



Standard Parts

Number:	EM-001
Date Issued:	A-DEC16

ELECTRONIC DOCUMENT IN THE VIEWER IS CONTROLLED. PRINTED COPY IS AN UNCONTROLLED DOCUMENT.

HEX NUTS (Style 1)
METRIC SERIES
(SUPERSEDED)

This standard has been superseded by CNH Standard Parts, STPE510 (87028094), Hexagon Nut - Metric Coarse Thread, Preferred and Non-Preferred. For information on superseded standards refer to ENS0050 (87523699).

The controlled versions of CNH specifications and standards are published on the CNH Intranet site.

The documents are also available on the CNH electronic viewing system (e.g. iView). Suppliers are able to access these documents on the Supplier Portal.

The superseded standard remains available for viewing following this page if needed.

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GENERAL SPECIFICATIONS

GENERAL: This specification contains the essentials of the following standards:

International Organization for Standardization: ISO 4032
American National Standards Institute: ANSI B18.2.4.1M

Nuts covered by this standard shall meet all requirements as specified in one or more of the above listed standards.

PREFERRED PARTS POLICY: Preferred parts are so designated to reduce variety of parts and assure maximum availability, interchangeability and cost savings.

Nominal Sizes: M3, 4, 5, 6, 8, 10, 12, 16, 20, 24, 30 and 36
Material and Finish: Class 5, Zinc with Chromate (Sizes M3, 4, and 5 Only)
(Machine Screw Application)
Class 10, Phosphate Coating or Zinc with Chromate (Sizes M6 thru M36)

SERVICE PARTS SUBSTITUTION POLICY: In the event that Engineering does not indicate a "Do not substitute" in Engineering Specifications, the following substitutions may be implemented in service.

Hex Nuts (Metric Series)	
To Be Replaced	Service Replacement
Class 8 material with plain or zinc finish	Class 10 material with zinc (ZND) finish
Class 10 material with plain finish	Class 10 material with phosphate coated (PHC) finish

THREADS: Threads shall be standard (coarse) pitch ISO metric screw threads, tolerance class 6H.

WIDTH: Previous across the flats dimensions for M10, M12 and M14 sizes were one (1) mm larger than current and M22 was two (2) mm smaller.

For M10, M12, M14 and M22 sizes, across flats, across corners and height dimensions reflect the latest ISO/TC2 decisions.

Nuts with old across flats and height dimensions can be furnished only with an explicit engineering deviation. It is important that all nuts of a given diameter on a product be to the same across flats size. Therefore, nuts to the old and current standard should not be mixed.

NUT IDENTIFICATION: Hexagon nuts of thread diameters of 5 mm and larger and property classes equal to or higher than 8 shall be marked with the property class designation symbol per ISO 898/2.

MATERIAL AND PHYSICAL PROPERTIES: Steel, ISO Classes 5*, 8 and 10, in accordance with ISO 898/2.

* Unless otherwise specified, property class 6 nuts may be substituted for property class 5 nuts.

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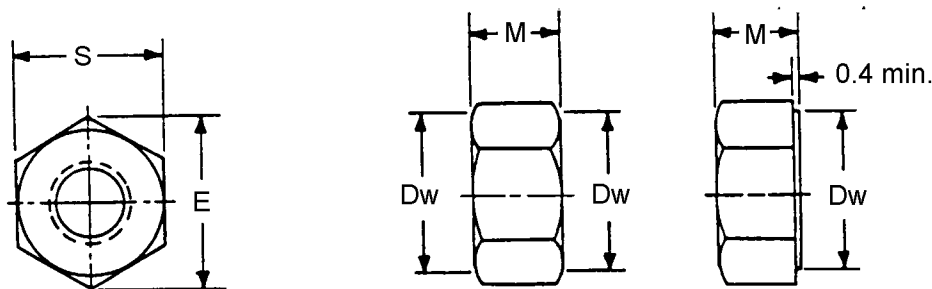
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FINISHES: Nuts shall be furnished plain, plated or coated in accordance with the Case IH Engineering Material Specifications and class listed below.

- Plain (PLN) - Free from dirt and rust and coated with a light oil film
- Zinc with Chromate (ZND) - MS 201
- Phosphate Coated (PHC) - MS 91
- Black Zinc (BZN) - MS 203

WORKMANSHIP: Nuts shall be free from burrs, seams, laps, loose scale, irregular surfaces and any defects affecting their serviceability.



Dimensions in millimetres

Nominal Size		M3	M4	M5	M6	M8	M10	M12	M14*
S Width Across Flats	Max.	5.50	7.00	8.00	10.00	13.00	16.00	18.00	21.00
	Min.	5.32	6.78	7.78	9.78	12.73	15.73	17.73	20.67
E Width Across Corners	Max.	6.40	8.10	9.24	11.55	15.01	18.48	20.78	24.25
	Min.	6.01	7.66	8.79	11.05	14.38	17.77	20.03	23.35
M Thickness	Max.	2.40	3.20	4.70	5.20	6.80	8.40	10.80	12.80
	Min.	2.15	2.90	4.40	4.90	6.44	8.04	10.37	12.10
DW Bearing Face Dia.	Min.	4.6	5.9	6.9	8.9	11.6	14.6	16.6	19.6
		---	---	0.30	0.33	0.36	0.39	0.42	0.45
Total Runout of Bearing Surface FIM, Max.									
Pitch, Nom.		Coarse Thread							
		0.5	0.7	0.8	1	1.25	1.5	1.75	2

* Non-Preferred Sizes

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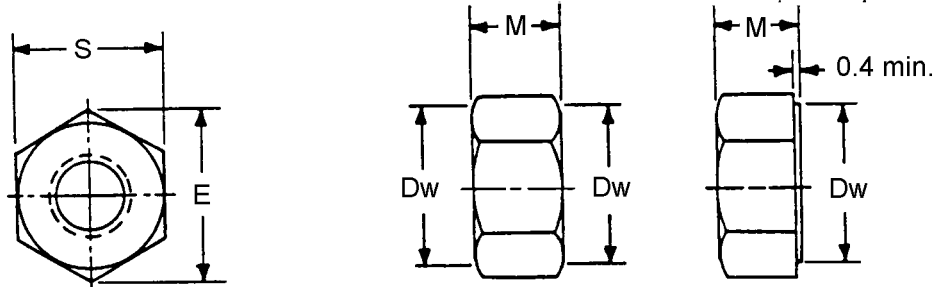
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Table - Continued



Dimensions in millimetres

Nominal Size		M16	M18*	M20	M22*	M24	M27	M30	M36	M42
S Width Across Flats	Max.	24.00	27.00	30.00	34.00	36.00	41.00	46.00	55.00	65.00
	Min.	23.67	26.16	29.16	33.00	35.00	40.00	45.00	53.80	63.10
E Width Across Corners	Max.	27.70	31.20	34.64	--	41.60	47.30	53.12	63.51	-
	Min.	26.75	29.56	32.95	37.29	39.55	45.20	50.85	60.79	71.30
M Thickness	Max.	14.80	15.8	18.00	19.40	21.50	23.8	25.60	31.00	34.00
	Min.	14.10	15.1	16.90	18.10	20.20	22.5	24.30	29.40	32.40
DW Bearing Face Dia.	Min.	22.5	24.9	27.7	31.4	33.2	38.0	42.7	51.1	60.0
Total Runout of Bearing Surface FIM, Max.		0.48	0.52	0.56	0.60	0.64	0.71	0.76	0.89	0.98
Coarse Thread										
Pitch, Nom.		2	2.5	2.5	2.5	3	3	3.5	4	4.5

* Non-Preferred Sizes may not be available on a worldwide basis and might not be available as a stock item.

For M10, M12, M14 and M22 sizes, across flats, across corners and nut height dimensions reflect the latest ISO/TC2 decisions. Many nuts presently being manufactured and used, will be to the old ISO dimensions. It is recommended that locations, such as European operations sourcing to old ISO dimensions, continue to do so until a complete and cost effective transition to the new dimensions is accomplished. Locations sourcing to the new ANSI/ISO dimensions (as stated in this standard) are urged to monitor stock and procurement practices to assure consistent production availability of the latest nuts.

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