

New **EMP13**



EMP13 *Kr: 90°*

New square shoulder mill generation

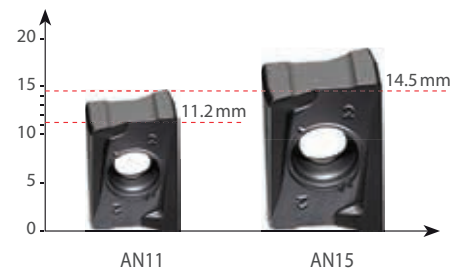
- Specially developed cutting edges for high-quality 90° square shoulder milling.
- Extra thick inserts for better stability.
- Positive, smooth cutting geometry for reduced cutting forces.
- Polished, high-precision geometry for aluminium alloys, steel and cast iron.

Insert grades

YBC302 CVD P15–P35	YBG253 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

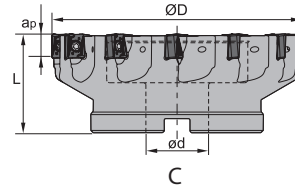
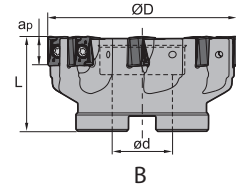
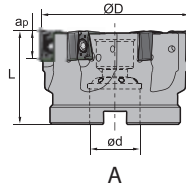
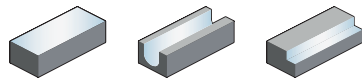


Chip breaker -LH for aluminium



Square shoulder milling

EMP13 Kr: 90°



Article	*	Stock	Dimensions [mm]				Teeth	Coupling	kg	Inserts	
			ØD	ød	L	a _{p 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		
EMP13-050-A22-AN15-04		●	50	22	40	14.5	4	A	0.26		ANGX1506
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

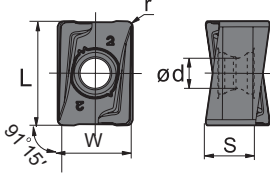


Spare parts		ANGX1105 40-160	ANGX1506 50-200
	Screw (insert)	I60M3*9	I60M4*12
	Wrench (insert)	WT09IS	WT15IS



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

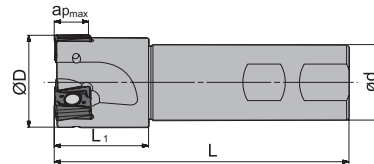
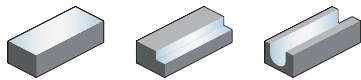
AN** milling insert		HC ¹ (CVD)						HC ¹ (PVD)						HT	HC ²	HW									
		P	M	K	N	S	H	P	M	K	N	S	H												
ISO		W	r	YBC302	YBC301	YBC401	YBM253	YBM251	YBM351	YBD152	YBD252	YBG101	YBG102	YB9320	YBG205	YBG202	YBG212	YBG302	YBG152	YBG252	YNG151	YNG151C	YD101	YD201	
	ANGX110504PNR-GM	8.4	0.4				●		●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

Square shoulder milling

EMP13 Kr: 90°



Weldon shank

Article	*	Stock	Dimensions [mm]					Teeth	kg	Inserts
			$\varnothing D$	$\varnothing d$	L_1	L	a_{pmax}			
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

Spare parts

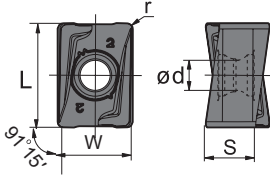


	Insert	ANGX1105	ANGX1506
	$\varnothing D$	25-40	25-40
Screw (insert)		I60M3*9	I60M4*12
Wrench (insert)		WT09IS	WT15IS



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

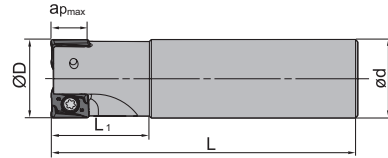
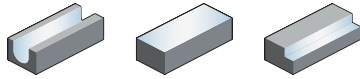
HC¹ Coated carbide
 HT Uncoated cermet
 HC² Coated cermet
 HW Uncoated carbide

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




System code > B22

Grade selection > B20

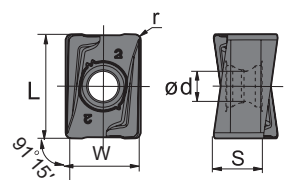











































Technical info > B447

Cutting data > B216

Milling inserts

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ANGX	L	S	d
11 05	11.85	5.7	3.5
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AN** milling insert			HC ¹ (CVD)						HC ¹ (PVD)				HT	HC ²	HW									
	P																							
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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																				●	

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