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## प्लाज़्मा अनुसंधान संस्थान INSTITUTE FOR PLASMA RESEARCH



## परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त संस्थान

## An Aided Institute of Department of Atomic Energy, Government of India

इन्दिरा पुल के पास, भाट, गांधीनगर - 382 428 भारत

दूरभाष: (079) 2396 2020/2021/2028 फेक्स: 91-079-23962277

वेब: www.ipr.res.in

NEAR INDIRA BRIDGE, BHAT

DIST. GANDHINAGAR - 382 428 (INDIA) Phone: (079) 2396 2020/2021/2028

Fax : 91-079-23962277 Web : www.ipr.res.in

#### **ENQUIRY**

ENQUIRY NO : IPR/EQL/18-19/167

Date : 09-08-2018

Due on : 06-09-2018 by 1:00 PM IST

Please send your offer in sealed envelope specifying Enquiry No, Date & Due Date, ALONG WITH your credentials for the following items:

#### **Important Note:**

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to <a href="mailto:localpurchase@ipr.res.in">localpurchase@ipr.res.in</a>

Please ensure your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following documents properly before quoting which are available on the IPR web portal i.e., <a href="http://www.ipr.res.in/documents/tender-terms.html">http://www.ipr.res.in/documents/tender-terms.html</a> / attached herewith.

- 1) Instructions to the bidders & Terms and conditions (refer Form No: IPR-LP-01.V4)
- 2) Bidding format

GST for Goods and Services (IGST/CGST/SGST TAX BENEFITS): Please refer clause no: 8 of Form No: IPR-LP-01.V4

#### QUOTATION SHOULD BE ADDRESSED TO PURCHASE OFFICER ONLY

Sr No	Description	Quantity	
1	Safety Relief Valve Type - I as per attached specifications		
2	2 Safety Relief Valve Type - II as per attached specifications		
3	Safety Relief Valve Type - III as per attached specifications	2.0 Nos.	

Note: Please quote with complete technical details (Technical

compliance sheet and product data sheet).

Encl: As per attachment.

Sd/-

Mr. D. Ramesh Purchase Officer-II

**Information to Vendors:** We are working towards a single platform for our future requirement. Hence, please refer IPR website i.e, <a href="http://www.ipr.res.in/documents/tenderseng.html">http://www.ipr.res.in/documents/tenderseng.html</a> for our future requirement.

# SAFETY VALVES SPECIFICATIONS

## 1. Safety Relief Valve TYPE - I

Quantity

Type : Conventional, full nozzle, spring-loaded type

Fluid Service : Gaseous Nitrogen

Working Temperature : 80K to 300K Set Pressure : 3.0 barG

Inlet Connection : 1/2 inch NPT (M) as per ANSI B 1.20.1 Outlet Connection : 1/2 inch NPT (F) as per ANSI B 1.20.1

Valve Body & Bonet Material : SS304 / SS316

Trim, Nozzle and Disc Material : SS304 / SS316

Plug/seat insert : PCTFE (Kel F)/vespel

Permissible Leak Rate : As per API 527 or other reputed code : Material test, leak test and functional test

Design & manufacturing

Standard : As per ASME Section VIII Div. 1

Marking : Standard marking as per ASME code Section VIII

## 2. Safety Relief Valve TYPE - II

Quantity : 5 Nos.

Type : Conventional, full nozzle, spring-loaded type

Fluid Service : Gaseous Nitrogen

Working Temperature : 80K to 300K Set Pressure : 3.0 barG

Inlet Connection : 3/4 inch NPT (M) as per ANSI B 1.20.1 Outlet Connection : 3/4 inch NPT (F) as per ANSI B 1.20.1

Valve Body & Bonet Material : SS304 / SS316

Trim, Nozzle and Disc Material : SS304 / SS316

Plug/seat insert : PCTFE (Kel F)/vespel

Permissible Leak Rate : As per API 527 or other reputed code : Material test, leak test and functional test

Design & manufacturing

Standard : As per ASME Section VIII Div. 1

Marking : Standard marking as per ASME code Section VIII

## 3. Safety Relief Valve TYPE - III

Quantity : 2 Nos.

Type : Conventional, full nozzle, spring-loaded type

Fluid Service : Gaseous Helium
Working Temperature : 80K to 300K
Set Pressure : 0.6 barG

Inlet Connection : 3/4 inch NPT (M) as per ANSI B 1.20.1
Outlet Connection : 1 inch NPT (F) as per ANSI B 1.20.1

Outlet Connection : 1 inch NPT (F) as per ANSI B 1.20.1 Valve Body & Bonet Material : SS304 / SS316

Trim, Nozzle and Disc Material : SS304 / SS316 Plug/seat insert : PCTFE (Kel F)/vespel

Permissible Leak Rate : As per API 527 or other reputed code
Test Certificate : Material test, leak test and functional test

Design & manufacturing

Standard Marking

: As per ASME Section VIII Div. 1

: Standard marking as per ASME code Section VIII

Valve Body & Bonet Material

#### INSTALLATION CONDITION

The vendor / Manufacturer has to deliver detailed procedures for mounting / dismounting of the safety relief valve. The vendor has to provide installation and maintenance manual.

## QUALITY ASSURANCE AND TESTS FOR SAFETY RELIEF VALVES

The following test should be carried out and submit certificates to IPR as a part of acceptance criteria

- Material test certificates
   Vendor should provide material test certificates for Valve body material,
   stem, Plug and seat.
- 2. Leak tightness test:
- 3. Functional test (Calibration and Hysteresis)

### **DOCUMENTATION**

The vendor / Manufacturer should supply following documents along with the valve

- 1. The material test certificates.
- 2. The dimensional controls certificates.
- 3. Test certificates (Leak tightness and Function test)
- 4. The documentation for assembly, dismounting and maintenance.
- 5. The operating and maintenance manuals

#### SCOPE OF SUPPLY

1. Safety relief valves as per Specifications

Туре	Nos. of Valves
	05
II.	05
III	02

## 2. Documentation

# Technical Compliance form of Safety Relief valves of Type I, II and III

Specifications	IPR Requirement	Vendor's Specification
Quantity	Type I - 5 Nos.	vendor's Specification
	Type $II - 5$ Nos.	
	Type III – 2 Nos.	
Type	Conventional, full nozzle, spring-	
	loaded for Type I, II and III	
Fluid Service	Type I & II – GN2	
	Type III - GHe	
Working	Type I, II and III –80K to 300K	
Temperature	21 0012 10 50012	*
Set Pressure	Type I and II – 3.0 barG	
	Type III – 0.6 barG	
Inlet Connection	Type I - 1/2 inch NPT (M) as per	
	ANSI B 1.20.1	
	Type II & III – 3/4 inch NPT (M)	
	as per ANSI B 1.20.1	
Outlet Connection	Type I - 1/2 inch NPT (M) as per	
	ANSI B 1.20.1	
	Type II – 3/4 inch NPT (M) as per	
	ANSI B 1.20.1	*
	Type III – 1 inch NPT (M) as per	
	ANSI B 1.20.1	
alve body and	Type <b>I, II</b> and <b>III</b> – SS304 / SS316	
onnet material		
rim, Nozzle and	Type I, II and III - SS304 / SS316	
Disc Material		
'lug/seat insert	Type I, II and III – PCTFE (Kel	
	F)/vespel	
ermissible Leak	Type I, II and III – As per API	
ate	527 or other reputed code	
est Certificate	Type I, II and III – Material test,	\$
	leak test and functional test	