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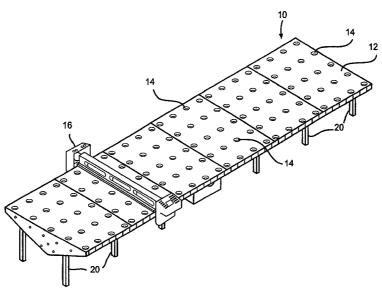
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(54) Title: HIGH FLOW/HIGH PRESSURE CUTTING TABLE



(57) Abstract: A high flow/high pressure table for supporting and holding sheet material during operations such as cutting which table includes a rigid air plenum structure providing extremely flat surface tolerances for cutting and having high volume cross-flow capability. The plenum structure includes a supporting framework of interlocking strips with air passages therein that determines table strength, flatness and flow capacity. The table configuration includes straight section, large diameter tubes feeding a high pressure/high flow vacuum source. There is also provided zonable low pressure-loss risers for transitioning between tubes and plenum. The plenum structure includes extrusions that provide rigidity for the cutting surface and attachment means for racks and rails to support and guide a gantry assembly associated with the table.



International application No. INTERNATIONAL SEARCH REPORT CLASSIFICATION OF SUBJECT MATTER B23Q 7/00, 15/00: B23P 19/00: B26D 7/06, 7/08 IPC(7) 22/559, 721,822,743: 83/100, 22,24 US CL According to International Patent Classification (IPC) or to both national classification and IPC FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 22/559, 721, 822, 743; 83/100, 22, 24 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) **EAST** DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category * US6,830,416 B2 (Susnjara et al.) 14 December 2004(14,12,2004), Fig 1,4,4a 1,2,5-8,11-14,20 US 4,019,570 A (Siegel) 26 April 1977 (16,04,1977) Fig.4 ,Column 4, lines 14-24 2-4, 16-18 Y US 5,699,707 A (Campbell, Jr.) 23 December 1977 (23,12,1977) Figs. 1,2,3; column 4, 9,10,15,19 Y line 39-column 6, line 56 Further documents are listed in the continuation of Box C. See patent family annex. later document published after the international filing date or priority "T" Special categories of cited documents: date and not in conflict with the application but cited to understand the principle or theory underlying the invention document defining the general state of the art which is not considered to be "A" "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step earlier application or patent published on or after the international filing date "E" when the document is taken alone document which may throw doubts on priority claim(s) or which is cited to "L" "Y" document of particular relevance; the claimed invention cannot be establish the publication date of another citation or other special reason (as considered to involve an inventive step when the document is combined with one or more other such documents, such combination document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art "0" document member of the same patent family 4 R, # document published prior to the international filing date but later than the "P" priority date claimed Date of mailing of the international search report Date of the actual completion of the international search 19 JAN 2006 20 December 2005 (20.12.2005) Authorized officer Name and mailing address of the ISA/US David Bryant Mail Stop PCT, Attn: ISA/US

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