

# Bennett Bolt Works, Inc.

Technical Data Sheet: ASTM A194

Jordan, NY  
(315)689-3981




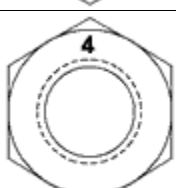
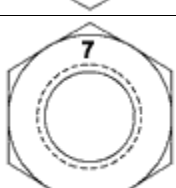
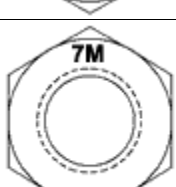
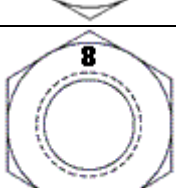
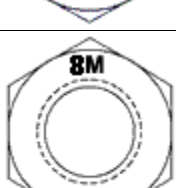
This specification covers a variety of carbon, alloy, and martensitic and austenitic stainless steel nuts. These nuts are intended for high-pressure or high-temperature service, or both. Bars from which the nuts are made shall be hot-wrought. The material may be further processed by centerless grinding or by cold drawing. Austenitic stainless steel may be solution annealed or annealed and strain-hardened. Each alloy shall conform to the chemical composition requirements prescribed. Hardness tests, proof of load tests, and cone proof load tests shall be made to all nuts to meet the requirements specified.

## Grades Covered Under ASTM A194

<b>2</b>	<b>Carbon steel heavy hex nuts</b>
<b>2H</b>	Quenched & tempered carbon steel heavy hex nuts
<b>2HM</b>	Quenched & tempered carbon steel heavy hex nuts
<b>4</b>	Quenched & tempered carbon-molybdenum heavy hex nuts
<b>7</b>	Quenched & tempered alloy steel heavy hex nuts
<b>7M</b>	Quenched & tempered alloy steel heavy hex nuts
<b>8</b>	Stainless AISI 304 heavy hex nuts
<b>8M</b>	Stainless AISI 316 heavy hex nuts

## Mechanical Properties

### Nut -Grade Identification Markings

Grade Identification Marking <sup>5</sup>	Specification	Material	Nominal Size (In.)	Tempering Temp. °F	Proof Load Stress, ksi	Hardness Rockwell		See Note
						Min	Max	
	ASTM A194 Grade 2	Medium Carbon Steel	1/4 - 4	1000	150	159	352	1,2,3
	ASTM A194 Grade 2H	Medium Carbon Steel, Quenched and Tempered	1/4 - 4	1000	175	C24	C38	1,2
	ASTM A194 Grade 2HM	Medium Carbon Steel, Quenched and Tempered	1/4 - 4	1000	150	159	237	1,2,3
	ASTM A194 Grade 4	Medium Carbon Alloy Steel, Quenched and Tempered	1/4 - 4	1100	175	C24	C38	1,2
	ASTM A194 Grade 7	Medium Carbon Alloy Steel, Quenched and Tempered	1/4 - 4	1100	175	C24	C38	1,2
	ASTM A194 Grade 7M	Medium Carbon Alloy Steel, Quenched and Tempered	1/4 - 4	1100	150	159	237	1,2,3
	ASTM A194 Grade 8	Stainless AISI 304	1/4 - 4	-	80	126	300	4
	ASTM A194 Grade 8M	Stainless AISI 316	1/4 - 4	-	80	126	300	4

All markings shown for all grades of A194 are for cold formed and for hot forged nuts. When nuts are machined from bar stock, the nut must additionally be marked with the letter "B"