

# COMPANY STANDARDS

TITLE : NUT-HEX., COARSE PITCH &  
NUT-LOCK, HEX., COARSE PITCH  
( CFN01 & CFN02 - ISSUE-1)

PAGE NO. OF

DATE :  
1997-09-28

## INFORMATION SHEET-1/1

### IMPORTANT NOTE:

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1. INFORMATION IN THIS SHEET SHALL BE FOR INTERNAL USE ONLY.
2. REMOVE THIS PAGE BEFORE ISSUE TO THE SUPPLIER

### ADDITIONAL INFORMATION

I. This issuance is brought out with a view to harmonise the earlier standard with ISO/IS & to indicate permissible chemistry and property requirements.

### II. OTHER BEML COMPANY STANDARDS ON NUTS :

1. CFN03 : NUT, SLOTTED/CASTLE, PRECISION GRADE, COARSE PITCH.
2. CFN04 : SPECIAL NUT, HEX. COARSE PITCH.
3. CFN19-22 : NUT & LOCK NUT, HEX. FINE PITCH.
4. CFN23 : NUT, WING.
5. CFN24 : NUT, NYLOC, COARSE PITCH.
6. CFN28 : NUT, NYLOC, FINE PITCH.
7. CFN30 : NUT, HEX. UNIFIED COARSE THREAD.
8. CFN31-32 : NUT, HEX. UNIFIED FINE THREAD.
9. CFN33 & 34 : NUT, SLOTTED/CASTLE, FINE THREAD.
10. CFN35 : NUT, HEX. FINE THREAD.
11. CFN36 : NUT, SLOTTED, FINE THREAD, METRIC.

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# COMPANY STANDARDS

TITLE :

NUT-HEX. COARSE PITCH &  
NUT-LOCK, HEX. COARSE PITCH

CFN01,  
CFN02

PAGE NO. 1 OF 4

DATE :  
1997-09-28

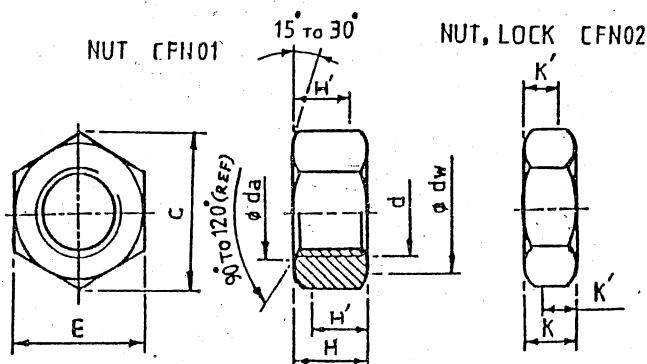


FIGURE-1

TABLE-1 - DIMENSIONS

Unit:mm

Nominal Size d		2	3	4	5	6	8	10	12	16	20	24	30	36
Pitch P		0.40	0.50	0.70	0.80	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00
da	min	2.00	3.00	4.00	5.00	6.00	8.00	10.00	12.00	16.00	20.00	24.00	30.00	36.00
	max	2.30	3.45	4.60	5.75	6.75	8.75	10.80	13.00	17.30	21.60	25.90	32.40	38.90
dw min		3.10	4.60	5.90	6.90	8.90	11.6	14.60	16.60	22.50	27.70	33.20	42.80	51.10
C min		4.32	6.01	7.66	8.79	11.05	14.38	17.77	20.03	26.75	32.95	39.55	50.85	60.79
H	max	1.60	2.40	3.20	4.70	5.20	6.80	8.40	10.80	14.80	18.00	21.50	25.60	31.00
	min	1.35	2.15	2.90	4.40	4.90	6.44	8.04	10.37	14.00	16.90	20.20	24.30	29.40
H' min		1.08	1.72	2.32	3.52	3.92	5.15	6.43	8.30	11.28	13.52	16.10	19.44	23.52
E	max	4.00	5.50	7.00	8.00	10.0	13.00	16.00	18.00	24.00	30.00	36.00	46.00	55.00
	min	3.82	5.32	6.78	7.78	9.78	12.73	15.73	17.73	23.67	29.16	35.00	45.00	53.80
K	max	1.20	1.80	2.20	2.70	3.20	4.00	5.00	6.00	8.00	10.00	12.00	15.00	18.00
	min	0.95	1.55	1.95	2.45	2.90	3.70	4.70	5.70	7.42	9.10	10.90	13.90	16.90
K' min		0.80	1.20	1.60	2.00	2.32	3.00	3.80	4.60	5.90	7.30	8.70	11.10	13.50
Size	CFN01	0216	0324	0432	0547	0652	0868	1084	*1211	*1615	*2018	*2422	*3026	*3631
Code	CFN02	0212	0318	0422	0527	0632	0840	1050	1260	1680	*2010	*2412	*3015	*3618

Note: 1). The last two digits in case of the Size codes marked '\*' are arrived at by approximating the the thicknesses to the nearest millimeters.

PREPARED BY:

CSD

ISSUE NO:

1 (ONE)

REPLACEMENT FOR:


REFERENCE:

APPROVED BY :

*[Signature]*  
ED (G)

*[Signature]*  
D (G)

*[Signature]*  
D (P)

CFN01, CFN02.	4	<b>COMPANY STANDARDS</b>	
PAGE NO. 20F		TITLE : NUT-HEX. COARSE PITCH & NUT-LOCK, HEX. COARSE PITCH	
DATE : 1997-09-28			

- 2) The dimensions H' & K' represent wrenching height. This dimension is measured from bearing face to start of the chamfer on the nut.

TABLE-2 - MATERIAL

Classification code		1	2
Grade		8	10
Material		See note	C1101
Proof Stress N/mm <sup>2</sup>	≤ M16	840 Min.	1050 Min.
	> M16	920 Min.	
Q & T Hardness-HV	≤ M16	188 to 302 #	272 to 353
	> M16	233 to 353	
Surface treatment		Zinc plating with chromate conversion. Ref. Co.Std PR1033-C.	Rust preventive oil ref. Co.Std C6001-10 / Black Oxide Coating As per IS:13212

Note: (a) Nut of grade 8 of size M16 and higher shall be made of C1101.

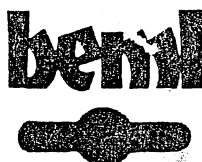
- (b) For Nuts of Grade 8 of size below M16, the following limits of composition shall apply :

C=0.50 max, Mn=0.30 min, S=0.050 max, P=0.050 max

- # (c) Q & T for grade-8 of size upto M16 is optional.

TABLE-3 WEIGHTS & PACKAGING DETAILS

Nut Nom. Size	CFN01		CFN02	
	Unit Wt.:Grams (Approx.)	Qty. In Each Pack	Unit Wt.:Grms (Approx.)	Qty. In Each Pack
2	0.2	1000 nos	0.1	1000 nos
3	0.3	1000	0.2	1000
4	0.5	1000	0.4	1000
5	0.8	1000	0.7	1000
6	2.0	1000	1.0	1000
8	3.0	1000	2.0	1000
10	9.0	500	4.0	500
12	12.0	250	7.0	500
16	24.0	100	10.0	500
20	50.0	100	18.7	250
24	80.0	50	32.8	100
30	175.0	25	106.0	25
36	215.0	25	175.0	25



# COMPANY STANDARDS

TITLE :

NUT-HEX. COARSE PITCH &  
NUT-LOCK, HEX. COARSE PITCH

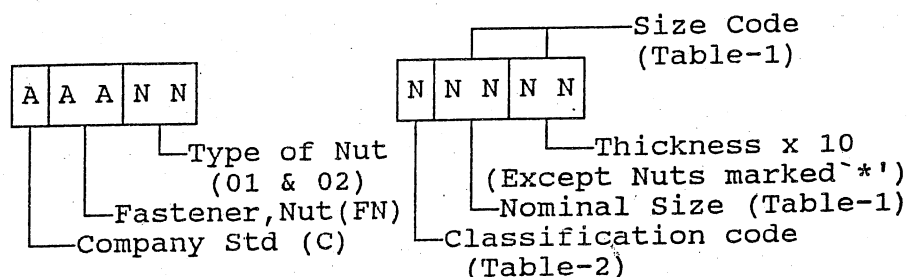
CFN01  
CFN02

PAGE NO. 3 OF 4

DATE :  
1997-09-28

## 1. DESIGNATION :

Part number & description shall be as shown below. The first 5 digits appear on the document.



- Ex:-
- Part number : CFN01 21211  
Description : Nut, Hex. M12
  - Part number : CFN02 11260  
Description : Nut -Lock, Hex. M12

- Dimensions & tolerances shall conform to Table-1. Dimensions & tolerances not indicated in this standard shall be as per IS:1364, Part 3 -latest issuance.

- Material, Mechanical properties & Surface treatment shall conform to Table-2. Test methods shall conform to IS:1367 Part 6-"Technical supply conditions for threaded fasteners".

Permissible defects (surface discontinuities) shall be as per IS:1367 Part 10/ISO:6157 Part 2.

- Thread tolerance shall be 6H as per IS:4218-Part 5, after coating.

- For inspection & acceptance criteria, refer Company Standard QS1001-C.

## 6. PACKAGING :

All sizes of nuts of quantities as mentioned in Table-3 shall be packed in polyethylene covers and properly heat sealed to protect them from entry of dust and water. The covers containing nuts shall in turn be packed in cartons or crates depending on the mass. Only one size of nut should be packed in each pack.



The mass of a single pack shall not exceed the following :

Mass in kg.

Paper or plastic bag	05
Plastic box or carton	10
Plastic or metal crate or carton	40
Wooden crate or box	50

Other requirements regarding packing shall conform to IS:9141.

#### 7. IDENTIFICATION MARKING :

On the Face of the nut, Grade designation as per Table-2, Vendor Code/Logo shall be marked by Embossing as shown in the Fig-2 below :

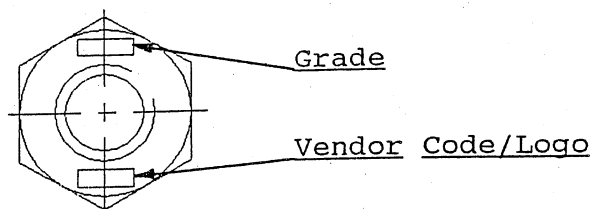
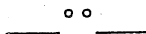


FIGURE-2



**beml**

# COMPANY STANDARDS

AMENDMENT NO. 01

DATE: 1998-09-02

TITLE:

NUT-HEX COARSE PITCH &  
NUT LOCK, HEX. COARSE PITCHSTD.NO  
CFN01 & CFN02

AMENDMENT SHEET -01/01

ISSUE NO ONE

Read clause 4 as follows instead of the existing :

For grade 8 the thread tolerance shall be 6H as per IS: 4218 part- 5 before coating and after coating. The coating thickness shall be 8 micrometer (min) as measured on the end face of the nut. However, the threads after coating shall not transgress the maximum material limit for tolerance specified.

For grade 10, the thread tolerance shall be 6H as per IS: 4218 part- 5.

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APPROVED BY:

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# COMPANY STANDARDS

TITLE :

NUT-HEX., COARSE PITCH & NUT-LOCK,  
HEX., COARSE PITCH (ISSUE-01)

AMENDMENT NO.: 02

DATE : 2004-07-10

STD NO.: CFN01~02

ISSUE NO.: 01

## AMENDMENT SHEET - 1/1

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- I. In page 3 of 4, clause 4 shall be read as follows instead of the existing :
  4. Thread tolerance shall be 6H as per latest issuance of IS: 14962 (part 3).
- II. In page 4 of 4, last para of clause 6 shall be read as follows instead of the existing :
  6. PACKAGING :

Other requirements regarding packing shall conform to latest issuance of IS: 1367 (part 18).

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(Reason : Revision of Indian Standard)

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