

NOTES ON THE VISIT TO IKO/NIKHEF INSTITUTE, AMSTERDAM, HOLLAND**ON 4 OCTOBER 1985**

Persons present : CERN : M. Hourican
 NIKHEF : H. Boerbrookhuizen, Mechanical Engineer

The purpose of the visit was to discuss the manufacturing schedule and any problems encountered during fabrication of the magnet components.

It was confirmed that the septum magnet would be completed and delivered to CERN in January 1986 for testing. All modifications to the prototype magnet have been accepted and will now be incorporated in the new magnet.

These modifications are :

1. Decreased curvature of the magnet;
2. Repositioning of cooling plate connections;
3. Modification of electrical power connections;
4. Repositioning of alignment marks to center of gap;
5. Repositioning of supports.

All components of the magnet have now been completed ready for assembly. There remains only two blocks of laminations to fabricate and the final machining of the conductors. Due to the length of the conductors, the machining has to be completed outside Nikhef and a problem was encountered finding a firm to do this work within the schedule of manufacture. However, this problem has now been overcome and the schedule remains unchanged. The conductors will be ready for assembly in the core in December.

TESTS

Several tests have been made on various samples having the same structure and size as the septum blade. A sample of blade (approximately 300 mm long) was bent to three times the curvature of the design blade to test for failure of the adhesion and/or the insulation properties. After these tests, the blade was tested with a 3KV potential and no insulation failure was found.

DRAWINGS

A full set of mechanical drawings is now at CERN along with specifications of epoxys used in the construction of the magnet (see appendix).

M. Hourican PS/BT

DISTRIBUTION


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SEPTUM MAGNEET

bakprocedure voor de magneetsegmenten.
(procedure geldt voor de oven van NIKHEF-H.)

Programma 4
Perc. 100%
Temp. 200°C
Tijd 240min.
Perc. 100%
Temp. 200°C
Tijd 240min.
End.
Start.

OVERZICHT VAN DE TE GEBRUIKEN LIJMEN.

TE LIJMEN ONDERDELEN	TE GEBRUIKEN LIJM.
Voor het samenstellen van de 7 segmenten tot het magneetlichaam.	Araldit AV144 100gr HV997 60gr. LAMINATIONS
koperen strippen Glasfiber 	Redox 312 (epoxy hars) <u>COIL</u>
De gelijkde koperen strippen pos.no.2 op tek.no C-1001-12-1 omwikkelen met isolatietape.	Isolatietape (glasfiber) Impregneren met Araldit HY560 LY560 verhouding 1: 4
Keggen	Araldit AW136 100gr HY994 40gr
Pos.no.3 tek.no. C-1001-12-1 in magneetlichaam lijmen met De koelplaat ook lijmen met	Araldit AW136 100gr Araldit HY994 40gr Magnesiumoxide aan de lijm toevoegen COOLING PLATE

BAKPROCEDURE EN LIJM.

T.B.V. SEPTUMMAGNEET

DESSINE		
CONTROLE		
VU		
REMPLECE		



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C-1013-12-4

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