ISR-BT/WCM/EEK 21st May, 1971

# ISR RUNNING-IN

Since one of the two final beam dump absorber blocks was ready too late by one week to fit into the installation programme during the last ISR shut-down, only ring 2 is now equipped with a final absorber block while ring 1 still has its provisional absorber block. This makes little difference for the ISR operation at the present intensities, but is must be kept in mind that the two blocks have a slightly different vertical aperture for the circulating beams.

The provisional block and the final block are shown schematically in the attached Figs. 1 and 2 respectively. The provisional absorber blocks consist of a stainless steel core (UHV part) with a length of 1.94 m, surrounded by mild steel blocks. The core has a rectangular hole with an aperture of 150 mm horizontally and 32 mm vertically. The final absorber block has a similar stainless steel core with an identical aperture, but this core is preceded by a 0.66 m long stack of titanium alloy discs with an aperture of 150 mm horizontally and 30 mm vertically. This vertical aperture of 30 mm is approximately equal to the nominal vertical ISR aperture of 29.8 mm at the position of the beam dump absorber block which corresponds to a vertical aperture of 50 mm at the positions of $\beta_V(\max) = 51.4$ m.

The blocks can be moved in the vertical direction in order to limit the ISR aperture. The ISR beams are dumped by an upward deflection for ring 1 and a downward deflection for ring 2. Therefore, the absorber block of ring 1 should be moved downwards and block of ring 2 upwards in case of vertical displacement. Due to the different vertical apertures of the blocks, the provisional block in ring 1 has to move downwards by (n + 1) mm and the final block in ring 2 has to move upwards by n mm in order to give a vertical half aperture limitation of n mm in each ring.



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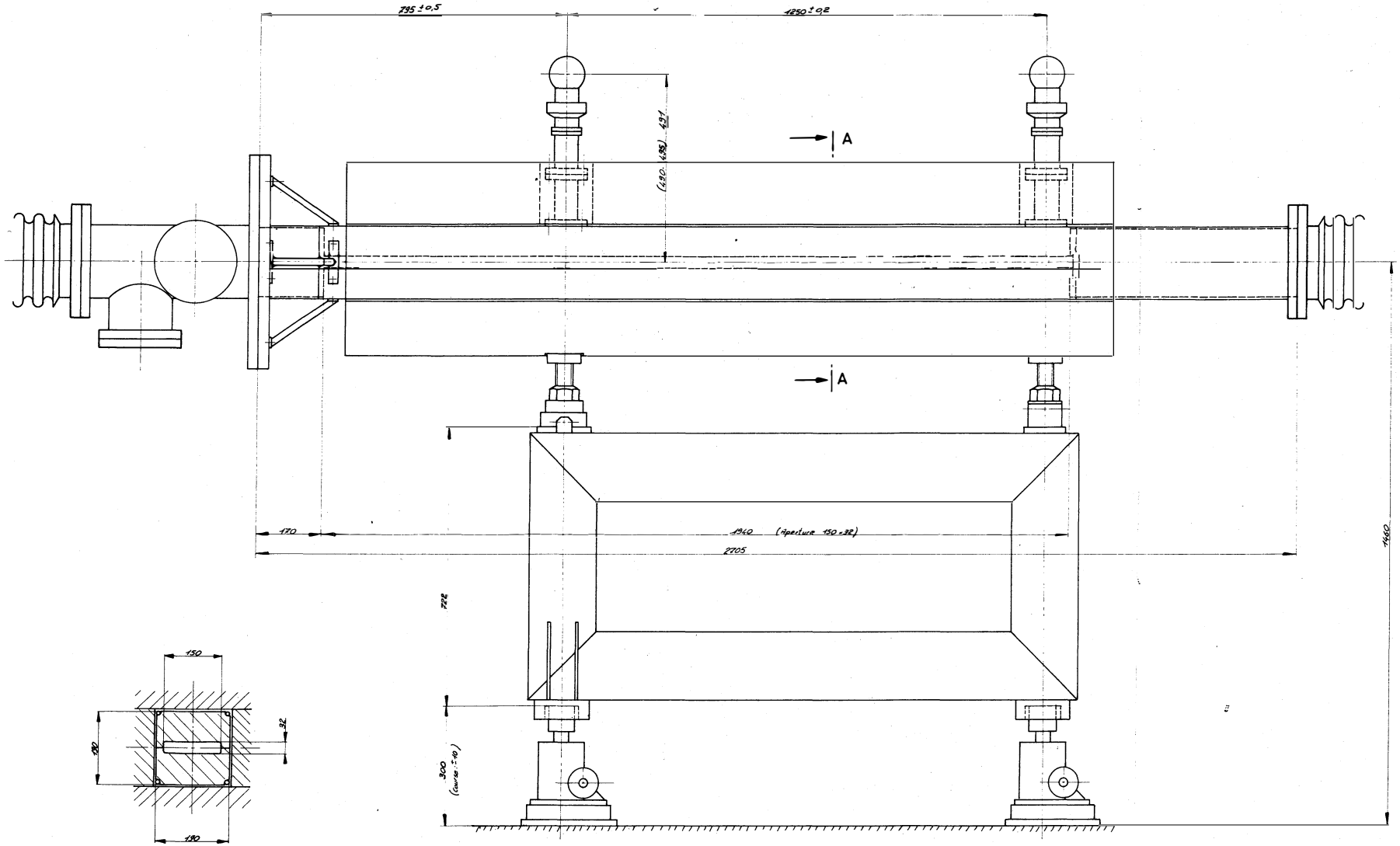
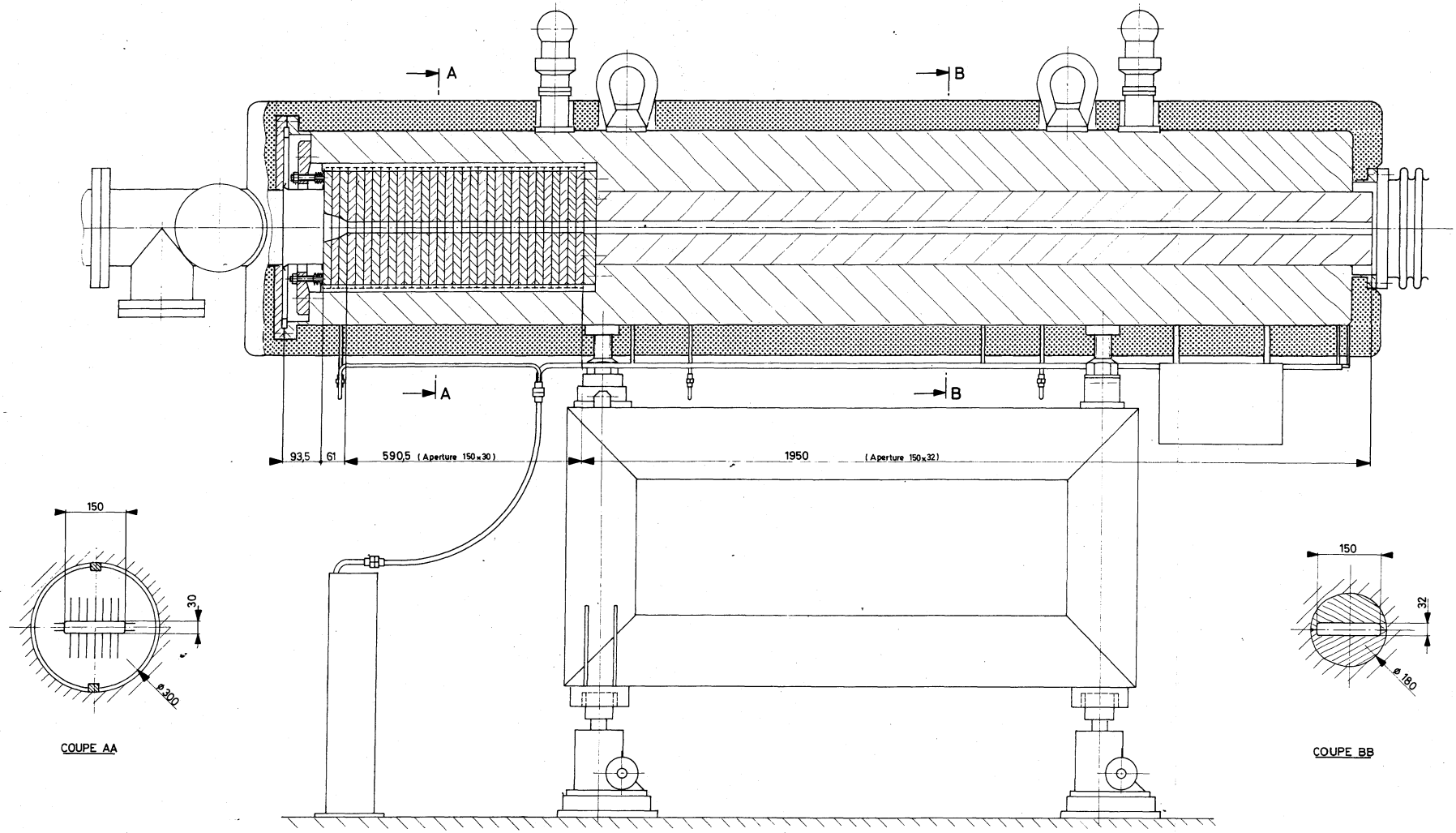



Coupe AA

ABSORBEUR PROVISOIRE Fig.1




COUPE AA

COUPE BB

ABSORBEUR DEFINITIF Fig. 2