Catalog# 77-4016



SAFETY SYSTEMS

# GCR-N<sup>™</sup> Sanitary Reverse Buckling Disks

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### GCR-N™ and NovAseptic® NA-Connect Disk Holder

The GCR-N and GCR-NS<sup>TM</sup> reverse buckling disks are installed in NovAseptic<sup>®</sup> NA-Connect holders, which permit flush mounting of the disk with the interior wall of the vessel and are easy to clean and sterilize. The GCR-N design uses Saf<sup>TM</sup> technology offering a wide range of burst pressures for sanitary / aseptic applications in the pharmaceutical, biotechnology and food industries.

#### **Features**

- One disk design for gas and liquid service
- Flush mounting with vessel wall
- Fail-safe design: damage safety ratio < 1</li>
- Low to high burst pressures
- Ideal for CIP / SIP service\*
- Installed with integral sanitary /aseptic gaskets
- 8-16 micro-inch typical disk surface finish
- Minimum dead space between process fluid and the disk
- Suitable for operating pressures up to 90% of marked burst pressure\*\* or 95% of the specified minimum burst pressure (CEN standard pending)
- Designed for non-fragmentation
- Standard manufacturing design range, 0%, optional -5%, -10%
- Withstands full vacuum at all burst pressures
- SAS<sup>TM</sup> (sanitary alert sensor) with leak sensing option available
- Integral burst disk sensor option
- Worldwide patents pending
- \*Clean / steam in place

\*\*At marked burst pressures of 40 psig (2.76barg) and below, the recommended maximum operating pressure is 90% of the marked burst pressure, less 2 psig (0.138barg) tolerance

#### **GCR-N** Disk Specification

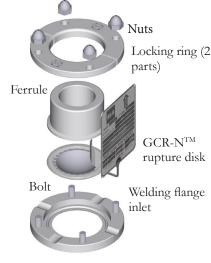
Minimum / maximum burst pressure at 72°F (22°C) psig (barg)											
Nominal disk size			Burst p	ressure		Inlet height		NA-			
		psig		barg		(T)		connect			
in	mm	Min	Max	Min	Max	in	mm	holder type			
1.5	40	10	101	0.7	7	0.4	11	NAC-38			
2	50	10	101	0.7	7	0.4	11	NAC-51			

NA-connect<sup>®</sup> design pressure is 101 psig (7barg) at 302°F (150°C) Other burst pressures may be available; Consult BS&B NA-Connect<sup>®</sup> is a registered trademark of NovAseptic Equipment AB NovAseptic is a registered trademark of Millipore Corporation. **Liners** are available in all sizes as optional on the process side of the disk. FEP or PFA are generally used.

Temperature range FEP -40°F to 400°F (-40°C to 204°C) PFA -40°F to 500°F (-40°C to 260°C)

Size	Minim	num burst pressure for lined disks at 72°F (22°C)					
in		mm	psig		barg		
1.5		40	36		3		
2		50	36		3		
Disk size		1 <sup>1/2</sup> inc	:h ( <mark>40mm</mark> )	2 inches ( <mark>50mm</mark> )			
K <sub>RG</sub>			2.0	1.3			
MNFA in <sup>2</sup>	2		1.5	2.7			
NRA cm <sup>2</sup>	!		9.7	17.4			

#### NAC-38 and NAC-51 holders



 $K_{\rm R}$  values MNFA (minimum net relief area), and NRA (net relief area values

 $K_{\rm R}$  values applicable with or without integral burst sensors

- Use MNEA in<sup>2</sup> when sizing according to ASME code, para UG-127(a)(2)(a)

- Use NRA cm<sup>2</sup> (net relief / area) when sizing according to European standards

The  $K_{R}$  values indicated are for gas service. The GCR-N disks have been performance tested for both gas and liquid service; contact BS&B for liquid service  $K_{R}$  values. CE marking of bursting disks is available.

Products, specifications and all data in this literature are subject to change without notice. Questions regarding product selection and specifications for specific applications should be directed to BSSB. All sales are subject to the BSSB companies standard terms and conditions of sale. Nothing herein should be construed as a warranty of merchantability or fitness for a particular purpose.

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Rev June 2014

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