

MagCam

Whether a wellbore, pipeline or processing facility, the presence of a fish has a significant impact on the ability for safe operation and typically results in reduced productivity. While large fish are problematic, it is often the smaller, more mobile items that cause the greatest concern as they are readily transported by the flow stream and may become entangled in safety critical components such as valves, separators or pressure control systems that they encounter on their journey.

Owing to their small size and low mass, these “mini-fish” are difficult to locate and successfully retrieve with conventional mechanical intervention techniques. With the risks potentially reaching catastrophic levels, failure to successfully remove these mini-fish may result in production cessation, un-scheduled workover or even premature abandonment.

SOLUTION

Through the application of high definition video, combined with a high strength rare earth magnetic carrier system, EV's MagCam solution enables definitive identification of mini-fish and precision extraction with real-time visual feedback throughout. Furthermore, thanks to EV's proprietary Visual Analytics services, objects within the wellbore can be measured in-situ to determine any risk to safe extraction before attempting to recover them.

By providing visual information in combination within the remediation it is possible to identify the location, and total number of mini-fish, and confirm the capture, transport and safe recovery during a single run in hole, thereby minimising risk and optimising intervention time.

As part of the service, MagCam operations are supported by an experienced EV Engineer, either at the wellsite or via real-time remote support, and is available for rapid mobilization to any location, either on-shore or off-shore. All information and deliverables are provided at the wellsite to enable real-time decision making, including live video to surface, simultaneous live video streaming to office locations, quantified snapshot images and, of course, all collected mini-fish.



APPLICATIONS

Applications include the recovery of:

- Damaged completion components
- Milling and cutting by-products
- Fragments of damaged BHAs
- Wire or capillary tube fragments
- Dropped objects
- Other foreign ferromagnetic materials

TECHNICAL FEATURES

MagCam solutions are supported by EV's Video-While-Fishing technology and are available for real-time operations with EV's Optis R-series cameras, enabling live video images via mono-conductor electric line, electrically enabled coiled tubing and fibre-optic enabled coiled tubing conveyance systems. Near-time operations are supported with EV's Optis M-series cameras, enabling memory-mode acquisition of images via slickline, braided cable or conventional coiled tubing conveyance systems.

Thanks to EV's in-house engineering capability it is possible to configure magnet-enabled camera systems bespoke to specific job and customer requirements. Through the application of rapid prototyping and laboratory testing, EV engineers can design, manufacture and verify the performance of MagCam solutions to help maximise the success of interventions.

All EV products are supported by ISO 9001 certified design and manufacturing processes and are constructed from high-strength, corrosion resistant materials throughout.

Typical Max OD	2.875 in	73.0 mm
Typical Max Pull Force	44 lbf	195 N
Magnet Material	Rare Earth	
Compatible Cameras (Real-Time) †	Optis R125, Optis R150, Optis Televiewer, Optis FibreCoil	
Compatible Cameras (Memory) †	Optis M125, Optis M150	



† See separate datasheet for camera specifications

Example tool string

