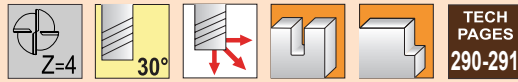


Series 630RA

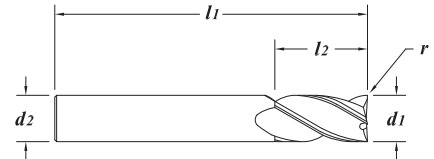
.1250" - .3125"
(3.175mm - 7.938mm)



TOLERANCES	
$d1$	+0.000" - .002" (+.000 - .050mm)
$d2$	h6
r	+0.001" - .001" (+.025 - .025mm)

Extra Length - Corner Radius
TiAlN Coating

- Solid submicron grain carbide end mill - center cutting
- Extended reach
- For stronger corners and part radius
- Dry or semi-dry machining
- Can be modified with a neck within 48 hours
- Extremely versatile
- Bright Finish - page 253
- Stub length - page 224
- Standard length - page 237



MATERIAL HARDNESS (Rc)

70

35

0

EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	LIST PRICE	
	Decimal	Metric						
20107	.1250	1/8"	3.175	1/8"	3"	1"	.010"	26.01
20117	.1250	1/8"	3.175	1/8"	3"	1"	.015"	26.01
20127	.1250	1/8"	3.175	1/8"	3"	1"	.020"	26.01
20137	.1250	1/8"	3.175	1/8"	3"	1"	.030"	26.01
20147	.1250	1/8"	3.175	1/8"	3"	1"	.045"	26.01
20157	.1875	3/16"	4.763	3/16"	3"	1"	.010"	29.21
20167	.1875	3/16"	4.763	3/16"	3"	1"	.015"	29.21
20177	.1875	3/16"	4.763	3/16"	3"	1"	.020"	29.21
20187	.1875	3/16"	4.763	3/16"	3"	1"	.030"	29.21
20197	.1875	3/16"	4.763	3/16"	3"	1"	.045"	29.21
20207	.1875	3/16"	4.763	3/16"	3"	1"	.060"	29.21
20217	.1875	3/16"	4.763	3/16"	4"	1"	.010"	31.80
20227	.1875	3/16"	4.763	3/16"	4"	1"	.015"	31.80
20237	.1875	3/16"	4.763	3/16"	4"	1"	.020"	31.80
20247	.1875	3/16"	4.763	3/16"	4"	1"	.030"	31.80
20257	.1875	3/16"	4.763	3/16"	4"	1"	.045"	31.80
20267	.1875	3/16"	4.763	3/16"	4"	1"	.060"	31.80
20277	.2500	1/4"	6.350	1/4"	3"	1"	.010"	34.50
20287	.2500	1/4"	6.350	1/4"	3"	1"	.020"	34.50
20297	.2500	1/4"	6.350	1/4"	3"	1"	.030"	34.50
20307	.2500	1/4"	6.350	1/4"	3"	1"	.045"	34.50
20317	.2500	1/4"	6.350	1/4"	3"	1"	.060"	34.50
20327	.2500	1/4"	6.350	1/4"	4"	1"	.010"	36.93
20337	.2500	1/4"	6.350	1/4"	4"	1"	.020"	36.93
20347	.2500	1/4"	6.350	1/4"	4"	1"	.030"	36.93
20357	.2500	1/4"	6.350	1/4"	4"	1"	.045"	36.93
20367	.2500	1/4"	6.350	1/4"	4"	1"	.060"	36.93
20377	.2500	1/4"	6.350	1/4"	6"	1-1/2"	.010"	48.67
20387	.2500	1/4"	6.350	1/4"	6"	1-1/2"	.020"	48.67
20397	.2500	1/4"	6.350	1/4"	6"	1-1/2"	.030"	48.67
20407	.2500	1/4"	6.350	1/4"	6"	1-1/2"	.045"	48.67
20417	.2500	1/4"	6.350	1/4"	6"	1-1/2"	.060"	48.67
20427	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.010"	50.29
20437	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.020"	50.29
20447	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.030"	50.29
20457	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.045"	50.29
20467	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.060"	50.29
20477	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.090"	50.29
20487	.3125	5/16"	7.938	5/16"	4"	1-5/8"	.125"	50.29

Series 630RA (continued)

.3750" - .6250"
(9.525mm - 15.875mm)

GENERAL PURPOSE
END MILLS

EDP#	$d1$ † Diameter		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	LIST PRICE	
	Decimal	Metric						
20497	.3750	3/8"	9.525	3/8"	4"	1"	.010"	54.58
20507	.3750	3/8"	9.525	3/8"	4"	1"	.020"	54.58
20517	.3750	3/8"	9.525	3/8"	4"	1"	.030"	54.58
20527	.3750	3/8"	9.525	3/8"	4"	1"	.045"	54.58
20537	.3750	3/8"	9.525	3/8"	4"	1"	.060"	54.58
20547	.3750	3/8"	9.525	3/8"	4"	1"	.090"	54.58
20557	.3750	3/8"	9.525	3/8"	4"	1"	.125"	54.58
20567	.3750	3/8"	9.525	3/8"	4"	2"	.010"	54.58
20577	.3750	3/8"	9.525	3/8"	4"	2"	.020"	54.58
20587	.3750	3/8"	9.525	3/8"	4"	2"	.030"	54.58
20597	.3750	3/8"	9.525	3/8"	4"	2"	.045"	54.58
20607	.3750	3/8"	9.525	3/8"	4"	2"	.060"	54.58
20617	.3750	3/8"	9.525	3/8"	4"	2"	.090"	54.58
20627	.3750	3/8"	9.525	3/8"	4"	2"	.125"	54.58
20637	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.010"	75.56
20647	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.020"	75.56
20657	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.030"	75.56
20667	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.045"	75.56
20677	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.060"	75.56
20687	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.090"	75.56
20697	.3750	3/8"	9.525	3/8"	6"	1-1/2"	.125"	75.56
21157	.4375	7/16"	11.113	7/16"	4"	1"	.010"	72.99
21167	.4375	7/16"	11.113	7/16"	4"	1"	.015"	72.99
21177	.4375	7/16"	11.113	7/16"	4"	1"	.020"	72.99
21187	.4375	7/16"	11.113	7/16"	4"	1"	.030"	72.99
21227	.4375	7/16"	11.113	7/16"	4"	1"	.125"	72.99
20707	.5000	1/2"	12.700	1/2"	4"	1"	.015"	74.28
20717	.5000	1/2"	12.700	1/2"	4"	1"	.020"	74.28
20727	.5000	1/2"	12.700	1/2"	4"	1"	.030"	74.28
20737	.5000	1/2"	12.700	1/2"	4"	1"	.045"	74.28
20747	.5000	1/2"	12.700	1/2"	4"	1"	.060"	74.28
20757	.5000	1/2"	12.700	1/2"	4"	1"	.090"	74.28
20767	.5000	1/2"	12.700	1/2"	4"	1"	.125"	74.28
20777	.5000	1/2"	12.700	1/2"	4"	2"	.015"	74.28
20787	.5000	1/2"	12.700	1/2"	4"	2"	.020"	74.28
20797	.5000	1/2"	12.700	1/2"	4"	2"	.030"	74.28
20807	.5000	1/2"	12.700	1/2"	4"	2"	.045"	74.28
20817	.5000	1/2"	12.700	1/2"	4"	2"	.060"	74.28
20827	.5000	1/2"	12.700	1/2"	4"	2"	.090"	74.28
20837	.5000	1/2"	12.700	1/2"	4"	2"	.125"	74.28
20847	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.015"	105.05
20857	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.020"	105.05
20867	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.030"	105.05
20877	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.045"	105.05
20887	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.060"	105.05
20897	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.090"	105.05
20907	.5000	1/2"	12.700	1/2"	6"	1-1/2"	.125"	105.05
20917	.6250	5/8"	15.875	5/8"	6"	2"	.010"	149.74
20927	.6250	5/8"	15.875	5/8"	6"	2"	.015"	149.74
20937	.6250	5/8"	15.875	5/8"	6"	2"	.020"	149.74
20947	.6250	5/8"	15.875	5/8"	6"	2"	.030"	149.74
20957	.6250	5/8"	15.875	5/8"	6"	2"	.045"	149.74
20967	.6250	5/8"	15.875	5/8"	6"	2"	.060"	149.74
20977	.6250	5/8"	15.875	5/8"	6"	2"	.090"	149.74
20987	.6250	5/8"	15.875	5/8"	6"	2"	.125"	149.74

70

35

MATERIAL HARDNESS (Rc)

0

continued →

Series 630RA (continued)

.7500" - 1.000"
(19.050mm - 25.400mm)

EDP#	$d1$ †		$d2$ Shank Diameter	$l1$ Overall Length	$l2$ Flute Length	r Corner Radius	LIST PRICE	
	Decimal	Diameter						Metric
20997	.7500	3/4"	19.050	3/4"	6"	3"	.015"	236.45
21007	.7500	3/4"	19.050	3/4"	6"	3"	.020"	236.45
21017	.7500	3/4"	19.050	3/4"	6"	3"	.030"	236.45
21027	.7500	3/4"	19.050	3/4"	6"	3"	.045"	236.45
21037	.7500	3/4"	19.050	3/4"	6"	3"	.060"	236.45
21047	.7500	3/4"	19.050	3/4"	6"	3"	.090"	236.45
21057	.7500	3/4"	19.050	3/4"	6"	3"	.125"	236.45
21147	.7500	3/4"	19.050	3/4"	6"	3"	.250"	236.45
21067	1.000	1"	25.400	1"	6"	3"	.015"	393.16
21077	1.000	1"	25.400	1"	6"	3"	.020"	393.16
21087	1.000	1"	25.400	1"	6"	3"	.030"	393.16
21097	1.000	1"	25.400	1"	6"	3"	.045"	393.16
21107	1.000	1"	25.400	1"	6"	3"	.060"	393.16
21117	1.000	1"	25.400	1"	6"	3"	.090"	393.16
21127	1.000	1"	25.400	1"	6"	3"	.125"	393.16
21137	1.000	1"	25.400	1"	6"	3"	.250"	393.16

70
35
0
MATERIAL HARDNESS (Rc)

