

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION		PY 52 060
		PRODUCT STANDARD		Rev. No. 02
		GALVANISED MS PIPES SEAMLESS/WELDED		Page 1 of 4

COPYRIGHT AND CONFIDENTIAL

The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.

GALVANISED MILD STEEL PIPES SEAMLESS / WELDED ORDERING SPECIFICATION

1.0 GENERAL

- 1.1 The Galvanized Mild Steel Pipes (Seamless/Welded) shall conform to the requirements of latest version of Indian Standard IS 1239 (Part – 1)/IS 3589 “Specification for Steel Tubes, Tubulars and other Wrought Steel Fittings” and comply with the following additional requirements.
- 1.2 This specification is applicable to MS pipes of IS 1239/IS 3589.
- 1.3 These pipes shall be suitable for Instrument Air and Potable Water applications.

2.0 MANUFACTURE:

- 2.1 This specification is applicable for both Seamless and Welded Pipes, to be manufactured as per process specified Indian Standard IS 1239/ IS 3589.
- 2.2 The pipes shall be supplied with screwed ends (NPT male).
- 2.3 The pipes shall be duly galvanized as per Indian Standard IS 1239/IS 3589.
- 2.4 The Zinc coating on the pipes shall be in accordance with IS 4736. Pipes to be galvanized before screwing.

3.0 CHEMICAL COMPOSITION:

Shall be as per the requirements of Indian Standard IS 1239 (Part-1)/ IS 3589.

4.0 CONDITIONS OF DELIVERY:

The pipes supplied shall be in galvanized condition with NPT-M screwed ends confirming to IS-1239 (PART 1)/IS 3589.

5.0 DIMENSIONS AND TOLERANCES:

- 5.1 Pipe Size (NB) and Wall Thickness shall be as per BHEL order.
- 5.2 Dimensions and Tolerances shall be as per Indian Standard IS 1239 (Part-I)/IS 3589.
- 5.3 Unless otherwise specified, pipes shall be supplied in single random lengths of 5 to 7 meters.
- 5.4 Quantity Tolerance shall be 0/+1 random length. No negative quantity tolerance is accepted.

6.0 DESIGNATION:

Eg. PIPE (WELDED) MS 50 NB HVY IS1239(GALV)

7.0 TESTING REQUIREMENTS:

All the applicable tests as per the requirements of National Standard IS1239 (Part-I)/ IS 3589 shall be carried out successfully.

Refer Doc	LAYOUTS & PIPING ENGINEERING	PREPARED	CHECKED	APPROVED	DATE
		 G SRIKANTH	 G SRIKANTH	 VVSS SUNDAR	12.03.15

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 060
		TECHNICAL SPECIFICATION	Rev. No. 02
		GALVANISED MS PIPES SEAMLESS/WELDED	Page 2 of 4

COPYRIGHT AND CONFIDENTIAL
The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED,
It must not be used directly or indirectly in any way detrimental to the interest of the company.

8.0 INSPECTION REQUIREMENTS:

BHEL's representative shall have free access at all times to all parts of the manufacture's works, until the work on the contract of BHEL is being performed. The manufacturer shall offer BHEL's representative all reasonable facilities, without charge, to satisfy the latter that the material is being furnished in accordance with the specification.

9.0 TEST SAMPLES:

All tubes bearing the same designation and manufactured under a single process shall be grouped together to constitute a lot.
Each lot shall be sampled separately in accordance with IS: 4711.

10.0 TEST CERTIFICATES:

Three copies of test certificates shall be supplied, unless otherwise stated on the order.

In addition, to the above, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material. The test certificate shall bear the following information:

PY 52060: Rev. No. 00: IS 1239 (part1)/IS 3589 Galvanized Steel pipes-

BHEL order No:

Supplier's Reference:

Name:

Identification No:

Melt No:

Results of Tests: Results of Chemical, Mechanical tests and Hydraulic/Eddy Current test

11.0 PACKING AND MARKING:

Each tube shall be plugged at both ends by means of tight fitting end caps.

The tubes shall be suitably packed in bundles/packages to prevent corrosion and damage during transit. Each bundle/package shall bear the following information:

PY 52060: IS 1239 (part1)/ IS 3589 Galvanized Steel pipes

BHEL Order No:

Consignment/Identification No:

Nominal bore, Outside Diameter and Wall Thickness:

Supplier's Name:

12.0 TECHNICAL DELIVERY CONDITIONS:

For all the requirements not listed in this specification, BHEL Corporate Standard **AA0490001** shall be referred

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 060	
		TECHNICAL SPECIFICATION		Rev. No. 02
		GALVANISED MS PIPES SEAMLESS/WELDED		Page 3 of 4

VARIANT TABLE:

Var No	Pipe NB	Pipe Wall Thickness	Manufacturing Process	BHEL Material Code
01	15	HVY	SEAMLESS	PY9752060013
02	20	HVY	SEAMLESS	PY9752060021
03	25	HVY	SEAMLESS	PY9752060030
04	40	HVY	SEAMLESS	PY9752060048
05	50	HVY	SEAMLESS	PY9752060056
06	65	HVY	SEAMLESS	PY9752060072
07	80	HVY	SEAMLESS	PY9752060064
08	100	HVY	SEAMLESS	PY9752060080
09	15	HVY	WELDED	PY9752060099
10	20	HVY	WELDED	PY9752060102
11	25	HVY	WELDED	PY9752060110
12	40	HVY	WELDED	PY9752060129
13	50	HVY	WELDED	PY9752060137
14	80	HVY	WELDED	PY9752060145
15	100	HVY	WELDED	PY9752060153
16	32	HVY	WELDED	PY9752060161
17	150	HVY	WELDED	PY9752060170
18	200	6.3	WELDED	PY9752060188
19	250	6.3	WELDED	PY9752060196

COPYRIGHT AND CONFIDENTIAL
 The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED,
 It must not be used directly or indirectly in any way detrimental to the interest of the company.

Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 52 060
		TECHNICAL SPECIFICATION	Rev. No. 02
		GALVANISED MS PIPES SEAMLESS/WELDED	Page 4 of 4

RECORD OF REVISIONS:

Rev No	Date	Revision Detail	Revised by	Approved by
00	12.03.2015	FIRST ISSUE	G KALYAN	SRIKANTH G
01	12.08.2015	ADDED WELDED PIPE CODES	G KALYAN	SRIKANTH G
02	15.02.2018	SPECIFICATION TITLE RENAMED AND VARIANTS 17 TO 19 ADDED	U PRADEEP	SRIKANTH G

COPYRIGHT AND CONFIDENTIAL
 The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED,
 It must not be used directly or indirectly in any way detrimental to the interest of the company.