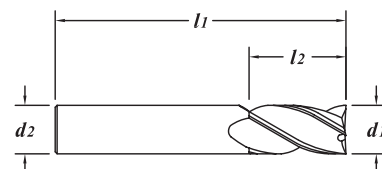


**NEW
SERIES****TOLERANCES**

d_1	+0,000 -0,050mm (+.000" -.002")
d_2	3mm - 6mm +0,0000 -0,0075mm (+.0000" -.0003") 1/4" - 1" -0,0025 -0,0100mm (-.0001" -.0004")

Square End - Balinit® X.CEED Coated
Ohne Eckenradius - Balinit® X.CEED-Beschichtet
Extremo Sin Radio - Recubrimiento de Balinit® X.CEED
Extrémité Carré - Revêtement Balinit® X.CEED
Piatte - Rivestimento in Balinit® X.CEED
平头 - Balinit® X.CEED 涂层



Solid submicron grain carbide end mill - center cutting
 State-of-the-art rougher/finisher
 Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity
 Recommended for stainless steel, inconel, pH materials, titanium and tool steels
 Variable flute geometry
 VRX Corner Radius - page 107
 VRX Ball End - page 111



Hochleistungs- Vollhartmetallfräser aus Feinkornhartmetall - Zentrumschnitt
 Herkömmliche Vollhartmetallschrupper und Schlichter
 Reduziert Vibrationen für eine aggressivere Bearbeitung, um Bearbeitungszeit zu reduzieren und eine grössere Produktivität zu erzielen
 Empfohlen für Rostfreien Stahl, Inconel, Pulvermetalle, Titan, und Werkzeugstähle
 Variable Spannut-Geometrie
 VRX Schaftfräser mit Eckenradius - Seite 107
 VRX Radiusfräser - Seite 111



Fresa de submicrograno sólido carburo de alto rendimiento - corte centrado
 Última generación con mejor desbaste / acabado
 Reduce las vibraciones hasta en los más agresivos mecanizados, obteniéndose bajos tiempos de ciclo y mayor productividad
 Recomendado para acero inoxidable, inconel, materiales pH, acero laminado en frío, hierro de fundición y aceros herramienta
 Geometría variable de ranura de viruta
 VRX Fresa de vástago con radio de cantos - Página 107
 VRX Fresadora de radios - Página 111



Fraises carbure submicrograin - coupe au centre
 La maîtrise de l'art pour le fraisage d'ébauche et finition
 Réduction des vibrations pour un fraisage plus agressif résultant des temps de cycles plus court et une meilleure productivité
 Recommandée pour les aciers inoxydables, inconel, inox pH, aciers a outils, aciers forges, titane, fontes et aciers a outils
 Géométrie variable de la helix
 VRX Rayon de Coin - Page 107
 VRX Hemispherique - Page 111



Super sub-micrograno metallo duro - taglio al centro
 Metallo duro per sgrossatura e finitura
 Riduzioni delle vibrazioni per lavorazioni aggressive per ridurre il tempo ciclo ed aumentare la produttività
 Raccomandata per lavorazioni su inox, inconel, titanio e acciai per utensili
 Geometria ad elica variabile
 VRX Toriche - Pagina 107
 VRX Sferiche - Pagina 111



超细晶粒整体硬质合金立铣刀 - 中心切削
 最先进的整体硬质合金粗切刀具/精切刀具
 适合更高速度，更大进给的加工，可以减少振动，减少加工时间，提高生产效率
 推荐加工不锈钢、铬镍铁耐热合金、含磷材质、钛钢 和工具钢
 不等分刃设计
 VRX圆弧角 - 107页
 VRX球头 - 111页

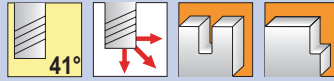
EDP# (plain)	EDP# (weldon)	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length
		Decimal	Metric			
61877	-	.1181	3,00	3,0	38	8
61887	-	.1181	3,00	3,0	38	12
61917	-	.1250	1/8"	3,17	1-1/2"	1/4"
61927	-	.1250	1/8"	3,17	1-1/2"	1/2"
61977	-	.1575	4,00	6,0	50	12
62007	-	.1875	3/16"	4,76	3/16"	2"
62017	-	.1875	3/16"	4,76	3/16"	2"
62057	-	.1969	5,00	6,0	65	15
62077	-	.2362	6,00	6,0	50	12
62087	-	.2362	6,00	6,0	65	19
62137	-	.2500	1/4"	6,35	1/4"	2"
62147	-	.2500	1/4"	6,35	1/4"	2-1/2"
62207	-	.3125	5/16"	7,94	5/16"	2"
62217	-	.3125	5/16"	7,94	5/16"	2-1/2"
62257	-	.3150	8,00	8,0	50	12
62267	-	.3150	8,00	8,0	65	22
62317	-	.3750	3/8"	9,52	3/8"	2"
62327	-	.3750	3/8"	9,52	3/8"	2-1/2"
62397	-	.3937	10,00	10,0	70	22
62437	-	.4375	7/16"	11,11	7/16"	2-3/4"
62475	-	.4724	12,00	12,0	65	19
62485	-	.4724	12,00	12,0	75	32
62525	* 62527	.5000	1/2"	12,70	1/2"	2-1/2"
62535	* 62537	.5000	1/2"	12,70	1/2"	3"
62565	* 62567	.5000	1/2"	12,70	1/2"	4"
62625	* 62627	.5625	9/16"	14,29	9/16"	3-1/2"
62655	* 62657	.6250	5/8"	15,87	5/8"	3-1/2"
62675	* 62677	.6250	5/8"	15,87	5/8"	4"
62715	* 62717	.6299	16,00	16,0	88	32
62775	* 62777	.7500	3/4"	19,05	3/4"	4"
62785	* 62787	.7500	3/4"	19,05	3/4"	4"
62795	* 62797	.7500	3/4"	19,05	3/4"	5"
62805	* 62807	.7500	3/4"	19,05	3/4"	6"
62825	* 62827	.7874	20,00	20,0	100	38
62855	* 62857	.9843	25,00	25,0	100	38
62885	* 62887	1.000	1"	25,40	1"	4"
62895	* 62897	1.000	1"	25,40	1"	4"
62905	* 62907	1.000	1"	25,40	1"	5"
62915	* 62917	1.000	1"	25,40	1"	6"

* - Tools with weldon flats

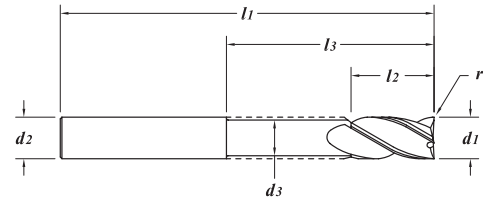
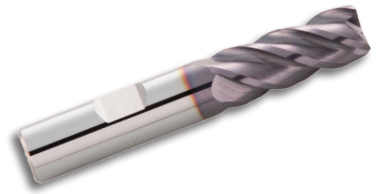
† Metric equivalents are for reference only

d_1	+0,000 -0,050mm (+.000" -.002")
d_2	3mm - 6mm +0,0000 -0,0075mm (+.0000" -.0003") 1/4" - 1" -0,0025 -0,0100mm (-.0001" -.0004")
r	+0,025 -0,025mm (+.001" -.001")

.1181" - .3125"
(3,00mm - 7,94mm)



Corner Radius - Balinit® X.CEED Coated
Eckenradius - Balinit® X.CEED-Beschichtet
Ángulo Redondeado - Recubrimiento de Balinit® X.CEED
Rayon de Coin - Revêtement Balinit® X.CEED
Torico - Rivestimento in Balinit® X.CEED
圆角半径 - Balinit® X.CEED 涂层



Solid submicron grain carbide end mill - center cutting
 State-of-the-art rougher/finisher
 Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity

Recommended for stainless steel, inconel, pH materials, titanium and tool steels

Variable flute geometry
 VRX Square End - page 106
 VRX Ball End - page 111



Hochleistungs- Vollhartmetallfräser aus Feinkornhartmetall - Zentrumsschnitt
 Herkömmliche Vollhartmetallschrupper und Schlichter
 Reduziert Vibrationen für eine aggressivere Bearbeitung, um Bearbeitungszeit zu reduzieren und eine grössere Produktivität zu erzielen

Empfohlen für Rostfreien Stahl, Inconel, Pulvermetalle, Titan, und Werkzeugstähle

Variable Spannut-Geometrie
 VRX Schaftfräser ohne Eckenradius - Seite 106
 VRX Radiusfräser - Seite 111



Fresa de submicrograno sólido carburo de alto rendimiento - corte centrado
 Última generación con mejor desbaste / acabado
 Reduce las vibraciones hasta en los más agresivos mecanizados, obteniéndose bajos tiempos de ciclo y mayor productividad

Recomendado para acero inoxidable, inconel, materiales pH, acero laminado en frío, hierro de fundición y aceros herramienta

Geometría variable de ranura de viruta
 VRX Fresa de vástago sin radio de cantos - Página 106
 VRX Fresadora de radios - Página 111



Fraises carbure submicrograin - coupe au centre
 La maîtrise de l'art pour le fraisage d'ébauche et finition
 Réduction des vibrations pour un fraisage plus agressif résultant des temps de cycles plus court et une meilleure productivité

Recommandée pour les aciers inoxydables, inconel, inox pH, aciers a outils, aciers forges, titane, fonts et aciers a outils

Géométrie variable de la helix
 VRX Extrémité carré - Page 106
 VRX Hemisphérique - Page 111



Super sub-micrograno metallo duro - taglio al centro
 Metallo duro per sgrossatura e finitura

Riduzioni delle vibrazioni per lavorazioni aggressive per ridurre il tempo ciclo ed aumentare la produttività

Raccomandata per lavorazioni su inox, inconel, titanio e acciai per utensili

Geometria ad elica variabile
 VRX Piatte - Pagina 106
 VRX Sferiche - Pagina 111



超细晶粒整体硬质合金立铣刀 - 中心切削
 最先进的整体硬质合金粗切刀具/精切刀具

适合更高速度，更大进给的加工，可以减少振动，减少加工时间，提高生产效率

推荐加工不锈钢、铬镍铁耐热耐腐蚀合金、含磷材质、钛钢 和工具钢

不等分刃设计
 VRX 平头 - 106页
 VRX 球头 - 111页

EDP# (plain)	EDP# (weldon)	d_1 † Diameter	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	l_3 Reach Length	d_3 Neck Diameter
		Decimal	Metric					
27420	-	.1181	3,00	3,0	50	8	0,2	-
27430	-	.1181	3,00	3,0	50	12	0,2	-
27435	-	.1181	3,00	3,0	50	12	0,5	-
27440	-	.1250 1/8"	3,17	1/8"	1-1/2"	1/4"	.010"	-
27450	-	.1250 1/8"	3,17	1/8"	1-1/2"	1/2"	.010"	-
27455	-	.1250 1/8"	3,17	1/8"	1-1/2"	1/2"	.020"	-
27460	-	.1562 5/32"	3,97	3/16"	2"	5/16"	.010"	-
27470	-	.1562 5/32"	3,97	3/16"	2"	1/2"	.010"	-
27480	-	.1575	4,00	6,0	50	8	0,3	-
27490	-	.1575	4,00	6,0	50	12	0,3	-
27495	-	.1575	4,00	6,0	50	12	0,5	-
27500	-	.1875 3/16"	4,76	3/16"	2"	5/16"	.010"	-
27520	-	.1875 3/16"	4,76	3/16"	2"	9/16"	.010"	-
27521	-	.1875 3/16"	4,76	3/16"	2"	9/16"	.020"	-
63100	-	.1875 3/16"	4,76	3/16"	4"	5/16"	.010"	-
27522	-	.1969	5,00	6,0	50	10	0,3	-
27524	-	.1969	5,00	6,0	65	15	0,3	-
27526	-	.1969	5,00	6,0	65	15	0,5	-
63110	-	.1969	5,00	6,0	100	10	0,3	-
27525	-	.2188 7/32"	5,56	1/4"	2"	3/8"	.015"	-
27530	-	.2188 7/32"	5,56	1/4"	2-1/2"	3/4"	.015"	-
63120	-	.2188 7/32"	5,56	1/4"	4"	3/8"	.015"	-
27535	-	.2362	6,00	6,0	50	12	0,3	-
27540	-	.2362	6,00	6,0	65	19	0,3	-
27545	-	.2362	6,00	6,0	65	19	0,5	-
27547	-	.2362	6,00	6,0	65	19	1,0	-
27548	-	.2362	6,00	6,0	65	19	1,5	-
63130	-	.2362	6,00	6,0	100	12	0,3	32
27560	-	.2500 1/4"	6,35	1/4"	2"	3/8"	.015"	-
NEW 27570	-	.2500 1/4"	6,35	1/4"	2-1/2"	3/4"	.010"	-
27580	-	.2500 1/4"	6,35	1/4"	2-1/2"	3/4"	.015"	-
27581	-	.2500 1/4"	6,35	1/4"	2-1/2"	3/4"	.030"	-
27583	-	.2500 1/4"	6,35	1/4"	2-1/2"	3/4"	.060"	-
63140	-	.2500 1/4"	6,35	1/4"	4"	3/8"	.015"	1-1/4"
27585	-	.2756	7,00	8,0	50	12	0,3	-
27590	-	.2756	7,00	8,0	65	22	0,3	-
27595	-	.2812 9/32"	7,14	5/16"	2"	7/16"	.015"	-
27597	-	.2812 9/32"	7,14	5/16"	2-1/2"	13/16"	.015"	-
63150	-	.2812 9/32"	7,14	5/16"	4"	7/16"	.015"	-
27600	-	.3125 5/16"	7,94	5/16"	2"	7/16"	.020"	-
NEW 27610	-	.3125 5/16"	7,94	5/16"	2-1/2"	13/16"	.010"	-
27620	-	.3125 5/16"	7,94	5/16"	2-1/2"	13/16"	.020"	-
27622	-	.3125 5/16"	7,94	5/16"	2-1/2"	13/16"	.030"	-
27624	-	.3125 5/16"	7,94	5/16"	2-1/2"	13/16"	.060"	-
63160	-	.3125 5/16"	7,94	5/16"	4"	7/16"	.020"	1-7/8"

continued →

VRX / z = 4 (continued)

.3150" - .5512"
(8,00mm - 14,00mm)

EDP# (plain)	EDP# (weldon)	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter
		Decimal	Metric						
27630	-	.3150	8,00	8,0	50	12	0,5	-	-
NEW 27635	-	.3150	8,00	8,0	65	22	0,3	-	-
27640	-	.3150	8,00	8,0	65	22	0,5	-	-
27642	-	.3150	8,00	8,0	65	22	1,0	-	-
27643	-	.3150	8,00	8,0	65	22	1,5	-	-
63170	-	.3150	8,00	8,0	100	12	0,5	47	7,60
27645	-	.3438 11/32"	8,73	3/8"	2"	1/2"	.020"	-	-
27650	-	.3438 11/32"	8,73	3/8"	2-1/2"	7/8"	.020"	-	-
63180	-	.3438 11/32"	8,73	3/8"	4"	1/2"	.020"	-	-
27655	-	.3543	9,00	10,0	50	14	0,5	-	-
27657	-	.3543	9,00	10,0	65	22	0,5	-	-
NEW 27658	-	.3750 3/8"	9,52	3/8"	2"	1/2"	.010"	-	-
27660	-	.3750 3/8"	9,52	3/8"	2"	1/2"	.020"	-	-
NEW 27662	-	.3750 3/8"	9,52	3/8"	2"	1/2"	.030"	-	-
NEW 27670	-	.3750 3/8"	9,52	3/8"	2-1/2"	7/8"	.010"	-	-
27680	-	.3750 3/8"	9,52	3/8"	2-1/2"	7/8"	.020"	-	-
27682	-	.3750 3/8"	9,52	3/8"	2-1/2"	7/8"	.030"	-	-
27684	-	.3750 3/8"	9,52	3/8"	2-1/2"	7/8"	.060"	-	-
63190	-	.3750 3/8"	9,52	3/8"	4"	1/2"	.020"	1-7/8"	.360"
27690	-	.3937	10,00	10,0	50	16	0,5	-	-
NEW 27698	-	.3937	10,00	10,0	70	22	0,3	-	-
27700	-	.3937	10,00	10,0	70	22	0,5	-	-
27702	-	.3937	10,00	10,0	70	22	1,0	-	-
63200	-	.3937	10,00	10,0	100	14	0,5	47	9,50
27705	-	.4375 7/16"	11,11	7/16"	2-1/2"	5/8"	.020"	-	-
NEW 27708	-	.4375 7/16"	11,11	7/16"	2-3/4"	7/8"	.010"	-	-
27710	-	.4375 7/16"	11,11	7/16"	2-3/4"	7/8"	.020"	-	-
63210	-	.4375 7/16"	11,11	7/16"	6"	1"	.020"	-	-
NEW 27712	-	.4724	12,00	12,0	65	19	0,3	-	-
27715	-	.4724	12,00	12,0	65	19	0,5	-	-
NEW 27718	-	.4724	12,00	12,0	75	32	0,3	-	-
27720	-	.4724	12,00	12,0	75	32	0,5	-	-
27722	-	.4724	12,00	12,0	75	32	1,0	-	-
27730	-	.4724	12,00	12,0	75	32	1,5	-	-
27735	-	.4724	12,00	12,0	75	32	2,0	-	-
63220	-	.4724	12,00	12,0	150	19	0,5	57	11,50
NEW 27739	* 27738	.5000 1/2"	12,70	1/2"	2-1/2"	5/8"	.010"	-	-
27741	* 27740	.5000 1/2"	12,70	1/2"	2-1/2"	5/8"	.020"	-	-
NEW 27743	* 27742	.5000 1/2"	12,70	1/2"	2-1/2"	5/8"	.030"	-	-
NEW 27751	* 27750	.5000 1/2"	12,70	1/2"	3"	1-1/4"	.010"	-	-
27761	* 27760	.5000 1/2"	12,70	1/2"	3"	1-1/4"	.020"	-	-
27763	* 27762	.5000 1/2"	12,70	1/2"	3"	1-1/4"	.030"	-	-
27767	* 27764	.5000 1/2"	12,70	1/2"	3"	1-1/4"	.060"	-	-
27769	* 27768	.5000 1/2"	12,70	1/2"	3"	1-1/4"	.120"	-	-
63231	* 63230	.5000 1/2"	12,70	1/2"	4"	5/8"	.020"	2-1/4"	.480"
NEW 63401	* 63400	.5000 1/2"	12,70	1/2"	4"	1-1/2"	.010"	-	-
NEW 63411	* 63410	.5000 1/2"	12,70	1/2"	4"	1-1/2"	.030"	-	-
NEW 63421	* 63420	.5000 1/2"	12,70	1/2"	4"	1-1/2"	.060"	-	-
NEW 63431	* 63430	.5000 1/2"	12,70	1/2"	4"	2"	.010"	-	-
NEW 63441	* 63440	.5000 1/2"	12,70	1/2"	4"	2"	.030"	-	-
NEW 63451	* 63450	.5000 1/2"	12,70	1/2"	4"	2"	.060"	-	-
63241	* 63240	.5000 1/2"	12,70	1/2"	6"	2"	.020"	-	-
27766	* 27765	.5512	14,00	14,0	75	19	0,5	-	-
NEW 27771	* 27770	.5512	14,00	14,0	88	32	0,5	-	-
63251	* 63250	.5512	14,00	14,0	150	19	0,5	57	13,50
63261	* 63260	.5512	14,00	14,0	150	50	0,5	-	-

* - Tools with weldon flats

VRX / z = 4 (continued)

.6250" - .9843"
(15,87mm - 25,00mm)

HIGH PERFORMANCE
END MILLS

	EDP# (plain)	EDP# (weldon)	$d1^{\dagger}$ Diameter			$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter
			Decimal		Metric						
	63461	* 63460	.6250	5/8"	15,87	5/8"	3"	3/4"	.010"	-	-
	27781	* 27780	.6250	5/8"	15,87	5/8"	3"	3/4"	.025"	-	-
NEW	27791	* 27790	.6250	5/8"	15,87	5/8"	3-1/2"	1-1/4"	.010"	-	-
	27801	* 27800	.6250	5/8"	15,87	5/8"	3-1/2"	1-1/4"	.025"	-	-
	27803	* 27802	.6250	5/8"	15,87	5/8"	3-1/2"	1-1/4"	.060"	-	-
	27805	* 27804	.6250	5/8"	15,87	5/8"	3-1/2"	1-1/4"	.120"	-	-
NEW	63501	* 63500	.6250	5/8"	15,87	5/8"	4"	1-1/2"	.010"	-	-
NEW	63511	* 63510	.6250	5/8"	15,87	5/8"	4"	1-1/2"	.030"	-	-
NEW	63521	* 63520	.6250	5/8"	15,87	5/8"	4"	1-1/2"	.060"	-	-
NEW	63531	* 63530	.6250	5/8"	15,87	5/8"	4"	1-3/4"	.010"	-	-
NEW	63541	* 63540	.6250	5/8"	15,87	5/8"	4"	1-3/4"	.030"	-	-
NEW	63551	* 63550	.6250	5/8"	15,87	5/8"	4"	1-3/4"	.060"	-	-
	63271	* 63270	.6250	5/8"	15,87	5/8"	6"	3/4"	.025"	3-1/4"	.600"
	63281	* 63280	.6250	5/8"	15,87	5/8"	6"	2"	.025"	-	-
NEW	27809	* 27808	.6299		16,00	16,0	75	19	0,3	-	-
	27811	* 27810	.6299		16,00	16,0	75	19	0,5	-	-
NEW	27819	* 27818	.6299		16,00	16,0	88	32	0,3	-	-
	27821	* 27820	.6299		16,00	16,0	88	32	0,5	-	-
	27823	* 27822	.6299		16,00	16,0	88	32	1,0	-	-
	27825	* 27824	.6299		16,00	16,0	88	32	2,0	-	-
NEW	63581	* 63580	.6299		16,00	16,0	100	38	0,3	-	-
	63291	* 63290	.6299		16,00	16,0	150	19	0,5	82	15,25
	27831	* 27830	.7087		18,00	18,0	75	22	0,8	-	-
	27836	* 27835	.7087		18,00	18,0	100	38	0,8	-	-
	63301	* 63300	.7087		18,00	18,0	150	25	0,8	82	17,25
	27841	* 27840	.7500	3/4"	19,05	3/4"	3"	7/8"	.030"	-	-
NEW	27851	* 27850	.7500	3/4"	19,05	3/4"	4"	1-1/2"	.015"	-	-
	27861	* 27860	.7500	3/4"	19,05	3/4"	4"	1-1/2"	.030"	-	-
	27865	* 27864	.7500	3/4"	19,05	3/4"	4"	1-1/2"	.060"	-	-
	27867	* 27866	.7500	3/4"	19,05	3/4"	4"	1-1/2"	.120"	-	-
NEW	63601	* 63600	.7500	3/4"	19,05	3/4"	4"	1-3/4"	.015"	-	-
	27869	* 27868	.7500	3/4"	19,05	3/4"	4"	1-3/4"	.030"	-	-
NEW	63611	* 63610	.7500	3/4"	19,05	3/4"	4"	1-3/4"	.060"	-	-
NEW	63621	* 63620	.7500	3/4"	19,05	3/4"	4"	1-3/4"	.120"	-	-
NEW	63631	* 63630	.7500	3/4"	19,05	3/4"	5"	2"	.015"	-	-
	63311	* 63310	.7500	3/4"	19,05	3/4"	5"	2"	.030"	-	-
NEW	63641	* 63640	.7500	3/4"	19,05	3/4"	5"	2"	.060"	-	-
NEW	63651	* 63650	.7500	3/4"	19,05	3/4"	6"	3"	.015"	-	-
NEW	63661	* 63660	.7500	3/4"	19,05	3/4"	6"	3"	.030"	-	-
NEW	63671	* 63670	.7500	3/4"	19,05	3/4"	6"	3"	.060"	-	-
	63321	* 63320	.7500	3/4"	19,05	3/4"	6"	1"	.030"	3-1/4"	.730"
	27871	* 27870	.7874		20,00	20,0	75	22	1,0	-	-
NEW	27879	* 27878	.7874		20,00	20,0	100	38	0,5	-	-
	27881	* 27880	.7874		20,00	20,0	100	38	1,0	-	-
	27891	* 27890	.7874		20,00	20,0	100	38	1,5	-	-
	63331	* 63330	.7874		20,00	20,0	150	25	1,0	82	19,30
	27911	* 27910	.8661		22,00	22,0	100	38	1,0	-	-
	63341	* 63340	.8661		22,00	22,0	150	25	1,0	82	21,50
	27941	* 27940	.9843		25,00	25,0	100	38	1,0	-	-
	27951	* 27950	.9843		25,00	25,0	100	38	1,5	-	-
	63351	* 63350	.9843		25,00	25,0	125	50	1,0	-	-
	63361	* 63360	.9843		25,00	25,0	150	32	1,0	82	24,40

* - Tools with weldon flats

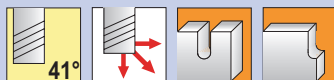
continued →

VRX / z = 4 (continued)

1.000"
(25,40mm)

	EDP# (plain)	EDP# (weldon)	$d1^{\dagger}$ Diameter			$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	$l3$ Reach Length	$d3$ Neck Diameter
			Decimal		Metric						
NEW	27959	* 27958	1.000	1"	25,40	1"	4"	1"	.015"	-	-
	27961	* 27960	1.000	1"	25,40	1"	4"	1"	.035"	-	-
NEW	27963	* 27962	1.000	1"	25,40	1"	4"	1"	.060"	-	-
NEW	27965	* 27964	1.000	1"	25,40	1"	4"	1"	.090"	-	-
NEW	27967	* 27966	1.000	1"	25,40	1"	4"	1-1/2"	.015"	-	-
	27971	* 27970	1.000	1"	25,40	1"	4"	1-1/2"	.035"	-	-
NEW	27981	* 27980	1.000	1"	25,40	1"	4"	1-1/2"	.060"	-	-
NEW	27991	* 27990	1.000	1"	25,40	1"	4"	1-1/2"	.090"	-	-
NEW	28001	* 28000	1.000	1"	25,40	1"	4"	1-3/4"	.015"	-	-
NEW	28011	* 28012	1.000	1"	25,40	1"	4"	1-3/4"	.060"	-	-
NEW	28021	* 28022	1.000	1"	25,40	1"	4"	1-3/4"	.090"	-	-
NEW	63369	* 63368	1.000	1"	25,40	1"	5"	2"	.015"	-	-
	63371	* 63370	1.000	1"	25,40	1"	5"	2"	.035"	-	-
NEW	63373	* 63372	1.000	1"	25,40	1"	5"	2"	.060"	-	-
NEW	63375	* 63374	1.000	1"	25,40	1"	5"	2"	.090"	-	-
	63381	* 63380	1.000	1"	25,40	1"	6"	1-1/4"	.035"	3-1/4"	.980"

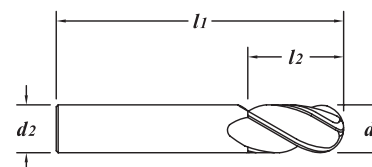
* - Tools with weldon flats



TOLERANCES

d_1	+0,000 -0,050mm (+.000"-.002")
d_2	3mm - 6mm +0,0000 -0,0075mm (+.0000"-.0003") 1/4" - 1" -0,0025 -0,0100mm (-.0001"-.0004")
Ball radius	+0,000 -0,025mm (+.000"-.001")

Ball End - Balinit® X.CEED Coated
Vollradius - Balinit® X.CEED-Beschichtet
Cabeza Esférica - Recubrimiento de Balinit® X.CEED
Hemispherique - Revêtement Balinit® X.CEED
Sferica - Rivestimento in Balinit® X.CEED
球头 - Balinit® X.CEED 涂层



HIGH PERFORMANCE



Solid submicron grain carbide end mill - center cutting
 State-of-the-art rougher/finisher
 Reduces vibration for more aggressive machining resulting in less cycle times and greater productivity
Recommended for stainless steel, inconel, pH materials, titanium and tool steels
 Variable flute geometry
 VRX Square End - page 106
 VRX Corner Radius - page 107



Hochleistungs- Vollhartmetallfräser aus Feinkornhartmetall - Zentrumschnitt
 Herkömmliche Vollhartmetallschrupper und Schlichter
 Reduziert Vibrationen für eine aggressivere Bearbeitung, um Bearbeitungszeit zu reduzieren und eine grössere Produktivität zu erzielen
Empfohlen für Rostfreien Stahl, Inconel, Pulvermetalle, Titan, und Werkzeugstähle
 Variable Spannut-Geometrie
 Radius Toleranz: +0,000 / -0,025 (+.000"-.001")
 VRX Schaftfräser ohne Eckenradius - Seite 106
 VRX Schaftfräser mit Eckenradius - Seite 107



Fresa de submicrograno sólido carburo de alto rendimiento - corte centrado
 Última generación con mejor desbaste / acabado
 Reduce las vibraciones hasta en los más agresivos mecanizados, obteniéndose bajos tiempos de ciclo y mayor productividad
Recomendado para acero inoxidable, inconel, materiales pH, acero laminado en frío, hierro de fundición y aceros herramienta
 Geometría variable de ranura de viruta
 Tolerancia de la cabeza esférica +0,000 / -0,025 (+.000"-.001")
 VRX Fresa de vástago sin radio de cantos - Página 106
 VRX Fresa de vástago con radio de cantos - Página 107



Fraises carbure submicrograin - coupe au centre
 La maîtrise de l'art pour le fraisage d'ébauche et finition
 Reduction des vibrations pour un fraisage plus agressif resultant des temps de cycles plus court et une meilleure productivité
Recommandée pour les aciers inoxydables, inconel, inox pH, aciers a outils, aciers forges, titane, fonts et aciers a outils
 Géométrie variable de la helix
 Tolerance du rayon de hemispherique +0,000 / -0,025 (+.000"-.001")
 VRX Extrémité carré - Page 106
 VRX Rayon de Coin - Page 107



Super sub-micrograno metallo duro - taglio al centro
 Metallo duro per sgrossatura e finitura
 Riduzioni delle vibrazioni per lavorazioni aggressive per ridurre il tempo ciclo ed aumentare la produttività
Raccomandata per lavorazioni su inox, inconel, titanio e acciai per utensili
 Geometria ad elica variabile
 Tolleranza del raggio +0,000 / -0,025 (+.000"-.001")
 VRX Piatte - Pagina 106
 VRX Toriche - Pagina 107



超细晶粒整体硬质合金立铣刀 - 中心切削
 最先进的整体硬质合金粗切刀具/精切刀具
 适合更高速度，更大进给的加工，可以减少振动，减少加工时间，提高生产效率
推荐加工不锈钢、铬镍铁耐热耐蚀合金、含磷材质、钛钢 和工具钢
 不等分刃设计
 半径公差 +0,000 / -0,025 (+.000"-.001")
 VRX平头 - 106页
 VRX圆弧角 - 107页

EDP# (plain)	EDP# (weldon)	d_1 † Diameter		d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length
		Decimal	Metric			
28470	-	.1575	4,00	6,0	50	8
28480	-	.1575	4,00	6,0	50	12
28490	-	.1875 3/16"	4,76	3/16"	2"	5/16"
28500	-	.1875 3/16"	4,76	3/16"	2"	9/16"
28510	-	.1969	5,00	6,0	50	10
28520	-	.1969	5,00	6,0	65	15
28530	-	.2362	6,00	6,0	50	12
28540	-	.2362	6,00	6,0	65	19
28570	-	.2500 1/4"	6,35	1/4"	2"	3/8"
28580	-	.2500 1/4"	6,35	1/4"	2-1/2"	3/4"
28610	-	.3125 5/16"	7,94	5/16"	2"	7/16"
28620	-	.3125 5/16"	7,94	5/16"	2-1/2"	13/16"
28630	-	.3150	8,00	8,0	50	12
28640	-	.3150	8,00	8,0	65	22
28670	-	.3750 3/8"	9,52	3/8"	2"	1/2"
28680	-	.3750 3/8"	9,52	3/8"	2-1/2"	7/8"
28690	-	.3937	10,00	10,0	50	16
28700	-	.3937	10,00	10,0	70	22
28705	-	.4375 7/16"	11,11	7/16"	2-1/2"	5/8"
28710	-	.4375 7/16"	11,11	7/16"	2-3/4"	7/8"
28715	-	.4724	12,00	12,0	65	19
28720	-	.4724	12,00	12,0	75	32
28751	* 28750	.5000 1/2"	12,70	1/2"	2-1/2"	5/8"
28761	* 28760	.5000 1/2"	12,70	1/2"	3"	1-1/4"
28771	* 28770	.5000 1/2"	12,70	1/2"	4"	5/8"
28781	* 28780	.5512	14,00	14,0	75	19
28786	* 28785	.5512	14,00	14,0	88	32
28796	* 28795	.6250 5/8"	15,87	5/8"	3"	3/4"
28801	* 28800	.6250 5/8"	15,87	5/8"	3-1/2"	1-1/4"
28806	* 28805	.6250 5/8"	15,87	5/8"	6"	2"
28811	* 28810	.6299	16,00	16,0	75	19
28821	* 28820	.6299	16,00	16,0	88	32
28831	* 28830	.7087	18,00	18,0	75	22
28836	* 28835	.7087	18,00	18,0	100	38
28841	* 28840	.7500 3/4"	19,05	3/4"	3"	7/8"
28861	* 28860	.7500 3/4"	19,05	3/4"	4"	1-1/2"
28866	* 28865	.7500 3/4"	19,05	3/4"	5"	2"
28871	* 28870	.7874	20,00	20,0	75	22
28881	* 28880	.7874	20,00	20,0	100	38
28901	* 28900	.9843	25,00	25,0	100	38
28911	* 28910	1.000 1"	25,40	1"	4"	1"
28916	* 28915	1.000 1"	25,40	1"	4"	1-1/2"
28931	* 28930	1.000 1"	25,40	1"	5"	2"

* - Tools with weldon flats