

<p>(51) International Patent Classification ⁶ : G01N 3/24, 3/00, G01B 5/30, 7/16</p>	<p>A3</p>	<p>(11) International Publication Number: WO 97/02120</p> <p>(43) International Publication Date: 23 January 1997 (23.01.97)</p>
<p>(21) International Application Number: PCT/IL96/00042</p> <p>(22) International Filing Date: 7 July 1996 (07.07.96)</p> <p>(30) Priority Data: 114494 6 July 1995 (06.07.95) IL</p> <p>(71)(72) Applicant and Inventor: TE'ENI, Moshe [IL/IL]; 53 Ir Shemesh Street, 69806 Tel Aviv (IL).</p> <p>(74) Agent: A. TALLY EITAN - ZEEV PEARL & CO.; Lumir House, 22 Maskit Street, 46733 Herzlia (IL).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 1 May 1997 (01.05.97)</p>

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL96/00042

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : Please See Extra Sheet.

US CL : 73/760, 784, 790, 841, 818, 821, 844, 845

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. : 73/760, 784, 790, 841, 818, 821, 844, 845

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)

APS

search terms: concrete, test, mix, force, stress, sens, detecet, measure, cell, shear

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---- Y	US 4,825,700 A (VARDOULAKIS et al) 02 May 1989, see the entire patent.	1, 14 ----- 2-13, 15-25
A	US 5,160,540 A (JOHANSSON et al) 03 November 1992, see the entire patent.	26-32
A	US 3,640,126 A (TE'ENI) 08 February 1972, see the entire patent.	1-25
A	US 3,974,679 A (NASSER) 17 August 1976, see the entire patent.	1-25
A	US 5,258,622 A (PRATT, JR) 02 November 1993, see the entire patent.	1-25

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

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"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
"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)	"A" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

06 DECEMBER 1996

Date of mailing of the international search report

21 MAR 1997

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL96/00042

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,789,244 A (DUNTON et al) 06 December 1988, see the entire patent.	26-32

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL96/00042

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL96/00042

A. CLASSIFICATION OF SUBJECT MATTER:

IPC (6):

G01N 3/24, 3/00;

G01B 5/30, 7/16

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claims 1-25, drawn to concrete measuring and production control.

Group II, claims 25-32, drawn to design and production of concrete.

The inventions listed as Groups do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I relates to concrete testing, measuring and concrete production monitoring system, generally classified in class 73. Group II relates to design and production of the concrete mix along with a concrete plant and other related components, which is basically of different nature with that of testing and measuring and requires different search.