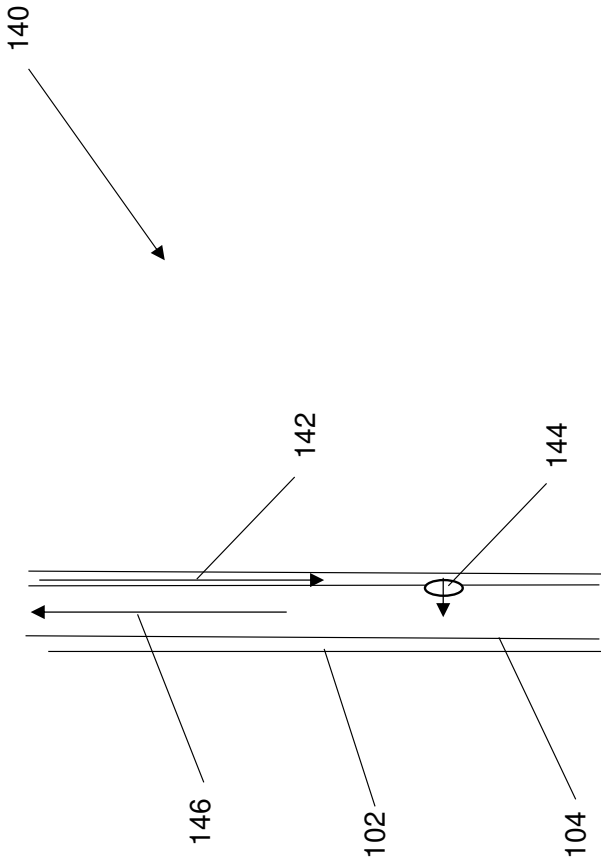


Figure 1

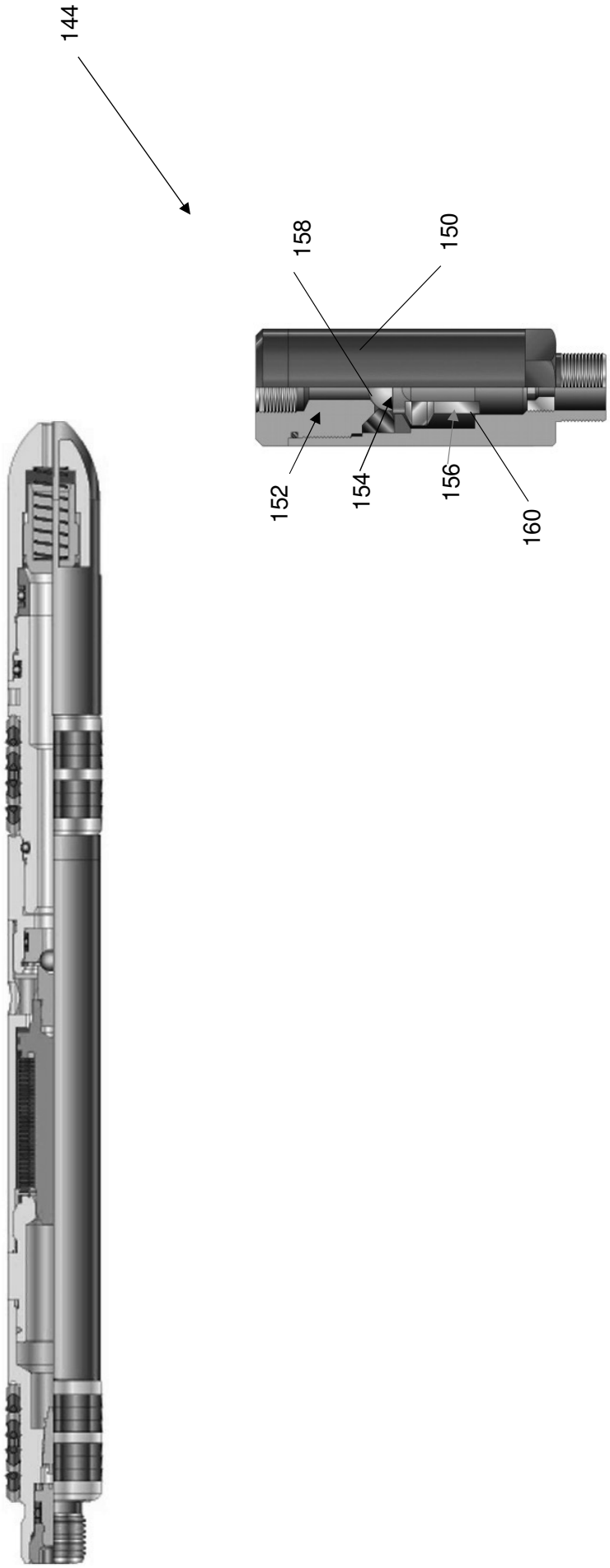


Figure 2

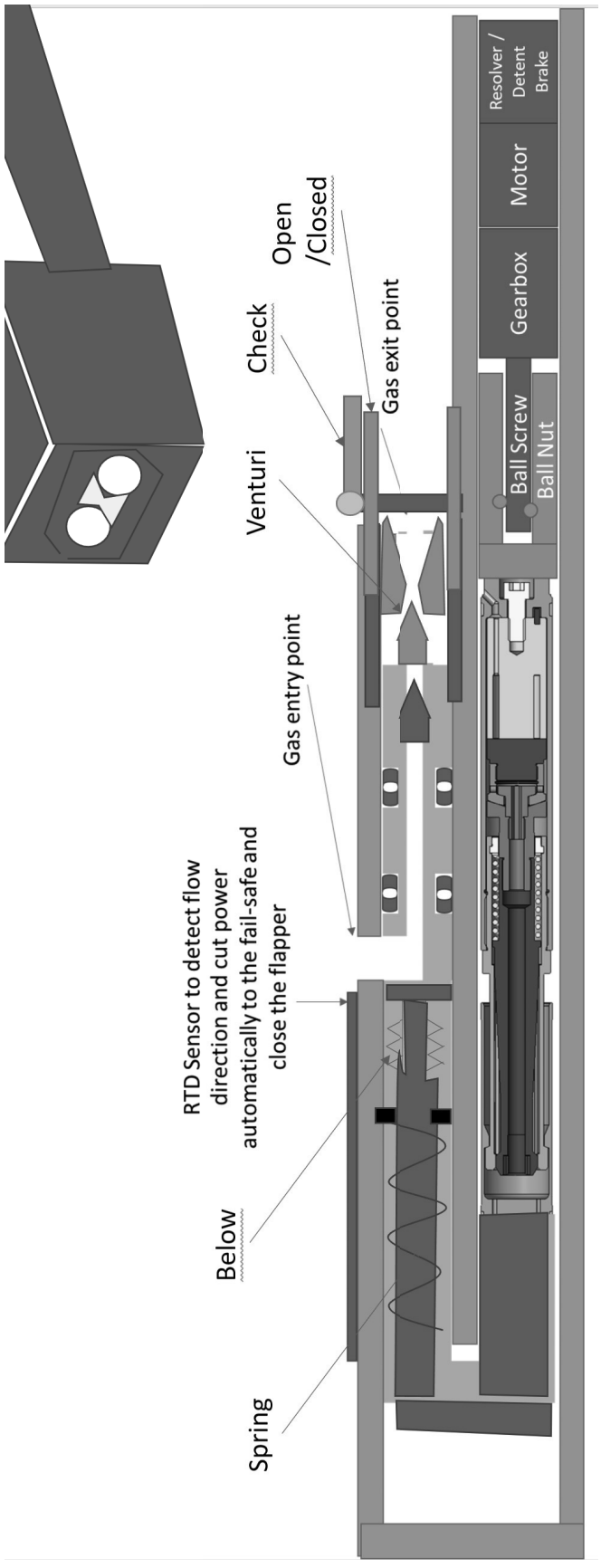

Resolver / Detent Brake
Motor
Gearbox
Ball Screw
Ball Nut
Open /Closed
Check
Gas exit point
Venturi
Gas entry point
RTD Sensor to detect flow direction and cut power automatically to the fail-safe and close the flapper
Below
Spring

Figure 3

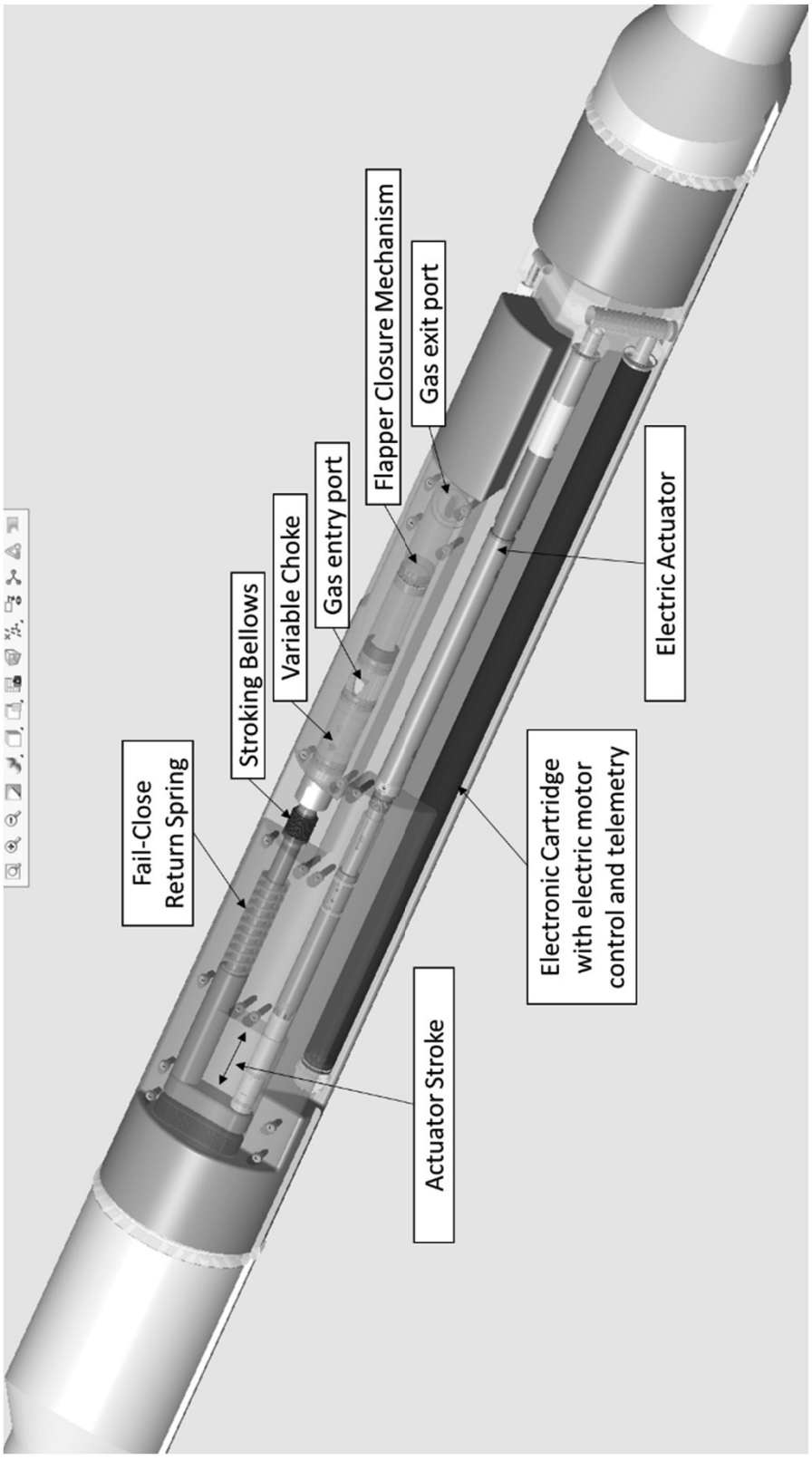

Fail-Close
Return Spring
Stroking Bellows
Variable Choke
Gas entry port
Flapper Closure Mechanism
Gas exit port
Electric Actuator
Electronic Cartridge
with electric motor
control and telemetry
Actuator Stroke

Figure 4

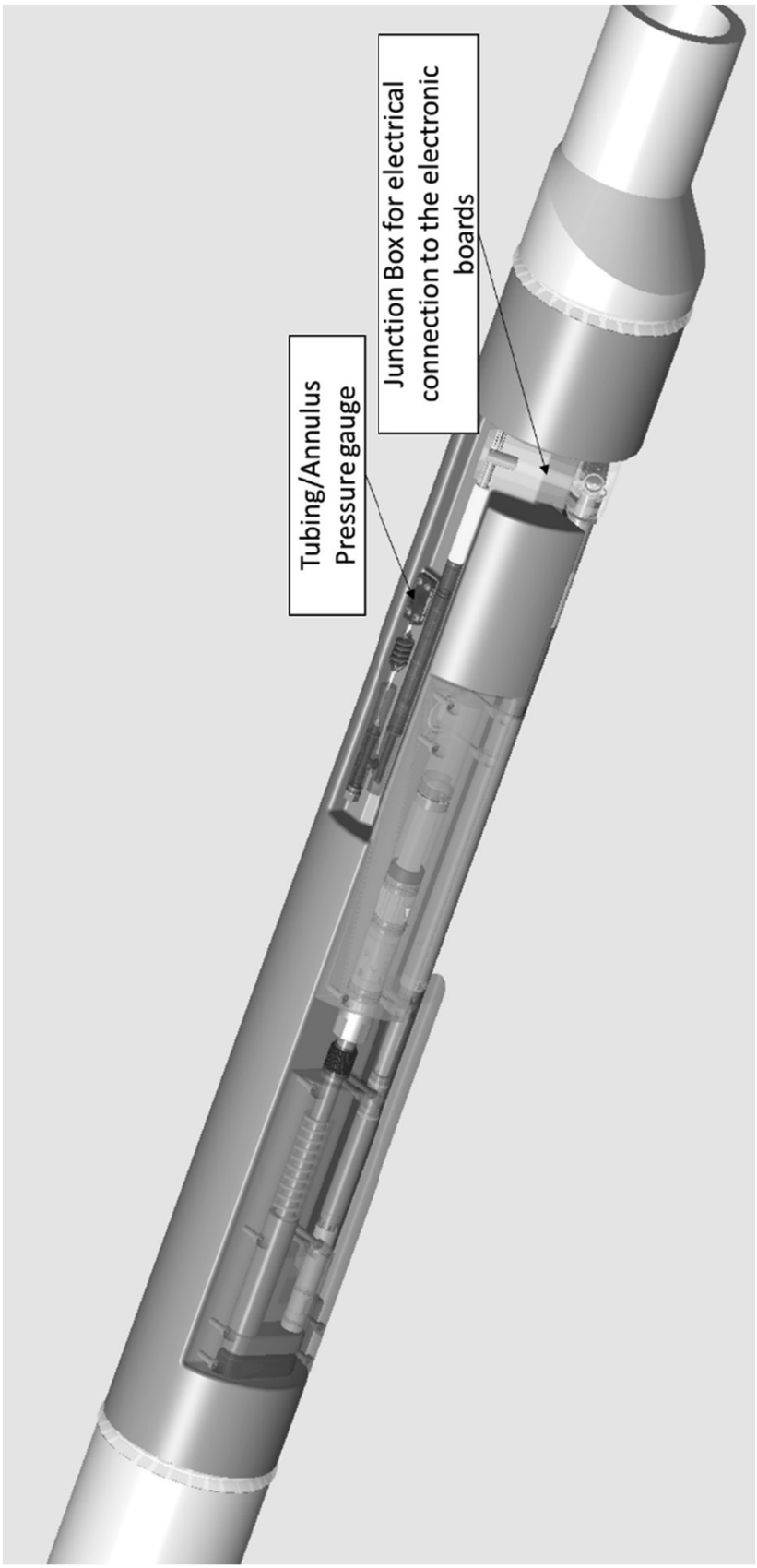

Junction Box for electrical connection to the electronic boards
Tubing/Annulus Pressure gauge

Figure 5

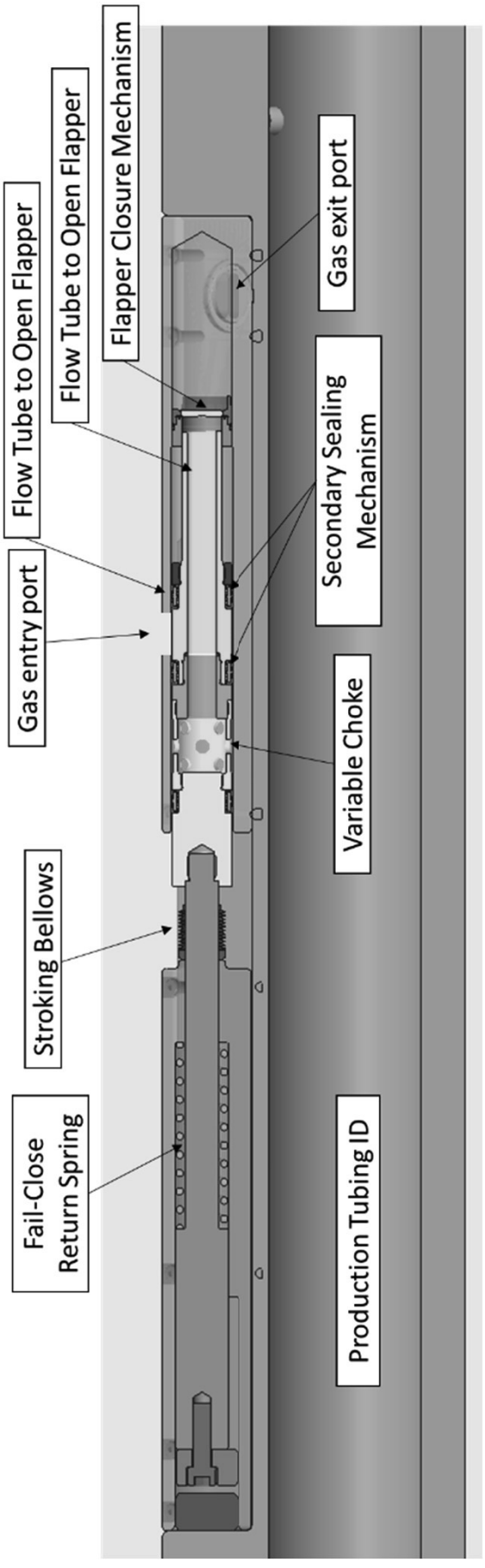

Flapper Closure Mechanism
Flow Tube to Open Flapper
Flow Tube to Open Flapper
Gas exit port
Secondary Sealing Mechanism
Gas entry port
Variable Choke
Stroking Bellows
Fail-Close Return Spring
Production Tubing ID

Figure 6

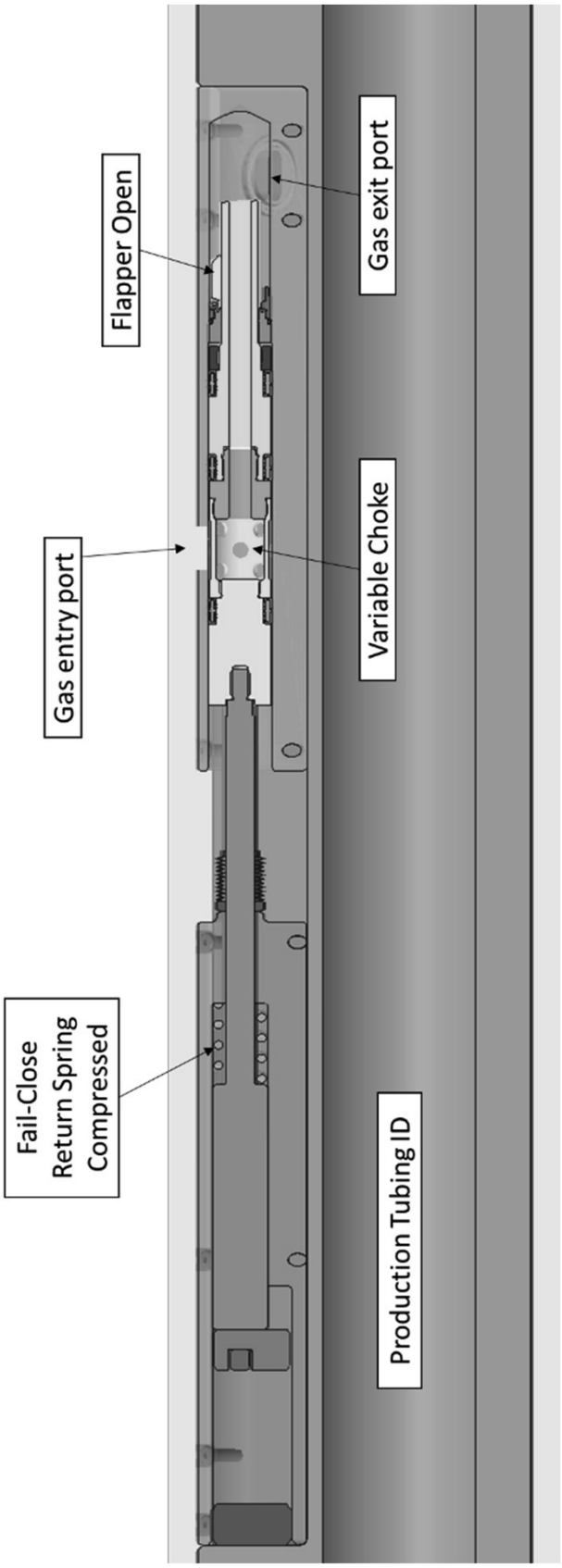

Flapper Open
Gas exit port
Gas entry port
Variable Choke
Fail-Close
Return Spring
Compressed
Production Tubing ID

Figure 7

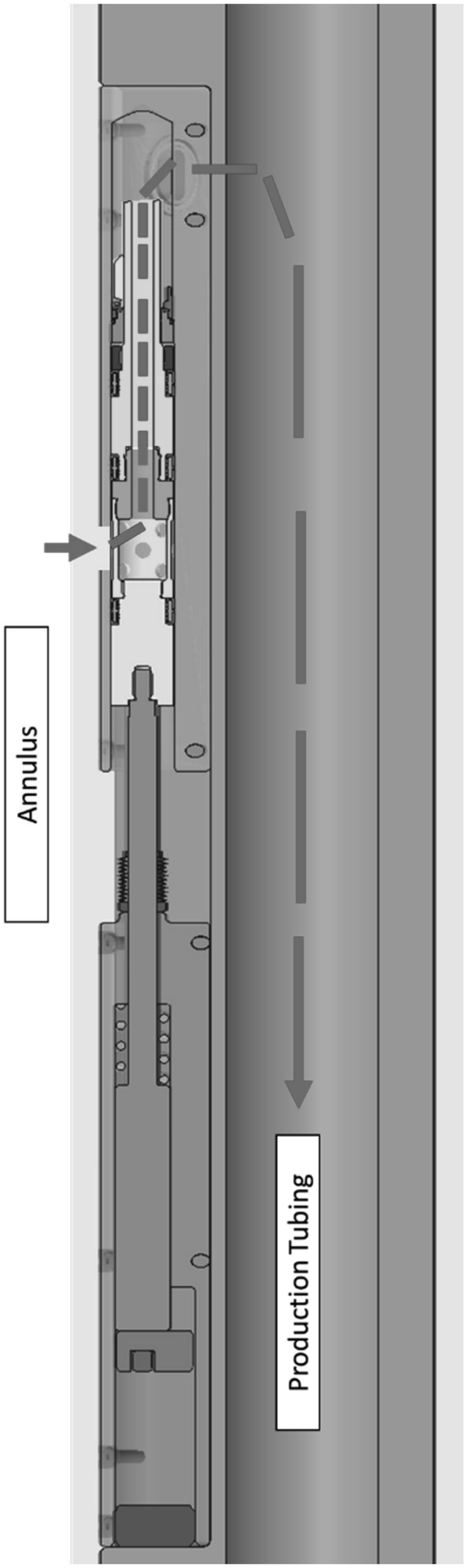


Figure 8

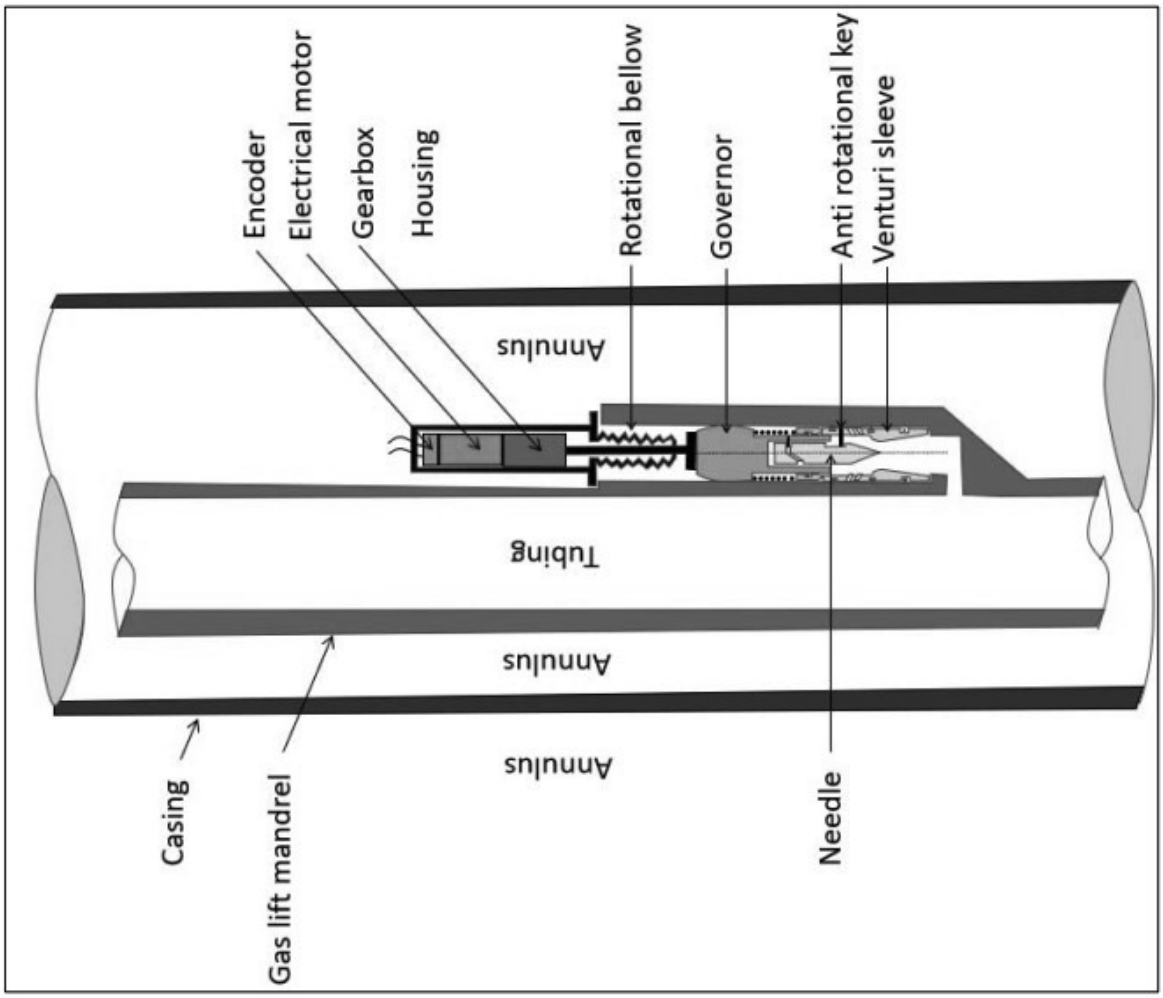

Encoder
Electrical motor
Gearbox
Housing
Rotational bellow
Governor
Anti rotational key
Venturi sleeve
Annulus
Tubing
Annulus
Annulus
Casing
Gas lift mandrel
Needle

Figure 9

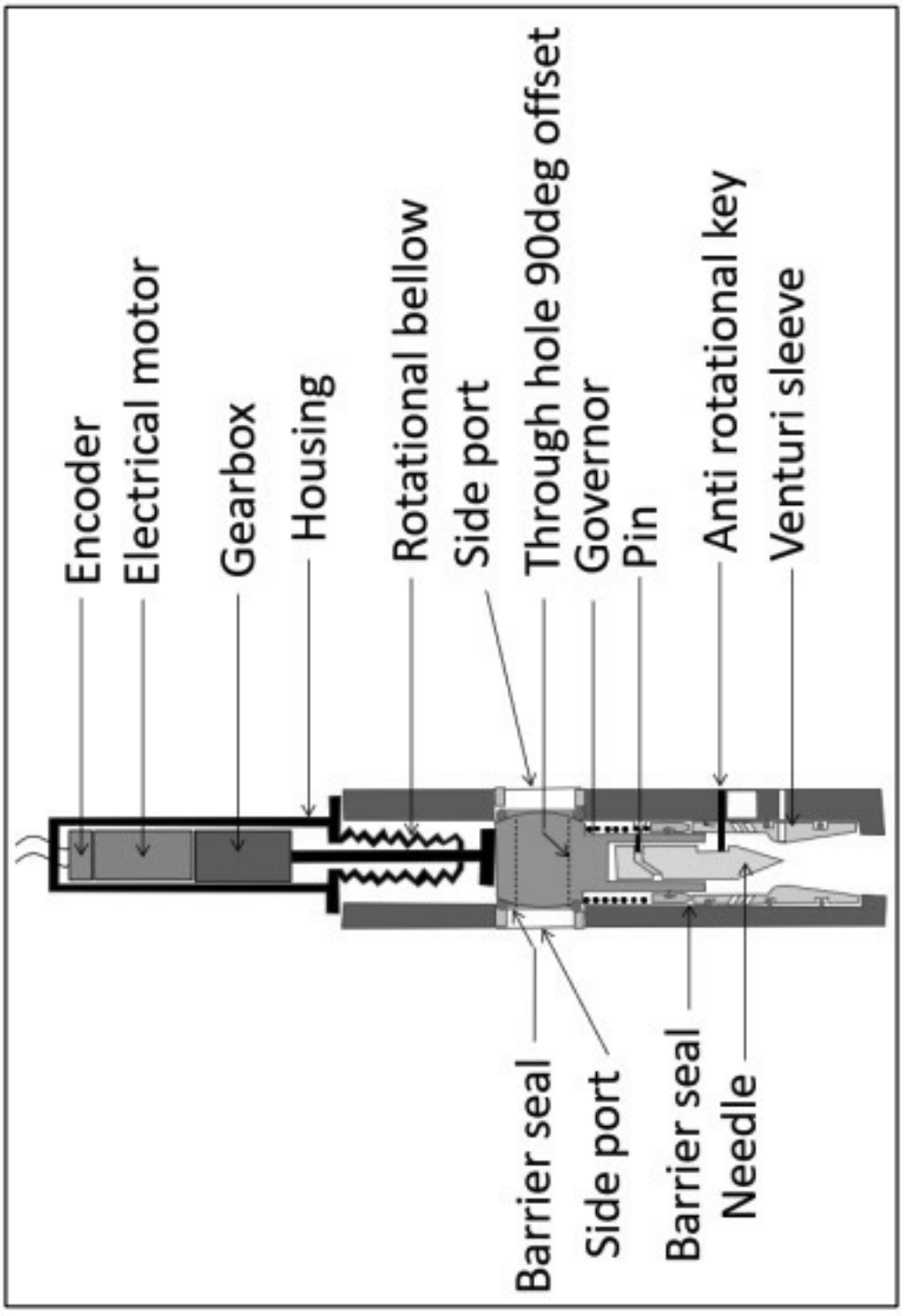

Encoder
Electrical motor
Gearbox
Housing
Rotational bellow
Side port
Through hole 90deg offset
Governor
Pin
Anti rotational key
Venturi sleeve
Barrier seal
Side port
Barrier seal
Needle

Figure 10

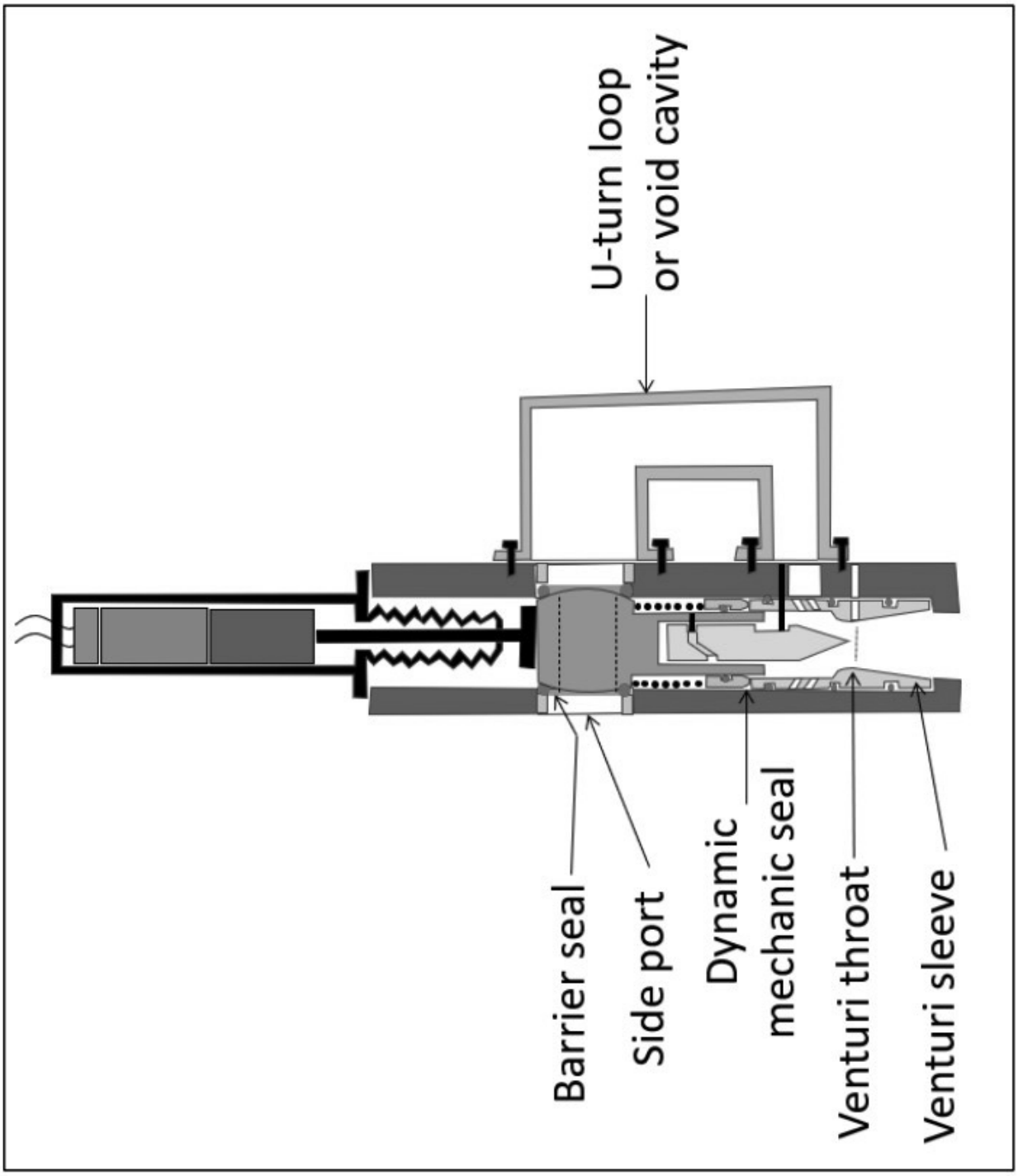

U-turn loop
or void cavity
Barrier seal
Side port
Dynamic
mechanic seal
Venturi throat
Venturi sleeve

Figure 11