

12

EUROPEAN PATENT APPLICATION

21 Application number: **86850429.1**

51 Int. Cl.³: **H 01 J 23/48**

22 Date of filing: **08.12.86**

30 Priority: **06.12.85 SE 8505773**

43 Date of publication of application:
10.06.87 Bulletin 87/24

88 Date of deferred publication of search report: **03.05.89**

84 Designated Contracting States:
AT BE CH DE FR GB IT LI NL

71 Applicant: **Skandinavisk Torkteknik AB**
Doktor Hjorts Gata 1 D
S-41323 Gothenburg(SE)

72 Inventor: **Risman, Per Olov Gustav**
Sandsjön 4480
S-43803 Härryda(SE)

54 **Co-axial transition of a magnetron.**

57 The invention consists of a coupling device from a magnetron with a quarter-wave antenna directly to a coaxial line, without an intermediate structure using a common rectangular TE 10 waveshape.

The magnetron antenna (2) is surrounded by a parallel but axially displaced metal tube (1), from which the coaxial line (7, 10) starts at right angle (radially). The exit port (8) is situated in the approximate level of the top of the magnetron antenna. The center conductor (7) of the coaxial line is fixed to the antenna with galvanic contact. The matching of the system is by choice of tube diameter (less than for cut-off) and the displacement specified above.

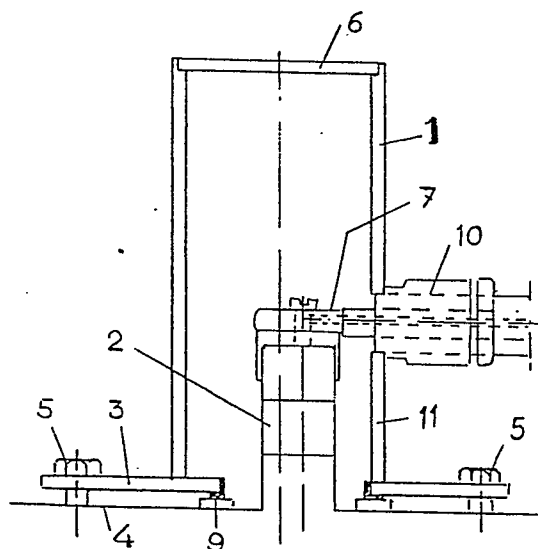


Fig.1



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
Y	CH-A- 226 859 (TELEFUNKEN) * Whole document * ---	1	H 01 J 23/48
Y	US-A-2 405 437 (L.M. LEEDS) * Column 1, lines 1-32: column 4, lines 15-62; figure 4 * ---	1	
A	WO-A-8 504 764 (HUGHES AIRCRAFT) * Page 2, lines 22-31; page 7, lines 9-23; figure 2 * ---	1	
A	US-A-2 557 391 (E.C. OKRESS) * Figures * ---	1,2	
A	US-A-2 597 867 (W.W. HANSEN) * Column 7, line 40 - column 8, line 2; figure 8 * ---	1	
A	FR-A-2 318 515 (LIGNES TELEGRAPHIQUES ET TELEPHONIQUES) * Figures 1,2 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			H 01 J H 01 P
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 14-02-1989	Examiner LAUGEL R.M.L.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 86 85 0429

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 02/03/89. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
CH-A- 226859		None	
US-A- 2405437		BE-A- 478854 FR-A- 949099	
WO-A- 8504764	24-10-85	EP-A- 0179067 JP-T- 61501810 US-A- 4618840	30-04-86 21-08-86 21-10-86
US-A- 2557391		None	
US-A- 2597867		US-A- 2514544 GB-A- 617236 GB-A- 626632 US-A- 452319	
FR-A- 2318515	11-02-77	DE-A, B, C 2632141 US-A- 4072901	24-02-77 07-02-78