

# Carbon Dioxide Injection Valve

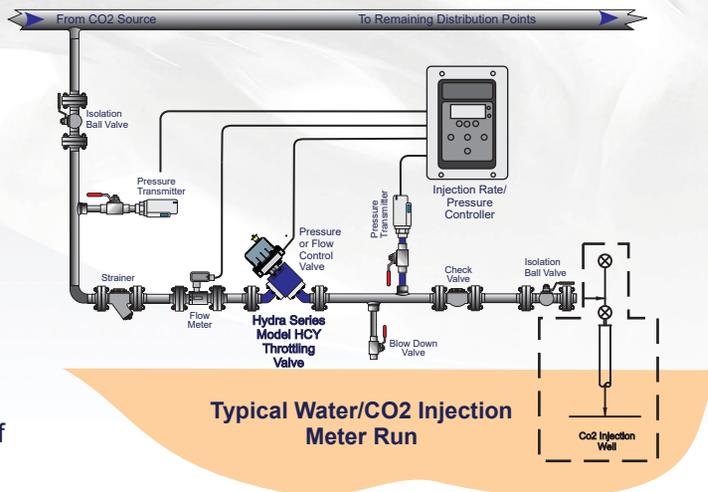
Carbon dioxide (CO2) injection is one of the primary methods of enhanced oil recovery (EOR) that are used to extract oil from mature reservoirs.

## How CO2 Injection Works

Typically, reservoirs that have been producing oil for a long period of time have a lower capacity to produce oil due to the decline in natural pressure and the accumulation of water in the reservoir. The CO2 injection process involves injecting carbon dioxide into a reservoir to increase the pressure and drive more oil into the production well. CO2 is a good choice for this purpose because it is cheap, readily available, and miscible with oil, meaning it can dissolve in oil and mixes with it easily.

There are several ways in which CO2 injection can be used to enhance oil recovery. One method is to use it as a "miscible flood," where the CO2 is injected into the reservoir and mixes with the oil to create a more mobile and easier-to-extract mixture. Another method is to use it as a "gravity override," where the CO2 is injected into the reservoir to help displace the oil and drive it towards the production well.

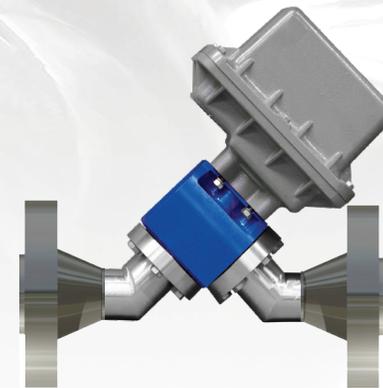
Overall, the goal of CO2 injection in the oil industry is to increase the amount of oil that can be recovered from a reservoir, which can help extend the life of the reservoir and potentially increase the profitability of the oil field.



## Benefits of installing a Hydroplex Valve

- **Precise Control** with "Direct Mount" Actuation, no brackets, linkage or adapters
- Superior **Resolution and Accuracy** with 90 Degree Rotary Twin Disc trim
- **High Repeatability Rate** maintains unparalleled control in applications
- **Twin Disc Design** separates control and sealing surfaces for longer useful life
- **Robust Stem and Seal** design integration provides for hundreds of thousands of cycles
- Solid **Tungsten Carbide Trim** minimizes seal and control surface wear
- **Longest Mean Time Between Service** with Stainless Steel internals
- **MultiStage Pressure Drop** to reduce potential of erosion

## HYDROPLEX HCY



Hydroplex HCY  
with Direct  
Mount Actuator

### MAJOR COMPONENTS

1. Body, Stainless Steel
2. Hub Assembly
3. Wear sleeve
4. Fixed Bean
5. Control Discs
6. Stem assembly
7. Adjusting Handle
8. Calibration Plate

