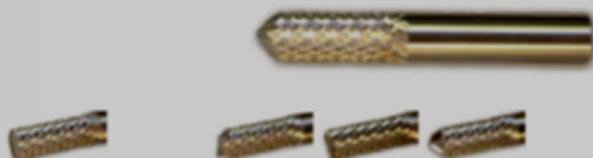


## Fiberglass Routers



Item	OD x LOC x ShankOD x OAL	Plain (A)	Price	Millend (B)	Burrend (C)	Drillend (D)	Price
FGR1	1/16 x 3/16 x 1/8 x 1-1/2	70100	\$10.20	70102	70103	70101	\$10.75
FGR1-1	3/32 x 3/8 x 1/8 x 1-1/2	70200	\$10.20	70202	70203	70201	\$10.75
FGR2	1/8 x 1/2 x 1/8 x 1-1/2	70300	\$10.20	70302	70303	70301	\$10.75
FGR3	3/16 x 5/8 x 3/16 x 2	70400	\$19.40	70402	70403	70401	\$21.33
FGR4	3/16 x 5/8 x 1/4 x 2	70500	\$22.05	70502	70503	70501	\$24.25
FGR5	1/4 x 3/4 x 1/4 x 2	70600	\$22.05	70602	70603	70601	\$24.25
FGR6	1/4 x 3/4 x 1/4 x 2-1/2	70700	\$22.99	70702	70703	70701	\$25.36
FGR6-0	1/4 x 1 x 1/4 x 2-1/2	70800	\$22.99	70802	70803	70801	\$25.36
FGR6-1	1/4 x 3/4 x 1/4 x 3	70900	\$22.99	70902	70903	70901	\$25.36
FGR6-2	1/4 x 1 x 1/4 x 3	71000	\$25.80	71002	71003	71001	\$28.17
FGR6-3	1/4 x 1-1/2 x 1/4 x 3	71100	\$27.17	71102	71103	71101	\$29.99
FGR7	5/16 x 1 x 5/16 x 2-1/2	71200	\$38.31	71202	71203	71201	\$42.22
FGR8	3/8 x 1 x 3/8 x 2-1/2	71300	\$48.78	71302	71303	71301	\$53.63
FGR9	1/2 x 1 x 1/2 x 3	71400	\$61.29	71402	71403	71401	\$67.41

## CNC Ground vs. Hand Ground

Until the mid-1980's most manufacturers fluted their burs by hand. As CNC machine technology improved, machines became available that could flute any shape bur, as well as section the ends for proper cutting action. Today, the best performing burs are CNC machine ground. Some manufacturers still hand grind their burs, but the flutes of these tools are often irregular, causing chatter, chipped edges, premature wear, and operator failure. CNC ground burs offer consistent tolerances for flute depth, flute spacing, rake angle, helix angle, and flute concentricity. As a result, the bur cuts better, runs smoother and is easier on the operator. All of these factors produce a more efficient finishing operation.

## Operator Data

Carbide burs are chucked in die grinders and used in hand operations. Therefore, feedrates and pressure depend on the working conditions and experience of the operator. Experienced operators adjust feed and pressure to achieve desired results. However, there are a few guidelines to remember. Avoid using so much pressure that grinder speed is reduced. This will cause the bur to overheat and prematurely dull. Maximize the area of contact with the work-piece, as finish improves when more length of the cutting edge engages the work. Avoid contacting the work-piece with the shank of the bur, as this can cause the tool to overheat and weaken or even destroy the brazed joint. Dull burs should be replaced with a new or resharpened tool before it becomes damaged. Dull burs cut slowly, requiring the operator to apply more pressure to the grinder. This can cause damage to the bur and/or the grinder. Damaging a grinder is much more costly to replace than the cost of a resharpened or new bur. Lubricants can be used with carbide burs to improve lubricity and prevent chip loading. A liquid wax or synthetic lubricant is most effective. A common method is to periodically dip the bur in the wax or lubricant.