DCA314 Return End
Extra Kapton

TS-SSC 91-162
S. Delchamps
August 16, 1991

The table below shows the diameters in mils measured between quadrants pairs I - III and II - IV, the nominal dimension 3.948" (3948 mils) having been subtracted. Values are shown for the two magnets employing insulators manufactured with the new technique.

Position (inches from collar laminations)	DCA313 I-III	DCA313 II-IV	DCA314 I-III	DCA314 II-IV
0.25	-5	-10	-3	-5
1.0	-10	-12	-4	-8
2.0	-7	-9	-3	-5
3.0	-5	-6	-4	-7
4.0	-4	-4	-2	0
5.0	-3	-2	+4	+2
6.0	-2	-1	+4	+4

Table 1. Deviations of the Collet Insulator Inner Diameters from Nominal Diameter 3.948"

DCA313 had its return end clamp installed with 6029 psi of hydraulic pressure with no extra kapton added to the insulator inner surfacs. The measurements for DCA314 show that in general the inner diameter is larger in the latter magnet by about 4 mils in the straight section of the coils (readings between 0.25" and 3.0".) I therefore suggest adding 5 mils of kapton to the inner surfaces of the insulators on DCA314 before the end clamp is installed. We can expect a slightly tighter fit than DCA313 in this case.

DCA314 Lead End
Extra Kapton

TS-SSC 91-163
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August 16, 1991

The table below shows the diameters in mils measured between quadrants pairs I - III and II - IV, the nominal dimension 3.948" (3948 mils) having been subtracted. Values are shown for the two magnets employing insulators manufactured with the new technique.

Position (inches from collar laminations)	DCA313 I-III	DCA313 II-IV	DCA314 I-III	DCA314 II-IV
0.25	-12	-8	-9	-1
1.0	-15	-11	-10	-4
2.0	-10	-6	-8	-2
3.0	-8	-6	-5	0
4.0	-6	-3	-3	+1
5.0	-5	-1	-1	+2
6.0	-5	-1	-1	+2

Table 1. Deviations of the Collet Insulator Inner Diameters from Nominal Diameter 3.948"

DCA313 had its lead end clamp installed with 7100 psi of hydraulic pressure with no extra kapton added to the insulator inner surfacs. The measurements for DCA314 show that in general the inner diameter is larger in the latter magnet by about 4 mils in the straight section of the coils (readings between 0.25" and 3.0".) I therefore suggest adding 5 mils of kapton to the inner surfaces of the insulators on DCA314 before the end clamp is installed. We can expect a slightly tighter fit than DCA313 in this case.