

featuring...
**INCH/METRIC
PRODUCTS!**

ДЮЙМОВЫЕ И МЕТРИЧЕСКИЕ

NEW

Micro-Quik®

**QUICK CHANGE TOOLING
БЫСТРОСМЕННЫЕ ИНСТРУМЕНТЫ**



MICRO 100®

super carbide tools

WILL NOT CHIP OR BREAK UNDER NORMAL MACHINING CONDITIONS!

**CATALOG
Q101
QUICK CHANGE**

ВЕТКИ

РФ, 195273, Санкт-Петербург,
ул. Руставели, 37, корп. 2, офис 15Н
тел.: (812) 299-19-55 факс: (812) 320-18-24
сайт: www.vetki.ru
электронная почта: info@vetki.ru

Абсолютно новая система быстросменных инструментов от MICRO100

Уникальная 2-х точечная система закрепления сконструирована

с целью обеспечения максимальной жесткости и допуска на повторяемость

позиционирования инструмента по оси в пределах от +0,0005 до 0,01 мм.

Уменьшение затрат времени на станочную наладку, смену инструмента

существенно повышают производительность обработки.

Предназначены для обработки алюминия, меди, бронзы, сталей,

нержавеющих сталей, жаропрочных сплавов, термопластиков,

а также прочих материалов и композитов.



Растачивание, точение торцовых канавок,
профильное точение и точение резьбы
Все это при использовании ОДНОЙ державки

QMBV

Миниатюрный расточной резец

Диапазон диаметров:

.015" (0.38mm) - .045" (1.14mm)

стр 4



QRR

Резец для точения канавки
под стопорное кольцо

Диапазон диаметров:

.017" (0.43mm) - .250" (6.35mm)

стр 8-9



QBV

Расточной резец

Диапазон диаметров:

.050" (1.27mm) - .490" (12.45mm)

стр 4-5



QMFR

Миниатюрный резец для точения
радиусной канавки

Диапазон диаметров:

.015" (0.38mm) - .020" (0.50mm)

стр 10



QBM

Расточной резец для расточных
головок и фрезерных станков

Диапазон диаметров:

.118" (3.00mm) - .460" (11.68mm)

стр 6



QFR

Резец для точения
радиусной канавки

Диапазон диаметров:

.017" (0.43mm) - .250" (6.35mm)

стр 10-11



QRB

Расточной резец для обратного точения

Диапазон диаметров:

.156" (3.96mm) - .490" (12.45mm)

стр 6



QIT

Резец для нарезания внутренней резьбы

Диапазон диаметров:

.035" (.089mm) - .460" (11.7mm)

стр 12-13



QPR

Канавочный резец

Диапазон диаметров:

.070" (1.78mm) - .490" (12.45mm)

стр 7



QFG

Резец для точения торцовых канавок

Диапазон диаметров:

.050" (1.27mm) - .045" (1.14mm)

стр 14



QMRR

Миниатюрный резец для точения
стопорного кольца

Диапазон диаметров:

.015" (0.38mm) - .020" (0.50mm)

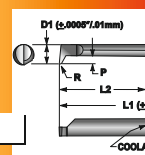
стр 8



TECHNICAL DATA

Рекомендуемые режимы резания

стр 15-16



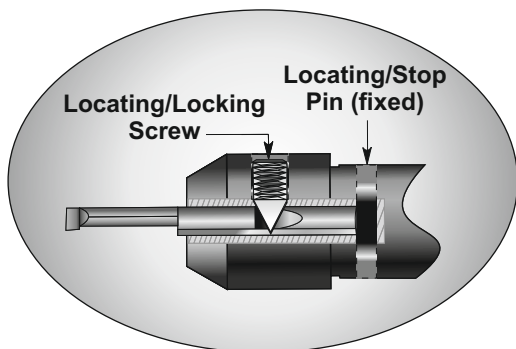
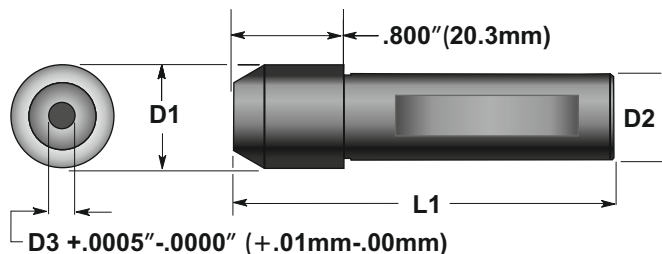
Quality Solutions...
Through
Manufacturing Excellence!

SPECIALS!!!

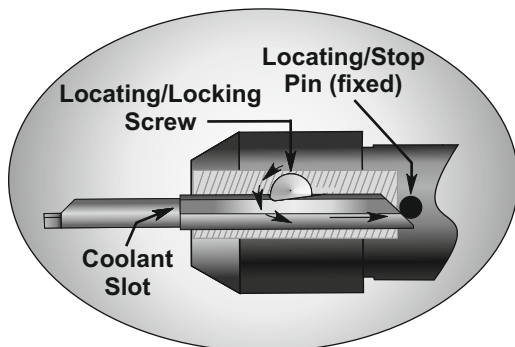
- Precision Cutting Tools Engineered and Manufactured to meet Your Specifications for Your Particular Machining Applications needs!
- Tools Manufactured with our exclusive MICRO 100 Proprietary Process.
- For more details ask your local MICRO 100 Representative about our Specials Program...today!

Характеристики:

- Уникальная 2-х точечная система крепления обеспечивает максимальную жесткость и допуск на повторяемость позиционирования инструмента по оси в пределах от +0,0005 до 0,01 мм.
- Допуск на биение +0,0005/+0,01
- Возможность подача СОЖ
- Закаленный держатель инструмента



Rotation of Locking Screw pushes Tool Downwards and Back, against the Locating Pin for...
Rigidity and Centerline Repeatability!



1/2" / 12.7mm ХВОСТОВИК

Toolholder Catalog No.	Shank Dia. (D2)	I.D. Dia. (D3)	Overall Length (L1)	Head Dia. (D1)
	inch/metric	inch/metric	inch/metric	inch/metric
QTH-85	.500/12.7	.1875/4.76	2.75/70	.750/19.1
QTH-86	.500/12.7	.2500/6.35	2.75/70	.750/19.1

5/8" / 15.9mm ХВОСТОВИК

QTH-105	.625/15.9	.1875/4.76	2.75/70	.750/19.1
QTH-106	.625/15.9	.2500/6.35	2.75/70	.750/19.1
QTH-107	.625/15.9	.3125/7.94	2.75/70	.875/22.2
QTH-108	.625/15.9	.3750/9.53	2.75/70	1.00/25.4

3/4" / 19.1mm ХВОСТОВИК

QTH-205	.750/19.1	.1875/4.76	2.75/70	.875/22.2
QTH-206	.750/19.1	.2500/6.35	2.75/70	.875/22.2
QTH-207	.750/19.1	.3125/7.94	2.75/70	.875/22.2
QTH-208	.750/19.1	.3750/9.53	2.75/70	1.00/25.4
QTH-210	.750/19.1	.500/12.70	2.75/70	1.06/27.0

1" / 25.4mm ХВОСТОВИК

QTH-405	1.00/25.4	.1875/4.76	2.75/70	1.06/27.0
QTH-406	1.00/25.4	.2500/6.35	2.75/70	1.06/27.0
QTH-407	1.00/25.4	.3125/7.94	2.75/70	1.06/27.0
QTH-408	1.00/25.4	.3750/9.53	2.75/70	1.06/27.0
QTH-410	1.00/25.4	.500/12.70	2.75/70	1.06/27.0

12mm ХВОСТОВИК

QTHM-312	12/.470	4.76/.1875	70/2.75	19.1/.750
QTHM-412	12/.470	6.35/.2500	70/2.75	19.1/.750

16mm ХВОСТОВИК

QTHM-316	16/.630	4.76/.1875	70/2.75	19.1/.750
QTHM-416	16/.630	6.35/.2500	70/2.75	19.1/.750
QTHM-516	16/.630	7.94/.3125	70/2.75	22.2/.875
QTHM-616	16/.630	9.53/.3750	70/2.75	25.4/1.00

17mm ХВОСТОВИК (Suitable for Wohlhaupter Boring Heads)

QTHM-417	17/.670	6.35/.2500	70/2.75	19.1/.750
QTHM-617	17/.670	9.53/.3750	70/2.75	25.4/1.00

20mm ХВОСТОВИК

QTHM-320	20/.790	4.76/.1875	70/2.75	22.2/.875
QTHM-420	20/.790	6.35/.2500	70/2.75	22.2/.875
QTHM-520	20/.790	7.94/.3125	70/2.75	22.2/.875
QTHM-620	20/.790	9.53/.3750	70/2.75	25.4/1.00
QTHM-820	20/.790	12.7/.5000	70/2.75	27.0/1.06

22mm ХВОСТОВИК

QTHM-322	22/.870	4.76/.1875	70/2.75	25.4/1.00
QTHM-422	22/.870	6.35/.2500	70/2.75	25.4/1.00
QTHM-522	22/.870	7.94/.3125	70/2.75	25.4/1.00
QTHM-622	22/.870	9.53/.3750	70/2.75	25.4/1.00
QTHM-822	22/.870	12.7/.5000	70/2.75	27.0/1.06

25mm ХВОСТОВИК

QTHM-325	25/.984	4.76/.1875	100/4.00	27.0/1.06
QTHM-425	25/.984	6.35/.2500	100/4.00	27.0/1.06
QTHM-525	25/.984	7.94/.3125	100/4.00	27.0/1.06
QTHM-625	25/.984	9.53/.3750	100/4.00	27.0/1.06
QTHM-825	25/.984	12.7/.5000	100/4.00	27.0/1.06

Винт для системы крепления

QC-1	Quick Change Set Screw (1)
QC-10	Quick Change Set Screw (pkg. of 10)

Характеристики быстросменной расточной системы:

- Резцы с покрытием алюмонитридом титана и без
- Обрабатываемые диаметры от 0,38мм до 12,5мм
- Глубина растачиваемого отверстия от 1,27мм до 76,2 мм
- Размеры хвостовиков: 4,8мм; 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Эллиптическая шейка для максимальной жесткости
- Радиус вершины резца от 0,08 мм до 0,13 мм

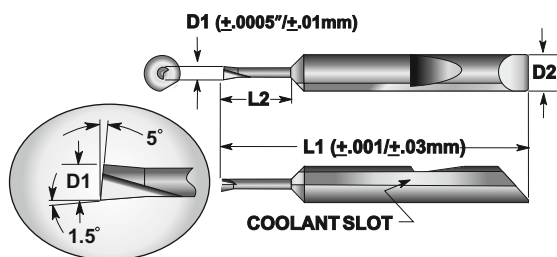


QMBB Miniature Boring Tools Tolerances:
Shank Diameter: $-.0001"$ ($-.005\text{mm}$) to $-.0002"$ ($-.01\text{mm}$)
Minimum Bore Diameter $\pm .0005"$ ($\pm .01\text{mm}$)
Maximum Bore Depth: $+.050"$ ($+1.27\text{mm}$)

QBB Boring Tools Tolerances:
Shank Diameter: $-.0001"$ ($-.005\text{mm}$) to $-.0002"$ ($-.01\text{mm}$)
Minimum Bore Diameter $\pm .0005"$ ($\pm .01\text{mm}$)
Maximum Bore Depth: $+.050"$ ($+1.27\text{mm}$)

Miniature Boring Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QMBB-020075X

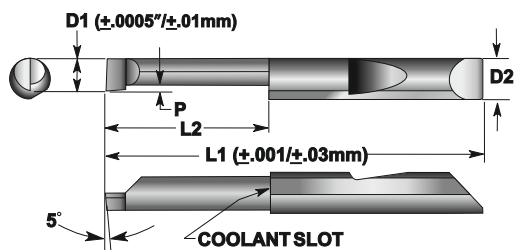
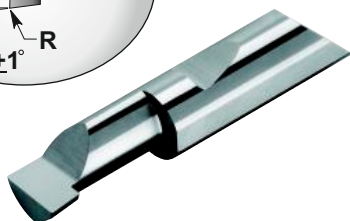
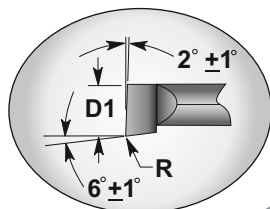


3/16" / 4.8mm хвостовик

Miniature Boring Tool Catalog No.	Min. Bore Dia. (D1)	Max. Bore Depth (L2)	Projection (P)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QMBB-015050	.015/0.38	.050/1.3	.005/0.1	.1875/4.8	1.500/38
QMBB-020075	.020/0.51	.075/1.9	.005/0.1	.1875/4.8	1.500/38
QMBB-025100	.025/0.64	.100/2.5	.005/0.1	.1875/4.8	1.500/38
QMBB-030100	.030/0.76	.100/2.5	.005/0.1	.1875/4.8	1.500/38
QMBB-035100	.035/0.89	.100/2.5	.005/0.1	.1875/4.8	1.500/38
QMBB-035150	.035/0.89	.150/3.8	.005/0.1	.1875/4.8	1.500/38
QMBB-040150	.040/1.02	.150/3.8	.005/0.1	.1875/4.8	1.500/38
QMBB-040200	.040/1.02	.200/5.1	.005/0.1	.1875/4.8	1.500/38
QMBB-045150	.045/1.14	.150/3.8	.005/0.1	.1875/4.8	1.500/38
QMBB-045200	.045/1.14	.200/5.1	.005/0.1	.1875/4.8	1.500/38

Boring Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QBB-060300X



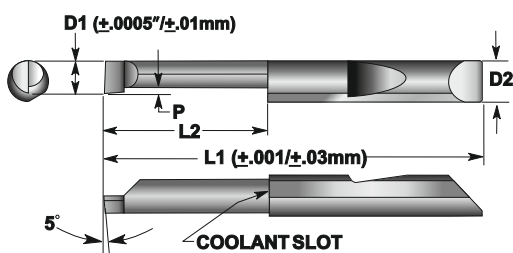
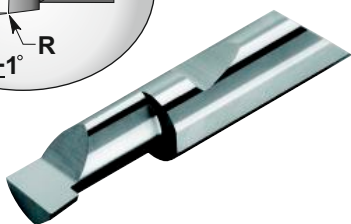
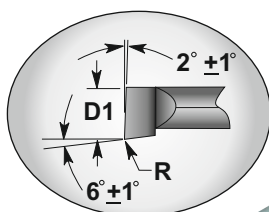
Right Hand, Boring Tool shown,
Left Hand available on request.

3/16" / 4.8mm хвостовик

Boring Tool Catalog No.	Min. Bore Dia. (D1)	Max. Bore Depth (L2)	Projection (P)	Nose Radius (R)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QBB-050150	.050/1.27	.150/3.8	.013/0.33	0/0	.1875/4.8	1.5/38
QBB-050200	.050/1.27	.200/5.1	.013/0.33	0/0	.1875/4.8	1.5/38
QBB-050300	.050/1.27	.300/7.6	.013/0.33	0/0	.1875/4.8	1.5/38
QBB-050400	.050/1.27	.400/10.2	.013/0.33	0/0	.1875/4.8	1.5/38
QBB-060150	.060/1.52	.150/3.8	.015/0.38	0/0	.1875/4.8	1.5/38
QBB-060200	.060/1.52	.200/5.1	.015/0.38	0/0	.1875/4.8	1.5/38
QBB-060300	.060/1.52	.300/7.6	.015/0.38	0/0	.1875/4.8	1.5/38
QBB-060400	.060/1.52	.400/10.2	.015/0.38	0/0	.1875/4.8	1.5/38
QBB-060500	.060/1.52	.500/12.7	.015/0.38	0/0	.1875/4.8	1.5/38
QBB-080200	.080/2.03	.200/5.1	.020/0.51	0/0	.1875/4.8	1.5/38
QBB-080300	.080/2.03	.300/7.6	.020/0.51	0/0	.1875/4.8	1.5/38
QBB-080500	.080/2.03	.500/12.7	.020/0.51	0/0	.1875/4.8	1.5/38
QBB-080600	.080/2.03	.600/15.2	.020/0.51	0/0	.1875/4.8	2.0/51
QBB-100200	.100/2.54	.200/5.1	.025/0.64	.003/0.08	.1875/4.8	1.5/38
QBB-100300	.100/2.54	.300/7.6	.025/0.64	.003/0.08	.1875/4.8	1.5/38
QBB-100500	.100/2.54	.500/12.7	.025/0.64	.003/0.08	.1875/4.8	1.5/38
QBB-100700	.100/2.54	.700/17.8	.025/0.64	.003/0.08	.1875/4.8	2.0/51
QBB-110300	.110/2.79	.300/7.6	.028/0.71	.003/0.08	.1875/4.8	1.5/38
QBB-110500	.110/2.79	.500/12.7	.028/0.71	.003/0.08	.1875/4.8	1.5/38
QBB-110700	.110/2.79	.700/17.8	.028/0.71	.003/0.08	.1875/4.8	2.0/51
QBB-120250	.120/3.05	.250/6.4	.030/0.76	.003/0.08	.1875/4.8	1.5/38
QBB-120350	.120/3.05	.350/8.9	.030/0.76	.003/0.08	.1875/4.8	1.5/38
QBB-120500	.120/3.05	.500/12.7	.030/0.76	.003/0.08	.1875/4.8	1.5/38
QBB-120700	.120/3.05	.700/17.8	.030/0.76	.003/0.08	.1875/4.8	2.0/51
QBB-120800	.120/3.05	.800/20.3	.030/0.76	.003/0.08	.1875/4.8	2.0/51
QBB-140400	.140/3.56	.400/10.2	.035/0.89	.003/0.08	.1875/4.8	1.5/38
QBB-140600	.140/3.56	.600/15.2	.035/0.89	.003/0.08	.1875/4.8	2.0/51
QBB-140800	.140/3.56	.800/20.3	.035/0.89	.003/0.08	.1875/4.8	2.0/51
QBB-160400	.160/4.06	.400/10.2	.040/1.02	.003/0.08	.1875/4.8	1.5/38
QBB-160600	.160/4.06	.600/15.2	.040/1.02	.003/0.08	.1875/4.8	2.0/51
QBB-160750	.160/4.06	.750/19.1	.040/1.02	.003/0.08	.1875/4.8	2.0/51
QBB-1601000	.160/4.06	1.00/25.4	.040/1.02	.003/0.08	.1875/4.8	2.0/51

Boring Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QBB-060300X



Right Hand, Boring tool shown,
Left Hand available on request.

QBB Boring Tools Tolerances:
Shank Diameter: -.0001" (-.005mm) to -.0002" (-.01mm)
Minimum Bore Diameter: ±.0005" (±.01mm)
Maximum Bore Depth: +.050" (+1.27mm)

1/4" / 6.4mm ХВОСТОВИК

Boring Bar Catalog No.	Min. Bore Dia. (D1)	Max. Bore Depth (L2)	Projection (P)	Nose Radius (R)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QBB-180500	.180/4.57	.500/12.7	.045/1.14	.005/0.13	.2500/6.4	2.0/51
QBB-180750	.180/4.57	.750/19.1	.045/1.14	.005/0.13	.2500/6.4	2.0/51
QBB-1801000	.180/4.57	1.00/25.4	.045/1.14	.005/0.13	.2500/6.4	2.5/64
QBB-1801250	.180/4.57	1.25/31.8	.045/1.14	.005/0.13	.2500/6.4	2.5/64
QBB-1801500	.180/4.57	1.50/38.1	.045/1.14	.005/0.13	.2500/6.4	3.0/76
QBB-200500	.200/5.08	.500/12.7	.050/1.27	.005/0.13	.2500/6.4	2.0/51
QBB-200750	.200/5.08	.750/19.1	.050/1.27	.005/0.13	.2500/6.4	2.0/51
QBB-2001000	.200/5.08	1.00/25.4	.050/1.27	.005/0.13	.2500/6.4	2.5/64
QBB-2001200	.200/5.08	1.20/30.5	.050/1.27	.005/0.13	.2500/6.4	2.5/64
QBB-2001500	.200/5.08	1.50/38.1	.050/1.27	.005/0.13	.2500/6.4	3.0/76

5/16" / 7.9mm ХВОСТОВИК

QBB-230500	.230/5.84	.500/12.7	.058/1.47	.005/0.13	.3125/7.9	2.0/51
QBB-230750	.230/5.84	.750/17.8	.058/1.47	.005/0.13	.3125/7.9	2.0/51
QBB-2301000	.230/5.84	1.00/25.4	.058/1.47	.005/0.13	.3125/7.9	2.5/64
QBB-2301250	.230/5.84	1.25/31.8	.058/1.47	.005/0.13	.3125/7.9	2.5/64
QBB-2301500	.230/5.84	1.50/38.1	.058/1.47	.005/0.13	.3125/7.9	3.0/76
QBB-2301600	.230/5.84	1.60/40.7	.058/1.47	.005/0.13	.3125/7.9	3.0/76
QBB-290500	.290/7.37	.500/12.7	.073/1.85	.005/0.13	.3125/7.9	2.0/51
QBB-290750	.290/7.37	.750/19.1	.073/1.85	.005/0.13	.3125/7.9	2.0/51
QBB-2901000	.290/7.37	1.00/25.4	.073/1.85	.005/0.13	.3125/7.9	2.5/64
QBB-2901250	.290/7.37	1.25/31.8	.073/1.85	.005/0.13	.3125/7.9	2.5/64
QBB-2901500	.290/7.37	1.50/38.1	.073/1.85	.005/0.13	.3125/7.9	3.0/76
QBB-2901750	.290/7.37	1.75/44.5	.073/1.85	.005/0.13	.3125/7.9	3.0/76

3/8" / 9.5mm ХВОСТОВИК

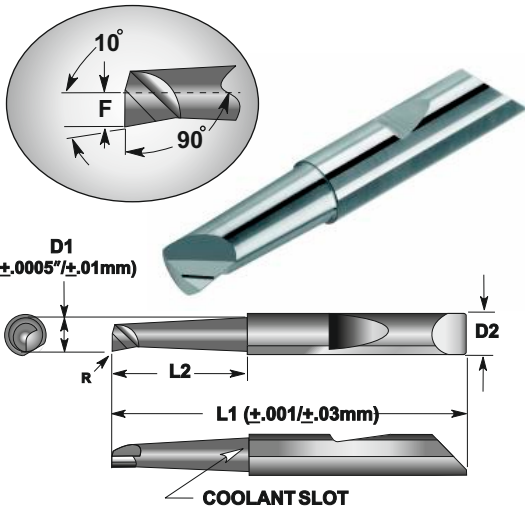
QBB-320500	.320/8.13	.500/12.7	.080/2.03	.005/0.13	.3750/9.5	2.0/51
QBB-320750	.320/8.13	.750/19.1	.080/2.03	.005/0.13	.3750/9.5	2.0/51
QBB-3201000	.320/8.13	1.00/25.4	.080/2.03	.005/0.13	.3750/9.5	2.5/64
QBB-3201250	.320/8.13	1.25/31.8	.080/2.03	.005/0.13	.3750/9.5	2.5/64
QBB-3201500	.320/8.13	1.50/38.1	.080/2.03	.005/0.13	.3750/9.5	3.0/76
QBB-3201800	.320/8.13	1.80/45.7	.080/2.03	.005/0.13	.3750/9.5	3.0/76
QBB-3202000	.320/8.13	2.00/50.8	.080/2.03	.005/0.13	.3750/9.5	3.5/89
QBB-3202500	.320/8.13	2.50/63.5	.080/2.03	.005/0.13	.3750/9.5	4.0/102
QBB-360750	.360/9.14	.750/19.1	.090/2.29	.005/0.13	.3750/9.5	2.0/51
QBB-3601000	.360/9.14	1.00/25.4	.090/2.29	.005/0.13	.3750/9.5	2.5/64
QBB-3601250	.360/9.14	1.25/31.8	.090/2.29	.005/0.13	.3750/9.5	2.5/64
QBB-3601500	.360/9.14	1.50/38.1	.090/2.29	.005/0.13	.3750/9.5	3.0/76
QBB-3601800	.360/9.14	1.80/45.7	.090/2.29	.005/0.13	.3750/9.5	3.0/76
QBB-3602000	.360/9.14	2.00/50.8	.090/2.29	.005/0.13	.3750/9.5	3.5/89
QBB-3602500	.360/9.14	2.50/63.5	.090/2.29	.005/0.13	.3750/9.5	4.0/102

1/2" / 12.7mm ХВОСТОВИК

QBB-4601000	.460/11.7	1.00/25.4	.115/2.92	.005/0.13	.5000/12.7	2.5/64
QBB-4601250	.460/11.7	1.25/31.8	.115/2.92	.005/0.13	.5000/12.7	3.0/76
QBB-4601500	.460/11.7	1.50/38.1	.115/2.92	.005/0.13	.5000/12.7	3.0/76
QBB-4602000	.460/11.7	2.00/50.8	.115/2.92	.005/0.13	.5000/12.7	3.5/89
QBB-4602500	.460/11.7	2.50/63.5	.115/2.92	.005/0.13	.5000/12.7	4.0/102
QBB-4603000	.460/11.7	3.00/76.2	.115/2.92	.005/0.13	.5000/12.7	4.5/114
QBB-4901000	.490/12.5	1.00/25.4	.123/3.12	.005/0.13	.5000/12.7	2.5/64
QBB-4901250	.490/12.5	1.25/31.8	.123/3.12	.005/0.13	.5000/12.7	3.0/76
QBB-4901500	.490/12.5	1.50/38.1	.123/3.12	.005/0.13	.5000/12.7	3.0/76
QBB-4902000	.490/12.5	2.00/50.8	.123/3.12	.005/0.13	.5000/12.7	3.5/89
QBB-4902500	.490/12.5	2.50/63.5	.123/3.12	.005/0.13	.5000/12.7	4.0/102
QBB-4903000	.490/12.5	3.00/76.2	.123/3.12	.005/0.13	.5000/12.7	4.5/114

Boring Tools for Boring Heads & Milling Machines

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QBM-3601000X



QBM Boring Tools Tolerances:
Shank Diameter: -.0001" (-0.005mm) to -.0002" (-0.01mm)
Minimum Bore Diameter: ±.0005" (±0.01mm)
Maximum Bore Depth: +.050" (+1.27mm)

1/4" / 6.4mm ХВОСТОВИК

Milling Machine Boring Tool Catalog No.	Min. Bore Dia. (D1)	Max. Bore Depth (L2)	Centerline Dim. (F)	Nose Radius (R)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QBM-118500	.118/3.00	.500/12.7	.055/1.4	.003/0.08	.2500/6.4	2.0/51
QBM-118750	.118/3.00	.750/19.1	.055/1.4	.003/0.08	.2500/6.4	2.0/51
QBM-150500	.150/3.81	.500/12.7	.071/1.8	.003/0.08	.2500/6.4	2.0/51
QBM-150750	.150/3.81	.750/19.1	.071/1.8	.003/0.08	.2500/6.4	2.0/51
QBM-200500	.200/5.08	.500/12.7	.095/2.4	.008/0.20	.2500/6.4	2.0/51
QBM-200750	.200/5.08	.750/19.1	.095/2.4	.008/0.20	.2500/6.4	2.0/51
QBM-2001250	.200/5.08	1.25/31.8	.095/2.4	.008/0.20	.2500/6.4	2.5/64
QBM-230750	.230/5.84	.750/19.1	.110/2.8	.008/0.20	.2500/6.4	2.0/51
QBM-2301250	.230/5.84	1.25/31.8	.110/2.8	.008/0.20	.2500/6.4	2.5/64
QBM-2301500	.230/5.84	1.50/38.1	.110/2.8	.008/0.20	.2500/6.4	3.0/76

3/8" / 9.5mm ХВОСТОВИК

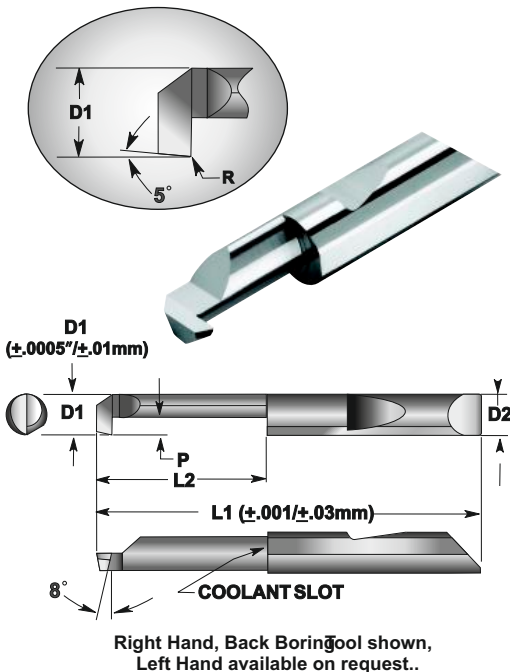
QBM-3001000	.300/7.62	1.00/24.4	.145/3.7	.008/0.20	.3750/9.5	2.5/64
QBM-3001500	.300/7.62	1.50/38.1	.145/3.7	.008/0.20	.3750/9.5	3.0/76
QBM-3001750	.300/7.62	1.75/44.5	.145/3.7	.008/0.20	.3750/9.5	3.0/76
QBM-3601000	.360/9.14	1.00/25.4	.175/4.5	.008/0.20	.3750/9.5	2.5/64
QBM-3601500	.360/9.14	1.50/38.1	.175/4.5	.008/0.20	.3750/9.5	3.0/76
QBM-3602000	.360/9.14	2.00/50.8	.175/4.5	.008/0.20	.3750/9.5	3.5/89

1/2" / 12.7mm ХВОСТОВИК

QBM-4601000	.460/11.68	1.00/25.4	.225/5.7	.008/0.20	.5000/12.7	2.5/64
QBM-4601500	.460/11.68	1.50/38.1	.225/5.7	.008/0.20	.5000/12.7	3.0/76
QBM-4602000	.460/11.68	2.00/50.8	.225/5.7	.008/0.20	.5000/12.7	3.5/89
QBM-4602500	.460/11.68	2.50/63.5	.225/5.7	.008/0.20	.5000/12.7	4.0/102
QBM-4603000	.460/11.68	3.00/76.2	.225/5.7	.008/0.20	.5000/12.7	4.5/114

Reverse Boring Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QRB-156500X



Right Hand, Back Boring tool shown,
Left Hand available on request..

QRB Reverse Boring Tools Tolerances:
Shank Diameter: -.0001" (-0.005mm) to -.0002" (-0.01mm)
Minimum Bore Diameter: ±.0005" (±0.01mm)
Maximum Bore Depth: +.050" (+1.27mm)

3/16" / 4.8mm ХВОСТОВИК

Reverse Boring Tool Catalog No.	Min. Bore Dia. (D1)	Max. Bore Depth (L2)	Projection (P)	Nose Radius (R)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QRB-156500	.156/3.96	.500/12.7	.060/1.5	.005/0.13	.1875/4.8	1.5/38
QRB-156750	.156/3.96	.750/19.1	.060/1.5	.005/0.13	.1875/4.8	2.0/51
QRB-1561000	.156/3.96	1.00/25.4	.060/1.5	.005/0.13	.1875/4.8	2.0/51

1/4" / 6.4mm ХВОСТОВИК

QRB-180500	.180/4.57	.500/12.7	.080/2.0	.005/0.13	.2500/6.4	2.0/51
QRB-180750	.180/4.57	.750/19.1	.080/2.0	.005/0.13	.2500/6.4	2.0/51
QRB-1801000	.180/4.57	1.00/25.4	.080/2.0	.005/0.13	.2500/6.4	2.5/64
QRB-200500	.200/5.08	.500/12.7	.090/2.0	.008/0.20	.2500/6.4	2.0/51
QRB-200750	.200/5.08	.750/19.1	.090/2.0	.008/0.20	.2500/6.4	2.0/51
QRB-2001000	.200/5.08	1.00/25.4	.090/2.0	.008/0.20	.2500/6.4	2.5/64
QRB-2001250	.200/5.08	1.25/31.8	.090/2.0	.008/0.20	.2500/6.4	2.5/64

5/16" / 7.9mm ХВОСТОВИК

QRB-230500	.230/5.84	.500/12.7	.110/2.8	.008/0.20	.3125/7.9	2.0/51
QRB-230750	.230/5.84	.750/19.1	.110/2.8	.008/0.20	.3125/7.9	2.0/51
QRB-2301000	.230/5.84	1.00/25.4	.110/2.8	.008/0.20	.3125/7.9	2.5/64
QRB-2301250	.230/5.84	1.25/31.8	.110/2.8	.008/0.20	.3125/7.9	2.5/64
QRB-300750	.300/7.62	.750/19.1	.110/2.8	.008/0.20	.3125/7.9	2.0/51
QRB-3001000	.300/7.62	1.00/25.4	.110/2.8	.008/0.20	.3125/7.9	2.5/64
QRB-3001250	.300/7.62	1.25/31.8	.110/2.8	.008/0.20	.3125/7.9	2.5/64

3/8" / 9.5mm ХВОСТОВИК

QRB-360750	.360/9.14	.750/19.1	.130/3.3	.008/0.20	.3750/9.5	2.0/51
QRB-3601000	.360/9.14	1.00/25.4	.130/3.3	.008/0.20	.3750/9.5	2.5/64
QRB-3601250	.360/9.14	1.25/31.8	.130/3.3	.008/0.20	.3750/9.5	2.5/64
QRB-3601500	.360/9.14	1.50/38.1	.130/3.3	.008/0.20	.3750/9.5	3.0/76

1/2" / 12.7mm ХВОСТОВИК

QRB-4601000	.460/11.68	1.00/25.4	.160/4.1	.008/0.20	.500/12.7	2.5/64
QRB-4601250	.460/11.68	1.25/31.8	.160/4.1	.008/0.20	.500/12.7	3.0/76
QRB-4601500	.460/11.68	1.50/38.1	.160/4.1	.008/0.20	.500/12.7	3.0/76
QRB-4601800	.460/11.68	1.80/45.7	.160/4.1	.008/0.20	.500/12.7	3.5/89
QRB-4901000	.490/12.45	1.00/25.4	.160/4.1	.008/0.20	.500/12.7	2.5/64
QRB-4901250	.490/12.45	1.25/31.8	.160/4.1	.008/0.20	.500/12.7	3.0/76
QRB-4901500	.490/12.45	1.50/38.1	.160/4.1	.008/0.20	.500/12.7	3.0/76
QRB-4901800	.490/12.45	1.80/45.7	.160/4.1	.008/0.20	.500/12.7	3.5/89

Характеристики быстросменной системы для профильного точения:

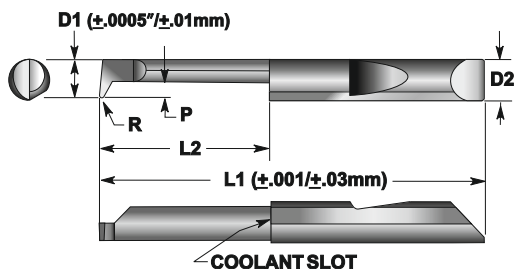
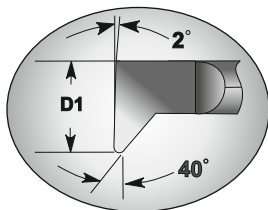
- Резцы с покрытием алюмонитридом титана и без покрытия
- Обрабатываемые диаметры от 1,78мм до 12,45мм
- Максимальный вылет резца от 5,08мм до 45,7мм
- Размеры хвостовиков: 4,8мм; 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Эллиптическая шейка для максимальной жесткости
- Радиус вершины резца от 0,05 мм до 0,08 мм
- Подача СОЖ



QPR Profiling Tools Tolerances:
Shank Diameter: $-.0001"$ ($-.005\text{mm}$) to $-.0002"$ ($-.01\text{mm}$)
Minimum Bore Diameter $\pm .0005"$ ($\pm .01\text{mm}$)
Maximum Bore Depth: $+.050"$ ($+1.27\text{mm}$)

Profiling Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QPR-180500X



Right Hand, Profiling tool shown,
Left Hand available on request..

3/16" / 4.8mm хвостовик

Profiling Tool Catalog No.	Min. Bore Diameter (D1)	Projection (P)	Max. Bore Depth (L2)	Nose Radius (R)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QPR-070200	.070/1.78	.025/0.6	.200/5.08	.005/0.1	.1875/4.76	1.5/38
QPR-070300	.070/1.78	.025/0.6	.300/7.62	.005/0.1	.1875/4.76	1.5/38
QPR-070500	.070/1.78	.025/0.6	.500/12.7	.005/0.1	.1875/4.76	1.5/38
QPR-110250	.110/2.79	.040/1.0	.250/6.35	.005/0.1	.1875/4.76	1.5/38
QPR-110500	.110/2.79	.040/1.0	.500/12.7	.005/0.1	.1875/4.76	1.5/38
QPR-120250	.120/3.05	.050/1.3	.250/6.35	.008/0.2	.1875/4.76	1.5/38
QPR-120500	.120/3.05	.050/1.3	.500/12.7	.008/0.2	.1875/4.76	1.5/38
QPR-120750	.120/3.05	.050/1.3	.750/19.1	.008/0.2	.1875/4.76	2.0/51
QPR-160500	.160/4.06	.050/1.3	.500/12.7	.008/0.2	.1875/4.76	1.5/38
QPR-160750	.160/4.06	.050/1.3	.750/19.1	.008/0.2	.1875/4.76	2.0/51
QPR-1601000	.160/4.06	.050/1.3	1.00/25.4	.008/0.2	.1875/4.76	2.0/51

1/4" / 6.4mm хвостовик

QPR-180500	.180/4.57	.080/2.0	.500/12.7	.008/0.2	.2500/6.35	2.0/51
QPR-180750	.180/4.57	.080/2.0	.750/19.1	.008/0.2	.2500/6.35	2.0/51
QPR-1801000	.180/4.57	.080/2.0	1.00/25.4	.008/0.2	.2500/6.35	2.5/64

5/16" / 7.9mm хвостовик

QPR-230750	.230/5.84	.080/2.0	.750/19.1	.008/0.2	.3125/7.94	2.0/51
QPR-2301000	.230/5.84	.080/2.0	1.00/25.4	.008/0.2	.3125/7.94	2.5/64
QPR-2301250	.230/5.84	.080/2.0	1.25/31.8	.008/0.2	.3125/7.94	2.5/64
QPR-3001000	.300/7.62	.110/2.8	1.00/25.4	.008/0.2	.3125/7.94	2.5/64
QPR-3001250	.300/7.62	.110/2.8	1.25/31.8	.008/0.2	.3125/7.94	2.5/64

3/8" / 9.5mm хвостовик

QPR-3601000	.360/9.14	.130/3.3	1.00/25.4	.008/0.2	.3750/9.50	2.5/64
QPR-3601250	.360/9.14	.130/3.3	1.25/31.8	.008/0.2	.3750/9.50	2.5/64

1/2" / 12.7mm хвостовик

QPR-4601000	.460/11.68	.150/3.8	1.00/25.4	.008/0.2	.5000/12.7	3.0/76
QPR-4601500	.460/11.68	.150/3.8	1.50/38.1	.008/0.2	.5000/12.7	3.0/76
QPR-4601800	.460/11.68	.150/3.8	1.80/45.7	.008/0.2	.5000/12.7	3.5/89
QPR-4901000	.490/12.45	.150/3.8	1.00/25.4	.008/0.2	.5000/12.7	3.0/76
QPR-4901500	.490/12.45	.150/3.8	1.50/38.1	.008/0.2	.5000/12.7	3.0/76
QPR-4901800	.490/12.45	.150/3.8	1.80/45.7	.008/0.2	.5000/12.7	3.5/89

Характеристики быстросменной системы для точения канавки под стопорное кольцо:

- Резцы с покрытием алюмонитридом титана и без покрытия
- Ширина канавки от 0,38мм до 6,35мм
- Максимальный вылет резца от 6,35мм до 38,1мм
- Размеры хвостовиков: 4,8мм; 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Эллиптическая шейка для максимальной жесткости
- Подача СОЖ

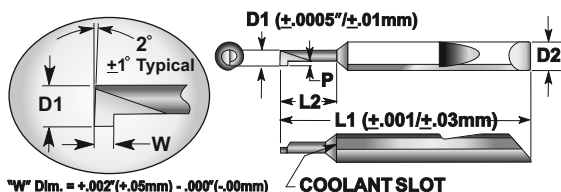


QMRR Miniature Retaining Ring Grooving Tools Tolerances:
Shank Diameter: $-.0001"$ (-.005mm) to $-.0002"$ (-.01mm)
Minimum Bore Diameter: $\pm .0005"$ ($\pm .01$ mm)
Maximum Bore Depth: $+.050"$ (+1.27mm)

QRR Retaining Ring Grooving Tools Tolerances:
Shank Diameter: $-.0001"$ (-.005mm) to $-.0002"$ (-.01mm)
Minimum Bore Diameter: $\pm .0005"$ ($\pm .01$ mm)
Maximum Bore Depth: $+.050"$ (+1.27mm)

Miniature Retaining Ring Grooving Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QMRR-015-8X

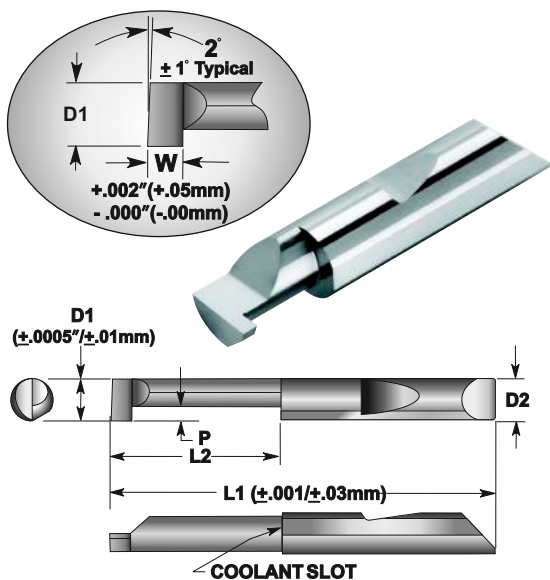


3/16" / 4.8mm ХВОСТОВИК

Miniature Grooving Tool Catalog No.	Groove Width (W)	Projection (P)	Max. Bore Depth (L2)	Min. Bore Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QMRR-015-4	.015/0.38	.025/0.64	.250/6.4	.080/2.03	.1875/4.8	1.5/38
QMRR-015-6	.015/0.38	.025/0.64	.375/9.5	.080/2.03	.1875/4.8	1.5/38
QMRR-015-8	.015/0.38	.025/0.64	.500/12.7	.080/2.03	.1875/4.8	1.5/38
QMRR-020-6	.020/0.50	.030/0.76	.375/9.5	.120/3.05	.1875/4.8	1.5/38
QMRR-020-8	.020/0.50	.030/0.76	.500/12.7	.120/3.05	.1875/4.8	1.5/38
QMRR-020-10	.020/0.50	.030/0.76	.625/15.9	.120/3.05	.1875/4.8	2.0/51

Retaining Ring Grooving Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QRR-030-010X



Right Hand, Retaining Ring Grooving Tool shown,
Left Hand available on request..

3/16" / 4.8mm ХВОСТОВИК

Retaining Ring Grooving Tool Catalog No.	Groove Width (W)	Projection (P)	Max. Bore Depth (L2)	Min. Bore Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QRR-017-4	.017/0.43	.030/0.76	.250/6.4	.180/4.6	.1875/4.8	1.5/38
QRR-017-6	.017/0.43	.030/0.76	.375/9.5	.180/4.6	.1875/4.8	1.5/38
QRR-017-8	.017/0.43	.030/0.76	.500/12.7	.180/4.6	.1875/4.8	1.5/38
QRR-017-10	.017/0.43	.030/0.76	.625/15.9	.180/4.6	.1875/4.8	2.0/51
QRR-020-4	.020/0.50	.030/0.76	.250/6.4	.180/4.6	.1875/4.8	1.5/38
QRR-020-6	.020/0.50	.030/0.76	.375/9.5	.180/4.6	.1875/4.8	1.5/38
QRR-020-8	.020/0.50	.030/0.76	.500/12.7	.180/4.6	.1875/4.8	1.5/38
QRR-020-10	.020/0.50	.030/0.76	.625/15.9	.180/4.6	.1875/4.8	2.0/51

1/4" / 6.4mm ХВОСТОВИК

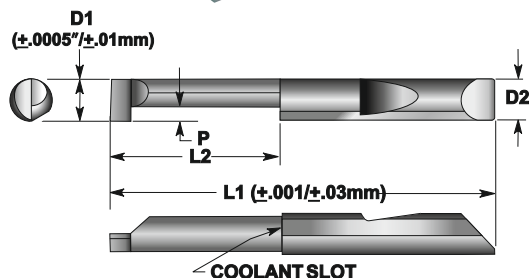
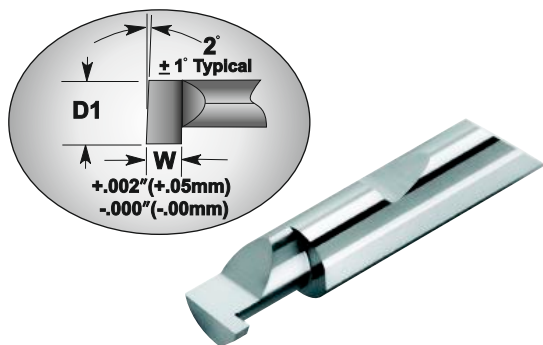
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QRR-025-6	.025/0.64	.050/1.27	.375/9.5	.245/6.2	.250/6.4	2.0/51
QRR-025-8	.025/0.64	.050/1.27	.500/12.7	.245/6.2	.250/6.4	2.0/51
QRR-025-10	.025/0.64	.050/1.27	.625/15.9	.245/6.2	.250/6.4	2.0/51
QRR-030-4	.030/0.76	.050/1.27	.250/6.4	.245/6.2	.250/6.4	2.0/51
QRR-030-6	.030/0.76	.050/1.27	.375/9.5	.245/6.2	.250/6.4	2.0/51
QRR-030-8	.030/0.76	.050/1.27	.500/12.7	.245/6.2	.250/6.4	2.0/51
QRR-030-10	.030/0.76	.050/1.27	.625/15.9	.245/6.2	.250/6.4	2.0/51

5/16" / 7.9mm ХВОСТОВИК

QRR-033-6	.033/0.84	.100/2.54	.375/9.5	.310/7.9	.312/7.9	2.0/51
QRR-033-8	.033/0.84	.100/2.54	.500/12.7	.310/7.9	.312/7.9	2.0/51
QRR-033-12	.033/0.84	.100/2.54	.750/19.1	.310/7.9	.312/7.9	2.0/51
QRR-038-6	.038/0.97	.100/2.54	.375/9.5	.310/7.9	.312/7.9	2.0/51
QRR-038-8	.038/0.97	.100/2.54	.500/12.7	.310/7.9	.312/7.9	2.0/51
QRR-038-12	.038/0.97	.100/2.54	.750/19.1	.310/7.9	.312/7.9	2.0/51

Retaining Ring Grooving Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QRR-039-20X



Right Hand, Retaining Ring Grooving Tool shown,
Left Hand available on request..

QRR Retaining Ring Grooving Tools Tolerances:
Shank Diameter: $-.0001'' (-.005mm)$ to $-.0002'' (-.01mm)$
Minimum Bore Diameter $\pm .0005'' (\pm .01mm)$
Maximum Bore Depth: $+.050'' (+1.27mm)$

3/8" / 9.5mm ХВОСТОВИК

Retaining Ring Grooving Tool Catalog No.	Groove Width (W)	Groove Depth (P)	Max. Bore Depth (L2)	Min. Bore Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QRR-039-8	.039/1.0	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-039-12	.039/1.0	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-039-16	.039/1.0	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-039-20	.039/1.0	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-046-8	.046/1.17	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-046-12	.046/1.17	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-046-16	.046/1.17	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-046-20	.046/1.17	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-055-8	.055/1.40	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-055-12	.055/1.40	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-055-16	.055/1.40	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-055-20	.055/1.40	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-059-8	.059/1.50	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-059-12	.059/1.50	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-059-16	.059/1.50	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-059-20	.059/1.50	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-062-8	.062/1.57	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-062-12	.062/1.57	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-062-16	.062/1.57	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-062-20	.062/1.57	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-069-8	.069/1.75	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-069-12	.069/1.75	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-069-16	.069/1.75	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-069-20	.069/1.75	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-079-8	.079/2.00	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-079-12	.079/2.00	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-079-16	.079/2.00	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-079-20	.079/2.00	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QRR-087-8	.087/2.21	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QRR-087-12	.087/2.21	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QRR-087-16	.087/2.21	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QRR-087-20	.087/2.21	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64

1/2" / 12.7mm ХВОСТОВИК

QRR-093-12	.093/2.36	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-093-16	.093/2.36	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-093-20	.093/2.36	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-093-24	.093/2.36	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-118-12	.118/3.00	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-118-16	.118/3.00	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-118-20	.118/3.00	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-118-24	.118/3.00	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-125-12	.125/3.18	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-125-16	.125/3.18	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-125-20	.125/3.18	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-125-24	.125/3.18	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-156-12	.156/3.96	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-156-16	.156/3.96	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-156-20	.156/3.96	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-156-24	.156/3.96	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-187-12	.187/4.75	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-187-16	.187/4.75	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-187-20	.187/4.75	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-187-24	.187/4.75	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-236-12	.236/6.00	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-236-16	.236/6.00	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-236-20	.236/6.00	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-236-24	.236/6.00	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QRR-250-12	.250/6.35	.150/3.81	.750/19.1	.495/12.6	.500/12.7	2.5/64
QRR-250-16	.250/6.35	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QRR-250-20	.250/6.35	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QRR-250-24	.250/6.35	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76

Характеристики быстросменной системы для точения канавки под стопорное кольцо:

- Резцы с покрытием алумонитридом титана и без покрытия
- Ширина канавки от 0,38мм до 6,35мм
- Максимальный вылет резца от 6,35мм до 38,1мм
- Размеры хвостовиков: 4,8мм; 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Эллиптическая шейка для максимальной жесткости
- Подача СОЖ

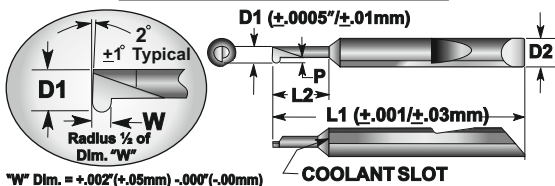


QMFR Miniature Full Radius Grooving Tools Tolerances:
Shank Diameter: $-.0001" (-.005mm)$ to $-.0002" (-.01mm)$
Minimum Bore Diameter: $\pm .0005" (\pm .01mm)$
Maximum Bore Depth: $+.050" (+1.27mm)$

QFR Full Radius Grooving Tools Tolerances:
Shank Diameter: $-.0001" (-.005mm)$ to $-.0002" (-.01mm)$
Minimum Bore Diameter: $\pm .0005" (\pm .01mm)$
Maximum Bore Depth: $+.050" (+1.27mm)$

Miniature Full Radius Grooving Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QMFR-020-16X



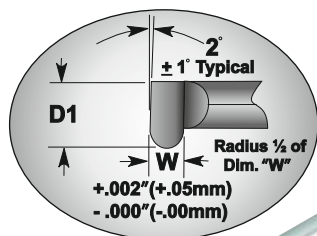
"W" Dim. = $+.002" (+.05mm)$ $-.000" (-.00mm)$

3/16" / 4.8mm ХВОСТОВИК

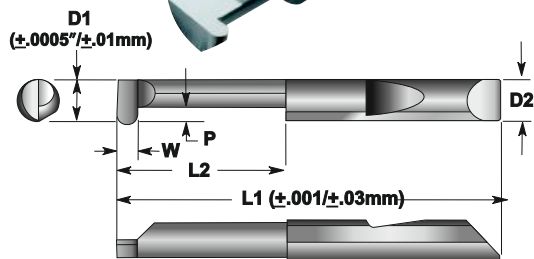
Miniature Grooving Tool Catalog No.	Groove Width (W)	Projection (P)	Max. Bore Depth (L2)	Min. Bore Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QMFR-015-4	.015/0.38	.025/0.64	.250/6.4	.080/2.03	.1875/4.8	1.5/38
QMFR-015-6	.015/0.38	.025/0.64	.375/9.5	.080/2.03	.1875/4.8	1.5/38
QMFR-015-8	.015/0.38	.025/0.64	.500/12.7	.080/2.03	.1875/4.8	1.5/38
QMFR-020-6	.020/0.50	.030/0.76	.375/9.5	.120/3.05	.1875/4.8	1.5/38
QMFR-020-8	.020/0.50	.030/0.76	.500/12.7	.120/3.05	.1875/4.8	1.5/38
QMFR-020-10	.020/0.50	.030/0.76	.625/15.9	.120/3.05	.1875/4.8	2.0/51

Full Radius Grooving Tools

AITiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QFR-030-4X



$+.002" (+.05mm)$
 $-.000" (-.00mm)$



Right Hand, Full Radius Grooving Tool shown,
Left Hand available on request..

3/16" / 4.8mm ХВОСТОВИК

Full Radius Grooving Tool Catalog No.	Groove Width (W)	Projection (P)	Max. Bore Depth (L2)	Min. Bore Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QFR-017-4	.017/0.43	.030/0.76	.250/6.4	.180/4.6	.1875/6.4	1.5/38
QFR-017-6	.017/0.43	.030/0.76	.375/9.5	.180/4.6	.1875/6.4	1.5/38
QFR-017-8	.017/0.43	.030/0.76	.500/12.7	.180/4.6	.1875/6.4	1.5/38
QFR-017-10	.017/0.43	.030/0.76	.625/15.9	.180/4.6	.1875/6.4	2.0/51
QFR-020-4	.020/0.50	.030/0.76	.250/6.4	.180/4.6	.1875/6.4	1.5/38
QFR-020-6	.020/0.50	.030/0.76	.375/9.5	.180/4.6	.1875/6.4	1.5/38
QFR-020-8	.020/0.50	.030/0.76	.500/12.7	.180/4.6	.1875/6.4	1.5/38
QFR-020-10	.020/0.50	.030/0.76	.625/15.9	.180/4.6	.1875/6.4	2.0/51

1/4" / 6.4mm ХВОСТОВИК

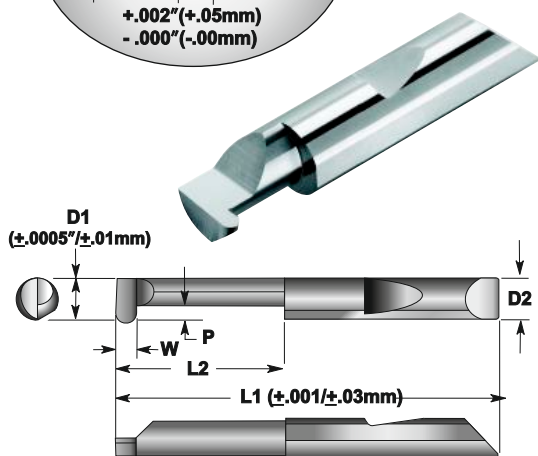
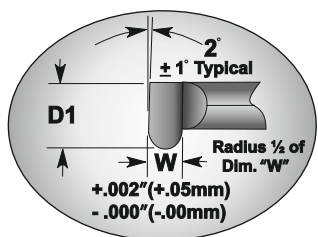
QFR-025-4	.025/0.64	.050/1.27	.250/6.4	.245/6.2	.250/6.4	2.0/51
QFR-025-6	.025/0.64	.050/1.27	.375/9.5	.245/6.2	.250/6.4	2.0/51
QFR-025-8	.025/0.64	.050/1.27	.500/12.7	.245/6.2	.250/6.4	2.0/51
QFR-025-10	.025/0.64	.050/1.27	.625/15.9	.245/6.2	.250/6.4	2.0/51
QFR-030-4	.030/0.76	.050/1.27	.250/6.4	.245/6.2	.250/6.4	2.0/51
QFR-030-6	.030/0.76	.050/1.27	.375/9.5	.245/6.2	.250/6.4	2.0/51
QFR-030-8	.030/0.76	.050/1.27	.500/12.7	.245/6.2	.250/6.4	2.0/51
QFR-030-10	.030/0.76	.050/1.27	.625/15.9	.245/6.2	.250/6.4	2.0/51

5/16" / 7.9mm ХВОСТОВИК

QFR-033-6	.033/0.84	.100/2.54	.375/9.5	.310/7.9	.312/7.9	2.0/51
QFR-033-8	.033/0.84	.100/2.54	.500/12.7	.310/7.9	.312/7.9	2.0/51
QFR-033-12	.033/0.84	.100/2.54	.750/19.1	.310/7.9	.312/7.9	2.0/51
QFR-038-6	.038/0.97	.100/2.54	.375/9.5	.310/7.9	.312/7.9	2.0/51
QFR-038-8	.038/0.97	.100/2.54	.500/12.7	.310/7.9	.312/7.9	2.0/51
QFR-038-12	.038/0.97	.100/2.54	.750/19.1	.310/7.9	.312/7.9	2.0/51

Full Radius Grooving Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QFR-046-8X



Right Hand, Full Radius Grooving Tool shown,
Left Hand available on request..

QFR Full Radius Grooving Tools Tolerances:
Shank Diameter: -0.001" (-0.05mm) to -0.002" (-0.1mm)
Minimum Bore Diameter: ±0.0005" (±0.01mm)
Maximum Bore Depth: +0.050" (+1.27mm)

3/8" / 9.5mm ХВОСТОВИК

Full Radius Grooving Tool Catalog No.	Groove Width (W)	Groove Depth (P)	Max. Hole Depth (L2)	Min. Hole Dia. (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QFR-039-8	.039/1.00	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-039-12	.039/1.00	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-039-16	.039/1.00	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-039-20	.039/1.00	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-046-8	.046/1.17	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-046-12	.046/1.17	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-046-16	.046/1.17	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-046-20	.046/1.17	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-055-8	.055/1.40	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-055-12	.055/1.40	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-055-16	.055/1.40	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-055-20	.055/1.40	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-059-8	.059/1.50	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-059-12	.059/1.50	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-059-16	.059/1.50	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-059-20	.059/1.50	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-062-8	.062/1.57	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-062-12	.062/1.57	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-062-16	.062/1.57	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-062-20	.062/1.57	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-069-8	.069/1.75	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-069-12	.069/1.75	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-069-16	.069/1.75	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-069-20	.069/1.75	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-079-8	.079/2.00	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-079-12	.079/2.00	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-079-16	.079/2.00	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-079-20	.079/2.00	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64
QFR-087-8	.087/2.21	.100/2.54	.500/12.7	.370/9.4	.375/9.5	2.0/51
QFR-087-12	.087/2.21	.100/2.54	.750/19.1	.370/9.4	.375/9.5	2.0/51
QFR-087-16	.087/2.21	.100/2.54	1.00/25.4	.370/9.4	.375/9.5	2.5/64
QFR-087-20	.087/2.21	.100/2.54	1.25/31.8	.370/9.4	.375/9.5	2.5/64

1/2" / 12.7mm ХВОСТОВИК

QFR-093-12	.093/2.36	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-093-16	.093/2.36	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-093-20	.093/2.36	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-093-24	.093/2.36	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-118-12	.118/3.00	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-118-16	.118/3.00	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-118-20	.118/3.00	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-118-24	.118/3.00	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-125-12	.125/3.18	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-125-16	.125/3.18	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-125-20	.125/3.18	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-125-24	.125/3.18	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-156-12	.156/3.96	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-156-16	.156/3.96	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-156-20	.156/3.96	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-156-24	.156/3.96	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-187-12	.187/4.75	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-187-16	.187/4.75	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-187-20	.187/4.75	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-187-24	.187/4.75	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-236-12	.236/6.00	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-236-16	.236/6.00	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-236-20	.236/6.00	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-236-24	.236/6.00	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76
QFR-250-12	.250/6.35	.150/3.81	.375/19.1	.495/12.6	.500/12.7	2.5/64
QFR-250-16	.250/6.35	.150/3.81	1.00/25.4	.495/12.6	.500/12.7	2.5/64
QFR-250-20	.250/6.35	.150/3.81	1.25/31.8	.495/12.6	.500/12.7	3.0/76
QFR-250-24	.250/6.35	.150/3.81	1.50/38.1	.495/12.6	.500/12.7	3.0/76

Характеристики быстросменной системы для точения внутренней резьбы:

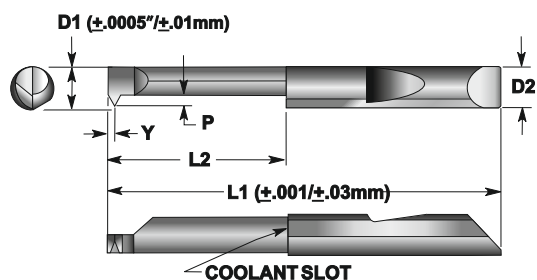
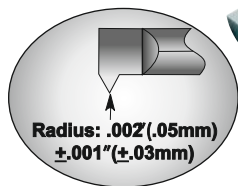
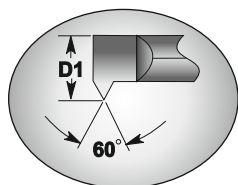
- Резцы с покрытием алюмонитридом титана и без покрытия
- Минимальные диаметры от 0,89 до 11,7мм
- Расстояние от торца резьбы от 1,91 до 50,1 мм
- Количество ниток на дюйм: до 80.
- Размеры хвостовиков: 4,8мм; 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Эллиптическая шейка для максимальной жесткости
- Радиус при вершине - 0,05 мм
- Подача СОЖ



QIT Internal Threading Tools Tolerances:
Shank Diameter: $-.0001''(-.005\text{mm})$ to $-.0002''(-.01\text{mm})$
Minimum Bore Diameter: $+.0005''(+.01\text{mm})$
Maximum Bore Depth: $+.050''(+1.27\text{mm})$

Internal Threading Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QIT-050-200X



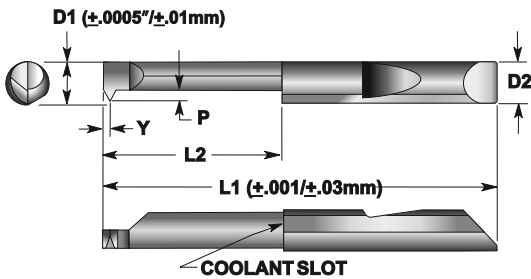
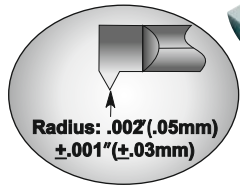
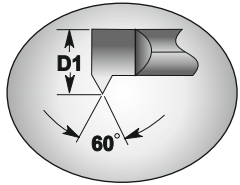
Right Hand, Threading Tool shown,
Left Hand available on request..

3/16" / 4.8mm хвостовик

Internal Threading Tool Catalog No.	Min. Bore Diameter (D1)	Projection (P)	Max. Bore Depth (L2)	Shank Dia. (D2)	Offset Point (Y)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QIT-035075	.035/0.89	.015/0.38	.075/1.91	.1875/4.8	.008/0.20	1.5/38
QIT-035100	.035/0.89	.015/0.38	.100/2.54	.1875/4.8	.008/0.20	1.5/38
QIT-035150	.035/0.89	.015/0.38	.150/3.81	.1875/4.8	.008/0.20	1.5/38
QIT-040075	.040/1.02	.015/0.38	.075/1.91	.1875/4.8	.009/0.23	1.5/38
QIT-040100	.040/1.02	.015/0.38	.100/2.54	.1875/4.8	.009/0.23	1.5/38
QIT-040150	.040/1.02	.015/0.38	.150/3.81	.1875/4.8	.009/0.23	1.5/38
QIT-050100	.050/1.27	.020/0.51	.100/2.54	.1875/4.8	.012/0.30	1.5/38
QIT-050150	.050/1.27	.020/0.51	.150/3.81	.1875/4.8	.012/0.30	1.5/38
QIT-050200	.050/1.27	.020/0.51	.200/5.08	.1875/4.8	.012/0.30	1.5/38
QIT-060200	.060/1.52	.020/0.51	.200/5.08	.1875/4.8	.012/0.30	1.5/38
QIT-060250	.060/1.52	.020/0.51	.250/6.35	.1875/4.8	.012/0.30	1.5/38
QIT-060300	.060/1.52	.020/0.51	.300/7.62	.1875/4.8	.012/0.30	1.5/38
QIT-080250	.080/2.03	.020/0.51	.250/6.35	.1875/4.8	.012/0.30	1.5/38
QIT-080350	.080/2.03	.020/0.51	.350/8.89	.1875/4.8	.012/0.30	1.5/38
QIT-080500	.080/2.03	.020/0.51	.500/12.7	.1875/4.8	.012/0.30	1.5/38
QIT-100250	.100/2.54	.025/0.64	.250/6.35	.1875/4.8	.014/0.36	1.5/38
QIT-100350	.100/2.54	.025/0.64	.350/8.89	.1875/4.8	.014/0.36	1.5/38
QIT-100500	.100/2.54	.025/0.64	.500/12.7	.1875/4.8	.014/0.36	1.5/38
QIT-100600	.100/2.54	.025/0.64	.600/15.2	.1875/4.8	.014/0.36	2.0/51
QIT-110250	.110/2.79	.030/0.76	.250/6.35	.1875/4.8	.016/0.41	1.5/38
QIT-110400	.110/2.79	.030/0.76	.400/4.06	.1875/4.8	.016/0.41	1.5/38
QIT-110500	.110/2.79	.030/0.76	.500/12.7	.1875/4.8	.016/0.41	1.5/38
QIT-110600	.110/2.79	.030/0.76	.600/15.2	.1875/4.8	.016/0.41	2.0/38
QIT-110750	.110/2.79	.030/0.76	.750/19.1	.1875/4.8	.016/0.41	2.0/38
QIT-120250	.120/3.05	.030/0.76	.250/6.35	.1875/4.8	.017/0.43	1.5/38
QIT-120400	.120/3.05	.030/0.76	.400/4.06	.1875/4.8	.017/0.43	1.5/38
QIT-120500	.120/3.05	.030/0.76	.500/12.7	.1875/4.8	.017/0.43	1.5/38
QIT-120600	.120/3.05	.030/0.76	.600/15.2	.1875/4.8	.017/0.43	2.0/51
QIT-120750	.120/3.05	.030/0.76	.750/19.1	.1875/4.8	.017/0.43	2.0/51
QIT-140250	.140/3.56	.035/0.89	.250/6.35	.1875/4.8	.020/0.51	1.5/38
QIT-140400	.140/3.56	.035/0.89	.400/4.06	.1875/4.8	.020/0.51	1.5/38
QIT-140500	.140/3.56	.035/0.89	.500/12.7	.1875/4.8	.020/0.51	1.5/38
QIT-140750	.140/3.56	.035/0.89	.750/19.1	.1875/4.8	.020/0.51	2.0/51
QIT-160250	.160/4.06	.040/1.02	.250/6.35	.1875/4.8	.023/0.58	1.5/38
QIT-160400	.160/4.06	.040/1.02	.400/4.06	.1875/4.8	.023/0.58	1.5/38
QIT-160500	.160/4.06	.040/1.02	.500/12.7	.1875/4.8	.023/0.58	1.5/38
QIT-160750	.160/4.06	.040/1.02	.750/19.1	.1875/4.8	.023/0.58	2.0/51
QIT-1601000	.160/4.06	.040/1.02	1.00/25.4	.1875/4.8	.023/0.58	2.0/51

Internal Threading Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QIT-490-750X



Right Hand Threading Tool shown,
Left Hand available on request..

QIT Internal Threading Tools Tolerances:
Shank Diameter: -.0001" (-.005mm) to -.0002" (-.01mm)
Minimum Bore Diameter ±.0005" (±.01mm)
Maximum Bore Depth: +.050" (+1.27mm)

1/4" / 6.4mm хвостовик

Internal Threading Tool Catalog No.	Min. Bore Dia. (D1)	Projection (P)	Max. Bore Depth (L2)	Shank Dia. (D2)	Offset Point (Y)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QIT-180350	.180/4.57	.040/1.02	.350/8.89	.2500/6.4	.023/0.58	2.0/51
QIT-180500	.180/4.57	.040/1.02	.500/12.7	.2500/6.4	.023/0.58	2.0/51
QIT-180750	.180/4.57	.040/1.02	.750/19.1	.2500/6.4	.023/0.58	2.0/51
QIT-1801000	.180/4.57	.040/1.02	1.00/25.4	.2500/6.4	.023/0.58	2.5/63
QIT-200400	.200/5.08	.045/1.14	.400/4.06	.2500/6.4	.026/0.66	2.0/51
QIT-200600	.200/5.08	.045/1.14	.600/15.2	.2500/6.4	.026/0.66	2.0/51
QIT-200750	.200/5.08	.045/1.14	.750/19.1	.2500/6.4	.026/0.66	2.0/51
QIT-2001000	.200/5.08	.045/1.14	1.00/25.4	.2500/6.4	.026/0.66	2.5/63

5/16" / 7.9mm хвостовик

QIT-230400	.230/5.84	.055/1.40	.400/10.2	.3125/7.9	.032/0.81	2.0/51
QIT-230600	.230/5.84	.055/1.40	.600/15.2	.3125/7.9	.032/0.81	2.0/51
QIT-230750	.230/5.84	.055/1.40	.750/19.1	.3125/7.9	.032/0.81	2.0/51
QIT-2301000	.230/5.84	.055/1.40	1.00/25.4	.3125/7.9	.032/0.81	2.5/51
QIT-2301500	.230/5.84	.055/1.40	1.50/38.1	.3125/7.9	.032/0.81	3.0/76
QIT-290500	.290/7.37	.070/1.78	.500/12.7	.3125/7.9	.040/1.02	2.0/51
QIT-290750	.290/7.37	.070/1.78	.750/19.1	.3125/7.9	.040/1.02	2.0/51
QIT-2901000	.290/7.37	.070/1.78	1.00/25.4	.3125/7.9	.040/1.02	2.5/63
QIT-2901250	.290/7.37	.070/1.78	1.25/31.8	.3125/7.9	.040/1.02	2.5/63
QIT-2901750	.290/7.37	.070/1.78	1.75/44.5	.3125/7.9	.040/1.02	3.0/76

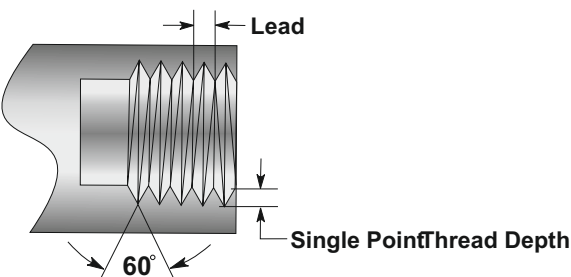
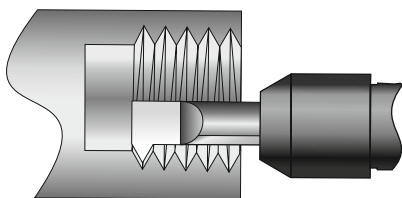
3/8" / 9.5mm хвостовик

QIT-320500	.320/8.13	.075/1.91	.500/12.7	.375/9.5	.043/1.09	2.0/51
QIT-320750	.320/8.13	.075/1.91	.750/19.1	.375/9.5	.043/1.09	2.0/51
QIT-3201000	.320/8.13	.075/1.91	1.00/25.4	.375/9.5	.043/1.09	2.5/64
QIT-3201250	.320/8.13	.075/1.91	1.25/31.8	.375/9.5	.043/1.09	2.5/64
QIT-3201800	.320/8.13	.075/1.91	1.80/45.7	.375/9.5	.043/1.09	3.0/76
QIT-360500	.360/9.14	.085/2.16	.500/12.7	.375/9.5	.049/1.24	2.0/51
QIT-360750	.360/9.14	.085/2.16	.750/19.1	.375/9.5	.049/1.24	2.0/51
QIT-3601000	.360/9.14	.085/2.16	1.00/25.4	.375/9.5	.049/1.24	2.5/64
QIT-3601250	.360/9.14	.085/2.16	1.25/31.8	.375/9.5	.049/1.24	2.5/64
QIT-3601800	.360/9.14	.085/2.16	1.80/45.7	.375/9.5	.049/1.24	3.0/76

1/2" / 12.7mm хвостовик

QIT-460750	.460/11.7	.120/3.05	.750/19.1	.500/12.7	.069/1.75	2.5/64
QIT-4601500	.460/11.7	.120/3.05	1.50/25.4	.500/12.7	.069/1.75	3.0/76
QIT-4602000	.460/11.7	.120/3.05	2.00/50.1	.500/12.7	.069/1.75	3.5/89
QIT-490750	.490/12.5	.120/3.05	.750/19.1	.500/12.7	.069/1.75	2.5/64
QIT-4901500	.490/12.5	.120/3.05	1.50/25.4	.500/12.7	.069/1.75	3.0/76
QIT-4902000	.490/12.5	.120/3.05	2.00/50.1	.500/12.7	.069/1.75	3.5/89

Single Point Threading



Methods of Infeed

 1/2 to 5	RADIAL	Most widely used infeed method. This method creates the most cutting force on the insert due to the entire insert cutting edge being engaged in the cut.
	MODIFIED FLANK	This infeed method reduces the cutting force and will wear one edge of the insert. Less heat and better chip flow can be expected with this method.
	ALTERNATE	This infeed method equally utilizes both cutting edges of the insert producing better chip flow.

Характеристики быстросменной системы для точения торцовых канавок:

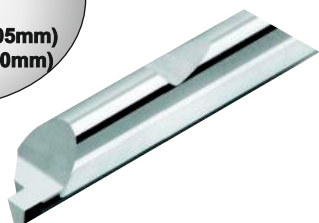
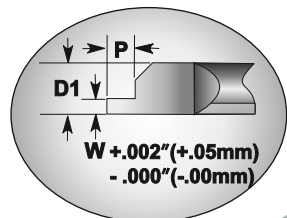
- Резцы с покрытием алюмонитридом титана и без покрытия
- Ширина канавки от 0,51мм до 4,0мм
- Глубина канавки от 0,13 мм до 3,8мм
- Расстояние от торца резьбы от 1,91 до 50,1 мм
- Количество ниток на дюйм: до 80.
- Размеры хвостовиков: 6,4мм; 7,9мм; 9,5 мм; 12,7мм
- Подача СОЖ



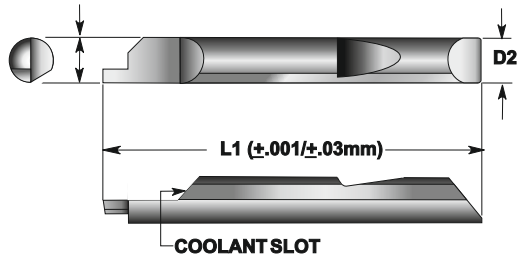
QFG Face Grooving Tools Tolerances:
Shank Diameter: $-.0001''(-.005mm)$ to $-.0002''(-.01mm)$
Minimum Bore Diameter: $+.0005''(\pm .01mm)$
Maximum Bore Depth: $+.050''(+1.27mm)$

Face Grooving Tools

AlTiN Coated Tools available...
Add an "X" to the end of the Catalog No.
example: QFG-250-030X



D1
($\pm .0005''/\pm .01mm$)



Right Hand, Face Grooving tool shown,
Left Hand available on request..

3/16" / 4.8mm ХВОСТОВИК

Face Grooving Tool Catalog No.	Groove Width (W)	Projection (P)	Min. Bore Diameter (D1)	Min. Groove Diameter (D1)	Shank Dia. (D2)	Overall Length (L1)
	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric	inch/metric
QFG-180-020	.020/0.51	.050/1.3	.180/4.67	.190/4.83	.1875/4.76	1.5/38
QFG-180-030	.030/0.76	.050/1.3	.180/4.67	.190/4.83	.1875/4.76	1.5/38

1/4" / 6.4mm ХВОСТОВИК

QFG-230-020	.020/0.51	.050/1.3	.230/5.84	.240/6.10	.2500/6.35	2.0/50
QFG-230-030	.030/0.76	.050/1.3	.230/5.84	.240/6.10	.2500/6.35	2.0/50
QFG-250-020	.020/0.51	.050/1.3	.250/6.35	.260/6.60	.2500/6.35	2.0/50
QFG-250-030	.030/0.76	.050/1.3	.250/6.35	.260/6.60	.2500/6.35	2.0/50

5/16" / 7.9mm ХВОСТОВИК

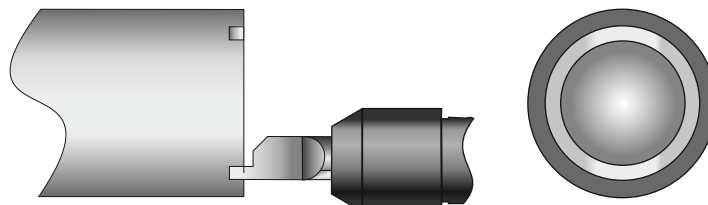
QFG-312-030	.030/0.76	.050/1.3	.312/7.92	.322/8.18	.3125/7.92	2.0/50
QFG-312-040	.040/1.02	.050/1.3	.312/7.92	.322/8.18	.3125/7.92	2.0/50
QFG-312-062	.062/1.57	.100/2.5	.312/7.92	.322/8.18	.3125/7.92	2.0/50

3/8" / 9.53mm ХВОСТОВИК

QFG-375-062	.062/1.57	.100/2.5	.375/9.53	.385/9.78	.3750/9.53	2.0/50
QFG-375-078	.078/1.98	.100/2.5	.375/9.53	.385/9.78	.3750/9.53	2.0/50
QFG-375-093	.093/2.36	.100/2.5	.375/9.53	.385/9.78	.3750/9.53	2.0/50
QFG-375-118	.118/3.00	.150/3.8	.375/9.53	.385/9.78	.3750/9.53	2.0/50
QFG-375-125	.125/3.18	.150/3.8	.375/9.53	.385/9.78	.3750/9.53	2.0/50

1/2" / 12.7mm ХВОСТОВИК

QFG-470-062	.062/1.57	.100/2.5	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-470-078	.078/1.98	.100/2.5	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-470-093	.093/2.36	.100/2.5	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-470-118	.118/3.00	.150/3.8	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-470-125	.125/3.18	.150/3.8	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-470-156	.156/3.96	.150/3.8	.470/11.9	.480/12.2	.5000/12.7	2.5/64
QFG-490-062	.062/1.57	.100/2.5	.490/12.4	.500/12.7	.5000/12.7	2.5/64
QFG-490-078	.078/1.98	.100/2.5	.490/12.4	.500/12.7	.5000/12.7	2.5/64
QFG-490-093	.093/2.36	.100/2.5	.490/12.4	.500/12.7	.5000/12.7	2.5/64
QFG-490-118	.118/3.00	.150/3.8	.490/12.4	.500/12.7	.5000/12.7	2.5/64
QFG-490-125	.125/3.18	.150/3.8	.490/12.4	.500/12.7	.5000/12.7	2.5/64
QFG-490-156	.156/3.96	.150/3.8	.490/12.4	.500/12.7	.5000/12.7	2.5/64



Groove Widths from .020(.50mm) to .156(3.96mm) are typically used in applications to create Face Grooves with Major Diameters greater than .200(35mm).

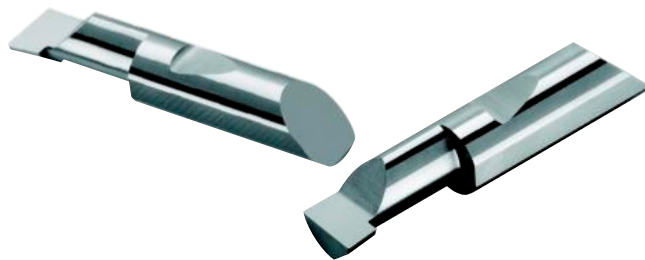
The Recommendations listed below should be considered to be only as starting points.

Selection of proper tools for the required machining applications and/or conditions such as but, not limited to rigidity of setups, tool overhang, tool clearances, and finished surface requirements.

Surface Speeds, Feed Rates, Machine RPM and Depth of Cuts will vary depending on materials being machined. Adjustments and variations may be necessary to achieve optimum machining performances and prolonged tool life.

Coated versions of selected tools may allow you to increase Speed/Feed rates by 25% or more.

During Machining applications, it is recommended that the operator(s) and/or observer(s) use precautions such as, but not limited to...safety glasses with wrap around eye protection and/or safety shields on the machine(s). Grinding products manufactured by MICRO 100 Tool Corporation will produce a dust/mist that may be hazardous. Using common safety practices is recommended.



Рекомендуемые режимы резания для растачивания и профильного точения

Reduce Feed Rates for Smaller Diameter Tools



QMBB
page 4



QBB
pages 4-5



QBM
page 6



QRB
page 6

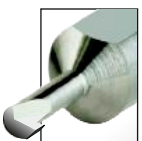


QPR
page 7

Materials	Speed (SFM) v=f/min	Speed (SFM) v=m/min	Feed (IPR) inch/r	Feed (IPR) mm/r
Aluminum/Aluminium Alloys	750-2000	229-610	.005-.012	.127-.309
Brass/Bronze	300-900	91-274	.001-.005	.025-.127
Copper/Copper Alloys	600-900	183-274	.003-.005	.076-.254
Cast Iron, Soft	470-480	143-146	.003-.010	.076-.254
Cast Iron, Hard	300-400	91-122	.003-.010	.076-.254
Ductile Irons	300-400	91-122	.003-.010	.076-.254
Malleable Iron	350-400	107-122	.003-.010	.076-.254
Magnesium/Magnesium Alloys	750-2000	229-610	.005-.012	.127-.309
Monel/High Nickel Steels	80-120	24-37	.001-.003	.025-.076
Nickle Base Hi-Temperature Alloys	100-250	30-76	.002-.005	.051-.076
Inconels	70-120	21-37	.001-.003	.025-.076
Rene 41	60-100	18-30	.001-.002	.025-.051
Plastics	700-2000	213-610	.002-.006	.051-.152
Plastics, Glass Filled	700-800	213-244	.001-.003	.025-.076
Refractory Alloys	700-800	213-244	.001-.003	.025-.076
Steels, Low Carbon	350-475	107-145	.003-.008	.076-.203
Steels, Medium Carbon	300-400	91-122	.003-.008	.076-.203
Steels, Hardened 35-40 RC	90-125	27-38	.001-.003	.025-.076
Steels, Hardened 40+ RC	90-125	27-38	.001-.002	.025-.051
Steels, D-2	150-250	46-76	.002-.004	.051-.102
Stainless Steels, 316	100-250	30-76	.001-.004	.025-.102
Stainless Steels, 304	100-250	30-76	.001-.004	.025-.102
Stainless Steels, 17-4	300-400	91-122	.002-.004	.051-.102
Stainless Steels, 15-5	300-400	92-122	.002-.004	.051-.102
Titanium, Soft	90-250	27-76	.001-.003	.025-.076
Titanium, Hard	90-250	27-76	.001-.003	.025-.076
Waspalloys	70-120	21-37	.001-.003	.025-.076

Рекомендуемые режимы резания для точения канавок

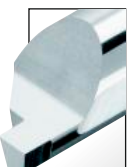
Reduce Feed Rates for Smaller Diameter Tools



QMRR
page 8



QRR
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QFG
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QMFR
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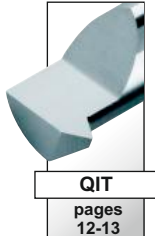


QFR
pages 10-11

Materials	Speed (SFM) v=f/min	Speed (SFM) v=m/min	Feed (IPR) inch/r	Feed (IPR) mm/r
Aluminum/Aluminium Alloys	750-2000	229-610	.005-.012	.127-.309
Brass/Bronze	300-900	91-274	.001-.005	.025-.127
Copper/Copper Alloys	600-900	183-274	.003-.005	.076-.254
Cast Iron, Soft	470-480	143-146	.003-.010	.076-.254
Cast Iron, Hard	300-400	91-122	.003-.010	.076-.254
Ductile Irons	300-400	91-122	.003-.010	.076-.254
Malleable Iron	350-400	107-122	.003-.010	.076-.254
Magnesium/Magnesium Alloys	750-2000	229-610	.005-.012	.127-.309
Monel/High Nickel Steels	80-120	24-37	.001-.003	.025-.076
Nickle Base Hi-Temperature Alloys	100-250	30-76	.002-.005	.051-.076
Inconels	70-120	21-37	.001-.003	.025-.076
Rene 41	60-100	18-30	.001-.002	.025-.051
Plastics	700-2000	213-610	.002-.006	.051-.152
Plastics, Glass Filled	700-800	213-244	.001-.003	.025-.076
Refractory Alloys	700-800	213-244	.001-.003	.025-.076
Steels, Low Carbon	350-475	107-145	.003-.008	.076-.203
Steels, Medium Carbon	300-400	91-122	.003-.008	.076-.203
Steels, Hardened 35-40 RC	90-125	27-38	.001-.003	.025-.076
Steels, Hardened 40+ RC	90-125	27-38	.001-.002	.025-.051
Steels, D-2	150-250	46-76	.002-.004	.051-.102
Stainless Steels, 316	100-250	30-76	.001-.004	.025-.102
Stainless Steels, 304	100-250	30-76	.001-.004	.025-.102
Stainless Steels, 17-4	300-400	91-122	.002-.004	.051-.102
Stainless Steels, 15-5	300-400	92-122	.002-.004	.051-.102
Titanium, Soft	90-250	27-76	.001-.003	.025-.076
Titanium, Hard	90-250	27-76	.001-.003	.025-.076
Waspalloys	70-120	21-37	.001-.003	.025-.076

Рекомендуемые режимы резания для резьбонарезания

Reduce Feed Rates for Smaller Diameter Tools



Materials	Speed (SFM) v=f/min	Speed (SFM) v=m/min	Feed (IPR) inch/r	Feed (IPR) mm/r
Aluminum/Aluminium Alloys	600-2200	182-670	.005-.012	.127-.309
Brass/Bronze	300-900	92-274	.001-.005	.025-.127
Copper/Copper Alloys	300-900	92-274	.003-.005	.076-.254
Cast Iron, Soft	200-550	60-146	.003-.010	.076-.254
Cast Iron, Hard	300-600	92-182	.003-.010	.076-.254
Ductile Irons	250-450	76-137	.003-.010	.076-.254
Malleable Iron	250-450	76-137	.003-.010	.076-.254
Magnesium/Magnesium Alloys	600-2200	182-670	.005-.012	.127-.309
Monel/High Nickel Steels	50-100	15-30	.001-.003	.025-.076
Nickle Base Hi-Temperature Alloys	50-100	15-30	.002-.005	.051-.076
Inconels	50-80	15-24	.001-.003	.025-.076
Rene 41	50-80	15-24	.001-.002	.025-.051
Plastics	350-1500	213-610	.002-.006	.051-.152
Plastics, Glass Filled	250-440	76-134	.001-.003	.025-.076
Refractory Alloys	200-400	60-122	.001-.003	.025-.076
Steels, Low Carbon	250-500	76-152	.003-.008	.076-.203
Steels, Medium Carbon	250-500	76-152	.003-.008	.076-.203
Steels, Hardened 35-40 RC	200-400	60-122	.001-.003	.025-.076
Steels, Hardened 40+ RC	100-300	27-38	.001-.002	.025-.051
Steels, D-2	250-400	76-122	.002-.004	.051-.102
Stainless Steels, 316	300-600	92-182	.001-.004	.025-.102
Stainless Steels, 304	300-600	92-182	.001-.004	.025-.102
Stainless Steels, 17-4	65-120	20-122	.002-.004	.051-.102
Stainless Steels, 15-5	65-120	20-122	.002-.004	.051-.102
Titanium, Soft	80-300	24-92	.001-.003	.025-.076
Titanium, Hard	80-200	24-60	.001-.003	.025-.076
Waspalloys	50-80	15-24	.001-.003	.025-.076

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