



# Omega

**Omega Completion Technology Ltd.**

## COMMAND ACTIVATED HYDRAULIC FRAC VALVE.

The Omega Hydraulic Frac Valve (CA-HFV) is a permanently installed, electronically actuated sleeve type valve. The CA-HFV is run in the closed position and will open once initiated.

The onboard electronics require no hardwiring to surface. The valve may be programmed to open upon the expiry of a pre-determined time delay, or alternatively by using pressure recognition technology. In addition a combination of both the above methods may also be utilised.

The Omega CA-HFV is installed in a wellbore with isolation packers above and below in order to provide staged start up of a production well without the requirement for intervention. Good production sections may be isolated allowing less prolific areas to clean up preferentially.

The valve can be set up to 'sleep' during deployment and then 'awaken' to begin scanning for actuation parameters. Upon initial actuation the valve will either open immediately, or initiate a further fully field adjustable time delay prior to opening.

Once open the zone can then be flowed to allow clean up to occur at that section of the well. Use of this technology has been proven to increase productivity of less productive zones and overall well clean up. This will also improve the drainage and overall recovery from the well. Multiple tools can be deployed in one well with differing start up times / opening programmes / delay times.

The CA-HFV features two independent electronics sections which provide the actuation for the device. The electronics are easily programmed from a laptop computer running "Windows" style software.

Contingency exists to open the valve utilizing conventional wireline techniques to mechanically shift the valve to the open position. The valve may be subsequently closed (for water shut off or similar) using similar techniques.

This valve is a higher pressure rated version of the CA-SFV to allow Hydraulic Frac Operations to be performed.

The Command Activated Hydraulic Frac Valve uses the same field proven technology currently used in products such as the Clean Out Valve, Tracer Deployment Valve and Self-Opening Sandface Valve. These products have all been developed from our original Addressable Completion Accessory Tool (ACAT) technology.

### FEATURES

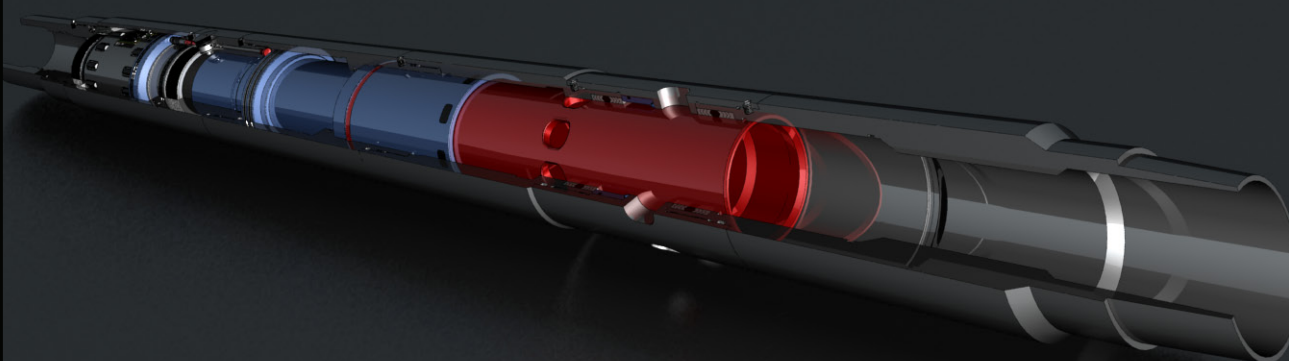
- Field proven electronics.
- Delayed opening for up to 120 days.
- Top selective profile for pressure control accessories.
- Defaults to mechanical sleeve.
- Utilises existing wireline / intervention procedures when mechanically actuated.
- Large flow areas.
- Multiple valves in one well.
- Sleep mode to extend valve life.
- Programmable Fail Safe Mode.

### APPLICATIONS

- Delay start up of prolific zones.
- Isolate laterals to allow staged start up.
- Water shut off after start up.
- Test individual zones following start up or during start up.
- Frac operations.

### BENEFITS

- Increased production due to better contribution from minor zones .
- Increased production from improved recovery.
- Increased production from subsequent water shut off.
- No hydraulic lines or cables from surface required to function valve.
- Opens via a variable command signal from surface.



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## Technical Specifications: Command Activated Hydraulic Frac Valve.

<b>Tool Size</b>	<b>4.500"</b>
End Connections*	4-1/2" Premium Connection
Material*	13% Cr / Inconel 718
OD*	6.260" max
ID*	3.313" min
Flow Area Through Valve	8.620 in <sup>2</sup>
Length	128.00"
Tensile Rating	288,000 lbs
Compressive Rating	288,000 lbs
Working Pressure Rating	7,000 psi
Actuating Force Per 1,000 psi	9,885 lbs
Temperature Rating*	125 deg C

\* Dependant upon customer requirements.

Other sizes and ratings are available upon request.

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