

# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVES



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## WATER INJECTION VALVES

The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
2.75"



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## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 2.75" RN lock mandrel and to be set on wireline within a 2.75" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV2750010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	2.65"
Length	TBA
Flow Area	1.9 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	2.109" - 11.5" National Threads

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
3.313"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 3.313" RN lock mandrel and to be set on wireline within a 3.313" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV3313010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	3.313"
Length	TBA
Flow Area	3.55 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	2-1/4" - 12 TPI Stub Acme Box

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
3.437"



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## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 3.437" RN lock mandrel and to be set on wireline within a 3.437" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV3437010
Service	HS, Sour Service, CO2
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	3.43"
Length	TBA
Flow Area	2.86 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	2-3/4" - 12 SLB Box

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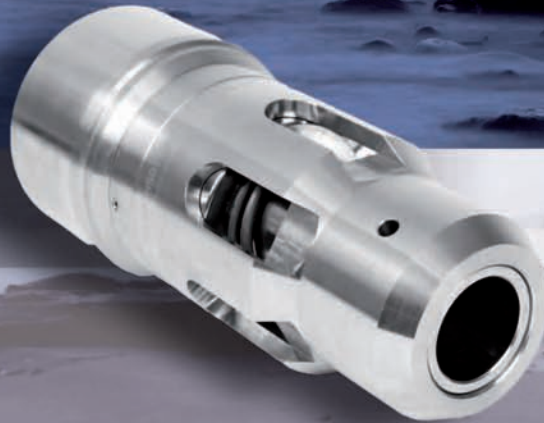
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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
3.688"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 3.688" RN lock mandrel and to be set on wireline within a 3.688" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV3688010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	3.68"
Length	TBA
Flow Area	3.7 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	3-1/16" - 12 TPI Stub Acme Box

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
4.313"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 4.313" RN lock mandrel and to be set on wireline within a 4.313" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV4313010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	4.31"
Length	TBA
Flow Area	4.5 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	3-1/16" - 12 TPI Stub Acme Box

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
4.437"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 4.437" RN lock mandrel and to be set on wireline within a 4.437" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV4437010
Service	CO2
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	4.43"
Length	TBA
Flow Area	4.5 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25 - 125°C
Upper Thread	3-5/8" - 12 slb box
Used With	4.43" RN lock mandrel

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
4.61"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 4.61" RN lock mandrel and to be set on wireline within a 4.61" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV4610010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	4.61"
Length	TBA
Flow Area	6.31 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	2.109" - 11.5" National Threads

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# PETROLEUM TECHNOLOGY COMPANY

The Artificial Lift Company

WI VALVE  
5.72"



[www.ptc.as](http://www.ptc.as)

## WATER INJECTION VALVES

This Water Injection valve is designed to be run below a 5.72" RN lock mandrel and to be set on wireline within a 5.72" RN landing nipple mounted in the tail pipe of the tubing string. The water injection valves are typically run with a RN lock or a WL installed packer.

Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring. The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat.

The resilient seal creates a low pressure seal. At higher pressure the valve contacts the bottom face of the top sub creating a metal-to-metal seal. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing. Water injected through the tubing enters the water injection valve and acts on the valve forcing it downwards by compressing the spring.

The water bypasses the valve and exits through the six milled slots in the housing before passing into the reservoir. When injection is stopped the compressed spring pushes the valve back upwards until it contacts the resilient seal and top sub seat. The resilient seal creates a low pressure seal. At higher pressures the valve contacts the bottom face of the top sub creating a metal-to-metal seal.

The valve is manufactured from a very tough stainless steel that is resistant to corrosion and erosion and typically used for this application. The water injection valve can be retrieved at any time by pulling the lock mandrel on wireline or coil tubing.

Description	Water Injection Valve
Assembly Number	805WIV5720010
Service	HS, Sour Service, CO <sub>2</sub>
Material	K-500 Monel/ S165M
Yield Strength	100 000 PSI
Maximum OD	5.72"
Length	TBA
Flow Area	8.14 inches <sup>2</sup>
Pressure Rating	5 000 PSI
Temperature Rating	25°C - 125°C
Upper Thread	PTC Stub Acme special with O-Ring
Used With	3-15/16" - 12 OTIS SBL-RPT Box

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