(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 8 June 2006 (08.06.2006)

(10) International Publication Number WO 2006/060650 A3

(51) International Patent Classification: F15D 1/02 (2006.01) G01B 5/28 (2006.01)

(21) International Application Number:

PCT/US2005/043612

(22) International Filing Date:

2 December 2005 (02.12.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/632,651

2 December 2004 (02.12.2004) US

(71) Applicant (for all designated States except US): CON-TROLOTRON CORPORATION [US/US]; 155 Plant Avenue, Hauppauge, New York 11788 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): BAUMOEL, Joseph [US/US]; 104 Fairway View Drive, Commack, New York 11725 (US).

(74) Agents: MORANO, Michael, F. et al.; F. Chau & Associates, LLC, 130 Woodbury Road, Woodbury, New York 11797 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

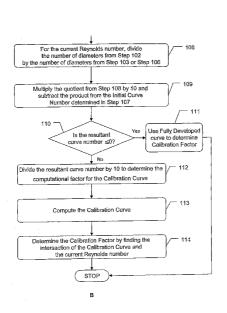
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

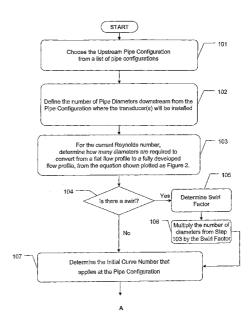
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 20 July 2006

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.

(54) Title: SYSTEM AND METHOD FOR FLOW PROFILE CALIBRATION CORRECTION FOR ULTRASONIC FLOWME-TERS





(57) Abstract: A method for calibrating a flow meter with steps for choosing a pipe configuration from a list of pipe configuration and defining a number of diameters downstream from the pipe configuration where a transducer is to be installed (108), with steps for determining an initial curve number for the chosen pipe configuration wherein the initial curve number corresponds to a predetermined flow profile correction curve (103), and then determining a swirl factor for the chosen pipe configuration and computation a given Reynolds number (114).

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/43612

A. CLASSIFICATION OF SUBJECT MATTER				
IPC:	F15D 1/02(2006.01)			
	G01B 5/28(2006.01)			
USPC: 138/44;702/35				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELI	OS SEARCHED		 	
Minimum documentation searched (classification system followed by classification symbols) U.S.: 138/44; 702/35				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched STIC for Publication on flow meter calibration us Reynolds computations.				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST for key words and terms and back search cited art in specification.				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
			Relevant to claim No.	
Category *	Citation of document, with indication, where a		ļ	
Α	US 5,495,872 A (Gallagher et al.) 5 March 1996 (5.	03.1996), see entire patent.	1-27.	
Α	US 6,273,373 A (Baumoel) 14 August 2001 (14.10.2001), see entire patent.		1-27.	
Α	US 6,418,796 A (Baumoel) 16 July 2002 (16.07.2002), see entire patent.		1-27.	
Α	US 5,529,093 A (Gallagher et al.) 25 June 1996 (25.06.1996), see entire patent.		1-27.	
Α	US 4,425,803 A (Baumoel) 17 January 1984 17.01.1984), see entire patent.		1-27.	
			1	
			}	
			1	
			L	
Further	documents are listed in the continuation of Box C.	See patent family annex.		
* S	pecial categories of cited documents:	"T" later document published after the int		
"A" document	defining the general state of the art which is not considered to be	date and not in conflict with the appli principle or theory underlying the inv		
	lar relevance	"X" document of particular relevance; the	claimed invention cannot be	
"E" earlier ap	plication or patent published on or after the international filing date	considered novel or cannot be considered when the document is taken alone		
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means			cument of particular relevance; the claimed invention cannot be nsidered to involve an inventive step when the document is	
		combined with one or more other suc being obvious to a person skilled in the	h documents, such combination	
			<u> </u>	
"P" document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed				
Date of the actual completion of the international search Date of the actual completion of the international search		Date of mailing of the international search report		
28 April 2006 (28.04.2006)				
Tunio and maring address of the second		~ 9000 1000 700		
Commissioner for Patents		Victor J. Taylor		
P.O. Box 1450		Telephone No. 571-272-1750		
Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201				
1 acommo 170. (2/1) 2/3-2201				

Form PCT/ISA/210 (second sheet) (April 2005)