



NORTH BIHAR POWER DISTRIBUTION CO. LTD.

[Office of Chief Engineer, Project-II]
(Regd. Office: Vidyut Bhawan, Bailey Road, Patna)

Letter No: 145

CIN No: U40109BR2012SGC018920

Contact No: +91-9264437179

Dated: 09/06/2023

E-mail: cerdssnbpdc12@gmail.com

NB/P-II/Saharsa/RDSS/GTP&Drawing Approval/53/2023

From,

Pranav Kumar
Chief Engineer, Project-II.

To,

M/s Vindhya Telelinks Limited
Club 125,6th floor, Tower A, Plot No-3,4,&5,
Sector 125,Noida,UP-201301
Email:ashish@vtlrewa.com/s.shah@vtlrewa.com/epc@vtlrewa.com

Sub:- Approval of GTP & Drawings of Nut & Bolts of M/s Associated Industrial Stores, Howrah for Development of Distribution Infrastructure under Revamped Reforms-Based And Results-Linked, Distribution Sector Scheme against NIT No-32/PR/NBPDCL/2022 for Saharsa Circle

Ref:-
1. NIT No: 32/PR/NBPDCL/2022
2. This Office NOA No: 17 & 18 dated 06.03.2023
3. Your Letter No: VTL/NBPDCL/RDSS/Approval/Saharsa/11 dated 25.05.2023

Sir,

With reference to the subject noted above, kindly find the copy of GTP & drawing of Nut & Bolts for Development of Distribution Infrastructure against NIT No: 32/PR/NBPDCL/2022 for Saharsa Circle under Revamped Reforms-Based And Results-Linked, Distribution Sector Scheme.

Sl. No.	Name of Item	Vendor Name
1	Nut & Bolts (M8,M10,M12,M16,M20)	M/s Associated Industrial Stores 46/12 Dasarath Ghosh Lane (Near Tikia Para Rly. Station), Howrah 711101

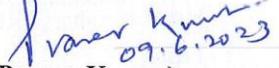
Correction wherever required in GTP/ Drawing submitted by the contractor has been done in ink. However, these Drawings shall be subject to correctness as per technical specifications of the tender document and the entire responsibility of the correctness of the drawing as per the specifications as well as supply of material according to the technical specifications of the contract agreement shall be responsibility of the contractor.

In case of any conflict or contradiction between GTP / Drawings & Technical Specifications, the decision of C.E. (Project-II) shall be final and binding on both the parties. Contractor shall have to replace the material to the entire satisfaction of the owner in case the material is found unsuitable for use in the project, at any stage. This approval is up to validity of valid type test certificate. In case any problem/ issue arises with regard to material/ vendor at any stage, NBPDC reserves the right to withdraw the approval of vendor as well as ask you to replace the materials at your own cost.

Please carry out the works immediately under conditions stated above.

Encl: as above

Yours faithfully,


(Pranav Kumar)

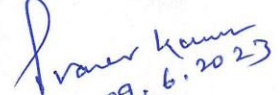
Chief Engineer (Project-II)

Memo No.: 145...../

Dated : 09/06/2023/

Copy forwarded M/s Polycab India Ltd, 771 , Polycab House , Mogul Lane , Mahim (W) , Mumbai-400016 / M/s JSP Projects Pvt. Ltd., Flat No.- 5, IInd Floor, IIIrd B-2, Nehru Nagar, Ghaziabad (UP)- 201001/ M/s Ashoka Buildcon Ltd., S. No.- 861 , Ashoka House , Ashoka Marg , Vadala , Nasik - 422011/ M/s NCC Ltd., NCC House, Survey no. 64, Madhapur, Hyderabad, 500081 / M/s Vaishno Associates Vidyut Projects LLP, H.O-14-15, 3rd Floor, Gajraj Tower, Motilal Atal Road, Jaipur / M/S CABCON India Ltd., 1st Floor, The Terminus Building, BG-12, Action Area -1B, New Town, Kolkata-700156 / M/S Techno Power Enterprises Pvt. Ltd., INFINITY "THINK TANK" Tower II, 10th Floor Plot No. A3, Block-GP, Sector V, Salt Lake City, Kolkata -700091 (WB) for information and necessary action.

Encl: as above


(Pranav Kumar)

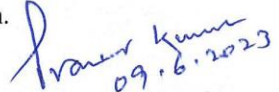
Chief Engineer (Project-II)

Memo No.: 145...../

Dated : 09/06/2023/

Copy forwarded to PMA, RDSS NBPDCI for information and needful action.

Encl: as above


(Pranav Kumar)

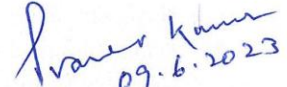
Chief Engineer (Project-II)

Memo No.: 145...../

Dated : 09/06/2023/

Copy forwarded to Chief Engineer, Project-I (Urban), NBPDCI for information and needful action.

Encl: as above


(Pranav Kumar)

Chief Engineer (Project-II)

MANUFACTURER OF FASTENERS & FABRICATION ITEMS

Register Office & Works : 46/12 Dasarath Ghosh Lane (Near Tikia Para Rly. Station), Howrah 711101, W.B
 Ph # +91 33-2651-1389/5441 | www.associatedind.com | info@associatedind.com

GURANTEED TECHNICAL PARTICULARS FOR HDG BOLTS, NUTS, Gr.5,6, NUTS Gr. 5 & WASHER Gr.B

1. Specifications & Application Dimension Standards

- i. Bolts : IS 1363 Part 1 & 2 : 2002 / IS 12427, IS-1364/2002, IS1367/2002,
- ii. Nuts : IS 1363 Part 3 : 1992 / IS 14394 : 1996 IS 2629/1966
- iii. Spring washer : IS 3063 : 1994
- iv. Flat Washer : IS 2016 : 1967 ✓

2. Tolerances : IS 1367 Part 2 : 2002 ✓

3. Raw Material

- i. For Bolts, Nuts : IS 1367 Part 3 : 2002, IS 1367 Part 6 : 1994
- ii. For Plain Washer : Carbon Steel ✓
- iii. Spring Washers : IS 4072 : 1975 ✓

4. Chemical Composition

- i. For Bolts & Nuts (Class 5.6)
 - Carbon : 0.13% - 0.55% ✓
 - Phosphorus (Max) : 0.05% ✓
 - Sulphur (Max) : 0.060% ✓
 - BA - : 0.003 (Max^m) ✓

5. Mechanical Properties

- a) For Bolts (IS : 1367 Part III – 2002)(Class 5.6)
 - i. Tensile Strength (Min) : 500 N/mm² ✓
 - ii. Stress under proof load (Min) : 280 N/mm²
 - iii. Hardness HRB (Min) : 79 HRB - 95 HRB
 - iv. Elongation after fracture (%Min) : 20% ✓
 - v. Strength under wedge load (Min) : 500 N/mm² ✓
 - vi. Head soundness test : No fracture ✓
- b) For Hex Nuts (IS : 1367-1994 part VI and 14394-1996) (Class 5)
 - i) Proof Load (Min) : 500 N/mm²
 - ii) Hardness HRB (Min.) : 100 HRB
- c) For Spring washers
 - i) Hardness test : IS 3063-1994 ✓
 - ii) Permanent set. I est : IS 3063-1994 ✓
 - iii) Permanent load Test : IS 3063-1994 ✓
 - iv) Twist test : IS : 3063-1994 ✓



* The material must comply technical specifications of RSS and relevant IS. Signature of the Bidder

With date and seal



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 (PROJECT)
 NBPDC, PATNA

APPROVED
 [Signature]
Chief Engineer
 (PROJECT-II)
 NBPDC, PATNA

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6. Finished: : As Customer Requirement
- Natural finished of Bolts & Nuts : Coated with Lubricating oil as anti- Rust oil ✓
- Hot Dip Galvanizing of Bolts & Nuts : IS 1367 (part XIII) – 1983 (2002), 2624/1966
- i) Mass of coating (g/m² min) : 375 300 gm/m² (min average)
- ii) Coating thickness (mm-min) : 73 73 microns (min average)
- Hot Dip Galvanizing of P.washers : IS 4759 – 1996, IS 2016/1967
- i) Mass of coating (g/m² min) : 460 gm/m² (Under 5 mm but not less 2mm)
 340 gm/m² (Under 2 mm but not less 1.2 mm)
- ii) Coating thickness (mm-min) : 66 microns
- Electro- Galvanizing of S.washers : IS 1573 ✓
- i. Mass of coating (g/m² min) : 56 gm/m²
- ii. Coating thickness (mm-min) : 8 microns
7. Sampling Procedure for bolts & nuts, washers : IS 1367 Part – 17/IS: 6821 - 1973, IS 2614/1969 ✓
8. Dimensional Particulars for Bolts
- | <u>Nuts, spring washers and Flat washers</u> | <u>Bolt</u> | <u>Nut</u> | <u>S/W</u> | <u>F/W</u> |
|--|------------------|------------|--------------|------------|
| i) IS Standard | IS:1363 | IS:1363 | IS:3063/1994 | IS:2016 |
| ii) Shank diameter (ds) 'mm' | IS:1363 | IS:1363 | -- | -- ✓ |
| iii) Width across flat (s) 'mm' | do | do | -- | -- |
| iv) Width across corners (e) 'mm' | do | -- | -- | -- |
| v) Thickness of Bolt head (lk) 'mm' | do | -- | -- | -- |
| vi) Length of thread (b) | do | -- | -- | -- |
| vii) Thread size of Nut (m) in mm, s, m, e | IS 1363 : 1992 ✓ | -- | -- | -- |
| viii) Spring washers d1, d2, b, s, h | IS 3063 : 1994 ✓ | -- | -- | -- |
| ix) Flat washers d1, D, s | IS 2016 : 1967 ✓ | -- | -- | -- |

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Signature
 Signature of the Bidder



With date and seal



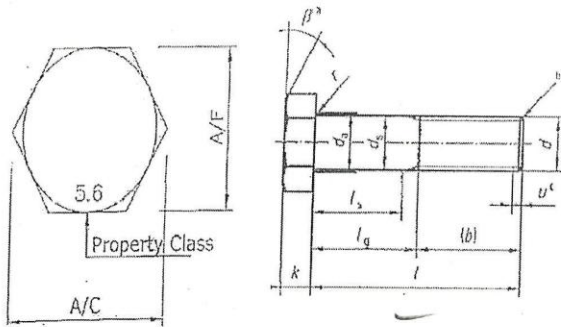
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DIMENSIONS OF BOLT [IS:1363-I-2002]



Sl.No.	THREAD SIZE	TOLL.	M8	M10	M12	M16	M20
1	PITCH		1.25	1.50	1.75	2.00	2.50
2	THREAD LENGTH (b) (MIN.)	a	22.00	26.00	30.00	38.00	46.00
		b	28.00	32.00	36.00	44.00	52.00
		c	41.00	45.00	49.00	57.00	65.00
3	SHANK DIA (ds)	MIN	7.42	9.42	11.30	15.30	19.16
		MAX	8.58	10.58	12.70	16.70	20.84
4	Across Corner (c)	MIN	14.20	17.59	19.85	26.17	32.95
5	Across Flat (s)	MIN	12.57	15.57	17.57	23.16	29.16
		MAX	17.00	16.00	18.00	21.00	30.00
6	Head Thickness (K)	MIN	4.92	5.95	7.05	9.25	11.60
		MAX	5.67	6.85	7.95	10.75	13.40

For <125 i.e. for length upto 125 mm
 For <125 i.e. for length between 126 to 200 mm
 For <200 i.e. for length above 200 mm

ALL DIMENSIONS ARE IN MM

CONTRACTOR		VINDHYA TELELINKS LIMITED	
PROJECT		Revamped Reforms-Based And Results-Linked Distribution Sector Scheme	
CLIENT		NORTH BIHAR POWER DISTRIBUTION CO. LTD	
NOA NO.		1. 246 dated 6th March 2023 for Supply against NIT No.28/PR/NBPDCL/2022 2. 17 dated 6th March 2023 for Supply against NIT No.32/PR/NBPDCL/2022	
MATERIAL DESCRIPTION		Hexagonal bolt	
SUPPLIER		Associated Industrial Stores	
DATE : 10-05-2023	SCALE : DO NOT SCALE THE DRAWING	DRG. NO.: AIS/NBPDCL/23-24/1	REV. NO. 1
	SIZE		SHEET, NO. 1 OF 1



* The material would comply technical specification of RRS and relevant IS.

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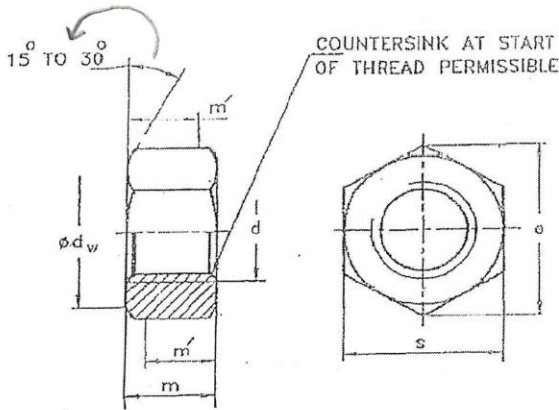
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 Chief Engineer
 (PROJECT-II)
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DIMENSIONS OF NUT [IS 1363-3-2002]



Sl.No.	THREAD SIZE	TOLL	M8	M10	M12	M16	M20
1	PITCH ✓		1.25	1.50	1.75	2.00	2.50
2	A/F ✓	MIN	12.57	15.57	17.57	23.16	29.16
		MAX	13.00	16.00	18.00	24.00	30.00
3	A/C ✓	MIN	14.20	17.59	19.85	26.17	32.95
		MAX	6.40	8.00	10.40	14.10	16.90
4	m ✓	MIN	5.10	6.40	8.30	11.30	13.50
		MAX	7.90	9.50	12.20	15.90	19.00
5	m ² ✓	MIN	11.50	14.50	16.50	22.00	27.70
6	d _w ✓	MIN					

- S - Across Flat
- e - Across Corner
- m - Nut Thickness
- m² - Wrenching Height
- d_w - Bearing Face
- Property Class - 5

ALL DIMENSIONS ARE IN MM

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CLIENT		NORTH BIHAR POWER DISTRIBUTION CO. LTD	
NOA NO.		1. 246 dated 6th March 2023 for Supply against NIT No.28/PR/NBPDCL/2022 2. 17 dated 6th March 2023 for Supply against NIT No.32/PR/NBPDCL/2022	
MATERIAL DESCRIPTION		NUT	
SUPPLIER		Associated Industrial Stores	
DATE : 10-05-2023	SCALE : DO NOT SCALE THE DRAWING SIZE	DRG. NO.: AIS/NBPDCL/23-24/1	REV. NO. 1 SHEET. NO. 1 OF 1

* The material must comply technical Specification of RSS and relevant IS.



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 NBPDCL. PATNA

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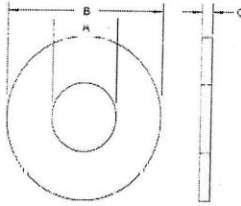


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DIMENSIONS OF PLAIN WASHER [IS 2016:1967]



Sl.No.	THREAD SIZE	TOLL	M8	M10	M12	M16	M20	M22	M24
1	Outer Dia (B) ✓	MIN	15.90	19.70	22.70	28.70	35.40	37.40	39.40
		MAX	17.00	21.00	24.00	30.00	37.00	39.00	41.00
2	Inner Dia (A) ✓	MIN	9.00	11.00	14.00	18.00	22.00	24.00	26.00
		MAX	9.36	11.43	14.43	18.43	22.52	24.52	26.52
3	Thickness (C) ✓	MIN	1.30	1.70	2.20	2.55	2.55	3.00	3.00
		MAX	1.90	2.30	2.80	3.75	3.75	3.75	3.75

ALL DIMENSIONS ARE IN MM

	CONTRACTOR	VINDHYA TELELINKS LIMITED		
	PROJECT	Revamped Reforms-Based And Results-Linked Distribution Sector Scheme		
	CLIENT	NORTH BIHAR POWER DISTRIBUTION CO. LTD		
NOA NO.	1. 746 dated 6th March 2023 for Supply against NIT No.20/PR/NBPDCL/2022 2. 17 dated 6th March 2023 for Supply against NIT No.32/PR/NBPDCL/2022			
MATERIAL DESCRIPTION	PLAIN WASHER			
SUPPLIER	Associated Industrial Stores			
DATE : 10-05-2023	SCALE : UU NUT SCALE THE DRAWING SIZE	DRG. NO. : AIS/NBPDCL/23-24/1	REV. NO. 1 SHEET. NO. 1 OF 1	

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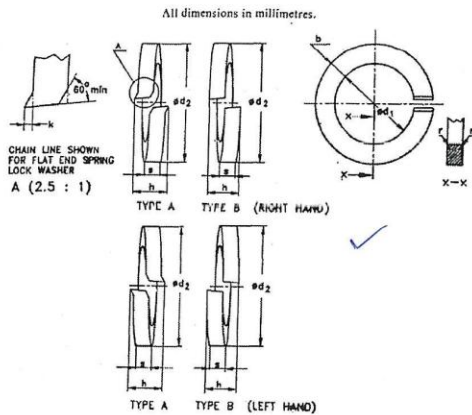
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DIMENSIONS OF SPRING WASHER [IS 3063:1994]



Sl.No.	THREAD SIZE	TOLL	M8	M10	M12	M16	M20
1	OUTER Dia (d2)	MAX	14.80	18.10	21.10	27.40	33.60
2	Inner Dia (d1)	MIN	8.10	10.20	12.20	16.20	20.20
		MAX	8.50	10.70	12.70	17.00	21.20
3	breadth (b)	MIN	2.85	3.30	3.80	4.80	5.80
		MAX	3.15	3.70	4.20	5.20	6.20
4	Thickness (s)	MIN	1.90	2.05	2.35	3.30	3.80
		MAX	2.10	2.35	2.65	3.70	4.20
5	Height (h)	MIN	4.00	4.40	5.00	7.00	8.00
		MAX	4.70	5.20	5.90	8.30	9.40

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MATERIAL DESCRIPTION		SPRING WASHER	
SUPPLIER		Associated Industrial Stores	
DATE :	SCALE : DO NOT SCALE THE DRAWING	DRG. NO. : AIS/NBPDCL/23-24/1	REV. NO.
10-05-2023	SIZE		1
			SHEET. NO.
			1 OF 1

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 (PROJECT-II)
 NBPDCL, PATNA

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Chief Engineer
 (PROJECT-II)
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