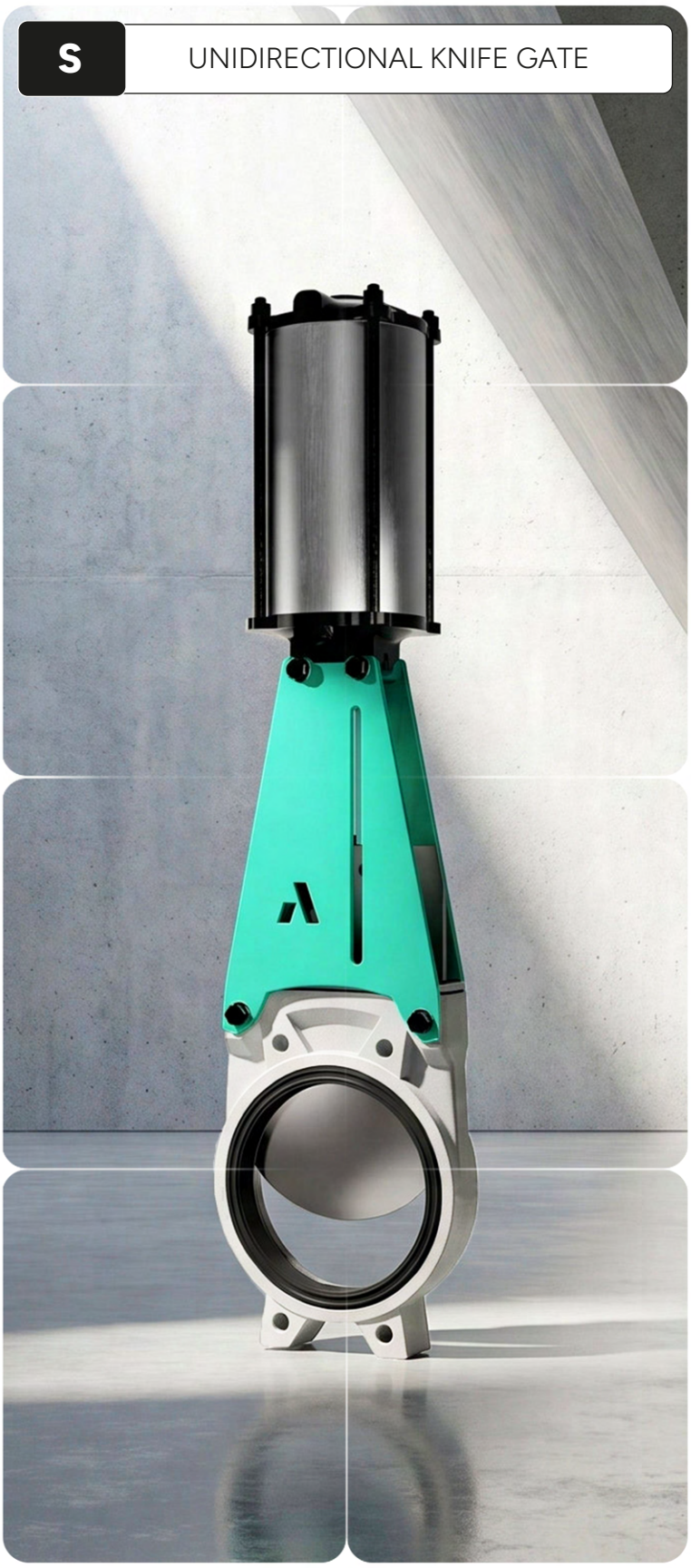
ARNETT VALVES
powered by paravalves

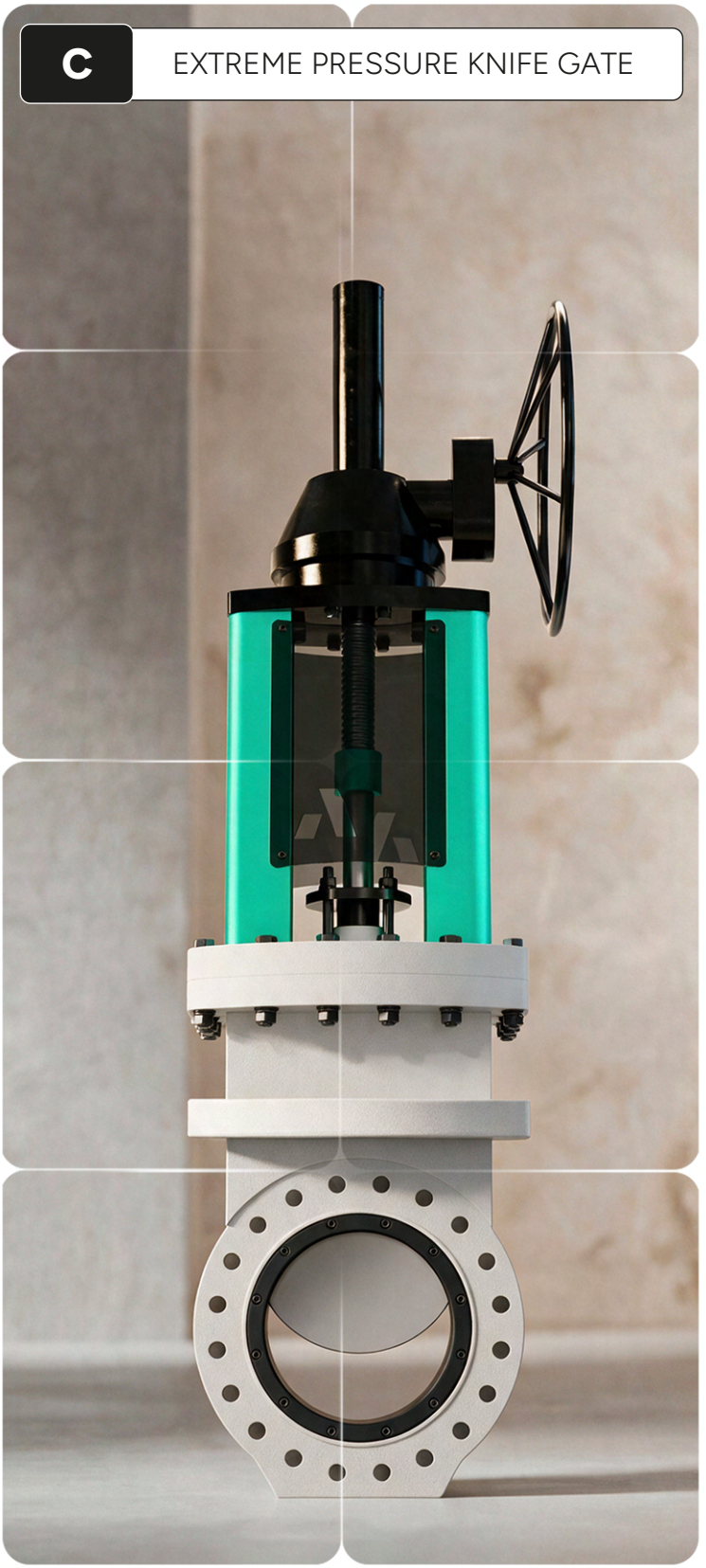
# CORE SERIES

## UNIDIRECTIONAL KNIFE GATE VALVES

**S** UNIDIRECTIONAL KNIFE GATE



**C** EXTREME PRESSURE KNIFE GATE



| MAX PRESSURE | FACE-TO-FACE |
|---|---|
| **1450 PSI** (100 BAR) | **1.7" - 6.1"** (43 to 154 MM) |
| **MAX TEMPERATURE** | **SIZES** |
| **392°F** (200°C) | **2" - 24"** (DN50 - DN600) |

ARNETT VALVES
powered by paravalves

# CORE SERIES

(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## WHAT A REPLACEABLE SEAT DOES

**The Arnett Valve CORE series puts a machined metal seat behind a snap-in soft seat sleeve.**

The metal holds the geometry and the sleeve holds the seal. When the sleeve reaches the end of its life the site crew changes it with the valve in the line.

**EASY FIELD REPLACEABLE SOFT SEAT**
The sleeve snaps out and in on site. The valve stays where it is.

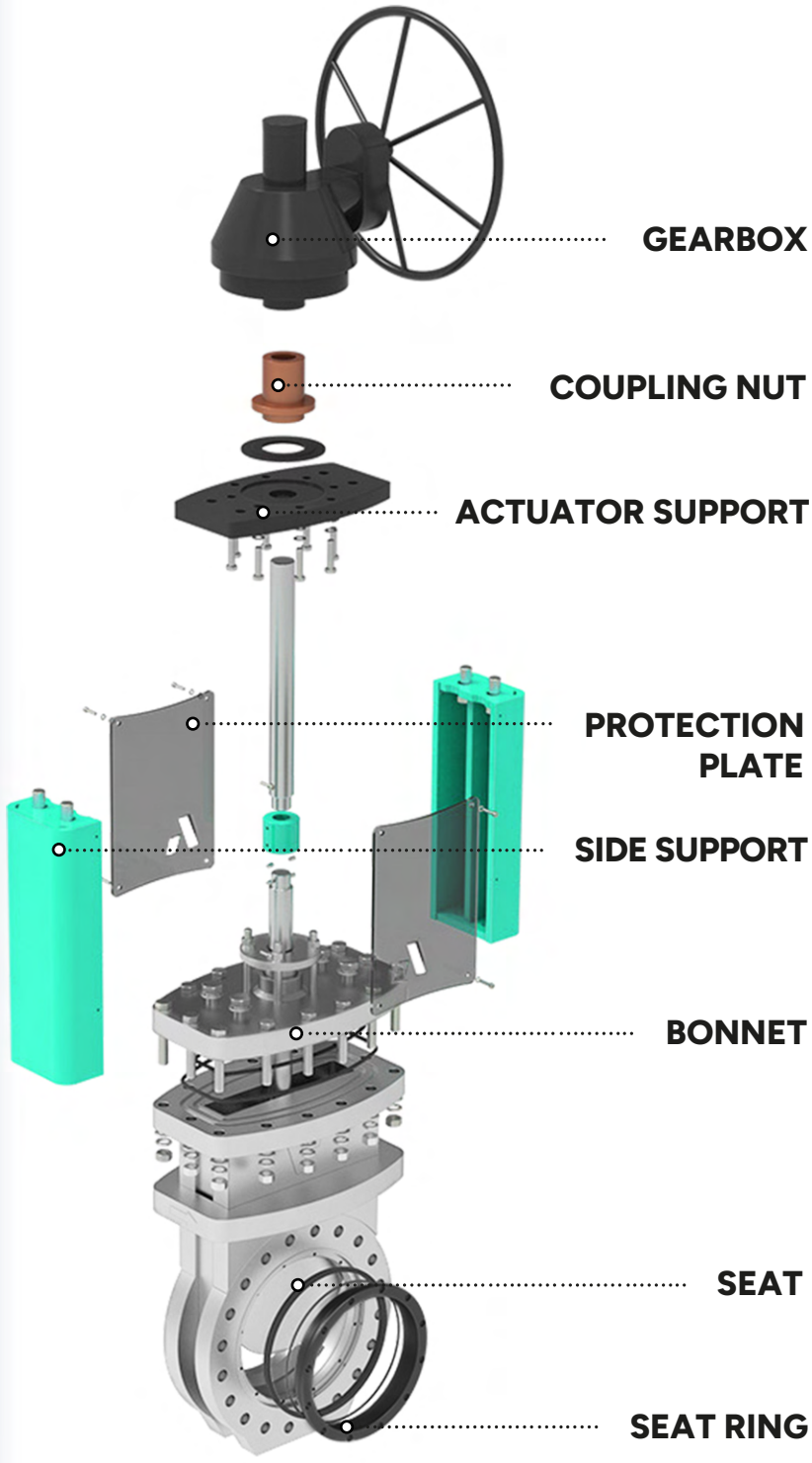
**METAL SEAT PLUS SOFT SEAT**
Two seats in one body. Longer life than either alone.

**MAINTENANCE-FREE TOP MOULDED SEAL**
One moulded seal in place of a packing line. Zero atmospheric leakage.

**THICKEST KNIFE ON THE MARKET**
Machined shear tip. Longer life, firmer shearing, at any pressure.

**CLEAR CONDUIT ON OPEN POSITION**
Open position fully clear. High flow, very low pressure loss.

**INTERCHANGEABLE ACTUATION ON ISO 5210**
Actuators swap with the valve in the line.

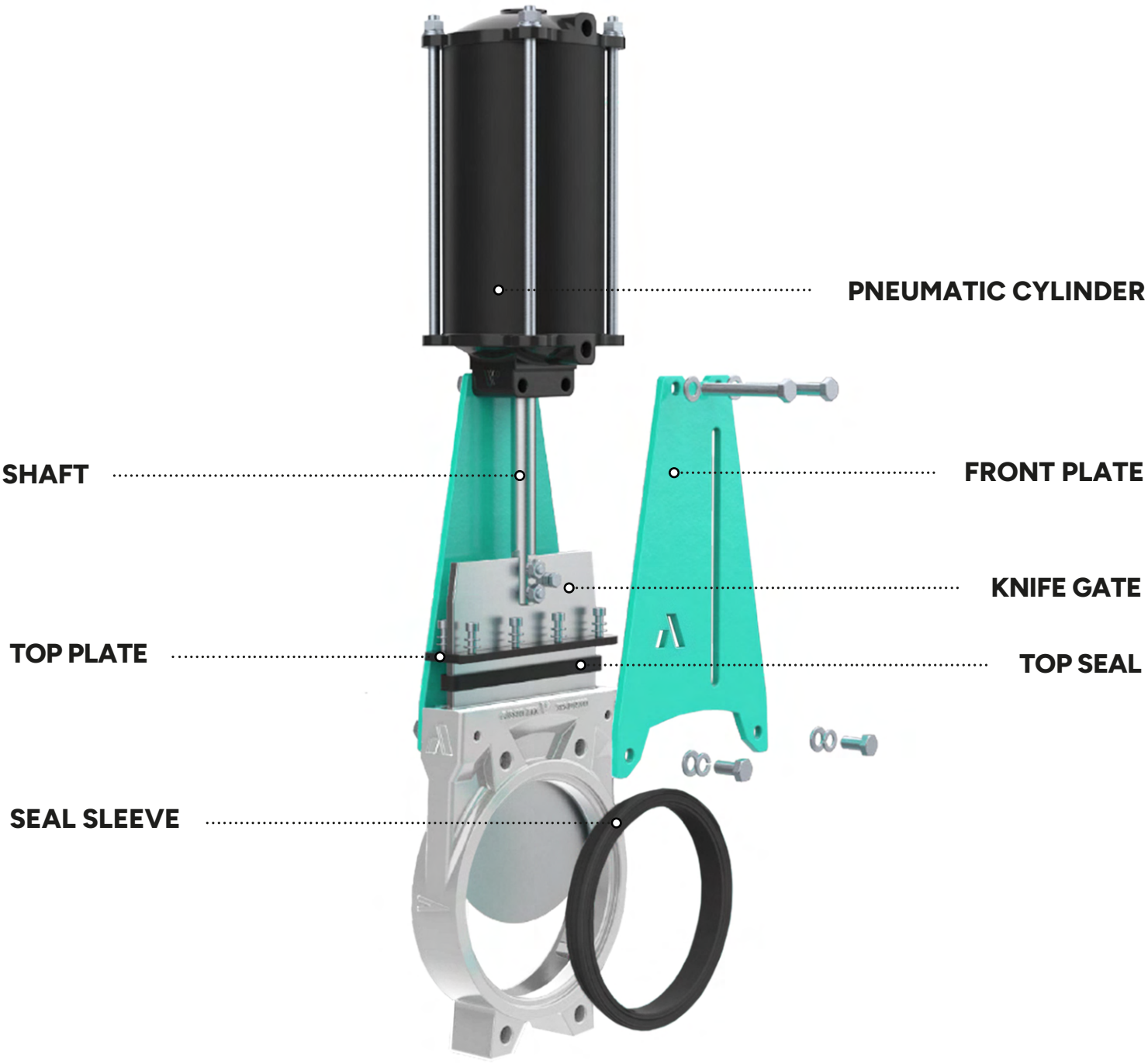


ARNETT VALVES
powered by paravalves

# CORE SERIES

(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## INSIDE CORE SERIES



ARNETT VALVES
powered by paravalves

# CORE SERIES

(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## MATERIAL OPTIONS PER COMPONENT

| Component | Standard | Optional |
|---|---|---|
| **Body** | GJS-500 ductile iron | CF8M (316) |
| **Knife** | SS304 | SS316, Duplex, 17-4 PH |
| **Sleeve** | EPDM | PU, NBR, NR, AFLAS |
| **Front support** | Carbon steel | SS304 |
| **Top moulded seal** | EPDM | PU, NBR, NR, AFLAS |
| **Top plate** | Carbon steel | SS304 |
| **Stem** | SS304 | SS304 |
| **Bridge** | Carbon steel | SS304 |
| **Coupling nut** | Brass | Brass |
| **Friction washer** | Brass | Brass |
| **Handwheel** | Iron | Iron |
| **Protection tube** | Carbon steel | Carbon steel |
| **Blind cup** | PVC | PVC |

*Epoxy coating on carbon steel components. Special materials and treatments on request.*

## WORKING TEMPERATURE

**Up to 392°F** (200°C)

## FLANGE DRILLING SUMMARY

| VARIANT | ANSI CLASS | METRIC DRILLING |
|---|---|---|
| **S VALVE** | **Class 150** | **EN 1092 PN10** |
| **C VALVE** | **To the duty** | **To the duty** |

*Flange drillings to most standards.*
*Maximum working pressure does not exceed the rating of the selected flange drilling.*

ARNETT VALVES
powered by paravalves

# CORE SERIES

(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## AVAILABLE ACTUATORS

| Actuator Type | Size range | Power Source |
|---|---|---|
| **Handwheel (direct)** | **Through 24"** (DN600) | Manual |
| **Gearbox** | **Consult Arnett** | Manual |
| **Electric** | **Consult Arnett** | Electric |
| **Pneumatic cylinder** (double-acting) | **Through 24"** (DN600) | Compressed air |
| **Hydraulic cylinder** (double-acting) | **Consult Arnett** | Hydraulic |

*Actuators interchange on a common ISO 5210 pad with the valve in the line.*
*Other actuation options on request.*
*Rising or non-rising stem. On/off service.*

## APPLICATIONS

MINING AND MINERAL PROCESSING

POWER GENERATION

PULP AND PAPER

WATER TREATMENT

ARNETT VALVES
powered by paravalves

# CORE SERIES

(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## S VALVE: UNIDIRECTIONAL KNIFE GATE

**The seat comes out, the valve stays in.**

232 psi (16 bar) to 8" | 2" to 24" | ANSI Class 150 | Unidirectional

### THE SEAT IS A SPARE PART

The snap-in soft seat sleeve is replaced by the site crew with the valve in the line. A worn seat becomes a scheduled task and the valve stays where it is.

### METAL BEHIND THE SOFT SEAT

A fully machined metal seat sits behind the sleeve and holds the geometry, which is what gives the pairing a longer service life than a soft seat alone.

### ONE SEAL IN PLACE OF A PACKING LINE

The moulded top seal closes the gate to the atmosphere, in gas and high pressure water service alike. Maintenance-free by design.

### CHOOSE S VALVE WHEN

Slurry isolation in one direction, a seat that the crew can change on site, and a duty inside the published pressure schedule.

ARNETT VALVES
powered by paravalves

# CORE SERIES

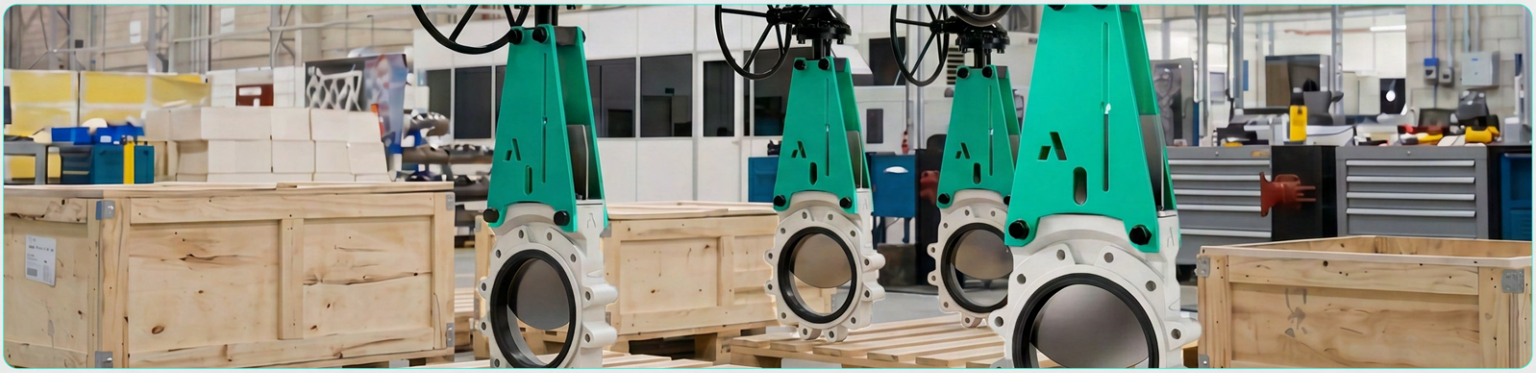
(844) 785-7585 | SALES@ARNETT.COM
WWW.ARNETT.COM

## S VALVE TECHNICAL DATA

| WORKING PRESSURE | SIZES | FACE-TO-FACE | FLANGE DRILLING |
|---|---|---|---|
| **232 psi** (16 bar) **to 8"**<br>**145 psi** (10 bar) **to 12"**<br>**58 psi** (4 bar) **to 24"** | **2" to 24"**<br>(DN50 to DN600) | **1.7" to 6.1"**<br>(43 to 154 mm) | **EN 1092 PN10**<br>ANSI 150 |

| NPS | DN | Face-to-face | Working pressure |
|---|---|---|---|
| **2"** | 50 | **1.7"** (43 mm) | **232 psi** (16 bar) |
| **3"** | 80 | **1.8"** (46 mm) | **232 psi** (16 bar) |
| **4"** | 100 | **2.0"** (52 mm) | **232 psi** (16 bar) |
| **5"** | 125 | **2.2"** (56 mm) | **232 psi** (16 bar) |
| **6"** | 150 | **2.2"** (56 mm) | **232 psi** (16 bar) |
| **8"** | 200 | **2.4"** (60 mm) | **232 psi** (16 bar) |
| **10"** | 250 | **2.7"** (68 mm) | **145 psi** (10 bar) |
| **12"** | 300 | **3.1"** (78 mm) | **145 psi** (10 bar) |
| **14"** | 350 | **3.1"** (78 mm) | **58 psi** (4 bar) |
| **16"** | 400 | **4.0"** (102 mm) | **58 psi** (4 bar) |
| **18"** | 450 | **4.5"** (114 mm) | **58 psi** (4 bar) |
| **20"** | 500 | **5.0"** (127 mm) | **58 psi** (4 bar) |
| **24"** | 600 | **6.1"** (154 mm) | **58 psi** (4 bar) |

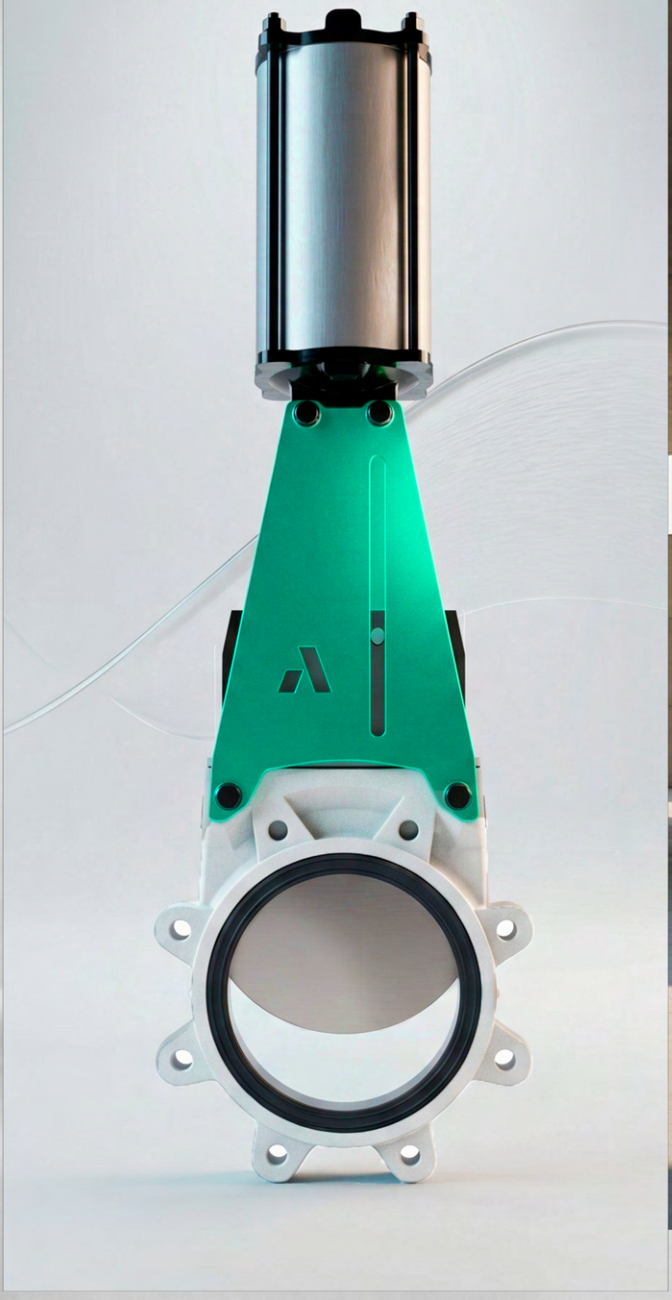
*Special face-to-face on request. S VALVE dimensions.*
*C VALVE is engineered to order to 1450 psi (100 bar), with sizes and ratings quoted per project.*



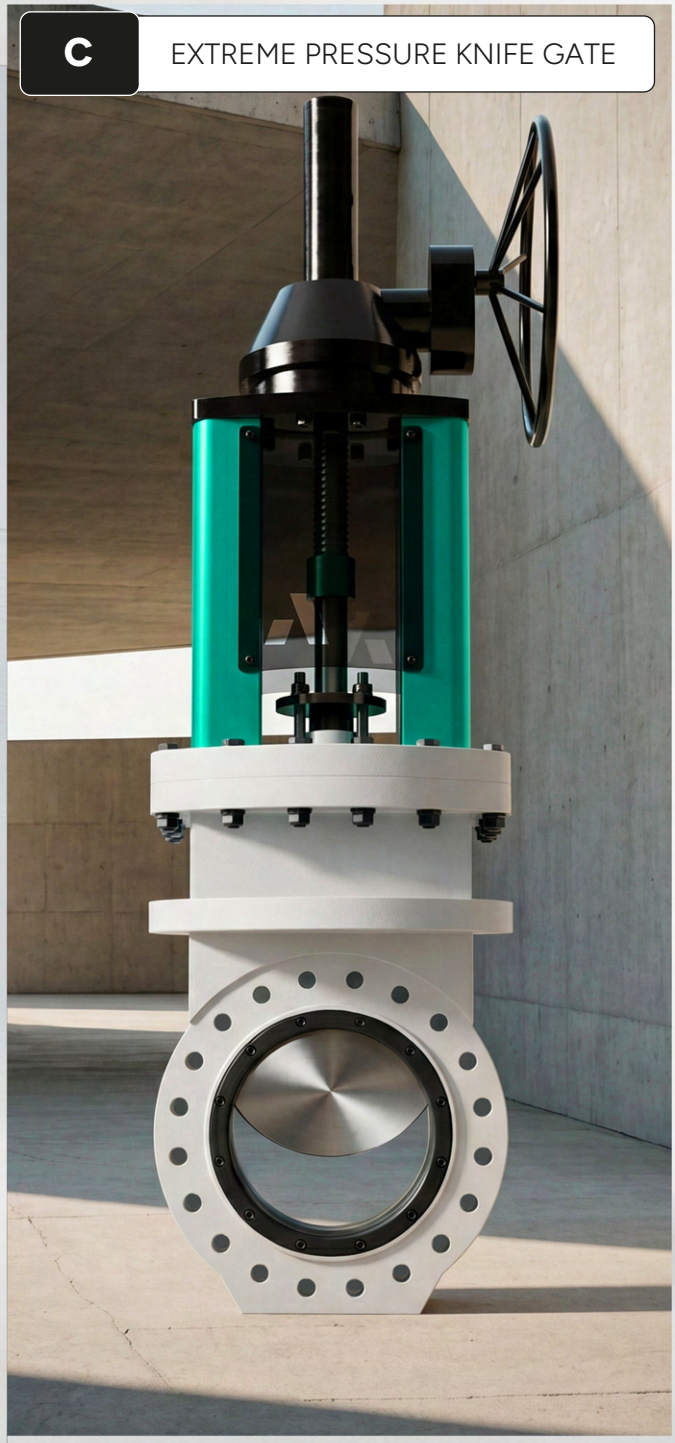
ARNETT VALVES
powered by paravalves

# TECHNICAL DATA
# CORE SERIES

**S** UNIDIRECTIONAL KNIFE GATE



**C** EXTREME PRESSURE KNIFE GATE




**ARNETT ENGINEERED SOLUTIONS**

61 INNOVATION DRIVE, BAMBERG, SC 29003
(844) 785-7585 | SALES@ARNETT.COM
**WWW.ARNETT.COM**