



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
01.12.2010 Bulletin 2010/48

(51) Int Cl.:
E02D 29/12 (2006.01)

(43) Date of publication A2:
21.04.2010 Bulletin 2010/16

(21) Application number: **09173064.8**

(22) Date of filing: **14.10.2009**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(71) Applicant: **Elettra S.R.L.**
47023 Cesena (IT)

(72) Inventor: **Forlivesi, Ercole**
47023 Cesena (IT)

(74) Representative: **Regnault de la Mothe, Hélène et al Roncuzzi & Associati S.r.l.**
Via Antica Zecca, 6
48121 Ravenna (IT)

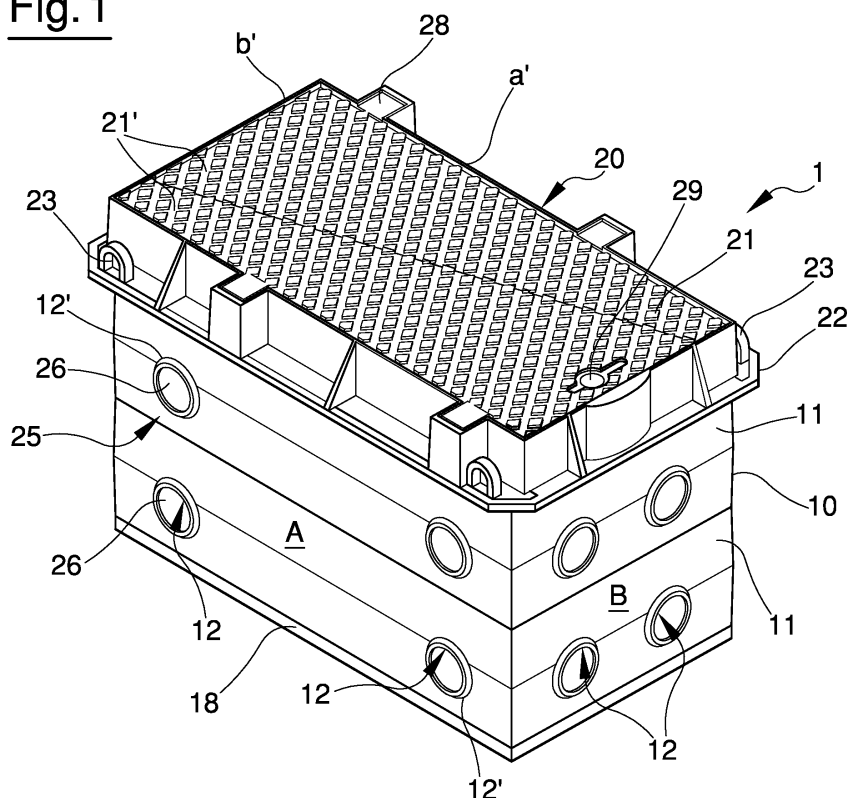
(30) Priority: **15.10.2008 IT RA20080029 U**

(54) **Manhole shaft**

(57) A well for underground infrastructures comprising a substantially annular hollow body (10) delimiting laterally a respective space (5), and a closing device (20)

carried by the body (10) and suitable to delimit superiorly the space (5); the body (10) being produced substantially in metal so as to present high breaking load but reduced weight.

Fig. 1





EUROPEAN SEARCH REPORT

Application Number
EP 09 17 3064

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2005/126087 A1 (MONDEN FUMIO [JP] ET AL) 16 June 2005 (2005-06-16)	1-4,7,10,13-16	INV. E02D29/12
Y	* paragraph [0087]; figure 1 * -----	3,4	
X	WO 2005/056930 A1 (LUNT JOHN [GB]) 23 June 2005 (2005-06-23)	1,2,5,6,15,16,18	
Y	* page 4, paragraph 1; figures 2,3 * -----	3,4	
X,P	WO 2008/141370 A1 (ACO POLYCRETE PTY LTD [AU]; SORDO JOHN PETER [AU]; WHITE MICHAEL GRANT) 27 November 2008 (2008-11-27)	1,2,4,7-10,13,14,16,18,20	
	* paragraph [0028]; figure 2 * -----		
			TECHNICAL FIELDS SEARCHED (IPC)
			E02D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 25 October 2010	Examiner Geiger, Harald
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			

 5
EPO FORM 1503 03.82 (P04001)



Application Number

EP 09 17 3064

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☒ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

1-11, 13-21

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 09 17 3064

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claim: 1

A module (11) for a well (1) for underground infrastructures; said module (11) comprising a substantially annular body (11) suitable, in use, to delimit laterally at least a portion of an inner space (5) of said well (1); characterised by being produced in a substantially integral manner in metal, so as to present high breaking load but reduced weight.

2. claims: 2-8

A module (11) for a well (1) for underground infrastructures; said module (11) comprising a substantially annular body (11) suitable, in use, to delimit laterally at least a portion of an inner space (5) of said well (1); characterised by being produced in a substantially integral manner in metal, so as to present high breaking load but reduced weight with a pair of first or second through holes;

3. claims: 9-11

A module (11) for a well (1) for underground infrastructures; said module (11) comprising a substantially annular body (11) suitable, in use, to delimit laterally at least a portion of an inner space (5) of said well (1); characterised by being produced in a substantially integral manner in metal, so as to present high breaking load but reduced weight, having coupling means;

4. claim: 12

A module (11) for a well (1) for underground infrastructures; said module (11) comprising a substantially annular body (11) suitable, in use, to delimit laterally at least a portion of an inner space (5) of said well (1); characterised by being produced in a substantially integral manner in metal, so as to present high breaking load but reduced weight, the module having parallelepiped shape.

5. claims: 13-15

A module (11) for a well (1) for underground infrastructures; said module (11) comprising a substantially annular body (11) suitable, in use, to delimit laterally at least a portion of an inner space (5) of said well (1); characterised by being produced in a substantially integral



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 09 17 3064

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

manner in metal, so as to present high breaking load but reduced weight, the module being made of cast iron;

6. claims: 16-21

A well for underground infrastructure comprising a substantially annular hollow body (10) which delimits laterally a respective space (5) and closing means (20) carried by said body (10) and suitable to delimit superiorly said space (5); characterised in that said body (10) comprises at least a module (11) produced according to any one of the previous claims.

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

EP 09 17 3064

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-10-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2005126087 A1	16-06-2005	TW 571015 B	11-01-2004
WO 2005056930 A1	23-06-2005	EP 1709253 A1 GB 2421972 A	11-10-2006 12-07-2006
WO 2008141370 A1	27-11-2008	AU 2008253587 A1 US 2010180505 A1	27-11-2008 22-07-2010