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KROMBACH® Check Valves



www.craneenergy.com



Check Valves Key Features

TURK Steam Extraction Check Valves (RK 500) Key Features

- **1** Free swing disc design for minimal pressure drop and wear
- **2** Gravity, lever and weight, or pneumatic actuation packages available
- Additional options available, including special end connections, reduced seat diameter, and special materials





Tilting Disc Check Valves (RK 510) Key Features

- Double eccentric design with replaceable disc-mounted sealing element
- 2 Lever and counterweight operation available to minimize pressure drop
- Special design options such as hydraulic dampers or combined butterfly/check valve configurations



TURK Extraction Check Valve Overview and Applications



Overview

Size:	3" - 36" (DN80 - DN900)
Class:	ASME 150 - 600 (PN 16, 25, 40, 63, 100)
Temperature:	-4°F up to + 1022°F (-20°C up to 550°C)
Materials:	Cast Carbon Steel A216-WCB Cast Stainless Steel CF8M Welded Carbon Steel and Stainless Steel and other materials available



Power – sub-, super-, and ultra super-critical coal plants, gas-fired plants, combined cycle plants, nuclear plants, geothermal plants, and solar plants

Chemical – petrochemicals, fertilizers, pesticides, and peripheral circulations for storage and transport

Crude Oil and Natural Gas – offshore/onshore fields, processing, storage, transport and distribution, fuel production and petrochemical industry

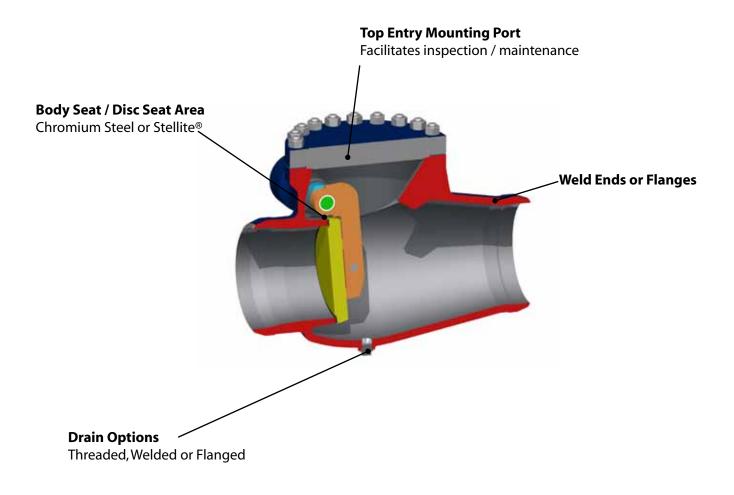
Water and Environmental Technology – water reservoirs, waste water, and desalination



TURK Extraction Check Valve Design Features

Design Features

- Swing disc designs
- Pneumatic or gravity operation
- Lever and weight options
- Special actuations packages available
- Welded or double flanged ends
- ANSI B16.10 or DIN EN 558-1 face-to-face dimensions
- · Special or adapted designs as per customer specifications

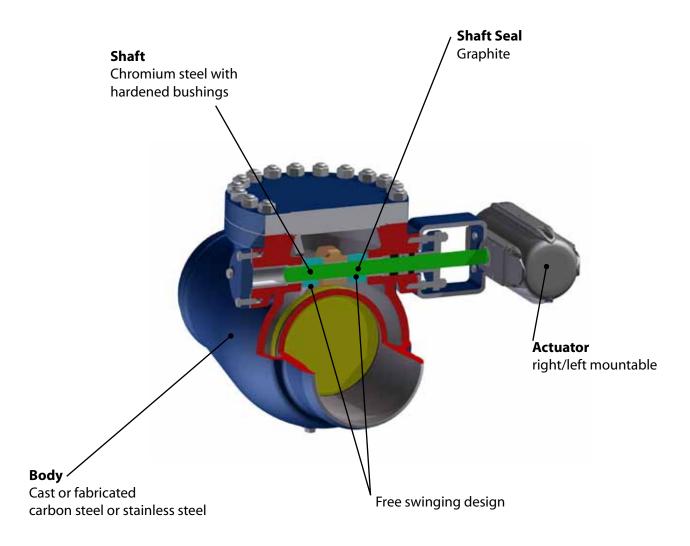


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TURK Extraction Check Valve Technical Characteristics

Seat:	Chromium Steel (standard), Stellite [®] 21 (optional)
Packing:	Pure graphite, live-loaded
Actuation:	Pneumatic or Hydraulic packages available
Body:	Cast or Fabricated designs





TURK Extraction Check Valve Additional Options

Options

Connection For Sealing Water

Water Discharge Connection

Differential Pressure Indicator

Customized Face-to-Face Dimensions

- Greater piping design flexibility
- · Can replace competitors' valve without piping modifications

Special Flanges Accommodates special customer requirements

Body with Conical Extension/Reductions

Allows matching to existing piping sizes/schedules

Special Materials To meet customer requirements

Flush Ports For ease of maintenance

Earthquake Safety Design

Meets special safety requirements where needed

Special Approvals

ASME, PED, GOST-R, and others; complies with multiple International standards for EPCs/OEMs



Tilting Disc Check RK 510 Overview and Applications

Overview	
Size:	6" - 72" (DN150 - DN1800)
Class:	ASME 150 - 300 (PN 6, 10, 16, 25)
 Temperature:	158°F (+70° C) standard
Maximum Pressure:	580.2 psi (40 bar)
Body Types:	Double Flange and Buttweld
Standard Materials:	Carbon Steel, Stainless Steel and other materials available

Applications

Power – super-critical and ultra super-critical coal plants, gas-fired plants, combined cycle plants, nuclear plants, geothermal plants, and solar plants

Water and Environmental Technology – water reservoirs, waste water, and desalination

Crude Oil and Natural Gas – offshore/onshore fields, processing, storage, transport and distribution, fuel production and petrochemical industry

Chemical - petrochemicals, fertilizers, pesticides, and peripheral circulations for storage and transport



Tilting Disc Check RK 510 Design Features

Design Features

- Tilting disc design
- Double flange face-face according to EN 558, Series 14 and ANSI B16.10
- Welded Ends available
- Soft sealing element carried by the disc
- Temperature +70°C (158°F) standard

Shaft Sealing Detail O-rings give shaft seal extended life.

Actuation

Counter Weight and Hydraulic Oil Brake (shown); other packages available on request.



Sealing Detail

The sealing element is carried by the disc, resulting in reduced wear and consistent bi-directional sealing.



Tilting Disc Check RK 510 Key Technical Characteristics

Sealing Geometry:	Double-Eccentric
Disc Sealing:	Buna seal ring carried on disc
Seat:	Steel body seat
Face-To-Face	EN 558-2 (Series 14) ANSI B16.10
	Customized on request



Double-Eccentric Design

Double offset geometry reduces friction and wear, improving sealing performance, reliability and lifetime.

Design

Available in Metal and Soft-seated.



Tilting Disc Check RK 510 Additional Options

Options

Actuation Packages

Lever and Weight, Pneumatic, Electric and Hydraulic packages available

Special Designs Combined Butterfly/Check valve

Special Face-to-Face Dimensions

- Greater piping design flexibility
- Can replace competitors' valve without piping modifications

Special Flanges Accommodates special customer requirements

Special Materials To meet customer requirements

Special Approvals ASME, PED, GOST-R, and others; complies with multiple International standards for EPCs/OEMs

Accessories Additional Accessories available on request



Check Valve Standards & Certificates

Design:	Swing or tilting disc type check	
Face-To-Face Dimension:	EN 558, basic line 1	
End Connections:	Weld or Flange Ends	
Testing:	EN 12266 part 1 and 2, API 598	
Marking:	PED 97/23/EC, AD2000-A4	
Quality Assurance:	DIN EN ISO 9001:2008	
Approvals:	PED 97/23/EC AD2000-A4 GOST-R API-Specification 6D	
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