# RUPTURE DISC BURST BURST BURST BURST

RATED, SPECIFIED



Continental Disc Corporation

Three rating types are available to specify the burst pressure requirements of a Continental Disc Corporation rupture disc: RATED, SPECIFIED and MIN/MAX.

The need to choose a specific rating type can be narrowed down to two main reasons:

# 1) Code Compliance

- For compliance with ASME Section VIII Division 1, the RATED rating type must be used.
- For compliance with the Pressure Equipment Directive 97/23/EC (to carry the CE Mark) and the ISO 4126-2 standard, either the SPECIFIED or MIN/MAX rating type must be used.

# 2) Customer Preference

To specify the rupture disc bursting requirement and how that information is marked on the rupture disc tag.

# RATED

# RATED RATING TYPE: DEFINITIONS

**RATED Burst Pressure** // The customer-indicated burst pressure value at a coincident temperature that indicates the amount of differential pressure necessary to cause the rupture disc to burst. A Manufacturing Range is applied to this value.

**Manufacturing Range** // The pressure range agreed upon by the customer and Continental Disc Corporation in which the RATED (Marked) Burst Pressure must fall. This range of pressure is based on a plus and/or minus percentage or a plus and/or minus pressure value applied around the indicated RATED Burst Pressure.

**RATED (Marked) Burst Pressure** // The burst pressure at coincident temperature that the rupture disc tag is marked with after manufacturing. A Burst Tolerance is applied to this value.

**Burst Tolerance** // The pressure variation around the RATED (Marked) Burst Pressure that the rupture disc will burst, at the coincident temperature.

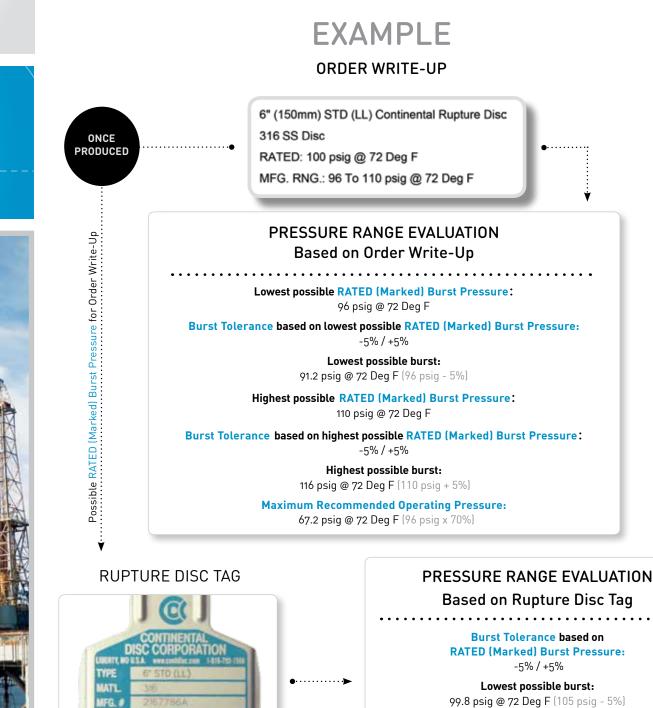
**Maximum Recommended Operating Pressure** // Continental Disc's recommendation of the maximum pressure to operate the rupture disc in order to maximize the life of the rupture disc. This is used as one of the indicators in determining an appropriate type of rupture disc for an application.

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## **RATED RATING TYPE: INSTRUCTIONS FOR USE**

The customer should indicate the RATED Burst Pressure, along with a Manufacturing Range. Standard Manufacturing Ranges are based on the product and the RATED Burst Pressure. The Burst Tolerance and the Maximum Recommended Operating Pressure are based on the product and the RATED (Marked) Burst Pressure. This information can be found in the *RATED Rupture Disc Rating Type* table, located in the appropriate product literature.

Because the RATED (Marked) Burst Pressure of the rupture disc can be marked anywhere within the Manufacturing Range, initial pressure rating evaluations should consider the possibilities of the rupture disc being marked at the top and bottom of the Manufacturing Range. Please refer to the *Pressure Range Evaluation, Based on Order Write Up* in the example below.



Highest possible burst: 110 psig @ 72 Deg F (105 psig + 5%)

Maximum Recommended Operating Pressure: 73.5 psig @ 72 Deg F (105 psig x 70%)

## **SPECIFIED**

### SPECIFIED RATING TYPE: DEFINITIONS

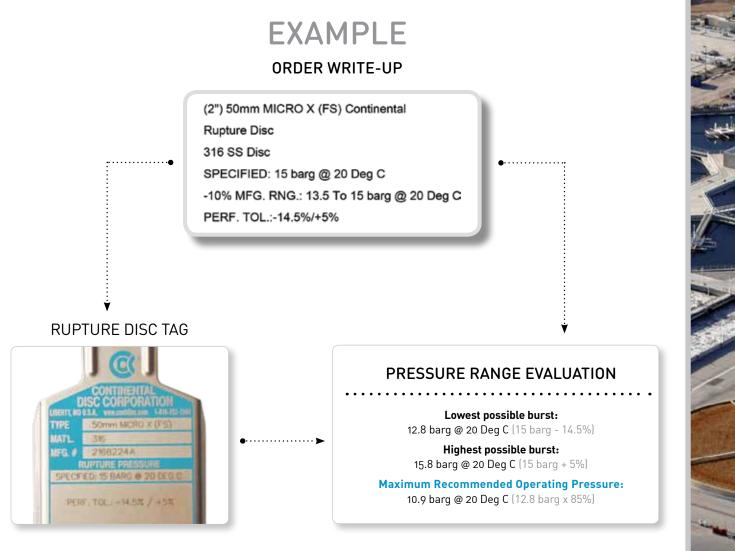
**SPECIFIED Burst Pressure** // The customer-indicated burst pressure value at a coincident temperature that indicates the amount of differential pressure necessary to cause the rupture disc to burst. This value will be marked on the rupture disc tag. A Performance Tolerance is applied to this value.

**Performance Tolerance** // The pressure variation around the SPECIFIED Burst Pressure that the rupture disc will burst, at the coincident temperature. This range of pressure is based on a plus and/or minus percentage or a plus and/or minus pressure value applied around the SPECIFIED Burst Pressure, as agreed upon by the customer and Continental Disc Corporation. This tolerance is marked on the rupture disc tag and all bursts will fall within this range.

**Maximum Recommended Operating Pressure** // Continental Disc's recommendation of the maximum pressure to operate the rupture disc in order to maximize the life of the rupture disc. This is used as one of the indicators in determining an appropriate type of rupture disc for an application.

## SPECIFIED RATING TYPE: INSTRUCTIONS FOR USE

The customer should indicate the SPECIFIED Burst Pressure, along with a Performance Tolerance (a manufacturing range may be given instead of a Performance Tolerance, and Continental Disc will calculate an associated Performance Tolerance). Standard Performance Tolerances and the Maximum Recommended Operating Pressure are based on the product and SPECIFIED Burst Pressure. This information can be found in the SPECIFIED Rupture Disc Rating Type table, located in the appropriate product literature.



# MIN / MAX

#### MIN/MAX RATING TYPE: DEFINITIONS

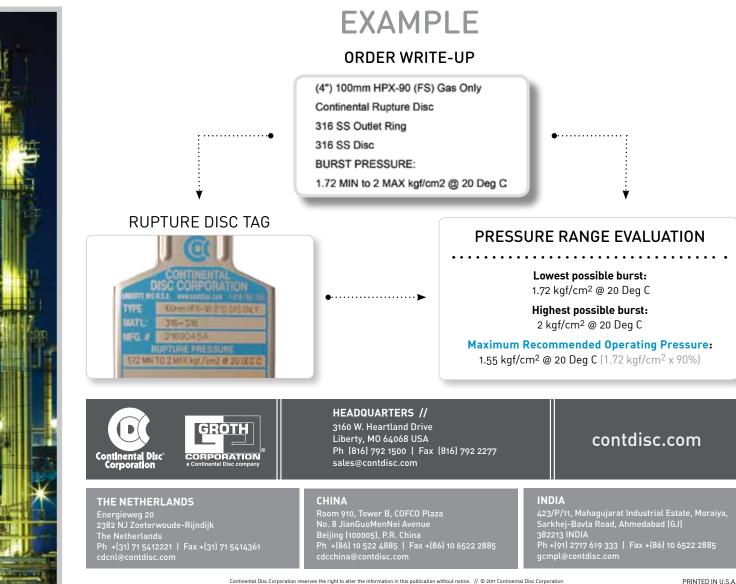
MAX Burst Pressure (MAX) // The customer-indicated burst pressure value at a coincident temperature that indicates the maximum amount of differential pressure necessary to cause the rupture disc to burst. This value will be marked on the rupture disc tag.

**MIN Burst Pressure (MIN)** // The customer-indicated burst pressure value at a coincident temperature that indicates the minimum amount of differential pressure necessary to cause the rupture disc to burst. This value will be marked on the rupture disc tag.

**Maximum Recommended Operating Pressure** // Continental Disc's recommendation of the maximum pressure to operate the rupture disc in order to maximize the life of the rupture disc. This is used as one of the indicators in determining an appropriate type of rupture disc for an application.

#### MIN/MAX RATING TYPE: INSTRUCTIONS FOR USE

The customer should indicate the MIN and MAX. The MIN/MAX Burst Pressure range as agreed upon by the customer and Continental Disc Corporation, includes all associated manufacturing range and tolerance, so all bursts will fall within the MIN and MAX Burst Pressure values. Our standard ranges of MIN/MAX and the Maximum Recommended Operating Pressure are based on the product and MAX Burst Pressure. This information can be found in the *MIN/MAX Rupture Disc Rating Type* table, located in the appropriate product literature.



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