
SUS304CUN

A2-90 HEXAGON HEAD BOLT

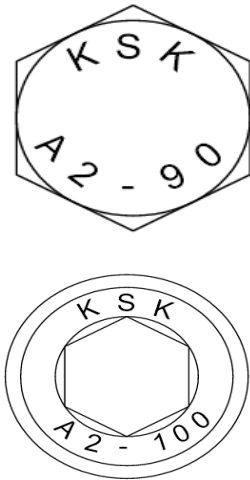
A2-100 SOCKET HEAD CAP SCREW

Manufacturer : KISHIWADA-STAINLESS CO.,LTD.

Distributor : YURA-SANSHO CO.,LTD.

Next Generation Type of High Tensile Strength Austenite Stainless Faseners
『SUS304CUN A2-90 Hex Head Bolts/A2-100 Hex Socket Head Cap Screws』

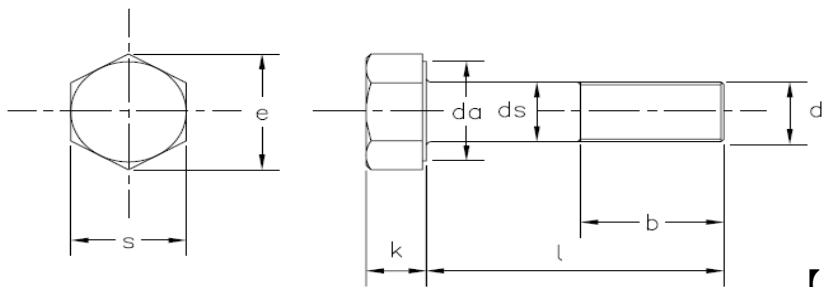
It is A2 austenite stainless steel fasteners, However it is high strength as A2-90/A2-100 grade which are next generation type of high strength stainless steel fasteners.
It exceeded strength that have had insufficient with traditional 304 or XM7 stainless steel. Furthermore It will be satisfied need 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 considarable 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)

Dimesion and stock rane of SUS304CUN A2-90 Hex Head Bolts

Dimensions and specifcatons : JIS B1180
Product grade : A
Material : SUS 304CUN
Thread : JIS B0205
Thread class : 6g
Property class : A2-90
Tensile strength : 900N/mm²
Yield strength : 700N/mm²
Surface treatment : None
Aging treatment : None



(Unit / mm)

	Pitch	Body diameter		Across Flat		Height			Across corner	Washer diameter	Thread length
Nominal diameter	p	ds		s		k			e	da	b (Reference)
d	Coarse thread	Max.	Min.	Basic dimensions		Min.	Basic dimens ions		Min.	Max.	Length 125mm
				Max.	Min.		Max.	Min.			Max.
M6	1.0	6	5.82	10	9.78	4	4.15	3.85	11.05	6.8	18
M8	1.25	8	7.78	13	12.73	5.3	5.45	5.15	14.38	9.2	22
M10	1.5	10	9.78	16	15.73	6.4	6.58	6.22	17.77	11.2	26
M12	1.75	12	11.73	18	17.73	7.5	7.68	7.32	20.03	13.7	30
M16	2.0	16	15.73	24	23.67	10	10.18	9.82	26.75	17.7	38
M20	2.5	20	19.67	30	29.67	12.5	12.715	12.285	33.53	22.4	46

【A2-90 Stock Range】

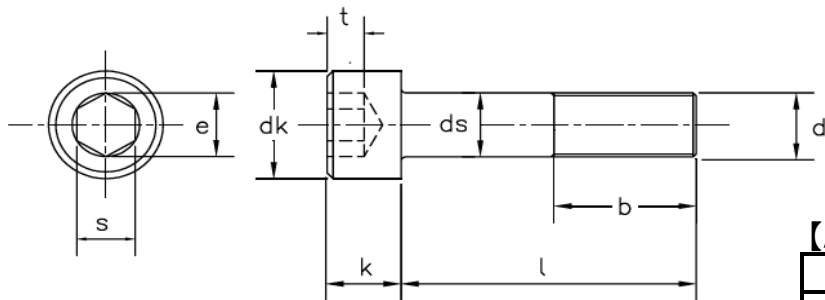
	M6	M8	M10	M12	M16	M20
12	○					
15	○					
20	○	●	○			
25	○	○	○			
30	○	○	○	○	○	
35		●	○	○	○	
40		●	○	○	○	
45		●	○	○	○	
50		●	○	○	○	
55		○		○	○	
60		○		○	○	○
65		○		○	○	○
70		○		○	○	○
80						○
90						○
100						○

※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.

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

Dimensions and specifcatons : JIS B1176
Product grade : A
Material : SUS304CUN
Thread : JIS B0205
Thread class : 6g
Property class : A2-100
Tensile strength : 1,000N/mm²
Yield strength : 800N/mm²
Surface treatment : None
Aging treatment : One hour



(Unit / mm)

Nominal diameter	Pitch	Body diameter		Head diameter			Head height		Across flat of hex socket			Across corner of Hex socket	Depth of hex socket	Thread length
d	p	ds		dk			k		s			e	t	b (Reference)
	Coars	Max.	Min.	Basis	Max.	Min.	Max.	Min.	diameter	Max.	Min.	Min.	Min.	
M6	1.0	6	5.82	10	10.22	9.78	6	5.7	5	5.14	5.02	5.723	3	24
M8	1.25	8	7.78	13	13.27	12.73	8	7.64	6	6.14	6.02	6.863	4	28
M10	1.5	10	9.78	16	16.27	15.73	10	9.64	8	8.175	8.025	9.149	5	32
M12	1.75	12	11.73	18	18.27	17.73	12	11.57	10	10.175	10.025	11.429	6	36
M16	2.0	16	15.73	24	24.33	23.67	16	15.57	14	14.212	14.032	15.996	8	44

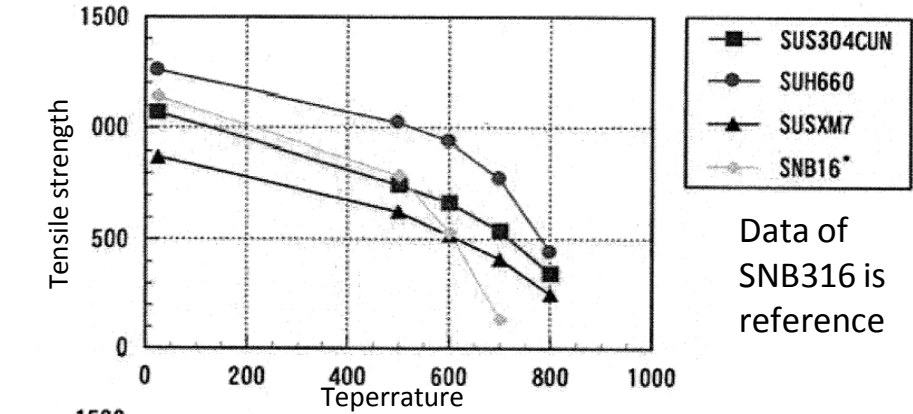
【A2-100 Stock Range】

	M6	M8	M10	M12	M16
12	○				
15	○				
20	○	○	○		
25	○	○	○		
30	○	○	○	○	○
35		○	○	○	○
40		○	○	○	○
45		○	○	○	○
50		○	○	○	○
55				○	○
60				○	○
65				○	
70				○	

※Products of A2-100 is rather white color on surface due to aging treatment.
※Full thread above heavy line.

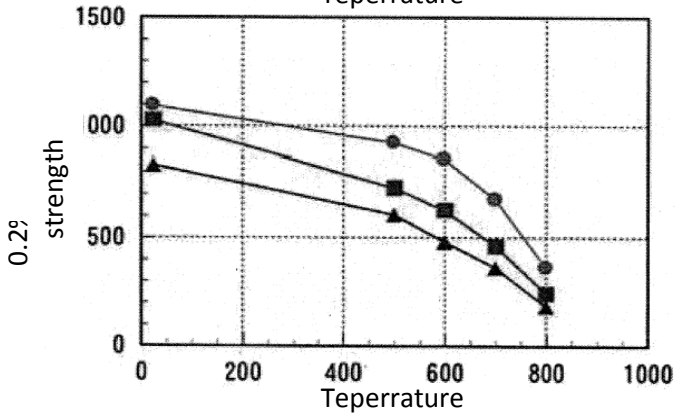
①Elevated temperature tensile strength test

Tensile strength

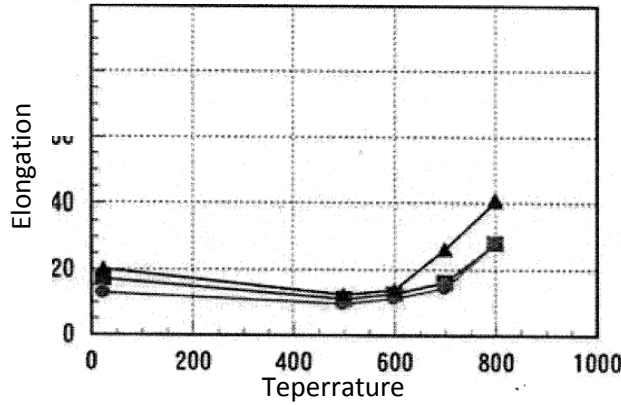


Data of SNB316 is reference

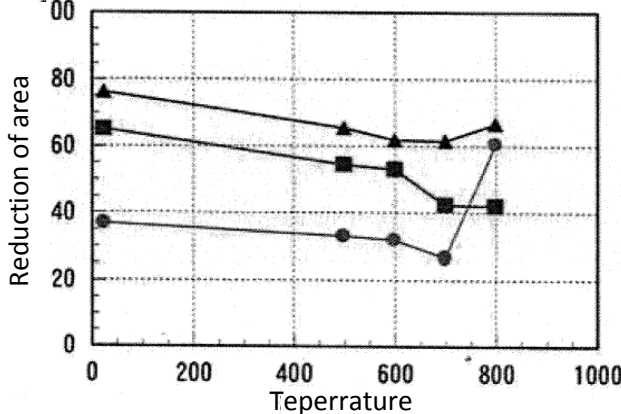
0.2% of Yield strength



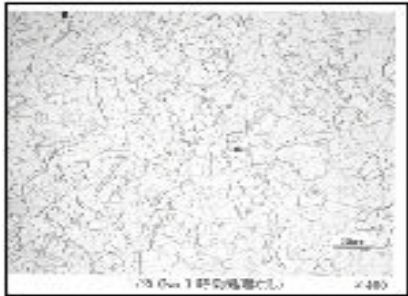
Elongation



Reduction of area



※Heat resistance of products
Metallographic structure and tensile strength of room temperature and after heat at 700 centigrade for M10 diameter bolts.

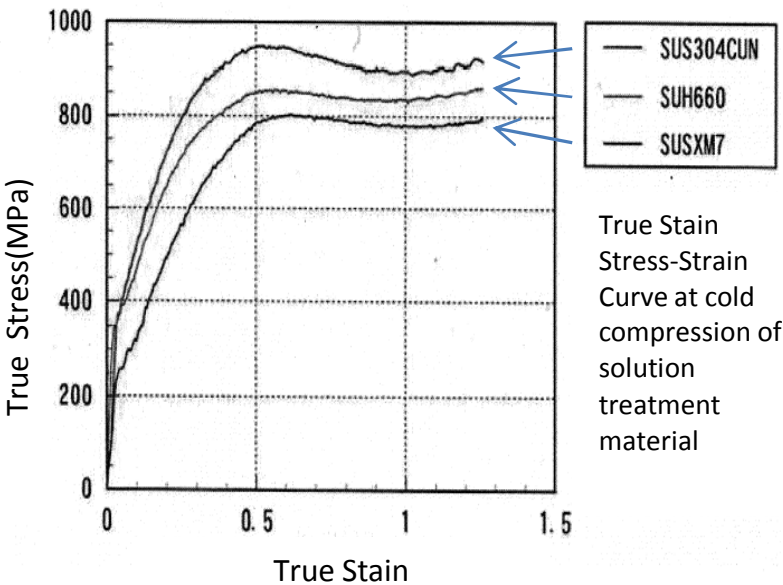


SUS304CUN Bolts room temperature
Tensile strength: 1028 N/mm2



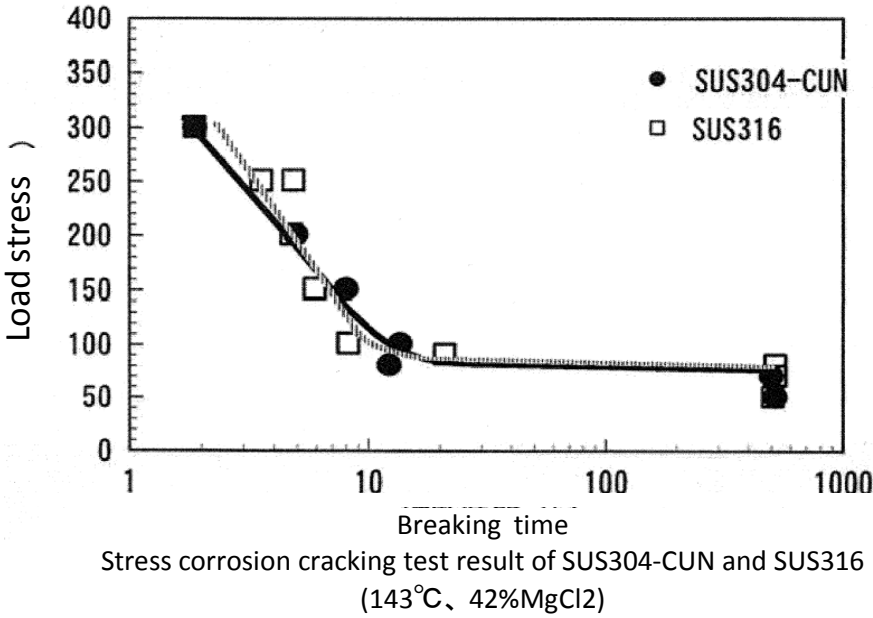
SUS304CUN Bolts one hour after heat at 700 centigrade.
Tensile strength: 1028 N/mm2

③Cold forging processability

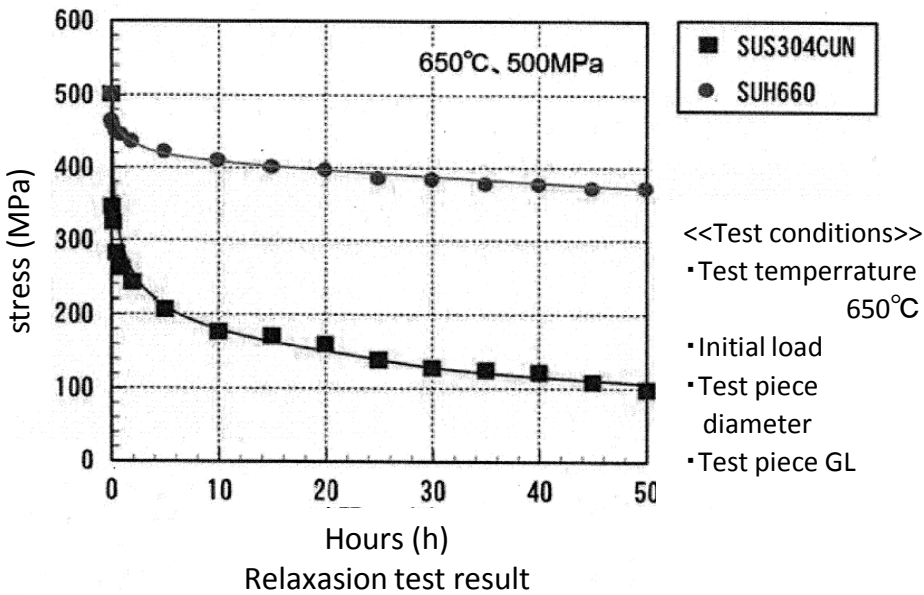


True Stress-Strain Curve at cold compression of solution treatment material

②Stress corrosion crackding test



④Relaxsation resistance



SUS304CUN is Next Generation Type of Austenite Stainless Steel made by Daido Special Steel Company for Cold Forging specially for fasteners.

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 creation 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 Analysis】

	C	Si	Mn	P	S	Ni	Cr	Cu	N
JIS B 1054 A2 (ISO 3506 A2)	0.08 Max.	1.00 Max.	2.00 Max.	0.05 Max.	0.03 Max.	8.00~ 19.00	15.00~ 20.00	4.00 Max.	-
SUS304CUN	0.05 Max.	1.00 Max.	2.00 Max.	0.05 Max.	0.03 Max.	8.00~ 10.50	17.00~ 20.00	3.00~ 4.00	0.10~ 0.30
SUS XM7	0.08 Max.	1.00 Max.	2.00 Max.	0.05 Max.	0.03 Max.	8.50~ 10.50	17.00~ 19.00	3.00~ 4.00	-

Full quality assurance by Kishiwada Stainless Co., Ltd.

Productions will be assured by Kishiwada 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, sulfuric 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 respond all kind of requirement on technical and quality which they can.

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