IDROTER di Martinelli Francesco 049/8979925 TEL 049/5224306 FAX www.idroter.com info@idroter.com



### Special well for safe installation and monitoring of drainage systems



**IPOGEO** is a special well (diam.1.200-1500) performed in HDPE Spiral whose function is to improve the safety conditions of workers during the installing of the draining panels and to make monitoring (diam.800-1,200-1,500) and inspection in the time of the drainage system.

#### ADVANTAGES OF IPOGEO:

-handling and lighter than similar articles in cement

-long-lasting once installed

-high mechanical performance

-re-usable

Copyright IDROTER di Martinelli Francesco 2009 Tutti i diritti riservati IDROTER di Martinelli Francesco 049/8979925 TEL 049/5224306 FAX www.idroter.com info@idroter.com

**IPOGEO** can be used:

# FIXED:

- for installation of drainage panels (inspection by the operator in diam.1.200-1500);
- for inspection and monitoring drainage over time (diam.800-1,200-1,500)

## MOBILE:

- for installation of drainage panels (diam.1.200-1500)

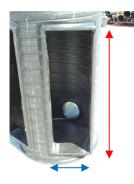
Measurements of the well:



MAIN DATA

The well is manufactured on customer's design; can have an height ranging from 2 to 6 meters. The windows range from 1 to 3 Windows angle=30°-90° \$\overline{90}\$ \$\overline{

IPOGEO  $\phi$  800, with fessure a 30°



example of windows 1.050 x 350 mm

Copyright IDROTER di Martinelli Francesco 2009 Tutti i diritti riservati 2

PHYSICAL AND MECHANICAL *		
inside diameter (mm)	Weight (kg / m)	Classes resistance **
800	45	1 ^ - 2 ^
1,200	70	1 ^ - 2 ^ - 3 ^
1,500	85	1 ^ - 2 ^

\*tube forms the well

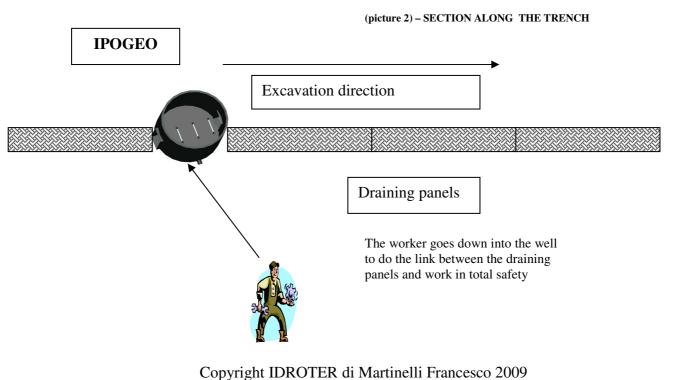
\* Strength classes are defined according to the deformation of 3% decrease from the well subjected to vertical load  $\sigma_{N:}$ 

Strength Classes	$\sigma_{\rm N}$ (kN / m <sup>2)</sup>
1st	2
2nd	4
3rd	8

## WAYS OF USE

a. You perform the excavation in the upstream or downstream of the trench drain (this is irrelevant), then laying the well **IPOGEO**, after having prepared the fragments out of the trench, so you can perform the ligation of the panels in part out of work (where they will be linked to the fragments) and in part directly in the excavation, with the protection of the well.

Inside the well a worker performs the ligation of the panels, making escape from the slot opposite the pieces connected.



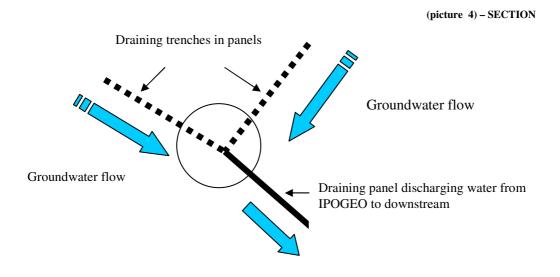
Tutti i diritti riservati

IDROTER di Martinelli Francesco 049/8979925 TEL 049/5224306 FAX www.idroter.com info@idroter.com

## **IPOGEO MOBILE (3 windows to 90<sup>0)</sup>**

In the event that the excavation permit, you can extract the well and use it elsewhere, where the walls of the excavation were particularly unstable and therefore was difficult to retrieve intact the well, you should leave within the excavation and proceed as follows :

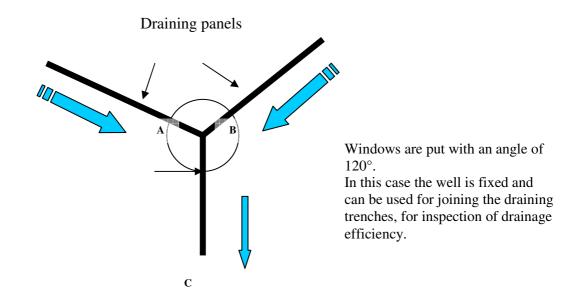
- 1. convey drainage trenches inside the well so as to capture any water coming from upstream;
- 2. connect a drain pipe (or another panel, see Figure 1) the connection at the base of the well, apply the HDPE flange to close on the top of the well.



# **IPOGEO FIXED (3 slots to 120**<sup>0)</sup>

- a. If remain fixed within the hole, the well **HYPOGEUM** exerts the following functions:
  - 1. fixed point of junction between panels draining;
  - 2. center for conveying water drained from the panels or any drainage pipelines;
  - 3. inspection point

Example: fixed well with three slots (two upstream and downstream):



In the drawing, the well is equipped with three slots raised to  $120^{\circ}$  from each other: the slot A and slot B linking the panels draining from the two excavations placed upstream of the well.

In this way are channeled and drained ground water coming from upstream.

Fissure C connects the well to excavation downstream.