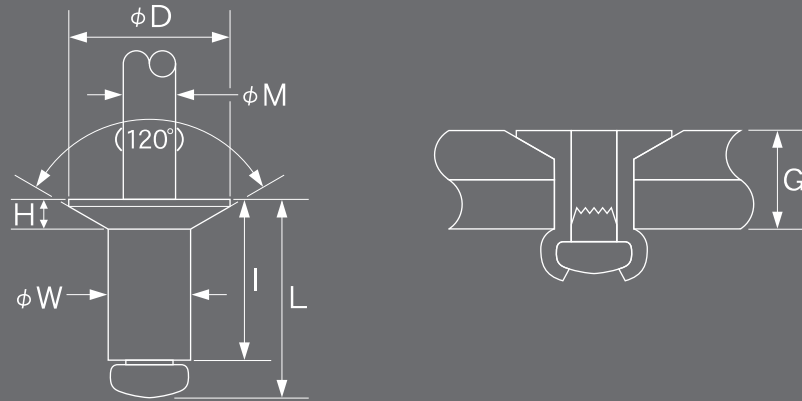


TECHNICAL SPECIFICATION - COUNTERSUNK HEAD -

[Symbols of standard dimensions and installation diagram]



SPECIFICATION TABLE

ALU / ALU COUNTERSUNK HEAD

Sleeve diameter W (in)	Mating hole diameter (in)	Recommended fastening range G (in)	I (in)	L*1 (in)	D (in)	H (in)	M (in)	Strength*2 (kN)	
								Tensile	Shear
0.094	0.098 ^{+0.0039} / ₀	0.043 ~ 0.126	0.217	0.287	0.185	0.035	0.063	0.36	0.31
		0.126 ~ 0.252	0.354	0.425					
0.126	0.130 ^{+0.0039} / ₀	0.051 ~ 0.063	0.205	0.283	0.252	0.043	0.079	0.91	0.66
		0.063 ~ 0.126	0.236	0.315					
		0.126 ~ 0.189	0.299	0.378					
		0.189 ~ 0.252	0.362	0.441					
		0.252 ~ 0.315	0.421	0.500					
		0.315 ~ 0.378	0.484	0.563					
		0.378 ~ 0.504	0.638	0.717					
0.157	0.161 ^{+0.0039} / ₀	0.063 ~ 0.126	0.260	0.362	0.315	0.055	0.102	1.39	0.96
		0.126 ~ 0.189	0.323	0.425					
		0.189 ~ 0.252	0.382	0.484					
		0.252 ~ 0.378	0.508	0.610					
		0.378 ~ 0.504	0.634	0.736					
0.189	0.193 ^{+0.0039} / ₀	0.071 ~ 0.126	0.280	0.390	0.374	0.063	0.118	2.11	1.46
		0.126 ~ 0.252	0.406	0.516					
		0.252 ~ 0.378	0.531	0.642					
		0.378 ~ 0.504	0.657	0.768					

ALU / STEEL COUNTERSUNK HEAD

Sleeve diameter W (in)	Mating hole diameter (in)	Recommended fastening range G (in)	l (in)	L* (in)	D (in)	H (in)	M (in)	Strength* ² (kN)	
								Tensile	Shear
0.094	0.098 ^{+0.0039} ₀	0.043 ~ 0.126	0.224	0.295	0.185	0.035	0.059	0.61	0.44
		0.126 ~ 0.189	0.287	0.358					
0.126	0.130 ^{+0.0039} ₀	0.051 ~ 0.063	0.193	0.276	0.252	0.043	0.073	1.34	0.90
		0.063 ~ 0.126	0.256	0.339					
		0.126 ~ 0.189	0.319	0.402					
		0.189 ~	0.382	0.465					
		~	0.445	0.528					
		0.315 ~ 0.378	0.508	0.591					
		0.378 ~ 0.441	0.606	0.689					
		0.441 ~ 0.504	0.673	0.756					
0.157	0.161 ^{+0.0039} ₀	0.063 ~ 0.126	0.287	0.390	0.315	0.055	0.089	2.17	1.53
		0.126 ~ 0.189	0.350	0.453					
		0.189 ~ 0.252	0.413	0.516					
		0.252 ~ 0.315	0.476	0.579					
		0.315 ~ 0.378	0.539	0.642					
		0.378 ~ 0.441	0.602	0.705					
		0.441 ~ 0.504	0.665	0.768					
0.189	0.193 ^{+0.0039} ₀	0.071 ~ 0.126	0.319	0.429	0.374	0.063	0.104	3.10	2.12
		0.126 ~ 0.189	0.382	0.492					
		0.189 ~ 0.252	0.445	0.555					
		0.252 ~ 0.315	0.508	0.618					
		0.315 ~ 0.378	0.571	0.681					
		0.378 ~ 0.441	0.634	0.744					
		0.441 ~ 0.504	0.697	0.807					
		0.504 ~ 0.630	0.835	0.945					
		0.630 ~ 0.756	0.961	1.071					
0.252	0.256 ^{+0.0039} ₀	0.126 ~ 0.252	0.508	0.657	0.504	0.098	0.150	4.95	3.23
		0.252 ~ 0.378	0.634	0.783					
		0.378 ~ 0.504	0.760	0.909					
		0.504 ~ 0.756	1.012	1.161					

Sleeve : Aluminum A5154, Mandrel : Hard steel wire / zinc plating

STEEL / STEEL COUNTERSUNK HEAD

Sleeve diameter W (in)	Mating hole diameter (in)	Recommended fastening range G (in)	l (in)	L*1 (in)	D (in)	H (in)	M (in)	Strength*2 (kN)	
								Tensile	Shear
0.094	0.098 ^{+0.0039} ₀	0.043 ~ 0.126	0.224	0.295	0.185	0.035	0.059	0.94	0.78
		0.126 ~ 0.189	0.287	0.358					
0.126	0.130 ^{+0.0039} ₀	0.051 ~ 0.063	0.193	0.276	0.252	0.043	0.076	1.73	1.43
		0.063 ~ 0.126	0.256	0.339					
		0.126 ~ 0.189	0.319	0.402					
		0.189 ~ 0.252	0.382	0.465					
		0.252 ~ 0.315	0.445	0.528					
		0.315 ~ 0.378	0.508	0.591					
		0.378 ~ 0.441	0.571	0.689					
0.157	0.161 ^{+0.0039} ₀	0.063 ~ 0.126	0.287	0.390	0.315	0.055	0.095	2.84	2.00
		0.126 ~ 0.189	0.350	0.453					
		0.189 ~ 0.252	0.413	0.516					
		0.252 ~ 0.315	0.476	0.579					
		0.315 ~ 0.378	0.539	0.642					
		0.378 ~ 0.441	0.602	0.705					
		0.441 ~ 0.504	0.665	0.768					
0.189	0.193 ^{+0.0039} ₀	0.071 ~ 0.126	0.319	0.429	0.374	0.063	0.116	4.37	3.35
		0.126 ~ 0.189	0.382	0.492					
		0.189 ~ 0.252	0.445	0.555					
		0.252 ~ 0.315	0.508	0.618					
		0.315 ~ 0.378	0.571	0.681					
		0.378 ~ 0.441	0.634	0.744					
		0.441 ~ 0.504	0.697	0.807					
		0.504 ~ 0.630	0.823	0.945					
0.630 ~ 0.756	0.949	1.071							

Sleeve: Steel SWCH / trivalent chromate , Mandrel: Hard steel wire / zinc plating

STAINLESS / STEEL COUNTERSUNK HEAD

Sleeve diameter W (in)	Mating hole diameter (in)	Recommended fastening range G (in)	l (in)	L*1 (in)	D (in)	H (in)	M (in)	Strength*2 (kN)	
								Tensile	Shear
0.126	0.130 ^{+0.0039} ₀	0.063 ~ 0.126	0.268	0.362	0.252	0.043	0.079	2.59	2.20
		0.126 ~ 0.189	0.339	0.433					
		0.189 ~ 0.252	0.402	0.496					
0.157	0.161 ^{+0.0039} ₀	0.071 ~ 0.126	0.280	0.413	0.315	0.063	0.098	4.04	3.48
		0.126 ~ 0.189	0.339	0.472					
		0.189 ~ 0.252	0.402	0.535					
		0.252 ~ 0.378	0.547	0.681					
0.189	0.193 ^{+0.0039} ₀	0.378 ~ 0.504	0.697	0.831	0.374	0.075	0.118	5.41	4.44
		0.126 ~ 0.252	0.425	0.559					
		0.252 ~ 0.378	0.551	0.685					

Sleeve: Austenitic stainless steel , Mandrel: Hard steel wire / zinc plating

STAINLESS / STAINLESS COUNTERSUNK HEAD

Sleeve diameter W (in)	Mating hole diameter (in)	Recommended fastening range G (in)	l (in)	L ^{*1} (in)	D (in)	H (in)	M (in)	Strength ^{*2} (kN)	
								Tensile	Shear
0.126	0.130 ^{+0.0039} ₀	0.051 ~ 0.063	0.185	0.280	0.252	0.043	0.079	2.59	2.20
		0.063 ~ 0.126	0.268	0.362					
		0.126 ~ 0.089	0.339	0.433					
		0.189 ~ 0.252	0.402	0.496					
		0.264 ~ 0.378	0.539	0.634					
0.157	0.161 ^{+0.0039} ₀	0.071 ~ 0.126	0.280	0.413	0.315	0.063	0.098	4.04	3.48
		0.126 ~ 0.189	0.339	0.472					
		0.189 ~ 0.252	0.402	0.535					
		0.252 ~ 0.378	0.547	0.681					
		0.378 ~ 0.504	0.697	0.831					
0.189	0.193 ^{+0.0039} ₀	0.083 ~ 0.126	0.280	0.413	0.374	0.075	0.118	5.41	4.44
		0.126 ~ 0.252	0.425	0.559					
		0.252 ~ 0.378	0.551	0.685					
		0.378 ~ 0.504	0.677	0.811					
		0.504 ~ 0.630	0.787	0.921					
		0.630 ~ 0.756	0.929	1.067					
					—				

Sleeve: Austenitic stainless steel , Mandrel: High-tensile stainless steel wire / fabric

This product is made to order

*1. The L lengths are given as guidelines.

*2. The strength values are obtained through our own testing.

Remarks)

- (1) The steel mandrel is plated with zinc. For trivalent chromate plating, please ask us.
- (2) The steel sleeve is plated with trivalent chromate.
- (3) The rivets with the following specifications are made to order.
(i) Long mandrel (ii) Painted head and (iii) Fastening range G exceeding 0.756inch
- (4) The standard dimensions are subject to change without notice.
- (5) Please ask us when the required fastening range exceeds the recommended range or when it is near lower limit.