

Endcap Signal Feedthroughs Pin Carrier Procurement

- CERN procured vacuum grade steel used for first units: reception started in Oct 99
- Further deliveries delayed by Timken low inclusion steel procurement
- First units produced with Timken steel found to leak after cryogenics tests (BNL)
- Intense investigations of the problem by BNL and GSC/HSC/HCC. [Visit of HCC in LA](#) by T. Muller (BNL) and M. Lefebvre (UVic) on Aug 23rd 2000
- Timken steel found not to be suitable for hermetic seal cryogenics use
- Further units made with CERN and HCC procured vacuum grade steel [found to produce good units \(Sep 2000\)](#)
- Plan for restart of production finalized early October 2000. Aiming at a rate of at least 20 units per week. HCC very helpful
- [Visit of GSP in Lakewood NJ](#) by B. Hackenberg and T. Muller. On Nov 21st 2000. “Glasseal are first rate, we are totally comfortable in having the pin carriers made by them”
- Side wall leaks found in some 8-row units made of HCC supplied 304L steel
- At least five months were lost with the low inclusion Timken steel problem. [Pin carrier now on critical path](#)

Endcap Signal Feedthroughs Schedule Update

- We must produce **50 + 5 feedthrough units**
- We have produced 3 so far. No more pin carriers in stock.
- We assume we can produce and test an average of up to **3 feedthrough units per month**
- This means that it will take at least **17.3 months** to complete the **52 remaining units**
- If we assume that we can resume production first week Jan 2001, that is if we assume that we receive pin carriers at a rate of 24/month starting no later than the first week of January 2001, then we could have a **27 units produced by Sep 01 2001**, and the remaining **28 units by mid May 2002**. This assumes no delays of any kind.
- Time for shipping and testing at CERN can be factored out by having a preliminary shipping, as long as we have manpower at CERN and at UVic **simultaneously**.
- Aim at feedthrough units **ready for cryostat installation** at CERN by
 - Nov 1st 2001 for ECC
 - July 1st 2002 for ECA

Endcap Signal Feedthroughs

Responsibilities

- **Design**
- **Fabrication and test**
 - ◆ **Signal Pigtailes purchased from Orsay**
 - ◆ **We agree to provide and pay for**
 - ◆ **the o'rings for the bellows seal rings**
 - ◆ **the RF gaskets for the bolt flanges**
 - ◆ **the temperature probes**
- **Transport to CERN**
- **Reception at CERN**
 - ◆ **Electrical and ambient vacuum testing**
 - ◆ **Leak tester provided by ATLAS CERN**
- **Electrical tests after installation**
- **Assistance during installation**
 - ◆ **Up to SF50k towards the cost of an orbital cutter**
 - ◆ **Assistance during welding on the cryostat**
 - ◆ **Assistance for leak testing during/after installation**
- **Still under discussion**
 - ◆ **Manpower to connect warm cables to ambient flange**