



47C...RQ Variable Pitch



Diameters:

0.125" - 1.00"

Cutting Edge Length:

0.250" - 2.000"

Overall Length:

1.50" - 5.00"

Number of Flutes:

4, 5

Corner Configurations:

0.004" x 45° - 0.024" x 45°

Helix Angle:

38°

Grade:

IN2005

Series 47C...RQ 4- and 5-Flute Variable Pitch Endmills

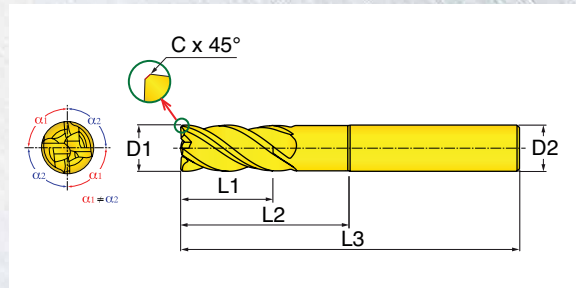
Ingersoll's new Series 47C...RQ which features variable pitched flutes, is designed to maximize stock removal rate and reduce cycle time in most milling operations. The unique geometry provides excellent surface finish and long tool life while machining at high material removal rates. They are equally at home in both roughing and finishing operations.

Features and Benefits:

- Excellent chatter dampening due to their variable pitch
- 4 or 5 flutes, a 38° helix and variable pitch
- Excellent solution for low power machines with CAT40 and BT40 adaptations, improving their material removal rates and minimizing vibration
- Suitable for all type of steel and high temperature alloys

STEDI^oROUNDS™ SERIES 47C_RQ (4 FLUTE)

4 FLUTE ENDMILLS, 38° HELIX, VARIABLE PITCH FOR CHATTER DAMPENING WITH 3XD NECK RELIEF



Grade	P	M	K	N _(K)	S _(M)	H _(PK)
IN2005	+	+	+		+	

	e8
	h6

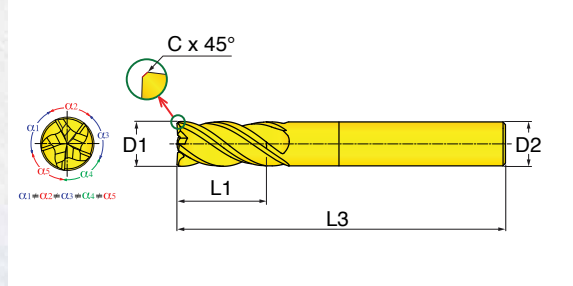


⊕ Preferred choice ○ Second choice

Cutter Number	Helix (deg)	D1 Diameter	Z Flutes	C Chamfer	L3 Overall Length	L2 Height	L1 Cut Length	D2 Shank Size/Style
47C-1202R4RQ00	38.0	0.125	4	.004x45deg	1.50	.375	0.25	.125" C
47C-1803R5RQ00	38.0	0.188	4	.006x45deg	2.00	.565	0.37	.188" C
47C-2505R6RQ01	38.0	0.250	4	.010x45deg	2.50	.750	0.50	.250" C
47C-3106R7RQ01	38.0	0.312	4	.012x45deg	2.50	1.00	0.63	.312" C
47C-3707R8RQ01	38.0	0.375	4	.015x45deg	3.00	1.25	0.75	.375" C
47C-370777RQ01	38.0	0.375	4	.015x45deg	3.00	1.25	0.75	.375" W
47C-5010S4RQ02	38.0	0.500	4	.020x45deg	3.50	1.50	1.00	.500" C
47C-501078RQ02	38.0	0.500	4	.020x45deg	3.50	1.50	1.00	.500" W
47C-6212S6RQ02	38.0	0.625	4	.024x45deg	4.00	1.70	1.25	.625" C
47C-621279RQ02	38.0	0.625	4	.024x45deg	4.00	1.70	1.25	.625" W
47C-7515S7RQ02	38.0	0.750	4	.024x45deg	5.00	2.25	1.50	.750" C
47C-751584RQ02	38.0	0.750	4	.024x45deg	5.00	2.25	1.50	.750" W
47C-1020S1RQ02	38.0	1.000	4	.024x45deg	5.00	2.70	2.00	1.000" C
47C-102080RQ02	38.0	1.000	4	.024x45deg	5.00	2.70	2.00	1.000" W

STEDI^oROUNDS™ SERIES 47C_RQ (5 FLUTE)

5 FLUTE ENDMILLS, 38° HELIX, VARIABLE PITCH FOR CHATTER DAMPENING



Grade	P	M	K	N _(K)	S _(M)	H _(P/K)
IN2005	+	+	+		+	

+ Preferred choice ○ Second choice

	e8
	h6

	≅38°
--	------

	≤54 HRC
--	---------



Cutter Number	Helix (deg)	D1 Diameter	Z Flutes	C Chamfer	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
47C-2563R6RQ08	38.0	0.250	5	.008x45deg	2.50	0.63	.250" C
47C-3178R7RQ01	38.0	0.312	5	.010x45deg	2.50	0.78	.312" C
47C-3794R8RQ01	38.0	0.375	5	.012x45deg	3.00	0.94	.375" C
47C-379477RQ01	38.0	0.375	5	.012x45deg	3.00	0.94	.375" W
47C-5012S4RQ01	38.0	0.500	5	.016x45deg	3.50	1.25	.500" C
47C-501278RQ01	38.0	0.500	5	.016x45deg	3.50	1.25	.500" W
47C-6215S6RQ02	38.0	0.625	5	.020x45deg	4.00	1.56	.625" C
47C-621579RQ02	38.0	0.625	5	.020x45deg	4.00	1.56	.625" W
47C-7518S7RQ02	38.0	0.750	5	.020x45deg	5.00	1.87	.750" C
47C-751884RQ02	38.0	0.750	5	.020x45deg	5.00	1.87	.750" W

STEDI[®]ROUNDS™ OPERATING GUIDELINES

ROUND LINE - STANDARD END MILLS - Series 45B, 45D, 45J, 45M, 45N, 45P, 45X, 46D, 47C, 47D, 47J, 47N, 48C, 48D, 48J, 48N, 48U, 49D, 49J

Workpiece Material	DC in	Cutting speed vc in/min		Feed rate per tooth fz ft/min		Cutting depth ap recomm. for	Cutting Width
		End mill		End mill			
		Full slot	Shoulder	Full slot	Shoulder	End mill in	Recommended ae %
Unalloyed steel P	.125-.250	300-600	450-800	.0006 -.0010	.0018 -.0030	.050 x D	40%
	.312-.500	300-600	450-800	.0025 -.0040	.0040 -.0055	.050 x D	40%
	.625-1.00	300-600	450-800	.0030 -.0040	.0060 -.0090	.050 x D	40%
High Carbon steel < 1100N/mm² P	.125-.250	250-500	325-725	.0006 -.0018	.0007 -.0025	.030 x D	30%
	.312-.500	300-600	400-650	.0020 -.0030	.0030 -.0040	.030 x D	30%
	.625-1.00	300-600	400-650	.0025 -.0040	.0040 -.0080	.030 x D	30%
Alloyed / Tool steel < 1400N/mm² P	.125-.250	250-450	325-525	.0006 -.0018	.0007 -.0020	.030 x D	25%
	.312-.500	250-450	325-600	.0015 -.0028	.0028 -.0040	.030 x D	25%
	.625-1.00	250-450	325-600	.0020 -.0030	.0040 -.0070	.030 x D	25%
Stainless steel M	.125-.250	165-300	250-450	.0040 -.0007	.0040 -.0013	.030 x D	30%
	.312-.500	165-300	250-450	.0015 -.0025	.0028 -.0040	.030 x D	30%
	.625-1.00	165-300	250-450	.0025 -.0040	.0040 -.0080	.030 x D	30%
Gray cast iron K	.125-.250	325-525	500-975	.0006 -.0010	.0018 -.0030	.030 x D	40%
	.312-.500	325-525	500-900	.0025 -.0040	.0040 -.0055	.030 x D	40%
	.625-1.00	250-550	500-900	.0030 -.0040	.0060 -.0090	.030 x D	40%
Cast alloys K	.125-.250	250-550	400-650	.0006 -.0018	.0007 -.0025	.030 x D	30%
	.312-.500	250-550	400-650	.0020 -.0030	.0030 -.0040	.030 x D	30%
	.625-1.00	250-550	400-650	.0025 -.0040	.0040 -.0080	.030 x D	30%
Aluminum N	.125-.250	825-2500	825-2500	.0007 -.0015	.0010 -.0030	.040 x D	30%
	.312-.500	2500-3500	3000-5000	.0035 -.0040	.0040 -.0070	.040 x D	30%
	.625-1.00	2500-3500	5000-6500	.0060 -.0070	.0070 -.0090	.040 x D	30%
Plastics N	.125-.250	400-650	650-1300	.0040 -.0018	.0070 -.0015	.040 x D	10%
	.312-.500	400-650	650-1300	.0020 -.0030	.0028 -.0040	.040 x D	10%
	.625-1.00	400-650	650-1300	.0028 -.0040	.0040 -.0080	.040 x D	10%
Super alloys S	.125-.250	65-165	100-200	.0040 -.0060	.0040 -.0010	.020 x D	10%
	.312-.500	65-165	100-200	.0010 -.0020	.0020 -.0040	.020 x D	10%
	.625-1.00	65-165	100-200	.0020 -.0030	.0040 -.0070	.020 x D	10%
Hardened steel 48 - 54 HRC	.125-.250	130-325	200-400	.0006 -.0018	.0007 -.0020	.030 x D	25%
	.312-.500	130-325	200-400	.0015 -.0028	.0028 -.0040	.030 x D	25%
	.625-1.00	130-325	200-400	.0020 -.0030	.0040 -.0070	.030 x D	25%
Hardened steel 54 - 63 HRC	.125-.250	65-165	150-250	.0040 -.0007	.0040 -.0015	.027 x D	20%
	.312-.500	65-200	150-250	.0010 -.0020	.0020 -.0030	.027 x D	20%
	.625-1.00	65-200	150-250	.0015 -.0028	.0030 -.0060	.027 x D	20%
Hardened steel > 63 HRC	.125-.250	65-100	100-200	.0040 -.0040	.0040 -.0010	.024 x D	10%
	.312-.500	65-130	100-200	.0007 -.0015	.0015 -.0025	.024 x D	10%
	.625-1.00	65-130	100-200	.0010 -.0025	.0025 -.0060	.024 x D	10%

General Information:

Machining of aluminum and duroplastics with grade IN05S, any other materials with IN2005 / IN2006. Max. cutting depth of end mills is determined by cutting length a = xxx in; for ball nose cutters max. cutting depth is determined by radius.

Please consider the limitation of max. RPM of the machine! Cutting values refer to $n_{max} = 40000 \text{ min}^{-1}$