

### *Choose a Valve Management Solution to Fit Your Level of Innovation, Automation & Safety*

Intelligent Wellhead Systems prides itself on its valve management solutions. These solutions, varying in the level of innovation, automation, and safety, tackle well completion challenges and mitigate incidents in frac and wireline operations – ensuring a safe and reliable work environment while increasing operational efficiencies and reducing human error.

The Tier 1 solution, **Valve Management System (VMS)**, offers a comprehensive solution for valve management – emphasizing safety and user flexibility. The VMS utilizes software controls enabled by hardware. It incorporates essential features like accumulator lockouts, handle position sensors, pressure sensors, and encoded safety interlocks to guide users through the operators’ SOPs. VMS ensures all necessary checks are met prior to operating valves within the inVision System®. Utilizing a Digital Handshake® between all process stakeholders, the software interlocks work in tandem with the accumulator handle position sensors and lockouts providing step-by-step valve operation while improving safety and efficiency.

With the addition of valve position sensors and real-time wireline detection, the Tier 2 **Enhanced Valve Management System (EVMS)** solution introduces a new level of safety and efficiency. EVMS includes all of the VMS features while using valve position sensors to determine the valve position versus only relying on the accumulator handle position. Operators can digitally control accumulator lockouts, monitor pressures, and view valve positions remotely – keeping personnel out of the red zone for an increased level of safety.

**Digital Valve Control (DVC)** is the Tier 3 solution in the IWS valve management solutions portfolio. DVC includes all of the VMS features and introduces digitally controlled remote valve actuation. DVC actuators are installed on the accumulator providing remote valve actuation capability. DVC utilizes both handle position sensors and valve position sensors to ensure accurate alignment between the accumulator handle and valve position. DVC facilitates completions automation and remote operations and supports zero red zone exposure by eliminating the need for personnel to be physically in the red zone. DVC offers industry-leading risk reduction and time savings.

Feature	Valve Management Solutions (VMS)	Enhanced Valve Management (EVM)	Digital Valve Control (DVC)
Job planning & SOP configuration	✓	✓	✓
Proactive safety practices	✓	✓	✓
Multi-use tablet devices	✓	✓	✓
Cloud data storage & retrieval	✓	✓	✓
iHUB wellsite server, UPS, communications	✓	✓	✓
Field-based alarm/alert system	✓	✓	✓
Onsite customer-managed Edge computing	✓	✓	✓
Digital Handshake®	✓	✓	✓
Accumulator lockouts	✓	✓	✓
Handle position sensors/interlock	✓		✓
Pressure sensors/interlock	✓	✓	✓
Valve position sensors/interlock		✓	✓
Real-time wireline detection interlock		✓	✓
Digitally controlled valve actuation			✓



To learn more or request a demo,  
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