

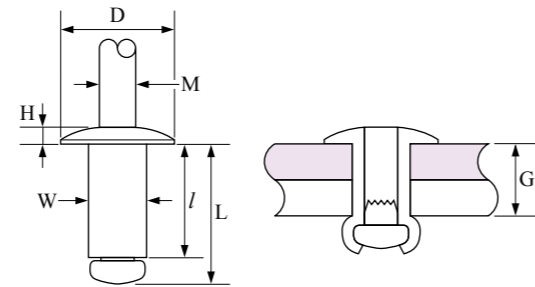
Standard Type



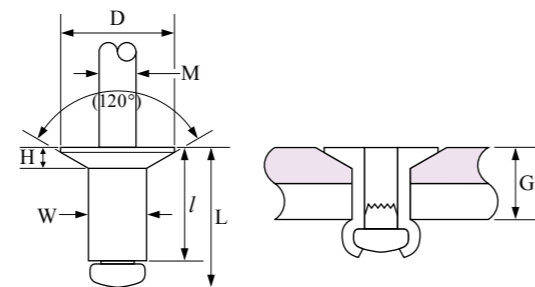
[MOVIE] http://www.byora.co.jp/index/products/movies/blind_st.html

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 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 | 6.4 | 1.1 | 8.0 | 1.0 | 1.85 | 1.34 | 0.90 |
| | | 42 | 1.6 ~ 3.2 | 6.5 | 8.6 | | | | | | | | | |
| | | 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 | 1.3 | 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 | 1.7 | 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 | | | | | | | | | |
| 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 | 6.4 | 1.1 | 8.0 | 1.0 | 2.0 | 0.91 | 0.66 |
| | | 42 | 1.6 ~ 3.2 | 6.0 | 8.0 | | | | | | | | | |
| | | 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 | 1.2 | 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 | 1.8 | 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 | | | | | | | | | |
| | | 612 | 16.0 ~ 19.2 | 22.6 | 25.6 | | | | | | | | | |
| 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 | 6.4 | 1.1 | 8.0 | 1.0 | 1.92 | 1.73 | 1.43 | | | | | | | | | | | |
| | | 42 | 1.6 ~ 3.2 | 6.5 | 8.6 | | | | | | | | | | | | | | | | | | | | |
| | | 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 | 1.0 | 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 | 1.8 | 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 | 6.4 | 1.1 | 2.0 | 2.59 | 2.20 |
| | | 42 | 1.6 ~ 3.2 | 6.6 | 9.0 | | | | | | | |
| | | 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 | | | | | | | |
| 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 | 9.5 | 1.9 | 3.0 | 5.41 | 4.44 |
| | | 64 | 3.2 ~ 6.4 | 10.8 | 14.2 | | | | | | | |
| | | 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 | | | | | | | |

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 | 6.4 | 1.1 | 2.0 | 2.59 | 2.20 |
| | | 42 | 1.6 ~ 3.2 | 6.6 | 9.0 | | | | | | | |
| | | 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 | | | | | | | |
| 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 | 9.5 | 1.9 | 3.0 | 5.41 | 4.44 |
| | | 64 | 3.2 ~ 6.4 | 10.8 | 14.2 | | | | | | | |
| | | 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.

FX Type / Various fastening ranges

The rivet in one size fits a wide range of material thicknesses. It is characterized by neat finish and high strength clamping.

[MOVIE] http://www.byora.co.jp/index/products/movies/blind_fx.html

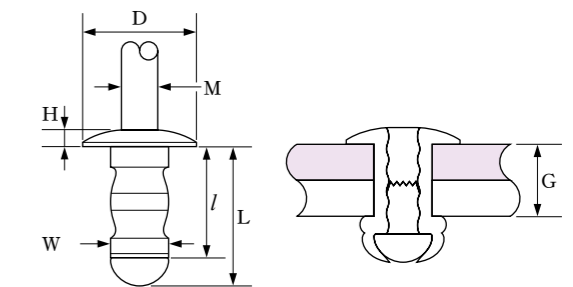
Product code

D AS 503 FX

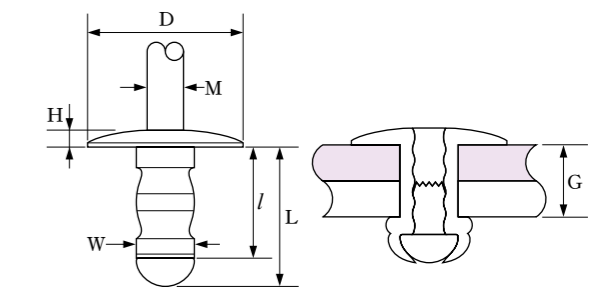
① ② ③ ④

- ① Flange shape code (D: Round head and LF: Large flange)
 ② Material code (AS and SS * See the specification table.)
 ③ Size code (* See the specification table.)
 ④ Rivet type (FX)

Symbols of standard dimensions and installation diagram



(Round head)



(Large flange)

AS specification table

AS (Sleeve: Aluminum A5052 / fabric, Mandrel: Hard steel wire / zinc plating)

| Sleeve diameter W(mm) | Mating hole diameter (mm) | Size code | Recommended fastening range G(mm) | l | L* ² | Round head (mm) | | Large flange* ¹ (mm) | | M (mm) | Strength* ³ (kN) | |
|--------------------------|------------------------------|-----------|--------------------------------------|------|-----------------|--------------------|-----|------------------------------------|-----|-----------|--------------------------------|-------|
| | | | | | | D | H | D | H | | Tensile | Shear |
| 3.2 | 3.3 ~ 3.4 | 401 | 0.8 ~ 4.7 | 8.1 | 10.2 | 6.4 | 1.0 | 8.0 | 1.0 | 1.92 | 1.0 | 0.7 |
| | | 402 | 4.0 ~ 7.9 | 11.1 | 13.2 | | | | | | | |
| 4.0 | 4.1 ~ 4.2 | 501 | 1.2 ~ 6.3 | 9.3 | 11.8 | 8.0 | 1.2 | 12.0 | 1.5 | 2.42 | 1.5 | 1.1 |
| | | 502 | 4.0 ~ 9.5 | 13.0 | 15.5 | | | | | | | |
| | | 503 | 6.4 ~ 12.7 | 18.0 | 20.5 | | | | | | | |
| 4.8 | 4.9 ~ 5.0 | 601 | 1.6 ~ 6.4 | 10.5 | 13.4 | 9.5 | 1.5 | 15.5 | 2.0 | 2.94 | 2.5 | 1.7 |
| | | 602 | 4.8 ~ 11.4 | 15.8 | 18.7 | | | | | | | |
| | | 603 | 8.4 ~ 12.7 | 17.9 | 20.8 | | | | | | | |
| | | 604 | 12.7 ~ 19.8 | 25.9 | 28.8 | | | | | | | |

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 | L* ² | Round head (mm) | | Large flange* ¹ (mm) | | M (mm) | Strength* ³ (kN) | |
|--------------------------|------------------------------|-----------|--------------------------------------|------|-----------------|--------------------|-----|------------------------------------|-----|-----------|--------------------------------|-------|
| | | | | | | D | H | D | H | | Tensile | Shear |
| 3.2 | 3.3 ~ 3.4 | 401 | 0.8 ~ 4.7 | 8.1 | 10.2 | 6.4 | 1.0 | 8.0 | 1.0 | 2.02 | 1.3 | 1.1 |
| | | 402 | 4.0 ~ 7.9 | 11.1 | 13.2 | | | | | | | |
| 4.8 | 4.9 ~ 5.0 | 601 | 1.6 ~ 6.4 | 10.5 | 13.6 | 9.5 | 1.5 | 15.5 | 2.0 | 3.12 | 3.4 | 2.6 |
| | | 602 | 4.8 ~ 11.4 | 15.8 | 18.9 | | | | | | | |
| | | 603 | 8.4 ~ 12.7 | 17.9 | 21.0 | | | | | | | |
| | | 604 | 12.7 ~ 19.8 | 25.9 | 29.0 | | | | | | | |

*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.

- 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 standard dimensions are subject to change without notice.
 (4) Please ask us when the required fastening range exceeds the recommended range or when it is near lower limit.