



ACTION

2018 Milling body

1€ per mm



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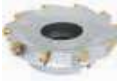
ZCC Cutting Tools Europe GmbH

your Partner | your Value

АКЦИЯТА Е ВАЛИДНА:

- за размер от Φ ... до Φ 80 mm фрезова глава + 20 тв. пластини;

- за размер Φ 100 и Φ 125 mm фрезова глава + 30 тв. пластини

Series	Milling body	Inserts	Kr	Application						Features	Page
				P	M	K	N	S	H		
FMA12		 ONHU08T6	45°	✓	✓	✓		✓		- Diameter range Φ63 – 315 mm - For steel, stainless steel and cast iron - Inserts with 16 cutting edges	B52
FMD02		 PNEG1105	67°	✓	✓	✓				- Diameter range Φ50 – 315 mm - For steel, stainless steel and cast iron - Inserts with ten cutting edges - Wedge clamping or screw clamping - Normal and fine pitch	B56 - 61
FMA07		 ONHU0604	45°	✓		✓			✓	- Diameter range Φ25 – 50 mm - For steel and cast iron - Inserts with 16 cutting edges	B42
FMA07		 ONHU0604 ONHU08T5	45°	✓		✓			✓	- Diameter range Φ40 – 315 mm - For steel and cast iron - Inserts with 16 cutting edges	B44
FMA11		 SNEG1205 SNEG1506 SNEG1907	45°	✓	✓	✓		✓		- Diameter range Φ63 – 315 mm - For steel, stainless steel and cast iron - Inserts with eight cutting edges - Double sided, thicker inserts for high stability and deeper cutting depths - Wiper geometry for good surface quality - Normal and fine pitch	B48
EMP01		 APKT11T3 APKT1604	90°	✓	✓	✓	✓	✓		- Diameter range Φ12 – 63 mm - For steel, stainless steel, cast iron, non-ferrous metals and heat-resistant alloys - Weldon shank - For square shoulder milling, slot milling and ramping - Milling cutter with positive, soft cutting geometry - Inserts with two cutting edges	B94-99
EMP02		 APKT11T3 APKT1604	90°	✓	✓	✓	✓	✓		- Diameter range Φ12 – 63 mm - For steel, stainless steel, cast iron, non-ferrous metals and heat-resistant alloys - Weldon shank - For square shoulder milling, slot milling and ramping - Milling cutter with positive, soft cutting geometry - Inserts with two cutting edges	B100
EMP09		 LNKT120608PNR-GM	90°	✓	✓	✓				- Diameter range Φ40 – 125 mm - Sharp cutting edge geometry combined with robust tangential inserts - First choice for large cutting depths with high feed rates. - Specially designed cutting edge with high precision control for high quality 90 degree square shoulder milling	B110
EMP13		 ANGX1105 ANGX1506	90°	✓	✓	✓	✓			- Diameter range Φ40 – 250 mm - For steel, cast iron and non-ferrous metals - Double sided, thicker inserts for high stability and deeper cutting depths - Inserts with four cutting edges	B116
EMP13		 ANGX1105 ANGX1506	90°	✓	✓	✓	✓			- Diameter range Φ25 – 40 mm - For steel, cast iron and non-ferrous metals - Double sided, thicker inserts for high stability and deeper cutting depths - Inserts with four cutting edges	B118

FMA07 ^{Kr: 45°}

Face mill

- High cost-benefit factor due to 16 cutting edges.
- Thick insert for best stability and break resistance.
- Different chip breakers for best chip breaking.
- Two insert sizes available.

Insert grades

YBC302

CVD
P15 – P35

YBG202

PVD
P10 – P30

YBM253

CVD
P20 – P40

YBM351

CVD
P25 – P40

YBG205

PVD
P10 – P30
M20 – M30

YB9320

PVD
P15 – P25
M20 – M30

YBD152

CVD
K05 – K25

Chip breakers

-PF

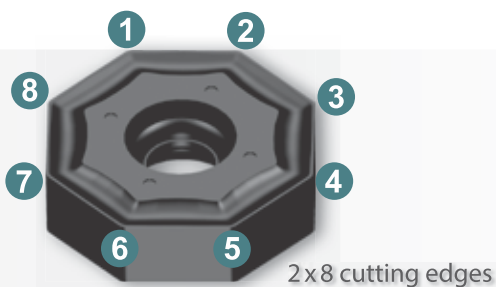


- Low cutting forces
- Very sharp

-PM

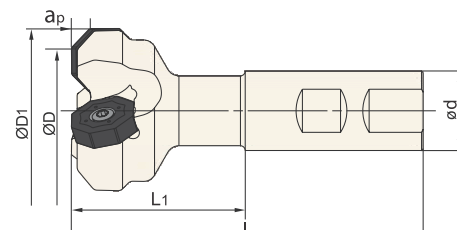
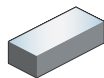


- General application
- Good balance between stability and sharpness



Face milling

FMA07 Kr: 45°



Weldon-Schaft

Article	*	Stock		Dimensions [mm]						Teeth	 kg	Inserts
		R	L	ØD	ØD ₁	ød	L ₁	L	a _{p max}			
FMA07-025-XP20-ON06-02		●	○	25	37	20	45	95	4	2	0.2	ONHU0604
FMA07-025-XP20-ON06-02C	*	●	○	25	37	20	45	95	4	2	0.2	
FMA07-032-XP25-ON06-02C	*	●	○	32	44	25	55	111	4	2	0.4	
FMA07-040-XP25-ON06-03		●	○	40	52	25	50	106	4	3	0.4	
FMA07-032-XP25-ON08-02		●	○	32	47	25	55	111	5	2	0.4	ONHU08T5
FMA07-032-XP25-ON08-02C	*	●	○	32	47	25	55	111	5	2	0.4	
FMA07-040-XP25-ON08-03		●	○	40	55	25	55	111	5	3	0.5	
FMA07-040-XP25-ON08-03C	*	●	○	40	55	25	55	111	5	3	0.5	
FMA07-050-XP25-ON08-04		●	○	50	65	25	55	111	5	4	0.6	

● Ex stock ○ On demand

* With internal cooling

Spare parts				
	Insert	ONHU0604	ONHU08T5	
	ØD	25-40	32-50	
	Screw (insert)	I60M4*10	I60M5*13	
	Wrench (insert)		WT20IT	
	Wrench (insert)	WT15IS		

System code > B22

Grade selection > B20

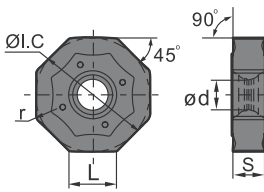
Technical info > B447

Cutting data > B216

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

ONHU	L	I.C	S	d
06 04	6.58	15.875	4.76	4.4
08 T5	8.37	20.2	5.77	5.3

ON** milling insert			HC ¹ (CVD)							HC ¹ (PVD)							HT	HC ²	HW				
		P																					
		M																					
		K																					
		N																					
		S																					
		H																					
ISO		r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	ONHU060408-PF	0.8																					
	ONHU08T508-PF	0.8																					
	ONHU060408-PM	0.8																					
	ONHU08T508-PM	0.8																					

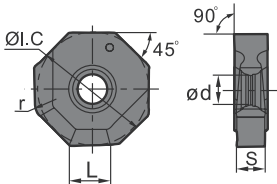
●Ex stock ○On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

ONHU	L	I.C	S	d
08 T5	6.9	20.5	6	5.3

ON** milling insert			HC ¹ (CVD)								HC ¹ (PVD)				HT	HC ²	HW						
		P																					
		M																					
		K																					
		N																					
		S																					
		H																					
ISO		r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	ONHU08T508-W	0.8							●			○											

●Ex stock ○On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

Grade selection > B20

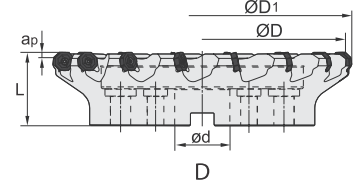
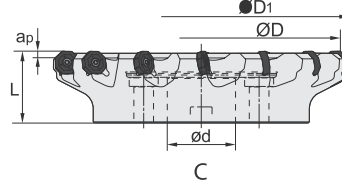
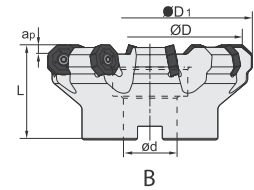
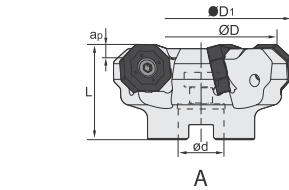
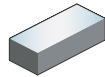
Technical info > B447

Cutting data > B216



Face milling

FMA07 Kr: 45°



Article	*	Stock		Dimensions [mm]					Teeth	Coupling	kg	Inserts
		R	L	ØD	ØD ₁	ød	L	a _p max				
FMA07-050-A22-ON06-05		●	○	50	62	22	40	4	5	A	0.3	ONHU0604
FMA07-050-A22-ON06-05C	*	●	○	50	62	22	40	4	5	A	0.3	
FMA07-063-A22-ON06-06		●	○	63	75	22	40	4	6	A	0.5	
FMA07-063-A22-ON06-06C	*	●	○	63	75	22	40	4	6	A	0.5	
FMA07-080-A27-ON06-07C	*	●	○	80	92	27	50	4	7	A	1	
FMA07-080-B27-ON06-07		●	○	80	92	27	50	4	7	B	1	
FMA07-080-B27-ON06-07C	*	●	○	80	92	27	50	4	7	B	1	
FMA07-100-B32-ON06-08		●	○	100	112	32	63	4	8	B	1.9	
FMA07-100-B32-ON06-08C	*	●	○	100	112	32	63	4	8	B	1.9	
FMA07-125-B40-ON06-09		●	○	125	137	40	63	4	9	B	3.5	
FMA07-125-B40-ON06-09C	*	●	○	125	137	40	63	4	9	B	3.5	
FMA07-160-C40-ON06-11		○	○	160	172	40	63	4	11	C	4.3	ONHU08T5
FMA07-200-C60-ON06-13		○	○	200	212	60	63	4	13	C	6.4	
FMA07-250-C60-ON06-15		○	○	250	262	60	63	4	15	C	13.4	
FMA07-315-D60-ON06-17		○	○	315	327	60	80	4	17	D	21.9	
FMA07-063-A22-ON08-05		●	○	63	78	22	40	5	5	A	0.5	
FMA07-063-A22-ON08-05C	*	●	○	63	78	22	40	5	5	A	0.5	
FMA07-080-A27-ON08-06C	*	●	○	80	95	27	50	5	6	A	0.9	
FMA07-080-B27-ON08-06		●	○	80	95	27	50	5	6	B	0.9	
FMA07-080-B27-ON08-06C	*	○	○	80	95	27	50	5	6	B	0.9	
FMA07-100-B32-ON08-07		●	○	100	115	32	63	5	7	B	1.8	
FMA07-100-B32-ON08-07C	*	●	○	100	115	32	63	5	8	B	3.1	
FMA07-125-B40-ON08-08		●	○	125	140	40	63	5	8	B	3.1	
FMA07-125-B40-ON08-08C	*	●	○	125	140	40	63	5	8	B	3.1	
FMA07-160-C40-ON08-10		●	○	160	175	40	63	5	10	C	4.1	
FMA07-200-C60-ON08-12		●	○	200	215	60	63	5	12	C	6.1	
FMA07-250-C60-ON08-14		●	○	250	265	60	63	5	14	C	12	
FMA07-315-D60-ON08-16		●	○	315	330	60	80	5	16	D	21	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

FMA11 *Kr: 45°*

New face mill generation

- Double sided, extra thick insert with 8 cutting edges.
- Large rake angle reduces cutting forces.
- More stability for larger cutting depths.
- Wiper geometry for better surface quality.

Insert grades

YBC302

CVD
P15 – P35

YBM253

CVD
P10 – P40

YBD152

CVD
K05 – K25

YBD252

CVD
K15 – K35

YBG205

PVD
P10 – P30
M20 – M30

YB9320

PVD
P15 – P25
M20 – M30

Chip breakers

-GM



- General machining

-GR



- Stable cutting edge

-E



- Sharp cutting edge
- First choice for stainless steel

-W



- Wiper geometry for best surface quality

Insert sizes

a_p max:



SNEG1205ANR-
GM/GR

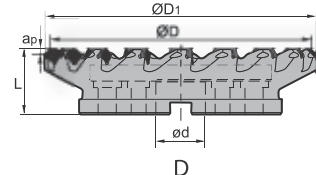
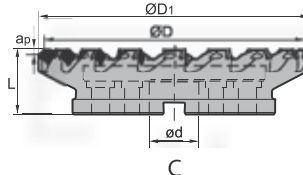
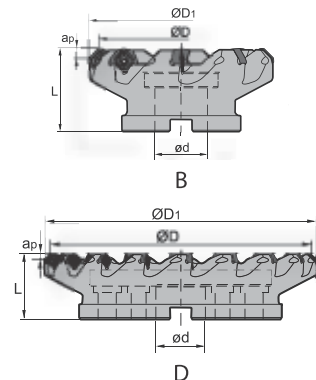
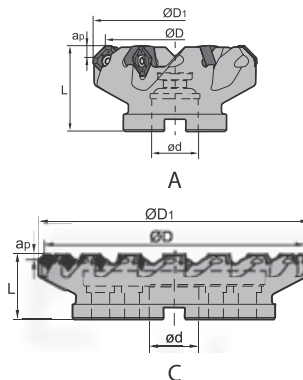
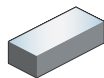
SNEG1506ANR-
GM/GR

SNEG1907ANR-
GR



Face milling

FMA11 Kr: 45°



Article	*	Stock		Dimensions [mm]					Teeth	Coupling	kg	Inserts
		R	L	ØD	ØD ₁	ød	L	a _p max				
FMA11-063-A22-SN12-05	●			63	74.47	22	40	5.5	5	A	0.55	SNEG1205
FMA11-063-A22-SN12-06	●			63	74.47	22	40	5.5	6	A	0.58	
FMA11-080-A27-SN12-06	●			80	91.47	27	50	5.5	6	A	1.14	
FMA11-100-B32-SN12-07	●			100	111.47	32	50	5.5	7	B	1.42	
FMA11-100-B32-SN12-07C	* ●			100	111.47	32	50	5.5	7	B	1.42	
FMA11-100-B32-SN12-10C	* ●			100	111.47	32	50	5.5	10	B	1.42	
FMA11-125-B40-SN12-08	●			125	136.47	40	63	5.5	8	B	2.86	
FMA11-125-B40-SN12-08C	* ●			125	136.47	40	63	5.5	8	B	2.86	
FMA11-125-B40-SN12-12C	* ●			125	136.47	40	63	5.5	12	B	2.86	
FMA11-160-C40-SN12-10	●			160	171.47	40	63	5.5	10	C	4.06	
FMA11-160-C40-SN12-15	●			160	171.47	40	63	5.5	15	C	4.06	SNEG1506
FMA11-200-C60-SN12-14	●			200	212.08	60	63	5.5	14	C	6.89	
FMA11-063-A22-SN15-05	●			63	77.4	22	40	7	5	A	0.56	
FMA11-080-A27-SN15-06	●			80	94.4	27	50	7	6	A	1.06	
FMA11-100-B32-SN15-07	●			100	114.4	32	50	7	7	B	1.47	
FMA11-100-B32-SN15-07C	* ●			100	114.4	32	50	7	7	B	1.47	
FMA11-100-B32-SN15-09C	* ●			100	114.4	32	50	7	9	B	1.47	
FMA11-125-B40-SN15-08	●			125	139.4	40	63	7	8	B	2.7	
FMA11-125-B40-SN15-08C	* ●			125	139.4	40	63	7	8	B	2.7	
FMA11-125-B40-SN15-10C	* ●			125	140.25	40	63	7	10	B	3.1	
FMA11-160-C40-SN15-10	●			160	174.4	40	63	7	10	C	3.92	
FMA11-160-C40-SN15-13	●			160	175.25	40	63	7	13	C	4.14	
FMA11-200-C60-SN15-12	●			200	214.4	60	63	7	12	C	5.46	
FMA11-250-C60-SN15-14	●			250	264.4	60	63	7	14	C	11.26	
FMA11-315-D60-SN15-18	○			315	329.4	60	80	7	18	D	20	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

Article	*	Stock		Dimensions [mm]					Teeth	Coupling		Inserts 
		R	L	ØD	ØD ₁	ød	L	a _p max				
FMA11-125-B40-SN19-07		●		125	142.63	40	63	9	7	B	3	SNEG1907
FMA11-125-B40-SN19-07C	*	●		125	142.63	40	63	9	7	B	3	
FMA11-160-C40-SN19-09		●		160	167.63	40	63	9	9	C	4.25	
FMA11-200-C60-SN19-11		●		200	217.63	60	63	9	11	C	6.18	
FMA11-250-C60-SN19-13		●		250	267.63	60	63	9	13	C	11.55	
FMA11-315-D60-SN19-16		○		315	332.63	60	80	9	16	D	20.9	

●Ex stock ○On demand

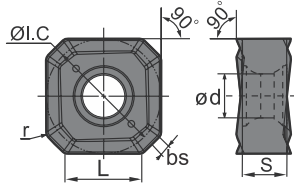
*With internal cooling

Spare parts					
Insert	ØD	SNEG1205 63-200	SNEG1506 63-315	SNEG1907 125-315	
ØD	Insert	63-200	63-315	125-315	
	Screw (insert)	I60M3.5*10	I60M5*13	I43M6*16	
	Wrench (insert)	WT15IS			
	Wrench (insert)		WT20IT	WT25IT	

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

SNEG	L	I.C	S	d
12 05	7.6	12	4.76	4.6
15 06	9.4	15	5.54	5.5
19 07	12.1	19	7	7.2

SN** negative insert				HC ¹ (CVD)								HC ¹ (PVD)				HT	HC ²	HW								
				P																						
				M																						
				K																						
				N																						
				S																						
				H																						
ISO				r	bs	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	SNEG1506ANR-E	0.9	1.3														●									
	SNEG1205ANR-GM	0.8	1.05	●			●								●											
	SNEG1506ANR-GM	0.9	1.3	●			●										●									

●Ex stock ○On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216



A

Turning

B

Milling

C

Drilling

D

Technical
Information

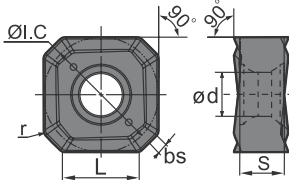
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Index

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

SNEG	L	I.C	S	d
12 05	7.6	12	4.76	4.6
15 06	9.4	15	5.54	5.5
19 07	12.1	19	7	7.2

SN** negative insert				HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW							
	P																								
	M																								
	K																								
	N																								
	S																								
	H																								
ISO			r	bs	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	SNEG1205ANR-GR		0.8	1.05	●			●			●														
	SNEG1506ANR-GR		0.9	1.3	●			●			●														
	SNEG1907ANR-GR		1	1.67	●			●			●	●													

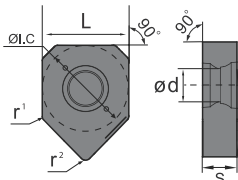
● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

SNEG	L	I.C	S	d
12 05	12	12	4.76	4.6

SN** negative insert			HC ¹ (CVD)										HC ¹ (PVD)					HT	HC ²	HW					
	P																								
	M																								
	K																								
	N																								
	S																								
	H																								
ISO			r1	r2	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	SNEG1205ANR-W		0.6	0.8												●									

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

FMA12 *Kr: 45°*

Face mill

- High cost-benefit factor due to 16 cutting edges.
- Three-dimensional chip breaker for tough materials.
- Smooth cut due to positive and sharp cutting edge.

Insert grades

YBM253

PVD
P20 – P40
M10 – M30

YBG205

PVD
P10 – P30
M10 – M30

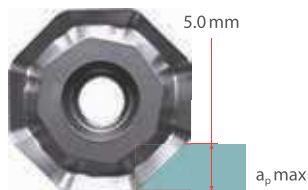
YBD152

CVD
K05 – K25

16 cutting edges

Chip breakers

-GM



ONHU08T624R-GM

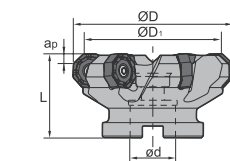
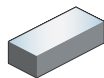


3D cutting edges

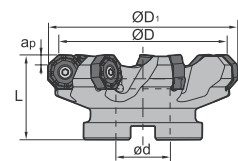


Face milling

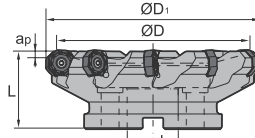
FMA12 Kr: 45°



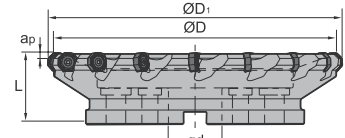
A



B



C



D

Article	*	Stock		Dimensions [mm]					Teeth	Coupling	[kg]	Inserts
		R	L	ØD	ØD ₁	ød	L	a _p max				
FMA12-063-A22-ON08-05	●			63	78	22	50	5	5	A	0.6	ONHU08T6
FMA12-080-A27-ON08-06	●			80	95	27	50	5	6	A	0.97	
FMA12-100-B32-ON08-07	●			100	115	32	50	5	7	B	1.28	
FMA12-100-B32-ON08-07C	* ●			100	115	32	50	5	7	B	1.28	
FMA12-125-B40-ON08-08	●			125	140	40	63	5	8	B	2.59	
FMA12-125-B40-ON08-08C	* ●			125	140	40	63	5	8	B	2.59	
FMA12-160-C40-ON08-10	●			160	175	40	63	5	10	C	4.1	
FMA12-200-C60-ON08-12	●			200	215	60	63	5	12	C	5.68	
FMA12-250-C60-ON08-14	○			250	265	60	63	5	14	C	11.9	
FMA12-315-D60-ON08-18	○			315	330	60	80	5	18	D	20.41	

● Ex stock ○ On demand

* With internal cooling

Spare parts			
Insert	ONHU08T6		
ØD	63- 315		
 Screw (insert)	I60M5*13		
 Wrench (insert)	WT20IT		

System code > B22

Grade selection > B20

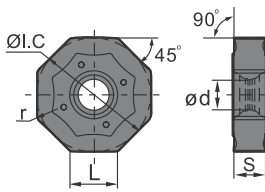
Technical info > B447

Cutting data > B216

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

ONHU	L	I.C	S	d
08 T6	6.38	20.2	6.3	5.3

ON** milling insert			HC ¹ (CVD)										HC ¹ (PVD)					HT	HC ²	HW					
	P																								
	M																								
	K																								
	N																								
	S																								
	H																								
ISO			r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151		YNG151C	YD101	YD201
	ONHU08T624R-GM		2.4				●			○					●										

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A

Turning

B

Milling

C

Drilling

D

Technical
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System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216



FMD02 *Kr: 67°*

Face mill

- Smooth-cutting inserts due to trough-shaped chip breaker.
- Chamfer with wiper for best surface quality.
- Wide selection of inserts with 6 different chip breakers.
- Milling body available in wide, normal and close pitch (wedge clamping).

Insert grades

YBC302

CVD
P15 – P35

YBM253

PVD
P10 – P40

YBD152

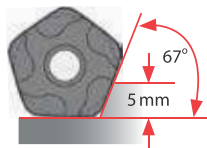
CVD
K05 – K25

YBD252

CVD
K15 – K35

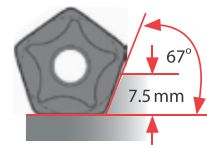
Chip breakers

-CF -CM -CR



- Cast iron machining
 $a_{p\max} = 5 \text{ mm}$

-PF -PM -PR



- Steel
 $a_{p\max} = 7.5 \text{ mm}$



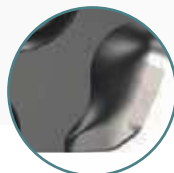
- Entry angle $Kr = 67^\circ$



- Screw clamping



- Wedge clamping

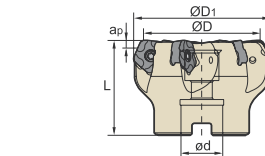
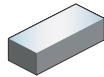


- Wiper

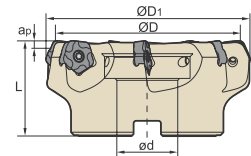


Face milling

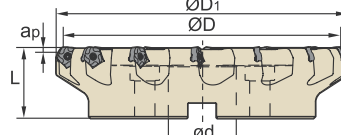
FMD02 Kr: 67°



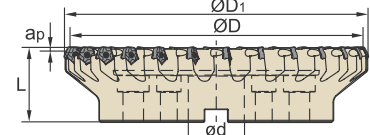
A



B



C



D

Article	*	Stock		Dimensions [mm]					Teeth	Coupling	kg	Inserts
		R	L	ØD	ØD ₁	ød	L	a _p max				
FMD02-050-A22-PN11-04		●	●	50	60.1	22	50	5	4	A	0.6	PNEG1105
FMD02-050-A22-PN11-04C	*	○	○	50	60.1	22	50	5	4	A	0.6	
FMD02-050-A22-PN11-05		●	○	50	60.1	22	50	5	5	A	0.6	
FMD02-050-A22-PN11-05C	*	●	○	50	60.1	22	50	5	5	A	0.6	
FMD02-063-A22-PN11-05		●	○	63	73.1	22	50	5	5	A	0.8	
FMD02-063-A22-PN11-05C	*	●	○	63	73.1	22	50	5	5	A	0.8	
FMD02-063-A22-PN11-06		●	○	63	73.1	22	50	5	6	A	0.9	
FMD02-063-A22-PN11-06C	*	●	○	63	73.1	22	50	5	6	A	0.9	
FMD02-080-A27-PN11-06		●	○	80	90.1	27	50	5	6	A	1.1	
FMD02-080-A27-PN11-06C	*	●	○	80	90.1	27	50	5	6	A	1.1	
FMD02-080-A27-PN11-08		●	○	80	90.1	27	50	5	8	A	1.2	
FMD02-080-A27-PN11-08C	*	●	○	80	90.1	27	50	5	8	A	1.2	
FMD02-100-B32-PN11-07		●	○	100	110.1	32	50	5	7	B	1.8	
FMD02-100-B32-PN11-07C	*	●	○	100	110.1	32	50	5	7	B	1.8	
FMD02-100-B32-PN11-10		●	○	100	110.1	32	50	5	10	B	1.9	
FMD02-100-B32-PN11-10C	*	○	○	100	110.1	32	50	5	10	B	1.9	
FMD02-125-B40-PN11-08		●	●	125	135.1	40	63	5	8	B	2.9	
FMD02-125-B40-PN11-08C	*	○	○	125	135.1	40	63	5	8	B	2.9	
FMD02-125-B40-PN11-12		●	○	125	135.1	40	63	5	12	B	3.2	
FMD02-125-B40-PN11-12C	*	○	○	125	135.1	40	63	5	12	B	3.2	
FMD02-160-B40-PN11-10		●	○	160	170.1	40	63	5	10	B	5.6	
FMD02-160-B40-PN11-14		●	○	160	170.1	40	63	5	14	B	6.4	
FMD02-200-C60-PN11-12		○	○	200	210.1	60	63	5	12	C	7.9	
FMD02-200-C60-PN11-16		●	○	200	210.1	60	63	5	16	C	8.5	
FMD02-200-C60-PN11-20		○	○	200	210.1	60	63	5	20	C	8.5	
FMD02-200-C60-PN11-24		●	○	200	210.1	60	63	5	24	C	8.6	
FMD02-250-C60-PN11-14		○	○	250	260.1	60	63	5	14	C	13.4	
FMD02-250-C60-PN11-18		●	○	250	260.1	60	63	5	18	C	18	
FMD02-250-C60-PN11-30		○	○	250	260.1	60	63	5	30	C	13.5	
FMD02-315-D60-PN11-26		●	○	315	325.1	60	80	5	26	D	24.5	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

A

Turning

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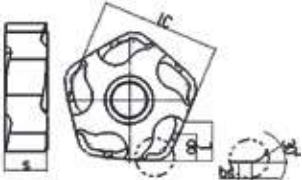
Spare parts

	Insert	PNEG1105
	ØD	50- 315
	Screw (insert)	I60M4*10
	Wrench (insert)	WT15IS

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

PNEG	L	I.C	S	d
11 05	5.4	15.875	5.56	4.64

Milling inserts

PN** milling insert				HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW						
			P																					
			M																					
			K																					
			N																					
			S																					
			H																					
ISO		bs	a _p max	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YBG320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	PNEG110512L-CF	1.6	5							○														
	PNEG110512R-CF	1.6	5							●														
	PNEG110512L-CM	1.6	5							○														
	PNEG110512R-CM	1.6	5							●														
	PNEG110512L-CR	1.6	5							○ ○														
	PNEG110512R-CR	1.6	5							● ●														

●Ex stock ○On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

Grade selection > B20

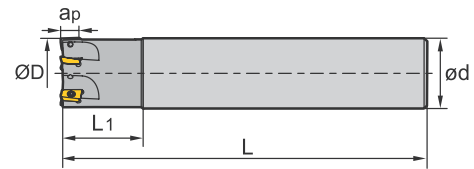
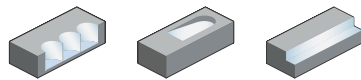
Technical info > B447

Cutting data > B216



Square shoulder milling

EMP01 Kr: 90°



Straight shank

Article	*	Stock	Dimensions [mm]					Teeth	kg	Inserts
			ØD	ød	L ₁	L	a _{p max}			
EMP01-012-G16-AP11-01		●	12	16	25	85	10.5	1	0.1	APKT11T3
EMP01-012-G16-AP11-01C	*	○	12	16	25	85	10.5	1	0.1	
EMP01-016-G16-AP11-02		●	16	16	25	90	10.5	2	0.1	
EMP01-016-G16-AP11-02C	*	●	16	16	25	90	10.5	2	0.1	
EMP01-020-G20-AP11-02		●	20	20	30	100	10.5	2	0.2	
EMP01-020-G20-AP11-02C	*	●	20	20	30	100	10.5	2	0.2	
EMP01-020-G20-AP11-03		●	20	20	30	100	10.5	3	0.2	
EMP01-020-G20-AP11-03C	*	●	20	20	30	100	10.5	3	0.2	
EMP01-025-G25-AP11-03		●	25	25	35	115	10.5	3	0.4	
EMP01-025-G25-AP11-03C	*	○	25	25	35	115	10.5	3	0.4	
EMP01-025-G25-AP11-04		●	25	25	35	115	10.5	4	0.4	
EMP01-025-G25-AP11-04C	*	●	25	25	35	115	10.5	4	0.4	
EMP01-032-G32-AP11-04		●	32	32	40	125	10.5	4	0.7	APKT1604
EMP01-032-G32-AP11-04C	*	○	32	32	40	125	10.5	4	0.7	
EMP01-025-G25-AP16-02		●	25	25	35	115	15.5	2	0.4	
EMP01-025-G25-AP16-02C	*	●	25	25	35	115	15.5	2	0.4	
EMP01-032-G32-AP16-03		●	32	32	40	125	15.5	3	0.7	
EMP01-032-G32-AP16-03C	*	●	32	32	40	125	15.5	3	0.7	
EMP01-040-G32-AP16-03		●	40	32	42	130	15.5	3	0.7	
EMP01-040-G32-AP16-03C	*	●	40	32	42	130	15.5	3	0.7	
EMP01-040-G32-AP16-04		●	40	32	42	130	15.5	4	0.8	
EMP01-040-G32-AP16-04C	*	●	40	32	42	130	15.5	4	0.8	
EMP01-050-G32-AP16-05		●	50	32	45	135	15.5	5	1	
EMP01-050-G32-AP16-05C	*	○	50	32	45	135	15.5	5	1	
EMP01-063-G32-AP16-06		●	63	32	45	135	15.5	6	1.4	
EMP01-063-G32-AP16-06C	*	○	63	32	45	135	15.5	6	1.4	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

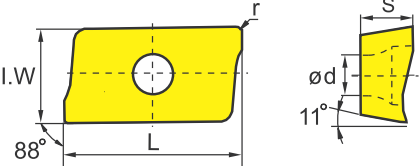
Spare parts



Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

AP** milling insert					HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW											
				P																										
				M																										
				K																										
				N																										
				S																										
				H																										
ISO			r	I.W.	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151		YNG151C		YD101	YD201			
	APKT11T304-ALH	0.4	6.5											●													●	●		
	APKT11T308-ALH	0.8	6.5											●													●	●		
	APKT160408-ALH	0.8	9.33											●													●	●		
	APKT11T304-APF	0.4	6.5												●															
	APKT11T308-APF	0.8	6.5												●															
	APKT160408-APF	0.8	9.33												●		○		○											
	APKT11T304-APM	0.4	6.5					●		●					●															
	APKT11T308-APM	0.8	6.5					●		●					●															
	APKT11T312-APM	1.2	6.5					●		●					●															
	APKT11T316-APM	1.6	6.5					●		●					●															
	APKT11T320-APM	2	6.5					●		●					●															
	APKT160408-APM	0.8	9.33					●		●	●				●															
	APKT160416-APM	1.6	9.33					●		●					●															
	APKT160420-APM	2	9.33					●		●					●															
	APKT160424-APM	2.4	9.33					●		●					●															
	APKT160430-APM	3	9.33					●		●					●															
	APKT11T304-LH	0.4	6.5																								●	●		
	APKT11T308-LH	0.8	6.5																								●	●		
	APKT160408-LH	0.8	9.33																								●	●		

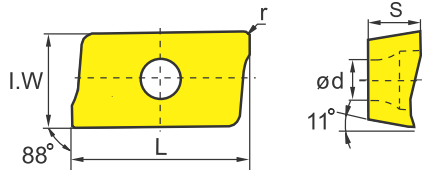
●Ex stock ○On demand

HC ¹	Coated carbide
HT	Uncoated cermet
HC ²	Coated cermet
HW	Uncoated carbide

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

Milling inserts

AP** milling insert			HC ¹ (CVD)								HC ¹ (PVD)					HT	HC ²	HW							
			P																						
			M																						
			K																						
			N																						
			S																						
			H																						
ISO			r	I.W	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	APKT11T304-PF	0.4	6.5																						
	APKT11T308-PF	0.8	6.5																						
	APKT11T312-PF	1.2	6.5																						
	APKT11T316-PF	1.6	6.5																						
	APKT160408-PF	0.8	9.33																						
	APKT160430-PF	3	9.33																						
	APKT11T304-PM	0.4	6.5																						
	APKT11T308-PM	0.8	6.5																						
	APKT11T312-PM	1.2	6.5																						
	APKT11T316-PM	1.6	6.5																						
	APKT160408-PM	0.8	9.33																						
	APKT160416-PM	1.6	9.33																						
	APKT11T304-PR	0.4	6.5																						
	APKT11T308-PR	0.8	6.5																						
	APKT11T312-PR	1.2	6.5																						
	APKT11T316-PR	1.6	6.5																						
	APKT160408-PR	0.8	9.33																						

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

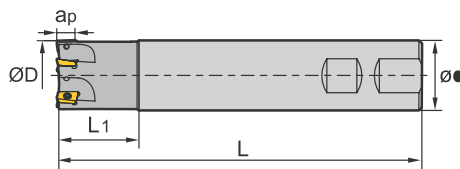
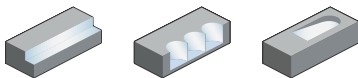
Grade selection > B20

Technical info > B447

Cutting data > B216

Square shoulder milling

EMP01 Kr: 90°



Weldon shank

Article	*	Stock	Dimensions [mm]					Teeth	kg	Inserts
			ØD	ød	L ₁	L	a _{p max}			
EMP01-012-XP16-AP11-01		●	12	16	25	85	10.5	1	0.1	APKT11T3
EMP01-012-XP16-AP11-01C	*	○	12	16	25	85	10.5	1	0.1	
EMP01-016-XP16-AP11-02		●	16	16	25	90	10.5	2	0.1	
EMP01-016-XP16-AP11-02C	*	●	16	16	25	90	10.5	2	0.1	
EMP01-020-XP20-AP11-02		●	20	20	30	100	10.5	2	0.2	
EMP01-020-XP20-AP11-02C	*	●	20	20	30	100	10.5	2	0.2	
EMP01-020-XP20-AP11-03		●	20	20	30	100	10.5	3	0.2	
EMP01-020-XP20-AP11-03C	*	●	20	20	30	100	10.5	3	0.2	
EMP01-025-XP25-AP11-03		●	25	25	35	115	10.5	3	0.4	
EMP01-025-XP25-AP11-03C	*	●	25	25	35	115	10.5	3	0.4	
EMP01-025-XP25-AP11-04		●	25	25	35	115	10.5	4	0.4	APKT1604
EMP01-025-XP25-AP11-04C	*	●	25	25	35	115	10.5	4	0.4	
EMP01-032-XP32-AP11-04		●	32	32	40	125	10.5	4	0.7	
EMP01-032-XP32-AP11-04C	*	○	32	32	40	125	10.5	4	0.7	
EMP01-025-XP25-AP16-02		●	25	25	35	115	15.5	2	0.4	
EMP01-025-XP25-AP16-02C	*	●	25	25	35	115	15.5	2	0.4	
EMP01-032-XP32-AP16-03		●	32	32	40	125	15.5	3	0.7	
EMP01-032-XP32-AP16-03C	*	●	32	32	40	125	15.5	3	0.7	
EMP01-040-XP32-AP16-04		●	40	32	42	130	15.5	4	0.8	
EMP01-040-XP32-AP16-04C	*	●	40	32	42	130	15.5	4	0.8	
EMP01-050-XP32-AP16-05		●	50	32	45	135	15.5	5	1	
EMP01-050-XP32-AP16-05C	*	●	50	32	45	135	15.5	5	1	
EMP01-063-XP32-AP16-06		○	63	32	45	135	15.5	6	1.4	
EMP01-063-XP32-AP16-06C	*	○	63	32	45	135	15.5	6	1.4	

●Ex stock ○On demand

* With internal cooling

A

Turning

B

Milling

C

Drilling

D

Technical
Information

E

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System code > B22

Grade selection > B20

Technical info > B447

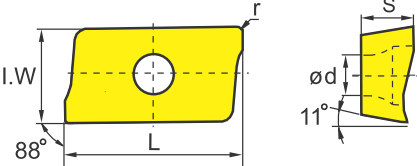
Cutting data > B216



A close-up photograph of a yellow robotic arm joint, showing the connection between two segments. The joint is a 90-degree elbow, with a yellow cylindrical body and a yellow rectangular plate at the base. A silver-colored metal pin is visible, securing the joint. The background is a plain, light-colored surface.

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

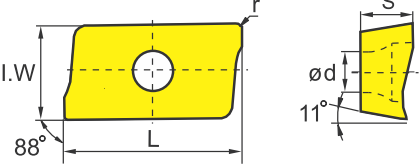
AP** milling insert				HC ¹ (CVD)						HC ¹ (PVD)						HT		HC ²	HW	
				P																
				M																
				K																
				N																
				S																
				H																
ISO			r	I.W	YBC302 YBC301 YBC401 YBM253 YBM251 YBM351 YBD152 YBD252						YBG101 YBG102 YB9320 YBG205 YBG202 YBG212 YBG302 YBG152 YBG252 YNG151						YNG151C		YD101 YD201	
	APKT11T304-ALH	0.4	6.5																	
	APKT11T308-ALH	0.8	6.5																	
	APKT160408-ALH	0.8	9.33																	
	APKT11T304-APF	0.4	6.5																	
	APKT11T308-APF	0.8	6.5																	
	APKT160408-APF	0.8	9.33																	
	APKT11T304-APM	0.4	6.5																	
	APKT11T308-APM	0.8	6.5																	
	APKT11T312-APM	1.2	6.5																	
	APKT11T316-APM	1.6	6.5																	
	APKT11T320-APM	2	6.5																	
	APKT160408-APM	0.8	9.33																	
	APKT160416-APM	1.6	9.33																	
	APKT160420-APM	2	9.33																	
	APKT160424-APM	2.4	9.33																	
	APKT160430-APM	3	9.33																	
		APKT11T304-LH	0.4	6.5																
APKT11T308-LH		0.8	6.5																	
APKT160408-LH		0.8	9.33																	

HC ¹	Coated carbide
HT	Uncoated cermet
HC ²	Coated cermet
HW	Uncoated carbide

Milling inserts

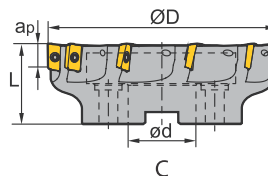
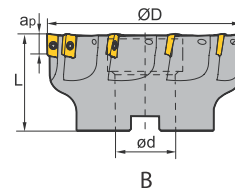
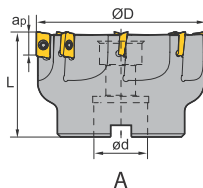
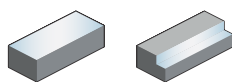
-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

AP** milling insert			HC ¹ (CVD)								HC ¹ (PVD)						HT	HC ²	HW						
			P	    								     						 							
			M	    								     						 							
			K									     								 					
			N									     								 					
			S	    								     													
			H																						
ISO			r	I.W	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	APKT11T304-PF	0.4	6.5		○				●					●			●	●							
	APKT11T308-PF	0.8	6.5						○					○			●	●							
	APKT11T312-PF	1.2	6.5														○								
	APKT11T316-PF	1.6	6.5														○								
	APKT160408-PF	0.8	9.33		●				○	●							●	●							
	APKT160430-PF	3	9.33	○																					
	APKT11T304-PM	0.4	6.5	●	●	●		●	●					○		●	●	●							
	APKT11T308-PM	0.8	6.5	●	●			●	●	●	●	●		●		●	●	●	●						
	APKT11T312-PM	1.2	6.5						○					○			●		○						
	APKT11T316-PM	1.6	6.5						●					○			●		○						
	APKT160408-PM	0.8	9.33	●	●	●	●	●	●	●	●	●		●		●	●	●	●						
	APKT160416-PM	1.6	9.33	○													●								
	APKT11T304-PR	0.4	6.5							○							○	○							
	APKT11T308-PR	0.8	6.5															○							
	APKT11T312-PR	1.2	6.5															○							
	APKT11T316-PR	1.6	6.5															○							
	APKT160408-PR	0.8	9.33															○							

Square shoulder milling

EMP02 Kr: 90°



Article	*	Stock	Dimensions [mm]				Teeth	Coupling	kg	Inserts
			ØD	ød	L	ap max				
EMP02-040-A16-AP11-04C	*	●	40	16	40	11	4	A	0.237	APKT11T3
EMP02-040-A16-AP11-05C	*	●	40	16	40	11	5	A	0.177	
EMP02-050-A22-AP11-06	●	●	50	22	40	11	6	A	0.3	
EMP02-050-A22-AP11-06C	*	●	50	22	40	11	6	A	0.3	
EMP02-050-A22-AP11-07C	*	●	50	22	40	11	7	A	0.39	
EMP02-063-A22-AP11-08	●	●	63	22	40	11	8	A	0.6	
EMP02-063-A22-AP11-08C	*	●	63	22	40	11	8	A	0.6	
EMP02-063-A22-AP11-09C	*	●	63	22	40	11	9	A	0.54	
EMP02-080-A27-AP11-08	●	●	80	27	50	11	8	A	1.2	
EMP02-080-A27-AP11-08C	*	●	80	27	50	11	8	A	1.2	
EMP02-080-A27-AP11-10C	*	●	80	27	50	11	10	A	1.13	APKT1604
EMP02-100-B32-AP11-10	●	●	100	32	50	11	10	B	1.7	
EMP02-100-B32-AP11-10C	*	○	100	32	50	11	10	B	1.7	
EMP02-125-B40-AP11-10	●	●	125	40	63	11	10	B	3.42	
EMP02-040-A16-AP16-03	●	●	40	16	40	15.5	3	A	0.17	
EMP02-040-A16-AP16-04C	*	●	40	16	40	15.5	4	A	0.17	
EMP02-050-A22-AP16-05	●	●	50	22	40	15.5	5	A	0.3	
EMP02-050-A22-AP16-05C	*	●	50	22	40	15.5	5	A	0.3	
EMP02-063-A22-AP16-06	●	●	63	22	40	15.5	6	A	0.5	
EMP02-063-A22-AP16-06C	*	●	63	22	40	15.5	6	A	0.5	
EMP02-080-A27-AP16-06C	*	●	80	27	50	15.5	6	A	1.08	
EMP02-080-A27-AP16-07	●	●	80	27	50	15.5	7	A	1.1	
EMP02-080-A27-AP16-07C	*	●	80	27	50	15.5	7	A	1.1	
EMP02-100-B32-AP16-08	●	●	100	32	50	15.5	8	B	1.6	
EMP02-100-B32-AP16-08C	*	●	100	32	50	15.5	8	B	1.6	
EMP02-125-B40-AP16-06C	*	●	125	40	63	15.5	6	B	3.18	
EMP02-125-B40-AP16-10	●	●	125	40	63	15.5	10	B	3.2	
EMP02-125-B40-AP16-10C	*	●	125	40	63	15.5	10	B	3.2	
EMP02-160-B40-AP16-07C	*	●	160	40	63	15.5	7	B	4.3	
EMP02-160-B40-AP16-10	●	●	160	40	63	15.5	10	B	6.3	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

Article	✱	Stock	Dimensions [mm]				Teeth	Coupling		Inserts 
			ØD	ød	L	a _p max				
EMP02-160-B40-AP16-10C	✱	○	160	40	63	15.5	10	B	6.3	APKT1604
EMP02-200-C60-AP16-12		○	200	60	63	15.5	12	C	8.1	
EMP02-250-C60-AP16-12		○	250	60	63	15.5	12	C	11.2	

●Ex stock ○On demand

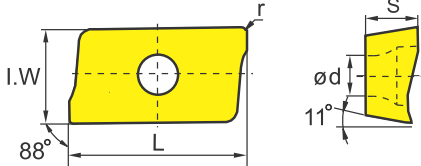
✱ With internal cooling

Spare parts				
Insert	APKT11T3	APKT1604		
ØD	40-125	40-250		
 Screw (insert)		I60M4*10		
 Screw (insert)	I60M2.5*6.5T			
 Wrench (insert)	WT08IS	WT15IS		

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

AP** milling insert			HC ¹ (CVD)								HC ¹ (PVD)					HT	HC ²	HW						
			P																					
			M																					
			K																					
			N																					
			S																					
			H																					
ISO		r	I.W	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	APKT11T304-ALH	0.4	6.5									●											●	●
	APKT11T308-ALH	0.8	6.5									●											●	●
	APKT160408-ALH	0.8	9.33									●											●	●
	APKT11T304-APF	0.4	6.5										●											
	APKT11T308-APF	0.8	6.5										●											
	APKT160408-APF	0.8	9.33										●	○		○								

●Ex stock ○On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

System code > B22

Grade selection > B20

Technical info > B447

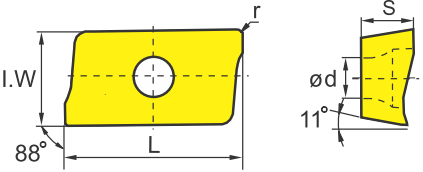
Cutting data > B216



-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

APKT	L	S	d
11 T3	12.24	3.6	2.8
16 04	17.877	5.76	4.4

Milling inserts

AP** milling insert				HC ¹ (CVD)								HC ¹ (PVD)								HT	HC ²	HW			
				P																					
				M																					
				K																					
				N																					
				S																					
				H																					
ISO			r	I.W	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	APKT11T304-APM	0.4	6.5					●			●				●										
	APKT11T308-APM	0.8	6.5					●			●				●										
	APKT11T312-APM	1.2	6.5					●			●				●										
	APKT11T316-APM	1.6	6.5					●			●				●										
	APKT11T320-APM	2	6.5					●			●				●										
	APKT160408-APM	0.8	9.33					●			●	●			●										
	APKT160416-APM	1.6	9.33					●			●				●										
	APKT160420-APM	2	9.33					●			●				●										
	APKT160424-APM	2.4	9.33					●			●				●										
	APKT160430-APM	3	9.33					●			●				●										
	APKT11T304-LH	0.4	6.5																					●	●
	APKT11T308-LH	0.8	6.5																					●	●
	APKT160408-LH	0.8	9.33																					●	●
	APKT11T304-PF	0.4	6.5		○			●						●		●		●							
	APKT11T308-PF	0.8	6.5						○					○		●									
	APKT11T312-PF	1.2	6.5														○								
	APKT11T316-PF	1.6	6.5															○							
	APKT160408-PF	0.8	9.33		●				○	●						●		●							
	APKT160430-PF	3	9.33		○																				
	APKT11T304-PM	0.4	6.5	●	●	●		●	●					○		●		●							
	APKT11T308-PM	0.8	6.5	●	●		●	●	●	●	●	●		●		●	●	●		●					
	APKT11T312-PM	1.2	6.5						○					○		●		○							
	APKT11T316-PM	1.6	6.5					●						○		●		○							
	APKT160408-PM	0.8	9.33	●	●	●	●	●	●	●	●	●		●		●	●	●		●					
	APKT160416-PM	1.6	9.33		○												●								
	APKT11T304-PR	0.4	6.5							○							○		○						
	APKT11T308-PR	0.8	6.5																○						
	APKT11T312-PR	1.2	6.5																○						
	APKT11T316-PR	1.6	6.5																○						
	APKT160408-PR	0.8	9.33																○						



EMP09 Kr: 90°

Square shoulder mill with tangential inserts

- Sharp cutting edge geometry combined with robust tangential inserts.
- First choice for large cutting depths with high feed rates.
- Very good competitiveness.

Insert grades

YBG253

CVD
P20 – P40
M10 – M30

YBG9320

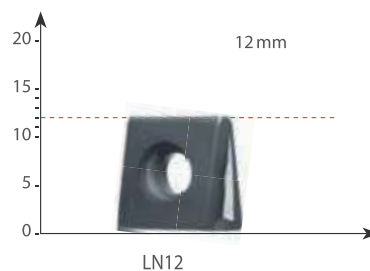
PVD
P10 – P30
M20 – M30

YBD252

CVD
K15 – K35

Chip breaker

-GM

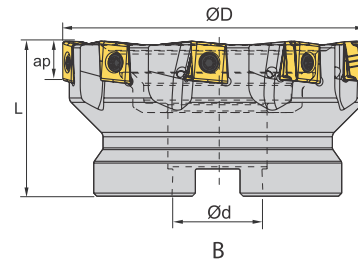
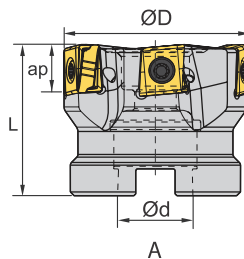
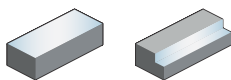


A

Turning

Square shoulder milling

EMP09



B

Milling

C

Drilling

D

Technical
Information

E

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Article	*	Stock	Dimensions [mm]				Teeth	Coupling	kg	Inserts
			ØD	ød	L	a _p max				
EMP09-040-A16-LN12-04C	*	●	40	16	40	11.5	4	A	0.19	LNKT1206PNR-GM
EMP09-050-A22-LN12-05C	*	●	50	22	40	11.5	5	A	0.33	
EMP09-063-A22-LN12-06C	*	●	63	22	40	11.5	6	A	0.53	
EMP09-080-A27-LN12-07C	*	●	80	27	50	11.5	7	A	1.18	
EMP09-100-B32-LN12-09C	*	●	100	32	50	11.5	9	B	1.62	
EMP09-125-B40-LN12-11C	*	●	125	40	63	11.5	11	B	3.25	

● Ex stock ○ On demand

* With internal cooling

Spare parts		
	Insert	LNKT1206PNR-GM
	ØD	40-125
	Screw (clamp)	I60M4*12
	Wrench	WT15IS

System code > B22

Grade selection > B20

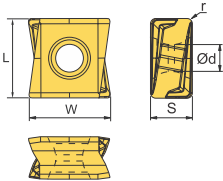
Technical info > B447

Cutting data > B216

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

LNKT	L	S
12 06	12.7	11.25

LN** milling insert			HC ¹ (CVD)								HC ¹ (PVD)					HT	HC ²	HW					
	P																						
	M																						
	K																						
	N																						
	S																						
	H																						
ISO	W	r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
 LNKT120608PNR-GM	6.75	0.8				●				●			●										

● Ex stock ○ On demand

HC¹ Coated carbide
 HT Uncoated cermet
 HC² Coated cermet
 HW Uncoated carbide

A

Turning

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Milling

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System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216



EMP13 *Kr: 90°*

New square shoulder mill generation

- Specially developed cutting edges for high-quality 90° square shoulder milling.
- Extra thick inserts for better stability.
- Positive, smooth cutting geometry for reduced cutting forces.
- Polished, high-precision geometry for aluminium alloys, steel and cast iron.

Insert grades

YBC302

CVD
P15 – P35

YBM253

CVD
P20 – P40
M10 – M30

YBG9320

PVD
P10 – P30
M20 – M30

YBG205

PVD
P10 – P30
M20 – M30

YBD152

CVD
K05 – K25

YBD252

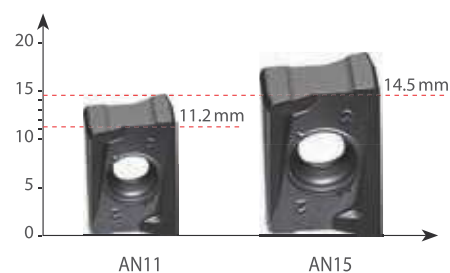
CVD
K15 – K35

YD101

–
K05 – K25

Chip breakers

-GM -LH

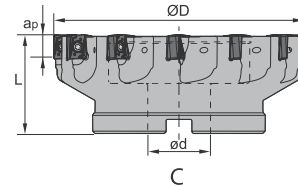
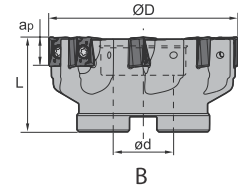
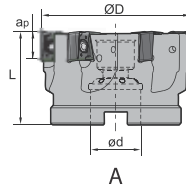
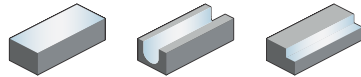


Chip breaker -LH for aluminium



Square shoulder milling

EMP13 Kr: 90°



Article	*	Stock	Dimensions [mm]				Teeth	Coupling	kg	Inserts
			ØD	ød	L	ap max				
EMP13-040-A16-AN11-04C	*	●	40	16	40	11.2	4	A	0.45	ANGX1105
EMP13-050-A22-AN11-06		●	50	22	40	11.2	6	A	0.3	
EMP13-063-A22-AN11-06	*	●	63	22	40	11.2	6	A	0.49	
EMP13-063-A22-AN11-07		●	63	22	40	11.2	7	A	0.49	
EMP13-080-A27-AN11-07	*	●	80	27	50	11.2	7	A	1.18	
EMP13-080-A27-AN11-09		●	80	27	50	11.2	9	A	1.18	
EMP13-100-B32-AN11-12		●	100	32	50	11.2	12	B	1.46	
EMP13-100-B32-AN11-12C	*	●	100	32	50	11.2	12	B	1.46	
EMP13-125-B40-AN11-14		●	125	40	63	11.2	14	B	2.92	
EMP13-125-B40-AN11-14C	*	●	125	40	63	11.2	14	B	2.92	
EMP13-160-C40-AN11-16		●	160	40	63	11.2	16	C	4.3	ANGX1506
EMP13-050-A22-AN15-04		●	50	22	40	14.5	4	A	0.26	
EMP13-063-A22-AN15-05		●	63	22	40	14.5	5	A	0.53	
EMP13-080-A27-AN15-06		●	80	27	50	14.5	6	A	1.23	
EMP13-100-B32-AN15-08		●	100	32	50	14.5	8	B	1.52	
EMP13-100-B32-AN15-08C	*	●	100	32	50	14.5	8	B	1.52	
EMP13-125-B40-AN15-10		●	125	40	63	14.5	10	B	3.05	
EMP13-125-B40-AN15-10C	*	●	125	40	63	14.5	10	B	3.05	
EMP13-160-C40-AN15-12		●	160	40	63	14.5	12	C	4.46	
EMP13-200-C60-AN15-16		○	200	60	63	14.5	16	C	6.26	

● Ex stock ○ On demand

* With internal cooling

System code > B22

Grade selection > B20

Technical info > B447

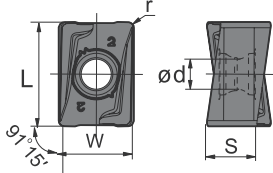
Cutting data > B216

Spare parts				
	Insert	ANGX1105	ANGX1506	
	ØD	40-160	50-200	
	Screw (insert)	I60M3*9	I60M4*12	
	Wrench (insert)	WT09IS	WT15IS	

Milling inserts

- Ideal machining conditions
- Normal machining conditions
- Unfavourable machining conditions

ANGX	L	S	d
11 05	11.85	5.7	3.5
15 06	15.43	7.3	4.4

AN** milling insert			HC ¹ (CVD)							HC ¹ (PVD)					HT	HC ²	HW								
	P																								
	M																								
	K																								
	N																								
	S																								
	H																								
ISO			W	r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201
	ANGX110504PNR-GM	8.4	0.4				●				●				●	●									
	ANGX110508PNR-GM	8.4	0.8	●			●				●	●			●	●									
	ANGX150608PNR-GM	11	0.8	○			●				●	●			●	●									
	ANGX150616PNR-GM	11	1.6				●				●					●									
	ANGX150620PNR-GM	11	2				●				●	●				●									
	ANGX110504PNR-LH	8.4	0.4																					●	
	ANGX150608PNR-LH	11	0.8																					●	

● Ex stock ○ On demand

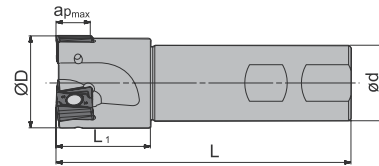
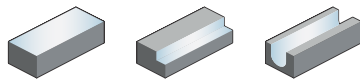
HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A

Turning

Square shoulder milling

EMP13 Kr: 90°



Weldon shank

B

Milling

Article	*	Stock	Dimensions [mm]					Teeth	kg	Inserts
			ØD	ød	L ₁	L	a _{p max}			
EMP13-025-XP25-AN11-02	●		25	25	32	100	11.2	2	0.31	ANGX1105
EMP13-032-XP32-AN11-03	●		32	32	40	115	11.2	3	0.61	
EMP13-040-XP32-AN11-04	●		40	32	40	125	11.2	4	0.75	
EMP13-032-XP32-AN15-02	●		32	32	40	125	11.2	2	0.66	ANGX1506
EMP13-040-XP32-AN15-03	●		40	32	40	125	11.2	3	0.76	

● Ex stock ○ On demand

* With internal cooling

C

Drilling

Spare parts				
	Insert	ANGX1105	ANGX1506	
	ØD	25-40	25-40	
	Screw (insert)	I60M3*9	I60M4*12	
	Wrench (insert)	WT09IS	WT15IS	

D

Technical
Information

E

Index

System code > B22

Grade selection > B20

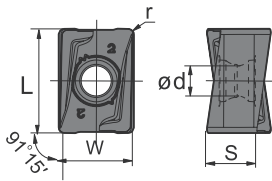
Technical info > B447

Cutting data > B216

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

ANGX	L	S	d
11 05	11.85	5.7	3.5
15 06	15.43	7.3	4.4

AN** milling insert					HC ¹ (CVD)								HC ¹ (PVD)								HT	HC ²	HW				
			P																								
			M																								
			K																								
			N																								
			S																								
			H																								
ISO			W	r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201		
	ANGX110504PNR-GM	8.4	0.4																								
	ANGX110508PNR-GM	8.4	0.8																								
	ANGX150608PNR-GM	11	0.8																								
	ANGX150616PNR-GM	11	1.6																								
	ANGX150620PNR-GM	11	2																								
	ANGX110504PNR-LH	8.4	0.4																								
	ANGX150608PNR-LH	11	0.8																								

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A

Turning

B

Milling

C

Drilling

D

Technical
Information

E

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System code > B22

Grade selection > B20

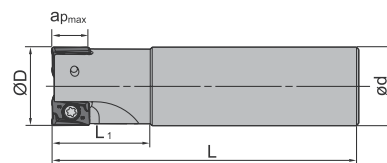
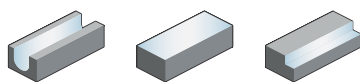
Technical info > B447

Cutting data > B216



Square shoulder milling

EMP13 Kr: 90°



Straight shank

Article	*	Stock	Dimensions [mm]					Teeth	kg	Inserts
			ØD	ød	L ₁	L	a _{p max}			
EMP13-025-G25-AN11-02	●		25	25	32	100	11.2	2	0.31	ANGX1105
EMP13-032-G32-AN11-03	●		32	32	40	115	11.2	3	0.61	
EMP13-040-G32-AN11-04	●		40	32	40	125	11.2	4	0.75	
EMP13-032-G32-AN15-02	●		32	32	40	125	14.5	2	0.66	ANGX1506
EMP13-040-G32-AN15-03	●		40	32	40	125	14.5	3	0.76	

● Ex stock ○ On demand

* With internal cooling

Spare parts				
	Insert	ANGX1105	ANGX1506	
	ØD	25-40	25-40	
	Screw (insert)	I60M3*9	I60M4*12	
	Wrench (insert)	WT09IS	WT15IS	

System code > B22

Grade selection > B20

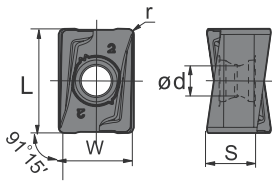
Technical info > B447

Cutting data > B216

Milling inserts

-  Ideal machining conditions
-  Normal machining conditions
-  Unfavourable machining conditions

ANGX	L	S	d
11 05	11.85	5.7	3.5
15 06	15.43	7.3	4.4

AN** milling insert				HC ¹ (CVD)								HC ¹ (PVD)								HT	HC ²	HW				
			P																							
			M																							
			K																							
			N																							
			S																							
			H																							
ISO			W	r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201	
	ANGX110504PNR-GM	8.4	0.4																							
	ANGX110508PNR-GM	8.4	0.8																							
	ANGX150608PNR-GM	11	0.8																							
	ANGX150616PNR-GM	11	1.6																							
	ANGX150620PNR-GM	11	2																							
	ANGX110504PNR-LH	8.4	0.4																							
	ANGX150608PNR-LH	11	0.8																							

● Ex stock ○ On demand

HC¹ Coated carbide
HT Uncoated cermet
HC² Coated cermet
HW Uncoated carbide

A

Turning

B

Milling

C

Drilling

D

Technical
Information

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System code > B22

Grade selection > B20

Technical info > B447

Cutting data > B216

