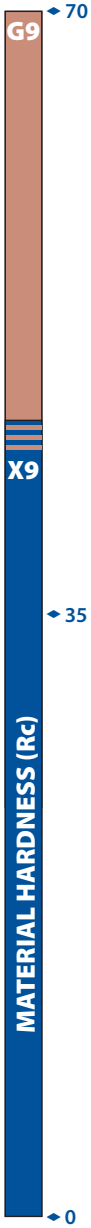
Series X9, G9

NEW SERIES

SERIES HIGHLIGHT

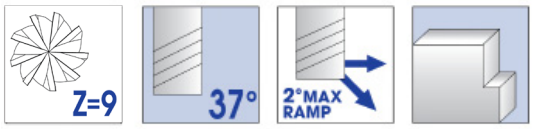


S M P K

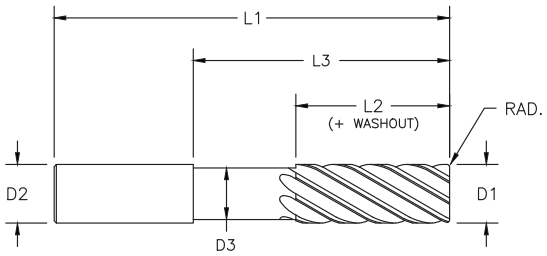
High Performance End Mills
X9 BALIQ® ALCRONOS Coating (AlCrN)
G9 BALIQ® TISINOS PRO Coating (AlTiSiN)

X9 Target Materials:
Stainless Steel (Inox, Austenitic/Martensitic)
Carbon Tools Steels (Up to 50 HRc)
Cast Iron

G9 Target Materials:
Heat Resistant Super Alloys
PH Stainless Steels (Inox, 13-8, 15-5, 17-4, Martensitic)
Conditioned Tool Steels (50-70 HRc)



CALCULATE IDEAL PARAMETERS FOR THE X9 AND G9 IN YOUR APPLICATION WITH THE GARR TECHNICAL ADVISOR



← View the X9

View the G9 →

TOLERANCES	
d_1	+.000" –.002" (+.000mm –.050mm)
d_2	h6
r	+.001" –.001" (+.025 –.025mm)

THE NEXT GENERATION

Z=9 | 37° | TECH PAGES 306-307

Series X9, G9

.5000" - .7500"
(12.700mm - 19.050mm)

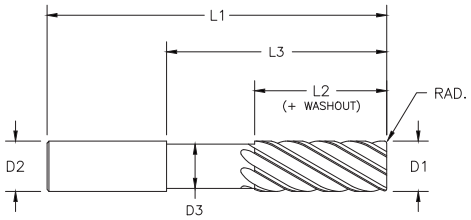
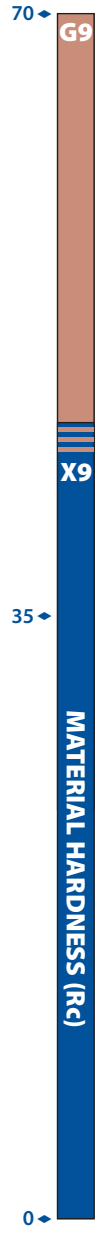
X9 Recommended for Low, Medium, and High Carbon Tool Steels (up to 50 HRC), cast iron, and stainless steel (Inox).

G9 Recommended for tough machining materials such as Heat Resistant Super Alloys, PH Stainless steels (Inox), and conditioned tool steels. (50-70 HRC)

9 Flute High Performance End Mills

X9 BALIQ® ALCRONOS Coating (AlCrN-based)
G9 BALIQ® TISINOS PRO Coating (AlTiSiN)

Solid submicron grain carbide - non-center cutting
h6 shank tolerance
Engineered for High Efficiency Milling
Variable flute grind
Honed edge treatment
Polished fluting
Material and condition specific coatings



X9 EDP#	G9 EDP#	d_1 † Diameter Decimal	Diameter	Metric	d_2 Shank Diameter	l_1 Overall Length	l_2 Flute Length	r Corner Radius	d_3 Neck Diameter	l_3 Reach Length
31100	31101	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.015"	-	-
31102	31103	.5000	1/2"	12.700	1/2"	3"	1-1/4"	.030"	-	-
31104	31105	.6250	5/8"	15.875	5/8"	3"	3/4"	.030"	-	-
31106	31107	.6250	5/8"	15.875	5/8"	3-1/2"	3/4"	.060"	-	-
31108	31109	.6250	5/8"	15.875	5/8"	3-1/2"	3/4"	.090"	-	-
31110	31111	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.015"	-	-
31112	31113	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.030"	-	-
31114	31115	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.060"	-	-
31116	31117	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	.090"	-	-
31118	31119	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/2"	.020"	-	-
31122	31121	.6250	5/8"	15.875	5/8"	3-1/2"	1-5/8"	.020"	-	-
31124	31123	.6250	5/8"	15.875	5/8"	4"	1-7/8"	.030"	-	-
31126	31125	.6250	5/8"	15.875	5/8"	5"	1-1/4"	.015"	.595"	2-1/2"
31128	31129	.6250	5/8"	15.875	5/8"	5"	1-1/4"	.030"	.595"	2-1/2"
31130	31131	.6250	5/8"	15.875	5/8"	5"	1-1/4"	.015"	.595"	3-1/8"
31132	31133	.6250	5/8"	15.875	5/8"	5"	1-1/4"	.030"	.595"	3-1/8"
31134	31135	.6299		16.000	16	100	42	1.00	-	-
31136	31137	.6299		16.000	16	120	65	0.50	-	-
31138	31139	.6299		16.000	16	120	40	0.50	15.2	65
31140	31141	.7500	3/4"	19.050	3/4"	3"	1"	.030"	-	-
31142	31143	.7500	3/4"	19.050	3/4"	3"	1"	.060"	-	-
31144	31145	.7500	3/4"	19.050	3/4"	3"	1"	.120"	-	-
31146	31147	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.015"	-	-
31148	31149	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.030"	-	-
31152	31151	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.060"	-	-
31154	31153	.7500	3/4"	19.050	3/4"	4"	1-1/2"	.120"	-	-
31156	31155	.7500	3/4"	19.050	3/4"	5"	2-1/4"	.030"	-	-
31158	31159	.7500	3/4"	19.050	3/4"	6"	1-1/2"	.015"	.720"	3"
31162	31161	.7500	3/4"	19.050	3/4"	6"	1-1/2"	.030"	.720"	3"
31164	31163	.7500	3/4"	19.050	3/4"	6"	1-1/2"	.015"	.720"	3-3/4"
31166	31165	.7500	3/4"	19.050	3/4"	6"	1-1/2"	.030"	.720"	3-3/4"