

# The Final Knife Gate Valve Solution



**NewCon Co.**

**KNIFE GATE SLURRY VALVES**

**[www.NewconValve.com](http://www.NewconValve.com)**

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# Maximum Durability, Performance and Value Without the Mess

NewCon knife gate valves (KGV) perform extremely well in both large and fine-coarse mineral processing, wastewater treatment and coal-fired power generation facilities, and are built to withstand the world's most severe duty abrasive slurry applications.

## Zero leakage to atmosphere and 100% downstream isolation.

As a purge-less KGV, we guarantee zero leakage to atmosphere, as well as 100% downstream isolation, with the industry's longest wear life.

## Reliability equals functionality.

NewCon knife gate valves offer increased valve flow capacity over eccentric plug valves, a smaller valve envelope and face to face dimension, and reliable functionality, even after long periods, in some cases many years, without operation. Eventually, when valve cycling is imperative, the NewCon knife gate valve can be counted on to open or close easily.

NewCon valves are the reliable, cost-saving solution to using eccentric plug valves where struvite scale prevents the plug valves from operating.

## Self-flushing design - how it works.

As our gate cycles, and slurry velocity increases, the tapered edge of the NewCon gate redirects the slurry flow into the molded urethane gate seat area, creating turbulence and increased velocity. This allows for the valve to flush itself, ensuring a tight seal. The rigid gate, and the abrasion resistant properties of urethane, allow for our valve to seal time after time, again and again, regardless of how often the valve is actuated. Cycle a NewCon valve daily or just annually, and you will get the same result—zero down-stream leakage—this is accomplished only through the utilization of NewCon's thick, robust stainless steel gate, and our extremely abrasive resistant urethane liner.

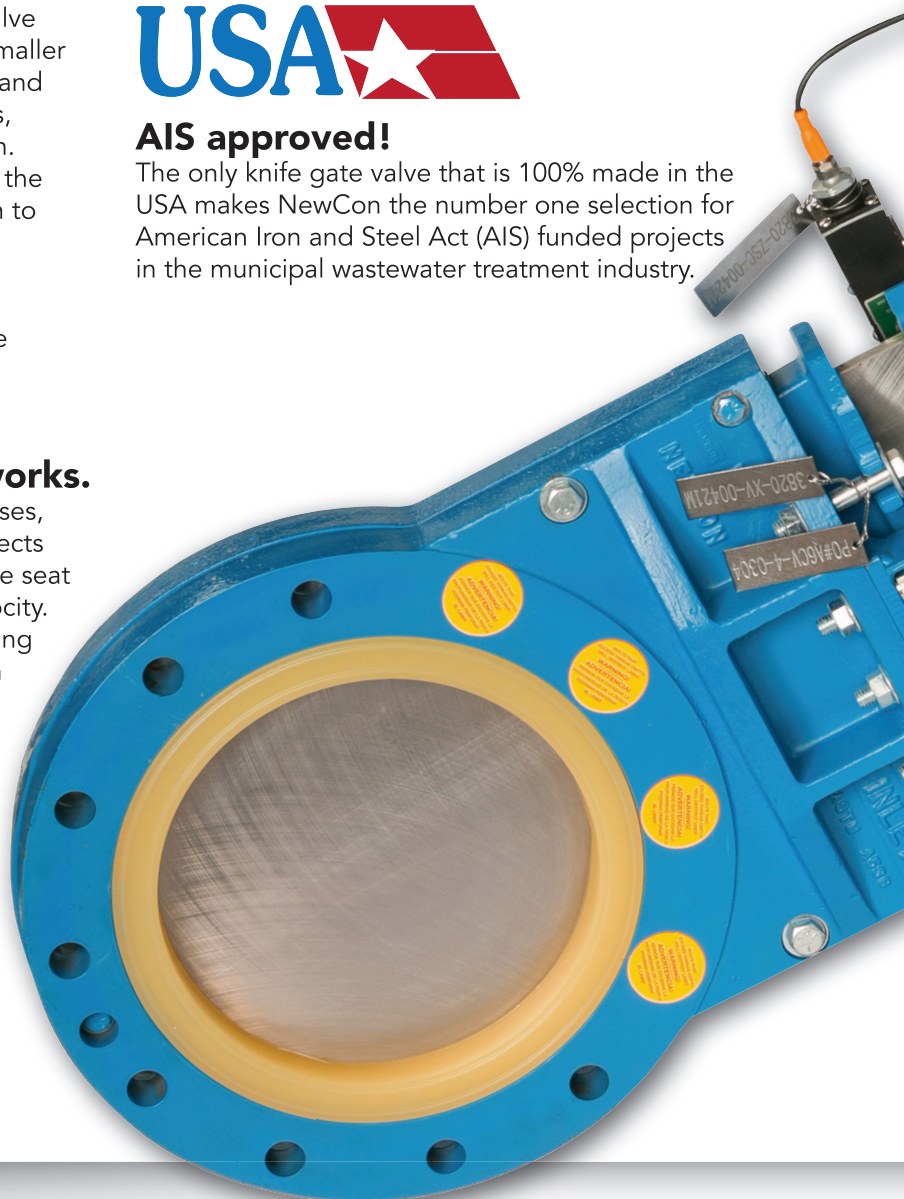
## Manufactured in the USA to outlast all other knife gate valves:

NewCon's field-replaceable urethane liner far outlasts the wear life of the competition's resilient seats and sleeves. It is durable, abrasive resistant, and economical to replace. Combined with the molded elastomer gate seal, the NewCon rebuild kit is 10% to 15% of the cost of a new valve. NewCon's extremely thick, robust gates are guaranteed not to bend, which contributes to maximum wear life between rebuilds. System downtime due to premature knife gate failure is reduced to the absolute minimum.

**MADE IN THE  
USA** 

## AIS approved!

The only knife gate valve that is 100% made in the USA makes NewCon the number one selection for American Iron and Steel Act (AIS) funded projects in the municipal wastewater treatment industry.





# Applications

NewCon valves are 100% American made resilient seated 150# class on-off service knife gate valves. For 30 years, we have been isolating severe-duty abrasive slurries globally, in a variety of industries. For specification information and details, please register at [www.newconvalve.com](http://www.newconvalve.com).

## **NewCon valves are utilized in operations around the world by a growing list of companies:**

Allen-Sherman-Hoff  
Alstom Power  
ArcelorMittal  
Babcock Power  
Babcock & Wilcox  
Barrick Gold Corporation  
Black and Veatch  
Chinalco Corporation  
Cliffs Natural Resources  
Codelco Corporation  
Eriez Corporation  
FL Schmidt

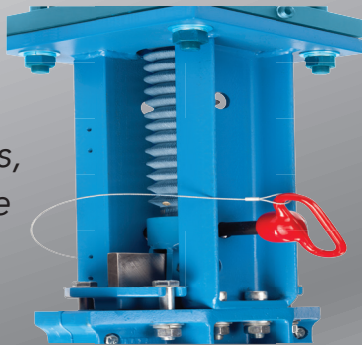
Flour Canada  
FL Smidth, Inc.  
Freeport McMoRan Copper  
& Gold, Inc.  
IMC (Mosaic) Phosphate  
Infilco Degremont  
Intrepid Potash  
Jacobs Engineering  
J.R. Simplot Company -  
Simplot Phosphates  
Kennecott Utah Copper

Newmont Mining Corporation  
Outotec  
PotashCorp  
Rio Tinto  
Siemens Industry, Inc.  
Southern Peru Copper  
United Conveyor  
United States Steel  
URS Corporation  
Veolia  
Washington Group Intl.

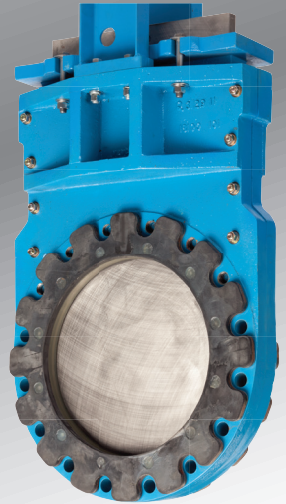


# Standard and Optional Valve Features

Safety  
lock-out pins,  
and protective  
rod boots



Steel-reinforced  
rubber-coated  
flange seals in 16"  
valves and larger



Hand-wheel  
safety lock-outs



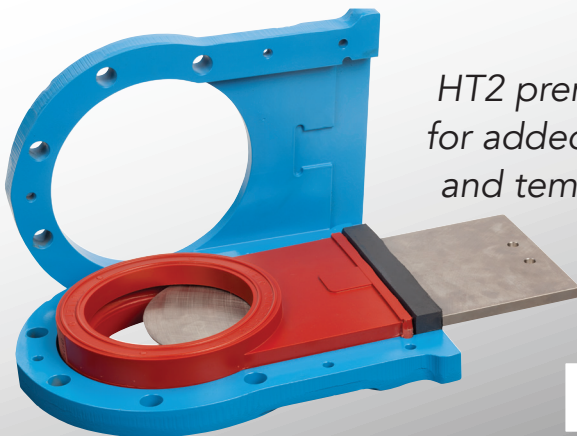
Bevel-gear  
safety  
lock-outs



Optional  
pinch-point  
safety shroud



HT2 premium urethane liner  
for added abrasive resistance  
and temperatures to 250° F



Optional  
hand-wheel  
stem  
protection



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**PRODUCT OPTIONS:**

(Contact NewCon)

Grease Fittings or Ports: None. Lubrication not needed.

Splash Drainage Plates: Not needed. NewCon valves are purge-less.

Blind Flange Bodies: Optional, some sizes in stock, BHT body drilling is available for "dead-end" service.

Body Coatings: Enhanced environmentally resistant body coatings are available.

Shrouds: Pinch point safety shrouds are available.

SS Fastener Kit: Stainless steel fastener kits are in stock.

Metric: Metric flange drilling is available.

Gate Alloys: 316, 2205, 255, 2507, AL6XN, C276, 17-4 plus others, in stock, and available.

Gate Coatings: Teflon and others are available.

Protective Stem or Rod Boots: Available as an option with standard lead time.

Electrical or Air Accessories: Most brands/models in stock at NewCon.

Termination Enclosures: Available and in stock.

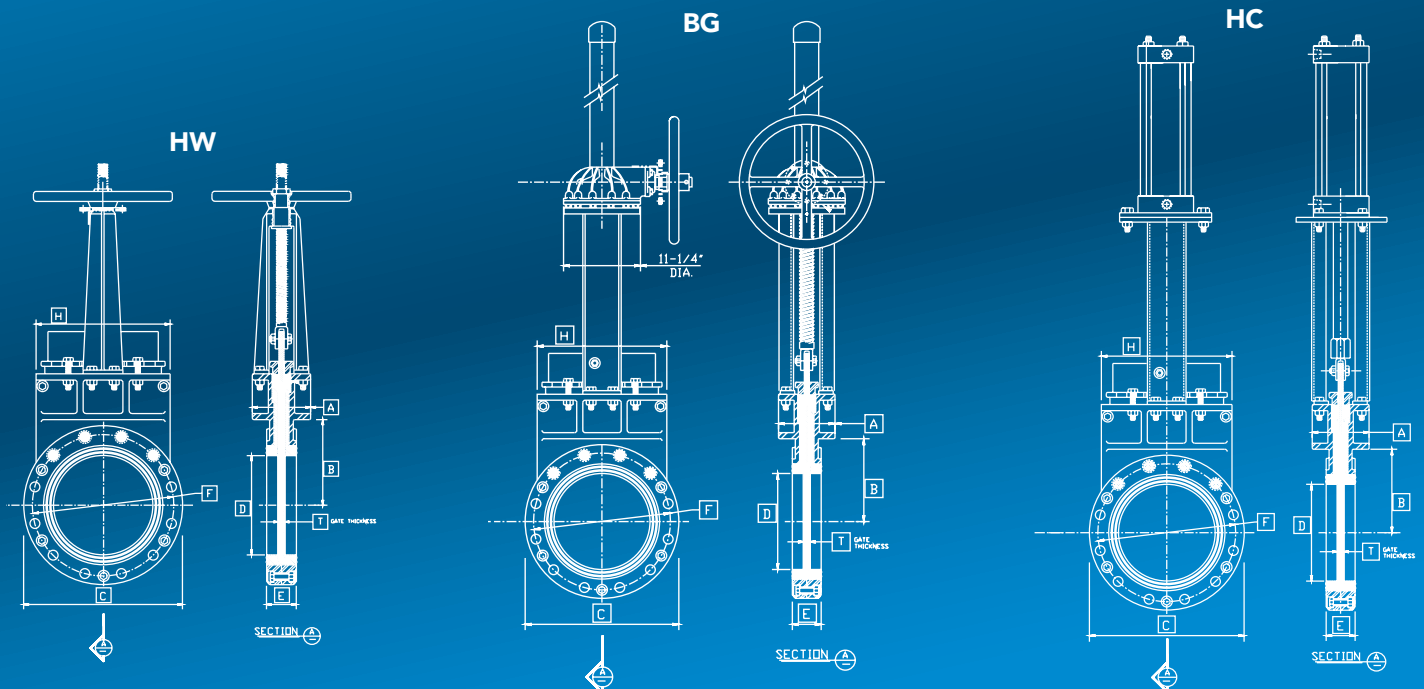
Oversized Air Cylinders: Oversized double acting air cylinders are available, sized for 60 psi.

Failure Modes: Spring return air cylinders are available for failure modes upon loss of air.

Chain Wheel: Chain wheel adaptors and chain are available for bevel gear and hand-wheel valves.

Size	A	B	C	D	E	F	H	Gate Thickness	Pressure Rating
2	5.25"	3.50"	7.00"	2.00"	2.00"	4.75"	8.50"	.50"	150 psi
3	5.25"	3.50"	7.00"	3.00"	2.00"	6.00"	8.50"	.50"	150 psi
4	5.25"	4.50"	8.38"	4.00"	2.00"	7.50"	9.50"	.50"	150 psi
6	5.38"	6.00"	10.88"	6.00"	2.25"	9.50"	11.25"	.50"	150 psi
8	5.75"	7.25"	13.25"	8.00"	2.75"	11.75"	11.50"	.50"	150 psi
10	5.50"	8.50"	16.00"	10.00"	2.75"	14.25"	13.38"	.50"	150 psi
12	6.63"	10.00"	18.75"	12.00"	3.00"	17.00"	16.50"	.625"	150 psi
14	7.50"	10.88"	20.88"	13.25"	3.00"	18.75"	16.88"	.625"	150 psi
16	10.50"	12.50"	23.50"	14.75"	SEE G.A.	21.25"	21.25"	1.125"	150 psi
18	10.75"	15.50"	25.38"	17.25"	SEE G.A.	22.75"	23.50"	1.125"	150 psi
20	11.00"	16.00"	27.63"	19.00"	SEE G.A.	25.00"	26.50"	1.50"	150 psi
24	12.00"	19.00"	32.25"	23.00"	SEE G.A.	29.50"	32.12"	1.50"	150 psi
28	12.00"	21.00"	36.50"	25.75"	SEE G.A.	34.00"	35.88"	1.50"	150 psi
30	12.00"	23.12"	38.75"	29.75"	SEE G.A.	36.00"	38.00"	1.50"	100 psi
36	12.50"	25.50"	45.62"	33.75"	SEE G.A.	42.75"	45.63"	1.50"	100 psi
40	20.00"	28.38"	50.75"	37.75"	SEE G.A.	47.25"	50.75"	1.75"	100 psi
42	20.00"	30.50"	53.00"	46.68"	SEE G.A.	49.50"	52.50"	1.75"	100 psi

\* For additional dimensions and data, please register at [www.newconvalve.com](http://www.newconvalve.com) for complete general arrangement drawings.



## TECHNICAL DATA

Valve Style: Bi-directional, resilient seated, 150# Class, Combination Lug/Wafer.

Purge-less, self-flushing. It is not necessary to discharge media during cycling.

**Applications:** On/off service in severe, abrasive slurries, and dry material handling with working temperatures under 250 degrees F (Red HT2 Liner) and 200 degrees F (Amber Standard Liner).

Size Range: 02" to 28" - Standard Pressure Rating 150 psi.

Size Range: 30" to 42" - Standard Pressure Rating 100 psi.

Operation/Actuation Options: Manual hand-wheel & bevel gear, air cylinder, hydraulic, electric, and chain wheel.

**Air Cylinders:** Standard bore diameters are sized for 80 psi, and rated for 150 psi. Oversized cylinders are sized for 60 psi, and rated for 150 psi.

Valve Orientation: 2" through 14" sizes have a proper flow orientation. 16" valves, and larger, do not. See GA drawings.

Leakage: Zero leakage to atmosphere & 100% bubble tight downstream shut-off.

One-Piece Field Replaceable Liner: Amber Standard Polyurethane with maximum temperature rating of 200 degrees F.

Red Premium HT2 Polyurethane with maximum temperature rating of 250 degrees F.

Liner seat cavity matches gate bevel profile. Solids do not permanently collect or become imbedded in the liner seat.

**Gate Seal:** Field replaceable molded elastomer, with maximum temperature rating of 250 degrees F.

Wafer Style Bodies: Epoxy coated ductile iron (ASME/ANSI B16.5/150, B16.10, B16.47).

**Cycle Speeds:** NewCon valves can be cycled, open or closed, at the customer's preferred speeds without limitations.

Installation Requirements: Typical installations include applications in both horizontal and vertical piping. See GA drawings.

Valve Port: Full, unobstructed flow, enabling reduced internal wear.

**Wear Components:** Rebuild kit consists of a one-piece urethane liner and a molded elastomer gate seal. SS gates are rarely replaced.

**Safety Locking Devices:** Standard in air cylinder actuated valves up to 30" and all manual valves.

**Stainless Gate Material:** Standard is 304 SS. Others are available and in stock.

**Materials of Construction:** The NewCon knife gate valve bodies are internally and externally epoxy coated ductile iron. The knife gate is standard with 304 SS, and the liner is one-piece, field replaceable urethane. The gate seal is molded elastomer, and is also field replaceable.

## Gate Thicknesses:

02" through 10" .500"

12" through 14" .625"

16" through 18" 1.125"

20" through 36" 1.500"

40" through 42" 1.750"

## Thickest Gate in the Industry!

