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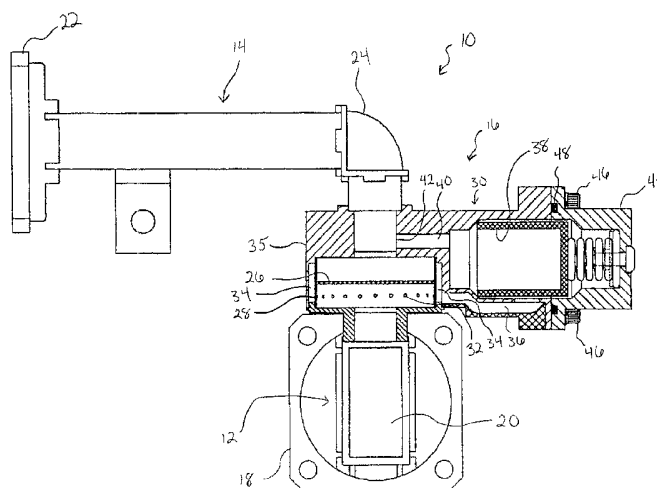
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(54) Title: WAVEGUIDE FOREIGN OBJECT DAMAGE PREVENTION WINDOW



(57) Abstract: A waveguide system for passing microwave energy while blocking foreign particles from a moving gas passing through the system is provided. The system includes first and second waveguide sections (12, 14) and a low loss microwave window (26) disposed between the two waveguide sections to pass microwave energy therebetween. The system also includes a gas bypass filtration system (30) having a first port (32) in communication with the first waveguide (12), a filter element (38) in communication with the first port (32), and a second port (42) in communication with the filter element (38) and with the second waveguide (14). The system operates by having the window pass microwave energy while blocking direct gas flow between first and second waveguides (12, 14), and forcing the gas in the first waveguide (12) to flow through the gas bypass filtration system (38) into the second waveguide (14). The window may be of the pillbox type.



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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :H01P 1/08, 5/02
US CL :333/252, 254; 55/385.6

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 333/252, 254, 248; 55/385.6, 478

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- A	US 3,778,799 A (BENDAYAN) 11 December 1973 (11.12.1973), see entire document including the sole figure.	1, 3, 4, 7, 8; 13, 15, 16, 18 ----- 2, 5, 6, 9-12, 14, 17, 19, 20

Further documents are listed in the continuation of Box C. See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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"O" document referring to an oral disclosure, use, exhibition or other means	
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