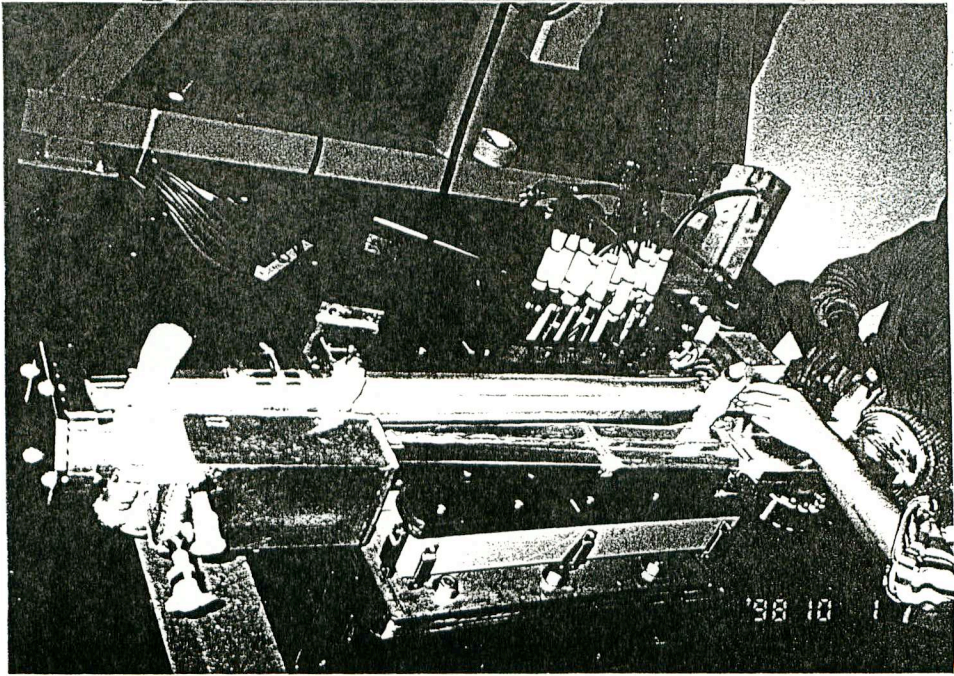
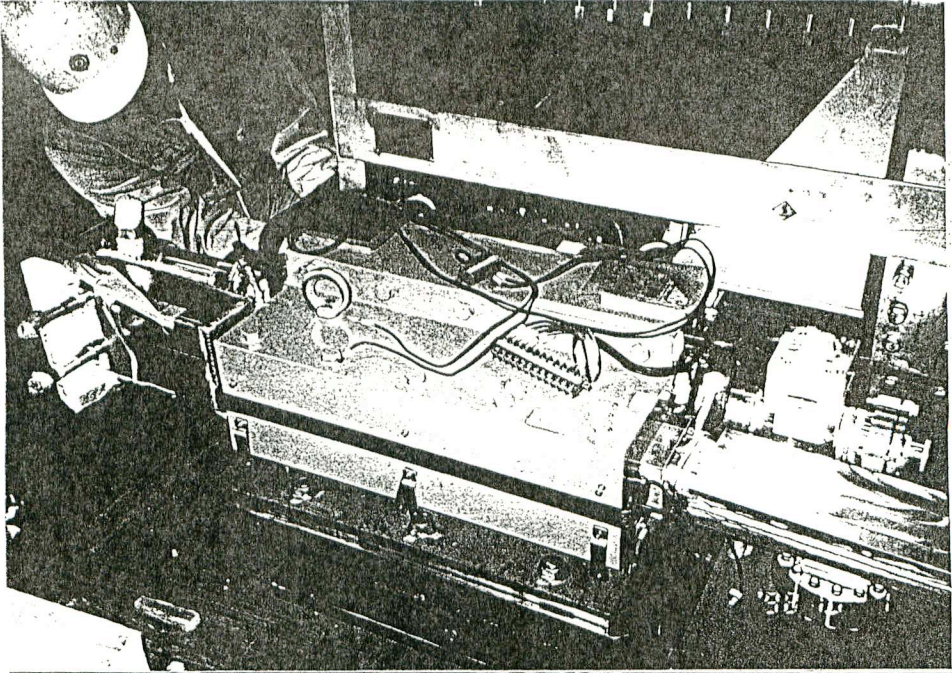


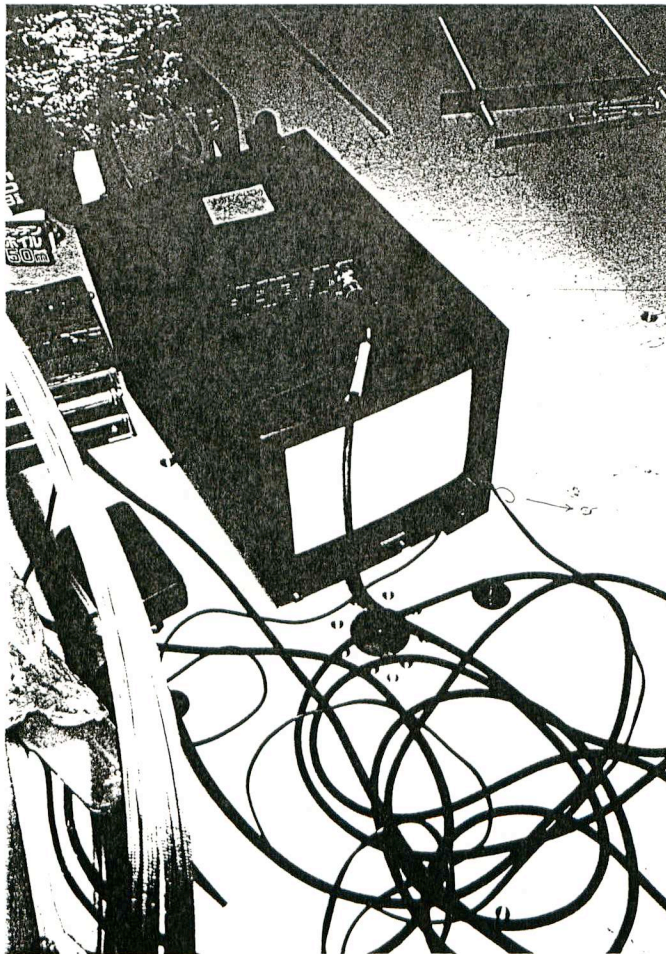
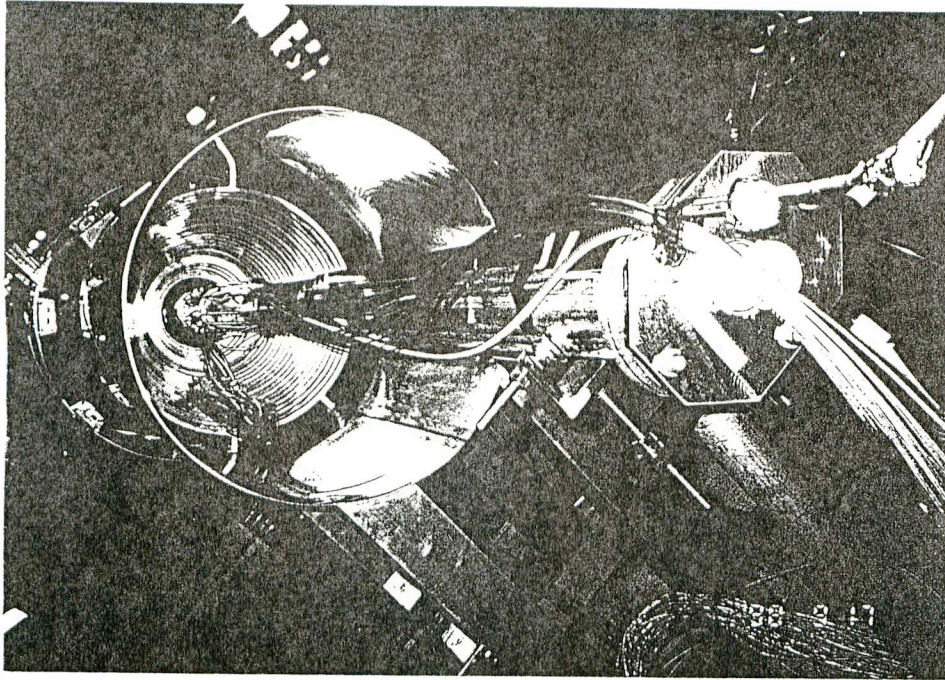
Vacuum System around IR

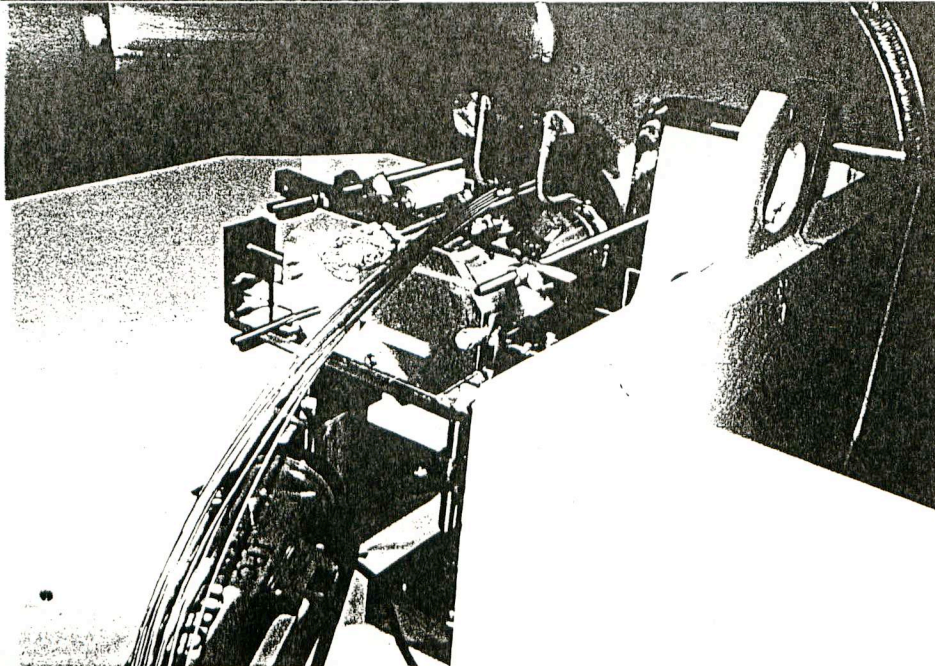
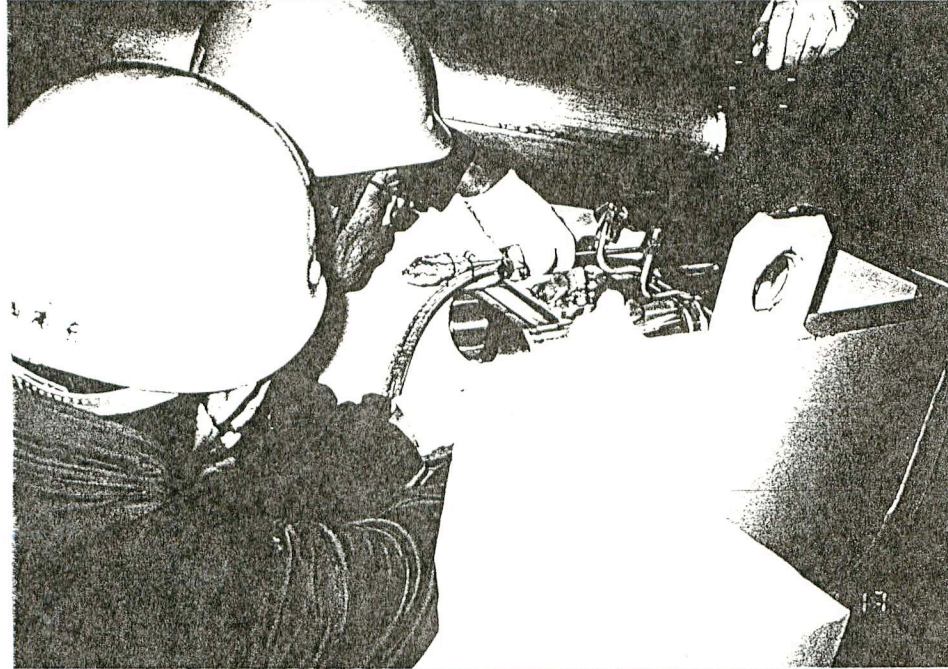
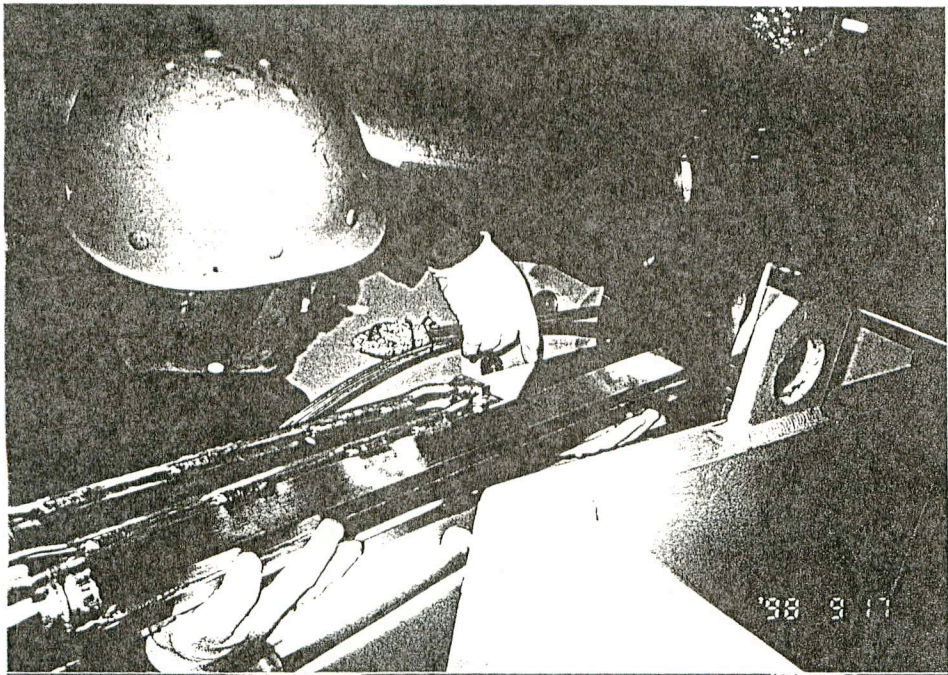
March 9, 1999

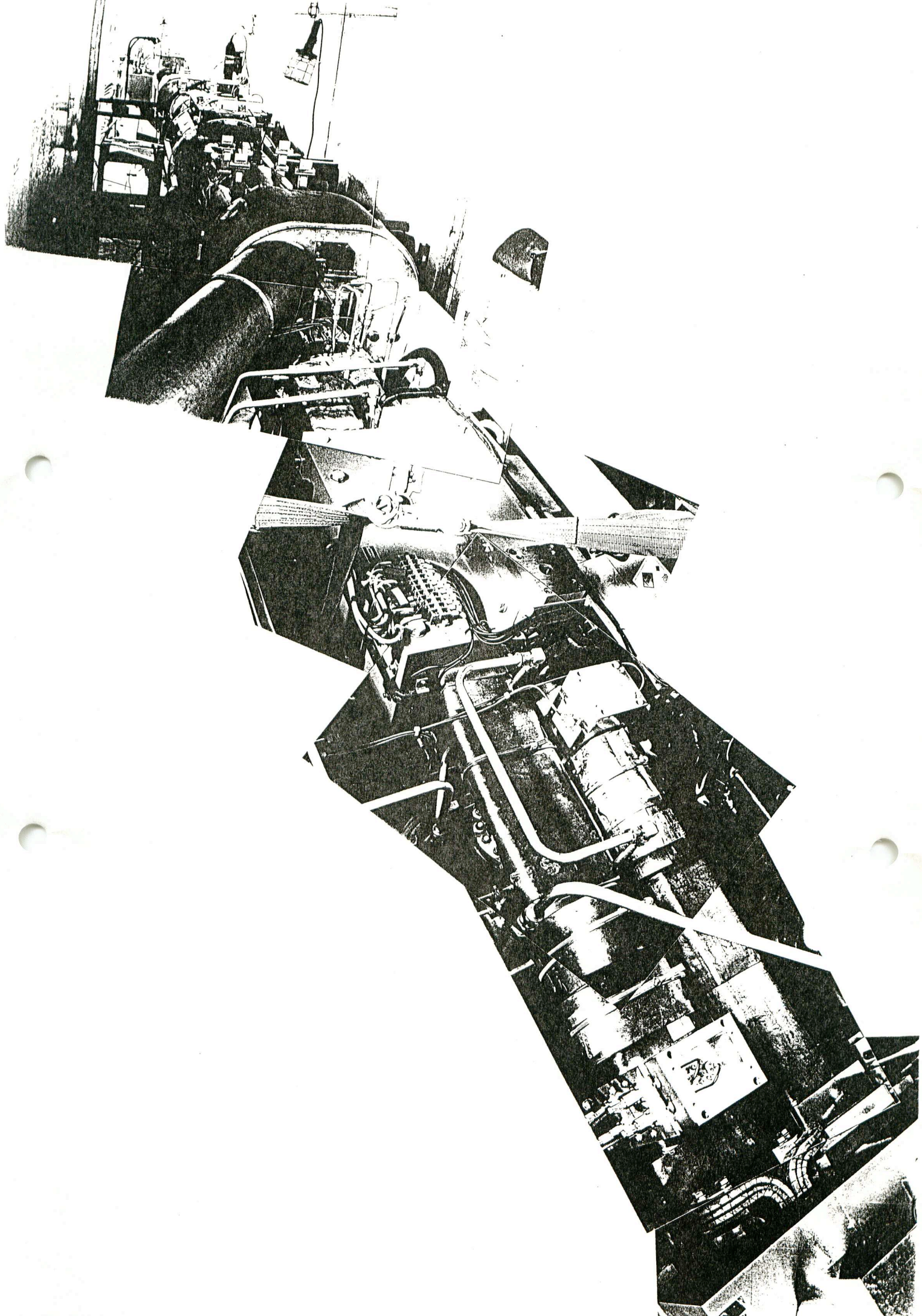
KEKB Vacuum Group, K. Kanazawa

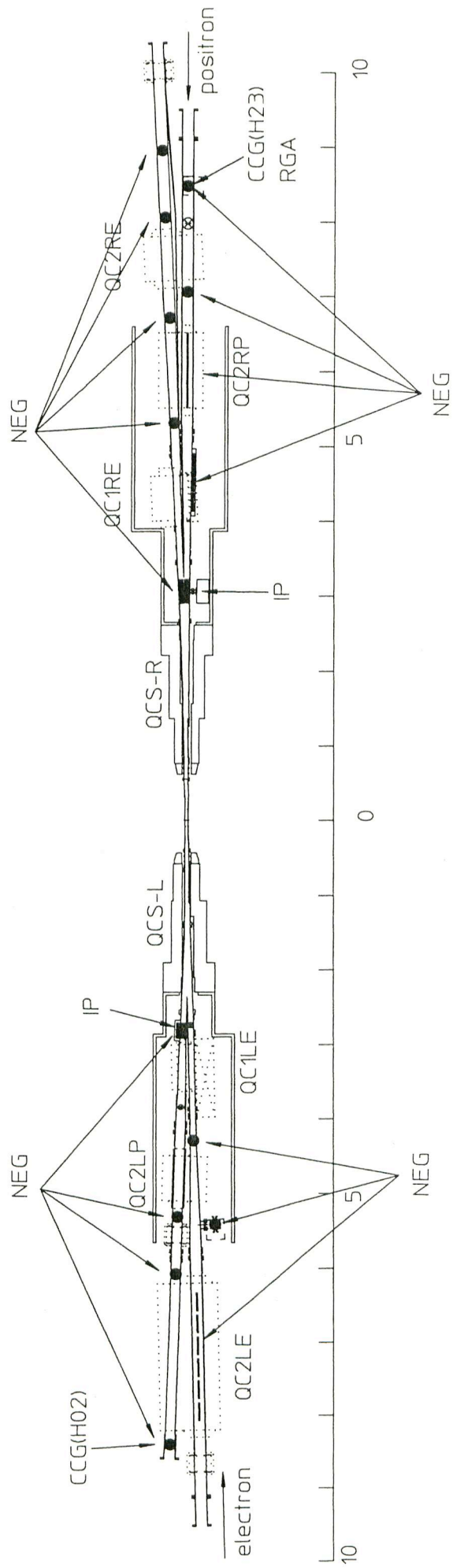
1. First installation
2. Vacuum
3. Collapse of QC2RE chamber
4. Summary



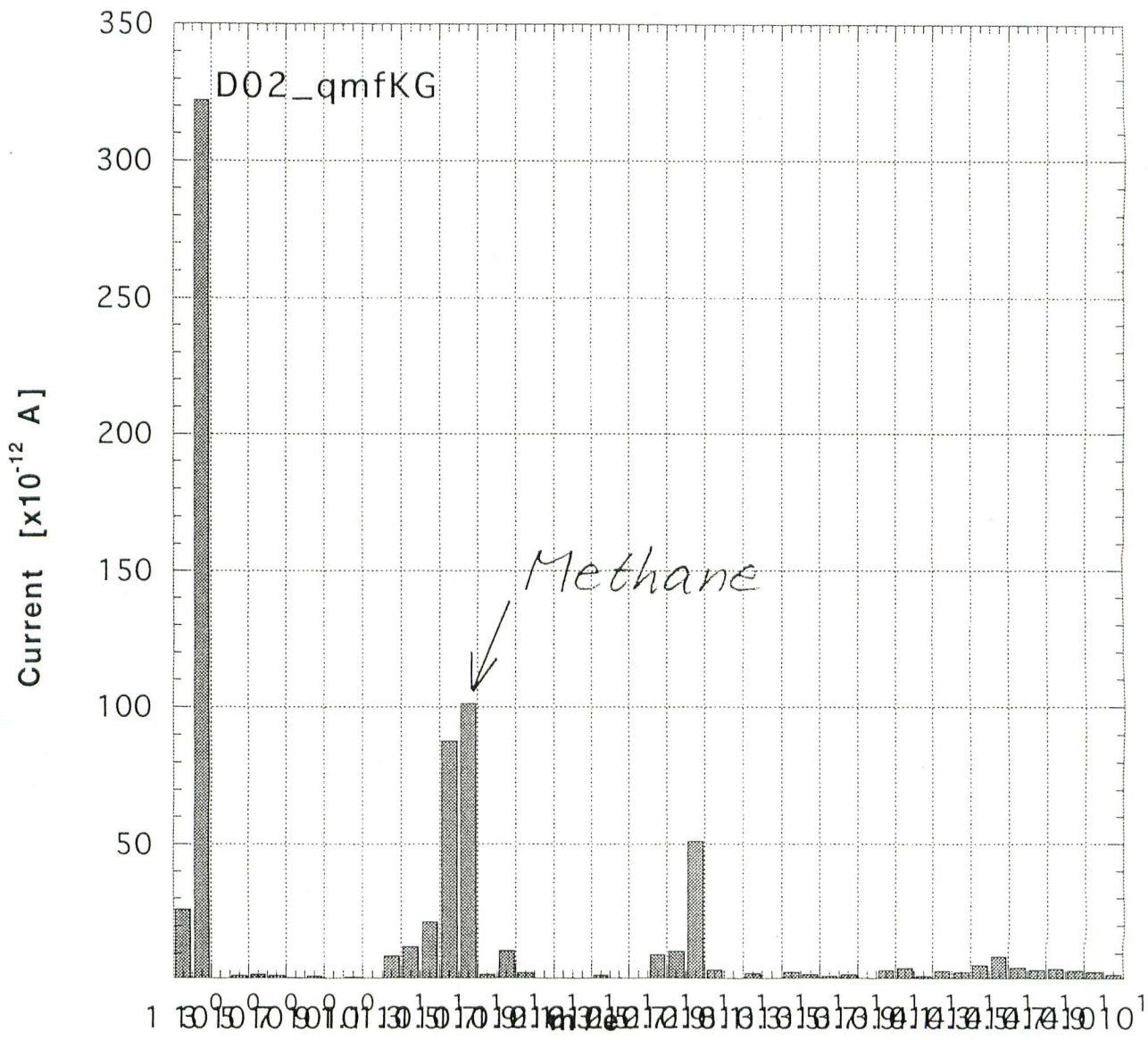








Feb. 26 '99



LER (at H23 port)

Rough estimation of Pressure

	L side	Collision point	R side
positron line (<-)	10 ⁻⁸ ~ 10 ⁻⁹ Torr 2.5m ~outside	10 ⁻⁸ Torr	few x 10 ⁻¹⁰ Torr 4.5m ~ outside
electron line (->)	10 ⁻⁹ Torr 50m~6m	10 ⁻⁸ Torr	10 ⁻⁸ ~ 10 ⁻⁹ Torr 8m~ outside

Main pump:

NEG

Photo-desorption coefficient:

10⁻⁵ molecules/photon

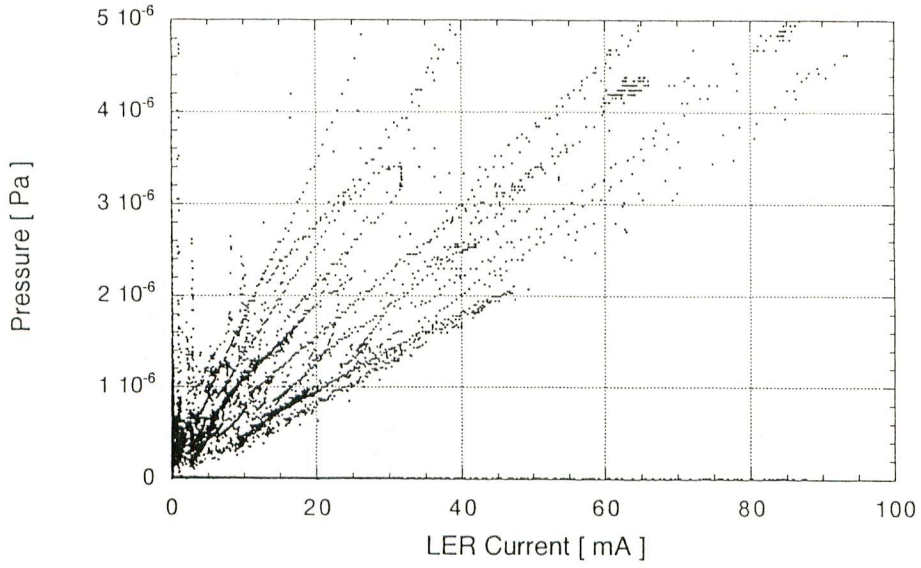
Thermal outgassing rate:

10⁻¹¹ Torr l sec⁻¹ cm⁻²

(March 6, 1998)

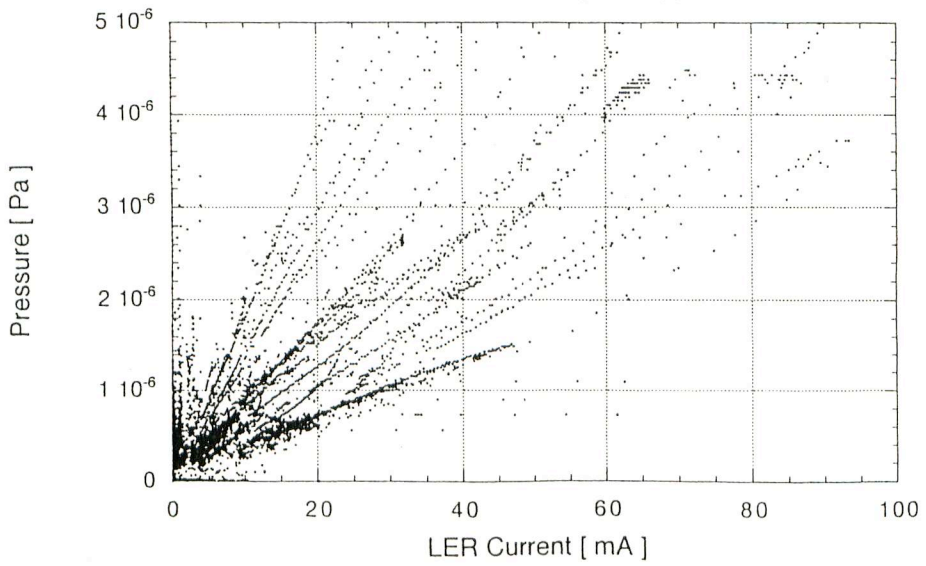
D01_CCG_H02

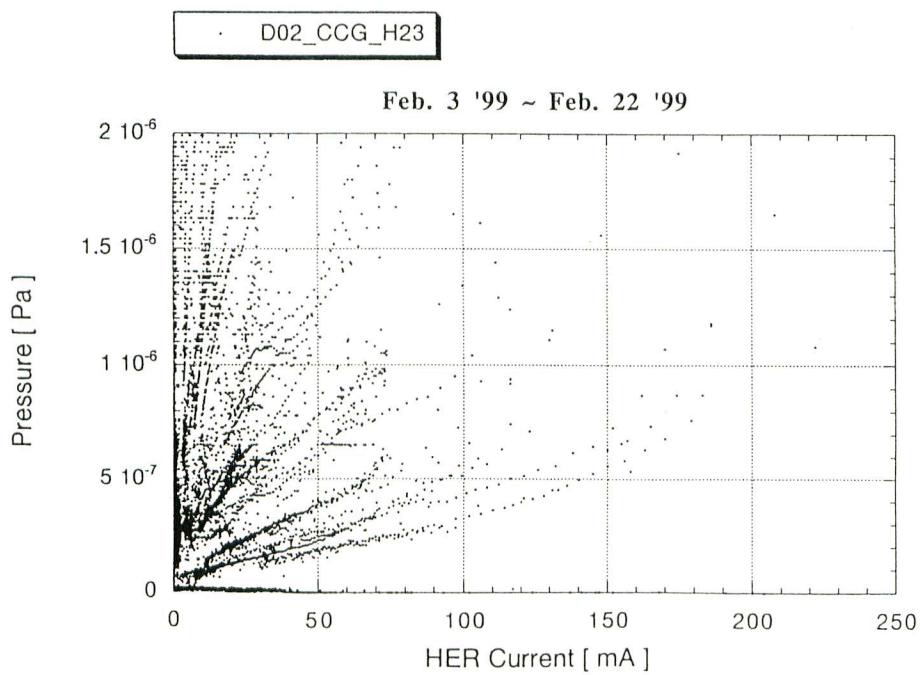
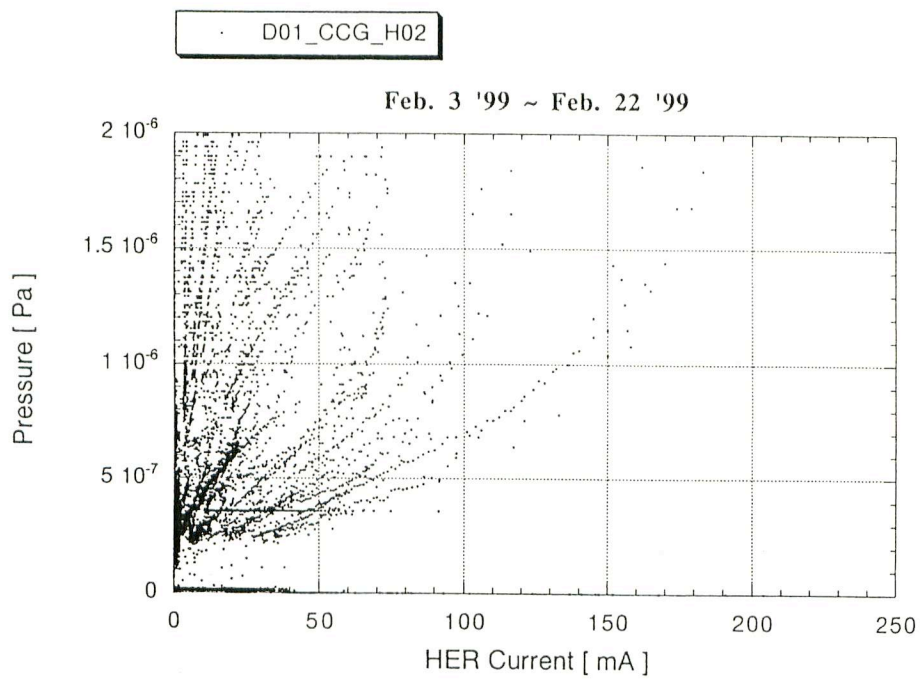
Feb. 3 '99 ~ Feb. 22 '99



D02_CCG_H23

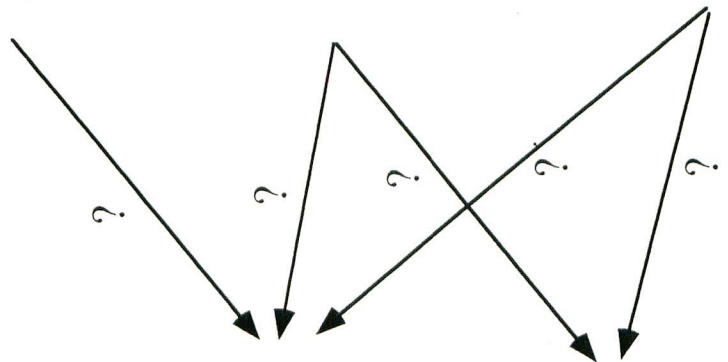
Feb. 3 '99 ~ Feb. 22 '99





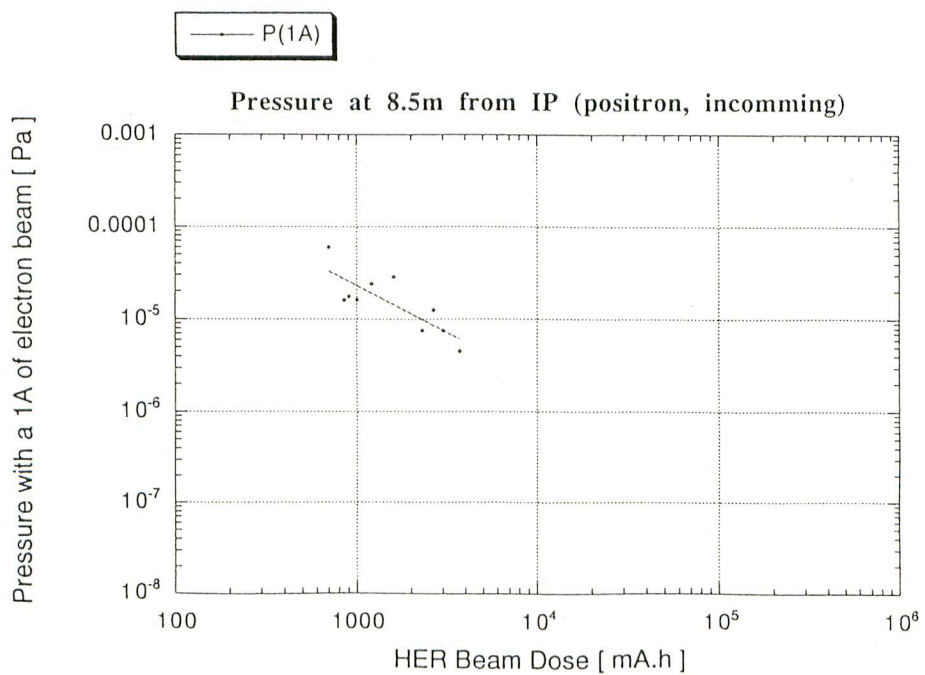
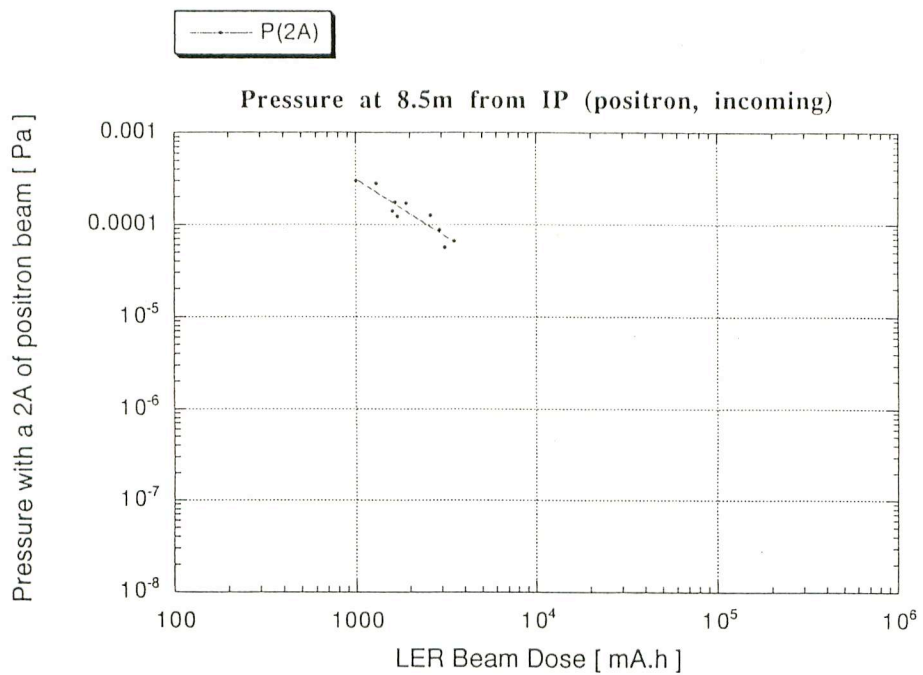
NEG modules at QC1LE and QC2LE had not been activated because of a wiring problem.

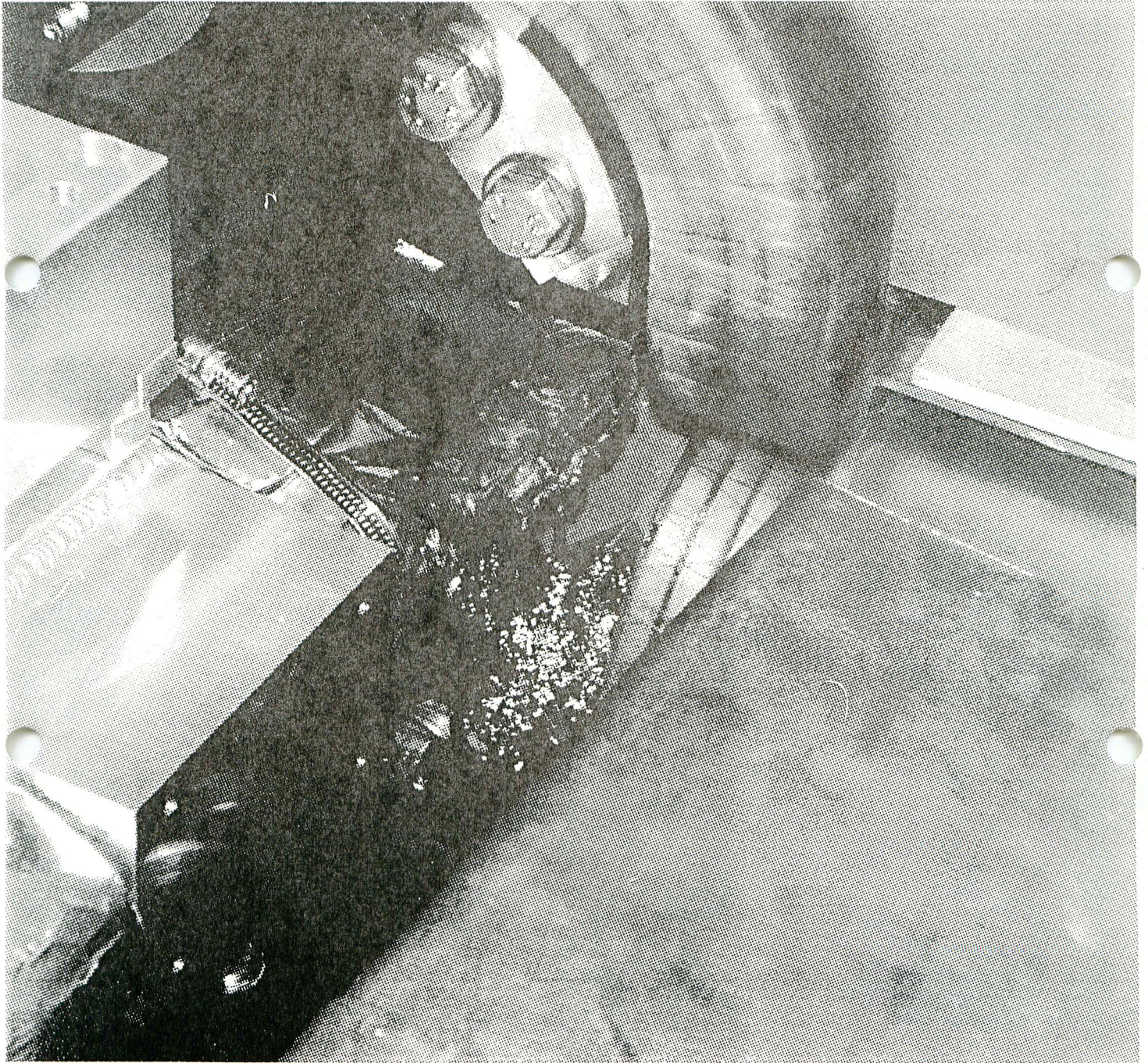
Pumping speed in the present design is insufficient.

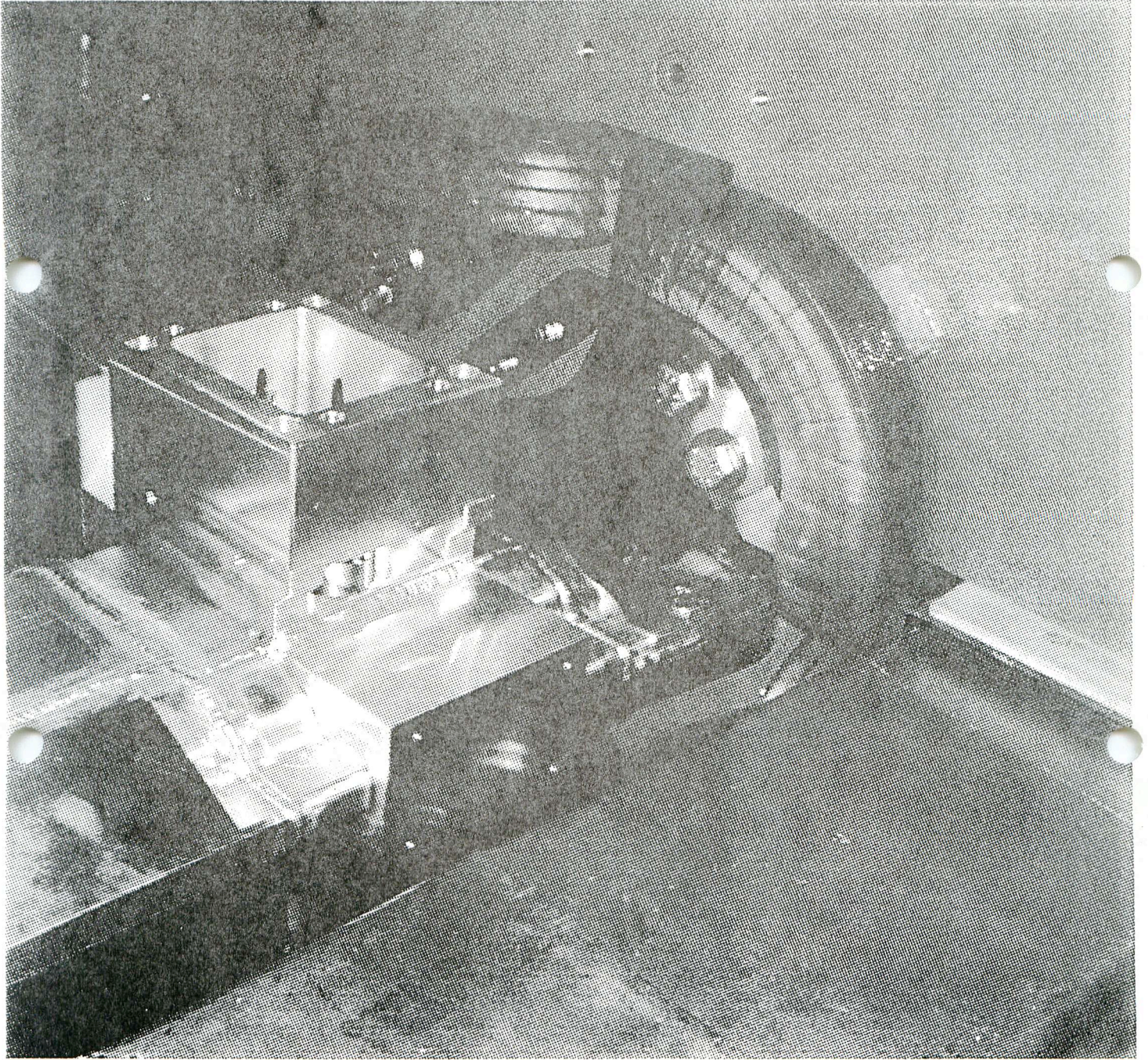


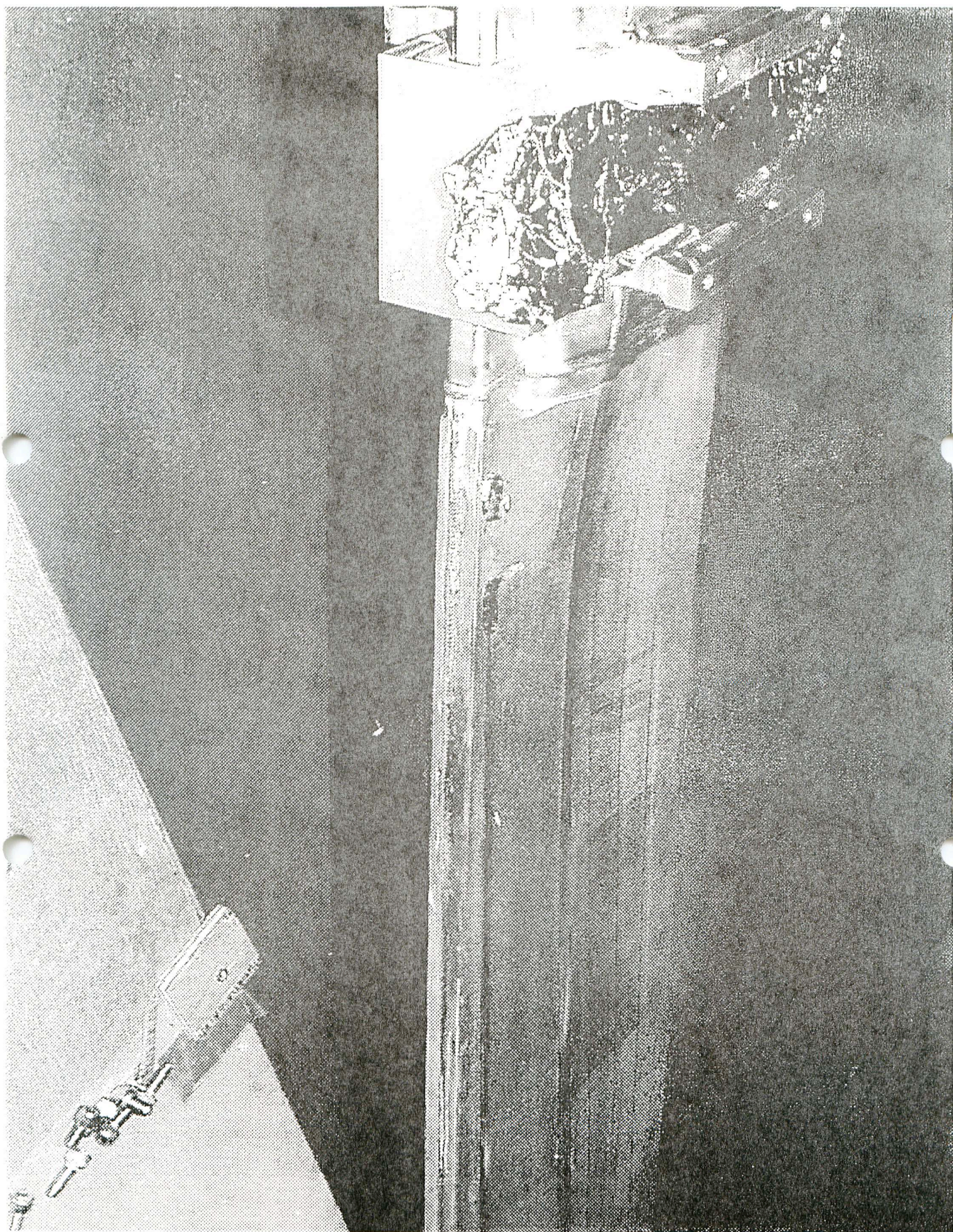
The pressure along the incoming positron line with beam is higher than expected.

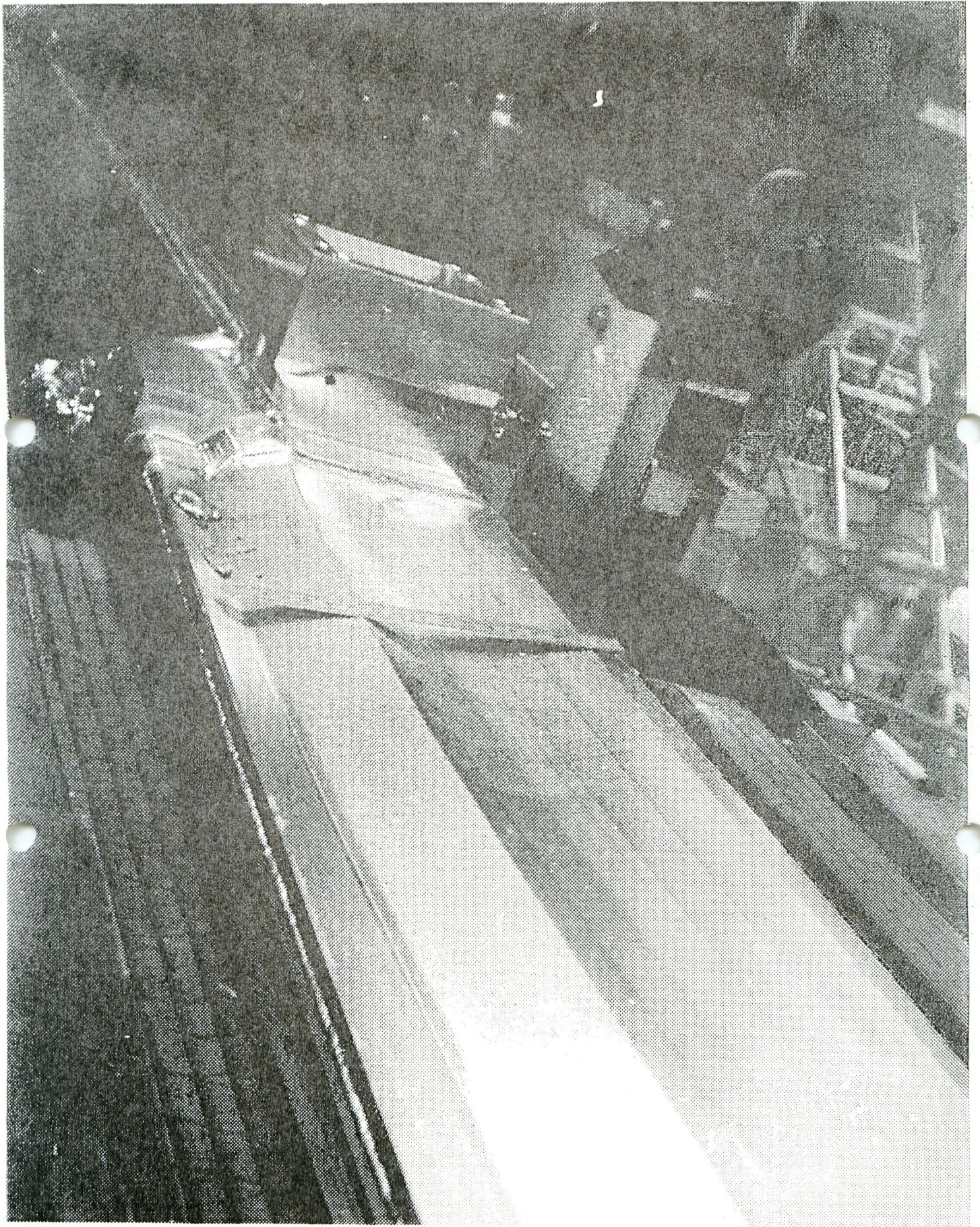
HER beam causes pressure rise in the positron beam duct even at 8.5m point from IR.

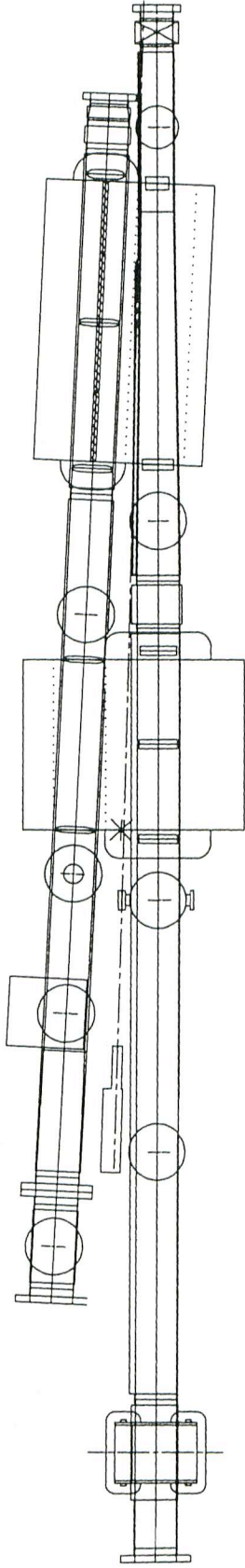












QC2RE

Summary

1. First installation was successful.
2. Additional ion pumps are necessary to reduce methane. Two ion pumps will be added when the Belle rolls in.
The effect of electron beam on a pressure of LER beam line must be studied. It should be clarified that it is caused by methane gas or it means insufficient pumping speed along positron beam ducts.
3. QC2RE chamber collapsed due to synchrotron radiation because the chamber partly lacks a cooling structure to allow a path for a luminosity monitor. The chamber will be changed to have a cooling channel all along it. More careful check of chamber temperature is necessary.