

Application for National Board Certification of a Pressure Relief Device Design and Authorization to use the "NB" Mark

Part 1 – General Information

Company Name: _____

Physical Address: _____

Application Type:
(Choose One)

Initial Device Certification

Transfer of Authorization

Renewal Certification

Reinstatement of Expired Certification

Design Type Scope Change – Description: _____

Capacity Certification Number (not required for new design types): _____

Applying as: (Choose one option from each box below)

<p>Manufacturer</p> <p>Assembler</p>	OF:	<p>Pressure Relief Valves</p> <p>Pin Devices</p>	<p>Rupture Disk Devices</p> <p>Spring Actuated Non-Reclosing Devices</p>
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Model Number/Model Series: _____
(Manufacturer's Series or Catalog Number or Identification)

Designed by: _____
(Manufacturer's Name)

Certified Medium:

Capacity:	Steam	Air	Gas	Liquid	Saturated Water
	(Note: Liquid fluid scope PRVs are certified separate from Steam, Air, or Gas)				
Flow Resistance:	Compressible (Krg)		Incompressible (Krl)		Both (Krgl)

ASME Designator:

V	HV	NV → Class	1	2	3	MC
UV	UD	UD3				

Code Case(s): _____

We certify that devices of the above noted type will be manufactured or assembled in accordance with the Construction Code and our National Board accepted quality system.

X _____
(Signature of Company Representative)

(Date of Signature)

(Printed Name of Company Representative)

(Email of Company Representative)

Submit completed form to:
prd@nbbi.org or The National Board
1055 Crupper Avenue
Columbus, Ohio 43229-1183

Please Note: An incomplete/improperly completed application may delay the processing of this request. Please be sure your form is complete before submitting.

Part 2 – Scope of Design (to be completed by Manufacturers only)

A. Device Manufacturer: _____ **Type/Model:** _____

Plant Location: _____

B. Device Type:

(1) Reclosing Types: (choose one)
 Safety Valve Safety Relief Valve Relief Valve Pilot Operated Pressure Relief Valve
 Temperature Actuated Pressure Relief Valve Vacuum Relief Valve Power Actuated Pressure Relief Valve
 Other: _____

(2) Non-Closing Types: (choose one)
 Rupture Disk Device Buckling Pin Device Breaking Pin Device Other

(3) Special Service Conditions: (Check all that apply)
 None Economizer Service Organic Fluid Vaporizers
 Low Pressure Steam Heating Boilers (15 psi) Non-Refrigerated Liquefied Compressed Gases (20% O.P.)
 Forced Flow Steam Generator or High Temperature Water Boilers (10% BD)

C. Set Pressure Definition: (Check all that apply)

Popping Start-to-Leak Initial Audible Discharge Bubble First Steady Stream First Heavy Flow
 Burst Pressure Buckling Pressure Breaking Pressure 40 cc/min Other: _____

D. Blowdown Characteristics: (Check all that apply)

Fixed Adjustable Adjustable and Fixed for Modulating Pilot N/A
 Adjustable by: Single Ring Dual Ring Other: _____

E. Flow Area Configuration: Nozzle/Full Lift Curtain Area Restricted Lift Minimum Net Flow Area Annulus

F. Scope of Nominal Size and Set Pressure Ranges: (For additional sizes, attach supplemental sheet)

Inlet Size(s)	Outlet Size(s)	Flow Area*	Orifice Designator	Orifice Diameter	Lift	Set Pressure Range	Media – Code Designator(s)

*For Rupture Disk devices, list minimum net flow.

G. Materials of Construction:

Part Key: H=Body/Holder; B=Bonnet; Y=Yoke								
Key	Type	Grade	Key	Type	Grade	Key	Type	Grade

H. Design Drawing/Specification Number and Revision Level: _____

(Note: Attach current parts list with material specifications and drawings)

I. Design Options: Describe options and variations which will be included (i.e. bellows, seat configuration, lifting lever option, etc.)

J. Test Medium: Steam Air Gas Liquid Water

K. Certification Method:

Flow Capacity Rating by: Single Valve 3-Device 4-Device Coefficient of Discharge (Kd)

Single Size Resistance Factor Rating: K_{RG} K_{RGL} K_{RL}

Three Size Resistance Factor Rating: K_{RG} K_{RGL} K_{RL}

L. Certification Rating Value with Unit of Measure: Value: _____ Units: _____

M. (Renewals Only) Check only one box:

We Certify the flow path and performance of this design have not been changed.

Changes as attached have been made to this design (attach supplement). _____ _____
 (Signature) (Date)

Part 2S-1 – Supplement Scope of Design (For Rupture Disk Devices Only)

(Discard this page for Pressure relief valve)

A. Device Manufacturer: _____

Plant Location: _____

Device Type/Model: _____

Holder Type/Model: _____

(If different than Device Type)

B. Disk Type:

(1) Loading: Conventional Domed (Forward acting, tension loaded)
 Conventional Flat
 Reversed Domed
 Other (Describe in Comments below)

(2) Seat Configuration: Flat Angle Sanitary Other (Describe in Comments below)

(3) Opening Characteristics:
a) Predetermined Opening: None Slotted Line (Composite)
 Cross Scored Circular Scored Other (Describe in Comments below)

b) Minimum Number of Petals: Full Bore 1 2 3 4
 Other (Describe in Comments Below)

(4) Auxiliary Elements: Liner Knife Blade Vacuum (Back Pressure) Support
 Teeth Ring Hinge Plate Support (Protective Ring)
 Other (Describe in Comments below)

(5) Disk Materials and Construction: Solid Metal Graphite Mono Block – Recessed Upstream
 Composite Graphite Mono Block – Recessed Downstream
 Other (Describe in Comments below) Graphite Mono Block – Recessed Both Sides

C. Holder: None Full Bolted Insert – Pre-Loaded
 Threaded Union Style Insert Single Use Device
 Other (Describe in Comments below)

D. Comments: