SUS304CUN
A2-90 HEXAGON HEAD BOLT
A2-100 SOCKET HEAD CAP SCREW

Manufacturer : KISHIWADA-STAINLESS CO., LTD.
Distributor : YURA-SANSHO CO., LTD.
Next Generation Type of High Tensile Strength Austenite Stainless Fasteners
[SUS304CUN A2-90 Hex Head Bolts/A2-100 Hex Socket Head Cap Screws]

It is A2 austenite stainless steel fasteners. However it is high strength as A2-90/A2-100 grade which are next generation type of high strength stainless steel fasteners.

It exceeded strength that have had insufficient with traditional 304 or XM7 stainless steel. Furthermore It will be satisfied need which is required in the market in order to have equal characteristic of anti corrosopn stress cracking with 316 stainless steel.

- Realized A2-90/A2-100 high tensile strength by wire drawing process plus cold strong forging. (A2-100 is aged)
- Realized considerable weight reduction by high tensile strength and high yield strength. (About 80% of weight rteduction if compare with standard market products)
- Realise increasing heat resistance by unti-heat treatment process.
- Realise non magnetic as 1.01µ ~1.03µ of permeability.
- Conform to JIS B 1054 A2 (ISO 3506 A2)

Dimensions and stock range of SUS304CUN A2-90 Hex Head Bolts

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<tbody>
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<td>1.0</td>
<td>5.82</td>
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<td>9.78</td>
<td>4</td>
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<tr>
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<tr>
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<td>17.77</td>
<td>11.2</td>
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<tr>
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<td>17.73</td>
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<td>7.66</td>
<td>13.7</td>
<td>20.03</td>
<td>13.7</td>
<td>30</td>
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<td>17.7</td>
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Note 1. With waserface for under head.
Note 2. Thread length of M20 x 60 to M20 x 70 are full suze body and half thread due to keeping strength.

Dimensions and ranges of stock of SUS304CUN A2-100 Hex Socket Head Cap Screws

<table>
<thead>
<tr>
<th>Nominal diameter</th>
<th>p</th>
<th>d</th>
<th>dk</th>
<th>k</th>
<th>s</th>
<th>t</th>
<th>d (Reference)</th>
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<tbody>
<tr>
<td>M6</td>
<td>1.5</td>
<td>7.78</td>
<td>13</td>
<td>13.27</td>
<td>12.73</td>
<td>8</td>
<td>6.76</td>
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<tr>
<td>M8</td>
<td>1.25</td>
<td>8</td>
<td>10</td>
<td>10.22</td>
<td>9.78</td>
<td>6</td>
<td>6.14</td>
</tr>
<tr>
<td>M10</td>
<td>1.5</td>
<td>9.78</td>
<td>16</td>
<td>16.27</td>
<td>15.73</td>
<td>10</td>
<td>8.175</td>
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<tr>
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<td>1.75</td>
<td>12</td>
<td>18</td>
<td>18.27</td>
<td>17.73</td>
<td>12</td>
<td>10.175</td>
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</table>

Note 1. With waserface for under head.
Note 2. Thread length of M20 x 60 to M20 x 70 are full suze body and half thread due to keeping strength.

Products of A2-100 is rather white color on surface due to aging treatment.

※ Note 1. With waserface for under head.
※ Note 2. Thread length of M20 x 60 to M20 x 70 are full suze body and half thread due to keeping strength.

※Full thread above heavy line.
① Elevated temperature tensile strength test

Data of SNB316 is reference

SUS304CUN Bolts room temperature
Tensile strength: 1028 N/mm²

SUS304CUN Bolts one hour after heat at 700 centigrade.
Tensile strength: 1028 N/mm²

② Stress corrosion cracking test

Stress corrosion cracking test result of SUS304-CUN and SUS316
(143°C, 42%MgCl₂)

③ Cold forging processability

True Stress-Strain Curve at cold compression of solution treatment material

④ Relaxation resistance

Relaxation test result
It has been observing chemical analysis of A2 (304 type) stainless steel on JIS B 1054 (equivalent to ISO 3506-1 and 3506-2). In same time, it has made cold forging possible. And it is material that has adjusted chemical property in order to improve characteristics against high tensile strength.

It controls criation of process induced martensite transformation by adding N (Nitrogen). Accompany with secure the non-magnetic, the raise of strength be practical. Concerning stress corrosion cracking of material, it has even performance of 316 stainless Steel.

**[Specification of Chemical Analisys]**

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>P</th>
<th>S</th>
<th>Ni</th>
<th>Cr</th>
<th>Cu</th>
<th>N</th>
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<td>1.00</td>
<td>2.00</td>
<td>0.05</td>
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<td>8.00~</td>
<td>19.00</td>
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<td>4.00 Max.</td>
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<td>1.00 Max.</td>
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<td>0.03 Max.</td>
<td>8.00~</td>
<td>10.50</td>
<td>17.00~</td>
<td>3.00~</td>
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<td>0.03 Max.</td>
<td>8.50~</td>
<td>10.50</td>
<td>17.00~</td>
<td>3.00~</td>
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</table>

Full quality assurance by Kishiwada Stainless Co., Ltd.

Productions will be assured by Kishiuwada Stainless Co. which is manufacturer of the screws.

Can supply abundant data based on JIS standard test, such as tensile strength, 0.2% yield strength, hardness, salt spray test by requirement of end user, surfuric acid, ferric sulfate corrosion test and stress corrosion cracking test etc.

Can supply and manufacture special screws by drawings with small quantity other than JIS or ISO standard.

Manufacturer can responde all kind of requirment on technical and quality which they can.

**Contact:**

**Yura Sansho Co., Ltd.**

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