	4.76	10	500																				○	●

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## SP



😊 Good working condition    😐 Normal working condition    😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊	😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating				Cermet	Cemented carbide										
		L	ØI.C	s	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201			
	SPMR090304	9.525	9.525	3.18	0.4			○												○							
	SPMR09T304	9.525	9.525	3.97	0.4									○													
	SPMR090308	9.525	9.525	3.18	0.8			○																			
	SPMR120304	12.7	12.7	3.18	0.4			○													○						
	SPMR120308	12.7	12.7	3.18	0.8			○																			
	SPMR120312	12.7	12.7	3.18	1.2			○	○					○													

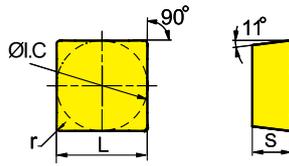
★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

# B MILLING Indexable Milling Tools

## SP□□



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

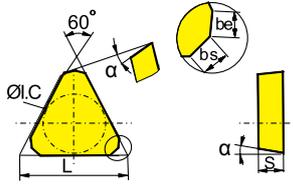
Workpiece material	Working Condition											
	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>N</b> Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>S</b> Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating				Cermet	Cemented carbide									
		L	Ø.I.C	s	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	SPUN090304	9.525	9.525	3.18	0.4																	○				
	SPUN090308	9.525	9.525	3.18	0.8																	○		○		
	SPUN120304	12.7	12.7	3.18	0.4														○			○			○	
	SPUN120308	12.7	12.7	3.18	0.8			○	○													●		○	○	
	SPUN120312	12.7	12.7	3.18	1.2																	○				
	SPUN150408	15.875	15.875	4.76	0.8																	○				○
	SPUN150412	15.875	15.875	4.76	1.2																	○			○	○
	SPUN190408	19.05	19.05	4.76	0.8																	○				○
	SPUN190412	19.05	19.05	4.76	1.2																	○				
	SPUN190416	19.05	19.05	4.76	1.6																	○				
	SPGN090304	9.525	9.525	3.18	0.4														●						●	
	SPGN090308	9.525	9.525	3.18	0.8																	○	○	○		
	SPGN120308	12.7	12.7	3.18	0.8									○								●			●	
	SPGN120404	12.7	12.7	4.76	0.4																	○				○
	SPGN120408	12.7	12.7	4.76	0.8									○								○				
	SPGN120412	12.7	12.7	4.76	1.2																	○				○
	SPGN150404	15.875	15.875	4.76	0.4																		●	○		
	SPGN150408	15.875	15.875	4.76	0.8																	●				
	SPGN190408	19.05	19.05	4.76	0.8																				○	
	SPGN190416	19.05	19.05	4.76	1.6									○												

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools  
Milling inserts

TP□□



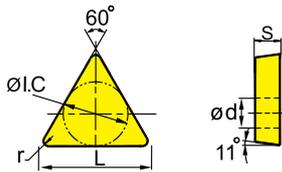
☺ Good working condition ☹ Normal working condition 😞 Bad working condition

Workpiece material	Steel		Stainless steel		Cast iron		Non-ferrous metal		Heat resistant alloy, Ti alloy	
	P	M	K	N	S	N	S	N	S	
Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
Stainless steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
Cast iron						☺	☺	☺	☺	☺
Non-ferrous metal										☺
Heat resistant alloy, Ti alloy										☺

Insert shape	Type	Basic dimensions(mm)						CVD Coating				PVD Coating				Cermet	Cemented carbide										
		L	Ø.I.C	s	be	bs	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	TPKN2204PDFR	22	12.7	4.76	1.4	0.7	11°								○												○
	TPKN2204PDFL	22	12.7	4.76	1.4	0.7	11°								○												○
	TPKN2204PDR	22	12.7	4.76	1.4	0.7	11°	●				●			★	★	★							●	○	○	●
	TPKN2204PDL	22	12.7	4.76	1.4	0.7	11°																	●			
	TPKN2204PDTR	22	12.7	4.76	1.4	0.7	11°	●																●			
	TPKN2204PDTL	22	12.7	4.76	1.4	0.7	11°	○																			○

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

TP□□



☺ Good working condition ☹ Normal working condition 😞 Bad working condition

Workpiece material	Steel		Stainless steel		Cast iron		Non-ferrous metal		Heat resistant alloy, Ti alloy	
	P	M	K	N	S	N	S	N	S	
Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
Stainless steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
Cast iron						☺	☺	☺	☺	☺
Non-ferrous metal										☺
Heat resistant alloy, Ti alloy										☺

Insert shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating				Cermet	Cemented carbide												
		L	Ø.I.C	s	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201			
	TPGN090204	9.6	5.56	2.38	0.4																					○	
	TPGN090208	9.6	5.56	2.38	0.8																					○	
	TPGN110204	11	6.35	2.38	0.4																					○	
	TPGN110304	11	6.35	3.18	0.4																				○	●	○
	TPGN110308	11	6.35	3.18	0.8																					○	
	TPGN160304	16.5	9.525	3.18	0.4																			●	○	○	
	TPGN160308	16.5	9.525	3.18	0.8																				○	●	
	TPGN160312	16.5	9.525	3.18	1.2																						○
	TPGN160316	16.5	9.525	3.18	1.6																						○
	TPGN220404	22	12.7	4.76	0.4																						○
	TPGN220408	22	12.7	4.76	0.8																				○		○
	TPGN220412	22	12.7	4.76	1.2																						○
	TPGN270408	27.5	15.875	4.76	0.8																						○

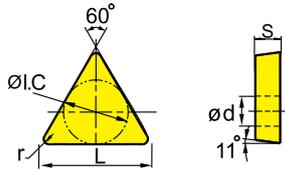
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Indexable milling tools

Milling inserts

# B MILLING Indexable Milling Tools

## TP



😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>N</b> Non-ferrous metal	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>S</b> Heat resistant alloy, Ti alloy	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊

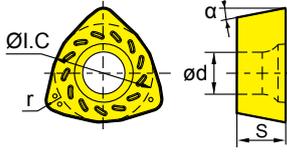
Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating				Cermet		Cemented carbide							
		L	ØI.C	s	r	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201	
	TPUN110208	11	6.35	2.38	0.8	○															○				
	TPUN110304	11	6.35	3.18	0.4																	○			
	TPUN110308	11	6.35	3.18	0.8	○																●	○	○	
	TPUN160304	16.5	9.525	3.18	0.4			○														○	○	○	
	TPUN160308	16.5	9.525	3.18	0.8			○	○													●	●	○	
	TPUN160312	16.5	9.525	3.18	1.2			○														●			
	TPUN160408	16.5	9.525	4.76	0.8																	○		○	
	TPUN160412	16.5	9.525	4.76	1.2																	○		○	
	TPUN220404	22	12.7	4.76	0.4																			○	
	TPUN220408	22	12.7	4.76	0.8	●	○															●	○		
	TPUN220412	22	12.7	4.76	1.2				○													●		○	
	TPUN220416	22	12.7	4.76	1.6																			○	
		TPMR090204	9.6	5.56	2.38	0.4			○																
TPMR110304		11	6.35	3.18	0.4			●										○							
TPMR110308		11	6.35	3.18	0.8			○										○							
TPMR160304		16.5	9.525	3.18	0.4			●	○									○	○						
TPMR160308		16.5	9.525	3.18	0.8			●	●												○		○		
TPMR160312		16.5	9.525	3.18	1.2				○																
TPMR220412		22	12.7	4.76	1.2				○																
TPMR330916		33	19.05	9.52	1.6																			★	

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

Indexable milling tools

Milling inserts

## WP



😊 Good working condition   😐 Normal working condition   😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

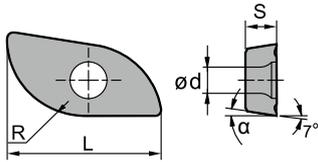
Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating				Cermet	Cemented carbide								
		ØI.C	r	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	WPGT050315ZSR	7.94	1.5	3.5	4.0	11°	★	●																	
	WPGT060415ZSR	9.525	1.5	4.2	4.4	11°	★	●																	
	WPGT080615ZSR	12.85	1.5	6.35	5.5	11°	★	●																	
	WPGT090725ZSR	15	2.5	7	5.5	11°	★	●																	
	WPGT050315ZSR-PM	7.94	1.5	3.5	4.0	11°	★	●						●											
	WPGT060415ZSR-PM	9.525	1.5	4.2	4.4	11°	★	●						●											
	WPGT080615ZSR-PM	12.85	1.5	6.35	5.5	11°	★	●						●											
	WPGT090725ZSR-PM	15.00	2.5	7.00	5.5	11°	★	●						●											

★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

Indexable milling tools

Milling inserts

## XP



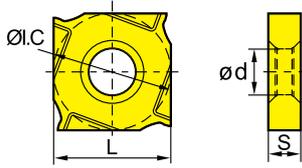
😊 Good working condition   😐 Normal working condition   😞 Bad working condition

Workpiece material	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
P Steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
M Stainless steel	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
K Cast iron	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
N Non-ferrous metal	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊
S Heat resistant alloy, Ti alloy	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊	😊😊😊😊😊😊😊😊😊😊

Insert shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating				Cermet	Cemented carbide								
		R	ød	S	α	L	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	XPHT16R0803-GM	8	3.1	3.18	9°	16											●								
	XPHT20R10T3-GM	10	4.0	3.97	9°	20											●								
	XPHT25R1204-GM	12.5	4.7	4.76	9°	25											●								
	XPHT30R1506-GM	15	5.8	6.35	11°	30											●								
	XPHT32R1606-GM	16	5.8	6.35	9°	32											●								
	XPHT40R2007-GM	20	6.7	7.94	9°	40											●								
	XPHT50R2507-GM	25	9.2	7.94	9°	50											●								

★ Recommended grade (always stock available)   ● Available grade (always stock available)   ○ Make-to-order

## XS □ □



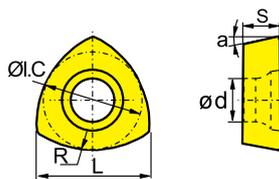
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron						😊	😊	😊				😊	😊				😊	😊	
<b>N</b> Non-ferrous metal																	😊	😊	
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

Insert shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating				Cermets	Cemented carbide									
		ØI.C	L	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102		YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101
	<b>XSEQ1202</b>	12.7	12.7	2.3	5.0																			
	<b>XSEQ1203</b>	12.7	12.7	3.0	5.0																			
	<b>XSEQ12T3</b>	12.7	12.7	3.5	5.0																			
	<b>XSEQ1204</b>	12.7	12.7	4.0	5.0																			
	<b>XSEQ12T4</b>	12.7	12.7	4.5	5.0																			

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

## ZD □ □



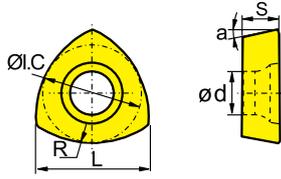
😊 Good working condition    😊 Normal working condition    😞 Bad working condition

Workpiece material	Working Condition																		
	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
<b>P</b> Steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>M</b> Stainless steel	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊
<b>K</b> Cast iron						😊	😊	😊				😊	😊				😊	😊	
<b>N</b> Non-ferrous metal																	😊	😊	
<b>S</b> Heat resistant alloy, Ti alloy								😊	😊	😊									

Insert shape	Type	Basic dimensions(mm)						CVD Coating				PVD Coating				Cermets	Cemented carbide							
		ØI.C	L	S	R	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102		YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S
	<b>ZDET08T2CYR10</b>	6.75	8.4	2.78	10	2.8	14°																	
	<b>ZDET1103CYR12.5</b>	8.5	10.6	3.18	12.5	2.8	14°																	
	<b>ZDET13T3CYR16</b>	10.5	13.2	3.97	16	4.4	14°																	

★ Recommended grade (always stock available)    ● Available grade (always stock available)    ○ Make-to-order

**ZP**



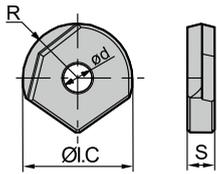
☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material	P	Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	M	Stainless steel	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹
	K	Cast iron																	
	N	Non-ferrous metal																	
	S	Heat resistant alloy, Ti alloy																	

Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet		Cemented carbide						
		ØI.C	L	S	R	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	ZPNT2204CY(R20)	12.7	16.1	4.76	20	5.56	11°		○								○									
	ZPNT2204CY(R25)	12.7	16.9	4.76	25	5.56	11°		○								○									
	ZPNT2204CY(R31)	12.7	17.6	4.76	31.5	5.56	11°		○								○									

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

**ZO**



☺ Good working condition ☹ Normal working condition ☹ Bad working condition

Workpiece material	P	Steel	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺	☺
	M	Stainless steel	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹	☹
	K	Cast iron																	
	N	Non-ferrous metal																	
	S	Heat resistant alloy, Ti alloy																	

Insert shape	Type	Basic dimensions(mm)				CVD Coating						PVD Coating				Cermet		Cemented carbide								
		R	ØI.C	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201		
	ZOHX1203-GF	6	12	3	4																					
	ZOHX1604-GF	8	16	4	5																					
	ZOHX2005-GF	10	20	5	5																					
	ZOHX2506-GF	12.5	25	6	6																					
	ZOHX3007-GF	15	30	7	8																					
	ZOHX3207-GF	16	32	7	8																					
	ZOHX1203-GM	6	12	3	4																					
	ZOHX1604-GM	8	16	4	5																					
	ZOHX2005-GM	10	20	5	5																					
	ZOHX2506-GM	12.5	25	6	6																					
	ZOHX3007-GM	15	30	7	8																					
	ZOHX3207-GM	16	32	7	8																					

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order