

Benefits of saturation diving for bottom outlet rehabilitation

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2018**



Jeremy Brunet-Manquat
j.brunetmanquat@hydrokarst.fr

Sediment / debris accumulation

Stop logs / gates malfunction

Corrosion / erosion on embedded parts

Concrete deterioration



What is saturation diving ?

Divers live at **working pressure for 28 days**

Up to **6 hours shifts**

Constant monitoring of living condition

Only **one decompression** at the end

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What is saturation diving ?



Surface diving	- 50 m	1 hour
Bell diving	- 75 m	45 min
Mixed-gas bounce diving	- 180 m	45 min
Saturation diving	- 200 m	6 hours



Site installation

Installation on crest or pontoons

Fast and easy transportation on standard trailer trucks



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Dredging and cleaning

Grabbing

Pumping

Airlift

Final hand cleaning

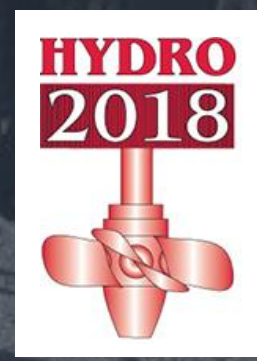
Bathymetric survey

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Insulation of outlet

- Tailored design
- Installation on complex structures
- Geometry adapted to rehabilitation requirements



Underwater repairs

Demolition, concreting

Welding

Sawing, cutting

Drilling, injection

Replacement of embedded parts

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Benefits of saturation diving

Reservoir at **full water level**

Power generation optimization

No waste of water

Environmental friendly solution

Longer working time

Maximum depth **200 m**

No limitation of works

Safest diving method

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