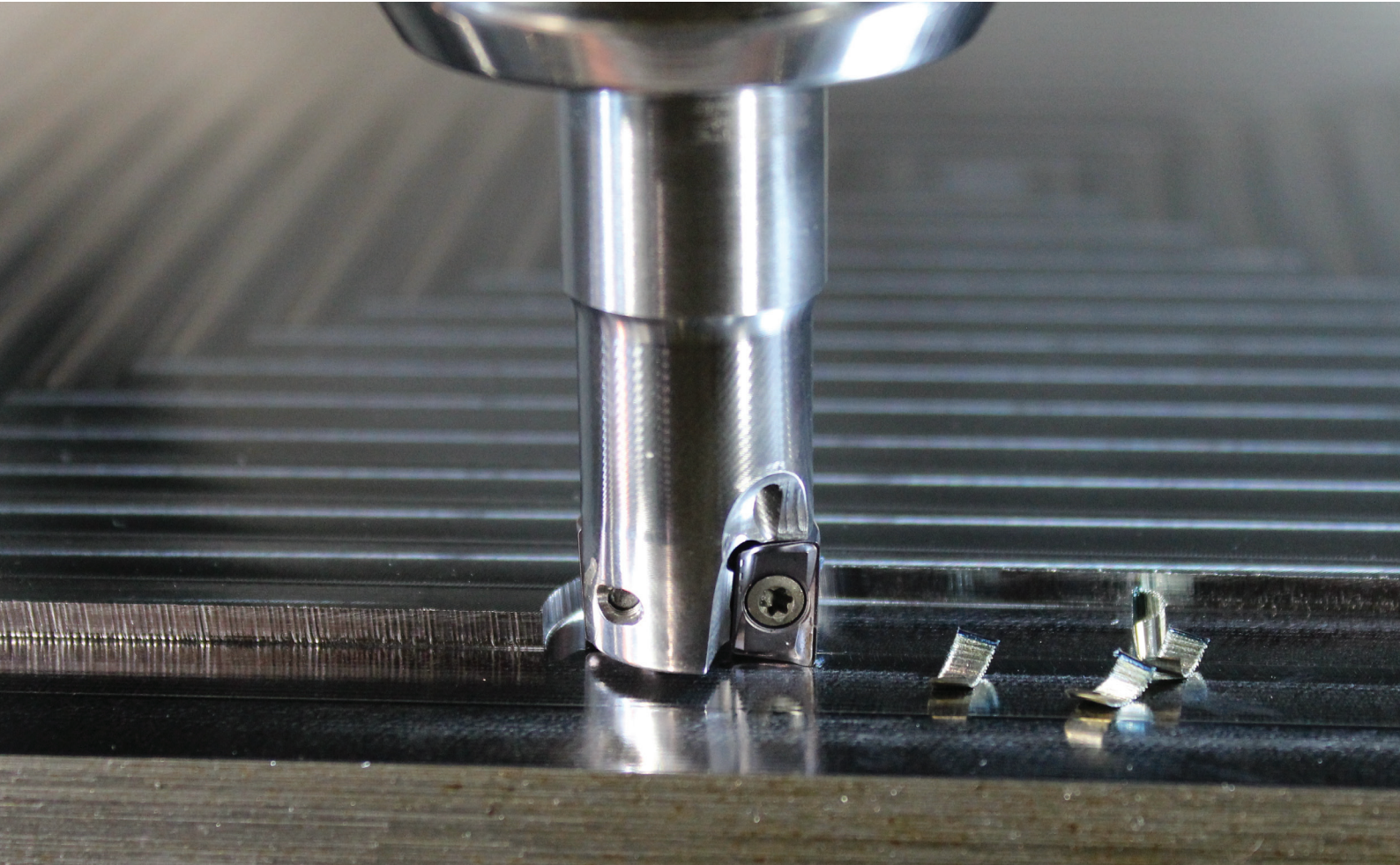




# PLUS

## 17190 | ANHX 1004..

Expansion of our line PLUS 18190  
New toolholders and inserts



## Cutters

- Stable and powerful machining.
- Available in regular and fine pitch cutters.
- Excellent cutting performance with exceptionally economical.
- Smaller diameters tools: 14 mm end mills, 40 mm face mills.

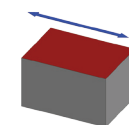
## Inserts

- Double-sided insert with 4 cutting edges.
- High rake angle chip breaker.
- Maximum depth of cut 9 mm.

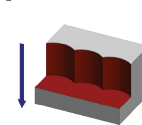
## Specifications

- Geometry: 90° milling operations.
- Cutter diameters:
  - Weldon Shank (W): Ø14 till Ø40.
  - Arbor Mounting (A): Ø40 till Ø100.
- Workpiece materials: Steels, stainless steel and cast iron.

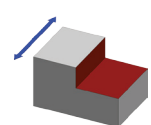
## Applications



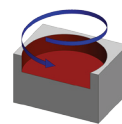
Facing



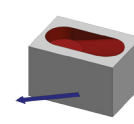
Plunging



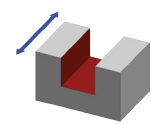
Shouldering



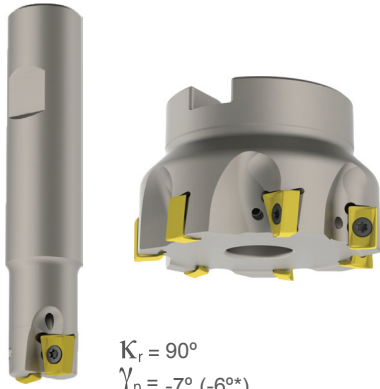
Helical Interpolation



Ramp Down

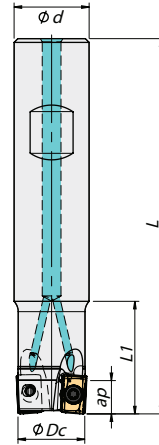


Slotting

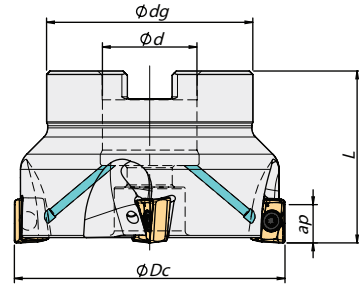


$K_r = 90^\circ$   
 $\gamma_p = -7^\circ (-6^\circ^*)$

### Weldon Shank

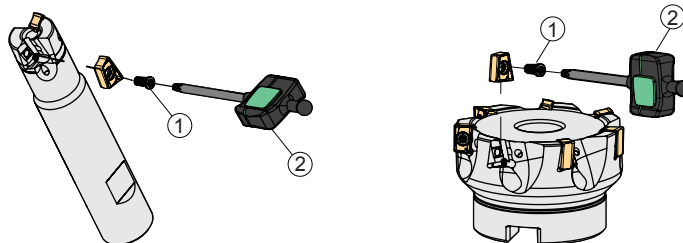


### Arbor Mounting



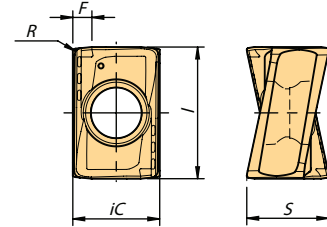
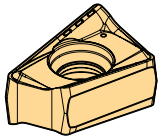
	Order Code	Reference		Dimensions (mm)				Specifications			Stock	
				$\phi Dc$	$\phi d/M$	$\phi Dg$	L	L1	Style	ap (max)		Kg
Weldon Shank	181075000	014W17190-01-06-016090*	1	14	16	-	90	23	-	-	0,118	
	181075100	016W17190-01-06-016090*	1	16	16	-	90	25	-	-	0,123	
	181075200	018W17190-02-06-016090*	2	18	16	-	90	23	-	-	0,125	
	181071400	020W17190-02-06-020100*	2	20	20	-	100	30	-	-	0,210	
	181071500	020W17190-03-06-020100*	3	20	20	-	100	30	-	-	0,206	
	181074400	025W17190-02-06-025115*	2	25	25	-	115	35	-	9,0	0,391	
	181074500	025W17190-03-06-025115*	3	25	25	-	115	35	-	-	0,387	
	181074600	032W17190-03-06-032125*	3	32	32	-	125	40	-	-	0,701	
	181074700	032W17190-04-06-032125*	4	32	32	-	125	40	-	-	0,698	
	181074800	040W17190-04-07-032130	4	40	32	-	130	40	-	-	0,780	
181074900	040W17190-05-07-032130	5	40	32	-	130	40	-	-	0,777		
Arbor Mounting	181075300	040A17190-04-07-016040	4	40	16	32	40	-	A	-	0,209	
	181075400	040A17190-05-07-016040	5	40	16	32	40	-	A	-	0,207	
	181075500	050A17190-05-07-022040	5	50	22	42	40	-	A	-	0,345	
	181075600	050A17190-07-07-022040	7	50	22	42	40	-	A	-	0,335	
	181075700	063A17190-07-07-022040	7	63	22	52	40	-	A	9,0	0,552	
	181075800	063A17190-09-07-022040	9	63	22	52	40	-	A	-	0,541	
	181075900	080A17190-08-07-027050	8	80	27	60	50	-	B	-	1,005	
	181076000	080A17190-10-07-027050	10	80	27	60	50	-	B	-	0,993	
	181076100	100A17190-09-07-032050	9	100	32	80	50	-	B	-	1,803	
	181076200	100A17190-12-07-032050	12	100	32	80	50	-	B	-	1,784	

## Screws & Keys



Item	1	2		Order Separately	
		Insert Screw	Key (Torx)	Torque Value	Screw
W17190 – 14 - 40	P0300800	XT09	3,0	-	-
A17190 – 40 - 63	P0300800	XT09	3,0	-	-
A17190 – 80	P0300800	XT09	3,0	J0123510	SD6368-12
A17190 – 100	P0300800	XT09	3,0	J0164110	SD6368-16

## ANHX 1004.. PNR-LP Inserts



(1) Geometry	(2) Grade Code	P					M		K					Dimensions (mm)				
		54	68	66	G1	G4	68	66	54	68	66	G1	G4	iC	S	I	R	F
1111652	ANHX 100405 PNR-LP	⊗	⊗	⊗	⊙	⊙	⊗	⊗	⊗	⊗	⊗	⊗	⊗	6,6	6,2	10	0,5	1,0
1111908	ANHX 100412 PNR-LP	⊗	⊗	⊗	⊙	⊙	⊗	⊗	⊗	⊗	⊗	⊗	⊗	6,6	6,2	10	1,2	1,0

⊗ Stock items / Itens de stock    ⊙ Available under request / Disponibilidade sob consulta / Disponible bajo consulta  
 Order code = (1) Geometry Code + (2) Grade Code

## Chip Breaker

Chip Breaker	Cutting Edge	Features
Geometry <b>LP</b> Light machining of steels		Positive top rake angle to promote a good chip flow and reduce power consumption.

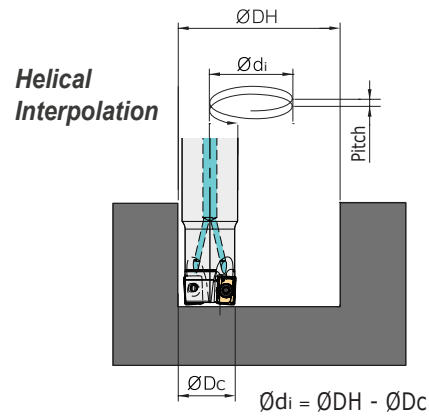
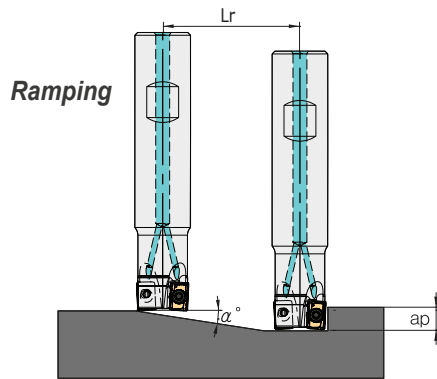
## Rec. Cutting Conditions

ISO	HB (Brinell)	Vc (m/min)					fz (mm/t)
		PH6910	PH6920	PH6930	PH7910	PH7920	
P	Unalloyed Steel 125 - 220	180 - 280	170 - 250	150 - 200	160 - 320	160 - 280	0,10 - 0,20
	Low-Alloyed Steel 220 - 280	170 - 230	160 - 210	140 - 170	-	-	0,10 - 0,20
	High-Alloyed Steel 280 - 380	150 - 190	140 - 190	100 - 150	-	-	0,10 - 0,20
M	Stainless Steel 200 - 330	-	120 - 200	100 - 180	-	-	0,10 - 0,25
K	Cast Iron 130 - 250	160 - 330	150 - 310	140 - 280	170 - 340	150 - 320	0,10 - 0,22

## Grades

Grades	Information
PH6910	PVD coated carbide with micro-grain substrate for light milling of steels or for hardened steels. Excellent for cast iron and high temperature alloys.
PH6920	Coated carbide grade for high cutting speed applications, excellent solution to massive production with stable conditions.
PH6930	Micro-grain carbide grade, suitable for applications with instability conditions. Excellent solution for medium cutting speed applications.
PH7910	PVD AlTiN coating nanocomposite with micro-grain substrate for milling cast iron and construction steel in stable and dry conditions.
PH7920	PVD AlTiN coating nanocomposite with micro-grain substrate for milling cast iron and construction steel on dry conditions.

## Ramping and helical Interpolation



Ø Dc	Ramping			Helical Interpolation		
	Max. Ramp $\alpha^\circ$	Max. ap	Min. Lr	Ø DH (min)	Ø DH (max)	Max. Pitch/Rev.
14	5,0	9	103	17,6	-	1,0
				-	28	3,8
16	4,5	9	114	21,6	-	1,4
				-	32	4,0
18	3,6	9	143	25,6	-	1,5
				-	36	3,6
20	3,0	9	172	29,6	-	1,6
				-	40	3,3
25	2,0	9	258	39,6	-	1,6
				-	50	2,7
32	1,4	9	368	53,6	-	1,7
				-	64	2,5
40	1,1	9	469	69,6	-	1,8
				-	80	2,4
50	1,0	9	516	89,6	-	2,2
				-	100	2,7
63	0,6	9	859	115,6	-	1,7
				-	126	2,1
80	0,5	9	1031	149,6	-	1,9
				-	160	2,2
100	0,4	9	1289	189,6	-	2,0
				-	200	2,2