

## ASTM A194 GRADE 2H NUTS

**ASTM A194 Grade 2H Nuts** supplied by **Unifit Metalloys Inc** are high-strength heavy hex nuts manufactured from heat-treated carbon steel to ensure superior mechanical performance. Designed for use in high-pressure, high-temperature, and high-stress environments, these nuts are ideal for bolted connections on pressure vessels, flanges, valves, and piping systems. Commonly paired with ASTM A193 Grade B7 studs or bolts, **Unifit Metalloys Inc** A194 2H nuts deliver excellent strength, hardness, and durability, making them suitable for critical applications in petrochemical, oil & gas, and power generation industries. Available in plain, black oxide, zinc-plated, or hot-dip galvanized finishes, these nuts meet stringent ASTM standards and ensure long-lasting, reliable service in demanding conditions



ASTM A194 Grade 2H Nuts Size Metric	Dia: M10 - M110
SA 194 2H Hex Nut Size Inch	Dia: 1/2" - 4.0"
A194 2H Hex Nut Metric Size	Dia: M10 - M110
ASME SA194 Grade 2H Nut Inch	Dia: 1/2" - 4.1/2"
Alloy Steel ASTM A194 Gr 2H Fasteners Threads	BSF, UNF METRIC, UNC, UNEF, BSW or as required
ASME/ ANSI - American Standard ASTM A194 Grade 2H Nuts	ANSI B 28.2.4 1M ANSI B 18.2.4 2M ASME B18.5 ASME B18.2.2
DIN German Standard ASTM A194 Grade 2H Nuts	DIN 933, DIN 931, DIN 970, DIN 934
ISO Standard A194 2H Nuts	ISO 4033, : ISO 4032, JIS standards
ASTM A194 Grade 2H Nuts Coating	Xylan Coated Fasteners Phosphate Coated Fasteners Hot Dipped Galvanizing Coated Fasteners Teflon Coated Fasteners Zinc Coated Fasteners Cadmium Coated Fasteners Ptfе Coated (Teflon) Fasteners

ASTM A194 Grade 2H Chemical Composition

Elements	Range
Carbon, min	0.40 %
Manganese, max	1.00 %
Phosphorus, max	0.040 %
Sulfur, max	0.040 %
Silicon, max	0.40 %

ASTM A194 Grade 2H Nut Dimensional Standards

Type	DIN	ISO	ASME		UNI
			Imperial	Metric	
Hex Nut	934	4032	ASME B18.2.2 Table 4	B18.2.4.1M	UNI 5588
Heavy Hex Nut	6915	4775	ASME B18.2.2 Table 10	ASME B18.2.4.6M	
Hex Jam Nut	439	4035	ASME B18.2.2	ASME B18.2.4.5M	UNI 5589

ASTM A194 Grade 2H Hardness Requirement

Diameter mm	Brinell Hardness	Rockwell C (HRC)	Rockwell B (HRB)
1-1/2 in. or M36, incl	248 to 327	24 to 35	...
over 1-1/2 in. or M36	212 to 327	35 max	95 min

Proof Load Requirement for ASTM A194 Grade 2H Nuts (Inch/Imperial)

Nominal Size, Inch	Threads per Inch	Stress Area Inch <sup>2</sup>	Heavy Hex Nuts (lbf)	Hex Nuts (lbf)
1/4	20	0.0316	5 570	4 470
5/16	18	0.0524	9 170	7 860
3/8	16	0.0774	13 560	11 620
7/16	14	0.1063	18 600	15 940
1/2	13	0.1419	24 830	21 280
9/16	12	0.182	31 850	27 300
5/8	11	0.226	39 550	33 900
3/4	10	0.334	58 450	50 100
7/8	9	0.462	80 850	69 300
1	8	0.606	106 000	90 900
1 1/8	8	0.790	138 200	118 500
1 1/4	8	1.000	175 000	150 000
1 3/8	8	1.233	215 800	185 000
1 1/2	8	1.492	261 100	223 800

**Proof Load Requirement for ASTM A194 Grade 2H Nuts (Metric)**

Nominal Size, mm	Threads Pitch	Stress Area mm <sup>2</sup>	Heavy Hex Nuts (kN)	Hex Nuts (kN)
M6	1.0	20.1	29.2	20.8
M8	1.25	36.6	44.1	37.9
M10	1.5	58.0	69.9	60.0
M12	1.75	84.3	101.6	87.3
M14	2.0	84.3	138.6	119.0
M16	2.0	115.0	189.2	162.5
M20	2.5	245.0	295.2	253.6
M22	2.5	303.0	365.1	313.6
M24	3.0	353.0	425.4	365.4
M27	3.0	459.0	553.4	475.1
M30	3.5	561.0	676.0	580.6
M36	4.0	817.0	984.5	845.6

**RECOMMENDED BOLTS & WASHERS**

BOLTS Specification	Washer Specification
ASTM A193 Grade B7 OR ASTM A193 Grade B7M	ASTM F436



**PTFE COATED NUTS**



**HOT DIP GALVANIZED NUTS**



**BLACK – NATURAL FINISH NUTS**

If you have any requirement for ASTM A194 2H Nuts or technical queries about A194 2H Fasteners, please feel free to contact us on [chirag@unifitmetalloys.com](mailto:chirag@unifitmetalloys.com) or call us on +91 8828163106