

EQUIPMENT FOR SS 82

(3S82-000-3)

A SPECIFICATION

The ss 82 is equipped with a kicker for Q-measures (MPS-2G01-000-4S) and a horizontal dipole (MPS-4C02-100-3) (F. Rohner, U. Jacob).

1.- The requirements for precision and stability of alignment for any of these elements are :

- \pm 1 mm radially
- \pm 0,5 mm vertically
- \pm 1 mrad in angle perpendicular to the beam.

It follows that the precision of the initial installation, because of the rigidity of the supporting structure, is only a fraction of the given values.

2.- The horizontal dipole is a split magnet, which allows the mounting of the dipole in the PS ring, independently of the vacuum chamber.

3.- The kicker for Q-measures makes part of the vacuum chamber.

4.- The dipole and the vacuum chamber with the Q-kicker are sitting on a main support, each element has its individual alignment system.

5.- The main support is aligned in height to \pm 0,2 mm in the PS ring by means of shims. The dipole is adjusted to the required height in the labo-

ratory. The angular and radial movements are done in the ring after mounting the dipole on the main support.

6.- At first, the vacuum chamber with the Q-kicker has to be built in and aligned. Then the split dipole is assembled in situ.

B ALIGNMENT AND ASSEMBLY PROCEDURE

a) Work in the laboratoy and workshop

- 1.- Assembly of the horizontal dipole on its individual support mechanism
Alignment in horizontal plane with shims : $\pm 0,2$ mm.
- 2.- Assembly of vacuum chamber with Q-kicker.
- 3.- Vacuum-test of assembly.

b) Work in the PS ring

- 1.- Installation and alignment of the main support by means of shims. The reference-faces are the two rails on top of the bedplate.

Alignment in horizontal plane : $\pm 0,2$ mm with spirit levels and for the absolute height the surveyors.

Radial positionning : ± 2 mm with the jig (3T04-000-S4)

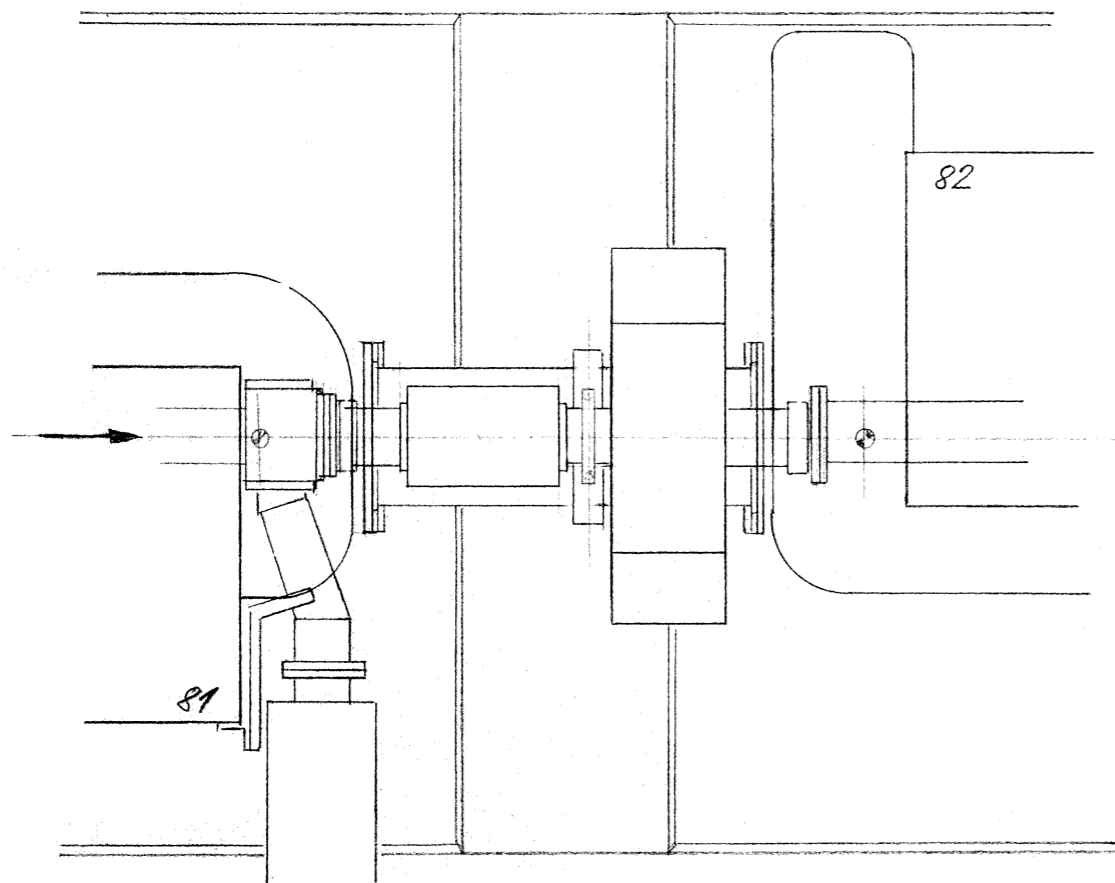
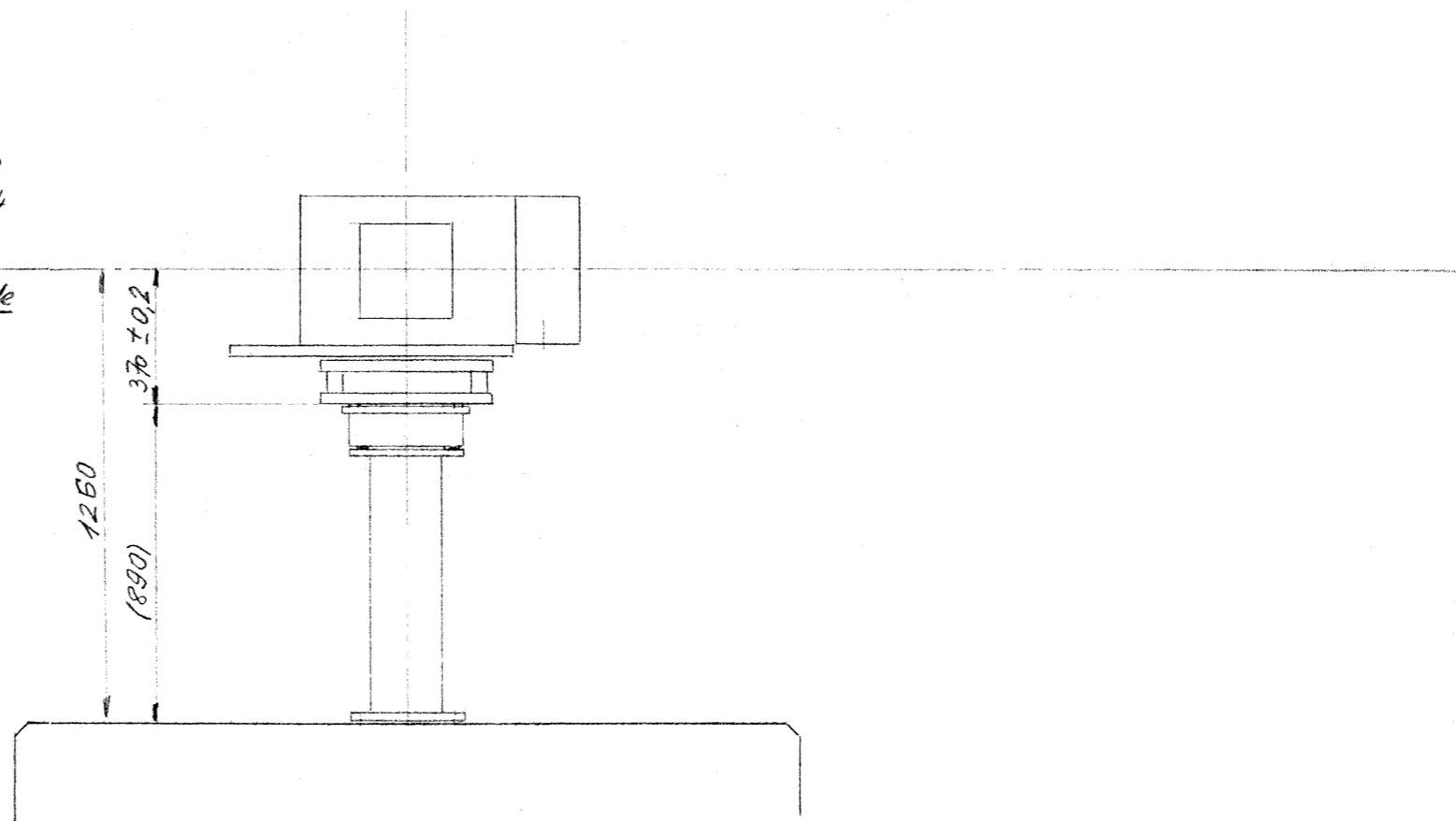
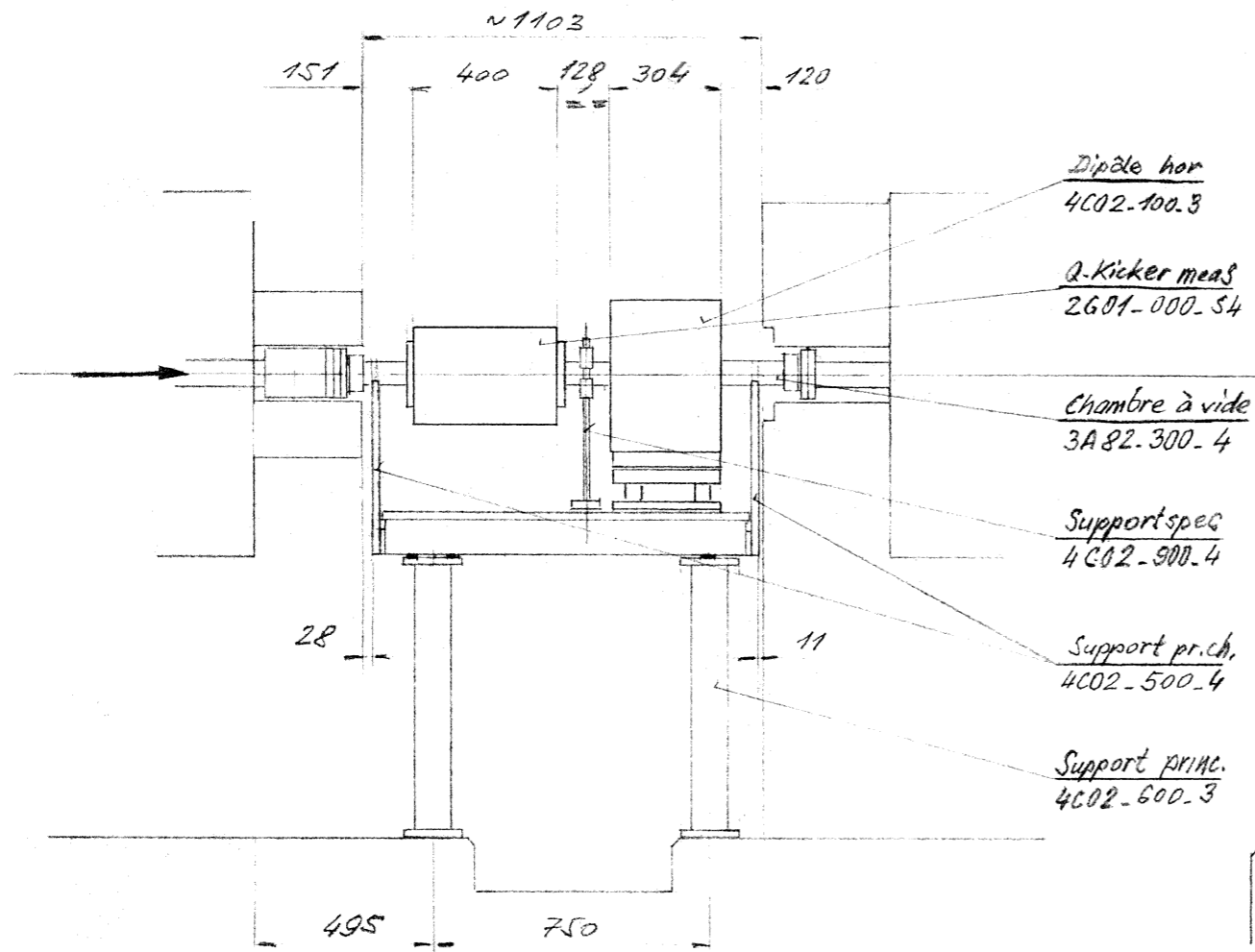
Drawing : 4C02-600-3.

- 2.- Mounting of the vacuum chamber on the main support.
- 3.- Mounting of the dipole on the main support.
- 4.- Alignment of the elements in radial sense with jigs (4T-002-2).

ANNEX : 3S82-000-3.

Distribution

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NOMBRE DE PIÈCES	DÉSIGNATION	POS.	MATIÈRE	OBSERVATIONS			
	s.d. 82				ECHELLE	DESSINÉ	12.71
Kicker-Q-meas.; Dipôle hor.				1:20	CONTROLÉ	16.12.71	<i>Manna</i>
					VU		
					REPLACE		
					REPLACÉ PAR		
					RÉDUCTION		

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