

Dovetail Groove Cutters

Dovetailed grooves are recommended since they hold the gaskets in place and allow the gaskets to expand laterally as they are deflected without constraining the sides.

Manufacturing Considerations



To use the groove properly, care must be exercised during its manufacture.

- The flatness between the bottom of the groove and top surface must be held flat within $\pm .001"$. This can be easily achieved by taking a fly-cut on the surface prior to milling the groove. **Note:** do not remove the part from the mill between making the fly-cut and milling the groove.
- In milling the groove, a regular o-ring groove using the dimensions of "W" and "L" must be made first, then finished up with a dovetail cutter.
- To deburr use a Scotch Brite pad (a deburring knife will destroy the "W" tolerance).

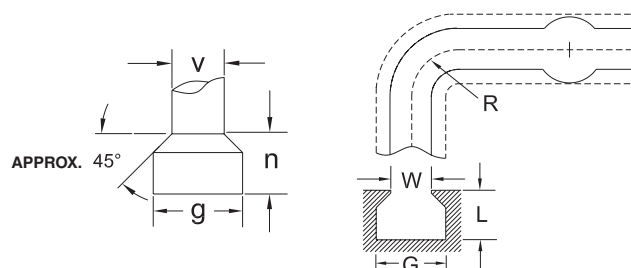
Materials

These groove cutters are custom cut two-fluted end mill, made of **Carbide**. The standard length is between 1.25"-2.0". Specific lengths are available on request.

Spiral Gaskets		Recommended Mounting Dimensions			Dovetail Cutter Dimensions			
Cutter P/N	Use on Gasket P/N*	L +.002" -.000"	G +.007" -.005"	W +.000" -.002"	n +.000" -.002"	g +.005" -.003"	v +.000" -.002"	Shank Dia.
GC-1-02-C	-02	.023"	.046"	.033"	.024"	.046"	.027"	.1875
GC-1-03-C	-03	.035"	.063"	.045"	.037"	.063"	.035"	.1875
GC-1-04B-C	-04	.046"	.094"	.060"	.046"	.094"	.050"	.1875
GC-1-.070-C	-.070	.053"	.094"	.067"	.054"	.094"	.055"	.1875
GC-1-05B-C	-05	.059"	.109"	.075"	.060"	.109"	.063"	.1875
GC-1-06-C	-06	.070"	.125"	.090"	.072"	.125"	.076"	.1875
GC-1-.103-C	-.103	.077"	.141"	.099"	.078"	.141"	.085"	.1875
GC-1-07B-C	-07	.082"	.156"	.105"	.080"	.156"	.095"	.1875
GC-1-08-C	-08	.094"	.171"	.121"	.097"	.171"	.101"	.1875
GC-1-.139-C	-.139	.104"	.187"	.134"	.114"	.187"	.106"	.1875
GC-1-09-C	-09	.105"	.187"	.136"	.106"	.187"	.120"	.1875
GC-1-11-C	-11	.128"	.234"	.165"	.130"	.234"	.145"	.1875
GC-1-12-C	-12	.140"	.250"	.181"	.148"	.250"	.145"	.3750
GC-1-16B-C	-16	.185"	.343"	.240"	.185"	.343"	.230"	.3750
GC-1-20-C	-20	.234"	.422"	.300"	.234"	.406"	.270"	.500
GC-1-24-C	-24	.280"	.500"	.364"	.281"	.500"	.334"	.500
GC-1-32-C	-32	.375"	.656"	.485"	.378"	.656"	.438"	.6875
"D" Multi-Seal Groove Cutters								
DGC-1-04-C	-0421	.046"	.187"	.138"	.052"	.187"	.118"	.1875
DGC-1-06-C	-0632	.070"	.250"	.180"	.075"	.250"	.160"	.3750
DGC-1-08B-C	-0842	.094"	.313"	.240"	.087"	.313"	.230"	.3750
DGC-1-12-C	-1263	.140"	.500"	.367"	.146"	.500"	.337"	.5000
DGC-1-16-C	-1684	.188"	.625"	.485"	.193"	.625"	.455"	.6250

* Cutter dash numbers correspond one-on one to all Spira-Shield, Ultra Quick Shield, Quick-Shield, Flexi-Shield, Endur-o-Shield & "D" Multi-Seal dash numbers. Example: SS-08 uses a GC 1-08-C cutter.

See page 47 for details on groove mounting techniques.



NOTE: The top opening (W) depth is .005"-.010" depending on L dimension.

R= 1½ times the diameter of spiral* gaskets.

R= 1½ times the "E" dimension of "D" Multi-Seal gaskets.