

ADVANCED FASTENING SYSTEMS

LOBSTER



Advanced Fastening Systems

Selection Table of Proper Riveters

Model	R1A1	R1A2	R1B1	R1B2
			7	
Feature	Ultra Lightweight	Heavy Duty & Vacuum System	Cordless Electric type	Heavy Duty Cordless Electric type
Stroke	19	26	22	22
Traction Power (N)	10,000	18,500	10,500	13,000
Weight (Kg)	1.10	1.74	1.9	2.0
Shockless	©	0	-	-
Vacuum system	©	0	-	-
2.4 (3/32")	•		•	
3.2 (1/8")	•		•	
4.0 (5/32")	•		•	
4.8 (3/16")	•	•	•	•
6.4 (1/4")		•		•
Page	P.18	P.18	P.26	P.26

Model	AR-2000S	AR-2000M	AR-2000H	AR-2000SV	AR-2000MV	AR-2000HV	AR-2000A-90	AR-2000A-45	AR-2000A-00
	7 20000	7(11 2000)III	All 200011	All 200001	All Locolliv	All 2000111	7.11 200071 00	7 200071 10	7.11. 2000/1.00
	T	T	T	T	T	T	7	7	1
Feature	Lightweight	Higher productivity	Heavy Duty & High power	Vacuum System & Lightweight	Vacuum System & Higher productivity	Heavy Duty, Vacuum System & High power	Angle type for riveting in narrow space	Angle type for riveting in wrong position	Angle type for riveting in corner
Stroke	14	16	18	14	16	18	16	16	16
Traction Power (N)	4,208	8,024	12,232	4,208	8,024	12,232	8,024	8,024	8,024
Weight (Kg)	1.1	1.2	1.6	1.25	1.35	1.8	1.75	1.87	1.81
Shockless	0	©	0	0	0	0	0	0	0
Vacuum system	ı	-	-	0	0	0	ı	-	-
2.4 (3/32")	•	•		•	•		•	•	•
3.2 (1/8")	•	•		•	•		•	•	•
4.0 (5/32")	A	•		A	•		•	•	•
4.8 (3/16")		•	•		•	•	A	A	A
6.4 (1/4")			•			•			
Page	P.19	P.19	P.19	P.19	P.19	P.19	P.22	P.22	P.22

Model	HR-200	HR-002A	HR-002D	HR-005A	HR-003A	HR-003B	HR-2050H
	1				M		
Weight (Kg)	0.39	0.55	0.55	0.72	1.8	2.0	1.7
2.4 (3/32")	•	•	•	•			
3.2 (1/8")	•	•	•	•			
4.0 (5/32")	A	•	•	A	•		
4.8 (3/16")		A	A	A	•	•	•
6.4 (1/4")						•	•
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Riveters & Nut Rivet Setters



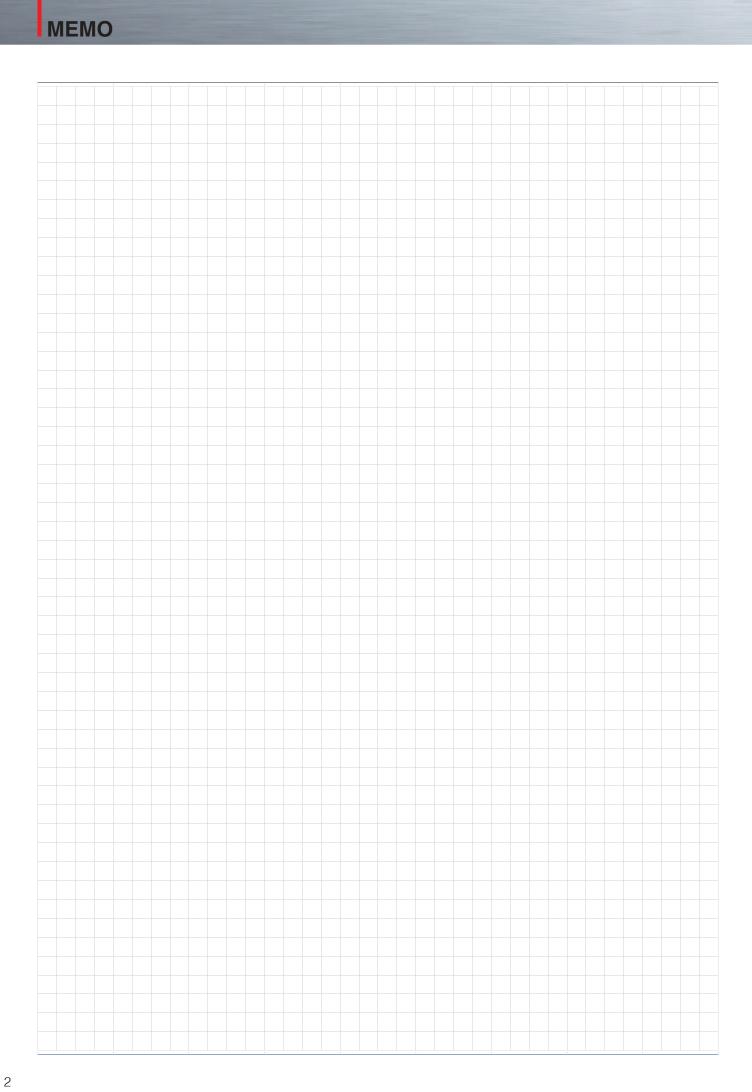
Selection Table of Proper Riveters

Model	AR-011S	AR-011M	AR-011H	ARV-011M	AR-011P	AR-3000EV	AR-021M AR-021M-RJ	AR-021H AR-021H-RJ	AR-021EX AR-021EXH
	1		7		7	T	1	1	AR-021EX
Feature	Durable & Portable	Durable & Portable	Durable & Portable	Vacuum System	Gun type	High power & Long Stroke	Wide Range Riveting Capacity	Wide Range Riveting Capacity	High Power, Long Stroke & S-bolt tools
Stroke	14	14	16	14	13	24	14	16.5	26/22
Traction Power (N)	2,942	7,845	12,259	7,845	7,845	15,200	8,336	13,730	14,220/16,637
Weight (Kg)	1.2	1.5	2.1	1.7	1.5	1.4	1.5	2.1	2.9
Shockless	-	-	-	-	-	0	0	0	0
Vacuum system	-	-	-	0	-	0	-	-	-
2.4 (3/32")	•	•	•	•	•		•	•	
3.2 (1/8")	A	•	•	•	•		•	•	
4.0 (5/32")		•	•	•	•		•	•	
4.8 (3/16")		A	•	A	•	•	•	•	•
6.4 (1/4")			A			•		•	•
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Model	AR-012	AR-022M	ARV-022M	ARV-025M	ARV-015S	ARV-015M	@R03i
	5	P	P				
Feature	Separate type	Separate type	Separate type & Vacuum System	Separate type & Vacuum System	In-line type & Vacuum System	In-line type & Vacuum System	Attachment Riveter
Stroke	16	19	19	20	14	16	-
Traction Power (N)	12,750	8,825	8,825	8,825	2,942	7,845	-
Weight (Kg)	0.9 (Head only)	0.9 (Head only)	1.3 (Head only)	0.9(Head only)	1.4	1.7	0.45
Shockless	-	-	0	0	-	-	-
Vacuum system	-	-	0	0	0	0	-
2.4 (3/32")	•	•	•	•	•	•	•
3.2 (1/8")	•	•	•	•	A	•	•
4.0 (5/32")	•	•	•	•		•	•
4.8 (3/16")	•	•	•	•		A	•
6.4 (1/4")	•						
Page	P.23	P.23	P.23	P.23	P.24	P.24	P.26

Model	AN-200A	EN-410	HND-005	HN-010	@N10d
		7			
Weight (Kg)	2.6	2.5	0.6	1.8	0.43
M3			•		
M4	•	•	•		•
M5	•	•	•	•	A
M6	•	•	A	•	A
M8	•	•		•	
M10				•	
Page	P.34	P.34	P.35	P.35	P.34

^{▲:} Can not be used with stainless steel rivet. ■: Can be used if optional parts (sold separately) are attached.





Blind Rivets
NSA6
NTA 7
NA8
NS9
NSS
NST11
NSA-K 12
NSC15
NCC
Large-flange Blind Rivets
NSA-LF 12
AP Rivets
AP13
Blind Rivets (shield type)
NSA-C
Colored Blind Rivets
C-NSA14
High Performance Blind Rivets Bulb-Type Rivets
NSTB14
High Strength Blind Rivets
S-bolt 16

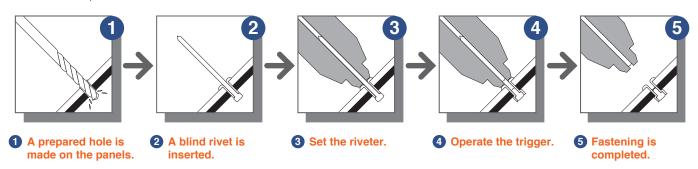
LOBSTER Blind Rivet Fastening Method

What is LOBSTER blind rivet?

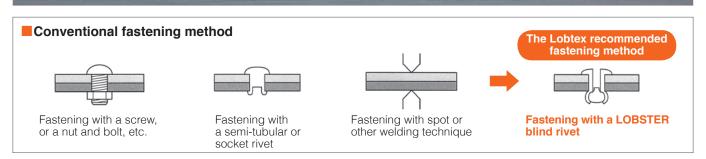
LOBSTER blind rivets can be used in a variety of assembly processes. Because multiple base materials can be fastened together in a single operation from one side of the work, these rivets contribute greatly to labor savings, lowered costs and increased work speed. In addition, the various head shapes and material combinations that are available with blind rivets make it possible to easily conform to various industrial design specifications. Further, by using LOBSTER blind rivets in conjunction with LOBSTER riveters and other automatic fastening systems and their prominent quality, reliability and results, the positive effect is doubled.

LOBSTER Blind Rivet Operating Method

Blind rivet work procedure



The difference between conventional methods and the LOBSTER blind rivet method



Applications

Automotive / transport



Example applications

Automotive ornamentation, automotive interior decoration, two-wheeled vehicles, refrigeration vehicles, dry vans, bus bodies, railroad cars, airplanes, forklifts, all-terrain vehicles, various containers, motorcycles, snowmobiles, etc.

Electric / Electronic equipment



Example applications

Computer racks, cubicles, elevators, lighting, household appliances, power supply units, office equipment, terminals, substrates and circuit boards, various meters and instruments, etc.

Construction



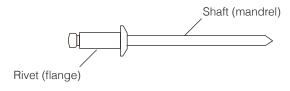
Example applications

Gates, carports, rain lattices, fences, handrails, entrance doors, sliding storm doors, bay windows, windows shutters, storage sheds, prefab houses, curtain walls, steel-frame houses, insulation sashes, construction hardware, etc.

In addition to the above example applications, LOBSTER blind rivets can be applied to any of a variety of different assemblies. Contact our company representative or technical support if you have any technical questions.



Structure of Blind Rivet



LOBSTER Blind Rivet P/N Explanation

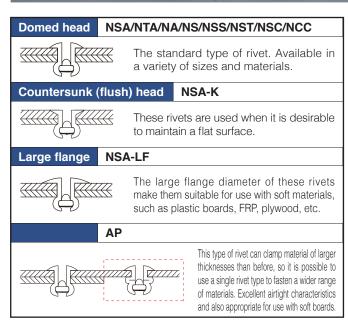
Example P/N

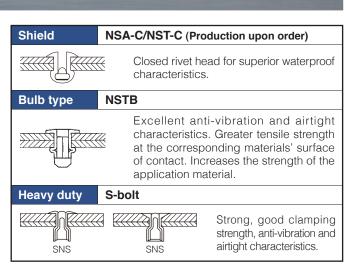
- Rivet diameter (φ4.8mm) 6÷32×25.4≒φ4.8mm ----- Maximum grip length (φ3.2mm) 2÷16×25.4≒φ3.2mm

NSA62

L—— Rivet material (aluminum)
—— Shaft material (steel)
The original Japanese name of Lobtex ("N" for Nippon Riki)

Selection Table of Proper Rivets



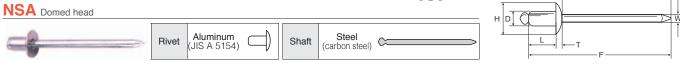


Large Flange Bulb Shield		_		Mate	erial		Riv	et Diam	eter		
Type	Flang	е Туре	Model	Rivet	Shaft	2.4	3.2	4.0	4.8	6.4	Page
			NSA	Aluminum	Steel	•	•	•	•	•	P.6
			NTA	Aluminum	Stainless steel	•	•	•	•	•	P.7
			NA	Aluminum	Aluminum	•	•	•	•	•	P.8
	Domed Head	THE RULL	NS	Steel	Steel	•	•	•	•	•	P.9
Oh =	Domed Head		NST	Stainless steel	Stainless steel	•		•	•	•	P.11
Standard			NSS	Stainless steel	Steel	•	•	•	•	•	P.10
			NSC	Copper	Steel			•			P.15
			NCC	Copper	Copper		•	•			P.15
	Countersunk Head		NSA-K	Aluminum	Steel	•	•	•	•		P.12
Large Flange	Domed Head		NSA-LF	Aluminum	Steel			•	•		P.12
Pulb	Domed Head		AP	Aluminum	Steel		•	•	•		P.13
Bulb	ротеа неаа		NSTB	Stainless steel	Stainless steel				•		P.14
Shield	Domed Head		NSA-C	Aluminum	Steel			•	•		P.13
Colored	Domed Head		CNSA	Aluminum	Steel		•	•			P.14
Structural (Bolt)	Domed Head		SNS	Steel	Steel				•	•	P.16
Cardotarar (BOIL)	Countersunk Head		SNS-K	Steel	Steel					•	P.16

With an aluminum rivet body and steel shaft, this standard rivet has a wide range of applications.







Rivet	Hole		Appropriate			Dime	nsions			Stre	ngth	per
diameter D <i>φ</i> mm	diameter φ mm	Model	material thickness mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NSA3-2	1.0~3.2	5.6				28.5	35			
2.4	2.5~2.6	NSA3-3	1.6~4.8	7.6	4.8	0.9	1.45	26.5	35	700 (71)	450 (46)	1,000
		NSA3-4	3.2~6.4	9.1				25.0	35	(/1)	(40)	
		NSA4-1	1.0~1.6	4.8				32.1	38			
		NSA4-2	1.0~3.2	6.5				30.4	38			
		NSA4-3	1.6~4.8	8.2				28.7	38		rength 3f) Shearing N (kgf) 450 (46) 950 (97) 850 (82) 1,550 (148) 2,200 (209) 3,400 (357)	
		NSA4-4	3.2~6.4	9.9			1.8	27.0	38	1,350 (143)		
3.2	3.3~3.4	NSA4-5	4.8~8.0	11.6	6.4	1.1		29.3	42	(110)	(01)	1,000
		NSA4-6	6.4~9.5	13.3				27.6	42			
		NSA4-8	9.5~12.7	16.7				27.2	45			
		NSA4-10	12.7~15.9	19.0			1.9	32.9	53	1,300		
		NSA4-12	15.9~19.1	23.0			1.9	28.9	53	(133)	(82)	
		NSA5-2	1.2~3.2	7.2				33.5	42			
		NSA5-3	1.6~4.8	8.9				31.8	42			
		NSA5-4	3.2~6.4	10.5				30.2	42			
4.0	4.1~4.2	NSA5-5	4.8~8.0	12.2	8.0	1.3	2.24	28.5	42	2,200		1,000
4.0	4.1.94.2	NSA5-6	6.4~9.5	13.9	0.0	1.0	2.24	32.8	48	(230)		1,000
		NSA5-8	9.5~12.7	17.2				29.5	48			
		NSA5-10	12.7~15.9	19.7				34.0	55			
		NSA5-12	15.9~19.1	23.0				30.7	55			
		NSA6-2	1.6~3.2	7.6				38.5	48			
		NSA6-3	1.6~4.8	9.3				36.8	48			
		NSA6-4	3.2~6.4	11.0				35.1	48			
		NSA6-5	4.8~8.0	12.8				33.3	48			1,000
4.8	4.9~5.0	NSA6-6	6.4~9.5	14.5	9.6	1.9	2.64	41.6	56	3,300		
4.0	4.5 - 5.6	NSA6-8	9.5~12.7	17.9	3.0	1.0	2.04	38.2	56	(321)	(209)	
		NSA6-10	12.7~15.9	21.3				36.0	56			
		NSA6-12	15.9~19.1	24.8				34.9	60			
		NSA6-14	19.1~22.3	28.2				39.6	66			500
		NSA6-16	22.3~25.4	29.7				36.4	66			
		NSA8-2	1.6~3.2	9.2				48.4	60			
		NSA8-4	3.2~6.4	12.4				45.2	60			
		NSA8-6	6.4~9.5	15.6				42.0	60	F 000	0.400	
6.4	6.5~6.6	NSA8-8	9.5~12.7	18.9	12.8	2.4	3.83	38.7	60	5,300 (531)		500
		NSA8-10	12.7~15.9	22.1				45.5	70		, ,	
		NSA8-12	15.9~19.1	25.4				42.2	70			
		NSA8-14	19.1~22.3	28.6				39.0	70			



The strength is same as NSA and a corrosion resistance.



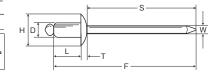
NTA Domed head



Rivet Aluminum (JIS A 5154)



Shaft Stainless Steel (SUS304 or equivalent)



Rivet diameter	Hole diameter	Model	Appropriate material thickness		Dimensions					Stre	ngth	per
D Ø mm	φmm	Model	mm mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NTA3-2	1.0~3.2	5.6				28.5	35			
2.4	2.5~2.6	NTA3-3	1.6~4.8	7.6	4.8	0.9	1.45	26.5	35	700 (71)	450 (46)	1,000
		NTA3-4	3.2~6.4	9.1				25.0	35	(/ 1/	(40)	
		NTA4-1	1.0~1.6	4.8				32.1	38			
		NTA4-2	1.0~3.2	6.5]	30.4	38			
		NTA4-3	1.6~4.8	8.2				28.7	38			
		NTA4-4	3.2~6.4	9.9			1.8	27.0	38	1,350 (143)	950 (97)	
3.2	3.3~3.4	NTA4-5	4.8~8.0	11.6	6.4	1.1		29.3	42	(1.10)	(0.7)	1,000
		NTA4-6	6.4~9.5	13.3]	27.6	42			
		NTA4-8	9.5~12.7	16.7	1]	27.2	45			
		NTA4-10	12.7~15.9	19.0			1.9	32.9	53	1,300	850	
		NTA4-12	15.9~19.1	23.0	1		1.9	28.9	53	(133)	(82)	
		NTA5-2	1.2~3.2	7.2				33.5	42			
		NTA5-3	1.6~4.8	8.9	1]	31.8	42			
		NTA5-4	3.2~6.4	10.5				30.2	42			
4.0	4.1~4.2	NTA5-5	4.8~8.0	12.2	8.0	1.3	2.24	28.5	42	2,200	1,550 (148)	1.000
4.0	4.1704.2	NTA5-6	6.4~9.5	13.9	0.0	1.3	2.24	32.8	48	(230)		1,000
		NTA5-8	9.5~12.7	17.2				29.5	48			
		NTA5-10	12.7~15.9	19.7				34.0	55			
		NTA5-12	15.9~19.1	23.0				30.7	55			
		NTA6-2	1.6~3.2	7.6				38.5	48			
		NTA6-3	1.6~4.8	9.3				36.8	48			
		NTA6-4	3.2~6.4	11.0				35.1	48			
		NTA6-5	4.8~8.0	12.8				33.3	48			1,000
4.8	4.9~5.0	NTA6-6	6.4~9.5	14.5	9.6	1.9	2.64	41.6	58	3,300	2,200	
4.0	4.9 - 5.0	NTA6-8	9.5~12.7	17.9	9.0	1.9	2.04	38.2	58	(321)	(209)	
		NTA6-10	12.7~15.9	21.3				36.0	58			
		NTA6-12	15.9~19.1	24.8				34.9	60			
		NTA6-14	19.1~22.3	28.2				39.6	66			500
		NTA6-16	22.3~25.4	29.7				36.4	66			
		NTA8-2	1.6~3.2	9.2				48.4	60			
		NTA8-4	3.2~6.4	12.4				45.2	60			
		NTA8-6	6.4~9.5	15.6				42.0	60			
6.4	6.5~6.6	NTA8-8	9.5~12.7	18.9	12.8	2.4	3.83	38.7	60	5,300 (531)		500
		NTA8-10	12.7~15.9	22.1				45.5	70			
		NTA8-12	15.9~19.1	25.4				42.2	70			
		NTA8-14	19.1~22.3	28.6				39.0	70			

Blind Rivets

These all-aluminum rivets have a high corrosion resistance and are appropriate for fastening together aluminum plates or soft materials like resin.





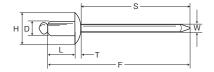
NA Domed head



Rivet Aluminum* (A 5052)

Shaft A

Aluminum (A 2017)



* 2.4mm diamete	r rivets made	of JIS 5154	aluminum
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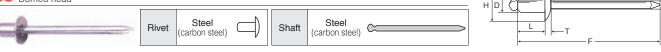
Rivet	Hole	Model	Appropriate	_		Dime	nsions			Stre	ngth	per	
diameter $\mathbf{D} \phi$ mm	diameter	Model	material thickness mm	L mm	Hømm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package	
		NA3-2	1.0~3.2	5.6				28.5	35				
2.4	2.5~2.6	NA3-3	1.6~4.8	7.6	4.8	0.9	1.5	26.5	35	650 (61)	450 (46)	1,000	
		NA3-4	3.2~6.4	9.1				25.0	35	(01)	(10)		
		NA4-1	1.0~1.6	4.8				32.1	38				
		NA4-2	1.0~3.2	6.5				30.4	38				
		NA4-3	1.6~4.8	8.2				28.7	38				
		NA4-4	3.2~6.4	9.9				27.0	38				
3.2	3.3~3.4	NA4-5	4.8~8.0	11.6	6.4	1.1	1.9	29.3	42	1,000 (102)	750 (66)	1,000	
		NA4-6	6.4~9.5	13.3				27.6	42	(17-)	(55)		
		NA4-8	9.5~12.7	16.7				24.2	45				
		NA4-10	12.7~15.9	19.0				32.9	53				
		NA4-12	15.9~19.1	23.0				28.9	53				
		NA5-2	1.2~3.2	7.2				33.5	42				
		NA5-3	1.6~4.8	8.9				31.8	42				
		NA5-4	3.2~6.4	10.5				30.2	42		1,150 (107)		
4.0	4.1~4.2	NA5-5	4.8~8.0	12.2	8.0	1.3	2.4	28.5	42	1,600		1,000	
4.0	4.1.04.2	NA5-6	6.4~9.5	13.9	0.0	1.3	2.4	32.8	48	(158)		1,000	
		NA5-8	9.5~12.7	17.2				29.5	48				
		NA5-10	12.7~15.9	19.7				34.0	55				
		NA5-12	15.9~19.1	23.0				30.7	55				
		NA6-2	1.6~3.2	7.6				38.5	48				
		NA6-3	1.6~4.8	9.3				36.8	48				
		NA6-4	3.2~6.4	11.0				35.1	48				
		NA6-5	4.8~8.0	12.8				33.3	48			1,000	
4.8	4.9~5.0	NA6-6	6.4~9.5	14.5	9.6	1.9	2.9	39.6	56	2,350	1,600		
4.0	4.9. 03.0	NA6-8	9.5~12.7	17.9	9.0	1.9	2.9	36.2	56	(230)	(158)		
		NA6-10	12.7~15.9	21.3				34.0	56				
		NA6-12	15.9~19.1	24.8				34.9	60				
		NA6-14	19.1~22.3	28.2				37.6	66			500	
		NA6-16	22.3~25.4	29.7				34.4	66				
		NA8-2	1.6~3.2	9.2				48.9	60				
		NA8-4	3.2~6.4	12.4				45.7	60		2,650 (276)		
		NA8-6	6.4~9.5	15.6				42.5	60				
6.4	6.5~6.6	NA8-8	9.5~12.7	18.9	12.8	2.4	3.8	39.2	60	4,200 (418)		500	
		NA8-10	12.7~15.9	22.1				46.0	70		/		
		NA8-12	15.9~19.1	25.4				42.7	70				
		NA8-14	19.1~22.3	28.6				39.5	70	<u> </u>			



These all-steel rivets have a high strength and are appropriate for fastening steel pieces together.



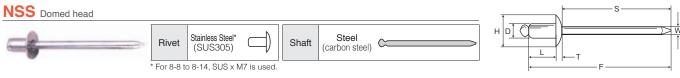




Rivet	Hole	Model	Appropriate			Dime	nsions			Stre	ngth	per
D <i>φ</i> mm	diameter	Model	material thickness mm	L mm	$H\phi$ mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
2.4	2.5~2.6	NS3-2	1.0~3.2	5.5	4.8	0.8	1.5	28.8	35	850	700	1,000
2.4	2.57~2.6	NS3-4	3.2~6.4	8.7	4.6	0.8	1.5	25.6	35	(82)	(61)	1,000
		NS4-1	1.0~1.6	4.8				32.1	38			
		NS4-2	1.0~3.2	6.4				30.5	38			
		NS4-3	1.6~4.8	8.0				28.9	38			
3.2	3.3~3.4	NS4-4	3.2~6.4	9.5	6.4	1.1	1.9	27.4	38	1,700 (179)	1,300 (128)	1,000
		NS4-5	4.8~8.0	11.2				29.7	42		(-,	
		NS4-6	6.4~9.5	12.7				28.2	42			
		NS4-8	9.5~12.7	15.9				25.0	42			
		NS5-2	1.2~3.2	7.0				33.7	44			
		NS5-3	1.6~4.8	8.6				32.7	44			
4.0	4.1~4.2	NS5-4	3.2~6.4	10.2	8.0	1.3	2.4	30.5	44	2,700	2,000	1.000
4.0	4.1 -4.2	NS5-5	4.8~8.0	11.8	0.0	1.0	2.4	28.9	44	(265)	(204)	1,000
		NS5-6	6.4~9.5	13.3				32.4	48			
		NS5-8	9.5~12.7	16.5				29.2	48			
		NS6-2	1.6~3.2	7.6				38.5	48			
		NS6-3	1.6~4.8	9.2				36.9	48			
		NS6-4	3.2~6.4	10.8				35.3	48			
4.8	4.9~5.0	NS6-5	4.8~8.0	12.4	9.6	1.8	2.9	33.7	48	4,000	3,000	1,000
4.0	4.9 95.0	NS6-6	6.4~9.5	14.0	9.0	1.0	2.9	40.1	56	(403)	(291)	
		NS6-8	9.5~12.7	17.2				36.9	56			
		NS6-10	12.7~15.9	20.4				33.7	56			
		NS6-12	15.9~19.1	23.6				34.5	60			500
		NS8-4	3.2~6.4	12.4	12.7	10	3.83	46.0	60			
		NS8-6	6.4~9.5	15.6	12.7	1.6	3.83	42.8	60			
6.4	6.5~6.6	NS8-8	9.5~12.7	18.9				39.2	60	7,200	5,200	500
6.4	0.5~0.6	NS8-10	12.7~15.9	22.1	12.8	2.4	3.8	36.0	70	(663)	(469)	200
		NS8-12	15.9~19.1	25.4	12.8	2.4	ა.8	32.7	70			
		NS8-14	19.1~22.3	28.6				29.5	70			

With a stainless steel rivet body and steel shaft, the corrosion resistance of these rivets is inferior to NST rivets, but their strength is equivalent.





Rivet	Hole		Appropriate			Dime	nsions			Stre	ngth	per
diameter D ϕ mm	diameter	Model	material thickness mm	L mm	$H\phi$ mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
0.4	0.5.00	NSS3-2	1.0~3.2	5.5	4.0	0.0	4.5	29.0	35	1,300	1,100	1 000
2.4	2.5~2.6	NSS3-4	3.2~6.4	8.7	4.8	0.6	1.5	25.8	35	(138)	(112)	1,000
		NSS4-1	1.0~1.6	4.4				33.0	38			
		NSS4-2	1.0~3.2	6.0				31.4	38			
		NSS4-3	1.6~4.8	7.6				29.8	38			
3.2	3.3~3.4	NSS4-4	3.2~6.4	9.2	6.4	8.0	2.0	28.2	38	2,700 (306)	2,350 (230)	1,000
		NSS4-5	4.8~8.0	10.8				30.6	42	(000)	(200)	
		NSS4-6	6.4~9.5	12.3				29.1	42			
		NSS4-8	9.5~12.7	15.5				25.9	42			
		NSS5-2	1.2~3.2	6.6				34.6	42			
		NSS5-3	1.6~4.8	8.2				33.0	42			
4.0	44-40	NSS5-4	3.2~6.4	9.8	7.9	4.0	2.5	31.4	42	3,950	3,400	1.000
4.0	4.1~4.2	NSS5-5	4.8~8.0	11.4	7.9	1.0	2.5	29.8	42	(459)	(357)	1,000
		NSS5-6	6.4~9.5	12.9				33.3	47			
		NSS5-8	9.5~12.7	16.1				30.1	47			
		NSS6-2	1.6~3.2	7.1				39.7	48			
		NSS6-3	1.6~4.8	9.0				37.8	48			
		NSS6-4	3.2~6.4	10.3				36.5	48			
		NSS6-5	4.8~8.0	11.9				34.9	48			1,000
4.8	4.9~5.0	NSS6-6	6.4~9.5	13.5	9.5	1.4	2.85	41.3	56	6,350	5,450	
4.0	4.9 95.0	NSS6-8	9.5~12.7	16.7	9.5	1.4	2.00	38.1	56	(663)	(541)	
		NSS6-10	12.7~15.9	19.9				34.9	56			
		NSS6-12	15.9~19.1	23.0				35.8	60			
		NSS6-14	19.1~22.3	26.5				38.3	66			500
		NSS6-16	22.3~25.4	29.7				35.1	66			
		NSS8-4	3.2~6.4	12.4	12.8	1.7	3.8	46.0	60	11,300	9,300	
		NSS8-6	6.4~9.5	15.6	12.0	1.7	3.0	42.8	60	(990)	(816)	
6.4	6.5~6.6	NSS8-8	9.5~12.7	18.9				39.5	60			500
0.4	0.0.00	NSS8-10	12.7~15.9	22.1	12.5	1.9	3.9	46.3	70	10,500	8,500	500
		NSS8-12	15.9~19.1	25.4	12.0	1.9	3.9	43.0	70	(663)	(541)	
		NSS8-14	19.1~22.3	28.6				39.8	70			



These all-stainless steel rivets have top strength and top corrosion resistance.

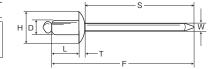


NST Domed head



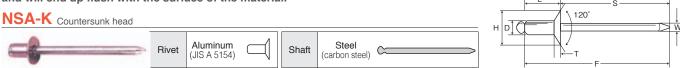
Stainless Steel* (SUS305) Rivet * For 8-8 to 8-14, SUS x M7 is used.

Stainless Steel (SUS304 or equivalent) Shaft



Rivet diameter	Hole diameter	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
D φmm	φmm	Model	mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
0.4	0.5.00	NST3-2	1.0~3.2	5.5	4.8	0.0	4.5	29.0	35	1,300	1,100	1 000
2.4	2.5~2.6	NST3-4	3.2~6.4	8.7	4.8	0.6	1.5	25.8	35	(138)	(112)	1,000
		NST4-1	1.0~1.6	4.4				33.0	38			
		NST4-2	1.0~3.2	6.0				31.4	38			
		NST4-3	1.6~4.8	7.6				29.8	38			
3.2	3.3~3.4	NST4-4	3.2~6.4	9.2	6.4	8.0	2.0	28.2	38	2,700 (306)	2,350 (230)	1,000
		NST4-5	4.8~8.0	10.8				30.6	42	(000)	(===)	
		NST4-6	6.4~9.5	12.3				29.1	42			
		NST4-8	9.5~12.7	15.5				25.9	42			
		NST5-2	1.2~3.2	6.6				34.6	42			
		NST5-3	1.6~4.8	8.2				33.0	42			
4.0	4.1~4.2	NST5-4	3.2~6.4	9.8	7.9	1.0	2.5	31.4	42	3,950	3,400	1,000
4.0	4.1.04.2	NST5-5	4.8~8.0	11.4	7.9	1.0	2.5	29.8	42	(459)	(357)	1,000
		NST5-6	6.4~9.5	12.9				33.3	47			
		NST5-8	9.5~12.7	16.1				30.1	47			
		NST6-2	1.6~3.2	7.1				39.7	48			
		NST6-3	1.6~4.8	9.0				37.8	48			
		NST6-4	3.2~6.4	10.3				36.5	48			
		NST6-5	4.8~8.0	11.9				34.9	48			1,000
4.8	4.9~5.0	NST6-6	6.4~9.5	13.5	9.5	1.4	2.9	41.3	52	6,350	5,450	
4.0	4.3 - 5.0	NST6-8	9.5~12.7	16.7	3.5	1.4	2.5	38.1	52	(663)	(541)	
		NST6-10	12.7~15.9	19.9				34.9	60			
		NST6-12	15.9~19.1	23.0				35.8	60			
		NST6-14	19.1~22.3	26.5				38.3	66			500
		NST6-16	22.3~25.4	29.7				35.1	66			
		NST8-4	3.2~6.4	12.4	12.8	1.7	3.8	46.0	60	11,300	9,300	
		NST8-6	6.4~9.5	15.6	12.0	1.7	5.0	42.8	60	(990)	(816)	
6.4	6.5~6.6	NST8-8	9.5~12.7	18.9				39.5	60			500
0.4	0.5. 50.0	NST8-10	12.7~15.9	22.1	12.5	1.9	3.9	46.3	70	10,500	8,500	300
		NST8-12	15.9~19.1	25.4	12.5	1.3	3.9	43.0	70	(663)	(541)	
		NST8-14	19.1~22.3	28.6				39.8	70			

These rivets are a countersunk type head. By preparing a countersunk hole in the base material, the flange will not protrude and will end up flush with the surface of the material.



Rivet	Hole		Appropriate			Dime	nsions			Stre	ngth	
diameter D Ø mm		Model	material thickness	L mm	H ø mm		W ø mm	S mm	F mm	Tensile N (kgf)		per package
0.4	0.5- 0.0	NSA3-2K	1.6~3.2	5.6	4.8	0.0	1.45	28.6	35	600	450	1 000
2.4	2.5~2.6	NSA3-4K	3.2~6.4	9.1	4.8	8.0	1.45	25.1	35	(61)	(46)	1,000
		NSA4-2K	1.6~3.2	6.5				30.3	38			
		NSA4-3K	1.6~4.8	8.2				28.6	38			
3.2	3.3~3.4	NSA4-4K	3.2~6.4	9.9	6.4	1.2	1.8	26.9	38	1,350	950	1.000
3.2	3.3~3.4	NSA4-5K	4.8~8.0	11.6	6.4	1.2	1.8	29.2	42	(133)	(92)	1,000
		NSA4-6K	6.4~9.5	13.3				27.5	42			
		NSA4-8K	9.5~12.7	16.7				27.1	45			
		NSA5-2K	1.2~3.2	7.2				33.4	42			
		NSA5-3K	1.6~4.8	8.9				31.7	42			
4.0	4.1~4.2	NSA5-4K	3.2~6.4	10.5	8.0	1.5	2.24	30.1	42	2,100	1,450	1,000
4.0	4.1~4.2	NSA5-5K	4.8~8.0	12.2	8.0	1.5	2.24	28.4	42	(214)	(133)	1,000
		NSA5-6K	6.4~9.5	13.9				32.7	48			
		NSA5-8K	9.5~12.7	17.2				29.4	48			
		NSA6-2K	2.4~3.2	7.6				38.7	48			
		NSA6-3K	2.4~4.8	9.3				37.0	48			
		NSA6-4K	3.2~6.4	11.0				35.3	48			
4.8	4.9~5.0	NSA6-5K	4.8~8.0	12.8	9.6	1.7	2.64	43.5	48	3,250 (316)	2,250 (224)	1,000
		NSA6-6K	6.4~9.5	14.5]			41.8	58	(510)	(== 1)	
		NSA6-8K	9.5~12.7	17.9				38.4	58			
		NSA6-10K	12.7~15.9	20.1	1			36.2	58			

Large-flange Blind Rivets

These rivets are a large flange diameter. Even if the side of the base material where the flange is located is of a soft material, there is minimal deforming of that material and it is possible to use a large diameter hole on that side.



Rivet diameter	Hole diameter	Part number	Appropriate material thickness			Dime	nsions			Stre	ngth	per
D φ mm	φmm	Fart Humber	mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NSA5-4LF	3.2~6.4	10.5				29.8	42			
4.0	4.1~4.2	NSA5-5LF	4.8~8.0	12.2	12.0	1.7	2.24	28.1	42	2,200	1,550	1.000
4.0	4.1.94.2	NSA5-6LF	6.4~9.5	13.9	12.0	1.7	2.24	32.4	48	(224)	(143)	1,000
		NSA5-8LF	9.5~12.7	17.2				29.1	48			
		NSA6-2LF	1.6~3.2	7.6				38.2	48			
		NSA6-3LF	1.6~4.8	9.3				36.5	48			
		NSA6-4LF	3.2~6.4	11.0				34.8	48			
		NSA6-5LF	4.8~8.0	12.8				33.0	48			
4.8	4.9~5.0	NSA6-6LF	6.4~9.5	14.5	15.9	2.2	2.64	41.3	58	3,300 2,200		500
4.0	4.3 93.0	NSA6-8LF	9.5~12.7	17.9	15.9	۷.۷	2.04	37.9	58	(332)	(214)	500
		NSA6-10LF	12.7~15.9	21.3				35.7	58	(214)		
		NSA6-12LF	15.9~19.1	23.3				34.5	60			
		NSA6-14LF	19.1~22.3	26.5				39.3	68			
		NSA6-16LF	22.3~25.4	29.7				36.1	68			



AP Rivets

AP rivets can be used with a wide range of material thicknesses, so it is possible to use this one rivet type to fasten a wider range of materials.

Displays excellent airtight characteristics and is also appropriate for use with soft material as well.

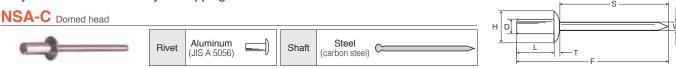


Rivet	Hole diameter	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
D ϕ mm	φmm	Model	mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
2.0	3.4~3.5	AP4-3	1.0~4.8	8.2	6.4		1.0	28.7	38	1,000	750	1.000
3.2	3.4~3.5	AP4-5	4.8~8.0	13.3	0.4	1.1	1.9	27.6	42	(112)	(77)	1,000
4.0	4.2~4.3	AP5-4	1.2~6.4	10.5	8.0	1.3	2.4	30.2	42	1,600 (163)	1,150 (122)	1,000
4.8	5.0~5.1	AP6-4	1.6~6.4	11.0	9.5	1.9	2.9	35.1	48	2,350	1,600	1,000
4.0	5.0~5.1	AP6-8	6.4~12.7	18.5	9.5	1.9	2.9	35.6	56	(230)	(163)	1,000

Blind Rivets (shield type)

NSA-C rivets have a high airtight and a high antivibration.

They also eliminate the worry of dropping the leftover shaft head.



Rivet diameter	Hole diameter	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
$\mathbf{D}\phi$ mm	φmm	Model	mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NSA5-2C	1.2~3.2	8.0				32.2	42			
		NSA5-3C	1.6~4.8	9.6				30.6	42			
4.0	4.1~4.2	NSA5-4C	3.2~6.4	11.2	8.0	1.8	2.18	29.1	42	2,550 (265)	1,800 (179)	1,000
		NSA5-5C	4.8~8.0	12.8				30.4	45	(200)	(1.0)	
		NSA5-6C	6.4~9.5	14.4				28.8	45			
		NSA6-2C	1.6~3.2	8.5				34.4	45			
		NSA6-3C	1.6~4.8	10.0				32.9	45			
4.8	4.9~5.0	NSA6-4C	3.2~6.4	11.6	9.6	2.4	2.66	31.3	45	3,900 2,600	1,000	
4.0	4.9 05.0	NSA6-5C	4.8~8.0	13.1	9.0	2.4	2.00	32.8	48	(367)		1,000
		NSA6-6C	6.4~9.5	14.7				31.2	48			
		NSA6-8C	9.5~12.7	17.9				30.0	50			

Colored Blind Rivets

Utilizing blind rivets with a pre-colored flange eliminates the need to paint the rivets and offers an attractive finish. Available in your preferred color.



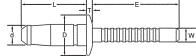
Oalan	Rivet	Hole	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
Color	diameter D ø mm	diameter φmm	Model	material thickness mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
			C-NSA4-2BR	1.0~3.2	6.5				30.4				
	3.2	3.3~3.4	C-NSA4-3BR	1.6~4.8	8.2	6.4	1.1	1.8	28.7	38	1,350 (143)	950 (97)	1,000
Bronze			C-NSA4-4BR	3.2~6.4	9.9				27.0		(1.0)	(0.)	
Bronze			C-NSA5-2BR	1.2~3.2	7.2				33.5				
	4.0	4.1~4.2	C-NSA5-3BR	1.6~4.8	8.9	8.0	1.3	2.24	31.8	42	2,200 (230)	1,550 (148)	1,000
			C-NSA5-4BR	3.2~6.4	10.5				30.2		(200)	(1.10)	
			C-NSA4-2W	1.0~3.2	6.5				30.4				
	3.2	3.3~3.4	C-NSA4-3W	1.6~4.8	8.2	6.4	1.1	1.8	28.7	38	1,350 (143)	950 (97)	1,000
White			C-NSA4-4W	3.2~6.4	9.9				27.0		(1.10)	(4.)	
vvriite			C-NSA5-2W	1.2~3.2	7.2				33.5				
	4.0	4.1~4.2	C-NSA5-3W	1.6~4.8	8.9	8.0	1.3	2.24	31.8	42	2,200 (230)	1,550 (148)	1,000
			C-NSA5-4W	3.2~6.4	10.5				30.2		(200)	(1.10)	
			C-NSA4-2B	1.0~3.2	6.5				30.4				
	3.2	3.3~3.4	C-NSA4-3B	1.6~4.8	8.2	6.4	1.1	1.8	28.7	38	1,350 (143)	950 (97)	1,000
Black			C-NSA4-4B	3.2~6.4	9.9				27.0			(0.)	
DIACK			C-NSA5-2B	1.2~3.2	7.2				33.5				
	4.0	4.1~4.2	C-NSA5-3B	1.6~4.8	8.9	8.0	1.3	2.24	31.8	42	2,200 (230)	1,550 (148)	1,000
			C-NSA5-4B	3.2~6.4	10.5				30.2		(200)	(.10)	

High Performance Blind Rivets Bulb-Type Rivets

Stainless steel bulb type NSTB rivet (ϕ 4.8) offers excellent anti-vibration and airtight characteristics simply not available in conventional rivets!





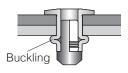


Other sizes and materials are scheduled.





Riveted boards



Cross-sectional diagram of riveted boards

Applications

Passenger vehicle bumpers PC servers Window shutters and sliding storm doors Refrigeration truck frames Computer racks Motorcycle mufflers

Specifications and performance

Superior anti-vibration and airtight characteristics

The "hole-fill" function employing special-shaped rivet and shaft ensures tight fit.

Greater tensile strength at the corresponding materials' surface of contact

Buckling is triple that of standard rivets of the same diameter, thus improving tensile strength at the corresponding material.

Increased strength of the application material

The axial strength is high in comparison to conventional rivets, adding high surface rigidity to the corresponding material. Because surface rigidity per unit of surface area is increased for veneer boards as well, a secure joint is ensured.

■ NSTB rivets [Materials] Rivet: stainless steel, Shaft: stainless steel

Model	D \$\phi\$ mm	d φmm	T mm	L mm	E mm	₩ <i>ф</i> mm	Hole diameter (mm)	Appropriate material thickness	Tensile N (kgf)	Shearing N (kgf)	Mandrel removal strength N (kgf)	per package
NSTB 6-3	9.5	4.8	1.4	14.0	27	3.2	4.9~5.1	1.6~4.8	5,800 (590)	5,500 (560)	1,000 (100)	1,000
NSTB 6-4	9.5	4.8	1.4	15.5	27	3.2	4.9~5.1	3.2~6.4	5,800 (590)	5,500 (560)	800 (80)	1,000
NSTB 6-6	9.5	4.8	1.4	19.5	27	3.2	4.9~5.1	6.4~9.6	5,500 (560)	6,500 (660)	800 (80)	1,000



Made-to-order item.



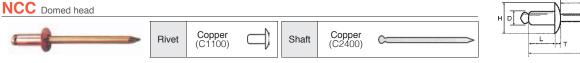


Rivet diameter	Hole diameter	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
D φ mm	φ mm	Model	mm	L mm	H ø mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NSC4-1	1.0~1.6	4.8				32.1	38			
		NSC4-2	1.0~3.2	6.4]	30.5	38			
3.2	3.3~3.4	NSC4-3	1.6~4.8	8.0	6.4	1.1	1.9	28.9	38	1,400 (133)	950 (92)	1,000
		NSC4-4	3.2~6.4	9.5				27.4	38	(100)	(32)	
		NSC4-5	4.8~8.0	11.2				29.7	42			
		NSC5-2	1.2~3.2	7.0				33.7	42			
4.0	4.140	NSC5-3	1.6~4.8	8.6	0.0	1.3	2.4	32.1	42	2,150	1,550 (153)	1 000
4.0	4.1~4.2	NSC5-4	3.2~6.4	10.2	8.0	1.3	2.4	30.5	42	(214)		1,000
		NSC5-6	6.4~9.5	13.3]	32.4	47			

Blind Rivets

Made-to-order item.





Rivet diameter	Hole diameter	Model	Appropriate material thickness			Dime	nsions			Stre	ngth	per
D ϕ mm	φ mm	Model	mm	L mm	$H\phi$ mm	T mm	W ø mm	S mm	F mm	Tensile N (kgf)	Shearing N (kgf)	package
		NCC4-1	1.0~1.6	4.8				32.1	38			
		NCC4-2	1.0~3.2	6.4				30.5	38			
3.2	3.3~3.4	NCC4-3	1.6~4.8	8.0	6.4	1.1	1.9	28.9	38	1,400 (133)	950 (92)	1,000
		NCC4-4	3.2~6.4	9.5				27.4	38	(100)	(92)	
		NCC4-5	4.8~8.0	11.2				29.7	42			
		NCC5-2	1.2~3.2	7.0				33.7	42			_
4.0	4.1~4.2	NCC5-3	1.6~4.8	8.6	8.0	1.3	2.4	32.1	42	2,150	1,550 (153)	1,000
4.0	4.1.04.2	NCC5-4	3.2~6.4	10.2	0.0	1.0	2.4	30.5	42	(214)		1,000
		NCC5-6	6.4~9.5	13.3				32.4	47			

High Strength Blind Rivets S-bolt (ϕ 4.8, ϕ 6.4)

Fastening from one side of the work, superior strength, and high anti-vibration performance makes S-bolt rivets appropriate for weldless work and for fastening important safety-related parts!

The stable supply, stable quality, and reasonable cost performance of S-bolts are all achieved through domestic production!



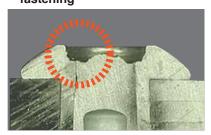
Locking construction

An original locking mechanism enables easier visual confirmation of the locked parts in comparison with other manufacturs' standard products and ensures secure lock.

"Hole fill" function

The rivet body itself is expanded during clamping, thus filling the lower hole more tightly and securing superior anti-vibration and weather-resistance conditions. We can supply data from JIS-standard vibration test for automotive parts. Various other tests (tensile, shearing and salt water atomization) can be performed as well.

▼Cross-sectional diagram of fastening



High strength

Through a synergy of tensile, shearing, and shaft removal strength, S-bolt rivets have two to three times the strength of conventional blind rivets of the same diameter.

High anti-vibration characteristics

Excellent anti-vibration performance is achieved through an original locking mechanism and our unique "hole fill" function.

This performance has been proven in JISD 1601 vibration tests for automotive parts.

High weather resistance

The rivet body itself is expanded during clamping, thus filling the lower hole more tightly and securing superior weather-resistance conditions.

Wide application range

Compared with conventional blind rivets of the same diameter, S-bolt rivets can fasten material up to twice the thicknesses than before, so it is not necessary to use multiple rivet sizes for different material thicknesses.

Single operation from one side of the work

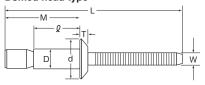
Using LOBSTER riveters, anyone can easily obtain beautiful finish.



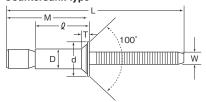
Specifications and performance

Domed head type

▼Fastening



Countersunk type



Steel ... Domed and countersunk types [Material] Rivet: steel (mid-carbon steel), Shaft: steel (low-carbon steel)

	Model	D φmm	d ∮mm	T mm	l mm	M mm	L mm	₩ <i>φ</i> mm	Hole diameter (mm)	Appropriate material thickness	Tensile N (kgf)	Shearing N (kgf)	Shaft removal strength N (kgf)	per package
ad	SNS 48069	4.8	9.8	2.0	11.0	18.5	47.0	2.0	4.9~5.0	1.7~6.9	4,800	6,100	000 (05)	F00
ed head type	SNS 48110	4.6	9.6	2.0	15.0	25.0	55.0	3.0	4.9~~5.0	1.7~11.0	(520)	(660)	900 (95)	500
Domed type	SNS 64095	6.4	13.0	2.6	14.5	24.0	55.0			2.1~9.5				
O	SNS 64159	0.4	13.0	2.0	20.0	33.0	65.0			2.1~15.9				
Countersunk head type	SNS 64120K	6.4	10.0	2.1	17.0	27.0	55.0	4.0	6.6~7.0	3.2~12.0	9,800 (1,060)	11,300 (1,200)	1,100 (130)	250

Before starting work, ALWAYS read the instruction manual for your riveter tool



Pneumatic Riveters	
R1A11	8
R1A2 1	8
Pneumatic Riveters	
AR-2000S•2000SV1	
AR-2000M•2000MV 1	9
AR-2000H•2000HV1	9
AR-011S 2	0
AR-011M2	
AR-011H 2	0
AR-011P 2	
ARV-011M 2	0
AR-3000EV	0
AR-021M•AR-021M-RJ 2	1
AR-021H•AR-021H-RJ 2	1
AR-021EX•AR-021EXH 2	1
AR-2000A-90 • AR-2000A-45 • AR-2000A-00 • 2 .	2
AR-012 2	3
AR-022M 2	3
ARV-022M 2	3
ARV-025M 2	3
ARV-015S•ARV-015M 2	4
Cordless Riveters	
R1B1 2	6
R1B2 2	6
Vacuum Unit	
VU-S•VU-M•VU-H48• VU-H64 2 ·	4
Automatic Rivet Feeding Syster	n
ARF-700 2	5
Attachment Riveter	
@R03i 2	6
Hand Riveters	
HR-2002	7
HR-002A 2	7
HR-005A 2	7
HR-002D 2	7

High-performance R1 Series



Heavy duty version of R1A1 yet still light weight with

 excellent strength-to-weight ratio
 Capable of setting standard and structural rivets

Extra long stroke

Riveting Capacity 4.8 3/16" 6.4

R1A2

High Capacity mandrel collection tank



► Narrow Frame Head

22.0mm(.866") diameter Frame Head allows for use in tight spaces.

The resin grip which makes it easy to grip

Well balanced tool with a comfortable feel in the operator's hand. Handle has a natural curve that is easy to grip.

► Air intake with changeable left/right direction

Air inlets on both the left and right side allowing for greater flexibility, and operator productivity.

▶ Reduced air consumption of approx. 30% compared with our conventional model

With an improved air circuitry design, consumes 30% less air than previous generation tools. This reduces compressor costs and is environmentally friendly.

Oversized mandrel container

Oversized mandrel container.

Improved efficiency = greater productivity

Long Stroke

19mm(.748") FIAT 26mm(1.02") FIA2

On-board vacuum on/off switch

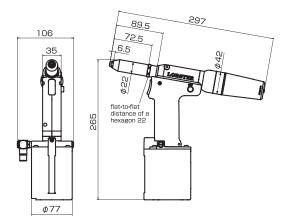
Conveniently located on/off button controls vacuum mandrel collection

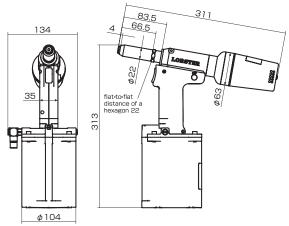
Simply push the button to activate vacuum, then switch to off when not in use to reduce air consumption and cost.

Lightweight, durable design

As ergonomic leaders, Lobster designed a lightweight riveter durable enough for use in high volume applications.

A superb center-balance design is comfortable in the operators hand, enhancing the lightweight feel.





S-bolt Can be used if optional parts (sold separately) are attached. (P.28, Table. 2)

Model	Riveting Capacity	Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Operating noise dB	Jaws
R1A1	All materials 2.4 / 3.2 / 4.0 / 4.8 (3/32", 1/8", 5/32", 3/16")	10,000 (1,020) ※	19	0.49~0.59 (5~6)	68 (Vacuum on)	1,1	69.5	Ultra Jaw 'M'
R1A2	All materials 4.8 / 6.4 (3/16", 1/4")	18,500 (1,890) %	26	0.49~0.59 (5~6)	75 (Vacuum on)	1.74	80	Ultra Jaw 'L'

*Air pressure at 0.59 Mpa



AR-2000 · 2000 V Series

- Lightweight riveters with resin polymer case.
- Shockless technology offers ergonomically correct action to minimize risk to CTDs (cumulative trauma disorders).
- ▶ The combination of a spring return and air return increases return speed by 30%.
- A built-in muffler reduces work noise and is gentler on the surrounding environment.
- ►The AR-2000V series with integrated vacuum system is low energy type riveter with simple vacuum ON/OFF switch.



AR-2000M · 2000MV

Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

The AR-2000M/AR-2000MV riveters are lightweight and high volume riveters for use with blind rivets from \$\phi 2.4\$ up to \$\phi 4.8\$. (3/32"-3/16").Longer stroke than previous generations of tools (AR-011M/AR-021M) resulting in improved productivity





AR-2000H · 2000HV

Riveting Capacity 4.8 6.4 3/16" 6.4 tool





The AR-2000H/AR2000HV riveters are excellent for large diameter standard rivet sizes φ4.8 (3/16") and $\phi 6.4$ (1/4"). Heavy duty tools with a long stroke and are faster than previous generations of tools (AR-011H/AR-21H) Can be used with S-Bolts.

(S-bolt nosepiece is sold separately.)





Can be used if optional parts (sold separately) are attached. (P.28, Table. 2)

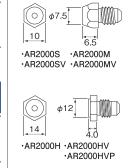
Model	2.4 (3/32")		4.0 (5/32")			Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
AR-2000S	0	0	Δ	_	_	4,208 (429)	14.0	0.40.0.50	0.6 L/rivet	1.1	S
AR-2000M	0	0	0	0	_	8,024 (818)	16.0	0.49~0.59 (5.0~6.0)	1.7	1.2	Ultra Jaw 'M'
AR-2000H				0	0	12,232 (1,247)	18.0	(0.0 0.0)	3.6	1.6	Ultra Jaw 'L'

* Cannot be used with stainless steel rivets. * Can be used if optional parts (sold separately) are attached. (Page 28, Table. 1)

■With integrated vacuum system

with integra	ica vac	Juuiii	ystein								
Model	Rive	ting Ca	apacity	φmm (inch)	Traction Power	Stroke	Working Air Pressure	Air	Weight	
(2.4 (3/32")	3,2 (1/8")	4.0 (5/32")	4.8 (3/16")	6.4 (1/4")	N (kgf)	mm	MPa (kgf/cm²)	Consumption		Jaws
AR-2000SV	0	0	Δ	_	_	4,208 (429)	14.0	0.40.0.50	90 L/min	1.25	S
AR-2000MV	0	0	0	0	_	8,024 (818)	16.0	0.49~0.59 (5.0~6.0)	90	1.35	Ultra Jaw 'M'
AR-2000HV	_			0	0	12,232 (1,247)	18.0	(8.8 0.0)	120	1.8	Ultra Jaw 'L'

^{*}A Cannot be used with stainless steel rivets. * Can be used if optional parts (sold separately) are attached. (Page 28, Table. 1)



NOSE PIECE

Basic types

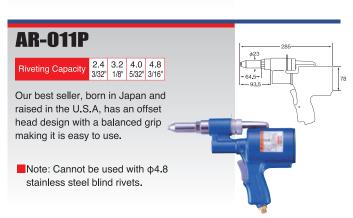
With integrated vacuum system

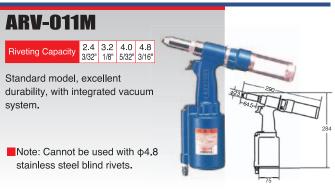
Our long-selling riveters, strong and are hard to break











Riveting Capacity 4.8 3/16" 6.4 Increases work efficiency through its lightweight and highly-refined riveting speed. Its high power and long stroke makes this model appropriate for S-bolt and long type rivets. 4.8 (3/16")and 6.4 (1/4") blind rivets can be used if optional parts (sold separately) are attached.

AR-3000EV

■Note: φ4.8 and φ6.4 standard rivets can be used if optional parts are attached(sold separately).

40

AR-011H AR-011H AR-3000EV

Model	2.4 (3/32")	_		φmm (4.8 (3/16")		Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
AR-011S	0	Δ	_	_	_	2,942 (300)	14.0		0.6 L/min	1.2	S
AR-011M	0	0	0	Δ	_	7,845 (800)	14.0	0.49~0.59	1.5	1.5	Ultra Jaw 'M'
AR-011H	0	0	0	0	Δ	12,259 (1,250)	16.0	(5.0~6.0)	2.9	2.1	Ultra Jaw 'M' Ultra Jaw 'L'
AR-011P	0	0	0	Δ	_	7,845 (800)	18.0		1.5	1.5	Ultra Jaw 'M'

*
\triangle Cannot be used with stainless steel rivets.

NOSE PIECE

AR-011S·AR-011M ARV-011M·AR-011P

with integra	ted vad	cuum s	system								
Model	2.4 (3/32")		4.0 (5/32")			Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
ARV-011M	0	0	0	Δ	_	7,845 (800)	14.0	0.49~0.59 (5.0~6.0)	100 L/min	1.7	Ultra Jaw 'M'
AR-3000EV	_	_	_	S-bolt	S-bolt	15,200 (1,550)	24.0	0.51~0.64 (5.5~6.5)	90 L/min	1.4	Ultra Jaw 'L'

 $^{^*\}phi4.8$ and $\phi6.4$ standard rivets can be used if optional parts are attached(sold separately).



AR-021M · AR-021M-RJ

Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

AR-021M

- Soft-Set shockless technology is ergonomically correct and minimizes risk of CTDs (cumulative trauma disorders).
- · Ultra jaws for longer jaw life.
- Lightweight
- · Noise-reducing muffler
- · Heavy duty diecast construction

AR-021M-RJ

- · Same features as AR-021M, plus
- · 360° rotary air joint allows upright placement on work station.



AR-021H · AR-021H-RJ

Riveting Capacity 2.4 3.2 4.0 4.8 6.4 3/32" 1/8" 5/32" 3/16" 1/4"

AR-021H

- Soft-Set shockless technology is ergonomically correct and minimizes risk of CTDs (cumulative trauma disorders).
- Ultra jaws for longer jaw life.
- Lightweight
- · Noise-reducing muffler
- Heavy duty die cast construction
- · One of the world's most versatile riveters-sets all five rivet sizes.

AR-021H-RJ

- · Same features as AR-021M, plus
- 360° rotary air joint allows upright placement on work station.

S-bolt Can be used if optional parts (sold separately) are attached. (Table2. P.28)



AR-021EX · AR-021EXH

Riveting Capacity 4.8 6.4 1/4" S-bolt tool

trauma disorders).

included with tool.

· 360° rotary air joint

Noise-reducing muffler.

Ultra jaws for longer jaw life

AR-021EX



• Soft-Set shockless technology is ergonomically

• Sets 3/16" and 1/4" Monobolt structural rivets.

Heavy duty construction for rugged applications

"T" rivets and standard rivets-all nosepieces

correct and minimizes risk of CTDs (cumulative

AR-021EXH

 Soft-Set shockless technology offers ergonomically correct action to minimize risk of CTDs (cumulative trauma disorders).

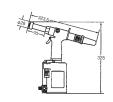
Designed specifically for 1/4" Magna-Lok structural rivets.

- · Over 3700 lbs. Traction power
- Heavy duty construction for rugged applications
- 360° rotary air joint
- · Noise-reducing muffler





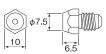
AR-021EX



AR-021EXH

NOSE PIECE

AR-021M·AR-021M-RJ







AR-021H-AR-021H-RJ-AR-021EX











Model	2.4 (3/32")			φmm (4.8 (3/16")		Traction Power	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
AR-021M	0	0	0	0	_	8,336 (850)	14.0	0.49~0.59	1.5 L/rivet	1.5	Ultra Jaw 'M'
AR-021M-RJ	0	0	0	0	_	6,336 (630)	14.0	(5.0~6.0)	1.5 L/HVet	1.	Ollia Jaw IVI
AR-021H	0	0	0	0	0	13,730 (1,400)	16.5		2.9	1.5	Ultra Jaw 'M'
AR-021H-RJ	0	0	0	0	0	13,730 (1,400)	10.5	0.59~0.64	2.9	1.5	Ultra Jaw 'L'
AR-021EX	_	_	_	0	0	14,220 (1,450)	26.0	(6.0~6.5)	4.6	0.0	
AR-021EXH	_	_	_	0	0	16,637 (1,700)	22.0		4.6	2.9	Ultra Jaw 'L'



For all Riveters

• Be sure to read the instruction manual carefully and make sure that you understand them thoroughly before using the riveter.

Angle types

- ► Riveting in narrow spaces
- Riveting in corners or obstructed areas
- ► Riveting in difficult access
- Riveting head can turn 360° which enables work with better posture and improved production efficiency.

AR-2000A-90 · AR2000A-45 · AR2000A-00



Model	Rive 2.4 (3/32")		apacity 4.0 (5/32")		inch) 6.4 (1/4")	Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
AR-2000A-90	0	0	0	Δ	_					1.75	
AR-2000A-45	0	0	0	Δ	_	8,024 (819)	16.0	0.49~0.59 (5.0~6.0)	1.7 L/rivet	1.87	S
AR-2000A-00	0	0	0	Δ	_			(0.0 0.0)		1.81	

NOSE	PIECE
AR-2000A-90 AR-2000A-45 AR-2000A-00	10 6.5

Application

Example 1 Can not riveting at the target place

Riveting point was so close to the corner, We had to alter some part of riveter or had to be compelled to miss the target

Example 2 Can not riveting in recess

we were compelled to do riveting improperly.

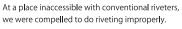
Example 3 Can not riveting at a narrow space

At an unusual place, welding was the only way to access the point where does not allow to approach with riveters.





00 Offset nose of AR2000A-00 allows perfect riveting at dead set place







45 Angle nose of AR2000A-45 offers smooth riveting at hard-to reach place





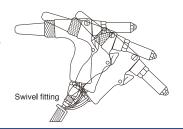
90 Angle nose of AR2000A-90 allows to riveting inside of the cylinder, shown as picture

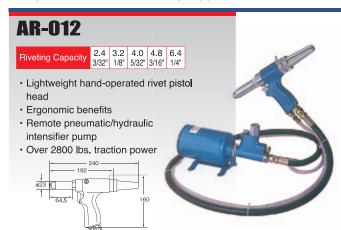
 $^{^*\}triangle$ Cannot be used with stainless steel rivets.



Separate type

- ► The separated-unit design lets you to leave the tank on the floor.
- ►The swivel mechanism enables free up-down and left-right movement.
- Reduces sore, tired hands. Longer unit lifespan. Equipped with shockless and noiseless technology for more ergonomic work environment.
- Features a long 19 mm stroke for high power riveting with 4.8 mm diameter blind rivets, regardless of the base material.
- Small dimeter, lightweight, soft hydraulic hose with aboundant 2-meter length.
- Hydraulic oil is automatically supplied from the tank for maintenance-free operation.







ARV-022M

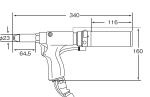
Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

· Soft-Set® shockless technology offers ergonomically correct action to minimize risk of CTDs.

- · Ultra jaws for longer jaw life
- Lightweight, pistol grip riveting head weighs under two pounds and works with remote intensifier
- · Exclusive hydraulic swivel fittings for ease of operator control
- · Vacuum mandrel collection system holds rivet prior to setting, and collects spent mandrels either to attached bottle or through a tube to an off-line receptacle
- Mandrel vacuum system for mandrel retention and collection or evacuation to an off-line receptacle
- Long stroke
- · Able to operate in conjunction with our exclusive ARF-700 autofeeding rivet presenter system



With integrated



ARV-025M

Riveting Capacity 2.4 3.2 4.0 4.8 5/32" 3/16"

- · Soft-Set® shockless technology offers ergonomically correct action to minimize risk of CTDs (cumulative trauma disorders).
- · Ultra jaws for longer jaw life
- · Lightweight, compact riveting head weighs under two pounds and works with remote intensifier
- · In-line vertical design for ergonomic benefits in a workstation environment
- · New design features unique ergonomic trigger placement in the natural operator gripping area for improved tool control
- Exclusive hydraulic swivel fittings for ease of operator fiexibility
- · Built-in on demand mandrel vacuum system for mandrel retention and evacuation to an off-line receptacle
- Long stroke
- · Able to operate in conjunction with our exclusive ARF-700 autofeeding rivet presenter system

Intensifier Unit: Interchangeable with all three models (ARV-025M, ARV-022M, and AR-022M). Heads are changed at the quick-disconnect hydraulic fitting.



With integrated vacuum system

Madal	uvenní	Capa	city⊄	⊅mm (i	inch)	Traction Power	Stroke	Working	Air	Weight	
Model 2 (3/3	2.4 3 (32") (1/	.2 4 8") (5/3	.0 32")(3	4.8 3/16")	6.4 (1/4")	N (kgf)	mm	Air Pressure MPa (kgf/cm²)	Consumption	kg	Jaws
AR-012)	0	0	12,750 (1,300)	16.0	0.49~0.59	2.9 L/rivet	0.9	Ultra Jaw 'M' Ultra Jaw 'L'
AR-022M)	0	_	8,825 (900)	19.0	(5.0~6.0)	4.6	0.9	Ultra Jaw 'M'

*Head weight only

Auxiliary vacuum system

Model			apacity 4.0 (5/32")			Traction Power N (kgf)	Stroke mm	Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
ARV-022M	0	0	0	0	_	8,825 (900)	19.0	0.49~0.59	100 L/min	1.3	Ultra Jaw 'M'
ARV-025M	0	0	0	0	_	8,825 (900)	20.0	(5.0~6.0)	100	0.9	Ultra Jaw 'M'

• Be sure to read the instruction manual carefully and make sure that you understand them thoroughly before using the riveter.

In-Line type

ARV-015S · ARV-015M

ARV-015S

Riveting Capacity 2.4 3.2 1/8"

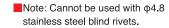
- · Unique ergonomic in-line vertical design
- Ideal for fixed position assembly line work stations with overhead counterbalance approach
- Integrated vacuum system for mandrel retention and removal to an off-line receptacle
- · Sets up to 3.2(1/8") standard rivets
- · An industry standard for over 25 years
- ■Note: Cannot be used with φ3.2 stainless steel blind rivets.



ARV-015M

Riveting Capacity 2.4 3.2 4.0 4.8 5/32" 1/8" 5/32" 3/16"

- · Same features as ARV-015S
- Sets up to 4.0(5/32") standard rivets
- · Ultra jaws for longer jaw life
- Able to operate in conjunction with our exclusive ARF-700 autofeeding rivet presenter system





Model			apacity 4.0 (5/32")			Traction Power N (kgf)		Working Air Pressure MPa (kgf/cm²)	Air Consumption	Weight kg	Jaws
ARV-015S	0	Δ	_	_	_	2,942 (300)	14.0	0.49~0.59	60 L/min	1.4	S
ARV-015M	0	0	0	Δ	_	7,845 (800)	16.0	(5.0~6.0)	100	1.7	Ultra Jaw 'M'

NOS	E PIECE
ARV-015S ARV-015M	10 6.5

Vacuum Unit

External vacuum system for air riveters

- ▶By attaching this unit to one of our compatible air riveters, detached mandrels can be automatically collected and expelled.
- Air-blocking device enables you to interrupt the airflow when the vacuum unit is not being used, thus saving costs.
- ▶ Because the rivets are held by vacuum power, they will not drop regardless of the direction the riveter is pointing, enabling you to work more easily with one hand.
- Using the tank unit or chute hose (option), detached mandrels can be expelled into designated location, supporting cleanliness and safety in the workplace.



■Specifications

Mandal	Rive	ting C	apacity	ϕ mm ((inch)	Compatible	Working	Air	Weight	Recommended chute hose★	
Model	2.4 (3/32")	3.2 (1/8")	4.0 (5/32")	4.8 (3/16")	6.4 (1/4")	models	Air Pressure MPa (kgf/cm²)	Consumption	kg	(option)	
VU-S	0	0	_	_	-	AR-011S		About			Material: nylon
VU-M	_	0	0	0	I	AR-011M•AR-021M	0.49~0.59		About 100 L/min 280	Internal diameter: 5.9 mm	
VU-H48	_	_	_	0	_	AR-011H•AR-021H	(5.0~6.0)		200	x Length: 1,900 mm	
VU-H64	_	_	_	_	0	711 01111 AII-02111		About 120		Internal diameter: 7 mm x Length: 2,000 mm	

^{*}By connecting directly to a nozzle unit that can be disconnected from the tank, detached mandrels can be expelled into a designated location.

Automatic Rivet Feeding System



ARF-700 Outline and Performance

Faster, reliable, improved work efficiency!

- Outline
- Reduces riveting cycle time and lowers running costs.
- Reduces the time lost when inserting rivets into the riveter.
- Rivet loading is half-automated so it is possible to simultaneously line up the holes in the materila during loading.
- **■**Performance
- Approx. 60 rivets/minute loading speed
- Riveting speed of over 1,500 rivets/hour possible

ARF-700

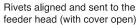
<Sold separately> Compatible air riveters

- ARV-015M, ARV-022M, ARV-025M, AR-2000SV, AR-2000MV, and ARV-011M, R1A1
- · With VU-M vacuum unit: AR-011M
- · With optional frame head: ARV-015S
- With optional frame head and VU-S vacuum unit: AR-011S

<Note>

· Large flange blind rivets cannot be used with the ARF-700.





ARF-700 Functions and Features

Improved productivity and workability

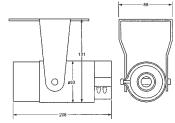
- Each rivet is automatically held in place as soon as the riveter is inserted into the feeder head.
- One hand is freeallowing for material handling or othe workstaion tasks.
- Productivity is increased by 180% to 300%(Estimation by Lobtex)
- Clean work environment can be maintained using the detachable mandrel vacuum system hose(option).

Freely adjustable line layout

- Feeder casters allow for portability simple.
- Compact design eliminates the need to designate specific installation location.
- Easily detachable feeder head can be set in the appropriate location along the line.
- Feeder head is expandable (option) to fit the size of the rivet.

Durable, maintenance-free design

- Misfeed tank helps avoid delays by catching misfed rivets and allowing system to continue to operate.
- Acrylic lid on top of the feeder allow easy replenishiment of rivets.
- Set the rivets on the track rail and operation will pause to save eneray.
- Counter (option) displays the number of rivets used for easy verification.



■Process comparison of riveting cycle (between our conventional method and the ARF-700 method)

Conventional method



Pick up a rivet (1 second)



Insert the rivet into the riveter (2 seconds)



Pick up the material to be fastened (1 second)



Align the holes of the material to be fastened (1 second)



Pick up the riveter (1 second)



Insert rivet through the holes (1 second)



Pull the trigger on the riveter (1 second)



ARF method



Load rivets into the required once)



Pick up the material to be fastened



Align the holes of the material to be fastened



Insert rivet through the holes (1 second)



Pull the trigger on the riveter (1 second)





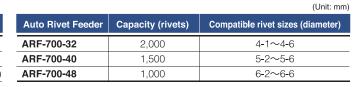


Continuous riveting will enable 3 rivets to be applied in 8 seconds

■Specifications

•								
ARF-700 Feeder								
External dimensions (W×H×D)	447 mm×364 mm×528 mm							
Weight	32 kg (total: 36 kg)							
Working air pressure	0.49 MPa to 0.59 MPa (5 to 6 kgf/cm2)							
Power	AC 100 V, 50/60 Hz							
Power consumption	70 W							

^{*}AC220V, 50/60Hz optional *AC120V, 60Hz optional





Cordless Riveters

- Compact, fast, and easier to use ADVANCED Cordless Riveter
- ▶22mm (.866") long stroke with compact body
- ► High-speed riveting (1.1 second cycle time)
- Exclusive designed form
- ► Energy saving (800 rivets installation on a single charge)



It is a Lobtex masterpiece, with energy-saving and foolproof features, and it helps fulfill your desire to make your factory "cordless."

The smallest size and compact body in its class.

Lobtex's unique motor layout realizes more compact.



Model	Overall Length (L)	Height (H)	Frame Head Diam. (D)	Width (W)	Weight kg	(T)	Stroke mm	Jaws	Compatible Rivets	
R1B1	260	260	260 21.0		1.9	33	22	Ultra Jaw 'M'	2.4 / 3.2 / 4.0 / 4.8 (3/32", 1/8", 5/32", 3/16")	
R1B2	268	260	23.0	90	2.0	33	22	Ultra Jaw 'L'	4.8 / 6.4 (3.2 / 4.0) (3/16", 1/4" (1/8", 5/32")) ※	

**At the time battery pack BPL1415 is installed. **3.2 / 4.0mm(1/8", 5/32") rivets can be used if optional parts are attached. **6.4mm stainless steel rivets cannot be used.

■Battery Pack Specifications

Model	Type	Voltage Rating	Capacity	Charg		
Model	Туре	voitage nating	Сараспу	Full Charge	Charge for Practical Use	Code No.
BPL1415	Li-ion	14.4 V DC	1.5 Ah	60 min	45 min	8860
BPL14	Li-ion	14.4 V DC	3.0 Ah	120 min	90 min	8856

% Full charge: 0% → 100% Charge for practical use: 0% → 80%

■Charg	■Charger Specifications										
Model Power Code No.											
В	C0075G	100-240 V AC	(230V) 8900	(120V) 8896							

Attachment Riveter

- Instantly turn your impact driver into riveter!
- Compatible with standard hexagonal chucks, so attachment to electric tools is simple.
- For automotive repair! For Do-lt-Yourself projects! For home repairs!





Hand Riveters

HR-200

Riveting Capacity 2.4 3.2 4.0 5/32" 1/8" 5/32"

Floating Jawcase Mechanism

- For professional and home use
- ■Built-in damper reduces weight of shock
- ■Sets rivets up to 4.0 mm (5/32")



HR-002A

Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

General Duty Hand Riveters

- Aluminum diecast frame and drop-forged s teel lever handle
- ■Wide self-opening spring for easy re-gripping
- Automatic mandrel ejection
- Comes with four nosepieces to set rivets up to 4.8 mm (3/16")



HR-005A

Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

Flexible Hand Riveters

- ■Versatile design for 360° multi-directional riveting
- ■Quick change nose head direction
- Comes with four nosepieces to set rivets up to 4.8 mm(3/16")

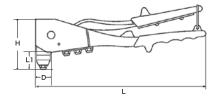


HR-002D

Riveting Capacity 2.4 3.2 4.0 4.8 3/32" 1/8" 5/32" 3/16"

Floating Jawcase Mechanism

- Overcomes drawbacks of conventional hand riveters by holding the rivet firmly regardless of tool position.
- ■Special palm and hand grip for ease and
- Comes with four nosepieces to set rivets up to 4.8mm(3/16")



NA1 -1	Riveting Capacity		(inch)	Weight	L	L1	н	D			
Model	2.4 (3/32")	3.2 (1/8")	4.0 (5/32")	4.8 (3/16")	6.4 (1/4")	kg	mm	mm	mm	mm	Jaws
HR-200	0	0	Δ	_	_	0.39	200	40	85	φ19	S
HR-002A	0	0	0	\triangle	_	0.54	265	32	79	φ20	S
HR-002D	0	0	0	Δ	_	0.5	270	20	83	φ20	S
HR-005A	0	0	Δ	Δ	_	0.75	300	30	83	φ22	S

^{*}A Cannot be used with stainless steel rivets

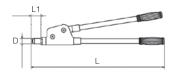
Heavy Duty Hand Riveters

- ■Longer handles and gear mechanism exert greater rivet break power
- ■Maintenance-free simple rugged construction
- ■Sets rivets up to 6.4 mm (1/4") stainless steel as well as T-Rivet® and Monobolt $^{\mbox{\scriptsize le}}$.









L1	
L	

No. del	Rive	ting C	apacity	ϕ mm ((inch)	Weight	L	L1	н	D	
Model	2.4 (3/32")	3.2 (1/8")	4.0 (5/32")	4.8 (3/16")	6.4 (1/4")	kg	mm	mm	mm	ø mm	Jaws
HR-003A	_	_	0	0	_	1.8	610	43	_	25	Ultra Jaw 'M'
HR-003B	_	_	_	0	0	2.0	760	41	_	25	Ultra Jaw 'L'
HR-2005H				0	0	1.75	532	33	37	24	Ultra Jaw 'L'

 $^{^*\}triangle$ Cannot be used with stainless steel rivets.

Optional Parts

Table 1. Riveters

Description	AR-2000H	AR-2000HV	HR-2050H
Description	Code No.	Code No.	Code No.
Jaws case head M	14378	14378	20528
Jaws M	_	-	10117
Ultra jaws M	10281	10281	-
Jaws pusher H	10224	10224	-
Nosepiece L 2.4	10213	-	10213
Nosepiece L 3.2	10214	10214	10214
Nosepiece L 4.0	10215	10215	10215

For all Riveters

Table 2. S-bolts Tools

Description	Code No.
Nosepiece 4.8 for S-bolts	143751
Nosepiece 6.4 for S-bolts	43750

 $^{^*\}Box$ Can be used if optional parts (sold separately) are attached.



Nut Rivets	
NSD	32
NAD	32
NSK	32
NAK	
NTK	33
LOBSTER Serrated Nut Rivet	S
NSK•NSD	33
Pneumatic Nut Rivet Setters	
AN-200A	34
Electric Nut Rivet Setters	
EN-410	34
Attachment Nut Rivet Sette	r
@N10d	34
Hand Nut Rivet Setters	
HND-005	35
Heavy Duty Type Hand Nut Rivet Setters	
HN-010	35
Hand Nut Rivet Setter Kits	
HND-105	35
ST Lock	
CNSH	36
CNTH	36
CNSK	37
Cargo Nutrunner	
ERS	37
Attachment ST Look Nutrun	ner
@RS10i	37

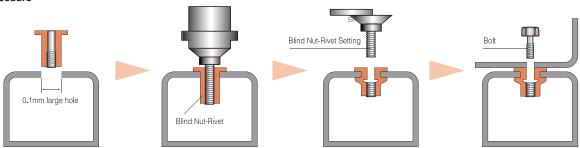
Nut Rivets & Nut Rivers

LOBSTER Blind Nut Rivets

- Blind fasteners that combine the features of nut and rivet.
- Single-action fastening with a beautiful finish for use on thin boards where it is difficult to set a tap, or for round or square pipes and plastic boards where welding is not possible.
- ► Easy for anyone to install securely when used in conjunction with LOBSTER Pneumatic Nut-Rivet Setter, Electric Nut-Rivet Setter or Hand Nut-Rivet Setter, and demonstrates an excellent capacity for lowering costs and saving labor.

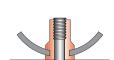
LOBSTER Blind Nut Rivet Setters

Work Procedure



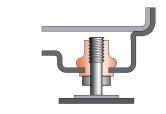
LOBSTER Blind Nut Rivets Application Examples

Fastening an accessory piece to thin board



Fastening piping to flat board

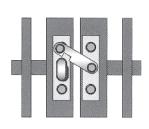
Leveling of farm tools/implements

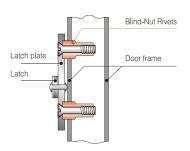






Attaching a latch to door





Applications

Household equipment

Storage sheds, doors, kitchen appliances, steel furniture, sash crescent stoppers,etc.

Household appliances

TV, stereo, air-conditioner, refrigerator, oven, etc.

Automotive

Accessories, malls, taillights, steps for RVs, etc.

Electrical work, farm implements, interior/exterior work, solar equipment, etc.



Refrigerator height-adjuster stop









Fastening windshield wipers



Blind Nut Rivets

■ K Type (NTK·NSK·NAK) D Type (NSD·NAD)





- Blind rivet fasteners that combine the features of a nut and rivet.
- •Single-action riveting with a beautiful finish for use on thin boards where it is difficult to set a tap, or for round or square pipes and plastic boards where welding is not possible.
- Easy for anyone to install securely when used in conjunction with a LOBSTER Pneumatic Nut-Rivet Setter, Electric Nut-Rivet Setter or Hand Nut-Rivet Setter, and demonstrates an excellent capacity for lowering costs and saving labor.

Blind Nut Rivets with Serration





- ●Soft riveting makes the nut-rivet perfect for use with thin or soft boards.
- ●30% less riveting strength than standard rivets enables more delicate
- ■Tapered tip means ease-of-insert into holes, making nut-rivets suitable for use with auto riveting.
- ●The serrations on the shaft ensure a snug fit into the base material and virtually eliminate loosening.
- Deformation of thin boards is avoided, especially with the countersunk (flush) K-type rivet.

Selection Table of Proper Nut Rivets

	Туре		Model	Material	М3	M4	M5	М6	M8	M10	Page
	Large		NSD	Steel		•	•	•	•	•	P.32
	flange	NAD	Aluminum		•	•	•	•	•	P.32	
Standard Type			NSK	Steel	•	•	•	•	•	•	P.32
	Small flange		NAK	Aluminum		•	•	•	•	•	P.33
			NTK	Stainless Steel		•	•	•	•	•	P.33
Serrated	Large flange		NSD-R	Steel		•	•	•	•	•	P.33
Туре	Small flange	9	NSK-R	Steel		•	•	•	•	•	P.33

Nut Rivets

Type D (Large flange)

● NSD/Steel (JIS SWCH)



Dimensions

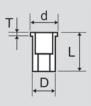


- /										
Model	Nut Setting Capacity	Hole diameter	Outer dimensions		Tensile	Torque	per package	Compatible		
	Сараспу	mm	D(<i>φ</i> mm)	d(ø mm)	T(mm)	L(mm)	N	Nm	раскауе	screws
NSD-4M	1.0~2.0	6.1	6.0	9.0	0.8	11.5	7,300	5.9	1,000	M4×0.7
NSD-415M	0.5~1.5	6.1	6.0	9.3	0.8	10.8	6,700	5.9	1,000	M4×0.7
NSD-425M	1.5~2.5	6.1	6.0	9.3	0.8	11.8	6,700	5.9	1,000	M4×0.7
NSD-435M	2.5~3.5	6.1	6.0	9.3	0.8	12.8	6,700	5.9	1,000	M4×0.7
NSD-5M	1.0~3.2	7.1	7.0	10.0	1.0	13.0	10,800	9.3	1,000	M5×0.8
NSD-515M	0.5~1.5	7.1	7.0	10.3	1.0	12.0	9,800	10.8	1,000	M5×0.8
NSD-525M	1.5~2.5	7.1	7.0	10.3	1.0	13.0	9,800	10.8	1,000	M5×0.8
NSD-535M	2.5~3.5	7.1	7.0	10.3	1.0	14.0	9,800	10.8	1,000	M5×0.8
NSD-6M	1.0~3.2	9.1	9.0	12.0	1.5	16.1	19,600	17.6	1,000	M6×1.0
NSD-625M	1.0~2.5	9.1	9.0	12.3	1.5	15.5	16,700	19.6	1,000	M6×1.0
NSD-640M	2.5~4.0	9.1	9.0	12.3	1.5	17.0	16,700	19.6	1,000	M6×1.0
NSD-8M	1.0~3.2	11.1	11.0	14.0	1.5	17.0	21,500	34.3	1,000	M8×1.25
NSD-825M	1.0~2.5	11.1	11.0	14.3	1.5	17.0	23,500	37.2	500	M8×1.25
NSD-840M	2.5~4.0	11.1	11.0	14.3	1.5	18.5	23,500	37.2	500	M8×1.25
NSD-1025M	1.0~2.5	13.1	13.0	16.3	1.5	17.5	29,400	58.8	500	M10×1.5
NSD-1040M	2.5~4.0	13.1	13.0	16.3	1.5	19.0	29,400	58.8	500	M10×1.5

● NAD/Aluminum (JIS A5056)



Dimensions



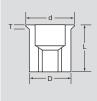
Model	Nut Setting Capacity	Hole diameter		Outer dimensions		Tensile	Torque	per package	Compatible screws	
	Сараспу	mm	$D(\phi mm)$	d(ø mm)	T(mm)	L(mm)	N	Nm	package	SCIEWS
NAD-4M	1.0~2.0	6.1	6.0	9.0	0.8	11.0	4,000	4.9	1,000	M4×0.7
NAD-415M	0.5~1.5	6.1	6.0	9.3	0.8	10.3	3,900	3.9	1,000	M4×0.7
NAD-425M	1.5~2.5	6.1	6.0	9.3	0.8	11.3	3,900	3.9	1,000	M4×0.7
NAD-435M	2.5~3.5	6.1	6.0	9.3	0.8	12.3	3,900	3.9	1,000	M4×0.7
NAD-5M	1.0~3.2	7.1	7.0	10.0	1.0	12.6	6,400	7.8	1,000	M5×0.8
NAD-515M	0.5~1.5	7.1	7.0	10.3	1.0	11.5	6,200	6.9	1,000	M5×0.8
NAD-525M	1.5~2.5	7.1	7.0	10.3	1.0	12.5	6,200	6.9	1,000	M5×0.8
NAD-535M	2.5~3.5	7.1	7.0	10.3	1.0	13.5	6,200	6.9	1,000	M5×0.8
NAD-6M	1.0~3.2	9.1	9.0	12.0	1.5	16.1	10,800	14.7	1,000	M6×1.0
NAD-625M	1.0~2.5	9.1	9.0	12.3	1.5	15.0	9,500	13.7	1,000	M6×1.0
NAD-640M	2.5~4.0	9.1	9.0	12.3	1.5	16.5	9,500	13.7	1,000	M6×1.0
NAD-8M	1.0~3.2	11.1	11.0	14.0	1.5	16.7	13,700	29.4	1,000	M8×1.25
NAD-825M	1.0~2.5	11.1	11.0	14.3	1.5	16.5	14,200	29.4	500	M8×1.25
NAD-840M	2.5~4.0	11.1	11.0	14.3	1.5	18.0	14,200	29.4	500	M8×1.25
NAD-1025M	1.0~2.5	13.1	13.0	16.3	1.5	17.0	19,100	37.2	500	M10×1.5
NAD-1040M	2.5~4.0	13.1	13.0	16.3	1.5	18.5	19,100	37.2	500	M10×1.5

Type K (Small flange)

NSK/Steel (JIS SWCH)



Dimensions



VCH)										
Model	Nut Setting	Hole diameter		Outer dimensions Te		Tensile	Torque	per	Compatible screws	
	Capacity	mm	$D(\phi mm)$	$d(\phi mm)$	T(mm)	L(mm)	N	Nm	package	sciews
NSK-3M	1.0~2.0	5.1	5.0	6.0	0.5	8.5	4,900	3.9	1,000	M3×0.5
NSK-4M	1.0~2.0	6.1	6.0	7.0	0.5	11.3	7,300	5.9	1,000	M4×0.7
NSK-415M	0.5~1.5	6.1	6.0	7.0	0.5	10.0	6,700	5.9	1,000	M4×0.7
NSK-425M	1.5~2.5	6.1	6.0	7.0	0.5	11.0	6,700	5.9	1,000	M4×0.7
NSK-435M	2.5~3.5	6.1	6.0	7.0	0.5	12.0	6,700	5.9	1,000	M4×0.7
NSK-5M	1.0~3.2	7.1	7.0	8.0	0.5	12.7	10,800	9.3	1,000	M5×0.8
NSK-515M	0.5~1.5	7.1	7.0	8.0	0.5	11.0	9,800	10.8	1,000	M5×0.8
NSK-525M	1.5~2.5	7.1	7.0	8.0	0.5	12.0	9,800	10.8	1,000	M5×0.8
NSK-535M	2.5~3.5	7.1	7.0	8.0	0.5	13.0	9,800	10.8	1,000	M5×0.8
NSK-6M	1.0~3.2	9.1	9.0	10.0	0.8	15.4	19,600	17.6	1,000	M6×1.0
NSK-625M	1.0~2.5	9.1	9.0	10.0	0.5	14.0	16,700	19.6	1,000	M6×1.0
NSK-640M	2.5~4.0	9.1	9.0	10.0	0.5	15.5	16,700	19.6	1,000	M6×1.0
NSK-8M	1.0~3.2	11.1	11.0	12.0	0.8	16.5	21,500	34.3	1,000	M8×1.25
NSK-825M	1.0~2.5	11.1	11.0	12.0	0.5	15.5	23,500	37.2	500	M8×1.25
NSK-840M	2.5~4.0	11.1	11.0	12.0	0.5	17.0	23,500	37.2	500	M8×1.25
NSK-10M	1.0~4.0	13.1	13.0	14.0	0.8	17.8	24,500	44.1	500	M10×1.5
NSK-1025M	1.0~2.5	13.1	13.0	14.0	0.5	16.0	29,400	58.8	500	M10×1.5
NSK-1040M	2.5~4.0	13.1	13.0	14.0	0.5	17.5	29,400	58.8	500	M10×1.5



Nut Rivets

Type K (Small flange)

NAK/Aluminum (JIS A5056)

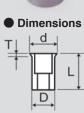


Dimensions

13 13030)										
Model	Nut Setting Capacity	Hole diameter		Outer dimensions		Tensile	Torque	per package	Compatible	
	Сараспу	mm	$D(\phi mm)$	d(p mm)	T(mm)	L(mm)	N	Nm	package	screws
NAK-4M	1.0~2.0	6.1	6.0	7.0	0.5	11.3	4,000	4.9	1,000	M4×0.7
NAK-415M	0.5~1.5	6.1	6.0	7.0	0.5	10.0	3,900	3.9	1,000	M4×0.7
NAK-425M	1.5~2.5	6.1	6.0	7.0	0.5	11.0	3,900	3.9	1,000	M4×0.7
NAK-435M	2.5~3.5	6.1	6.0	7.0	0.5	12.0	3,900	3.9	1,000	M4×0.7
NAK-5M	1.0~3.2	7.1	7.0	8.0	0.5	12.7	6,400	7.8	1,000	M5×0.8
NAK-515M	0.5~1.5	7.1	7.0	8.0	0.5	11.0	6,200	6.9	1,000	M5×0.8
NAK-525M	1.5~2.5	7.1	7.0	8.0	0.5	12.0	6,200	6.9	1,000	M5×0.8
NAK-535M	2.5~3.5	7.1	7.0	8.0	0.5	13.0	6,200	6.9	1,000	M5×0.8
NAK-6M	1.0~3.2	9.1	9.0	10.0	0.5	14.6	10,800	14.7	1,000	M6×1.0
NAK-625M	1.0~2.5	9.1	9.0	10.0	0.5	14.0	9,500	13.7	1,000	M6×1.0
NAK-640M	2.5~4.0	9.1	9.0	10.0	0.5	15.5	9,500	13.7	1,000	M6×1.0
NAK-8M	1.0~3.2	11.1	11.0	12.0	0.5	15.7	13,700	29.4	1,000	M8×1.25
NAK-825M	1.0~2.5	11.1	11.0	12.0	0.5	15.5	14,200	29.4	500	M8×1.25
NAK-840M	2.5~4.0	11.1	11.0	12.0	0.5	17.0	14,200	29.4	500	M8×1.25
NAK-1025M	1.0~2.5	13.1	13.0	14.0	0.5	16.0	19,100	37.2	500	M10×1.5
NAK-1040M	2.5~4.0	13.1	13.0	14.0	0.5	17.5	19.100	37.2	500	M10×1.5

NTK/Stainless (JIS SUS303)





3 303303)											
Model	Nut Setting Capacity	Hole diameter		Outer dimensions T		Tensile	Torque	per package	Compatible screws		
	Сарасну	mm	$D(\phi mm)$	d(p mm)	T(mm)	L(mm)	N	Nm	package	Sciews	
NTK-3M15	0.5~1.5	5.1	5.0	6.0	0.7	8.7	8,900	2.9	200	M3×0.5	
NTK-4M	0.3~1.0	6.1	6.0	7.0	0.7	9.5	9,800	6.8	200	M4×0.7	
NTK-4M20	1.0~2.0	6.1	6.0	7.0	0.7	10.6	9,800	6.8	200	M4×0.7	
NTK-4M25	1.5~2.5	6.1	6.0	7.0	0.7	11.2	9,800	6.8	200	M4×0.7	
NTK-4M35	2.5~3.5	6.1	6.0	7.0	0.5	12.0	9,800	6.8	200	M4×0.7	
NTK-5M	0.3~1.5	7.1	7.0	8.0	0.7	11.1	11,800	9.8	200	M5×0.8	
NTK-5M30	1.5~3.0	7.1	7.0	8.0	0.7	12.1	11,800	9.8	200	M5×0.8	
NTK-6M	0.3~2.0	9.1	9.0	10.0	0.7	14.1	22,500	21.5	100	M6×1.0	
NTK-6M40	2.0~4.0	9.1	9.0	10.0	0.7	15.6	22,500	21.5	100	M6×1.0	
NTK-8M	0.3~2.0	11.1	11.0	12.0	0.7	15.0	27,500	44.1	100	M8×1.25	
NTK-8M40	2.5~4.0	11.1	11.0	12.0	0.7	17.2	27,500	44.1	100	M8×1.25	
NTK-10M	0.3~2.0	13.1	13.0	14.0	0.7	15.7	29,400	49.0	100	M10×1.5	
NTK-10M40	2.5~4.0	13.1	13.0	14.0	0.7	17.7	29,400	49.0	100	M10×1.5	

LOBSTER Serrated Nut Rivets

- Tapered tip means ease-of-insert into holes, making nut-rivets suitable for use with auto riveting.
- The serrations on the shaft ensure snug fit into the base material and virtually eliminate loosening.

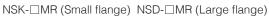
NSK·NSD series

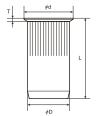
Soft clamping makes the nut-rivet perfect for use with thin or soft boards. 30% less clamping strength than standard rivets enables more delicate fastening.

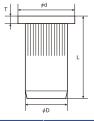












	Model	Nut Setting Capacity	Hole diameter		Outer din	nensions		Tensile	Torque	per	Compatible
		Сараспу	mm	D(<i>φ</i> mm)	d(ø mm)	T(mm)	L(mm)	Ν	Nm	package	screws
	NSK-4MR	0.5~2.0	6.1	6	7	0.5	10.0	5,400	5.9	1,000	M4×0.7
V 4	NSK-5MR	0.5~3.2	7.1	7	8	0.5	12.0	8,500	9.3	1,000	M5×0.8
K type (Small flange)	NSK-6MR	0.5~3.2	9.1	9	10	0.6	15.0	14,100	17.6	1,000	M6×1.0
(Siliali lialige)	NSK-8MR	1.0~4.0	11.1	11	12	0.5	16.0	15,700	34.3	1,000	M8×1.25
	NSK-10MR	1.0~4.0	13.1	13	14	0.6	20.5	16,700	44.1	500	M10×1.5
	NSD-4MR	0.5~3.0	6.1	6	9	0.8	11.0	5,400	5.9	1,000	M4×0.7
D type	NSD-5MR	0.5~3.2	7.1	7	10	1.0	13.0	8,500	9.3	1,000	M5×0.8
(Large flange)	NSD-6MR	0.5~3.2	9.1	9	12	1.5	16.0	14,100	17.6	1,000	M6×1.0
	NSD-8MR	1.0~4.0	11.1	11	14	1.5	17.5	15,700	34.3	1,,000	M8×1.25

- Tensile strength and destructive torque display average values. The test board thickness uses 2 mm steel plate. Since tensile strength displays deformation in the base material first, these rivets should be used with caution.
- NSK-6MR/8MR/10MR and NSD-6MR/8MR nut-rivets cannot be used with the HND-005 nut-rivet setter.



- For all Nut rivets
- Be sure that you understand all of the work conditions involved before using nut rivets.
 Before starting work, ALWAYS read the instruction manual for your nut rivet setter.

Pneumatic Nut Rivet Setters

- ► AN-200A has been redesigned to improve reliability and durability.
- LOBSTER M3 to M10 nut-rivets can be fastened quickly and securely with single lever operation.
- Set-nut with built-in scale makes stroke adjustment easy. Mandrel replacement is simple as well.
- Replenishment of hydraulic oil is possible with single lubricator.
- One-touch reverse-operation lever.
- The improved, more reliable, compact, durable and heavy-duty Power Motor makes maintenance a breeze. Operation noise has been lowered as well (85 db).
- Simple and sure operation is easy even for beginners, and offers work speed twice that of electric nut-rivet setters.

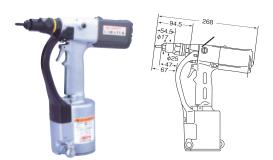
AN-200A

Nut Setting Capacity

Aluminum, steel, stainless steel M3 M4 M5 M6 M8 M10

Model	Nut Setting Capacity	Weight kg	Working Air Pressure MPa(kgf/cm2)	Air Cunsumption L/nut
AN-200A	(M3)•M4•M5 M6•M8•M10	2.6	0.59~0.69 (6.0~7.0)	5

^{*} If M3 is used, screw mandrel M3(15460) and nosepiece M3(15445) required.(sold separately)



Electric Nut Rivet Setters

- M3 to M10 nut-rivets can be used regardless of the base material.
- Easy-to-grip slender handle design.
- One-touch reverse-operation lever.
- Replacement of the insert relay is simple and has longer lifespan than before.

EN-410

Nut Setting Capacity

Aluminum, steel, stainless steel M3 M4 M5 M6 M8 M10

Model	Nut Setting Capacity	Weight kg	Power Supply	Power Consumption W	Current A	Code length
EN-410	(M3)•M4•M5 M6•M8•M10	2.5	AC100V 50/60Hz	305	3.3	2.5



* AC220V, 50/60Hz optional

* AC120V, 60Hz optional



Attachment Nut Rivet Setter





Instantly turn your cordless driver drill (14.4V) into Attachment Nut Rivet Setter. LOBSTER M4 to M6 nut rivets can be fastened quickly. Suitable for those who mainly use LOBSTER Nut Rivets. Not expensive than Pneumatic Nut Rivet Setter. Less fatigue than continuous work for Hand Nut Rivet Setter.

The improved, more reliable and reasonable price and besides Made in Japan!

Model	Applicable Nut material	Nut Setting Capacity	Weight kg
@ N10d	Aluminum:4M,5M,6M Steel:4M,5M,6M Stainless steel:4M	4M,5M,6M	450



Hand Nut Rivet Setters

Installation and removal of LOBSTER nut-rivets can be accomplished quickly with one-touch operation of the round clip.

Replacement of the screw mandrel when changing sizes is simple as well.



Heavy Duty Type Hand Nut Rivet Setters

- Suitable for those who mainly use LOBSTER M8 and M10 nut-rivets.
- Installation and removal of LOBSTER nut-rivets can be accomplished quickly with one-touch operation of the round clip. Replacement of the screw mandrel when changing sizes is simple as well.



Hand Nut Rivet Setter Kits

- Includes a full set of the most-often used LOBSTER nut-rivets.
- Perfect for automotive, billboard, sheet metal and factory work, etc.



Model	Contents	Weight kg
HND-105	HND005 hand nut rivet setter(1), LOBSTER NAD4M nut-rivet (50), LOBSTER NAD5M nut-rivet (50), LOBSTER NAD6M nut-rivet(50)	1.74

ST Lock





"LOBSTER" ST Lock makes your work easy and overwhelmingly speedy by one-side action high-tensile fastening.

By switching from standard Bolt/Nut joint or Welding to "LOBSTER" ST Lock one-side action high-tensile fastening, significant cost reduction and work efficiency even for beginners are realized!

For a closed space beyond your reach, where standard Bolt/ Nut joint can not work well.

For workpieces which require high-strength fastening, which can not be achieved by blind rivets.

One-sided operation, high-strength fastening!

Quick and tight structural Lock with a simple tool (Cargo Nutrunner or Attachment ST Lock Nut Runner), special technique like welding is not required.



from welding to "Lobster" ST Lock





from joint by bolt/nut to "Lobster" ST Lock

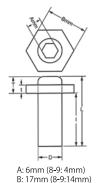
What is "LOBSTER" ST Lock?

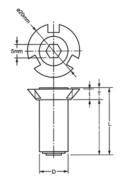
- One-sided operation
- Excellent vibration-resistance mechanism
- O High fastening power
- Zero marring or scratching of material surfaces
- **©** Eco-Friendly finish
- Beautiful and massive appearance
- Various applications

Typical Applications

- Steel frame housing beam joints
- Steel frame stairways
- **Curtain walls**
- **Switchboard cabinets**
- Sirocco fans
- **Distribution equipments** truss joints
- **Products for highway facilities**
- Hinge joints
- **Transport equipments** (truck, automotive, etc)







Work procedure









Drill a hole in the base material

Insert ST Lock in the hole

Complete fastening firmly Fasten with ST Lock Nut Runner





Standard type [Material] Flange: steel, Bolt: steel

CNSH

Madel	Appropriate material thickness	Hole diameter			Dimensio	ns		Stre	ngth	per
Model	material trickness mm	ø mm	$\mathbf{D}\phi$ mm	L ømm	I ømm	T ϕ mm	t ømm	Tensile kN (kgf)	Shearing kN (kgf)	package
CNSH8-9	7~9	8.2~8.5	8	29	23.5	5.6		14.7 (1,500)	18.7 (1,900)	1,000
CNSH10-9	7~9			30.5	24					
CNSH10-13	11~13	10.2~10.5	10	34.5	28	6.5	3	19.6 (2,000)	27.5 (2,800)	500
CNSH10-16	14~16	10.2 10.5	10	37.5	31	0.5		13.0 (2,000)	27.3 (2,000)	300
CNSH10-18	16~18			42.5	36					

Stainless steel type [Material] Flange: SUS303, Bolt: steel



Madal	Appropriate material thickness	Hole diameter		D	imensio	าร		Stre	ngth	per
Model	material trickness	ϕ mm	$\mathbf{D}\phi$ mm	L ømm	$I\phi$ mm	T ϕ mm	t ømm	Tensile kN (kgf)	Shearing kN (kgf)	package
CNTH10-9	7~9			31	24.5					,
CNTH10-13	11~13	10.2~10.5	10	36	29.5	6.5	3	26.5 (2,700)	27.5 (2,800)	100
CNTH10-16	14~16			37.5	31					

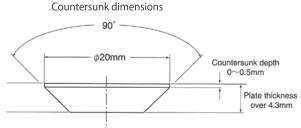


ST Lock

Countersunk type [Material] Flange: steel, Bolt: steel

CNSK

The ERS-2000 cargo nutrunner and K10 countersunk attachment (both sold separately)are required in order to tighten the countersunk (flush) type of LOBSTER cargo lock.

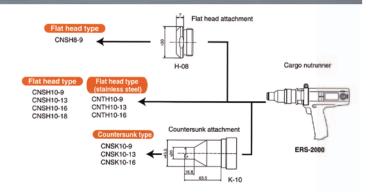


Madal	Appropriate material thickness	Hole diameter			Dimensio	ns		Strength		per
Model	mm	ϕ mm	$\mathbf{D}\phi$ mm	L ϕ mm	$I\phi$ mm	T ϕ mm	t ømm	Tensile kN (kgf)	Shearing kN (kgf)	package
CNSK10-9	7~9			24.5	20					
CNSK10-13	11~13	10.2~10.5	10	28.5	24	4.5	4	19.6 (2,000)	27.5 (2,800)	500
CNSK10-16	14~16			31.5	27					

^{*} For information on material thickness outside the standard allowable thickness, contact our sales representative.

Cargo Nutrunner ERS-2000

- Appropriate for attachment in locations with severe vibration such as the hinges or latches on a truck
- Attachments and fittings can be fastened from one side of the base material.
- Bolt expands to tightly fit the holes, so they do not become loose, and they display excellent anti-vibration and waterproof characteristics.
- ▶ Hardened bolts are used for outstanding shearing and tensile strength, and to eliminate concern about over-tightening and thus stripping bolt threads.





Model	Applicable cargo lock	Stroke mm	Weight kg	Power Supply	Power Consumption W	Code length m
ERS-2000	CNSH10, CNTH10, CNSK10	136	2.5	AC100V 50/60Hz	290	5.0

^{*} Note: CNSH8 and CNSK10 can be used if optional parts (sold separately) are attached. In this case, the power will be AC220 V 50/60 Hz.

Attachment ST Lock Nutrunner



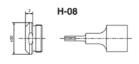
 Allows to set LOBSTER Φ10 Steel ST Lock quickly converting your cordless impact driver(14.4V) into ST Lock Nut runner.

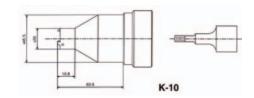
Model	Length mm	Shank diameter mm	ST lock size	Weight g
@RS-10i	190	6.35	Ф10 steel plated	450

^{*} Do not use the ST Lock other than Φ10mm steel or special surface treated material. * Impact drivers is not sold together with this tool.

Optional attachments

*Countersunk attachment



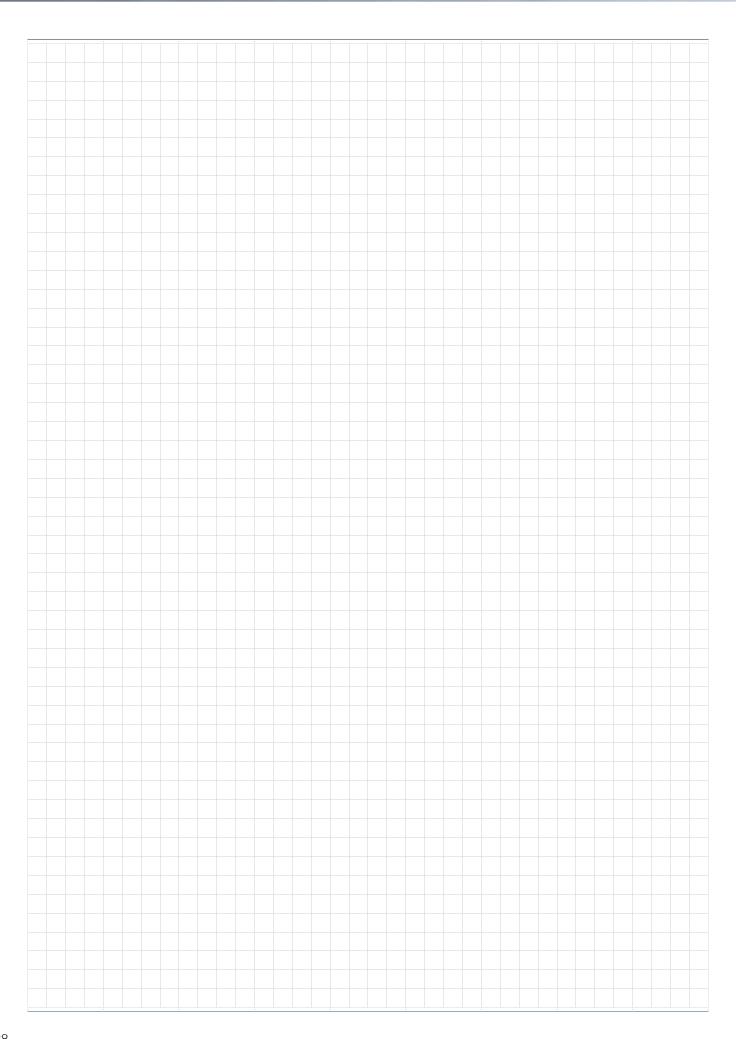


When using the countersunk (flush) type of LOBSTER cargo lock, it is necessary to attach the ERS-2000 cargo nutrunner.



For all Nut rivet setters

 Be sure to read the instruction manual carefully and make sure that you understand them thoroughly before using the nut rivet setter.





Technical DATA

Technical Data

Air Coupler Selection Table

Model	Air insert type
All models	G1/4 (PF1/4) male screw

^{*}Note: The ARV-015S and ARV-015M come standard with a plug.

Basic Compressor Selection Table

1. Unit without vacuum

Selection of the appropriate compressor will differ depending upon the number of times riveting is to take place (the number of times the trigger is to be pulled).

Based on 10-rivets/minute operation, the number of riveters that can be used at one time with the corresponding compressor is listed in the following table. (At only 5-rivets/minute, twice the number of riveters indicated may be used.)

Compr	roccer output		Number of riveters that can be used at one time for 10-rivets/minute operation.								
	ressor output kW(PS)	AR-2000S AR-011S	AR-011M AR-011P	AR-2000M	AR-011H AR-021H	AR-2000H	AR-022M AR-021EX				
0.2kW	(1/4PS)	4	1	1	0	0	0				
0.4kW	(1/2PS)	8	3	2	1	1	1				
0.75kW	(1PS)	16	6	5	3	2	2				
1.5kW	(2PS)	33	13	11	6	5	4				
2.2kW	(3PS)	50	20	17	10	8	6				
3.7kW	(5PS)	83	33	29	17	13	10				

^{*}Note: Air pressure: 0.59 MPa (6 kgf/cm2)

2.Unit with vacuum

Regardless of the number of rivets per minute, refer to the following table when selecting compressor.

Compressor output kW(PS)	ARV-015S	R1A1 AR-2000SV·AR-2000MV ARV-015M·ARV-011M	ARV-025M VU-S VU-M	R1A2 ARV-022M·AR-2000HV VU-H48·VU-H64
0.75kW (1PS)	1	1	0	0
1.5kW (2PS)	3	2	1	1
2.2kW (3PS)	5	3	2	2
3.7kW (5PS)	8	5	4	3

^{*}Note: Air pressure: 0.59 MPa (6 kgf/cm2)

3.Air Conditioning

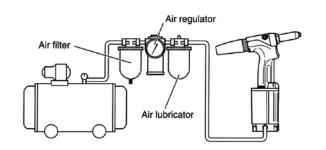
Set up the compressor, and be sure to install an air filter, air regulator, and air lubricator (3-device set) between the compressor and the tool.

Adjust the drip-feed amount of the air lubricator to the minimum setting.

ATTENTION

In the case of usage in cold district/locations, the moisture contented air in the tool body may be frozen on the inside cylinder surface. As a result, it may not work.

To dehydrate, we recommend to add an air-dryer unit to the normal three units (Regulator, Filter, and Lubricator).



4.0perating Air Pressure

Use the air regulator to adjust the operating air pressure to the instruction manual.

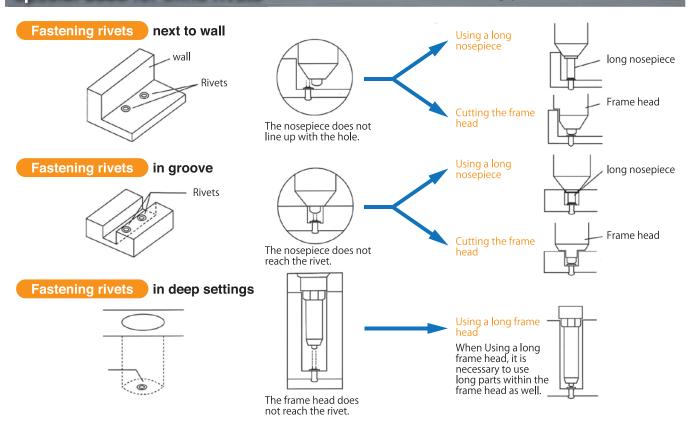
ATTENTION

If the air pressure is too high, damage to parts may occur. If the pressure is too low, certain size rivet may not be correctly installed (cut).



Special used for blind rivets

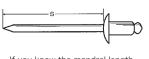
For riveting problematic locations



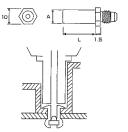
Using a long nosepiece

Mandrel length for long nosepieces

When using a long nosepiece, first verify the length of the mandrel (indicated as S in the diagram below) and then use a rivet with a mandrel that is longer than that indicated under "Required mandrel length" in the following table (in order to secure sufficient jaw bite).



If you know the mandrel length (dimension S), you can determine the required length of the long nosepiece.

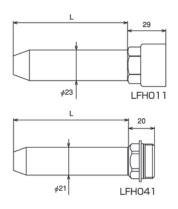


Standard long nosepiece

Rivet			Tip	Required mandre	el length: S (mm)
size	Part number	Length: L	diameter: A	Riveter S. M	Riveter H. EX
	LN32-10	10		30	31
3.2	LN32-15	15	6.5	35	36
	LN32-20	20		40	41
	LN40-10	10		31	32
4.0	LN40-15	15	7.0	36	37
	LN40-20	20		41	42
	LN48-10	10		33	33
4.8	LN48-15	15	7.5	38	38
	LN48-20	20		43	43

^{*} Note: Long nosepieces other than those listed above are available upon consultation. (Production upon order)

Using a long frame head



Long frame head set

Parts NO.	Added length (mm)	Total length (mm)	Compatible models
LFHO11+85	85	143	ARO11M, ARVO11M*1
LFHO11+95	95	153	ARO11P, ARVO15M*1 ARO22M, ARVO22M*1
LFHO11+142	142	200	ARO25M, ARVO25M*1
LFHO41+30	30	88	AR2000M, AR2000MV*1
LFHO41+70	70	128	
LFHO41+85	85	143	
LFHO41+100	100	158	
LFHO41+150	150	208	

Long frame head set consists of a long frame head and a jaw case adapter. **1 Models with vacuum system need long quide pipe separately.

Technical Data

Galvanic corrosion

When different metals come in contact and are in an electrically conductive fluid, the metal of lower voltage acts like the anode + (plus) and the higher voltage metal as the cathode – (minus) of a battery, and they constitute a "corrosion cell", with the plus side metal becoming ionized and dissolving (corroded). This type of corrosion is referred to as galvanic corrosion or electrochemical corrosion.

■ Conditions conducive to galvanic corrosion (general environment)

- 1) Large difference in voltage
- 2) High temperatures and humidity, high acidity
- 3) The + side metal has small surface area
- 4) Salt particles exist in the atmosphere

■ Acceptable metal combinations

There are limits to acceptable combinations of metal as indicated in the table on page 16 of the MIL-STD-171A standard. Normally, it is desirable for different metals to have less than a 0.1 V difference.

(Corrosion generated during contact between different metals)

Examples of galvanic corrosion in rivet joints (1) Aluminum rivet and stainless steel material

The aluminum rivet will corrode considerably at the point of contact with the stainless steel material. This is an extremely inappropriate application.

(2) Stainless steel rivet and aluminum material

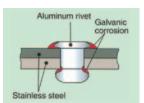
The aluminum material will corrode at the point of contact with the stainless steel rivet. If, however, the surface area of that material is large, progress of the corrosion will be relatively slow, so this application may be acceptable depending upon environmental conditions.

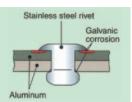
(3) Aluminum rivet and zinc-plated steel material

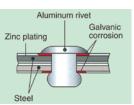
The zinc plating on the steel material will corrode at the point of contact with the aluminum rivet, and corrosion will then advance on the aluminum rivet. This is a relatively poor application, but may still be applicable for long-term use depending upon environmental conditions.

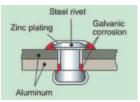
(4) Zinc-plated steel rivet and aluminum material

The zinc plating on the steel rivet will corrode at the point of contact with the base material, and corrosion will then advance on the aluminum material. However, that advance will be extremely minimal, so this application may be acceptable depending upon environmental conditions.









- OThe example combinations above apply to joining parts in outside installations, external parts on automobiles, boats, etc.
- On the case of general interiors or electric appliances, even these example combinations may be adequate.
 - Contact our company representative or technical support if you have any technical questions.

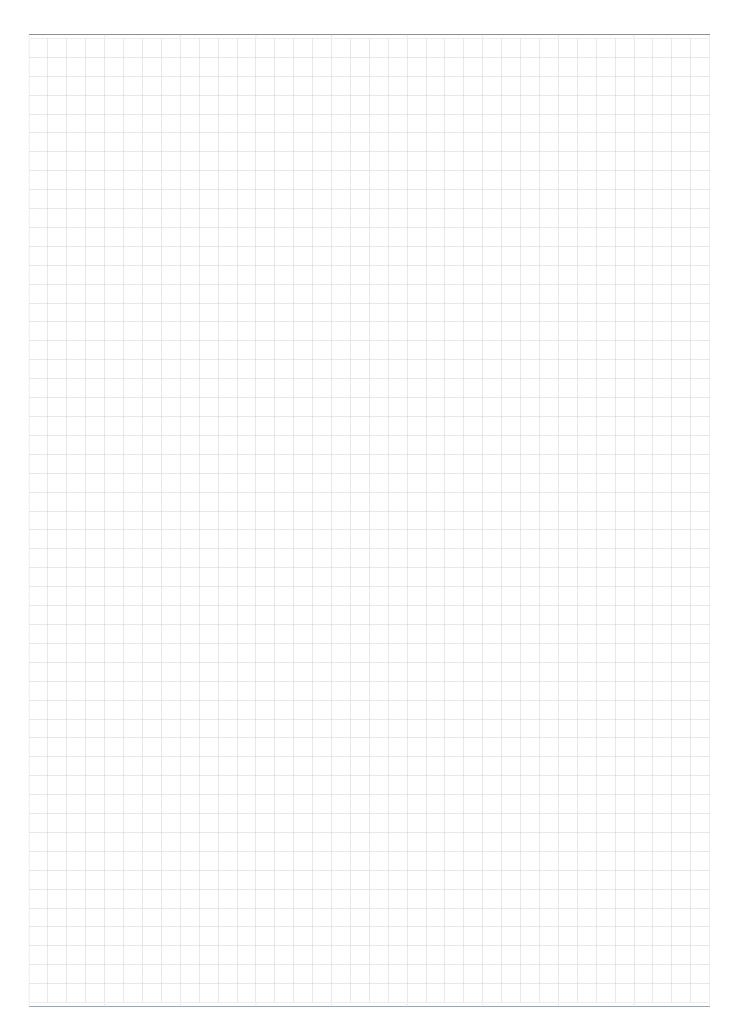
Measures against galvanic corrosion

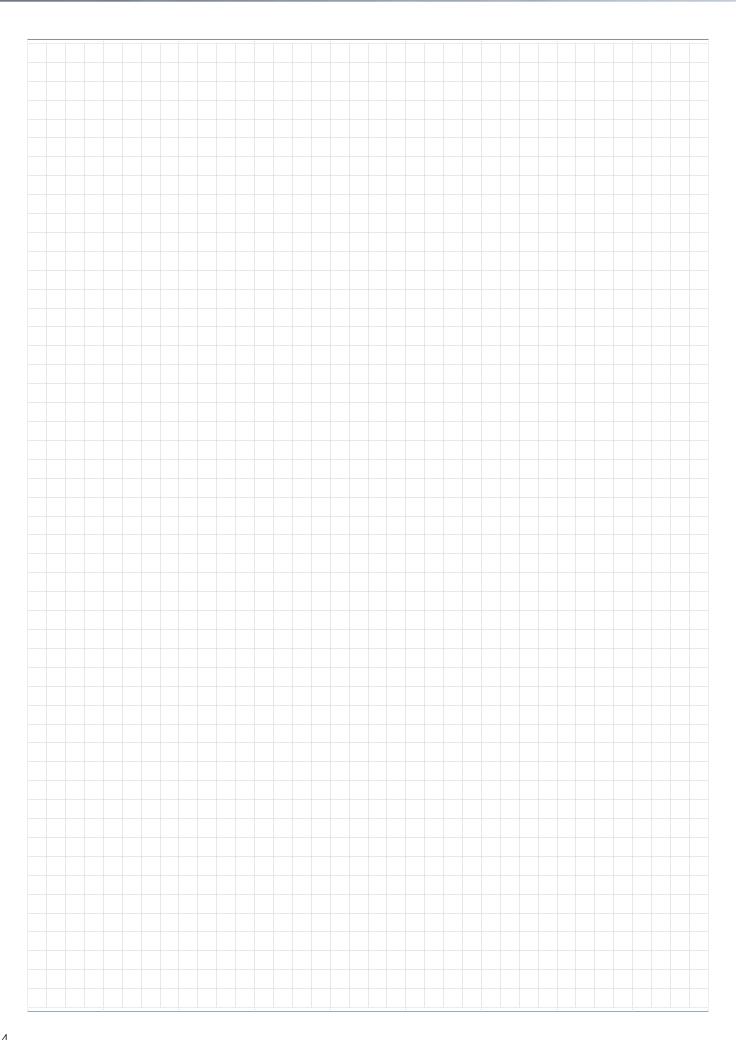
- Select rivet of the same voltage or only slight difference in voltage from the base meterial.
- ●Coat (plating, etc.) the rivet or material with a metal that has the same or only slight difference in voltage from the remaining component.
- •Insulate the rivets and base material overall with some type of coating (paint, etc.).
- Employ resin or other material as insulation between the metals (coating, push, etc.).
- Employ some other metal that possesses voltage between that of the two materials to act as insulation between those materials (plating, coating, push, etc.)
- ■Make sure the rivet has a higher voltage than the base material.

Acceptable metal combinations (as per MIL-STD-171A)

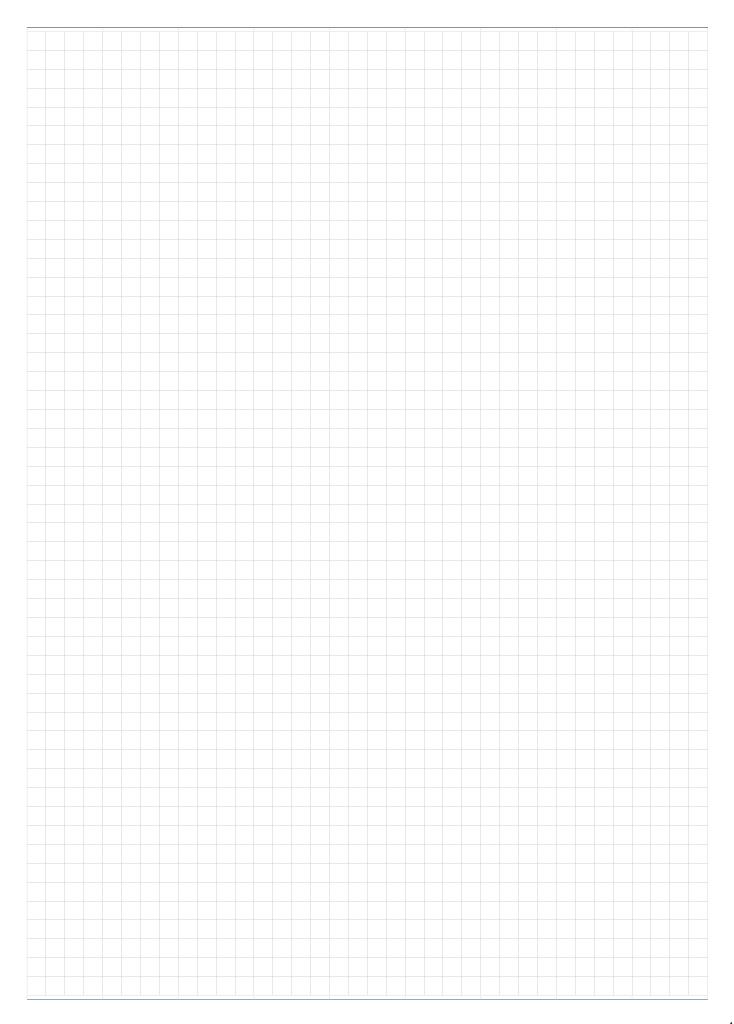
1 2	Ni, Ni plating, Ni-Cu-P (monel metal) Cu-Ni alloy, Ti Cu, Cu plating	-0.15	•
2	Cu, Cu plating	-0.15	
2			
2			
	Ni-Cr alloy	-0.20	• •
	Austenite stainless steel (SUS304, etc.)		
3	Brass (C2600, etc.), bronze (C5101, etc.)	-0.25	••
4	Brass (C2800, etc.), bronze (C5212, etc.)	-0.30	• • •
5	18% stainless steel (SUS430, etc.)	-0.35	•••
6	Cr plating, 12% stainless steel (SUS410, etc.)	-0.45	•••
7	Sn plating, solder plating	-0.50	• • • •
8	Pb, Pb plating, high Pb alloy	-0.55	• • •
9	Duralumin Al (A5000 series, 7000 series, etc.)	-0.60	••••
10	Carbon steel, low alloy steel	-0.70	••••
11	Al other than duralumin (A5000 series, etc.)	-0.75	••••
10	Al other than Si (A1000 series, etc.)	0.80	
12	Cd plating	-0.00	
13	Welded Zn plating	-1.05	••
14	Zn diecast alloy	-1 10	
14	Zn plating	-1.10	
15	Mg, Mg alloy	-1.60	•
1 1 1 1 1 1	4 5 6 7 3 9 0 1 2 3 4 5	Brass (C2600, etc.), bronze (C5101, etc.) Brass (C2800, etc.), bronze (C5212, etc.) 18% stainless steel (SUS430, etc.) Cr plating, 12% stainless steel (SUS410, etc.) Sn plating, solder plating Pb, Pb plating, high Pb alloy Duralumin Al (A5000 series, 7000 series, etc.) Carbon steel, low alloy steel Al other than duralumin (A5000 series, etc.) Cd plating Welded Zn plating Zn diecast alloy Zn plating	Brass (C2600, etc.), bronze (C5101, etc.) Brass (C2800, etc.), bronze (C5212, etc.) 18% stainless steel (SUS430, etc.) Cr plating, 12% stainless steel (SUS410, etc.) Pb, Pb plating, high Pb alloy Duralumin Al (A5000 series, 7000 series, etc.) Carbon steel, low alloy steel Al other than duralumin (A5000 series, etc.) Al other than Si (A1000 series, etc.) Cd plating Welded Zn plating Mg, Mg alloy -0.25 -0.25 -0.26 -0.75 -0.80 -1.10 -1.10 -1.60













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