THE SEARCH IS OVER™

THE ULTIMATE KNIFE GATE VALVE SOLUTION FOR ABRASIVE SLURRY ISOLATION
THE ULTIMATE KNIFE GATE VALVE SOLUTION
FOR ABRASIVE SLURRY ISOLATION

SPECIFICATIONS

SIZE RANGE:
50NB (2") - 300NB (12")

PRESSURE RATING:
1.03 MPa (10.3 bar) (150psi)

FACE TO FACE STANDARD:
MSS-SP81

SHUT OFF PERFORMANCE:
Exceeds ASNI-FCI 70-2 Class VI.
Zero downstream leakage.
Zero atmosphere leakage.

TEMPERATURE RATING:
90°C (194°F)

FLANGE DRILLING:
ANSI B16.5 Class 150
AS 2129 Table D and E
BS 4504 PN16
Others available on request

TESTING:
Shell Test: Hydrostatically tested to 1.5 CWP
Resilient Seat Test: Hydrostatically tested to 1.5 CWP
Test certificates available upon request.

PLACE OF ORIGIN:
Designed and made in Australia.
ADVANTAGES

EASILY FIELD REPAIRABLE
One piece liner allows for quick and easy replacement.
Simple 8 piece design is easy to understand, rebuild and maintain.

100% LEAK FREE DESIGN
Fluid media is fully contained in liner.
No mess. No catch basins.
No flush ports. No drip trays.

ONE PIECE POLYURETHANE LINER
Liner can be replaced over and over again extending the life of the valve continuously.

“LIVE LOADED” GLAND PACKING
Easily replaceable, one piece, elastomer gland packing offers zero leakage to atmosphere and minimal maintenance.

“U” SHAPED PERIMETER SEALING
“U” shaped perimeter seal offers bubble tight shut off performance.

BI-DIRECTIONAL
Fully lugged flange faces and full bore design offers bi-directional versatility.
ADVANTAGES

THICK, ROBUST GATE

Rhinogate Knife Gate Valve's standard gate thicknesses are thicker than the average valve.

<table>
<thead>
<tr>
<th>VALVE SIZE</th>
<th>GATE THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>100NB</td>
<td>12MM</td>
</tr>
<tr>
<td>150NB</td>
<td>12MM</td>
</tr>
<tr>
<td>200NB</td>
<td>12MM</td>
</tr>
<tr>
<td>250NB</td>
<td>16MM</td>
</tr>
<tr>
<td>300NB</td>
<td>16MM</td>
</tr>
</tbody>
</table>

OPTIONAL SAFETY LOCK OUT

All Rhinogate Knife Gate Valves come with safety lock out as standard which allows the valve to be locked in the closed or open position. Lock out pins include a large handle for easy action. All yokes included a storage bracket to store pin when not in use.
The heart of the Rhinogate knife gate valve is its special once piece, field replaceable polyurethane liner. With its full bore design fluid media is fully contained and does not come in contact with any other part of the body. Sealing of the gate is handled within the liners "U" shaped perimeter core - offering bi-directional operation and complete bubble tight downstream isolation. Its cavity free seat also eliminates pockets where slurry can build up and prevent the gate from closing. Built in "Double V" scrapers assist in scraping the gate clean each time it is cycled and outside seal rings eliminate the need for flange gaskets when installing the Rhinogate in-line.

100% BUBBLE TIGHT DOWNSTREAM ISOLATION

BUILT IN SEAL RINGS ELIMINATE NEED FOR FLANGE GASKETS

GATE SEALS AROUND ITS "U" SHAPED PERIMETER - ALLOWING BI-DIRECTIONAL OPERATION

BUILT IN "DOUBLE V" SCRAPERS CLEAN GATE EACH TIME IT IS CYCLED

NO SEAT CAVITY WHERE SOLIDS CAN BUILD UP AND PREVENT GATE CLOSURE

MEDIA FULLY CONTAINED IN LINER. NO DISCHARGE TO ATMOSPHERE. NO CATCH BASINS, ETC.
The Rhinogate slurry isolation knife gate valve encompasses a revolutionary, patented collapsible seat design. This design offers bi-directional versatility, full bore operation and encompasses no pockets or grooves in the seat area where solids can cake up and prevent gate closure - a feature which is unique only to the Rhinogate. During gate closure the polyurethane seat is forced into the specially designed cavity ring. The groove in the cavity ring locks in the gate, preventing gate deflection and ensures a 100% leak proof seal. Upon gate retraction, the polyurethane seat returns to its original position, thereby allowing full bore operation – and no pockets or grooves in the seat area.
THE RHINOGATE GLAND ADVANTAGE

THE RHINOGATE ONE PIECE ELASTOMER GLAND PACKING GUARANTEES NO LEAKAGE.

Rhinogate knife gate valves use a specially engineered, one piece elastomer gland packing. The gland packing is firm. It encompasses incredible shear strength. Its texture is smooth and slippery. These are the traits of a material that has been purpose designed for an application that is extremely demanding.

- ONE PIECE ELASTOMER.
- NO MULTIPLE PIECES OF BRAIDED YARN, O-RINGS OR GASKETS.
- NO LEAKS.

LIVE LOADED BELLEVILLE WASHERS ENSURE MINIMAL GLAND MAINTENANCE REQUIRED.

Rhinogate knife gate valves utilize special "live loaded" Belleville washers to ensure even loading across our one piece elastomer packing. Once torqued up our live loaded gland will not come loose, nor need repeated tightening like other conventional knife gate valves.

- LOAD REMAINS "PRE-LOADED" AND "LIVE" AT ALL TIME.
- NO CONTINUOUS TIGHTENING REQUIRED.
- MINIMAL MAINTENANCE REQUIRED UNLIKE OTHER GLANDS.

THE RHINOGATE GLAND ADVANTAGE IS A HUGE STEP FORWARD IN KNIFE GATE VALVE TECHNOLOGY

Conventional knife gate valves have had an inherent problem with gland area leakage. Traditionally braided yarn or square shaped seals are used in an attempt to create a seal between the gate and chest area of a knife gate valve - a difficult task to achieve. Premature failing of gland seals on knife gate valves is not an uncommon occurrence, often failing within the first 6 months of service.

After years of design, testing and trials - we here at Rhinogate have found a solution to the age-old knife gate valve problem. Finally - a gland packing solution that will not leak nor require extreme amounts of maintenance.

The search is over™

THE SEARCH IS OVER™
TYPICALLY WHEN REBUILDING A RHINO Gate KNIFE GATE VALVE, JUST THE LINER AND GLAND PACKING ARE REPLACED.

ONE PIECE ELASTOMER GLAND PACKING

ONE PIECE POLYURETHANE LINER

REBUILD A RHINO Gate KNIFE GATE VALVE FOR AROUND 15% OF THE COST OF A NEW VALVE

THE SEARCH IS OVER™
# DIMENSIONS AND MATERIALS

## Size Dimensions

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>100NB</td>
<td>101</td>
<td>245</td>
<td>195</td>
<td>165</td>
<td>51</td>
<td>12</td>
<td>390</td>
<td>522</td>
<td>540</td>
<td>300</td>
<td>570</td>
<td>176</td>
</tr>
<tr>
<td>150NB</td>
<td>152</td>
<td>295</td>
<td>276</td>
<td>170</td>
<td>57</td>
<td>12</td>
<td>390</td>
<td>625</td>
<td>597</td>
<td>300</td>
<td>725</td>
<td>240</td>
</tr>
<tr>
<td>200NB</td>
<td>203</td>
<td>360</td>
<td>351</td>
<td>190</td>
<td>70</td>
<td>12</td>
<td>390</td>
<td>745</td>
<td>632</td>
<td>300</td>
<td>850</td>
<td>240</td>
</tr>
<tr>
<td>250NB</td>
<td>254</td>
<td>450</td>
<td>433</td>
<td>221</td>
<td>70</td>
<td>16</td>
<td>600</td>
<td>872</td>
<td>711</td>
<td>300</td>
<td>944</td>
<td>285</td>
</tr>
<tr>
<td>300NB</td>
<td>305</td>
<td>520</td>
<td>486</td>
<td>230</td>
<td>76</td>
<td>16</td>
<td>600</td>
<td>1005</td>
<td>776</td>
<td>300</td>
<td>1056</td>
<td>285</td>
</tr>
</tbody>
</table>

## Item Component Material

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Ductile cast iron, powder coated</td>
</tr>
<tr>
<td>2</td>
<td>Liner</td>
<td>Polyurethane</td>
</tr>
<tr>
<td>3</td>
<td>Gland packing</td>
<td>Elastomer</td>
</tr>
<tr>
<td>4</td>
<td>Gland follower</td>
<td>Ductile cast iron, powder coated</td>
</tr>
<tr>
<td>5</td>
<td>Yoke</td>
<td>Ductile cast iron, powder coated</td>
</tr>
<tr>
<td>6</td>
<td>Gate</td>
<td>SS 316L (Others available)</td>
</tr>
<tr>
<td>7</td>
<td>Clevis</td>
<td>Cast SS 316L CF3M</td>
</tr>
<tr>
<td>8</td>
<td>Stem</td>
<td>SS 316L</td>
</tr>
<tr>
<td>9</td>
<td>Hand wheel spindle</td>
<td>Cast bronze alloy</td>
</tr>
<tr>
<td>10</td>
<td>Hand wheel boss</td>
<td>Ductile cast iron, powder coated</td>
</tr>
<tr>
<td>11</td>
<td>Hand wheel</td>
<td>Ductile cast iron, powder coated</td>
</tr>
<tr>
<td>12</td>
<td>Stem cover</td>
<td>Fabricated mild steel, powder coated</td>
</tr>
<tr>
<td>13</td>
<td>Fasteners</td>
<td>SS 316L</td>
</tr>
</tbody>
</table>

## Gate Options

- SS 316L (Standard)
- SAF Duplex 2205
- SAF Duplex 2207
- Others on request
HEAD OFFICE AND MANUFACTURING:
RHINOGATE PTY LTD
4/7 HOLDER ROAD,
MALAGA, 6090,
WESTERN AUSTRALIA, AUSTRALIA

+61-(0)8-9275-8584
WWW.RHINOGATE.COM
INFO@RHINOGATE.COM

THE SEARCH IS OVER™