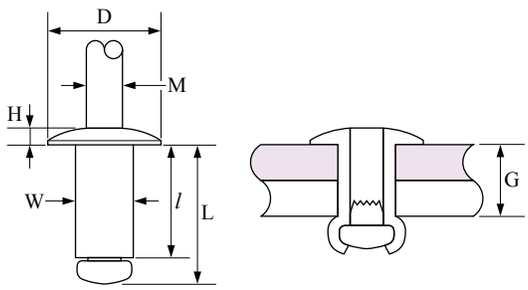
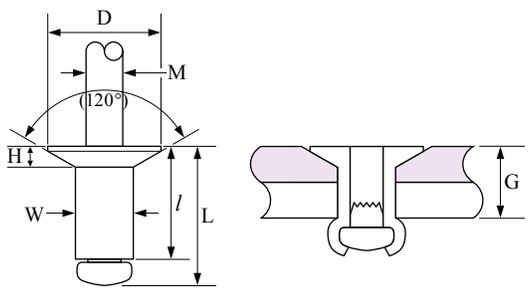
Standard Type

Blind rivet most commonly used for multiple application in various industries. It is globally recognized as a standard fastener.

Symbols of standard dimensions and installation diagram



(Round head or large flange)



(Countersunk)

Product code

D AS 53
① ② ③

① Flange shape code (D: Round head, K: Countersunk and LF: Large flange)
② Material code (AS, AA, SS, CS and CC * See the specification table.)
③ Size code (* See the specification table.)

AS specification table

AS (Sleeve: Aluminum A5154 / fabric, Mandrel: Hard steel wire / zinc plating)

Sleeve diameter W(mm)	Mating hole diameter (mm)	Size code	Recommended fastening range G(mm)	l (mm)	L*2 (mm)	Round head (mm)		Countersunk (mm)		Large flange*1 (mm)		M (mm)	Strength*3 (kN)	
						D	H	D	H	D	H		Tensile	Shear
2.4	2.5	32	*4 0.5 ~ 3.2	5.7	7.5	4.7	0.8	4.7	0.9	—	—	1.5	0.61	0.44
		33	3.2 ~ 4.8	7.3	9.1									
		34	4.8 ~ 6.4	8.9	10.7			—	—					
		35	6.4 ~ 8.0	11.0	12.8									
3.2	3.3	41	0.5 ~ 1.6	4.9	7.0	6.4	1.0	—	—	8.0 9.5	1.0 1.2	1.85	1.34	0.90
		42	1.6 ~ 3.2	6.5	8.6			6.4	1.1					
		43	3.2 ~ 4.8	8.1	10.2									
		44	4.8 ~ 6.4	9.7	11.8									
		45	6.4 ~ 8.0	11.3	13.4									
		46	8.0 ~ 9.6	12.9	15.0									
		47	9.6 ~ 11.2	15.4	17.5									
		48	*4 11.2 ~ 12.8	17.1	19.2									
4.0	4.1	52	1.0 ~ 3.2	7.3	9.9	8.0	1.2	8.0	1.4	10.0 12.0	1.3 1.5	2.25	2.17	1.53
		53	3.2 ~ 4.8	8.9	11.5									
		54	4.8 ~ 6.4	10.5	13.1									
		55	6.4 ~ 8.0	12.1	14.7									
		56	8.0 ~ 9.6	13.7	16.3									
		57	9.6 ~ 11.2	15.3	17.9									
		58	11.2 ~ 12.8	16.9	19.5									
4.8	4.9	62	1.6 ~ 3.2	8.1	10.9	9.5	1.5	9.5	1.6	12.0 13.0 15.5	1.7 1.8 2.0	2.65	3.10	2.12
		63	3.2 ~ 4.8	9.7	12.5									
		64	4.8 ~ 6.4	11.3	14.1									
		65	6.4 ~ 8.0	12.9	15.7									
		66	8.0 ~ 9.6	14.5	17.3									
		67	9.6 ~ 11.2	16.1	18.9									
		68	11.2 ~ 12.8	17.7	20.5									
		610	12.8 ~ 16.0	21.2	24.0									
		612	16.0 ~ 19.2	24.4	27.2									
6.4	6.5	84	3.2 ~ 6.4	12.9	16.7	12.8	1.7	12.8	2.5	—	—	3.82	4.95	3.23
		86	6.4 ~ 9.6	16.1	19.9									
		88	9.6 ~ 12.8	19.3	23.1									
		812	12.8 ~ 19.2	25.7	29.5									

*1. Large flange rivets are made to order. *2.The L lengths are given as guidelines. *3. The strength values are obtained through our own testing.
*4. In the case of countersunk rivets, the range is between 1.6 and 3.2.

AA specification table

AA (Sleeve: Aluminum A5052 / fabric, Mandrel: High-tensile aluminum wire / fabric)

Sleeve diameter W(mm)	Mating hole diameter (mm)	Size code	Recommended fastening range G(mm)	*l* (mm)	L[*2] (mm)	Round head (mm)		Countersunk (mm)		Large flange[*1] (mm)		M (mm)	Strength[*3] (kN)	
						D	H	D	H	D	H		Tensile	Shear
2.4	2.5	32	1.6 ~ 3.2	5.5	7.3	4.7	0.8	4.7	0.9	—	—	1.6	0.36	0.31
		34	3.2 ~ 6.4	9.0	10.8									
3.2	3.3	41	0.5 ~ 1.6	5.2	7.2	6.4	1.0	—	—	8.0 9.5	1.0 1.2	2.0	0.91	0.66
		42	1.6 ~ 3.2	6.0	8.0			6.4	1.1					
		43	3.2 ~ 4.8	7.6	9.6									
		44	4.8 ~ 6.4	9.2	11.2									
		45	6.4 ~ 8.0	10.7	12.7									
		46	8.0 ~ 9.6	12.3	14.3									
		48	9.6 ~ 12.8	16.2	18.2									
4.0	4.1	52	[*4] 1.0 ~ 3.2	6.6	9.2	8.0	1.2	8.0	1.4	9.5 12.0	1.2 1.5	2.6	1.39	0.96
		53	3.2 ~ 4.8	8.2	10.8									
		54	4.8 ~ 6.4	9.7	12.3									
		56	6.4 ~ 9.6	12.9	15.5									
		58	9.6 ~ 12.8	16.1	18.7									
4.8	4.9	62	1.6 ~ 3.2	7.1	9.9	9.5	1.5	9.5	1.6	13.0 15.5	1.8 2.0	3.0	2.11	1.46
		64	3.2 ~ 6.4	10.3	13.1									
		66	6.4 ~ 9.6	13.5	16.3									
		68	9.6 ~ 12.8	16.7	19.5									
		610	12.8 ~ 16.0	19.8	22.6									
6.4	6.5	82	1.6 ~ 3.2	9.2	13.0	12.8	1.7	—	—	—	—	4.0	3.83	2.54
		84	3.2 ~ 6.4	12.6	16.4									
		86	6.4 ~ 9.6	16.6	20.4									
		88	9.6 ~ 12.8	20.5	24.3									
		812	12.8 ~ 19.2	26.0	29.8									

SS specification table

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

Sleeve diameter W(mm)	Mating hole diameter (mm)	Size code	Recommended fastening range G(mm)	*l* (mm)	L[*2] (mm)	Round head (mm)		Countersunk (mm)		Large flange[*1] (mm)		M (mm)	Strength[*3] (kN)	
						D	H	D	H	D	H		Tensile	Shear
2.4	2.5	32	[*4] 0.5 ~ 3.2	5.7	7.5	4.7	0.8	4.7	0.9	—	—	1.5	0.94	0.78
		33	3.2 ~ 4.8	7.3	9.1									
3.2	3.3	41	0.5 ~ 1.6	4.9	7.0	6.4	1.0	—	—	8.0 9.5	1.0 1.2	1.92	1.73	1.43
		42	1.6 ~ 3.2	6.5	8.6			6.4	1.1					
		43	3.2 ~ 4.8	8.1	10.2									
		44	4.8 ~ 6.4	9.7	11.8									
		45	6.4 ~ 8.0	11.3	13.4									
		46	8.0 ~ 9.6	12.9	15.0									
		47	9.6 ~ 11.2	14.5	17.5									
		48	11.2 ~ 12.8	16.4	19.2									
4.0	4.1	52	[*4] 1.0 ~ 3.2	7.3	9.9	8.0	1.1	8.0	1.4	8.0 9.5	1.0 1.2	2.42	2.84	2.0
		53	3.2 ~ 4.8	8.9	11.5									
		54	4.8 ~ 6.4	10.5	13.1									
		55	6.4 ~ 8.0	12.1	14.7									
		56	8.0 ~ 9.6	13.7	16.3									
		57	9.6 ~ 11.2	15.3	17.9									
		58	11.2 ~ 12.8	16.9	19.5									
4.8	4.9	62	1.6 ~ 3.2	8.1	10.9	9.5	1.5	9.5	1.6	13.0 15.5	1.8 2.0	2.94	4.37	3.35
		63	3.2 ~ 4.8	9.7	12.5									
		64	4.8 ~ 6.4	11.3	14.1									
		65	6.4 ~ 8.0	12.9	15.7									
		66	8.0 ~ 9.6	14.5	17.3									
		67	9.6 ~ 11.2	16.1	18.9									
		68	11.2 ~ 12.8	17.7	20.5									
		610	12.8 ~ 16.0	20.9	24.0									
		612	16.0 ~ 19.2	24.1	27.2									
6.4	6.5	84	3.2 ~ 6.4	12.9	16.7	12.8	1.7	—	—	—	—	3.82	7.28	5.86
		86	6.4 ~ 9.6	16.1	19.9									
		88	9.6 ~ 12.8	19.3	23.1									
		812	12.8 ~ 19.2	25.7	29.5									

*1. Large flange rivets are made to order. *2.The L lengths are given as guidelines. *3. The strength values are obtained through our own testing.
*4. In the case of countersunk rivets, the range is between 1.6 and 3.2.

Standard Type

CS specification table

CS (Sleeve: Austenitic stainless steel / fabric, Mandrel: Hard steel wire / zinc plating)

Sleeve diameter W(mm)	Mating hole diameter (mm)	Size code	Recommended fastening range G(mm)	*l* (mm)	L*1 (mm)	Round head (mm)		Countersunk (mm)		M (mm)	Strength*2 (kN)	
						D	H	D	H		Tensile	Shear
3.2	3.3	41	0.5 ~ 1.6	4.5	6.9	6.4	1.0	—	—	2.0	2.59	2.20
		42	1.6 ~ 3.2	6.6	9.0			6.4	1.1			
		43	3.2 ~ 4.8	8.6	11.0							
		44	4.8 ~ 6.4	10.2	12.6							
		46	6.4 ~ 9.6	13.7	16.1			—	—			
		48	9.6 ~ 12.8	17.7	20.1		0.8	—	—			
4.0	4.1	52	1.6 ~ 3.2	7.1	10.5	8.0	1.3	8.0	1.6	2.5	4.04	3.48
		53	3.2 ~ 4.8	8.6	12.0							
		54	4.8 ~ 6.4	10.2	13.6							
		56	6.4 ~ 9.6	13.9	17.3							
		58	9.6 ~ 12.8	17.7	21.1							
4.8	4.9	62	1.6 ~ 3.2	7.1	10.5	9.5	1.7	—	—	3.0	5.41	4.44
		64	3.2 ~ 6.4	10.8	14.2			9.5	1.9			
		66	6.4 ~ 9.6	14.0	17.4							
		68	9.6 ~ 12.8	17.2	20.6			—	—			
		610	12.8 ~ 16.0	20.0	23.4			—	—			
		612	16.0 ~ 19.2	23.6	27.1		1.2	—	—			

CC specification table

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

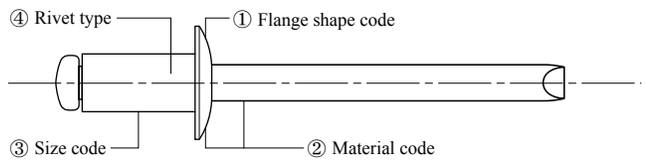
Sleeve diameter W(mm)	Mating hole diameter (mm)	Size code	Recommended fastening range G(mm)	*l* (mm)	L*1 (mm)	Round head (mm)		Countersunk (mm)		M (mm)	Strength*2 (kN)	
						D	H	D	H		Tensile	Shear
2.4	2.5	32	0.5 ~ 3.2	6.0	7.8	4.7	0.8	—	—	1.48	1.48	1.40
		34	3.2 ~ 4.8	8.8	10.7			—	—			
3.2	3.3	41	0.5 ~ 1.6	4.5	6.9	6.4	1.0	—	—	2.0	2.59	2.20
		42	1.6 ~ 3.2	6.6	9.0			6.4	1.1			
		43	3.2 ~ 4.8	8.6	11.0							
		44	4.8 ~ 6.4	10.2	12.6							
		46	6.4 ~ 9.6	13.7	16.1			—	—			
		48	9.6 ~ 12.8	17.7	20.1			—	—			
4.0	4.1	52	1.6 ~ 3.2	7.1	10.5	8.0	1.3	8.0	1.6	2.5	4.04	3.48
		53	3.2 ~ 4.8	8.6	12.0							
		54	4.8 ~ 6.4	10.2	13.6							
		56	6.4 ~ 9.6	13.9	17.3							
		58	9.6 ~ 12.8	17.7	21.1							
4.8	4.9	62	1.6 ~ 3.2	7.1	10.5	9.5	1.7	—	—	3.0	5.41	4.44
		64	3.2 ~ 6.4	10.8	14.2			9.5	1.9			
		66	6.4 ~ 9.6	14.0	17.4							
		68	9.6 ~ 12.8	17.2	20.6							
		610	12.8 ~ 16.0	20.0	23.4							
		612	16.0 ~ 19.2	23.6	27.1			—	—			

*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 19.2 mm
(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.

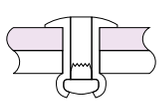
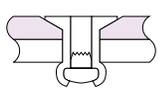
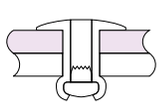
Product coding system

D AS 53 □□
① ② ③ ④



① Flange shape code : See Table 1 (D: Round head, K: Countersunk and LF: Large flange).
② Material code : See Table 2 (*AS: Aluminum sleeve and steel mandrel).
③ Size code : See the appropriate specification table.
④ Rivet type : See Table 3 (FX/CP/PL/GT) (* No code for standard type).

Flange shape code (Table 1)

Code	Type	Shape	Features
D	Round head		Standard flange shape
K	Countersunk		The rivet head is flush with the surface of one of the mating parts.
LF	Large flange		The flange diameter is large. It is suitable for soft materials.

Material code (Table 2)

Code	Sleeve material	Mandrel material
AS	Aluminum A5154 / A5052	Hard steel wire
AA	Aluminum A5052	High-tensile aluminum wire
SS	Steel SWCH	Hard steel wire
CS	Austenitic stainless steel	Hard steel wire
CC	Austenitic stainless steel	High-tensile stainless steel wire

Rivet type (Table 3)

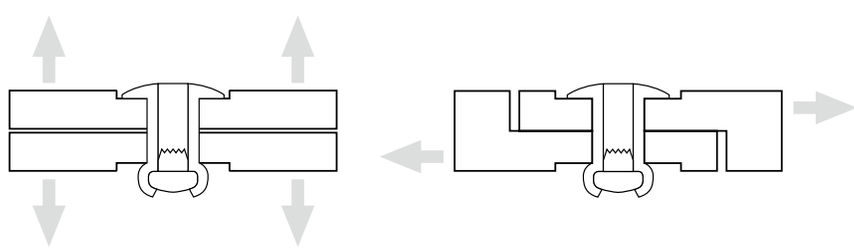
Type	Features
Standard	Blind rivet most commonly used in various industries.
FX	The rivet in one size fits a wide range of material thicknesses.
CP	The rivet provides highly airtight fastening, thanks to its plastic cap.
PL	The sleeve spreads widely in four petal-like parts that fasten the materials. It is mainly used to fasten soft materials.
GT	The large-diameter curls pull the workpieces tightly.

Tensile/shear strength test methods

Test conditions

[Test specimen]
- Material : Heat-treated steel plate
- Thickness : 80 to 100% of recommended maximum material thickness
- Work hole diameter : Recommended work hole diameter

[Testing machine]
- Testing machine : Compliant with the JIS B 7721
- Test speed : 15 mm/min



(Tensile strength test) (Shear strength test)

1. The tensile strength test method and the shear strength test method complies with the JIS B 1087.
2. The strength values given in the brochure are measurement results obtained by our testing. They may greatly vary with the type or thickness of materials used. In designing, be sure to allow a safety factor of at least three to one.