



iComplete™

Frac different: Faster. Safer. Smarter.



iComplete™

Get to first oil faster, safer and smarter with iComplete™. Our integrated system enables you to frac differently by leveraging flexible pipe, automation and digital efficiency to minimize complexity and eliminate intervention in the red zone.

Our fully integrated iComplete™ system gets to first oil faster by doing things differently. We leverage flexible pipe, automation and advanced digital capabilities to deliver greater efficiency with 80 percent fewer connections. This means an elimination of human intervention in the red zone, making your frac pad faster, safer and smarter. iComplete™ offers more service capability, greater reliability and fewer emissions with the simplicity of one pad, one supplier and one invoice. From pump to casing, iComplete™ minimizes complexities so you can focus on one thing: Getting to first oil faster with 30 percent lower costs.

System integration

- ▶ Operational efficiency
- ▶ Compatibility
- ▶ Lower costs
- ▶ Less NPT

Next level HSE

- ▶ Safer
- ▶ Easier rig up
- ▶ Reduced risk
- ▶ Fewer emissions

Technology

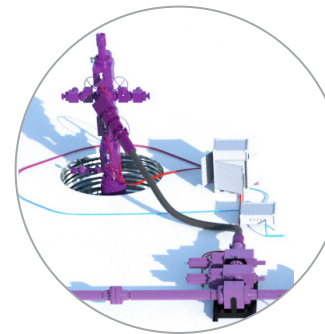
- ▶ Flexible pipe
- ▶ Fatigue resistant connections
- ▶ Remote wireline operation
- ▶ Proprietary erosion resistant materials

Digital automation

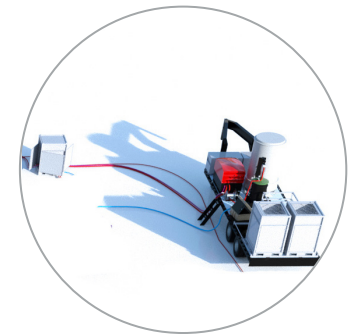
- ▶ Configurable apps
- ▶ Positive predictability
- ▶ Remote operations
- ▶ Eliminate red zone intervention



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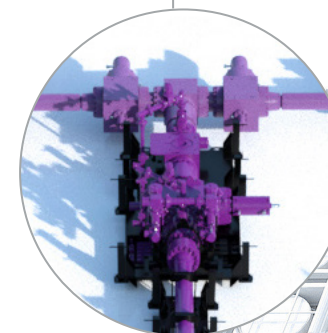
Trees and Manifolds
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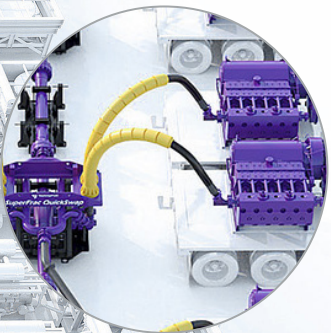
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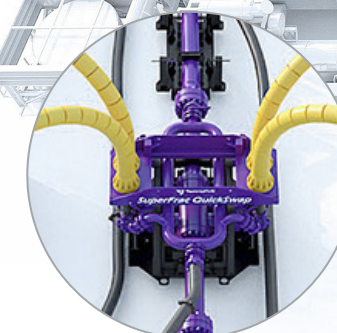
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80% fewer connections + 50% fewer components

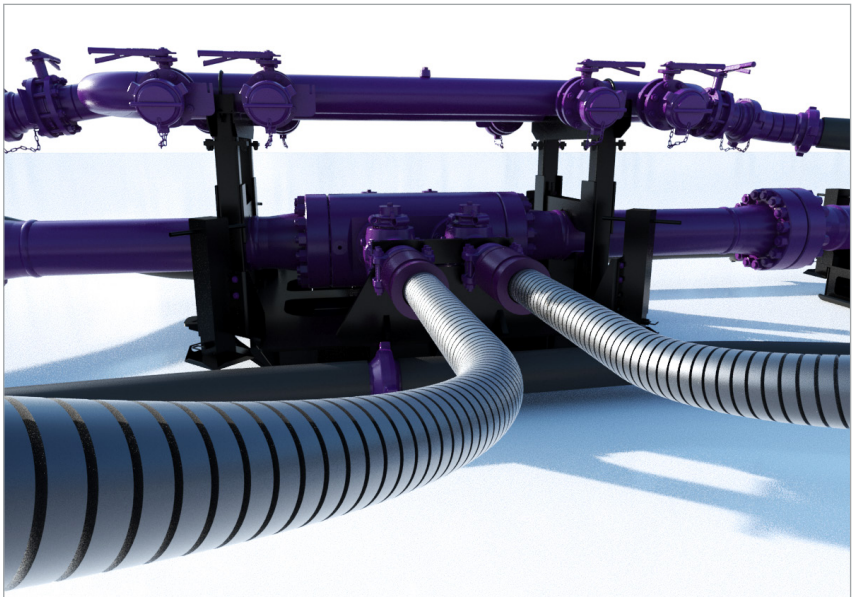
> 50% faster rig up + 30% lower costs



SAFlex™ – PumpFlex™

80% fewer connections, leading to 50% faster rig up and eliminating iron management

PumpFlex™ is the small bore size of our iComplete™ SAFlex™ portfolio. Providing OEM high-pressure flexibles to the oil and gas industry since 1979, the iComplete™ SAFlex™ onshore flexibles enhance completion project economics. SAFlex™ flowlines are offered in small and large bore sizes and deliver higher flow rates, improving slurry delivery and reducing connections, operational costs and downtime. Abrasion and corrosion resistant, SAFlex™ offers flexibility in rig ups, absorbs vibration and reduces head loss and turbulence while eliminating fatigue related failures.



System features
3-inch, 15,000 psi, robust end fitting with proprietary sealing technology, armor sheathing, visual inspection for wear, market leader in weight per foot.

SAFlex™ Portfolio	3" PumpFlex
Length	20 ft
Flowrate (max)	21 bpm
End Connections	Clamp (C-Hub)
MBR (in service)	2.3 ft
Pressure - Design	15.0 ksi
Weight (empty)	27.6 lbs/ft



- Durable**
- ▶ Erosion and corrosion resistant liners
 - ▶ High flow rate flexibles that lock in place while pressurized
 - ▶ Dissipation of pump cavitation and system vibration



- Faster**
- ▶ Faster rig ups by reducing connections and multiple lifts
 - ▶ Hammer union removal
 - ▶ Improved flow rates



- Flexible**
- ▶ Improves missile and zipper placement
 - ▶ Facilitates proper connection makeup
 - ▶ Removes fatigue

SuperFrac QuickSwap™ System

Modular,
single-line
high-pressure
missile system



The fastest and safest way to swap pumps

TechnipFMC's patent pending QuickSwap™ System is the next generation of the iComplete™ SuperFrac™, purpose-built for pump swaps with flexibles. This is a pre-rig-in system that eliminates the need for all lifting devices. Our pressure pumper agnostic design allows for quick, user-friendly disconnection and reconnection of any supplier horsepower while eliminating flow iron and hammer unions.

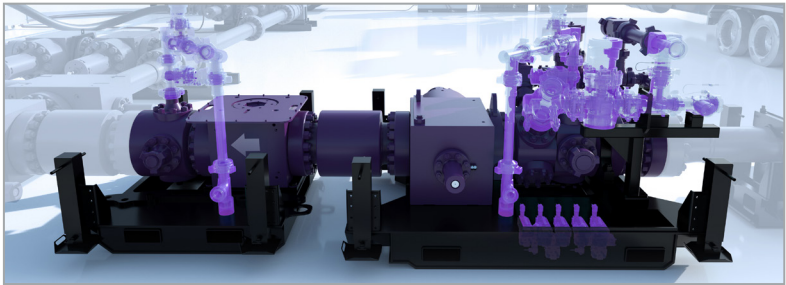
Ready to rig up on location, our QuickSwap™ System is easily configured to fit any frac pad design.

It prevents external damage and overstressed conditions of your flexibles. As an added feature, the support structure acts as an external protector during shipping and service. The SuperFrac™ QuickSwap™ System helps reduce maintenance and transition time, thus lowering total cost of ownership and improving pad and pump economics.

System specifications: API 17J and 17K, 2" or 3"-15k psi flexible; Up to 21 BPM; C-hub clamp connections; TSi+ C-hub swivel option; traditional and simultaneous frac operations.

Large bore check valve system

A 90% reduction in connections, reducing flowline maintenance and management costs



TechnipFMC's proven iComplete™ SuperFrac™ Large Bore Check Valve System is a modular, single-line, high-pressure hydraulic fracturing check valve with superior low-pressure sealing capabilities. Ready to rig up on location, our SuperFrac™ Large Bore Check Valve System reduces iron connections and is easily configured to fit your frac pad design.

The system includes 7-inch, 15K API flanges, enabling flanges, enabling a full bore, single-line design to the zipper manifold and trees. The iComplete™ SuperFrac™ Large Bore Check Valve System eliminates NPT and reduces time on the pad while lowering total cost of ownership.

Check Valve specifications

API studded connection; 15k; 120 BPM rated; proprietary sealing technology; multiple upstream and downstream accessible ports.

System options

Large bore gate valve; pressure relief valve; utility skid; hydraulic controls; greasing; CyberFrac™



Increased Speed

- ▶ Only one connection per pump and no iron movement
- ▶ Enables continuous frac and automation



No lifting devices

- ▶ Pre-rig-in design
- ▶ No lifting devices needed for pump transitions



Safer

- ▶ Eliminates lifting and handling tools
- ▶ Eliminates winged unions and flow iron



Cost savings

- ▶ Set it and forget it- no critical path intervention required
- ▶ Eliminate flowline maintenance and management
- ▶ Fewer iron connections



Operational efficiency

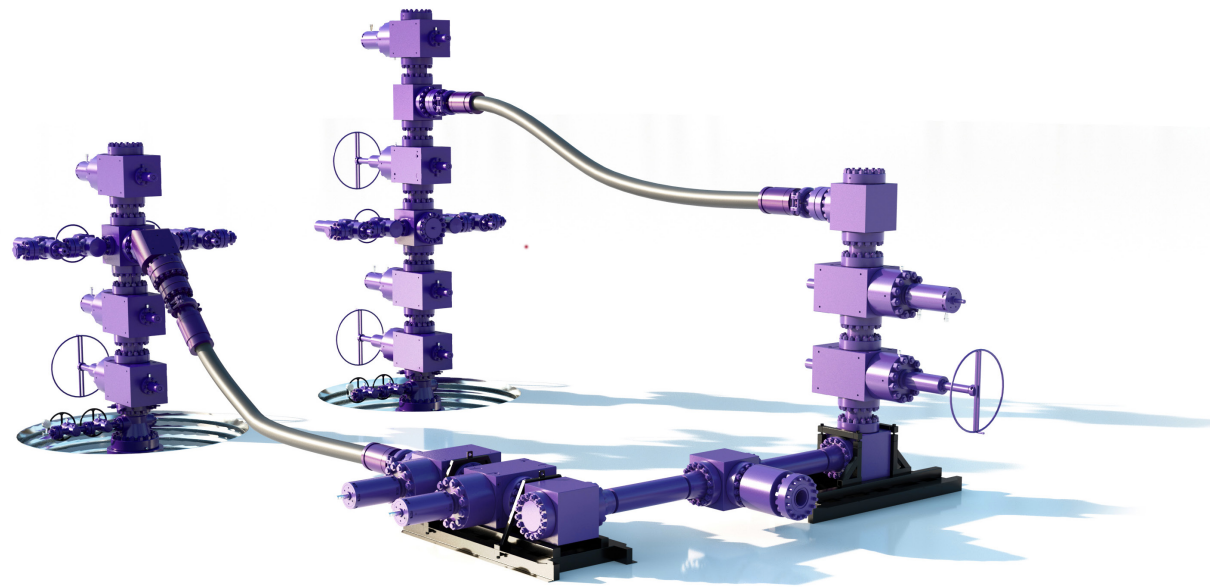
- ▶ Ready onsite for fast rig up
- ▶ Easier pad-to-pad transitions
- ▶ 120 barrels a minute, 500+ stages without rebuild



Modular

- ▶ Fit-for-purpose hydraulic fracturing operations
- ▶ Customizable to location and specific frac needs
- ▶ Single-line system

Tree and Manifold Systems



Any pump rate. Any pressure. Anywhere.

As a pioneer in the unconventional shale market since 2004, TechnipFMC's iComplete™ Tree and Manifold System is tailor-made for complete full-bore delivery through a rigid system or WellFlex™ solution. Our flexible modular system is delivered, installed and connected to multiple frac trees before the pumping crew arrives. The manifold isolates each well to safely allow simultaneous operations (SIMOPs).

Horizontal System

Developed directly through a customer partnership, the Horizontal System delivers additional safety and efficiency benefits by lowering the overall height. This ground level system is an essential tool for unconventional operators who use SIMOPs to reduce development costs.



Reliable

- ▶ 99% valve reliability, especially when coupled with iComplete™ products
- ▶ Erosion resistant with proprietary technology
- ▶ Robust maintenance intervals



Modular

- ▶ Manual to hydraulic operation without retest
- ▶ Multiple vertical and horizontal configurations
- ▶ Continuous pumping on multi-well stimulation



Streamlines

- ▶ Simplified and organized frac spread
- ▶ Safer installation and operation
- ▶ Fewer connections

Vertical System

The Vertical System offers you time savings and pumping efficiencies while stimulating multiple wells on a single pad. The vertical system configuration not only allows you to frac more stages per day, but also provides you with a cost-effective compact footprint

System specifications: Multi-well pad stimulations; designed and maintained in accordance with API 6A guidelines





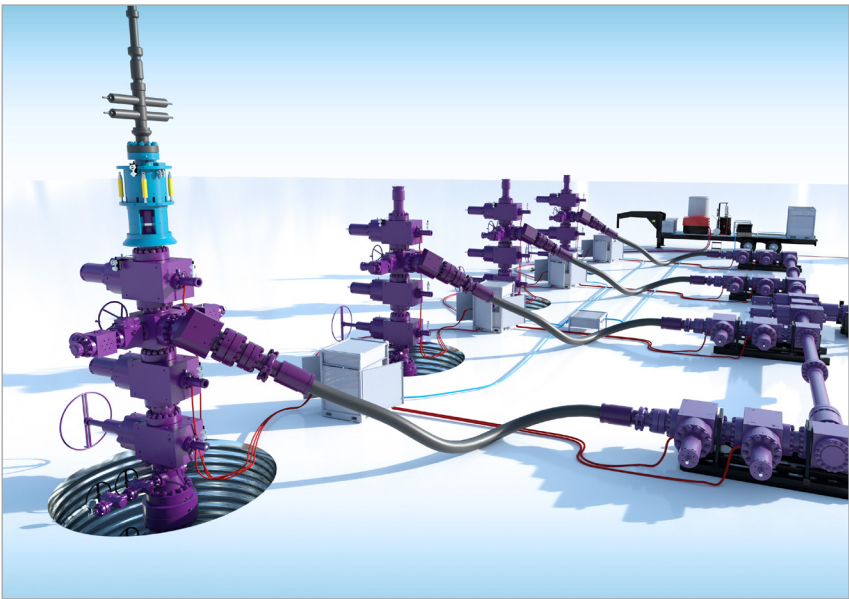
SAFlex™ - WellFlex™

80% fewer connections, leading to 50% faster rig up and eliminating iron management

WellFlex™ is the mid-to-large bore sizes of our iComplete™ SAFlex™ onshore flexibles portfolio. WellFlex™ flowlines deliver higher flow rates, improving slurry delivery and reducing operational costs and downtime. WellFlex™ enhances completion project economics with two simple connections, eliminating several iron connections between the missiles, manifolds and trees. With industry best clamp connections, WellFlex™ offers flexibility in rig ups and significantly reduces rig-up time.

System features

4-inch , 5-inch and 5.5-inch 15,000 psi, robust end fitting with proprietary sealing technology, armor sheathing, visual inspection for wear, market leader in weight per foot.



SAFlex™ Portfolio	4" WellFlex	5" WellFlex	5.5" WellFlex
Length	24 ft	25 ft	25 ft
Flowrate (max)	60 bpm	110 bpm	135 bpm
End Connections	4in-15K FLG	Clamp (5-Hub)	Clamp (5.5-Hub)
MBR (in service)	3.5 ft	4.5 ft	4.5 ft
Pressure - Design	15.0 ksi	15.0 ksi	15.0 ksi
Weight (empty)	58.3 lbs/ft	67.3 lbs/ft	72.0 lbs/ft



Durable

- ▶ Erosion and corrosion resistant liners
- ▶ High flow rate flexibles that lock in place while pressurized
- ▶ Dissipation of pump cavitation and system vibration



Faster

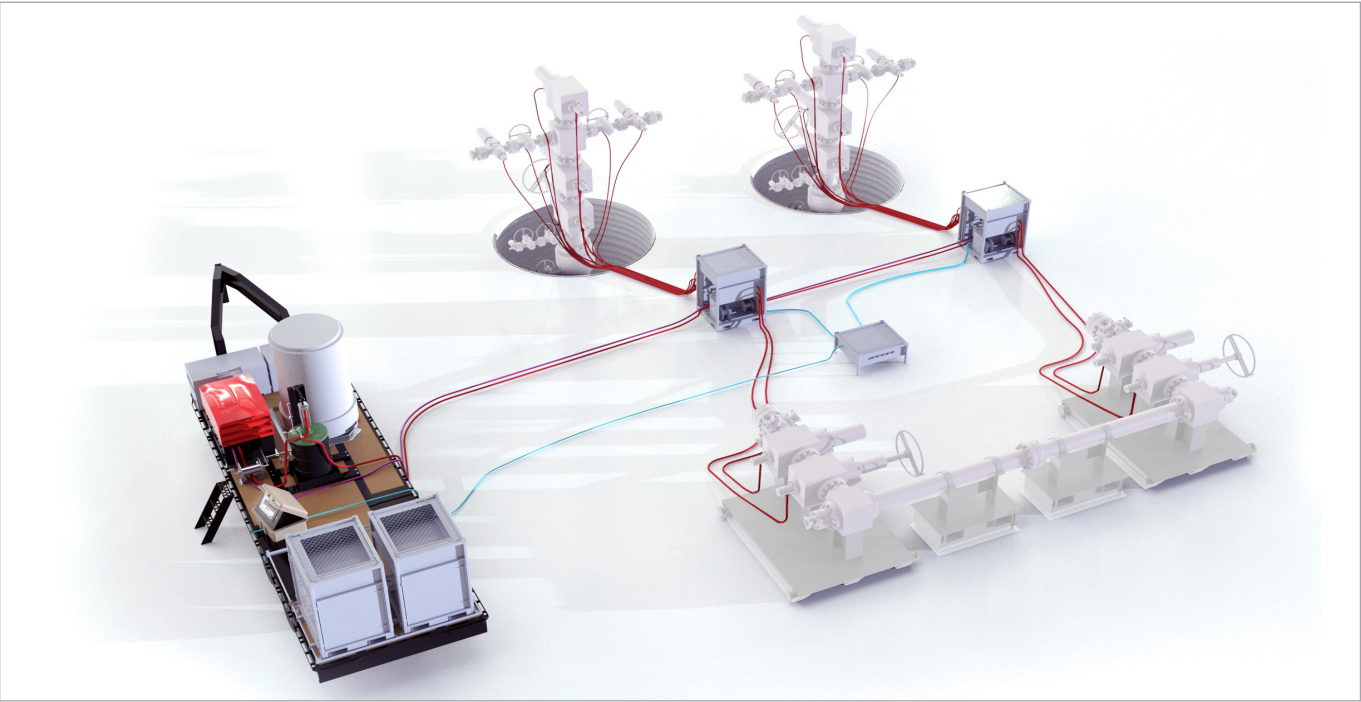
- ▶ Faster rig ups by reducing connections and multiple lifts
- ▶ Hammer union removal
- ▶ Improved flow rates



Flexible

- ▶ Improves missile and zipper placement
- ▶ Facilitates proper connection makeup
- ▶ Removes fatigue

Auto Greasing System



Grease on demand

TechnipFMC’s Auto Greasing System eliminates costly manual greasing operations and red zone exposure, allows faster transition time between stages and takes greasing operations out of the critical path. Our Auto Greasing System is easily scalable and can accommodate any pad configuration. This digital system comes standard with real-time data logging, system safeguards, manual overrides, dual stack lubrication and HMI or smart device operation.



Operational efficiency

- ▶ Reduced NPT
- ▶ Faster transition means extra frac stages per day
- ▶ 75% reduction in greasing time
- ▶ Compact footprint
- ▶ Manual override
- ▶ Dual stack lubrication



Cost reductions

- ▶ 10 – 15% less grease per job
- ▶ Operated by single technician



Remote operations

- ▶ No red zone exposure
- ▶ Real-time data log
- ▶ HMI with smart device interface
- ▶ Direct integration with TechnipFMC’s full CyberFrac™

Speedloc™-XT

Fast track to first oil and the next pad, while preventing both overpressurizing and cutting wireline equipment during completions

TechnipFMC’s Speedloc™-XT system is a fully digitized, hydraulic connector to remotely and safely connect and disconnect wireline pressure control equipment from the frac tree during wireline and coil tubing operations.

The Speedloc™-XT system was developed from field proven subsea technology to eliminate manual operations, while improving focus on safety, operational efficiency and predictability. Manual intervention is prone to errors, leading to delays; automation will improve reliability, saving time and money.

System specifications:

5"-15,000 psi, integrated smart system providing controls, lockouts, system health monitoring, connector and valve position verification, system seal verification, wireless and wired option

CyberFrac™

- ▶ CyberFrac™ - Integrated smart connector/frac tree control system
- ▶ Data sensing and logging:
 - Pressure: frac tree, XTconnector, HPU
 - Position: XTconnector, frac valves
 - XT connector lock/unlock verification
 - Alerts
 - Interlocks



Technology safeguards

- ▶ Prevents cutting wireline
- ▶ Technological safeguards with CyberFrac™ smart digital system



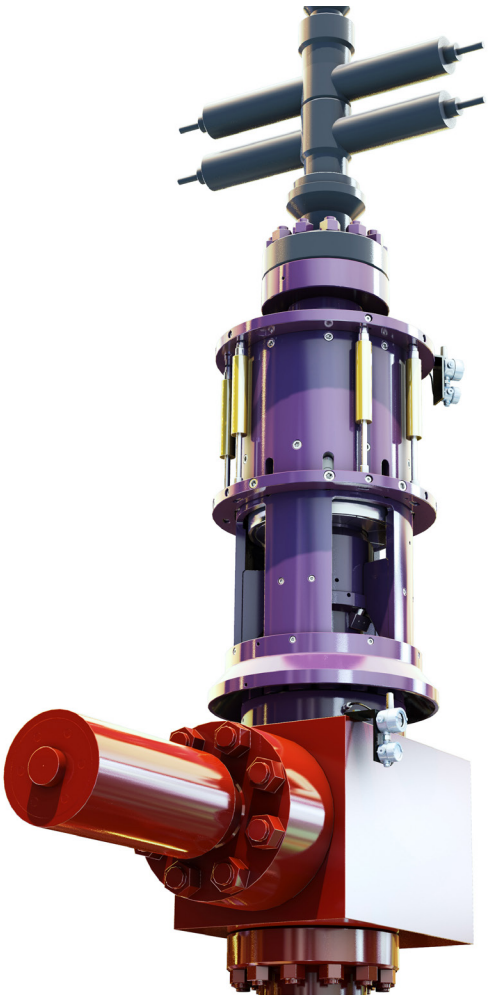
Follow process

- ▶ Process compliance: software reflects SOP and guides operations
- ▶ Digital Handshake™: creates accountability, predictability, and efficiency

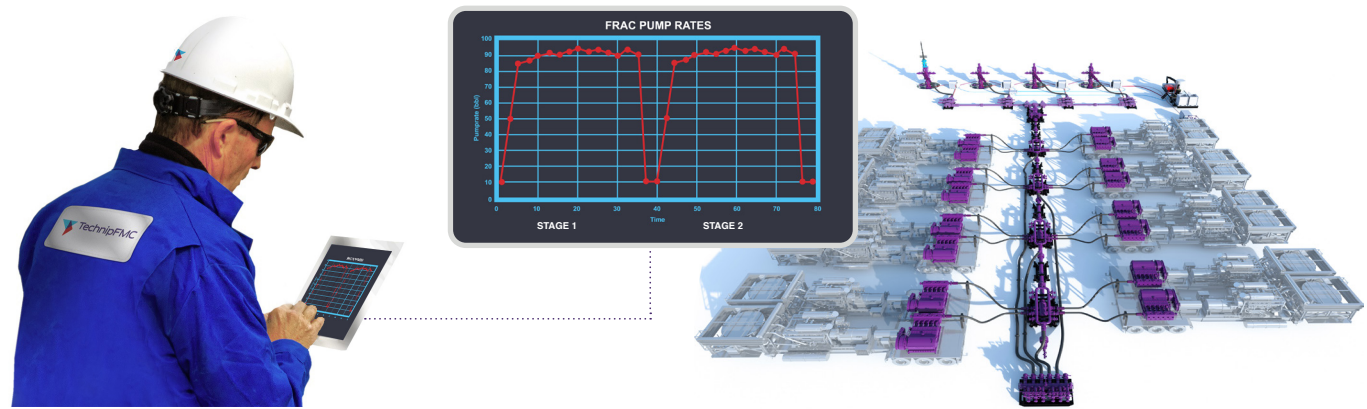


Safer

- ▶ Removes personnel from red zone
- ▶ Prevents system overpressurization and inadvertent valve operation



CyberFrac™



Apps, Automation and Predictability

TechnipFMC's iComplete™ CyberFrac™ system is a fully digital and automated platform for controlling equipment operations during hydraulic fracturing through app-based configurability. Our system enables well site managers and their teams to follow approved procedures and establish sitewide operational awareness through the Digital Handshake™ while reducing manual errors.

Our applications based platform provides versatility that allows flexibility for all frac pad requirements. Our system is highly configurable and cloud accessible with back-end integration.

Applications currently available in TechnipFMC's CyberFrac™ platform:

▶ Continuous Pumping	▶ Simul-Frac
▶ Dual Wireline	▶ Offset Well Monitoring
▶ Frac Planner	▶ Insite Edge (universal mobile)
▶ Valve Sequencer	▶ Valve Health Monitor
▶ Auto Transition	
▶ Remote Approval	



De-risk

- ▶ Prevent wireline cutting
- ▶ Eliminate red zone activity
- ▶ System health checks
- ▶ Enhance human performance



Digitize

- ▶ Process compliance software: Reflects SOP and guides operations
- ▶ Digital Handshake™: Creates accountability, predictability and efficiency
- ▶ Configurable: Easily fits your frac pad design
- ▶ HMI: smart device enabled



Command

- ▶ Enable remote operations
- ▶ Maximize pump time
- ▶ Reduce labor
- ▶ Log data real time

FracWatch

TechnipFMC's FracWatch services put customers first by providing full-scope support from fluid end to casing. Our field service technicians are highly skilled and proficient in all services, ensuring your automated pad runs smoothly with no risk or worry.

Service and support:

- ▶ Automation and digitalization – Optimum performance and operational efficiency backed by virtual support
- ▶ Engineering support – Predictive performance modeling, 3D and flexible dynamic analysis software
- ▶ One job ticket - Simplicity and peace of mind of one pad, one supplier and one invoice



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