STEDI ROUNDS™

Diameters:
0.375" – 0.750"

Cutting Edge Length:
0.750" - 1.870"

Overall Length:
3.00" – 5.00"

Number of Flutes:
4 or 5
4 Flute: Up to 3XD (with relieved neck)
5 Flute: Up to 3XD

Radius:
Sharp - 0.120"

Helix Angle:
38°

Grade:
IN2005

NEW PRODUCT ANNOUNCEMENT 2012

Series 47J...RQ, 47D...RQ

4- and 5-Flute Variable Pitch Endmills with Corner Radius

Ingersoll's new Series 47C...RQ is now offered with corner radius. Featuring variable pitched flutes designed to maximize shock 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:

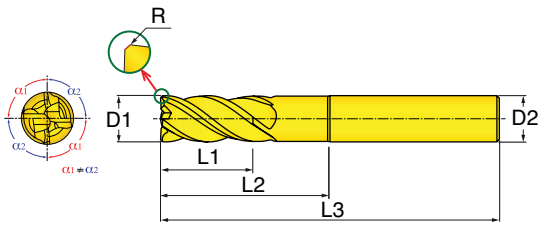
- Excellent chatter dampening due to their variable pitch
- 4 or 5 flutes, a 38° helix and variable pitch
- Excellent solution for low power machines with CAT40 and BT40 adaptations, improving their material removal rates and minimizing vibration
- Suitable for all type of steel and high temperature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

Member IMC Group
Ingersoll Cutting Tools

STEDI-ROUNDS™ SERIES 47J_RQ, 47D_RQ (4 FLUTE)

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

Shoulder | Channel | Ramping | Helical Interp.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	+	+		+	

+ Preferred choice ○ Second choice

e8
h6

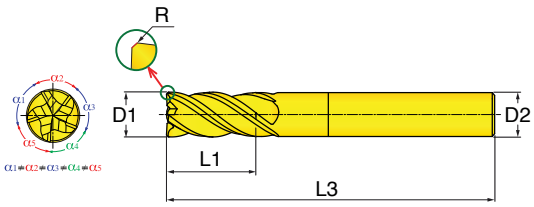
λ = 38° | ≤54 HRC

Cutter Number	Helix (deg)	D1 Diameter	Z Flutes	R Radius	L3 Overall Length	L2 Height	L1 Cut Length	D2 Shank Size/Style
47J-3775R8RQ00	38.0	0.375	4	-	3.00	1.250	0.75	.375" C
47D-3775R8RQ03	38.0	0.375	4	0.030	3.00	1.250	0.75	.375" C
47D-3775R8RQ06	38.0	0.375	4	0.060	3.00	1.250	0.75	.375" C
47J-5010S4RQ00	38.0	0.500	4	-	3.50	1.500	1.00	.500" C
47D-5010S4RQ06	38.0	0.500	4	0.060	3.50	1.500	1.00	.500" C
47D-5010S4RQ09	38.0	0.500	4	0.090	3.50	1.500	1.00	.500" C
47D-5010S4RQ12	38.0	0.500	4	0.120	3.50	1.500	1.00	.500" C
47J-6212S6RQ00	38.0	0.625	4	-	4.00	1.700	1.25	.625" C
47D-6212S6RQ06	38.0	0.625	4	0.060	4.00	1.700	1.25	.625" C
47D-6212S6RQ09	38.0	0.625	4	0.090	4.00	1.700	1.25	.625" C
47J-7515S7RQ00	38.0	0.750	4	-	5.00	2.250	1.50	.750" C
47D-7515S7RQ06	38.0	0.750	4	0.060	5.00	2.250	1.50	.750" C
47D-7515S7RQ09	38.0	0.750	4	0.090	5.00	2.250	1.50	.750" C
47D-7515S7RQ12	38.0	0.750	4	0.120	5.00	2.250	1.50	.750" C

STEDI-ROUNDS™ SERIES 47J_RQ, 47D_RQ (5 FLUTE)

SOLID CARBIDE END MILLS FOR ROUGHING & FINISHING, 5-FLUTE, VARIABLE PITCH, WITH CORNER RADIUS

Shoulder | Channel | Ramping | Helical Interp.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	+	+		+	

+ Preferred choice ○ Second choice

e8
h6

λ = 38°
≤54 HRC

Cutter Number	Helix (deg)	D1 Diameter	Z Flutes	R Radius	L3 Overall Length	L1 Cut Length	D2 Shank Size/Style
47J-3793R8RQ00	38.0	0.375	5	-	3.00	0.94	.375" C
47D-3793R8RQ03	38.0	0.375	5	0.030	3.00	0.94	.375" C
47D-3793R8RQ06	38.0	0.375	5	0.060	3.00	0.94	.375" C
47J-5012S4RQ00	38.0	0.500	5	-	3.50	1.25	.500" C
47D-5012S4RQ06	38.0	0.500	5	0.060	3.50	1.25	.500" C
47D-5012S4RQ09	38.0	0.500	5	0.090	3.50	1.25	.500" C
47D-5012S4RQ12	38.0	0.500	5	0.120	3.50	1.25	.500" C
47C-6212S6RQ00	38.0	0.625	5	-	4.00	1.56	.625" C
47D-6215S6RQ061	38.0	0.625	5	0.060	4.00	1.56	.625" C
47D-6215S6RQ091	38.0	0.625	5	0.090	4.00	1.56	.625" C
47J-7515S7RQ001	38.0	0.750	5	-	5.00	1.87	.750" C
47D-7518S7RQ06	38.0	0.750	5	0.060	5.00	1.87	.750" C
47D-7518S7RQ09	38.0	0.750	5	0.090	5.00	1.87	.750" C
47D-7518S7RQ12	38.0	0.750	5	0.120	5.00	1.87	.750" C

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 End mill Full slot	Cutting speed vc in/min End mill Shoulder	Feed rate per tooth fz ft/min End mill Full slot	Feed rate per tooth fz ft/min End mill Shoulder	Cutting depth ap recomm. for End mill in	Cutting Width 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 min^{-1}