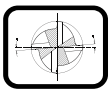
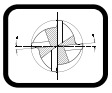
HPMT NiTiCo Line

Standard Series

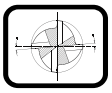
DP Series

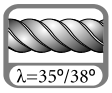


DPR Series



DP / DH Series





DP	Differential pitch	Ungleiche Teilung	pas décalé	passo differenziale	不同螺距
DPR	Torus with differential pitch	Torus mit ungleicher Teilung	torique à pas décalé	toriche a passo differenziale	不同螺距的环面
DP/DH	Differential pitch and differential helix	Ungleiche Teilung und ungleicher Drall	pas décalés et hélices différentes	passo ed elica differenziale	不同螺距 不同螺旋角

One Tool for Stainless Steels, Exotic Materials and General Application

~ High Stock Removal Rate
~ High CNC Repeatability within 10 µm
~ Good for Slotting and Side Milling
~ No Vibrations

Ein Werkzeug für das Fräsen von rostfreien Stählen, exotische Materialen und allgemeinen Anwendungen

~ Hohes Zerspanungsvolumen
~ Hohe CNC Wiederholgenauigkeit innerhalb 10 µm
~ Keine Vibrationen

Un outils pour fraisage d'aciers inoxydables, matières exotiques et emploi géneral.

~ très bonne évacuation de copeaux
~ excellente répétibilité en CNC (10 µm)
~ pour rainurages et contournage
~ pas de vibrations

Un utensile per fresare acciai innossidabili, materiali esotici ed applicazioni generali.

~ alta evaquazione di truccioli
~ alta ripitibilità CNC entro 10 µm
~ per scanalature e fresatura laterale
~ senza vibrazioni

一种能加工不锈钢，稀有金属的泛用刀具

~ 高切削率
~ 10 µm内高精度数控复位
~ 适用用于开槽和边铣
~ 无振动

INNER FRONT COVER

NiTiCo Line

page 2/3

Standard SERIES

List-No.	Style	Coating
C30	NiTiCo 30 Standard - Z2	G6110
C31	NiTiCo 30 Standard - Z3	G6110
C32	NiTiCo 30 Standard - Z4	G6110
C42	NiTiCo 30 Standard - Weldon - Z2	G6110
C43	NiTiCo 30 Standard - Weldon - Z3	G6110
C44	NiTiCo 30 Standard - Weldon - Z4	G6110

page 4/5

DP SERIES

List-No.	Style	Coating
951	NiTiCo 30 DP Standard	G6110
972	NiTiCo 30 DP Standard - Weldon	G6110
C47	NiTiCo 30 DP Roughing	G6110
C64	NiTiCo 30 DP Roughing - Weldon	G6110

page 6

DPR SERIES

List-No.	Style	Coating
C45	NiTiCo 30 DPR Torus	T…n
C46	NiTiCo 30 DPR Torus	G6110
C51	NiTiCo 30 DPR Torus - Weldon	T…n
C52	NiTiCo 30 DPR Torus - Weldon	G6110

page 10

DP / DH SERIES

List-No.	Style	Coating
949	NiTiCo 30 DP/DH	G6110
A1N	NiTiCo 30 DP/DH	B0909
C49	NiTiCo 30 DP/DH - Weldon	G6110
A1S	NiTiCo 30 DP/DH - Weldon	B0909
C48	NiTiCo 30R DP/DH	G6110
A1R	NiTiCo 30R DP/DH	B0909
C50	NiTiCo 30R DP/DH - Weldon	G6110
A1T	NiTiCo 30R DP/DH - Weldon	B0909

page 14

Material Groups | Materialgruppe | Groupes matière | Gruppi materiali | 材质主类

page 16

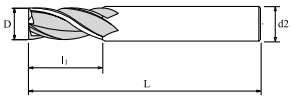
Solid Carbide NiTiCo 30 Standard Endmills, 2/3/4 flutes

VHM NiTiCo 30 Standard Fräser, 2/3/4 Zähne

Fraises 2 tailles NiTiCo 30 Standard - 2/3/4 dents, en carbure monobloc

Frese NiTiCo 30 Standard in metallo duro integrale, 2/3/4 taglienti

整体硬质合金 NiTiCo 30 系列 立铣刀
2/3/4 刃 – 标准长度



Z2 Z3 Z4

MG | γ 10° | λ = 40° | G6110 HPT | DIN 6535 HA HB HE

EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)					C30 *	C31 *	C32 *
						HA	HA	HA
= * + Ø data	D (e8)	l 1	l 2	L	d2 (h6)	G6110	G6110	G6110
0100 040 03	**1**	3		40	3	●	●	●
0100 040 04	**1**	3		40	4	●	●	●
0150 040 03	**1.5**	4.5		40	3	●	●	●
0150 040 04	**1.5**	4.5		40	4	●	●	●
0200 040 03	**2**	6.5		40	3	●	●	●
0200 040 04	**2**	6.5		40	4	●	●	●
0250 040 03	**2.5**	6.5		40	3	●	●	●
0250 040 04	**2.5**	6.5		40	4	●	●	●
0300	**3**	9		40	3	●	●	●
0300 050 06	**3**	9		50	6	●	●	●
0400	**4**	12		50	4	●	●	●
0400 050 06	**4**	12		50	6	●	●	●
0500	**5**	15		50	5	●	●	●
0500 050 06	**5**	15		50	6	●	●	●
0600 050	**6**	16		50	6	●	●	●
0600 060	**6**	20		60	6	●	●	●
0800	**8**	20		64	8	●	●	●
1000 070	**10**	22		70	10	●	●	●
1000 075	**10**	22		75	10	●	●	●
1200	**12**	25		75	12	●	●	●
1400	**14**	32		90	14	●	●	●
1600	**16**	32		90	16	●	●	●
1800	**18**	38		100	18	●	●	●
2000	**20**	38		100	20	●	●	●

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

NiTiCo 30 STANDARD ENDMILLS with WELDON SHANK

MG

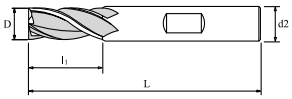
Solid Carbide NiTiCo 30 Standard Endmills with Weldon Shank, 2/3/4 flutes

VHM NiTiCo 30 Standard Fräser mit Weldon Schaft, 2/3/4 Zähne

Fraises 2 tailles NiTiCo 30 Standard avec queue Weldon - 2/3/4 dents, en carbure monobloc

Frese NiTiCo 30 Standard con codolo Weldon in metallo duro integrale, 2/3/4 taglienti

整体硬质合金 NiTiCo 30 系列 立铣刀
2/3/4 刃 – 标准长度



Z2 Z3 Z4

MG | γ 10° | λ = 40° | G6110 HPT | 2 3 4 | DIN 6535 HA HB HE

EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)					C42 *	C43 *	C44 *
						HB	HB	HB
= * + Ø data	D (e8)	l 1	l 2	L	d2 (h6)	G6110	G6110	G6110
0300 050 06	**3**	9		50	6	O	O	O
0400 050 06	**4**	12		50	6	O	O	O
0500 050 06	**5**	15		50	6	O	O	O
0600 050	**6**	16		50	6	O	O	O
0800	**8**	20		64	8	O	O	O
1000 070	**10**	22		70	10	O	O	O
1200	**12**	25		75	12	O	O	O
1400	**14**	32		90	14	O	O	O
1600	**16**	32		90	16	O	O	O
1800	**18**	38		100	18	O	O	O
2000	**20**	38		100	20	O	O	O

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

TECHNISCHE ÄNDERUNGEN OHNE VORHERIGE INFORMATION VORBEHALTEN

NiTiCo 30 DP ENDMILLS, also with WELDON SHANK

Solid Carbide NiTiCo 30 DP Endmills, with Differential Pitch, 4 flutes

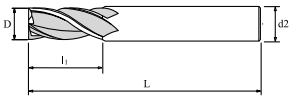
VHM NiTiCo 30 DP Fräser mit ungleicher Teilung, 4 Zähne

Fraises 2 tailles NiTiCo 30 DP à pas décalés, 4 dents, en carbure monobloc

Frese NiTiCo 30 DP in metallo duro, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DP 系列
立铣刀 4 刃

4



*** L = ~ DIN 6527L**

MG | γ 10° | λ = 40° | G6110 HPT | DIN 6535 HA HB HE

	EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)					951 *	972 *
							HA	HB
	= * + Ø data	D	l 1	l 2	L	d2 (h6)	G6110	G6110
	0300 040 03	**3**	9		40	3	●	-
	0300 040 04	**3**	9		40	4	●	-
	0300 050 06	**3**	9		50	6	●	●
*	0300 057 06	**3**	9		57	6	●	●
	0400 050 04	**4**	12		50	4	●	-
	0400 050 06	**4**	12		50	6	●	●
*	0400 057 06	**4**	12		57	6	●	●
	0500 050 05	**5**	13		50	5	●	-
	0500 050 06	**5**	13		50	6	●	●
*	0500 057 06	**5**	13		57	6	●	●
	0600 050	**6**	13		50	6	●	●
*	0600 057	**6**	13		57	6	●	●
*	0800 064	**8**	20		64	8	●	●
	1000 070	**10**	22		70	10	●	●
*	1000 072	**10**	22		72	10	●	●
	1000 075	**10**	22		75	10	●	●
*	1200 075	**12**	26		75	12	●	●
	1200 083	**12**	26		83	12	●	●
*	1400 083	**14**	32		83	14	●	●
	1400 090	**14**	32		90	14	●	●
	1600 090	**16**	32		90	16	●	●
*	1600 092	**16**	32		92	16	●	●
*	1800 092	**18**	38		92	18	●	●
	1800 100	**18**	38		100	18	●	●
	2000 100	**20**	38		100	20	●	●
*	2000 104	**20**	38		104	20	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

SPÉCIFICATIONS TECHNIQUES SUJETTES À CHANGEMENT SANS AVIS PRÉALABLE

NiTiCo 30 DP ROUGHING ENDMILLS, also with WELDON SHANK

MG

Solid Carbide Roughing Endmills
NiTiCo 30 DP with differential pitch, 4 Flutes

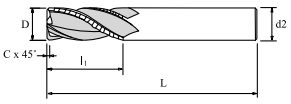
VHM DP Schruppfräser NiTiCo 30 mit ungleicher Teilung, 4 Zähne

Fraises ébauches 2 tailles NiTiCo 30 DP à pas décalés - 4 dents, en carbure monobloc

Frese per sgrossare NiTiCo 30 DP in metallo duro, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DP 系列 粗皮
立铣刀 4 刃

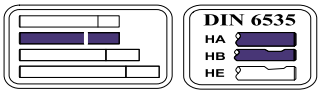
4



*** L = ~ DIN 6527L**

C47*

C64*



	EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C47 *	C64 *
								HA	HB
	= * + Ø data	D (h10)	l 1	l 2	L	d2 (h6)	C	G6110	G6110
	0600 050	**6**	13		50	6	0.1	●	●
*	0600 057	**6**	13		57	6	0.1	●	●
*	0800 064	**8**	20		64	8	0.2	●	●
	1000 070	**10**	22		70	10	0.2	●	●
*	1000 072	**10**	22		72	10	0.2	●	●
	1000 075	**10**	22		75	10	0.2	●	●
*	1200 075	**12**	25		75	12	0.2	●	●
	1200 083	**12**	26		83	12	0.2	●	●
*	1400 083	**14**	26		83	14	0.3	●	●
	1400 090	**14**	32		90	14	0.3	●	●
	1600 090	**16**	32		90	16	0.3	●	●
*	1600 092	**16**	32		92	16	0.3	●	●
*	1800 092	**18**	32		92	18	0.3	●	●
	1800 100	**18**	38		100	18	0.3	●	●
	2000 100	**20**	38		100	20	0.4	●	●
*	2000 104	**20**	38		104	20	0.4	●	●

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								

M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

MODIFICHE TECHICHE POSSIBILI SENZA PREAVVISO

NiTiCo 30 - DPR TORUS ENDMILLS, also with Weldon Shank

MG

≤ 900 N/mm² + G6110 ≤ 45 HRC

Solid Carbide NiTiCo 30 DPR Torus Endmills with differential pitch, 4 flutes

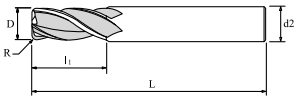
VHM SE NiTiCo 30 DPR Torusfräser mit ungleicher Teilung, 4 Zähne

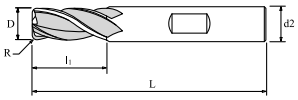
Fraises 2 tailles NiTiCo 30 DPR toriques à pas décalés en carbure monobloc, 4 dents

Frese NiTiCo 30 DPR toriche, in metallo duro integrale, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DPR 系列 圆鼻立铣刀 4 刃

4





C46*

C52*

* L = ~ DIN 6527L

MG | R ± 0.010 | γ 10° | λ = 40° | G6110 HPT

DIN 6535 HA HB HE

	EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C45 *	C46 *	C51 *	C52 *
								HA	HA	HB	HB
	= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	T ... n	G6110	T ... n	G6110
	0300 040 0300 030	3	9		40	3	0.3	●	●	-	-
	0300 040 0300 050	3	9		40	3	0.5	●	●	-	-
	0300 040 0400 030	3	9		40	4	0.3	●	●	-	-
	0300 040 0400 050	3	9		40	4	0.5	●	●	-	-
	0300 050 0600 030	3	9		50	6	0.3	●	●	-	-
	0300 050 0600 050	3	9		50	6	0.5	●	●	-	-
*	0300 057 0600 030	3	9		57	6	0.3	●	●	-	-
*	0300 057 0600 050	3	9		57	6	0.5	●	●	-	-
	0400 050 0400 030	4	12		50	4	0.3	●	●	-	-
	0400 050 0400 050	4	12		50	4	0.5	●	●	-	-
	0400 050 0400 100	4	12		50	4	1	●	●	-	-
	0400 050 0600 030	4	12		50	6	0.3	●	●	-	-
	0400 050 0600 050	4	12		50	6	0.5	●	●	-	-
	0400 050 0600 100	4	12		50	6	1	●	●	-	-
*	0400 057 0600 030	4	12		57	6	0.3	●	●	-	-
*	0400 057 0600 050	4	12		57	6	0.5	●	●	-	-
	0500 050 0500 030	5	15		50	5	0.3	●	●	-	-
	0500 050 0500 050	5	15		50	5	0.5	●	●	-	-
	0500 050 0500 100	5	15		50	5	1	●	●	-	-
	0500 050 0600 030	5	15		50	6	0.3	●	●	-	-
	0500 050 0600 050	5	15		50	6	0.5	●	●	-	-
	0500 050 0600 100	5	15		50	6	1	●	●	-	-
*	0500 057 0600 030	5	15		57	6	0.3	●	●	-	-
*	0500 057 0600 050	5	15		57	6	0.5	●	●	-	-
	0600 050 0600 030	6	16		50	6	0.3	●	●	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

若有技术规格变更，恕不事先通知

NiTiCo 30 - DPR TORUS ENDMILLS, also with Weldon Shank

MG

≤ 900 N/mm² + B0809 ≤ 45 HRC

Solid Carbide NiTiCo 30 DPR Torus Endmills with differential pitch, 4 flutes

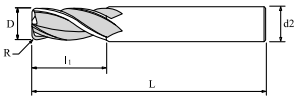
VHM SE NiTiCo 30 DPR Torusfräser mit ungleicher Teilung, 4 Zähne

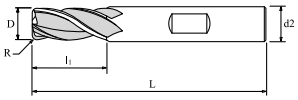
Fraises 2 tailles NiTiCo 30 DPR toriques à pas décalés en carbure monobloc, 4 dents

Frese NiTiCo 30 DPR toriche, in metallo duro integrale, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DPR 系列 圆鼻立铣刀 4 刃

4





C46*

C52*

* L = ~ DIN 6527L

MG | R ± 0.010 | γ 10° | λ = 40° | G6110 HPT | DIN 6535 HA HB HE

	EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C45 *	C46 *	C51 *	C52 *
								HA	HA	HB	HB
	= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	T ... n	G6110	T ... n	G6110
	0600 050 0600 050	6	16		50	6	0.5	●	●	●	●
	0600 050 0600 100	6	16		50	6	1	●	●	●	●
*	0600 057 0600 030	6	16		57	6	0.3	●	●	●	●
*	0600 057 0600 050	6	16		57	6	0.5	●	●	●	●
*	0600 057 0600 100	6	16		57	6	1	●	●	●	●
	0600 060 0600 030	6	20		60	6	0.3	●	●	●	●
	0600 060 0600 050	6	20		60	6	0.5	●	●	●	●
	0600 060 0600 100	6	20		60	6	1	●	●	●	●
*	0800 064 0800 030	8	20		64	8	0.3	●	●	●	●
*	0800 064 0800 050	8	20		64	8	0.5	●	●	●	●
*	0800 064 0800 100	8	20		64	8	1	●	●	●	●
*	0800 064 0800 150	8	20		64	8	1.5	●	●	●	●
*	0800 064 0800 200	8	20		64	8	2	●	●	●	●
	1000 070 1000 030	10	22		70	10	0.3	●	●	●	●
	1000 070 1000 050	10	22		70	10	0.5	●	●	●	●
	1000 070 1000 100	10	22		70	10	1	●	●	●	●
	1000 070 1000 150	10	22		70	10	1.5	●	●	●	●
	1000 070 1000 200	10	22		70	10	2	●	●	●	●
*	1000 072 1000 030	10	22		72	10	0.3	●	●	●	●
*	1000 072 1000 050	10	22		72	10	0.5	●	●	●	●
*	1000 072 1000 100	10	22		72	10	1	●	●	●	●
	1000 075 1000 030	10	22		75	10	0.3	●	●	●	●
	1000 075 1000 050	10	22		75	10	0.5	●	●	●	●
	1000 075 1000 100	10	22		75	10	1	●	●	●	●
	1000 075 1000 150	10	22		75	10	1.5	●	●	●	●
	1000 075 1000 200	10	22		75	10	2	●	●	●	●
	1200 075 1200 030	12	25		75	12	0.3	●	●	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

NiTiCo 30 - DPR TORUS ENDMILLS, also with Weldon Shank

MG

≤ 900 N/mm² + G6110 ≤ 45 HRC

Solid Carbide NiTiCo 30 DPR Torus Endmills with differential pitch, 4 flutes

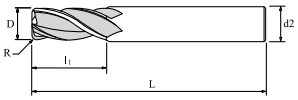
VHM SE NiTiCo 30 DPR Torusfräser mit ungleicher Teilung, 4 Zähne

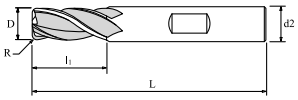
Fraises 2 tailles NiTiCo 30 DPR toriques à pas décalés en carbure monobloc, 4 dents

Frese NiTiCo 30 DPR toriche, in metallo duro integrale, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DPR 系列 圆鼻立铣刀 4 刃

4





C46*

C52*

* L = ~ DIN 6527L

MG | R ± 0.010 | γ 10° | λ = 40° | G6110 HPT | DIN 6535 HA HB HE

EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C45 *	C46 *	C51 *	C52 *
							HA	HA	HB	HB
= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	T ... n	G6110	T ... n	G6110
1200 075 1200 050	12	25		75	12	0.5	●	●	●	●
1200 075 1200 100	12	25		75	12	1	●	●	●	●
1200 075 1200 150	12	25		75	12	1.5	●	●	●	●
1200 075 1200 200	12	25		75	12	2	●	●	●	●
1200 075 1200 250	12	25		75	12	2.5	●	●	●	●
1200 075 1200 300	12	25		75	12	3	●	●	●	●
* 1200 083 1200 030	12	26		83	12	0.3	●	●	●	●
* 1200 083 1200 050	12	26		83	12	0.5	●	●	●	●
* 1200 083 1200 100	12	26		83	12	1	●	●	●	●
* 1200 083 1200 200	12	26		83	12	2	●	●	●	●
1200 083 1200 250	12	26		83	12	2.5	●	●	●	●
* 1200 083 1200 300	12	26		83	12	3	●	●	●	●
* 1400 083 1400 030	14	32		83	14	0.3	●	●	●	●
* 1400 083 1400 050	14	32		83	14	0.5	●	●	●	●
* 1400 083 1400 100	14	32		83	14	1	●	●	●	●
* 1400 083 1400 200	14	32		83	14	2	●	●	●	●
* 1400 083 1400 300	14	32		83	14	3	●	●	●	●
1400 090 1400 050	14	32		90	14	0.5	●	●	●	●
1400 090 1400 100	14	32		90	14	1	●	●	●	●
1400 090 1400 150	14	32		90	14	1.5	●	●	●	●
1400 090 1400 200	14	32		90	14	2	●	●	●	●
1400 090 1400 300	14	32		90	14	3	●	●	●	●
1600 090 1600 050	16	32		90	16	0.5	●	●	●	●
1600 090 1600 100	16	32		90	16	1	●	●	●	●
1600 090 1600 150	16	32		90	16	1.5	●	●	●	●
1600 090 1600 200	16	32		90	16	2	●	●	●	●
1600 090 1600 250	16	32		90	16	2.5	●	●	●	●
1600 090 1600 300	16	32		90	16	3	●	●	●	●
1600 090 1600 400	16	32		90	16	4	●	●	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

TECHNISCHE ÄNDERUNGEN OHNE VORHERIGE INFORMATION VORBEHALTEN

NiTiCo 30 - DPR TORUS ENDMILLS, also with Weldon Shank

MG

≤ 900 N/mm² + G6110 ≤ 45 HRC

Solid Carbide NiTiCo 30 DPR Torus Endmills with differential pitch, 4 flutes

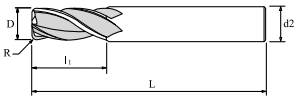
VHM SE NiTiCo 30 DPR Torusfräser mit ungleicher Teilung, 4 Zähne

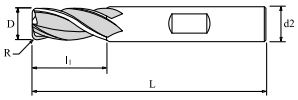
Fraises 2 tailles NiTiCo 30 DPR toriques à pas décalés en carbure monobloc, 4 dents

Frese NiTiCo 30 DPR toriche, in metallo duro integrale, passo differenziale, 4 taglienti

整体硬质合金 NiTiCo 30 DPR 系列 圆鼻立铣刀 4 刃

4

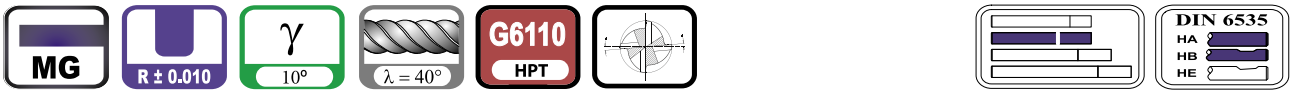




C46*

C52*

* L = ~ DIN 6527L



EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C45 *	C46 *	C51 *	C52 *
							HA	HA	HB	HB
= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	T ... n	G6110	T ... n	G6110
* 1600 092 1600 030	16	32		92	16	0.3	●	●	●	●
* 1600 092 1600 050	16	32		92	16	0.5	●	●	●	●
* 1600 092 1600 100	16	32		92	16	1	●	●	●	●
* 1600 092 1600 200	16	32		92	16	2	●	●	●	●
1600 092 1600 250	16	32		92	16	2.5	●	●	●	●
* 1600 092 1600 300	16	32		92	16	3	●	●	●	●
1600 092 1600 400	16	32		92	16	4	●	●	●	●
* 1800 092 1800 030	18	38		92	18	0.3	●	●	●	●
* 1800 092 1800 050	18	38		92	18	0.5	●	●	●	●
* 1800 092 1800 100	18	38		92	18	1	●	●	●	●
* 1800 092 1800 200	18	38		92	18	2	●	●	●	●
* 1800 092 1800 300	18	38		92	18	3	●	●	●	●
1800 100 1800 050	18	38		100	18	0.5	●	●	●	●
1800 100 1800 100	18	38		100	18	1	●	●	●	●
1800 100 1800 150	18	38		100	18	1.5	●	●	●	●
1800 100 1800 200	18	38		100	18	2	●	●	●	●
1800 100 1800 300	18	38		100	18	3	●	●	●	●
2000 100 2000 050	20	38		100	20	0.5	●	●	●	●
2000 100 2000 100	20	38		100	20	1	●	●	●	●
2000 100 2000 150	20	38		100	20	1.5	●	●	●	●
2000 100 2000 200	20	38		100	20	2	●	●	●	●
2000 100 2000 250	20	38		100	20	2.5	●	●	●	●
2000 100 2000 300	20	38		100	20	3	●	●	●	●
2000 100 2000 400	20	38		100	20	4	●	●	●	●
* 2000 104 2000 030	20	38		104	20	0.3	●	●	●	●
* 2000 104 2000 050	20	38		104	20	0.5	●	●	●	●
* 2000 104 2000 100	20	38		104	20	1	●	●	●	●
* 2000 104 2000 200	20	38		104	20	2	●	●	●	●
2000 104 2000 250	20	38		104	20	2.5	●	●	●	●
* 2000 104 2000 300	20	38		104	20	3	●	●	●	●
2000 104 2000 400	20	38		104	20	4	●	●	●	●

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●

Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类

M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

SPÉCIFICATIONS TECHNIQUES SUJETTES À CHANGEMENT SANS AVIS PRÉALABLE

NiTiCo 30 DP/DH ENDMILLS, also with Weldon Shank

MG

≤ 1.300 N/mm² + B0909 for higher cutting speeds and feed advances

Solid Carbide NiTiCo 30 DP/DH Endmills with differential pitch and differential helix angles, 4 Flutes

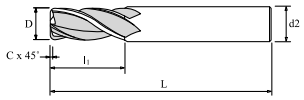
VHM NiTiCo 30 DP/DH Fräser mit ungleicher Teilung und ungleichen Drallwinkeln, 4 Zähne

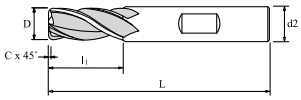
Fraises 2 tailles NiTiCo 30 DP/DH à pas décalés et hélices différentes, en carbure monobloc, 4 dents

Frese NiTiCo 30 DP/DH in metallo duro integrale a passo ed eliche variabili, 4 taglienti

整体硬质合金 NiTiCo 30 系列 不等分 割及 不等份 螺旋角 立铣刀 4 刃 – 标准长度

4





949*

C49*

MG | γ 10° | λ=35°/38° | G6110 HPT | B0909 HSC | DIN 6535 HA HB HE

EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						949 *	A1N *	C49 *	A1S *
							HA	HA	HB	HB
= * + Ø data	D	l 1	l 2	L	d2 (h6)	C	G6110	B0909	G6110	B0909
0400	4	11		57	6	0.1	●	●	●	●
0500	5	13		57	6	0.1	●	●	●	●
0600	6	13		57	6	0.1	●	●	●	●
0800	8	20		64	8	0.2	●	●	●	●
1000	10	22		72	10	0.2	●	●	●	●
1200	12	26		83	12	0.2	●	●	●	●
1400	14	26		83	14	0.3	●	●	●	●
1600	16	32		92	16	0.3	●	●	●	●
1800	18	32		92	18	0.3	●	●	●	●
2000	20	38		104	20	0.4	●	●	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

MODIFICHE TECHICHE POSSIBILI SENZA PREAVVISO

NiTiCo 30R DP/DH ENDMILLS, also with Weldon Shank

MG

≤ 1.300 N/mm² + B0909 for higher cutting speeds and feed advances

Solid Carbide NiTiCo 30R DP/DH Endmills with differential pitch and differential helix angles, 4 Flutes

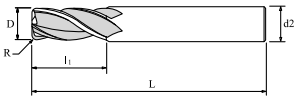
VHM NiTiCo 30R DP/DH Fräser mit ungleicher Teilung und ungleichen Drallwinkeln, 4 Zähne

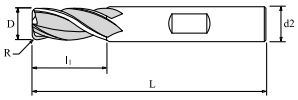
Fraises 2 tailles NiTiCo 30R DP/DH toriques à pas décalés et hélices différentes, en carbure monobloc, 4 dents

Frese NiTiCo 30R DP/DH in metallo duro integrale a passo ed eliche variabili, 4 taglienti

整体硬质合金 NiTiCo 30R 系列 不等分 割及 不等份 螺旋角 立铣刀 4 刃 – 标准长度

4





C48*

C50*

MG | γ 10° | λ=35°/38° | G6110 HPT | B0909 HSC | DIN 6535 HA HB HE

EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C48 *	A1R *	C50 *	A1T *
							HA	HA	HB	HB
= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	G6110	B0909	G6110	B0909
0400 057 0600 030	4	11		57	6	0.3	●	●	●	●
0400 057 0600 050	4	11		57	6	0.5	●	●	●	●
0500 057 0600 030	5	13		57	6	0.3	●	●	●	●
0500 057 0600 050	5	13		57	6	0.5	●	●	●	●
0600 057 0600 030	6	13		57	6	0.3	●	●	●	●
0600 057 0600 050	6	13		57	6	0.5	●	●	●	●
0600 057 0600 100	6	13		57	6	1	●	●	●	●
0800 064 0800 030	8	20		64	8	0.3	●	●	●	●
0800 064 0800 050	8	20		64	8	0.5	●	●	●	●
0800 064 0800 100	8	20		64	8	1	●	●	●	●
1000 072 1000 030	10	22		72	10	0.3	●	●	●	●
1000 072 1000 050	10	22		72	10	0.5	●	●	●	●
1000 072 1000 100	10	22		72	10	1	●	●	●	●
1200 083 1200 030	12	26		83	12	0.3	●	●	●	●
1200 083 1200 050	12	26		83	12	0.5	●	●	●	●
1200 083 1200 100	12	26		83	12	1	●	●	●	●
1200 083 1200 200	12	26		83	12	2	●	●	●	●
1200 083 1200 250	12	26		83	12	2.5	●	●	●	●
1200 083 1200 300	12	26		83	12	3	●	●	●	●
1400 083 1400 030	14	26		83	14	0.3	●	●	●	●
1400 083 1400 050	14	26		83	14	0.5	●	●	●	●
1400 083 1400 100	14	26		83	14	1	●	●	●	●
1400 083 1400 200	14	26		83	14	2	●	●	●	●
1400 083 1400 300	14	26		83	14	3	●	●	●	●

CNC Repeatalibility within 10 µm

M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

若有技术规格变更，恕不事先通知

NiTiCo 30R DP/DH ENDMILLS, also with Weldon Shank

MG

≤ 1.300 N/mm² + B0909 for higher cutting speeds and feed advances

Solid Carbide NiTiCo 30R DP/DH Endmills with differential pitch and differential helix angles, 4 Flutes

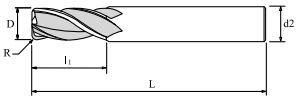
VHM NiTiCo 30R DP/DH Fräser mit ungleicher Teilung und ungleichen Drallwinkeln, 4 Zähne

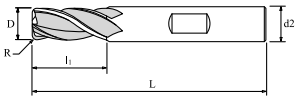
Fraises 2 tailles NiTiCo 30R DP/DH toriques à pas décalés et hélices différentes, en carbure monobloc, 4 dents

Frese NiTiCo 30R DP/DH in metallo duro integrale a passo ed eliche variabili, 4 taglienti

整体硬质合金 NiTiCo 30R 系列 不等分 割及 不等份 螺旋角 立铣刀 4 刃 – 标准长度

4





C48*

C50*

MG | γ 10° | λ=35°/38° | G6110 HPT | B0909 HSC | DIN 6535 HA HB HE

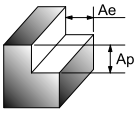
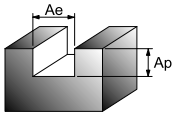
EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						C48 *	A1R *	C50 *	A1T *
							HA	HA	HB	HB
= * + Ø data	D	l 1	l 2	L	d2 (h6)	R	G6110	B0909	G6110	B0909
1600 092 1600 030	16	32		92	16	0.3	●	●	●	●
1600 092 1600 050	16	32		92	16	0.5	●	●	●	●
1600 092 1600 100	16	32		92	16	1	●	●	●	●
1600 092 1600 200	16	32		92	16	2	●	●	●	●
1600 092 1600 250	16	32		92	16	2.5	●	●	●	●
1600 092 1600 300	16	32		92	16	3	●	●	●	●
1600 092 1600 400	16	32		92	16	4	●	●	●	●
1800 092 1800 030	18	32		92	18	0.3	●	●	●	●
1800 092 1800 050	18	32		92	18	0.5	●	●	●	●
1800 092 1800 100	18	32		92	18	1	●	●	●	●
1800 092 1800 200	18	32		92	18	2	●	●	●	●
1800 092 1800 300	18	32		92	18	3	●	●	●	●
2000 104 2000 030	20	38		104	20	0.3	●	●	●	●
2000 104 2000 050	20	38		104	20	0.5	●	●	●	●
2000 104 2000 100	20	38		104	20	1	●	●	●	●
2000 104 2000 200	20	38		104	20	2	●	●	●	●
2000 104 2000 250	20	38		104	20	2.5	●	●	●	●
2000 104 2000 300	20	38		104	20	3	●	●	●	●
2000 104 2000 400	20	38		104	20	4	●	●	●	●

CNC Repeatalibility within 10 µm

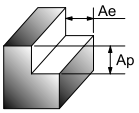
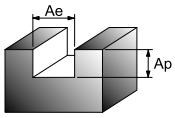
M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25
	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●	●	●
Material group - Material-Gruppe - Groupe matière - Gruppo materiali - 材质主类																								
M26	M27	M28	M29	M30	M31	M32																	Mat	Vc
					●	●																	14	13

TECHNICAL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

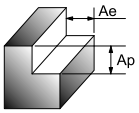
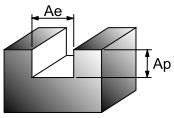
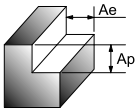
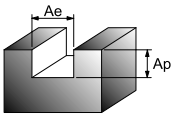
4 Z

DEPTH OF CUT	Side Milling Ae = 0.65 x D (0.32 x D) Ap = 1.5 x D		Slotting Ae = 1 x D Ap = 1 x D (0.5 x D)	
Material to be milled	ALUMINIUM ALLOY EXCEPT SOFT ALUMINIUM ALLOYS		CARBON STEEL (~30HRC) AISI 1049, SCM CAST IRON FC250		ALLOY STEEL TOOL STEEL PREHARDENED STEEL (30~45HRC) AISI H13 NAK	
Material Groups	**M02. M03. M04. M05. M06.M07. M08. M09**		**M15. M17. M18**		**M19, M22. M23. M25**	
	Vc = 200 ~ 250 m / min		**Vc = 100 ~ 120 m / min**		**Vc = 60 ~ 80 m / min**	
Dia (mm)	n	fz mm / z	n	fz mm / z	n	fz mm / z
6	11000~13000	0.035~0.045	5300~6300	0.030~0.035	3200~4200	0.030~0.035
8	8000~10000	0.050~0.060	4000~4800	0.040~0.050	2400~3200	0.040~0.045
10	6400~8000	0.055~0.065	3200~3800	0.045~0.055	1900~2500	0.045~0.050
12	5300~6400	0.055~0.070	2700~3200	0.045~0.060	1600~2100	0.045~0.050
16	4000~5000	0.055~0.070	2000~2400	0.045~0.060	1200~1600	0.045~0.050
20	3200~4000	0.055~0.070	1600~1900	0.045~0.060	1000~1300	0.045~0.050

4 Z

DEPTH OF CUT	Side Milling Ae = 0.65 x D (0.32 x D) Ap = 1.5 x D		Slotting Ae = 1 x D Ap = 1 x D (0.5 x D)	
Material to be milled	STAINLESS STEELS 300 (Ni - Cr) 400 (Ni - Cr - Mo)		TITANIUM ALLOYS HARDENED UP HRC 32		TITANIUM ALLOYS HARDENED > HRC 32	
Material Groups	**M16. M20**		**M17**		**M21**	
	Vc = 40 ~ 60 m / min		**Vc = 60 ~ 70 m / min**		**Vc = 40 ~ 50 m / min**	
Dia (mm)	n	fz mm / z	n	fz mm / z	n	fz mm / z
6	2100~3200	0.025~0.030	3200~3600	0.015~0.018	2100~2600	0.015~0.018
8	1600~2400	0.030~0.035	2400~2800	0.020~0.025	1600~1950	0.020~0.025
10	1250~1900	0.035~0.040	1900~2200	0.025~0.030	1250~1600	0.025~0.030
12	1000~1600	0.035~0.045	1600~1800	0.030~0.035	1100~1300	0.030~0.035
16	800~1200	0.035~0.045	1200~1400	0.030~0.035	800~1000	0.030~0.035
20	625~1000	0.035~0.045	1000~1100	0.035~0.040	625~800	0.035~0.040

4 Z

DEPTH OF CUT	Side Milling	Slotting
	≤ Ø 12 mm Ae = 0.5 x D (0.25 x D) Ap = 1.5 x D 	≤ Ø 12 mm Ae = 1x D Ap = 1 x D (0.5 x D) 
	> Ø 12 mm Ae = 0.25 x D (0.13 x D) Ap = 1.5 x D 	> Ø 12 mm Ae = 1x D Ap = 0.5 x D (0.25 x D) 

Material to be milled	HEAT - RESISTANT STEEL		NICKEL BASE ALLOYS PRE - HARDENED (E.g: INCONEL 718)	
Material Groups	**M31**		**M24**	
	Vc = 25 mtr / min		**Vc = 15 mtr / min**	
Dia (mm)	n	fz mm / z	n	fz mm / z
6	1300	0.015~0.025	800	0.015~0.025
8	1000	0.020~0.028	600	0.020~0.028
10	800	0.025~0.035	470	0.025~0.035
12	650	0.030~0.040	400	0.030~0.040
16	500	0.035~0.045	300	0.035~0.045
20	390	0.050~0.060	240	0.050~0.060

Values in ( ) for NiTiCo 30 STD.

Werte in ( ) für NiTiCo 30 STD.

Valeurs ( ) pour NiTiCo 30 STD.

Valori ( ) per NiTiCo 30 STD.

速 ( ) NiTiCo 30 STD.

Material Groups / Materialgruppen / Groupes matière

No.			
M02	Aluminium alloys - not for pure Aluminium alloys	Aluminiumlegierungen - nicht für reine Alu-Legierungen	Aliages d'aluminium - pas pour alliages d'aluminium pur
M03	Copper pure	Reinkupfer	Cuivres non alliés
M04	Zinc-Alloys	Zink-Legierungen	Aliages de zinc
M05	Aluminium-Slilicon Alloys Cast, below 10% Si	Al-Si Legierungen Alu-Guß <10% Si	Aliages d'aluminium avec <10% Si
M06	Aluminium-Slilicon Alloys Cast, 10%-14% Si	Al-Si Legierungen Alu-Guß 10% bis 14% Si	Aliages d'aluminium avec Si entre 10% et 14%
M07	Aluminium-Slilicon Alloys Cast, more than 14% Si	Al-Si Legierungen Alu-Guß mit mehr als 14% Si	Aliages d'aluminium avec plus se 14% de SI
M08	Brass	Messing	Laitons
M09	Bronze	Bronze	Bronzes
M15	Steel and Cast Steel up to 700 N/mm²-210 HB	Stahl und Stahlguß bis 700 N/mm² - 210 HB	Aciers et aciers coulés jusqu'à 700 N/mm²
M16	Stainless Steel - SUS 300	Rostfreie Stähle	Aciers inoxydables
M17	Titanium commercial Titanium alloys up to 700 N/mm²	Titanium, rein Titanium Legierungen bis 700 N/mm²	Titane, pure Alliages de titane jusqu'à 700 N/mm²
M18	Steel and Cast Steel from 700 N/mm² up to 1.000 N/mm² ~ 30 HRC-210-295 HB	Stahl und Stahlguß von 700 N/mm² bis 1.000 N/mm² ~ 30 HRC-210-295 HB	Aciers et aciers coulés de 700 N/mm² à 1.000 N/mm² ~ 30 HRC-210-295 HB
M19	Ni and Co Alloys up to 900 N/mm² - 266 HB	Ni- und Co-Legierungen bis 900 N/mm² - 266 HB	Alliages de Ni et Co jusqu'à 900 N/mm² - 266 HB
M20	Stainless Steel - SUS 400	Rostfreie Stähle (≤ 2% Ni)	Aciers inoxydables, ferritiques
M21	Titanium commercial Titanium alloys over 700 N/mm²	Titanium, rein Titanium Legierungen über 700 N/mm²	Titane, pure Alliages de titane > 700 N/mm²
M22	Steel from 1.300 N/mm² to 1.600 N/mm² spring steel - hard wearing resistant steel ~40 HRc - 360 - 440 HB	Stähle von 1.300 N/mm² bis 1.600 N/mm² Federbandstahl - hart ~40 HRc - 360 - 440 HB	Aciers de 1.300 N/mm² à 1.600 N/mm² aciers à ressort - dur aciers résistants à l'usure ~40 HRc - 360 - 440 HB
M23	Ni and Co Alloys up to 1.200 N/mm² ~ 35 HRC - 266 - 352 HB	Ni- und Co-Legierungen bis 1.200 N/mm² ~ 35 HRC - 266 - 352 HB	Alliages de Ni et Co jusqu'à 1.200 N/mm² ~ 35 HRC - 266 - 352 HB
M24	Ni and Co Alloys more than 1.200 N/mm² ~ 45 HRC-> 352 HB	Ni- und Co-Legierungen über 1.200 N/mm² ~ 45 HRC-> 352 HB	Alliages de Ni et Co au delas de 1.200 N/mm² ~ 45 HRC-> 352 HB
M25	Steel from 1.000 N/mm² to 1.300 N/mm² ~35 HRC - 295 - 360 HB	Stähle von 1.000 N/mm² bis 1.300 N/mm² ~35 HRC - 295 - 360 HB	Aciers de 1.000 N/mm² à 1.300 N/mm² ~35 HRC - 295 - 360 HB
M31	Heat-Resistant Steel	Hitze beständige Stähle	Aciers réfractaires
M32	Nickel base alloys pre-hardened (e.g INCONEL 718)	vorgehärtete Nickel-Legierungen (z.B. INCONEL 718)	Alliages au Nickel prétraités (p.ex. INCONEL 718)

n & fz page/Seite/pagina/页 **13**

Gruppi materiali

材质主类

Leghe di alluminio - non per leghe pure	铝（商业等级纯度）、精炼铝合金 铝合金
Rame senza leghe	纯铜
Leghe di zinco	锌合金
Leghe di alluminio-silicio con < 10% Si	铝－硅合金铸件, 硅含量小于10%
Leghe di alluminio-silicio con Si tra 10% e 14%	铝－硅合金铸件, 硅含量10% ~ 14%
Leghe di alluminio-silicio con più di 14% di Si	铝－硅合金铸件, 硅含量大于14%
Ottone	黄铜
Bronzi	青铜
Acciai ed acciai fusi fino a 700 N/mm²-210 HB	钢材或铸钢, 抗拉强度 <700N/mm2, 布氏强度 <210HB
Acciai inossidabili	不锈钢,沃斯田铁系SUS300
Titanio Leghe di titanio fino a 700 N/mm²	钛（商业等级）、 钛合金, 抗拉强度 <700N/mm2, 布氏强度 <210HB
Acciai ed acciai fusi da 700 N/mm² a 1.000 N/mm² ~ 30 HRC-210-295 HB	钢材或铸钢, 抗拉强度 700 ~ 1000N/mm2, 洛氏硬度 <30 HRC, 布氏强度 210 ~ 295HB
Leghe al Ni e Co fino a 900 N/mm² - 266 HB	镍、钴基合金钢, 抗拉强度 <900N/mm², 布氏强度 <266HB
Acciai inossidabili, ferritici	不锈钢,麻田散铁系SUS400
Titanio Leghe di titanio oltre 700 N/mm²	钛-商业等级、 钛合金, 抗拉强度 >于700N/mm2, 布氏强度 <210HB
Acciai da 1.300 N/mm² a 1.600 N/mm² acciai a mollo - duri acciai resistenti all'usura ~40 HRc - 360 - 440 HB	钢材或铸钢, 抗拉强度 1300 ~ 1600N/mm, 洛氏硬度 <35 HRc, 布氏强度 295 ~ 360HB之钢材; 硬质弹簧钢; 耐磨钢, 洛氏硬度 <40 HRc, 布氏强度 360 ~ 440HB
Leghe al Ni e Co fino a 1.200 N/mm² ~ 35 HRC - 266 - 352 HB	镍、钴基合金钢, 抗拉强度 <1200N/mm2, 洛氏硬度 <35 HRC,布氏强度 266 ~ 352HB
Leghe al Ni e Co oltre 1.200 N/mm² ~ 45 HRC-> 352 HB	镍、钴基合金钢, 抗拉强度 >1200N/mm2, 洛氏硬度 <45 HRC,布氏强度 >352HB
Acciai da 1.000 N/mm² a 1.300 N/mm² ~35 HRC - 295 - 360 HB	钢材或铸钢, 抗拉强度达 1300N/mm, 洛氏硬度 <35 HRC, 布氏强度 295 ~ 360HB
Acciai refrattari	耐热钢
Leghe di Nickel pretrattate (per esempio: INCONEL 718)	预硬镍基合金 （例如INCONEL 718）

Warning – Safety Norms

Tools may shatter if broken. The wearing of eye protection is strongly advised in the vicinity of the working area.
The correct using condition and handling of the tools is essential to secure maximum useful life and hazard free operation.
Cutting tools have sharp edges and care must be taken, when handling, to avoid cuts/lacerations to unprotected hands.
The wearing of gloves is not recommended, as gloves may entangle with the rotating tools.
Tools may hurt the user's feet when falling off. Safety shoes should be put on at all time.

Sicherheitshinweise

Werkzeuge können splittern wenn sie brechen. Schutzbrillen sollten im Arbeitsumfeld getragen werden.
Die richtige Werkzeuganwendung ist unbedingt erforderlich um die beste Nutzung und problemfreie Einsätze zu gewährleisten.
Zerspanungswerkzeuge haben scharfe Kanten und Sorgfalt muss angewendet werden um Schnitte/Schürfungen an den ungeschützten Händen zu vermeiden.
Das Tragen von Handschuhen ist nicht zu empfehlen da Handschuhe sich mit den rotierenden Werkzeugen verwickeln können.
Die Füße des Benutzers können verletzt werden, wenn die Werkzeuge herunterfallen. Deshalb sollten Sicherheitsschuhe immer getragen werden.

Avis de sécurité

Tout outil peut s'effriter lorsqu'il se casse. L'utilisation de lunettes protectrices dans l'aire de travail est recommandée.
L'emploi et l'utilisation correcte de l'outil de coupe est essentiel afin de garantir une longue utilisation sans problèmes.
Les outils coupants ont des arrêtes aiguës et des précautions sont à prendre afin d'éviter des coupures/lacérations aux mains non protégées.
L'emploi de gants n'est pas recommandé du fait que les gants peuvent s'enchêveter avec les outils en rotation.
Les outils peuvent blesser les pieds de l'utilisateur lorsqu'ils tombent. Des souliers de protection doivent être portés à tout moment.

Avviso di sicurezza

Utensili possono scheggiarsi quando si rompono. Pertanto è consigliato di portare degli occhiali di protezione nell'area di lavoro.
L'impiego e la manutenzione corretta dell'utensile è essenziale per assicurarne la longevità e lavorare senza problemi.
Utensili da taglio hanno taglienti vivi e bisogna prendere delle cautele al fine di evitare dei tagli/lacerazioni sulle mani non protette.
Non si raccomanda di portare dei guanti dato che questi possono attorcigliarsi con gli utensili in rotazione.
Quando utensili cadono, possono ferire i piedi dell'utente. Pertanto le scarpe di protezione sono da portarsi ad ogni momento.

警告 – 安全规范

刀具破损时会碎裂，在操作场所内请务必戴上眼睛保护措施。
正确保管及使用刀具，除了可以确保操作安全无虑、而且增加刀具使用寿命。
切削刀具的刃口锋利，操作使用时请务必小心，以避免对无保护双手割伤或损破。
不建议戴上手套，因手套可能会被旋转机器卷入。
刀具掉落时会伤及使用者的只脚，全程应穿上安全鞋。

INNER BACK COVER

HPMT INDUSTRIES SDN. BHD.
5, Jalan Sungai Kayu Ara 32/39, Taman Berjaya,
Seksyen 32, 40460 Shah Alam, Selangor, Malaysia.
Tel.: + 60 3 5740 2218 Fax: + 60 3 5740 2238
e-mail: info@hpmt-industries.com
website: www.hpmt-industries.com
Designed and Printed in Malaysia by feons-avenue/OSCS/E/CSXS
SOLID CARBIDE TOOLS