

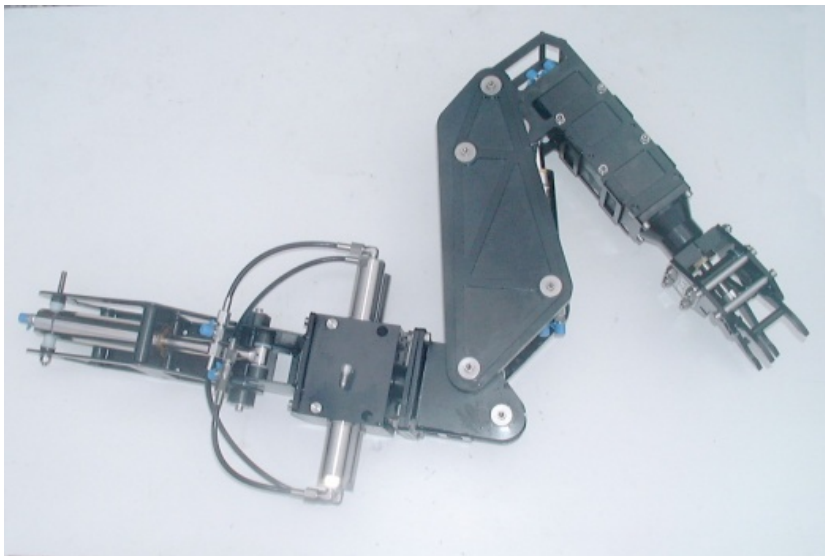
# Flight Box Recovery

*Hydro-Lek's six-function manipulator has been used to successfully recover both flight recorders from the stricken Air France 447 in the Atlantic.*



## Hydro-Lek Ltd

Specialists in remote handling for the nuclear, subsea and defense industries.



*“Phoenix has used Hydro-Lek’s 6-function rate manipulator for a number of years now. It offers excellent value for money and has helped perform numerous successful salvage operations for our government and commercial clients in depths of up to over 5000 metres”*

**Steven Saint Amour, Manager of ROV Operations at Phoenix International**

The HLK HDR6R is a compact, rugged 6 function arm designed for the new breed of smaller work class ROVs. It was used by US-based Phoenix International Holdings, Inc. (Phoenix), experts in deep ocean search and recovery operations, on its ROV Remora at depths of 3900 metres to clear debris and grab hold of the FDR and CVR and place them into a basket for recovery to the surface.

Fitted with a selectable actuator at the shoulder joint, the HLK HD6R is mountable in 4 separate positions to allow port and starboard mounting as well as offering additional up or down functions. This allows for additional reach into holes or restricted pipe ends.

Phoenix have used the HLK HD6R manipulator for the past 12 years in the recovery of a F-14, SH-60 helicopter, Airbus 310, ATR 72 and a Boeing 737 – testimony to the ability of Hydro-Lek’s products to withstand the toughest conditions over a long period of time.

## Hydro-Lek HD6R Specification

### Dimensions

Length of arm	1120mm
Length of slew plate	280 mm
Height	530 mm
Width	145 mm

### Capacities

Rotate	360°cont
Torque at 140 bar	38 Nm
Lift capacity at full reach	30 Kg
Max working pressure	210 Bar

### Weight

In air	29 Kg
In water	21 Kg

### Construction

316 SS  
 HE 30 hard anodised aluminium  
 High density polyethylene

**Ports** 1/8NPT/7/16 SAE

