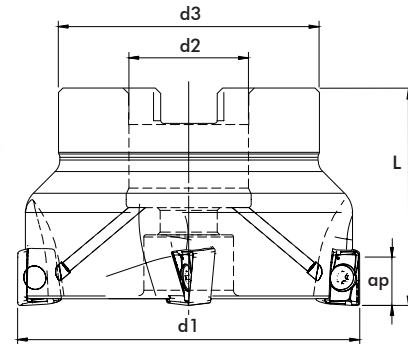
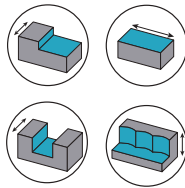


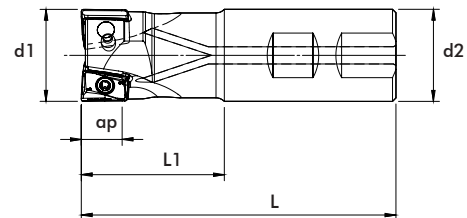
FRESADO
MILLING



AN10






Ref.	Plaquita Inserts	d1	d2	d3	L	z	ap	Complementos Spare parts
AN10-040A04R	ANHX 1004...	40	16	32	40	4	9	Tornillo de inserción Insert screw 0300800
AN10-040A05R	ANHX 1004...	40	16	32	40	5	9	
AN10-050A05R	ANHX 1004...	50	22	42	40	5	9	
AN10-050A07R	ANHX 1004...	50	22	42	40	7	9	
AN10-063A07R	ANHX 1004...	63	22	52	40	7	9	
AN10-063A09R	ANHX 1004...	63	22	52	40	9	9	
AN10-080A08R	ANHX 1004...	80	27	60	50	8	9	
AN10-080A10R	ANHX 1004...	80	27	60	50	10	9	
AN10-100A09R	ANHX 1004...	100	32	80	50	9	9	
AN10-100A12R	ANHX 1004...	100	32	80	50	12	9	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AN10-014M01R	ANHX 1004...	14	16	90	23	1	9	Tornillo de inserción Insert screw 0300800
AN10-016M02R	ANHX 1004...	16	16	90	25	2	9	
AN10-018M02R	ANHX 1004...	18	16	90	23	2	9	
AN10-020M02R	ANHX 1004...	20	20	100	30	2	9	
AN10-020M03R	ANHX 1004...	20	20	100	30	3	9	
AN10-025M02R	ANHX 1004...	25	25	115	35	2	9	
AN10-025M03R	ANHX 1004...	25	25	115	35	3	9	
AN10-032M03R	ANHX 1004...	32	32	125	40	3	9	
AN10-032M04R	ANHX 1004...	32	32	125	40	4	9	
AN10-032M04R	ANHX 1004...	32	32	130	40	4	9	
AN10-032M05R	ANHX 1004...	32	32	130	40	5	9	

ANHX10

	Ref.	Material					
		P	M	K	N	S	H
	ANHX 100405 PNR-LP KS2100	●		●			
	ANHX 100405 PNR-LP KS3100	●		●			
	ANHX 100408 PNR-LP KS2100	●		●			
	ANHX 100408 PNR-LP KS3100	●		●			
	ANHX 100412 PNR-LP KS2100	●		●			
	ANHX 100412 PNR-LP KS3100	●		●			
	ANHX 100405 PNER-LM KS2100	●					
	ANHX 100405 PNER-LM KS3100	●	●	●		●	
	ANHX 100405 PNER-LM KS4100	●	●	●		●	
	ANHX 100408 PNER-LM KS2100	●					
	ANHX 100408 PNER-LM KS3100	●	●	●		●	
	ANHX 100412 PNER-LM KS2100	●					
	ANHX 100412 PNER-LM KS3100	●	●	●		●	
	ANHX 100412 PNER-LM KS4100	●	●	●		●	
	ANHX 100405 PNFR-LN H10T				●		
	ANHX 100405 PNFR-LN H10T				●		

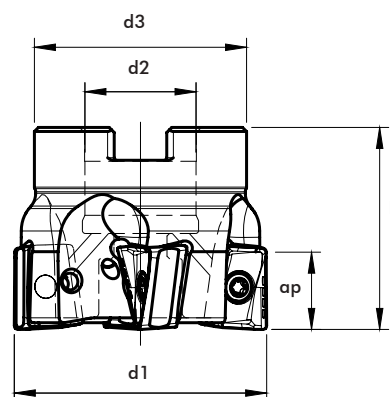
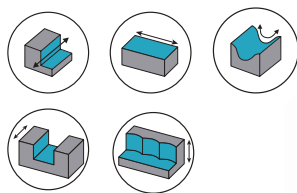
Condiciones de corte

Recommended cutting conditions

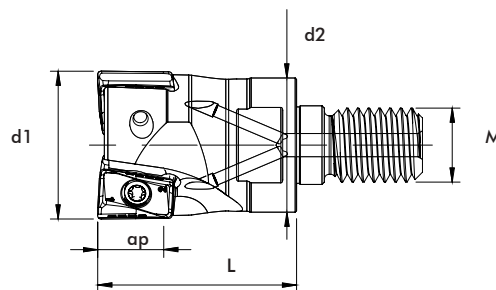
MATERIAL	Vc (m/min)				fz		
	KS2100	KS3100	KS4100	H10T	ANHX... LP	ANHX... LM	ANHX... LN
Acero sin aleación Unlloyed steel (HB125-220)	180-250	160-200	140-170	-	0,10-0,20	0,08-0,20	-
Acero de baja aleación Low-alloyed steel (HB220-280)	170-210	150-180	130-160	-	0,10-0,20	0,08-0,15	-
Acero de alta aleación High-alloyed steel (HB280-380)	160-200	130-160	110-140	-	0,10-0,15	0,08-0,15	-
Ferrítico/Martensítico Ferritic/Martensitic (HB200-330)	-	120-200	90-140	-	-	0,08-0,20	-
Austenítico Austenitic (HB 200-330)	-	100-190	80-120	-	-	0,08-0,15	-
Austenítico/Férrico (Dúplex) Austenitic-ferretic (Duplex) (HB230-260)	-	90-120	70-100	-	-	0,08-0,15	-
Hierro fundido maleable Malleable cast iron (HB130-230)	170-300	160-180	130-250	-	0,10-0,25	0,08-0,20	-
Fundición de hierro gris Grey cast iron (HB160-250)	150-250	140-240	110-220	-	0,10-0,25	0,08-0,20	-
Fundición de hierro nodular Nodular cast iron (HB180-245)	90-210	90-200	80-170	-	0,10-0,20	0,08-0,15	-
Aluminio Aluminium and non ferrous (HB30-130)	-	-	-	350-1200	-	-	0,10-0,20
Superalaciones resistentes al calor Heat resistant super alloys (HB200-320)	-	35-70	30-60	-	-	0,08-0,10	-

FRESADO
MILLING

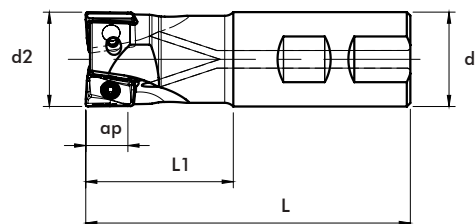
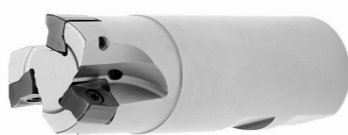
AN12



Ref.	Plaquita Inserts	d1	d2	d3	L	z	ap	Complementos Spare parts
AN12-040A04R	ANH1206..	40	16	32	40	4	11	Tornillo de inserción Insert screw 0350904
AN12-050A05R	ANH1206..	50	22	42	40	5	11	
AN12-050A06R	ANH1206..	50	22	42	40	6	11	
AN12-063A05R	ANH1206..	63	22	52	40	5	11	
AN12-063A07R	ANH1206..	63	22	52	40	7	11	
AN12-080A08R	ANH1206..	80	27	60	50	8	11	
AN12-100A12R	ANH1206...	100	32	80	50	12	11	

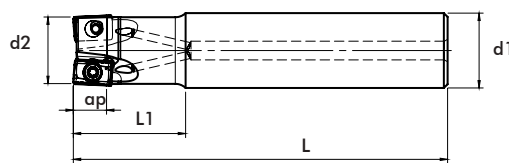
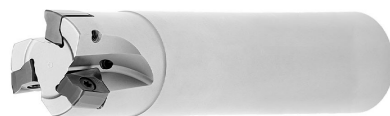


Ref.	Plaquita Inserts	d1	d2	L	M	z	ap	Complementos Spare parts
AN12-025R02R	ANH1206..	25	21	35	M12	2	11	Tornillo de inserción Insert screw 0350904
AN12-032R03R	ANH1206..	32	29	43	M16	3	11	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AN12-025M02R	ANH1206..	25	25	110	35	2	11	Tornillo de inserción Insert screw 0350904
AN12-032M03R	ANH1206..	32	32	150	35	3	11	
AN12-040M04R	ANH1206..	40	32	150	40	4	11	

AN12



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AN12-026M02R	ANH1206..	26	25	200	40	2	11	Tornillo de inserción Insert screw 0350904
AN12-033M03R	ANH1206..	33	32	250	40	3	11	

ANH12

Ref.	Material					
	P	M	K	N	S	H
ANH120604 PNER-LS KS2100	●		●			
ANH120604 PNER-LS KS3100	●	●			●	
ANH120604 PNER-LS KS4100	●	●	●		●	
ANH120608 PNER-LS KS2100	●		●			
ANH120608 PNER-LS KS3100	●	●			●	
ANH120608 PNER-LS KS4100	●	●	●		●	
ANH120616 PNER-LS KS2100	●		●			
ANH120616 PNER-LS KS3100	●	●			●	
ANH120616 PNER-LS KS4100	●	●	●		●	
ANH120604 PNSR-MP KS2100	●		●			
ANH120604 PNSR-MP KS4100	●		●		●	
ANH120608 PNSR-MP KS2100	●		●			
ANH120608 PNSR-MP KS4100	●		●		●	
ANH120616 PNSR-MP KS2100	●		●			
ANH120616 PNSR-MP KS4100	●		●		●	

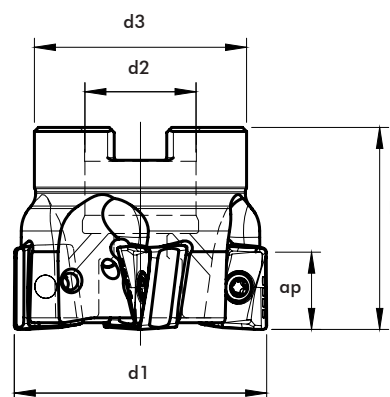
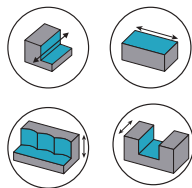
Condiciones de corte

Recommended cutting conditions

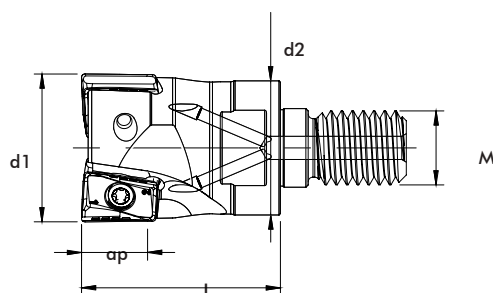
MATERIAL	Vc (m/min)			fz	
	KS2100	KS3100	KS4100	ANH12... LS	ANH12... MP
Acero sin aleación Unloyed steel (HB125-220)	150-230	150-180	130-160	0,10-0,20	0,10-0,30
Acero de baja aleación Low-alloyed steel (HB220-280)	140-220	140-170	120-150	0,10-0,20	0,10-0,25
Acero de alta aleación High-alloyed steel (HB280-380)	130-180	120-150	100-130	0,10-0,15	0,10-0,20
Ferrítico/Martensítico Ferritic/Martensitic (HB200-330)	-	90-150	100-120	0,10-0,20	-
Austenítico Austenitic (HB 200-330)	-	80-130	80-110	0,10-0,15	-
Austenico/Férretico (Dúplex) Austenitic-ferretic (Duplex) (HB230-260)	-	970-100	70-100	0,10-0,15	-
Hierro fundido maleable Malleable cast iron (HB130-230)	150-280	-	130-250	0,10-0,25	0,10-0,30
Fundición de hierro gris Grey cast iron (HB160-250)	130-230	-	100-200	0,10-0,25	0,10-0,30
Fundición de hierro nodular Nodular cast iron (HB180-245)	80-190	-	50-150	0,10-0,20	0,10-0,25
Aluminio Aluminium and non ferrous (HB30-130)	-	-	-	-	-
Superaloaciones resistentes al calor Heat resistant super alloys (HB200-320)	-	25-100	20-80	0,07-0,10	-

FRESADO
MILLING

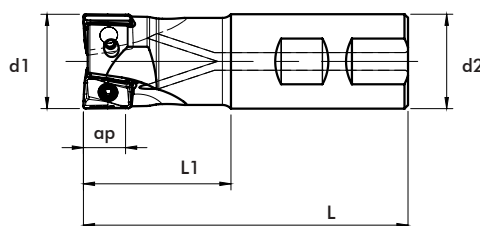
AN12



Ref.	Plaquita Inserts	d1	d2	d3	L	z	ap	Complementos Spare parts
AN16-050A03R	ANH1607..	50	22	42	40	3	15	Tornillo de inserción Insert screw 0350904
AN16-050A04R	ANH1607..	50	22	42	40	4	15	
AN16-063A04R	ANH1607..	63	22	52	40	4	15	
AN16-063A06R	ANH1607..	63	22	52	40	6	15	
AN16-080A05R	ANH1607..	80	27	60	50	5	15	
AN16-080A07R	ANH1607..	80	27	60	50	7	15	
AN16-100A05R	ANH1607..	100	32	80	50	5	15	
AN16-100A08R	ANH1607..	100	32	80	50	8	15	
AN16-125A07R	ANH1607..	125	40	90	63	7	15	
AN16-125A10R	ANH1607..	125	40	90	63	10	15	
AN16-160A08R	ANH1607..	160	40	110	63	8	15	
AN16-160A12R	ANH1607..	160	40	110	63	12	15	






Ref.	Plaquita Inserts	d1	d2	L	M	z	ap	Complementos Spare parts
AN16-032R02R	ANH1607..	32	29	43	M16	2	15	Tornillo de inserción Insert screw 0350904
AN16-040R03R	ANH1607..	40	29	43	M16	3	15	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AN16-032M02R	ANH1607..	32	32	110	50	2	15	Tornillo de inserción Insert screw 0350904
AN16-040M03R	ANH1607..	40	32	115	40	3	15	

ANHX16

	Ref.	Material						
		P	M	K	N	S	H	
	ANHX 160708 PNR-LP KS2100	●		●				
	ANHX 160708 PNR-LP KS3100	●		●				
	ANHX 160712 PNR-LP KS2100	●		●				
	ANHX 160712 PNR-LP KS3100	●	●	●				
	ANHX 160708 PNER-MP KS2100	●		●				
	ANHX 160708 PNER-MP KS3100	●	●	●				
	ANHX 160712 PNER-MP KS2100	●		●				
	ANHX 160712 PNER-MP KS3100	●	●	●				
	ANHX 160708 PNFR-LN H10T				●			
	ANHX 160712 PNFR-LN H10T				●			

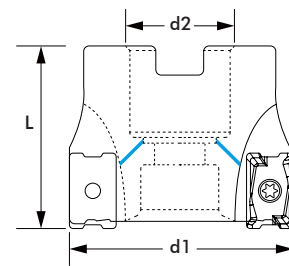
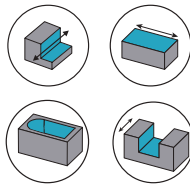
Condiciones de corte

Recommended cutting conditions

MATERIAL	Vc (m/min)			fz		
	KS2100	KS3100	H10T	ANHX 16... LP	ANHX 16... MP	ANHX 16... LN
Acero sin aleación Unloyed steel (HB125-220)	180-250	160-220	-	0,10-0,22	0,10-0,30	-
Acero de baja aleación Low-alloyed steel (HB220-280)	170-210	150-180	-	0,10-0,22	0,10-0,25	-
Acero de alta aleación High-alloyed steel (HB280-380)	160-200	130-160	-	0,10-0,20	0,10-0,20	-
Ferrítico/Martensítico Ferritic/Martensitic (HB200-330)	-	-	-	-	-	-
Austenítico Austenitic (HB 200-330)	-	-	-	-	-	-
Austenítico/Férrico (Dúplex) Austenitic-ferretic (Duplex) (HB230-260)	-	-	-	-	-	-
Hierro fundido maleable Malleable cast iron (HB130-230)	170-300	160-280	-	0,10-0,25	0,10-0,30	-
Fundición de hierro gris Grey cast iron (HB160-250)	150-250	140-240	-	0,10-0,25	0,10-0,30	-
Fundición de hierro nodular Nodular cast iron (HB180-245)	90-210	90-200	-	0,10-0,20	0,10-0,25	-
Aluminio Aluminium and non ferrous (HB30-130)	-	-	300-120	-	-	0,10-0,40
Superalaciones resistentes al calor Heat resistant super alloys (HB200-320)	-	-	-	-	-	-

FRESADO
MILLING

AN15



Ref.	Plaquita Inserts	d1	d2	L	z
AN15-040A04R	ANMX15T6..	40	16	40	4
AN15-050A05R	ANMX15T6..	50	22	40	5
AN15-063A06R	ANMX15T6..	63	22	40	6
AN15-080A07R	ANMX15T6..	80	27	50	7
AN15-100A08R	ANMX15T6..	100	32	50	8

Complementos Spare parts	
Tornillo de inserción Insert screw	4006 

ANMX15

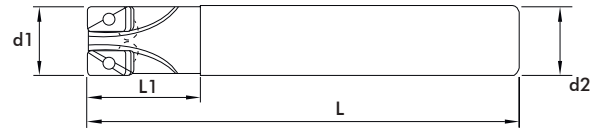
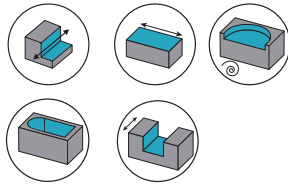
Ref.	Medidas Dimensiones (mm)					
	P	M	K	N	S	H
ANMX15T608-MG KS4100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

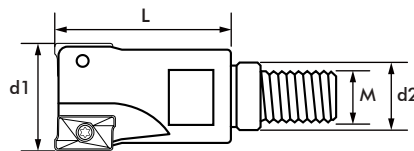
MATERIAL	Vc	fz	ap
Acero al carbono Carbon steel	110 ~ 260	0.09 ~ 0.27	0.3 ~ 15
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.3 ~ 15
Hierro fundido Cast iron	110 ~ 260	0.09 ~ 0.27	0.3 ~ 15
Aleación de alta temperatura High temperature Alloy	40 ~ 70	0.07 ~ 0.14	0.3 ~ 15

AP10/AP16



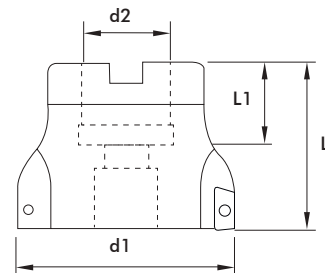
Ref.	Plaquita Inserts	d1	d2	L	L1	z
AP10-016M02R	APKT1003.. APHT1003..	16	16	25	120	2
AP10-020M02R	APKT1003.. APHT1003..	20	20	30	120	2
AP10-025M04R	APKT1003.. APHT1003..	25	25	35	150	4
AP16-025M02R	APKT1604.. APHT1604..	25	25	40	150	2
AP16-032M03R	APKT1604.. APHT1604..	32	32	46	150	3

Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4004



Ref.	Plaquita Inserts	d1	d2	L	M	z
AP10-016R02R	APKT1003.. APHT1003..	16	8,5	26	M8	2
AP10-025R04R	APKT1003.. APHT1003..	25	12,5	38	M12	4

Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4004








Ref.	Plaquita Inserts	d1	d2	L	L1	z
AP10-050A06R	APKT1003.. APHT1003..	50	22	40	20	6
AP10-063A06R	APKT1003.. APHT1003..	63	22	45	21	6
AP10-080A07R	APKT1003.. APHT1003..	80	27	50	23	7
AP16-050A04R	APKT1604.. APHT1604..	50	22	50	23	4
AP16-063A05R	APKT1604.. APHT1604..	63	22	50	23	5
AP16-080A06RL	APKT1604.. APHT1604..	80	27	55	32	6
AP16-100A08R	APKT1604.. APHT1604..	100	32	55	32	8

Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4004

FRESADO
MILLING

APKT10/16

	Ref.	Material					
		P	M	K	N	S	H
	APHT100308PDFR-AL H10T				●		
	APHT160408PDER-AL H10T				●		
	APKT100304PDER-SG KS2100	●	●	●			●
	APKT100304PDER-MG KS2100	●	●	●			●
	APKT100304PDER-MG KS4100	●	●	●		●	
	APKT100308PDER-MG KS2100	●	●	●			●
	APKT100308PDER-MG KS4100	●	●	●		●	
	APKT160408PDER-MG KS2100	●	●	●			●
	APKT160408PDER-RG KS2100	●	●	●			●
	APKT160408PDER-RG KS4100	●	●	●		●	
	APKT160408PDER-MG KS2100	●	●	●			●
	APKT160408PDER-MG KS4100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

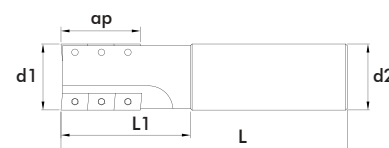
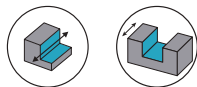
APKT1003

MATERIAL	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.3 ~ 4.0
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	0.3 ~ 6.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.3 ~ 4.0
Acero endurecido Hardened steel	50 ~ 100	0.07 ~ 0.15	0.3 ~ 4.0

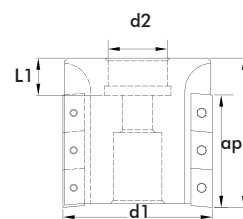
APKT1604/APHT1604/APHT1003

MATERIAL	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Inoxidable Stainless	100 ~ 180	0.10 ~ 0.22	0.5 ~ 7.0
Hierro fundido Cast iron	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
Aluminio Aluminum Alloy	300 ~ 1000	0.18 ~ 0.40	0.3 ~ 11.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.10 ~ 0.18	0.5 ~ 7.0
Acero endurecido Hardened steel	50 ~ 100	0.10 ~ 0.20	0.5 ~ 7.0

AP10/16



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AP10-020M01R	APKT1003.. APHT1003..	20	20	107	42	1x5	28	Tornillo de inserción Insert screw 2515
AP10-025M02R	APKT1003.. APHT1003..	25	25	125	50	2x4	35	
AP10-032M03R	APKT1003.. APHT1003..	32	32	135	60	3x5	44	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AP16-050A03R	APKT1604.. APHT1604..	50	22	69	21	3x3	42	Tornillo de inserción Insert screw 4023

APKT10/16

	Ref.	Material					
		P	M	K	N	S	H
	APHT100308PDR-AL H10T APHT160408PDR-AL H10T				●		
	APKT100304PDR-SG KS2100	●	●	●			●
	APKT100304PDR-MG KS2100 APKT100304PDR-MG KS4100 APKT100308PDR-MG KS2100 APKT100308PDR-MG KS4100	●	●	●		●	●
	APKT160408PDR-MG KS2100 APKT160408PDR-RG KS2100 APKT160408PDR-RG KS4100	●	●	●		●	●
	APKT160408PDR-MG KS2100 APKT160408PDR-MG KS4100	●	●	●		●	●

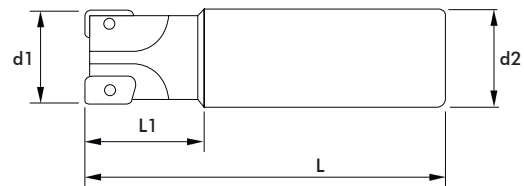
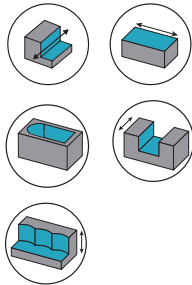
Condiciones de corte

Recommended cutting conditions

MATERIAL	APKT1003		APKT1604/APHT1604/APHT1003	
	Vc	fz	Vc	fz
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	100 ~ 180	0.10 ~ 0.22
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Aluminio Aluminum Alloy	-	-	300 ~ 1000	0.10 ~ 0.40
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	40 ~ 100	0.10 ~ 0.18

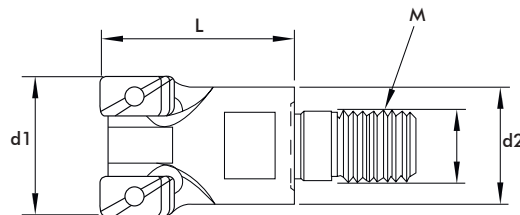
FRESADO
MILLING

AP11/16



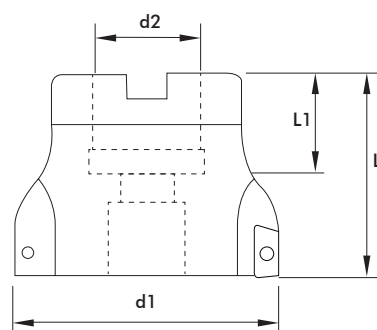
Ref.	Plaquita Inserts	d1	d2	L	L1	z
AP11-016M02R	APMT1135..	16	16	100	25	2
AP11-016M02RL	APMT1135..	16	16	160	35	2
AP11-020M02R	APMT1135..	20	20	150	35	2
AP11-020M03R	APMT1135..	20	20	100	30	3
AP11-020M03RL	APMT1135..	20	20	150	35	3
AP16-025M02R	APMT1604..	25	25	150	40	2
AP16-032M03R	APMT1604..	32	32	150	45	3
AP16-032M03RL	APMT1604..	32	32	200	80	3

Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4023



Ref.	Plaquita Inserts	d1	d2	L	M	z
AP11-016R02R	APMT1135..	16	8,5	26	M8	2
AP11-020R02R	APMT1135..	20	10,5	30	M10	2
AP11-025R04R	APMT1135..	25	12,5	35	M12	4
AP11-032R05R	APMT1135..	32	17	40	M16	5
AM16-025R02R	APMT1604..	25	12,5	35	M12	2
AM16-032R03R	APMT1604..	32	17	40	M16	3



Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4023



Ref.	Plaquita Inserts	d1	d2	L	L1	z
AP11-050A06R	APMT1135..	50	25,4	45	18	6
AP11-063A06R	APMT1135..	63	22	45	22	7
AP11-080A07R	APMT1135..	63	25,4	45	22	7
AM16-063A05RL	APMT1604..	50	22	45	22	5
AM16-080A06RL	APMT1604..	63	22	45	22	6
AM16-100A08R	APMT1604..	80	27	50	26	7

Complementos Spare parts	
Tornillo de inserción Insert screw	2515 4023

APMT11/16

	Ref.	Material						
		P	M	K	N	S	H	
	APMT113508PDER-MG KS2100	●	●	●			●	
	APMT113508PDER-MG KS4100	●	●	●		●		
	APMT113516PDER-MG KS4100	●	●	●		●		
	APMT113508PDER-RG KS2100	●	●	●			●	
	APMT113508PDER-RG KS4100	●	●	●		●		
	APMT113508PDER-HG KS4100	●	●	●		●		
	APMT160408PDER-MG KS2100	●	●	●			●	
	APMT160408PDER-MG KS4100	●	●	●		●		
	APMT160416PDER-MG KS4100	●	●	●		●		
	APMT160408PDER-RG KS2100	●	●	●			●	
	APMT160408PDER-RG KS4100	●	●	●		●		
	APMT160408PDER-RG KS2100	●	●	●			●	
	APMT160408PDER-RG KS4100	●	●	●		●		

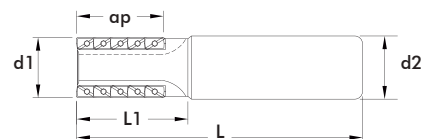
Condiciones de corte

Recommended cutting conditions

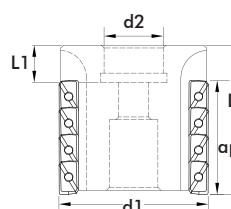
MATERIAL	APMT1135			APMT1604		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	0.5 ~ 7.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.5 ~ 4.0	100 ~ 180	0.10 ~ 0.22	0.5 ~ 7.0
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	0.5 ~ 6.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Aluminio Aluminum Alloy	-	-	-	300 ~ 1000	0.10 ~ 0.40	0.5 ~ 11.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.5 ~ 4.0	40 ~ 100	0.10 ~ 0.22	0.5 ~ 7.0
Acero endurecido Hardened steel	50 ~ 100	0.07 ~ 0.15	0.5 ~ 4.0	50 ~ 100	0.10 ~ 0.22	0.5 ~ 7.0

FRESADO
MILLING

AP11/16



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AP11-020M01R	APMT1135..	20	20	107	42	1x5	28	Tornillo de inserción 20515 Insert screw 4023
AP11-025M02R	APMT1135..	25	25	125	50	2x4	35	
AP11-032M03R	APMT1135..	32	32	135	60	3x5	44	
AP11-040M03R	APMT1135..	40	32	175	94	3x8	72	
AP11-032M02R	APMT1604..	32	32	135	55	2x3	42	
AP11-040M02R	APMT1604..	40	32	175	94	2x5	68	
AP11-040M03RL	APMT1604..	40	32	175	94	3x5	68	
AP11-050M03R	APMT1604..	50	50,8	224	128	3x8	100	
AP11-050M03RL	APMT1604..	50	50,8	284	188	3x12	158	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts
AM16-050A03R	APMT1604..	50	22	69	21	3x3	42	Tornillo de inserción 4023 Insert screw

APMT11/16

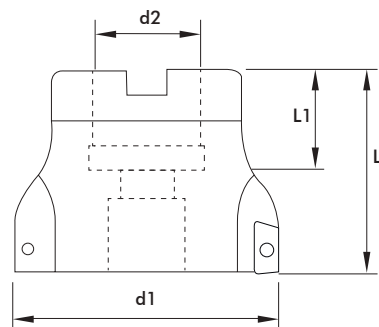
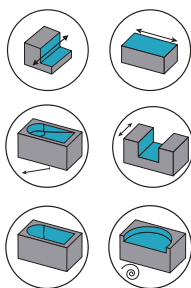
	Ref.	Material					
		P	M	K	N	S	H
	APMT113508PDER-MG KS2100	●	●	●			●
	APMT113508PDER-MG KS4100	●	●	●		●	
	APMT113516PDER-MG KS4100	●	●	●		●	
	APMT113508PDER-RG KS2100	●	●	●			●
	APMT113508PDER-RG KS4100	●	●	●		●	
	APMT113508PDER-HG KS4100	●	●	●		●	
	APMT160408PDER-MG KS2100	●	●	●			●
	APMT160408PDER-MG KS4100	●	●	●		●	
	APMT160416PDER-MG KS4100	●	●	●		●	
	APMT160408PDER-RG KS2100	●	●	●			●
	APMT160408PDER-RG KS4100	●	●	●		●	
	APMT160408PDER-RG KS2100	●	●	●			●
	APMT160408PDER-RG KS2100	●	●	●			●
	APMT160408PDER-RG KS4100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

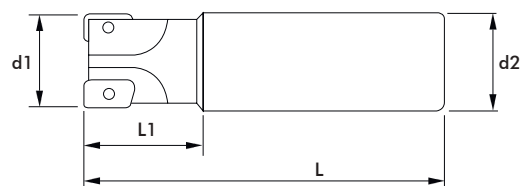
MATERIAL	APMT1135		APMT1604	
	Vc	fz	Vc	fz
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	100 ~ 180	0.10 ~ 0.22
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	120 ~ 250	0.12 ~ 0.28
Aluminio Aluminum Alloy	-	-	300 ~ 1000	0.10 ~ 0.40
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	40 ~ 100	0.10 ~ 0.22

AX12/17



Ref.	Plaquita Inserts	d1	d2	L	L1	z
AX12-050A06R	AXMT1235..	50	22	45	20	6
AX12-063A07R	AXMT1235..	63	22	45	20	7
AX12-080A08R	AXMT1235..	80	27	50	26	8
AX17-050A04R	AXMT1705..	50	22	45	20	4
AX17-063A05R	AXMT1705..	63	22	45	20	5
AX17-080A07R	AXMT1705..	80	27	50	26	7

Complementos Spare parts	
Tornillo de inserción Insert screw	3002 4004



Ref.	Plaquita Inserts	d1	d2	L	L1	z
AX12-016M02R	AXMT1235..	16	16	120	35	2
AX12-020M03R	AXMT1235..	20	20	120	40	3
AX12-025M04R	AXMT1235..	25	25	150	45	4
AX12-032M05R	AXMT1235..	32	32	150	45	5
AX12-025M02R	AXMT1705	25	25	150	40	2
AX12-032M03R	AXMT1705..	32	32	150	45	3

Complementos Spare parts	
Tornillo de inserción Insert screw	3002 4004

AXMT12/17

	Ref.	Material					
		P	M	K	N	S	H
	AXMT123508PEER-RG KS2100	●	●	●			●
	AXMT123508PEER-RG KS4100	●	●	●		●	
	AXMT170508PEER-RG KS4100	●	●	●		●	
	AXMT170516PEER-RG KS4100	●	●	●		●	

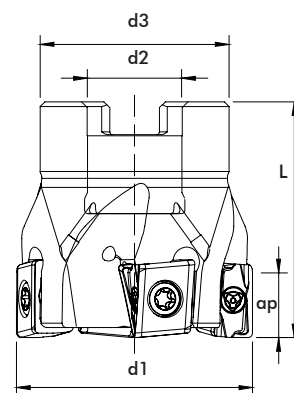
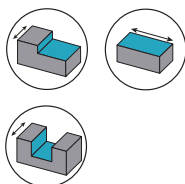
Condiciones de corte

Recommended cutting conditions

MATERIAL	AXMT1235			APMT1604		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.3 ~ 4.0	100 ~ 180	0.10 ~ 0.22	0.5 ~ 7.0
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	0.3 ~ 6.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.3 ~ 4.0	40 ~ 100	0.10 ~ 0.18	0.5 ~ 7.0
Acero endurecido Hardened steel	50 ~ 100	0.07 ~ 0.15	0.3 ~ 4.0	50 ~ 100	0.10 ~ 0.20	0.5 ~ 7.0

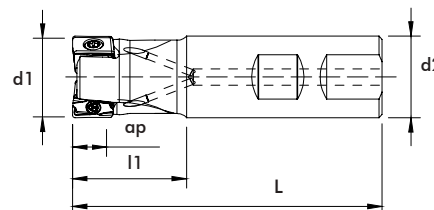
FRESADO
MILLING

LN13



Ref.	Plaquita Inserts	d1	d2	d3	L	z	ap
LN13-040A04R	LNXT 1306...	40	16	32	40	4	11
LN13-050A05R	LNXT 1306...	50	22	42	40	5	11
LN13-063A06R	LNXT 1306...	63	22	52	40	6	11
LN13-063A08R	LNXT 1306...	63	22	52	40	8	11
LN13-080A07R	LNXT 1306...	80	27	60	50	7	11
LN13-100A13R	LNXT 1306...	100	32	80	50	13	11

Complementos Spare parts	
Tornillo de inserción Insert screw	0400900 0401200



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap
LN13-025M02R	LNXT 1306...	25	25	95	45	2	11
LN13-032M03R	LNXT 1306...	32	32	110	50	3	11
LN13-040M04R	LNXT 1306...	40	32	110	50	4	11

Complementos Spare parts	
Tornillo de inserción Insert screw	0400900 0401200

LNXT13

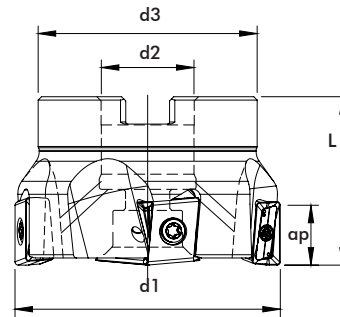
Ref.	Material					
	P	M	K	N	S	H
LNXT 130604 PNER-MP KS2100	●		●			
LNXT 130604 PNER-MP KS4100	●	●	●			
LNXT 130608 PNER-MP KS2100	●		●			
LNXT 130608 PNER-MP KS4100	●	●	●			

Condiciones de corte

Recommended cutting conditions

MATERIAL	Vc (m/min)		fz
	KS2100	KS4100	LNXT 13... MP
Acero sin aleación Unloyed steel (HB125-220)	180-250	140-170	0,10-0,35
Acero de baja aleación Low-alloyed steel (HB220-280)	170-210	130-160	0,10-0,30
Acero de alta aleación High-alloyed steel (HB280-380)	160-200	110-140	0,10-0,20
Ferrítico/Martensítico Ferritic/Martensitic (HB200-330)	-	120-180	0,10-0,30
Austenítico Austenitic (HB 200-330)	-	100-150	0,10-0,25
Austenítico/Férretico (Dúplex) Austenitic-ferretic (Duplex) (HB230-260)	-	70-130	0,10-0,20
Hierro fundido maleable Malleable cast iron (HB130-230)	170-300	-	0,10-0,35
Fundición de hierro gris Grey cast iron (HB160-250)	150-250	-	0,10-0,30
Fundición de hierro nodular Nodular cast iron (HB180-245)	90-210	-	0,10-0,25

LN15



Ref.	Plaquita Inserts	d1	d2	d3	L	z	ap	Complementos Spare parts
LN15-050A05R	LNXT 1506...	50	22	42	40	5	14	Tornillo de inserción Insert screw 0401200
LN15-063A05R	LNXT 1506...	63	22	52	40	5	14	
LN15-063A08R	LNXT 1506...	63	22	52	40	8	14	
LN15-080A07R	LNXT 1506...	80	27	60	50	7	14	
LN15-080A10R	LNXT 1506...	80	27	60	50	10	14	
LN15-100A08R	LNXT 1506...	100	32	80	50	8	14	
LN15-100A12R	LNXT 1506...	100	32	80	50	12	14	
LN15-125A09R	LNXT 1506...	125	40	90	63	9	14	
LN15-125A15R	LNXT 1506...	125	40	90	63	15	14	
LN15-160A10R	LNXT 1506...	160	40	110	63	10	14	
LN15-160A20R	LNXT 1506...	160	40	110	63	20	14	

LNXT15

Ref.	Material					
	P	M	K	N	S	H
LNXT 150608 PNER-MP KS2100	●		●			
LNXT 150608 PNER-MP KS4100	●					
LNXT 150612 PNER-MP KS2100	●		●			
LNXT 150612 PNER-MP KS4100	●					
LNXT 150608 PNSR-HP KS2100	●		●			
LNXT 150608 PNSR-HP KS4100	●		●			

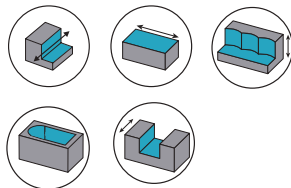
Condiciones de corte

Recommended cutting conditions

MATERIAL	Vc (m/min)		fz		
	KS2100	KS4100	LNXT 15... MP	LNXT 15... HP	LNXT 15... W
Acero sin aleación Unloyed steel (HB125-220)	180-250	140-170	0,10-0,30	0,10-0,30	0,10-0,35
Acero de baja aleación Low-alloyed steel (HB220-280)	170-210	130-160	0,10-0,30	0,10-0,30	0,10-0,35
Acero de alta aleación High-alloyed steel (HB280-380)	160-200	110-140	0,10-0,25	0,10-0,25	0,10-0,35
Hierro fundido maleable Malleable cast iron (HB130-230)	170-300	130-250	0,10-0,40	0,10-0,40	0,10-0,50
Fundición de hierro gris Grey cast iron (HB160-250)	150-250	110-220	0,10-0,35	0,10-0,35	0,10-0,50
Fundición de hierro nodular Nodular cast iron (HB180-245)	90-210	80-170	0,10-0,30	0,10-0,30	0,10-0,50

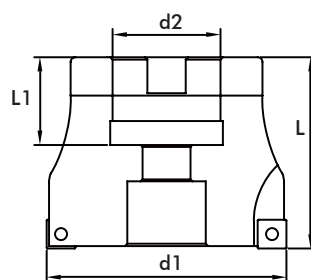
FRESADO
MILLING

SP06/07



Ref.	Plaquita Inserts	d1	d2	L	L1	z
SP05-012M02R	SPMG0502..	12	12	100	20	2
SP06-016M02R	SPMG0602..	16	16	120	25	2
SP06-020M03R	SPMG0602..	20	20	120	30	3
SP06-025M03R	SPMG0602..	25	25	120	30	3
SP06-030M04R	SPMG0602..	30	25	120	30	4
SP06-032M05R	SPMG0602..	32	25	120	30	5
SP07-025M03R	SPMG07T3..	25	25	150	35	3
SP07-032M04R	SPMG07T3..	32	32	150	40	4

Complementos Spare parts	
Tornillo de inserción Insert screw	2003 2205 3504



Ref.	Plaquita Inserts	d1	d2	L	L1	z
SP06-050A07R	SPMG0602..	50	22	45	20	7
SP06-063A09R	SPMG0602..	63	22	45	20	9
SP09-050A05R	SPMG0904..	50	22	45	20	5
SP09-063A06R	SPMG0904..	63	22	45	20	6
SP09-080A07R	SPMG0904..	80	27	50	23	7

Complementos Spare parts	
Tornillo de inserción Insert screw	2205 3504

SPMG

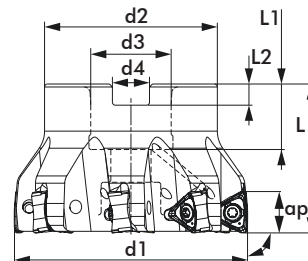
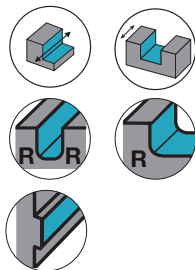
Ref.	Material					
	P	M	K	N	S	H
SPMG050204-MG KS4100	●	●	●		●	
SPMG060204-MG KS4100	●	●	●		●	
SPMG07T308-MG KS4100	●	●	●		●	
SPMG090408-MG KS4100	●	●	●		●	
SPMG090408-RG KS4100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

MATERIAL	SPMG050204 / SPMG060204			SPMT07T308 / SPMG090408		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	0.3 ~ 3.0	120 ~ 250	0.10 ~ 0.22	0.5 ~ 6.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.3 ~ 2.0	100 ~ 180	0.08 ~ 0.18	0.5 ~ 4.0
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	0.3 ~ 3.0	120 ~ 250	0.10 ~ 0.22	0.5 ~ 6.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.3 ~ 2.0	40 ~ 100	0.07 ~ 0.14	0.5 ~ 4.0
Acero endurecido Hardened steel	50 ~ 100	0.07 ~ 0.15	0.3 ~ 2.0	50 ~ 100	0.07 ~ 0.15	0.5 ~ 4.0

TN12



Ref.	Plaquita Inserts	d1	d2	d3	d4	L	L1	L2	z	ap	Complementos Spare parts	
TN12-050A04R	TNMU12...	50	47	22	10,4	40	20	6,3	4	11	Tornillo de inserción Insert screw	3.5
TN12-050A05R	TNMU12...	50	47	22	10,4	40	20	6,3	5	11		
TN12-063A05R	TNMU12...	63	47	22	10,4	40	20	6,3	5	11		
TN12-063A06R	TNMU12...	63	47	22	10,4	40	20	6,3	6	11		
TN12-080A06R	TNMU12...	80	58	22	9,5	50	26	6	6	11		
TN12-080A08R	TNMU12...	80	58	27	12,4	50	22	7	8	11		
TN12-100A07R	TNMU12...	100	67	32	14,4	50	28,5	8	7	11		
TN12-100A10R	TNMU12...	100	67	32	14,4	50	28,5	8	10	11		

TNMU

	Ref.	Material					
		P	M	K	N	S	H
	TNMU120708PER-MJ KS2100			●		●	
	TNMU120708PER-MJ KS3100	●	●				
	TNMU120708PER-NMJ KS2100			●		●	
	TNMU120708PER-NMJ KS3100	●	●				
	TNMU1207R16PER-MJ KS2100			●		●	
	TNMU1207R16PER-MJ KS3100	●	●				

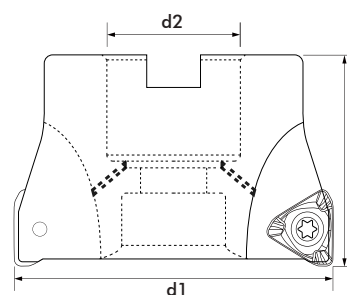
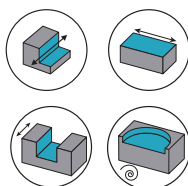
Condiciones de corte

Recommended cutting conditions

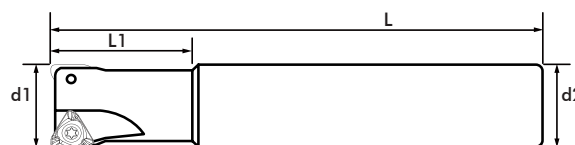
MATERIAL	Vc (m/min)		fz	
	KS2100	KS3100	KS2100	KS3100
Acero de baja aleación Low carbon steel (-200 HB)	-	100 - 250	-	0.07 - 0.2
Acero de aleación Carbon steel and alloy steel (-300HB)	-	100 - 230	-	0.07 - 0.15
Acero endurecido Prehardened steel (30 - 40 HRC)	-	100 - 180	-	0.07 - 0.15
Acero inoxidable Stainless steel	-	90 - 200	-	0.07 - 0.15
Fundición de hierro gris Grey cast iron (150-250HB)	140 - 250	-	0.07 - 0.2	-
Fundición de hierro dúctil Ductile cast iron (HB150-250)	110 - 200	-	0.07 - 0.15	-
Aleación de titanio Titanium alloys	-	20 - 60	-	0.07 - 0.15
Aleaciones resistentes al calor Heat resistant alloys	20 - 40	-	0.07 - 0.1	-

FRESADO
MILLING

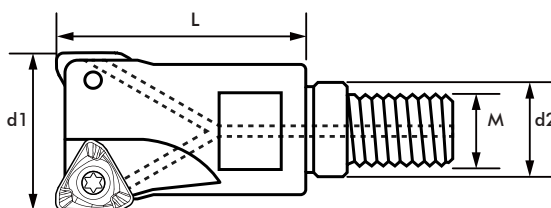
TP10/15



Ref.	Plaquita Inserts	d1	d2	L	z	Refrigeración Coolant	Complementos Spare parts
TP10-050A06R	TPMX1004..	50	22	50	6	●	Tornillo de inserción 2517 Insert screw 4004
TP10-050A07R	TPMX1004..	50	22	50	7		
TP10-63A07R	TPMX1004..	63	22	50	7	●	
TP10-063A09R	TPMX1004..	63	22	50	9		
TP15-040A04R	TPMX1505..	40	16	40	4	●	
TP15-050A05R	TPMX1505..	50	22	40	5	●	
TP15-063A06R	TPMX1505..	63	22	40	6	●	
TP15-080A08R	TPMX1505..	80	27	50	8	●	




Ref.	Plaquita Inserts	d1	d2	L	L1	z	Complementos Spare parts
TP10-020M02R	TPMX1004..	20	20	130	50	2	Tornillo de inserción 2517 Insert screw 4004
TP10-025M03R	TPMX1004..	25	25	150	55	3	
TP15-033M03R	TPMX1505..	33	32	200	45	3	



Ref.	Plaquita Inserts	d1	d2	L	M	z	Refrigeración Coolant	Complementos Spare parts
TP10-020M02R	TPMX1004..	20	18	35	10	2	●	Tornillo de inserción 2517 Insert screw 4004
TP10-025M03R	TPMX1004..	21	10,5	35	10	2		
TP15-033M03R	TPMX1004..	25	21	35	12	3		
TP10-020M02R	TPMX1004..	26	12,5	35	12	3		
TP10-025M03R	TPMX1004..	32	29	43	16	5	●	
TP15-033M03R	TPMX1004..	32	17	43	16	5		
TP10-025M03R	TPMX1004..	33	17	43	16	5	●	
TP15-033M03R	TPMX1004..	33	17	43	16	5		

TPMX10/15

	Ref.	Material					
		P	M	K	N	S	H
	TPMX100408-MG KS2100	●	●	●			●
	TPMX100408-MG KS4100	●	●	●		●	
	TPMX150508-MG KS2100	●	●	●			●
	TPMX150508-MG KS4100	●	●	●		●	

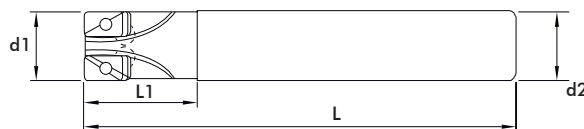
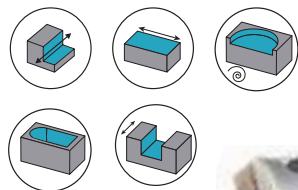
Condiciones de corte

Recommended cutting conditions

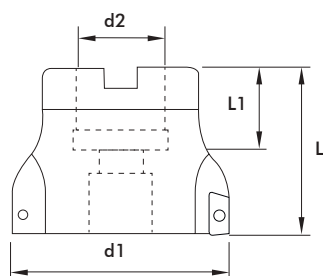
MATERIAL	TPMX1004			TPMX1505		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.08 ~ 0.20	0.3 ~ 7.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Inoxidable Stainless	100 ~ 180	0.05 ~ 0.15	0.3 ~ 4.0	100 ~ 180	0.10 ~ 0.22	0.5 ~ 7.0
Hierro fundido Cast iron	120 ~ 250	0.08 ~ 0.20	0.3 ~ 6.0	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.05 ~ 0.12	0.3 ~ 4.0	40 ~ 100	0.10 ~ 0.18	0.5 ~ 7.0
Acero endurecido Hardened steel	50 ~ 100	0.05 ~ 0.13	0.3 ~ 4.0	50 ~ 100	0.10 ~ 0.20	0.5 ~ 7.0

FRESADO
MILLING

W311/18



Ref.	Plaquita Inserts	d1	d2	L	L1	z	Complementos Spare parts
W311-016M02R	W39011T3..	16	16	150	30	2	Tornillo de inserción Insert screw 2509
W311-025M03R	W39011T3..	25	25	150	30	3	



Ref.	Plaquita Inserts	d1	d2	L	z	Refrigeración Coolant	Complementos Spare parts
W311-050A04R	W39011T3..	50	22	40	4		Tornillo de inserción Insert screw 2509 4005
W318-050A05R	W3901806..	50	22	40	5	●	
W318-063A06R	W3901806..	63	22	40	6	●	
W318-080A07R	W3901806..	80	27	50	7	●	
W318-100A08R	W3901806..	100	32	40	8	●	

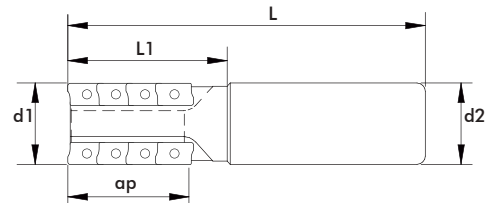
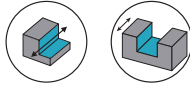
W390

Ref.	Material					
	P	M	K	N	S	H
W39011T308-MG KS2100	●	●	●			●
W39011T308-MG KS4100	●	●	●		●	
W39011T320-MG KS2100	●	●	●			●
W39011T320-MG KS4100	●	●	●		●	
W390180612-SG KS2100	●	●	●		●	

Condiciones de corte
Recommended cutting conditions

MATERIAL	Vc	W39011T3		W3901806	
		fz	ap	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0	0.12 ~ 0.28	0.5 ~ 11.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18	0.3 ~ 4.0	0.10 ~ 0.22	0.5 ~ 7.0
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22	0.3 ~ 6.0	0.12 ~ 0.28	0.5 ~ 10.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14	0.3 ~ 4.0	0.10 ~ 0.18	0.5 ~ 7.0
Acero endurecido Hardened steel	50 ~ 100	0.07 ~ 0.15	0.3 ~ 4.0	0.10 ~ 0.20	0.5 ~ 7.0

W311



Ref.	Plaquita Inserts	d1	d2	L	L1	z	ap	Complementos Spare parts	
W311-025M02R	W39011T3..	25	25	110	50	2x4	36	Tornillo de inserción Insert screw	2509
W311-032M02R	W39011T3..	32	32	125	50	2x4	36		

W390

	Ref.	Material					
		P	M	K	N	S	H
	W39011T308-MG KS2100	●	●	●			●
	W39011T308-MG KS4100	●	●	●		●	
	W39011T320-MG KS2100	●	●	●			●
	W39011T320-MG KS4100	●	●	●		●	
	W390180612-SG KS2100	●	●	●		●	

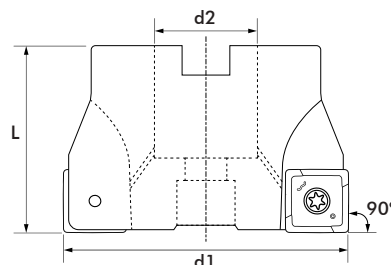
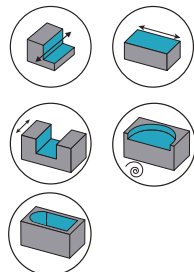
Condiciones de corte

Recommended cutting conditions

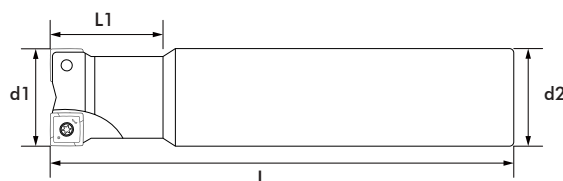
MATERIAL	Vc	fz
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.22
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.18
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.22
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.07 ~ 0.14

FRESADO
MILLING

W408



Ref.	Plaquita Inserts	d1	d2	L	z	Refrigeración Coolant	Complementos Spare parts
W408-040A04R	W49008T3..	40	16	40	4	●	Tornillo de inserción Insert screw 2507
W408-050A05R	W49008T3..	50	22	40	5	●	3505
W408-063A06R	W49008T3..	63	22	40	6	●	
W414-050A04R	W4901404..	50	22	40	4	●	
W414-063A05R	W4901404..	63	22	40	5	●	
W414-080A07R	W4901404..	80	27	50	7	●	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	Complementos Spare parts
W408-020M02R	W49008T3..	20	20	100	25	2	Tornillo de inserción Insert screw 2507
W408-020M02R	W49008T3..	20	20	150	25	2	
W408-025M03R	W49008T3..	25	20	100	32	3	
W408-032M03R	W49008T3..	25	20	150	32	3	

W49008/14

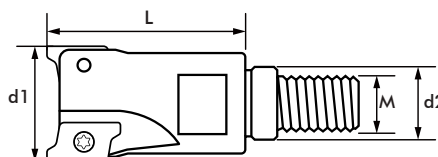
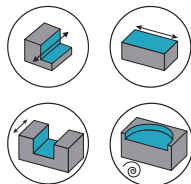
Ref.	Material					
	P	M	K	N	S	H
W49008T308-SG KS4100	●	●	●		●	
W490140408-SG KS4100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

MATERIAL	Vc	W49008T3		W4901404	
		fz	ap	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.05 ~ 0.12	0.3 ~ 5.5	0.06 ~ 0.15	0.3 ~ 9
Inoxidable Stainless	100 ~ 180	0.04 ~ 0.10	0.3 ~ 4.5	0.05 ~ 0.12	0.3 ~ 8
Hierro fundido Cast iron	120 ~ 250	0.05 ~ 0.12	0.3 ~ 5.5	0.05 ~ 0.15	0.3 ~ 9
Aluminio Aluminum Alloy	300 ~ 1000	-	-	0.05 ~ 0.15	0.3 ~ 9
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.03 ~ 0.09	0.3 ~ 4.5	0.04 ~ 0.11	0.3 ~ 8
Acero endurecido Hardened steel	50 ~ 100	0.03 ~ 0.09	0.3 ~ 4.5	0.04 ~ 0.11	0.3 ~ 8

WR07/10



Ref.	Plaquita Inserts	d1	d2	L	M	z	Complementos Spare parts
WR07-010R02R	WRT0702..	10	5,5	18	5	2	Tornillo de inserción 2003 Insert screw 2515
WR07-011R02R	WRT0702..	11	5,5	18	5	2	
WR07-012R02R	WRT0702..	12	6,5	20	6	2	
WR07-013R02R	WRT0702..	13	6,5	20	6	2	
WR10-017R02R	WRT1003..	17	8,5	30	8	2	
WR10-021R03R	WRT1003..	21	10,5	32	10	3	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	Complementos Spare parts
WR07-011M02R	WRT0702..	11	12	100	18	2	Tornillo de inserción 2003 Insert screw 2515
WR07-013M02R	WRT0702..	13	12	100	20	2	
WR10-017M02R	WRT1003..	17	16	150	30	2	
WR10-021M03R	WRT1003..	21	20	150	30	3	
WR10-026M04R	WRT1003..	26	25	150	40	4	

W490

Ref.	Material					
	P	M	K	N	S	H
WRT070204-RG KS2100	●	●	●			●
WRT070204-RG KS4100	●	●	●		●	
WRT100308-RG KS2100	●	●	●			●
WRT100308-RG KS4100	●	●	●		●	

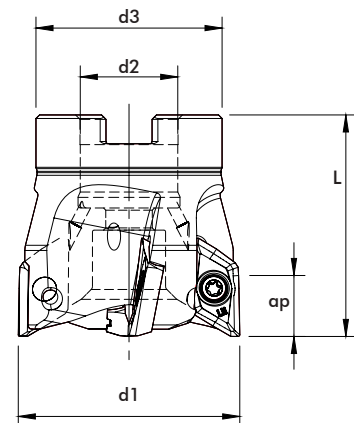
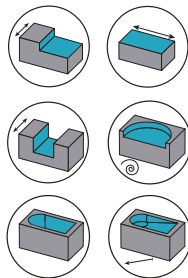
Condiciones de corte
Recommended cutting conditions

MATERIAL	WRT0702			WRT1003		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.08 ~ 0.20	0.3 ~ 5.0	120 ~ 250	0.10 ~ 0.22	0.5 ~ 7.0
Inoxidable Stainless	100 ~ 180	0.05 ~ 0.15	0.3 ~ 3.0	100 ~ 180	0.08 ~ 0.18	0.5 ~ 4.0
Hierro fundido Cast iron	120 ~ 250	0.08 ~ 0.20	0.3 ~ 4.0	120 ~ 250	0.10 ~ 0.22	0.5 ~ 6.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.05 ~ 0.12	0.3 ~ 3.0	40 ~ 100	0.07 ~ 0.14	0.5 ~ 4.0
Acero endurecido Hardened steel	50 ~ 100	0.05 ~ 0.13	0.3 ~ 3.0	50 ~ 100	0.07 ~ 0.15	0.5 ~ 4.0

FRESADO
MILLING

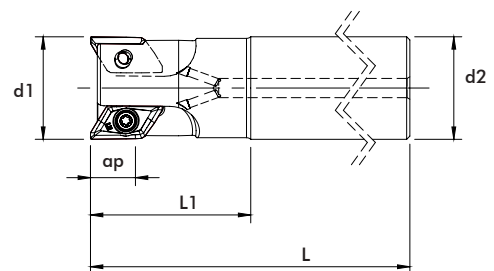


XD15



Ref.	Plaquita (radio) Inserts (radius)	d1	d2	d3	L	z	ap
XD15-040A03R	0,4~3,2	40	16	32	50	3	14
XD15-050A04R	0,4~3,2	50	22	42	50	4	14
XD15-063A05R	0,4~3,2	63	22	52	50	5	14
XD15-080A05R	0,4~3,2	80	27	52	50	5	14
XD15-100A06R	0,4~3,2	100	32	60	63	6	14
XD15-040A03R	4,0~5,0	40	16	80	50	3	14
XD15-050A04R	4,0~5,0	50	22	32	50	4	14
XD15-063A05R	4,0~5,0	63	22	42	50	5	14
XD15-080A05R	4,0~5,0	80	27	52	50	5	14
XD15-100A06R	4,0~5,0	100	32	52	63	6	14

Complementos Spare parts	
Tornillo de inserción Insert screw	0400900 0400803



Ref.	Plaquita (radio) Inserts (radius)	d1	d2	L	L1	z	ap
XD15-020M01R	0,4~3,2	20	20	150	60	1	15
XD15-025M02R	0,4~3,2	25	25	150	90	2	15
XD15-032M02R	0,4~3,2	32	32	200	120	2	15
XD15-040M03R	0,4~3,2	40	40	250	65	3	15
XD15-020M01R	4,0~5,0	20	20	150	60	1	15
XD15-025M02R	4,0~5,0	25	25	180	90	2	15
XD15-040M03R	4,0~5,0	40	40	250	65	3	15

Complementos Spare parts	
Tornillo de inserción Insert screw	0400900 0400803

XDGX15

Ref.	Material					
	P	M	K	N	S	H
XDGX 15M504 PDRF-LN H10T				●		
XDGX 15M508 PDRF-LN H10T				●		
XDGX 15M512 PDRF-LN H10T				●		
XDGX 15M512 PDRF-LN H10T				●		
XDGX 15M520 PDRF-LN H10T				●		
XDGX 15M532 PDRF-LN H10T				●		
XDGX 15M540 PDRF-LN H10T				●		
XDGX 15M550 PDRF-LN H10T				●		



Condiciones de corte

Recommended cutting conditions

Escuadrado

Shouldering

MATERIAL	Vc (m/min)	ae	ap	fz
	H10T			
Aluminio Aluminium and non ferrous (HB30-130)	350-3000	≤ 25% ØDc	≤ 5.0	0,35 - 0,40
			5.0 - 10.0	0,30 - 0,35
			10.0 - 15.0	0,25 - 0,30
		< 50% ØDc	≤ 5.0	0,35 - 0,40
			5.0 - 10.0	0,30 - 0,35
			10.0 - 15.0	0,25 - 0,30
		≤ 75% ØDc	≤ 5.0	0,30 - 0,35
			5.0 - 10.0	0,25 - 0,30
			10.0 - 15.0	0,20 - 0,25

Ranurado

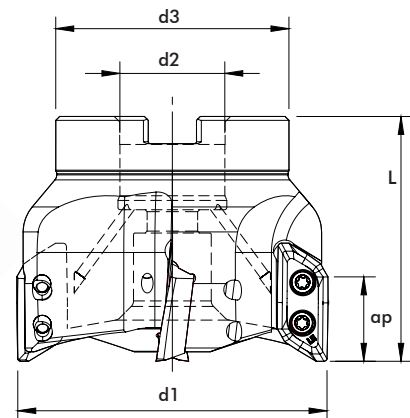
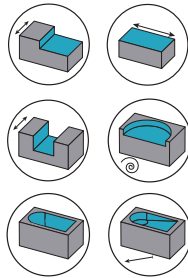
Slotting

MATERIAL	Vc (m/min)	ae	ap	fz
	H10T			
Aluminio Aluminium and non ferrous (HB30-130)	350-3000	100% ØDc	≤ 5.0	0,25 - 0,36
			5.0 - 10.0	0,20 - 0,30
			10.0 - 15.0	0,15 - 0,25

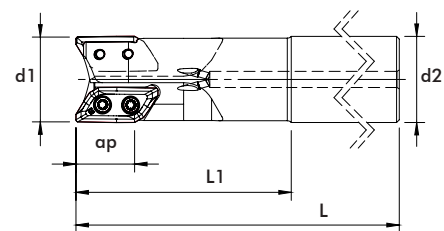
FRESADO
MILLING



XD22




Ref.	Plaquita (radio) Inserts (radius)	d1	d2	d3	L	z	ap		Complementos Spare parts
XD22-050A03R	0,8~3,2	50	22	42	50	3	14		Tornillo de inserción Insert screw 0401200
XD22-063A03R	0,8~3,2	63	22	42	50	3	14		
XD22-080A04R	0,8~3,2	80	27	60	63	4	14		
XD22-100A05R	0,8~3,2	100	32	70	63	5	14		
XD22-125A06R	0,8~3,2	125	40	100	63	6	14		
XD22-050A03R	4,0~5,0	50	22	42	50	3	14		
XD22-063A03R	4,0~5,0	63	22	42	50	3	14		
XD22-080A04R	4,0~5,0	80	27	60	63	4	14		
XD22-100A05R	4,0~5,0	100	32	70	63	5	14		
XD22-125A06R	4,0~5,0	125	40	100	63	6	14		



Ref.	Plaquita (radio) Inserts (radius)	d1	d2	L	L1	z	ap		Complementos Spare parts
XD22-032M02R	0,8~3,2	32	32	170	80	2	21,5		Tornillo de inserción Insert screw 0401200
XD22-040M02R	0,8~3,2	40	40	170	80	2	21,5		
XD22-040M02R	4,0~5,0	40	40	170	80	2	21,5		

XDGX22

	Ref.	Material					
		P	M	K	N	S	H
	XDGX 22M708 PDRF-LN H10T				●		
	XDGX 22M716 PDRF-LN H10T				●		
	XDGX 22M720 PDRF-LN H10T				●		
	XDGX 22M732 PDRF-LN H10T				●		
	XDGX 22M740 PDRF-LN H10T				●		
	XDGX 22M750 PDRF-LN H10T				●		

Condiciones de corte

Recommended cutting conditions

Escuadrado

Shouldering

MATERIAL	Vc (m/min)	ae	ap	fz	
	H10T				
Aluminio Aluminium and non ferrous (HB30-130)	350-3000	≤ 25% ØDc	≤ 5.0	0,35 - 0,40	
			5.0 - 10.0	0,30 - 0,35	
			10.0 - 15.0	0,25 - 0,30	
			10.0 - 15.0	0,20 - 0,25	
			< 50% ØDc	≤ 5.0	0,35 - 0,40
				5.0 - 10.0	0,30 - 0,35
		10.0 - 15.0		0,25 - 0,30	
		≤ 75% ØDc	≤ 5.0	0,30 - 0,35	
			5.0 - 10.0	0,25 - 0,30	
			10.0 - 15.0	0,20 - 0,25	
					0,15 - 0,20

Ranurado

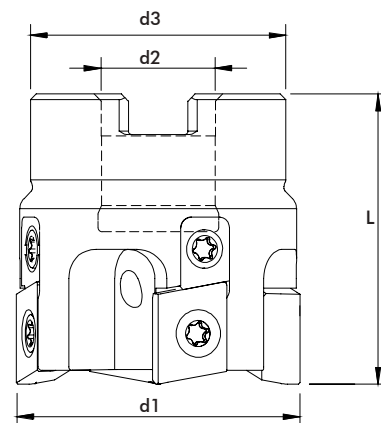
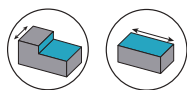
Slotting

MATERIAL	Vc (m/min)	ae	ap	fz
	H10T			
Aluminio Aluminium and non ferrous (HB30-130)	350-3000	100% ØDc	≤ 5.0	0,25 - 0,35
			5.0 - 10.0	0,20 - 0,30
			10.0 - 15.0	0,15 - 0,25
			15.0 - 20.0	0,10 - 0,20



FRESADO
MILLING

XN12



Ref.	Plaquita (radio) Inserts (radius)	d1	d2	d3	L	z	Complementos Spare parts
XN12-040A04R	XNHW 1205...	40	16	36	40	4	Tornillo de inserción Insert screw 0401100
XN12-050A04R	XNHW 1205...	50	22	46	40	4	
XN12-063A07R	XNHW 1205...	63	22	49	40	7	
XN12-080A05R	XNHW 1205...	80	27	60	50	5	
XN12-100A06R	XNHW 1205...	100	32	70	50	6	

XNHW

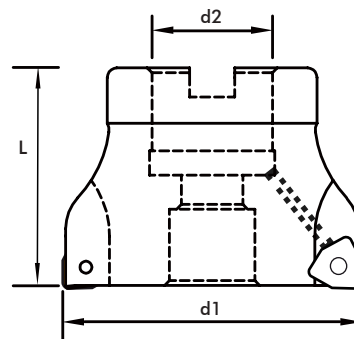
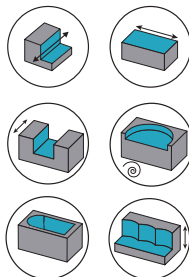
	Ref.	Material					
		P	M	K	N	S	H
	XNHW 120508 PZFR-015045 H10T				●		
	XNHW 120508 PZFR-015045 H10T				●		
	XNHW 120508 PZFR-015045 H10T				●		
	XNHW 120508 PZFR-015045 H10T				●		

Condiciones de corte

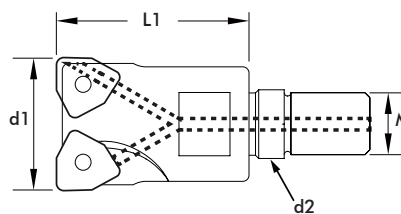
Recommended cutting conditions

MATERIAL	fz	
Aleaciones de aluminio forjado Aluminium wrought alloys	(HB80)	300 - 4000
	(HB90)	300 - 1500
Aleaciones de fundición de aluminio Aluminium cast alloys	< 12% Si (HB130)	300 - 5000
	< 12% Si (HB90)	300 - 3000
	> 12% Si (HB100)	300 - 1000
Latón, bronce rojo Brass, red bronze	Latón, bronce rojo Brass, red bronze	100 - 700
	Bronce Bronze	100 - 1500
	Cobre sin plomo y cobre electrolítico Lead-free copper and electrolytic copper	300 - 3000
Materiales no metálicos Non-metallic materials	Plásticos termoendurecibles Thermosetting plastics	80 - 300
	Plásticos reforzados con fibra Fibre-reinforced plastics	80 - 300
	Caucho duro Hard rubber	80 - 300

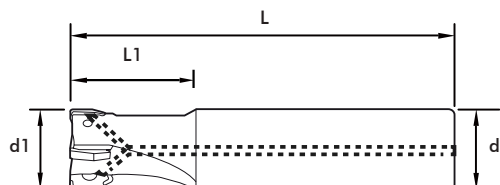
XN04/08



Ref.	Plaquita Inserts	d1	d2	L	z	Refrigeración Coolant	Complementos Spare parts
XN04-050A06R	XNMX0403..	50	22	50	6		Tornillo de inserción 2512 Insert screw 4006
XN04-063A07R	XNMX0403..	63	22	50	7		
XN04-040A07R	XNMX0403..	40	16	40	7	●	
XN04-050A09R	XNMX0403..	50	22	40	9	●	
XN08-050A05R	XNMX0806..	50	22	40	5	●	
XN08-063A06R	XNMX0806..	63	22	40	6	●	
XN08-080A07R	XNMX0806..	80	27	50	7	●	




Ref.	Plaquita Inserts	d1	d2	L	M	z	Refrigeración Coolant	Complementos Spare parts
XN04-017R02R	XNMX0403..	17	8,5	26	8	2	●	Tornillo de inserción 2512 Insert screw
XN04-021R03R	XNMX0403..	21	10,5	32	10	3	●	
XN04-026R04R	XNMX0403..	26	12,5	38	12	4	●	



Ref.	Plaquita Inserts	d1	d2	L	L1	z	Refrigeración Coolant	Complementos Spare parts
XN04-020M03R	XNMX0403..	20	20	150	40	3		Tornillo de inserción 2512 Insert screw
XN04-020M03RL	XNMX0403..	20	20	200	100	3		
XN04-025M04R	XNMX0403..	25	25	150	40	4		
XN04-032M05R	XNMX0403..	32	32	200	45	5		
XN04-020M03RR	XNMX0403..	20	20	110	28	3	●	
XN04-050M04R	XNMX0403..	25	25	120	28	4	●	
XN04-032M05R	XNMX0403..	32	32	130	30	5	●	

FRESADO
MILLING

XNMX04/08

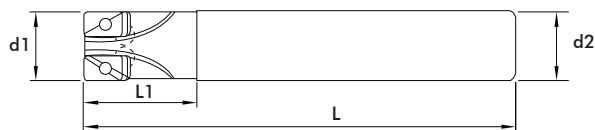
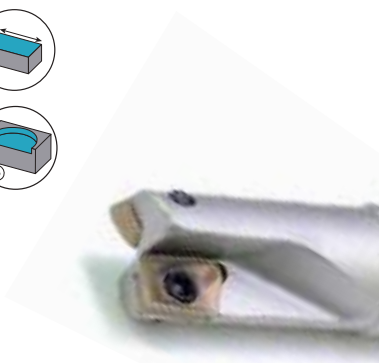
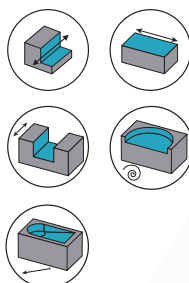
	Ref.	Material					
		P	M	K	N	S	H
	XNMX040304-SG KS2100	●	●	●			●
	XNMX040304-MG KS2100	●	●	●			●
	XNMX040308-MG KS2100	●	●	●			●
	XNMX040308-MG KS4100	●	●	●		●	
	XNMX080608-MG KS2100	●	●	●			●
	XNMX080608-MG KS4100	●	●	●		●	
	XNMX080608-RG KS4100	●	●	●		●	

Condiciones de corte

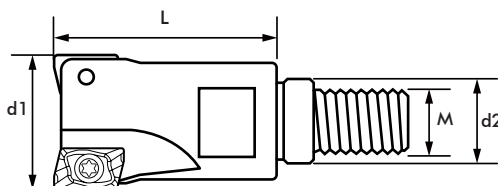
Recommended cutting conditions

MATERIAL	XNMX0403			XNMX0806		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.10 ~ 0.16	0.3 ~ 3.0	120 ~ 250	0.1 ~ 0.3	0.3 ~ 7.0
Inoxidable Stainless	100 ~ 180	0.08 ~ 0.12	0.3 ~ 1.6	100 ~ 180	0.08 ~ 0.25	0.3 ~ 4.5
Hierro fundido Cast iron	120 ~ 250	0.10 ~ 0.16	0.3 ~ 3.0	120 ~ 250	0.1 ~ 0.3	0.3 ~ 7.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.08 ~ 0.12	0.3 ~ 1.5	40 ~ 100	0.08 ~ 0.18	0.3 ~ 4.0
Acero endurecido Hardened steel	50 ~ 100	0.09 ~ 0.13	0.3 ~ 1.5	50 ~ 100	0.09 ~ 0.19	0.3 ~ 4.0

XO06



Ref.	Plaquita Inserts	d1	d2	L	L1	z	Complementos Spare parts
XO06-010M02R	XOMT0602..	10	10	100	20	2	Tornillo de inserción Insert screw 1801
XO06-012M02R	XOMT0602..	12	12	100	20	2	
XO06-012M03R	XOMT0602..	12	12	100	20	3	
XO06-012M02R	XOMT0602..	13	12	100	20	2	
XO06-013M03R	XOMT0602..	13	12	100	20	3	
XO06-016M04R	XOMT0602..	16	16	100	30	4	
XO06-020M05R	XOMT0602..	20	20	120	30	5	



Ref.	Plaquita Inserts	d1	d2	L	M	z	Complementos Spare parts
XO06-012R03R	XOMT0602..	12	6,5	18	6	3	Tornillo de inserción Insert screw 1801
XO06-016R04R	XOMT0602..	16	8,5	20	8	4	
XO06-020R05R	XOMT0602..	20	10,5	30	10	5	

XOMT06/10

	Ref.	Material					
		P	M	K	N	S	H
	XOMT060204-MG KS2100	●	●	●			●
	XOMT060208-MG KS2100	●	●	●			●
	XOMT060208-MG KS4100	●	●	●		●	
	XOMT060216-MG KS4100	●	●	●		●	
	XOMT10T308-SG KS2100	●	●	●		●	

Condiciones de corte

Recommended cutting conditions

MATERIAL	XOMT0602			XOMT10T3		
	Vc	fz	ap	Vc	fz	ap
Acero al carbono Carbon steel	120 ~ 250	0.08 ~ 0.20	0.3 ~ 3.0	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0
Inoxidable Stainless	100 ~ 180	0.05 ~ 0.15	0.3 ~ 2.5	100 ~ 180	0.08 ~ 0.18	0.3 ~ 4.0
Hierro fundido Cast iron	120 ~ 250	0.08 ~ 0.13	0.3 ~ 3.0	120 ~ 250	0.10 ~ 0.22	0.3 ~ 7.0
Aleación de alta temperatura High temperature Alloy	40 ~ 100	0.05 ~ 0.12	0.3 ~ 2.5	40 ~ 100	0.07 ~ 0.14	0.3 ~ 5.0
Acero endurecido Hardened steel	50 ~ 100	0.05 ~ 0.13	0.3 ~ 2.5	50 ~ 100	0.07 ~ 0.15	0.3 ~ 5.0