KEY-TECH ENGINEERING COMPANY is established in 1996, serving the Fertilizer, Chemical, Petrochemical, Refinery, Polymer Plants and Leading Engineering Consultants.

KEY-TECH is a leading manufacturer of HP Valves, Pipe Fittings, Pipes, Lens Gaskets, HP Isometrics, Carbamate Mixer, and Critical Equipment Internals for Fertilizer and Chemical Plants in special materials such as Urea Grade SS, Titanium, Duplex/Super duplex and Uremium29™.

KEY-TECH is committed towards high quality control standards and meeting various International Standards/Specifications as per ASME/ASTM/DIN and customer Specs.

It has been a constant endeavour of the company to provide core process industries with reliable and proven products through experienced team of qualified trained Engineers.

Our success is based on close and continual interaction with customer’s application engineer, product expertise, design innovation, service support and a competitive cost structure.

KEY-TECH activities are not limited to manufacturing & sales of products but also provides technical assistance in installation and after Sales service and continues to focus on meeting and exceeding customer expectations in terms of product performance.

About Us

Credentials

- Approved by SAIPEM spa for Urea Grade products
- Approved by PDIL for Urea Grade products
- RCF Performance Award

Product Range

- HP Forged Valves: Globe, Angle, Check and Butterfly
- HP Control Valves
- Urea Reactor Trays
- Pipes & Pipe Fittings
- Metallic Gasket: Lens, Manway, Delta, Oval.
- Static Mixer: Carbamate
- HP Piping Spools in Urea Grade
- HP Equipment Internals
- Fasteners in Urea Grade
- Thermowell

Material of Construction

- SS 25-22-2 / Böhler A405
- SS 316L UG / Böhler A220
- HVD1
- Ferallium255
- DP-28W
- SS 904L
- Titanium
- Zirconium 705
- Uremium 29TM
- Other Special Alloys
HP Urea Valves

Angle Valve

C: Open Condition
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 1

188.06 Max
167.16
146.27
125.37
104.48
83.582
62.687
41.791
20.896
2.5808e-13 Min

B: Closed Condition
Equivalent Stress
Type: Equivalent (von-Mises) Stress
Unit: MPa
Time: 1

281.28 Max
250.03
218.77
187.52
156.27
125.01
93.761
62.507
31.254
9.7747e-14 Min

Finite Element Analysis

Size: NS 4" x PN325
MOC: A182 F316L UG
Trim: HVD1
End Connection: Lens Face
Gear Operated with Exchangeable Seat
**Angle Valve**

- **Size:** NS 3” x PN325
- **MOC:** A182 F316L UG
- **Trim:** HVD1
- **End Connection:** Lens Face
  - With Exchangeable Seat

- **Size:** NS 1/2” x PN325
- **MOC:** A182 F316L UG
- **Trim:** Titanium Gr.3, Titanium Gr.5
- **End Connection:** DMF Type
  - With Exchangeable Seat

**HP Globe Valve**

- **Size:** NS 1” x PN325
- **Trim:** HVD1
- **MOC:** A182 F316L UG
- **End Connection:** BW
  - With Firm Seat
Vertical Drop Check Valve

Size: NS 6" x PN325
MOC: A182 F316L UG
End Connection: Lens Face
With Exchangeable Seat

CFD Analysis
Vertical Drop Check Valve

Size: NS 1/2” x PN325
MOC: SS 25-22-2
End Connection: Lens Face
With Firm Seat

Straight Type Check Valve

Size: NS 3 1/2” x PN260
End Connection: DMF Type
With Spring
HP Urea Valves

Control Valve for NC Meter

Size: NS 1/2” x PN250
MOC: SS 25-22-2
Trim: HVD1
End Connection: Lens Face

HP Butterfly Control Valve

Size: NS 8” x PN320
MOC: SS 25-22-2
Trim: HVD1
End Connection: Lens Face
**Carbamate Mixers**

Size: NS 12" x 10"
MOC: A182 F316L UG
Design Pressure: 288 bar
Tag No.: 200-MX-1019
Process Licensor: Saipem

Size: NS 8" x 6"
MOC: A182 F316L UG
Design Pressure: 165 bar
Tag No.: X0201
Process Licensor: Casale
Sieve Tray Assembly

MOC: SS 25-22-2
Equipment: Urea Reactor
Process Licensor: TOYO

Dye Penetration Test
**Urea Reactor Tray**

MOC: SS 25-22-2  
Equipment: Urea Reactor  
Process Licensor: Saipem

**Perforated Plate**

MOC: Incoloy 800H (UNS N08810)  
Equipment: R-203 Burner
Distributor Tray Assembly

MOC: SS 25-22-2
Equipment: Urea Reactor

Distributor Plate

MOC: SS 25-22-2
Equipment: Urea Stripper
Ferrules & Transition Piece

**MOC:** SS 25-22-2
**Equipment:** Urea Stripper

Ferrule

**MOC:** INC 601 (UNS N06601)
**Equipment:** RG Boiler
**HP Forged Block Tee**

**Size:** NS 12" x 10" (45mm x 38mm THK)

**MOC:** A182 F316L UG

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**HP Forged Fittings**

**Size:** NS 10" (38mm THK) Special Nozzle

**MOC:** A182 F316L UG

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**HP Forged Fittings**

**MOC:** SS 25-22-2

**Equipment:** Urea Stripper
Threaded Nozzle

Size: NS 12" (45mm THK)
MOC: A182 F316L UG

HP Urea Flange

MOC: SS 25-22-2

Manway Gasket

MOC: Titanium Gr.1

Drip Ring / Branch Lens Gaskets

Size: Up to 14" / To suit customer specs.
MOC: SS 25-22-2 / A182 F316L UG / Titanium Gr.1
**Piping Spools**

**HP Spools**

- **Size:** NS 8” x 6” (31mm x 24mm THK)
- **MOC:** SS 316L UG
- **End Connection:** Lens Face & BW

- **Size:** OD 130 x 19mm THK
- **MOC:** SS 25-22-2
- **End Connection:** DMF Type

- **Size:** NS 3” x 9mm THK
- **MOC:** SS 25-22-2
- **End Connection:** BW

- **Size:** OD 160 x 28mm THK
- **MOC:** Titanium Gr.3
- **End Connection:** DMF Type
**HP Pipe Fittings**

Size: Up to 14”
MOC: A403 WP 316L UG

**Concentric Reducer**

Size: NS 8” x 6” (21mm x 15mm THK)
MOC: A403 WP 316L UG

**Bevelling Tool**

Advantages Over Grinding:
- Low Heat Input
- Better Dimensional Accuracy
- No HAZ

Size: up to 14”

**HP 90° 5D Bend**

Size: NS 8” SCH 140
MOC: A403 WP 316L UG
**Instrumentation Spares**

**HP Urea Control Valve Stem**
- MOC: Fe255
- Tag: HICV-1201

**HP Urea Control Valve Seat**
- MOC: HVD1
- Tag: HV-2

**HP Thermowell**
- MOC: SS 25-22-2

**Equipment:** Reformer
Fasteners in UG Material

Size: Up to M36
MOC: SS 25-22-2
- Hex Bolts
- Hex Nuts
- Studs
- U Bolts
- Stub Pieces
- Special Nuts
- Tie Rods
- J-Bolts

Dimension Standard for Hex Bolts & Nuts
Hex Bolt: ANSI B18.2.3.5M (Metric) / ANSI B18.2.1 (Inch)
Hex Nut: ANSI B18.2.4.1M (Metric) / ANSI B18.2.2 (Inch)
Our Valuable Customers

Engineering Companies