

**MATERIAL DESCRIPTION, QUALITY REQUIREMENTS AND PRE QUALIFICATION
REQUIREMENTS (PQR)**

MATERIAL SIZE AND RESPECTIVE SPECIFICATION

W90414902300 -----→ 2 Nos.
GLOBE VALVE CARBON STEEL (FLANGED RAISED FACE)
2.5 MPA SPEC: TG60052 REV: 05
SIZE: NB=100, NP=2.5

W90414902394 -----→ 7 Nos.
CS REGULATING GLOBE VALVE (FLANGED RAISED FACE)
2.5 MPA SPEC: TG60052 REV: 05
SIZE: NB50 FLGD DIM.: NB50

W90414906136 -----→ 8 Nos.
GATE VALVE,
CARBON STEEL NP-1.6MPA NB-100
SPEC NO.-TG60711

W90414906578 -----→ 26 Nos.
GATE VALVE CARBON STEEL
NB150 PN16
SPEC: TG60711 REV: 02

QUALITY REQUIREMENTS:

1. Please confirm and endorse (with sign & stamp) BHEL SQP no. QA_BI_QP_106 Rev 02 (QP enclosed).
2. Please confirm that inspection shall be done by BHEL nominated inspection agency M/s Intertek as per BHEL SQP no. QA_BI_QP_106 Rev 02.

GENERAL INSTRUCTIONS TO PARTICIPATING BIDDERS

- Offers of those bidders will be considered for further processing which will be cleared in PQR compliance and technical scrutiny.
- Offered prices on GeM should be inclusive of all taxes, duties, local levies / transportation / loading-unloading charges etc., as per General terms & conditions on GeM.
- Vendor to Inform the %age of GST charges inclusive in the offered prices.
- Vendor to confirm that 100% input tax credit shall be applicable on the GST amount.

VENDORS/BIDDERS TO PROVIDE THE DOCUMENTS AS PER BELOW PRE-QUALIFICATION REQUIREMENTS (PQR). ONLY THOSE OFFERS WILL BE CONSIDERED WHO WILL QUALIFY THE PQR.

Mandatory Pre-Qualification requirements for Globe Valves**Description**

This covers the requirements of Stainless Steel/Carbon Steel Globe Valve used for DM water Clarified water, medium grade turbine oil and non-corrosive fluids application.

Mandatory requirement for Pre-Qualification**1.0 Experience Requirement -**

The Vendor should be a regular manufacturer of Globe Valve. Vendor should have supplied at least Five (5) nos. of Globe Valve in last Ten (10) years (from the date of issuance of enquiry) with following technical details –

Sl no.	Product features	Details
1.	Design Pressure	25 kg/cm ² & above
2.	Nominal Size	25NB & Above
3.	Body Material	Stainless Steel as per ASTM A351 Gr-CF8/CF8M or equivalent/ Carbon Steel as per ASTM A216 WCB or equivalent
4.	Seat & Disc Material	SS316 or equivalent
5.	Test Performed	Hydro (Body, Seat & Back Seat) test

In support of above, vendor to furnish information, as per the following format for previous supplied Globe Valve meeting the above technical requirement for the past Ten (10) years (from the date of issuance of enquiry).

Sl. No	Type of Valve	Name of customer	Purchase order reference no.	Purchase order issue date	Design Pressure	Nominal Size (NB)	Material of Body	Material of Disk	Material of Seat
	Globe Valves Only								

Vendor to submit the following documents as an evidence of acceptance of supplied Globe Valve for the above mentioned successfully executed order -

- Vendor to furnish copy of Un-Priced Purchase Orders executed for supply of at least Five (5) Nos. of Globe Valve in last Ten (10) years (from the date of issuance of enquiry).
- Vendor to furnish the test certificate for Material, Hydro (Body, Seat & Back Seat) test for Globe Valve as per relevant standard for any one of the submitted PO. The submitted test certificates should have co-relation with PO.
- Vendor to furnish supporting document for proof of customer acceptance of Globe Valve from End customer/ Third party for any one of the submitted PO's. Acceptance certificate should contain information like item details, Quantity accepted and should also have correlation with PO reference no.

2.0 Vendor shall submit the proof of manufacturer i.e. Factory license, NSIC certificate.

Note - BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect. the offer shall be rejected.

Mandatory Pre-Qualification requirements for Gate Valves**Description**

This covers the requirements of Stainless Steel/Carbon Steel Gate Valve used for venting/drainage of oil/water from container/pipeline.

Mandatory requirement for Pre-Qualification**1.0 Experience Requirement -**

The Vendor should be a regular manufacturer of Gate Valve. Vendor should have supplied at least Five (5) nos. of Gate Valves in last Ten (10) years (from the date of issuance of enquiry) with following technical details –

Sl no.	Product features	Details
1.	Design Pressure	16 Kg/cm ² & above
2.	Nominal Size	25NB & Above
3.	Body Material	Stainless Steel as per ASTM A351 Gr-CF8/CF8M or equivalent Or Carbon Steel as per ASTM A216 GR WCB or equivalent
4.	Test performed	Hydro

In support of above, vendor to furnish information, as per the following format for previous supplied Gate Valve meeting the above technical requirement for the past Ten (10) years (from the date of issuance of enquiry).

Sl. No.	Type of Valve	Name of customer	Purchase order reference no.	Purchase order issue date	Design Pressure	Nominal Size (NB)	Material of Body	Material of Stem
	Gate Valves only							

Vendor to submit the following documents as an evidence of acceptance of supplied Gate Valve, for the above mentioned successfully executed order -

- Vendor to furnish copy of Un-Priced Purchase Orders executed for supply of at least Five (5) Nos. of Gate Valve in last Ten (10) years (from the date of issuance of enquiry).
- Vendor to furnish the test certificate for Material & Hydro test (24 Kg/cm² and above) for Gate Valve as per relevant standard for any one of the submitted PO. The submitted test certificates should have co-relation with PO.
- Vendor to furnish supporting document for proof of customer acceptance of Gate Valve from End customer/Third party for any one of submitted PO's. Acceptance certificate should contain information like item details, Quantity accepted and should also have correlation with PO reference no.

2.0 Vendor shall submit the proof of manufacturer i.e. Factory license, NSIC certificate.

Note - BHEL reserves the right to verify information submitted by vendor. In case the information is found to be false / incorrect, the offer shall be rejected.

Please submit the documents as per above PQR along with the fully filled tabulated data as per point no. 1 of the PQR(s) along with offer. Vendor may be rejected due to non-submission of aforesaid details.

QUALITY PLAN

BHEL	QP NO.	QA_BI_QP_106	REV.	02	DESCRIPTION			LEGENDS				
	SPEC. NO.	AS PER PO	REV.	AS PER PO	CARBON STEEL GLOBE / GATE VALVE			P- PERFORMED BY		1- BHEL REP		
	DRG. NO.	APPROVED DRAWING AS PER PO	REV.	AS PER PO	(CLASS UPTO 300)			W- WITNESSED BY		2- VENDOR		
								V- VERIFIED BY		3- SUBVENDOR		
SL. NO	COMPONENT OPERATION	CHARACTERISTICS	CLASSIFICATION	TYPE OF CHECK	QUANTUM	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS
									P	W	V	

1	MATERIAL											
1.1	BODY, BONNET, SEAT SEAT RING / DISC STEM / SPINDLE	CHEMICAL COMPOSITION MECHANICAL PROPERTIES	MAJOR	CHEMICAL MECHANICAL	1 / HEAT	ORDERING SPEC. / BHEL APPD. DRG.	ORDERING SPEC. / BHEL APPD. DRG.	MILL TC	3/2	-	2/1	
		HEAT TREATMENT	MAJOR	TIME-TEMP	100%	DO	DO	MILL TC	3/2	-	2/1	
		SURFACE DEFECTS	MAJOR	VISUAL	100%	MSS-SP-55	MSS-SP-55	TC	2	-	1	
		DIMENSIONS	MAJOR	MEASUREMENT	100%	BHEL APPD. DRG.	BHEL APPD. DRG.	TC	2	-	1	
1.2	FASTENERS	GRADE & MAKER'S TEST CERTIFICATE	MAJOR	VISUAL	100%	ORDERING SPEC. / BHEL APPD. DRG.	ORDERING SPEC. / BHEL APPD. DRG.	TC	3	2	2/1	
		DIMENSIONS	MAJOR	MEASUREMENT	100%	BHEL APPD. DRG.	BHEL APPD. DRG.	TC	2	-	1	
1.3	OTHER ITEMS	DIMENSIONS SURFACE QUALITY MATERIAL	MAJOR	MEASUREMENT VISUAL	100%	ORDERING SPEC. / BHEL APPD. DRG.	ORDERING SPEC. / BHEL APPD. DRG.	TC/COC	2	-	1	
2. IN PROCESS INSPECTION												
2.1	MACHINING OF BODY, BONNET, SEAT SEAT RING / DISC STEM / SPINDLE	DIMENSIONS	MAJOR	MEASUREMENT	100%	BHEL APPD. DRG.	BHEL APPD. DRG.	IR	2	-	-	
		SURFACE DEFECTS	MAJOR	DPT	100%	ASTM E165 ASME B 16.34	ASME B16.34	TC	2	-	1	
2.2	DISC & SEAT	COLOUR MATCHING	MAJOR	MATCHING	100%	BHEL APPD. DRG.		TC	2	-	1	

Digitally signed by Priti Kumar Ranjan
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QUALITY PLAN									Page 2 of 2			
BHEL	QP NO.	QA_BI_QP_106	REV.	02	DESCRIPTION				LEGENDS			
	SPEC. NO.	AS PER PO	REV.	AS PER PO	CARBON STEEL GLOBE / GATE VALVE				P- PERFORMED BY		1- BHEL REP	
	DRG. NO.	APPROVED DRAWING AS PER PO	REV.	AS PER PO	(CLASS UPTO 300)				W- WITNESSED BY		2- VENDOR	
									V- VERIFIED BY		3- SUBVENDOR	
SL. NO	COMPONENT OPERATION	CHARACTERISTICS	CLASSIFICATION	TYPE OF CHECK	QUANTUM	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORDS	AGENCY			REMARKS
									P	W	V	

2.3	HARD FACING ON DISC, SEAT, SEAT RING	HARDNESS	MAJOR	HARDNESS	10%	ORDERING SPEC. / BHEL APPD. DRG							IF CALLED IN ORDERING SPEC. / BHEL APPD. DRG
3	FINAL INSPECTION												
3.1	ASSEMBLY OF VALVE	DIMENSIONS	MAJOR	MEASUREMENT	100%	BHEL APPD. DRG.	BHEL APPD. DRG.	TC	2	1	*		* 10%
3.2	FUNCTIONAL TEST	OPENING & CLOSING	MAJOR	OPERATION	100%	SMOOTH OPERATION OF VALVE		TC	2	1	*		
3.3	HYDRAULIC TEST	LEAKAGE	CRITICAL	HYDRAULIC	100%	ORDERING SPEC. / BHEL APPD. DRG	NO LEAKAGE	TC	2	1	*	-	
3.4	SEAT LEAK TEST	LEAKAGE	CRITICAL	HYDRAULIC	100%	ORDERING SPEC. / BHEL APPD. DRG	NO LEAKAGE	TC	2	1	*	-	
3.5	SEAT LEAK TEST / VACUUM TEST	LEAKAGE	CRITICAL	AIR	100%	ORDERING SPEC. / BHEL APPD. DRG	NO LEAKAGE	TC	2	1	*	-	IF ASKED IN APPROVED ORDERING SPEC. / BHEL APPD. DRG
3.6	BACK SEAT TEST	LEAKAGE	CRITICAL	HYDRAULIC	100%	ORDERING SPEC. / BHEL APPD. DRG	NO LEAKAGE	TC	2	1	*	-	IF ASKED IN APPROVED ORDERING SPEC. / BHEL APPD. DRG
3.7	PRESERVATION & PAINTING		MAJOR	VISUAL	100%	BHEL SPEC		IR	2	-	-		

Digitally signed by
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