



When the male and female flanges are assembled, we have interference in the fillet region. This interference occurs when the flanges are manufacture to the worst case condition.

We cannot change the dimensions in the female flange due to customer constraints.

In male flange we can only change 2 dimensions i.e dia 21.45-21.32 (dia "C") & the fillet radius R 0.3 – 0.13 i.e. we can only narrow the tolerance zone.

From the stack up we found that if dia "C" is manufactured at 21.45mm (worst case), then the max radius to avoid interference is 0.17mm. if radius is more than 0.17mm we will have interference with the female flange.

Similarly if the dia "C" decreases the radius value can increase. (please see table I)

We wanted to use GD&T so that it specifies that if the male flange is manufactured to worst case (MMC), the radius should be .017", as the dia "C" reduces the radius can increase.

Please guide me

Tabel I

Dia "C"	Max Radius to avoid interference
21.45	0.17
21.42	0.18
21.40	0.19
21.37	0.20
21.35	0.22
21.32	0.23