

NiTiCo 45

NO Vibration And NOise

For material application between
36 HRC to 52 HRC



NiTiCo 45

01

PERFECT EDGE GRINDING

- Improves surface finishing
- Enables higher cutting speeds
- High CNC repeatability within 0.010mm



02

DIFFERENTIAL PITCH (DP) DESIGN

Reduce Vibrations

Maximizes productivity and tool life



03

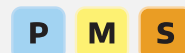
PVD COATING + COATING SELECTION

- Superior wear and chipping resistance due to optimally matched coating and carbide material
- Prolong the tool life
- Enables higher cutting speeds



04

SUITABLE FOR MATERIAL GROUPS

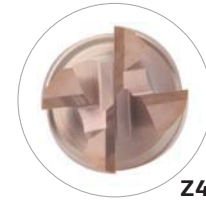
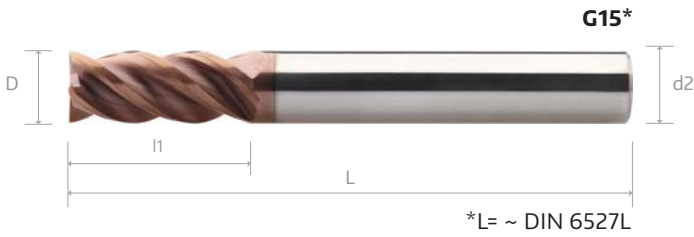


NiTiCo 45 DP STANDARD ENDMILLS

≤ 1.300 N/mm² + B0909 / G6110 ≤ 36 - 52 HRC



VHM NiTiCo 45 DP Standard Fräser mitungleicher Teilung, 4 Zähne	Fraises 2 tailles NiTiCo 45 DP Standard à pas décalés, 4 dents, en carbure monobloc
Frese NiTiCo 45 DP Standard in metallo duro, passo differenziale, 4 taglienti	整体硬质合金 NiTiCo 45 DP 系列 立铣刀 4刃 - 标准长度



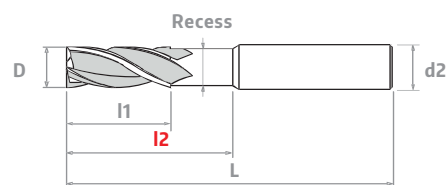
EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)					G14 *	G15 *	G20 *	G21 *
	D	l1	l2	L	d2 (h6)	HA	HA	HB	HB
= * + Ø data	D	l1	l2	L	d2 (h6)	G6110	B0909	G6110	B0909
0300	3	9	15	57	6	•	•	•	•
* 0400	4	12	20	57	6	•	•	•	•
* 0500	5	13	20	57	6	•	•	•	•
* 0600	6	13	20	57	6	•	•	•	•
* 0800	8	20	30	64	8	•	•	•	•
* 1000	10	22	32	72	10	•	•	•	•
1200	12	26	37	83	12	•	•	•	•
* 1400	14	32	44	83	14	•	•	•	•
* 1600	16	32	46	92	16	•	•	•	•
* 1800	18	38	53	92	18	•	•	•	•
* 2000	20	38	58	104	20	•	•	•	•

G17 * G18 * G23 * G24 *

NiTiCo 45

Tools with recess upon request

Fräser mit Freistellung auf Bestellung	Outils a vec dégagement sur demande
Utensili con riduzione gambo su richiesta	密齿立铣刀带颈位特别要求



CNC Repeatability
Ø1 - Ø3 within 10µm
Ø4 - Ø8 within 15µm
≥ Ø10 within 20µm

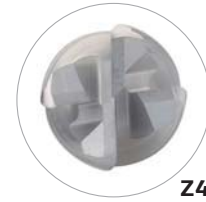
Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameter

248

VHM NiTiCo 45 DP Torusfräser mit ungleicher Teilung, 4 Zähne	Fraises 2 tailles NiTiCo 45 DP toriques à pas décalés en carbure monobloc, 4 dents
Frese NiTiCo 45 DP toriche, in metallo duro integrale, passo differenziale, 4 taglienti	整体硬质合金 NiOVIANO 45 DP 系列 圆鼻立铣刀 4 刃



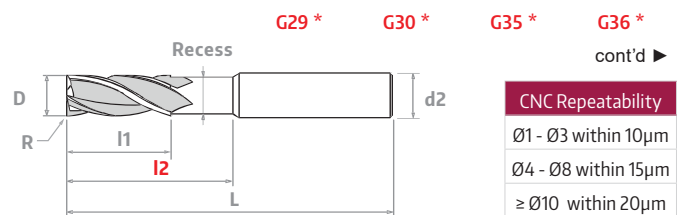
*L = ~ DIN 6527L



EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						G26 *	G27 *	G32 *	G33 *
	D	l1	l2	L	d2 (h6)	R	HA	HA	HB	HB
= * + Ø data	D	l1	l2	L	d2 (h6)	R	G6110	B0909	G6110	B0909
0300 050 0600 030	3	9	15	50	6	0.3	•	•	•	•
0300 050 0600 050	3	9	15	50	6	0.5	•	•	•	•
* 0400 057 0600 030	4	12	20	57	6	0.3	•	•	•	•
* 0400 057 0600 050	4	12	20	57	6	0.5	•	•	•	•
* 0500 057 0600 100	4	12	20	57	6	1	•	•	•	•
* 0500 057 0600 030	5	15	20	57	6	0.3	•	•	•	•
* 0500 057 0600 050	5	15	20	57	6	0.5	•	•	•	•
* 0600 057 0600 030	6	16	20	57	6	0.3	•	•	•	•
* 0600 057 0600 050	6	16	20	57	6	0.5	•	•	•	•
* 0600 057 0600 100	6	16	20	57	6	1	•	•	•	•
* 0800 064 0800 030	8	20	30	64	8	0.3	•	•	•	•
* 0800 064 0800 050	8	20	30	64	8	0.5	•	•	•	•
* 0800 064 0800 100	8	20	30	64	8	1	•	•	•	•
* 0800 064 0800 150	8	20	30	64	8	1.5	•	•	•	•
* 0800 064 0800 200	8	20	30	64	8	2	•	•	•	•
* 1000 072 1000 030	10	22	32	72	10	0.3	•	•	•	•
* 1000 072 1000 050	10	22	32	72	10	0.5	•	•	•	•
* 1000 072 1000 100	10	22	32	72	10	1	•	•	•	•
1000 072 1000 150	10	22	32	72	10	1.5	•	•	•	•
1000 072 1000 200	10	22	32	72	10	2	•	•	•	•
* 1200 083 1200 030	12	26	37	83	12	0.3	•	•	•	•
* 1200 083 1200 050	12	26	37	83	12	0.5	•	•	•	•
* 1200 083 1200 100	12	26	37	83	12	1	•	•	•	•
* 1200 083 1200 200	12	26	37	83	12	2	•	•	•	•
1200 083 1200 250	12	26	37	83	12	2.5	•	•	•	•

Tools with recess upon request

Fräser mit Freistellung auf Bestellung	Outils a vec dégagement t sur demande
Utensilli con riduzione gambo su richiesta	密齿立铣刀带颈位特别要求



CNC Repeatability
Ø1 - Ø3 within 10µm
Ø4 - Ø8 within 15µm
≥ Ø10 within 20µm

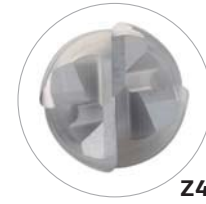
Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameter

248

VHM NiTiCo 45 DP Torusfräser mit ungleicher Teilung, 4 Zähne	Fraises 2 tailles NiTiCo 45 DP toriques à pas décalés en carbure monobloc, 4 dents
Frese NiTiCo 45 DP toriche, in metallo duro integrale, passo differenziale, 4 taglienti	整体硬质合金 NIOVIANO 45 DP 系列 圆鼻立铣刀 4 刃



*L= ~ DIN 6527L

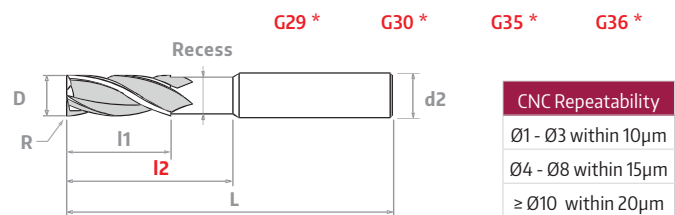


EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						G26 *	G27 *	G32 *	G33 *
	D	l1	l2	L	d2 (h6)	R	HA	HA	HB	HB
= * + Ø data	D	l1	l2	L	d2 (h6)	R	G6110	B0909	G6110	B0909
* 1200 083 1200 300	12	26	37	83	12	3	•	•	•	•
* 1400 083 1400 030	14	32	44	83	14	0.3	•	•	•	•
* 1400 083 1400 050	14	32	44	83	14	0.5	•	•	•	•
* 1400 083 1400 100	14	32	44	83	14	1	•	•	•	•
* 1400 083 1400 200	14	32	44	83	14	2	•	•	•	•
* 1400 083 1400 300	14	32	44	83	14	3	•	•	•	•
* 1600 092 1600 030	16	32	46	92	16	0.3	•	•	•	•
* 1600 092 1600 050	16	32	46	92	16	0.5	•	•	•	•
* 1600 092 1600 100	16	32	46	92	16	1	•	•	•	•
* 1600 092 1600 200	16	32	46	92	16	2	•	•	•	•
1600 092 1600 250	16	32	46	92	16	2.5	•	•	•	•
* 1600 092 1600 300	16	32	46	92	16	3	•	•	•	•
1600 092 1600 400	16	32	46	92	16	4	•	•	•	•
* 1800 092 1800 030	18	38	53	92	18	0.3	•	•	•	•
* 1800 092 1800 050	18	38	53	92	18	0.5	•	•	•	•
* 1800 092 1800 100	18	38	53	92	18	1	•	•	•	•
* 1800 092 1800 200	18	38	53	92	18	2	•	•	•	•
* 1800 092 1800 300	18	38	53	92	18	3	•	•	•	•
* 2000 104 2000 030	20	38	58	104	20	0.3	•	•	•	•
* 2000 104 2000 050	20	38	58	104	20	0.5	•	•	•	•
* 2000 104 2000 100	20	38	58	104	20	1	•	•	•	•
* 2000 104 2000 200	20	38	58	104	20	2	•	•	•	•
* 2000 104 2000 250	20	38	58	104	20	2.5	•	•	•	•
* 2000 104 2000 300	20	38	58	104	20	3	•	•	•	•
* 2000 104 2000 400	20	38	58	104	20	4	•	•	•	•

NiTiCo 45

Tools with recess upon request

Fräser mit Freistellung auf Bestellung	Outils a vec dégage ment sur demande
Utensili con riduzione gambo su richiesta a	密齿立铣刀带颈位特别要求



CNC Repeatability	
Ø1 - Ø3	within 10µm
Ø4 - Ø8	within 15µm
≥ Ø10	within 20µm

Material Group | Material-Gruppe | Groupe Matiere | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameter

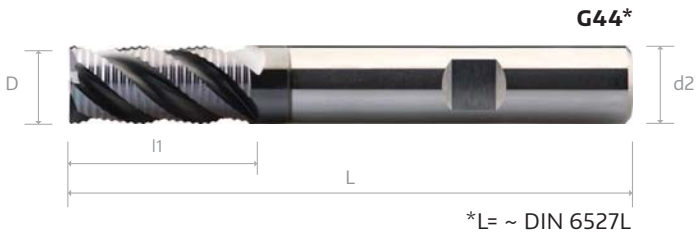
248

NiTiCo 45 DP ROUGHING ENDMILLS

≤ 1.300 N/mm² + B0909 / G6110 ≤ 36 - 52 HRC



VHM DP Schruppfräser NiTiCo 45 mit ungleicher Teilung, 4 Zähne	Fraises ébauches 2 tailles NiTiCo 45 DP à pas décalés - 4 dents, en carbure monobloc
Frese per sgrossare NiTiCo 45 DP in metallo duro, passo differenziale, 4 taglienti	整体硬质合金 NiTiCo 45 DP 系列 粗皮立铣刀 4 刃 - 标准长度



*L= ~ DIN 6527L

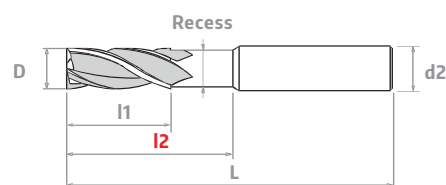


EDP No. / EDV-Nr. / CODE usine / Codice EDP	Dimension (mm)						G38 *	G39 *	G44 *	G45 *
	D	l1	l2	L	d2 (h6)	C	HA	HA	HB	HB
= * + Ø data	D	l1	l2	L	d2 (h6)	C	G6110	B0909	G6110	B0909
* 0600	6	13	20	57	6	0.1	•	•	•	•
* 0800	8	20	30	64	8	0.2	•	•	•	•
* 1000	10	22	32	72	10	0.2	•	•	•	•
1200	12	26	37	83	12	0.2	•	•	•	•
* 1400	14	26	44	83	14	0.3	•	•	•	•
* 1600	16	32	46	92	16	0.3	•	•	•	•
* 1800	18	32	53	92	18	0.3	•	•	•	•
* 2000	20	38	58	104	20	0.4	•	•	•	•

G41 * G42 * G47 * G48 *

Tools with recess upon request

Fräser mit Freistellung auf Bestellung	Outils a vec dégagement sur demande
Utensili con riduzione gambo su richiesta	密齿立铣刀带颈位特别要求



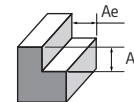
Material Group | Material-Gruppe | Groupe Matière | Gruppo Materiali | 材质主类

N01	N02	N03	K01	K02	P01	P02	P03	M01	M02	S01	S02	S03	H01	H02	O01	O02
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Cutting Parameter

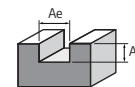
249

Modifiche Techiche possibili senza preavviso



DP Endmills 4 Flutes

Side Milling	P				M		S			
Working Material	Alloy Steel		Prehardened Steel		Stainless steel		Nickel Alloy		Cobalt Alloy	
Properties	520 < Rm < 1200		35 ≤ HRC < 45		Low Machinability		-		-	
Cutting Depth, Ap (mm)	1.20 × D		1.20 × D		1.20 × D		1.20 × D		1.20 × D	
Cutting Width, Ae (mm)	0.70 × D		0.60 × D		0.60 × D		0.40 × D		0.35 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
3	120	0.018	110	0.018	70	0.016	65	0.018	55	0.019
4		0.024		0.025		0.022		0.024		0.028
5		0.032		0.032		0.030		0.031		0.035
6		0.039		0.037		0.035		0.038		0.043
8		0.053		0.048		0.045		0.05		0.057
10		0.066		0.065		0.060		0.064		0.073
12		0.080		0.082		0.078		0.079		0.090
14		0.095		0.099		0.092		0.095		0.110
16		0.110		0.113		0.108		0.114		0.130
18		0.126		0.127		0.120		0.133		0.152
20	0.139	0.143	0.135	0.15	0.172					

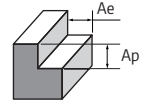


DP Endmills 4 Flutes

Slotting	P				M		S			
Working Material	Alloy Steel		Prehardened Steel		Stainless steel		Nickel Alloy		Cobalt Alloy	
Properties	520 < Rm < 1200		35 ≤ HRC < 45		Low Machinability		-		-	
Cutting Depth, Ap (mm)	0.50 × D		0.50 × D		0.50 × D		0.50 × D		0.30 × D	
Cutting Width, Ae (mm)	1.00 × D		1.00 × D		1.00 × D		1.00 × D		1.00 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
3	120	0.016	110	0.018	65	0.140	60	0.018	50	0.018
4		0.022		0.025		0.020		0.025		0.025
5		0.028		0.029		0.025		0.029		0.029
6		0.035		0.037		0.032		0.037		0.037
8		0.046		0.048		0.042		0.048		0.048
10		0.058		0.059		0.054		0.059		0.059
12		0.068		0.069		0.064		0.073		0.069
14		0.077		0.08		0.074		0.09		0.082
16		0.094		0.092		0.088		0.113		0.099
18		0.112		0.105		0.100		0.138		0.121
20	0.128	0.116	0.111	0.167	0.142					

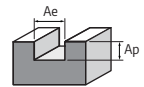


Recommended Cutting Data
 Note: These recommended cutting conditions indicate just references. It should be adjusted due to different cutting conditions.



DP Roughing Endmills 4 Flutes

Side Milling	P				M		S			
Working Material	Alloy Steel		Prehardened Steel		Stainless steel		Nickel Alloy		Cobalt Alloy	
Properties	520 < Rm < 1200		35 ≤ HRC < 45		Low Machinability		-		-	
Cutting Depth, Ap (mm)	1.20 × D		1.20 × D		1.20 × D		1.20 × D		1.20 × D	
Cutting Width, Ae (mm)	0.70 × D		0.60 × D		0.60 × D		0.40 × D		0.35 × D	
D (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
6	120	0.047	110	0.044	70	0.040	65	0.045	55	0.051
8		0.064		0.058		0.054		0.06		0.069
10		0.079		0.078		0.074		0.077		0.087
12		0.096		0.099		0.092		0.095		0.107
14		0.113		0.118		0.110		0.114		0.132
16		0.132		0.136		0.128		0.136		0.156
18		0.151		0.152		0.148		0.159		0.182
20		0.167		0.172		0.163		0.179		0.206
16		0.110		0.113		0.108		0.114		0.130
18		0.126		0.127		0.120		0.133		0.152
20		0.139		0.143		0.135		0.15		0.172



DP Roughing Endmills 4 Flutes

Slotting	P				M		S			
Working Material	Alloy Steel		Prehardened steel		Stainless steel		Nickel Alloy		Cobalt Alloy	
Properties	520 < Rm < 1200		35 ≤ HRC < 45		Low Machinability		-		-	
Cutting depth, ap	0.84 × D		0.72 × D		1.20 × D		0.48 × D		0.42 × D	
Cutting Width, ae	1.00 × D		1.00 × D		0.60 × D		1.00 × D		1.00 × D	
D	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)	Vc (m/min)	Fz (mm)
6	120	0.047	110	0.044	70	0.040	65	0.045	55	0.051
8		0.064		0.058		0.052		0.060		0.069
10		0.079		0.078		0.074		0.077		0.087
12		0.096		0.099		0.093		0.095		0.107
14		0.113		0.118		0.105		0.114		0.132
16		0.132		0.136		0.125		0.136		0.156
18		0.151		0.152		0.141		0.159		0.182
20		0.167		0.172		0.160		0.179		0.206
16		0.110		0.113		0.108		0.114		0.130
18		0.126		0.127		0.120		0.133		0.152
20		0.139		0.143		0.135		0.15		0.172

NiTiCo 45



Recommended Cutting Data
 Note: These recommended cutting conditions indicate just references. It should be adjusted due to different cutting conditions.