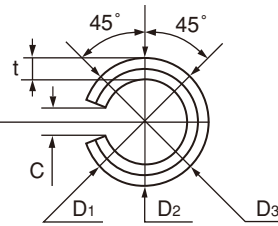
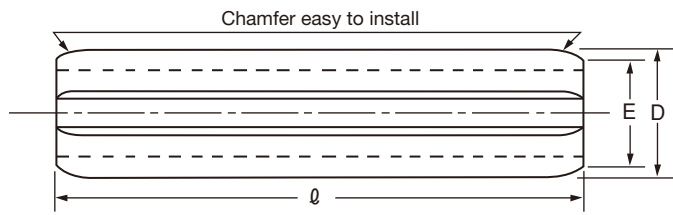
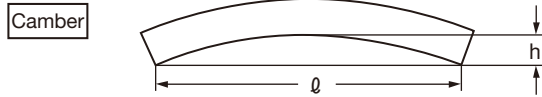


# Spring Pins (For general purpose)



The clearance C must have dimensions that do not allow contact of the sides of the Pin as inserted into the applicable hole.



|               |             |             |             |             |             |
|---------------|-------------|-------------|-------------|-------------|-------------|
| $\varnothing$ | 1-10        | 11-30       | 31-50       | 51-70       | 71 and over |
| h             | 0.2 or less | 0.3 or less | 0.4 or less | 0.5 or less | 0.6 or less |

Unit: mm

| Nominal dia. |      | 1     | 1.2   | 1.5  | 1.6 | 2     | 2.5  | 3    | ※3.5  | 4    | ※4.5 | 5     | 6   | 8   | 10   | ※12  | 13   |      |
|--------------|------|-------|-------|------|-----|-------|------|------|-------|------|------|-------|-----|-----|------|------|------|------|
| Dimension    | D    | Max.  | 1.2   | 1.4  | 1.7 | 1.8   | 2.25 | 2.75 | 3.25  | 3.84 | 4.4  | 4.84  | 5.4 | 6.4 | 8.6  | 10.6 | 12.5 | 13.7 |
|              |      | Min.  | 1.1   | 1.3  | 1.6 | 1.7   | 2.15 | 2.65 | 3.15  | 3.7  | 4.2  | 4.7   | 5.2 | 6.2 | 8.3  | 10.3 | 12.3 | 13.4 |
|              | t    | Basic | 0.2   | 0.25 | 0.3 | 0.3   | 0.4  | 0.5  | 0.6   | 0.7  | 0.8  | 0.9   | 1   | 1.2 | 1.6  | 2    | 2    | 2.5  |
|              | E    | Max.  | 0.9   | 1.1  | 1.4 | 1.5   | 1.9  | 2.4  | 2.9   | 3.4  | 3.9  | 4.3   | 4.8 | 5.8 | 7.8  | 9.8  | 11.7 | 12.7 |
| Hole size    | Dia. |       | 1     | 1.2  | 1.5 | 1.6   | 2    | 2.5  | 3     | 3.5  | 4    | 4.5   | 5   | 6   | 8    | 10   | 12   | 13   |
|              | Tol. |       | +0.08 |      |     | +0.09 |      |      | +0.12 |      |      | +0.15 |     |     | +0.2 |      |      |      |
|              |      |       | 0     |      |     | 0     |      |      | 0     |      |      | 0     |     |     | 0    |      |      |      |

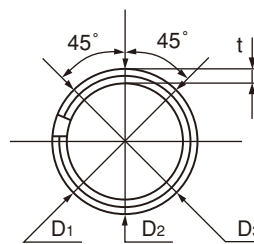
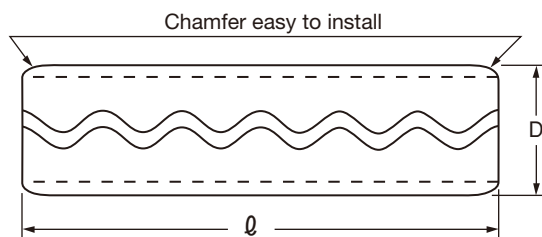
| Length ( $\varnothing$ ) |      | Nominal dia. |     |     |     |   |     |   |      |   |      |   |   |   |    |     |    |  |
|--------------------------|------|--------------|-----|-----|-----|---|-----|---|------|---|------|---|---|---|----|-----|----|--|
| Basic                    | Tol. | 1            | 1.2 | 1.5 | 1.6 | 2 | 2.5 | 3 | ※3.5 | 4 | ※4.5 | 5 | 6 | 8 | 10 | ※12 | 13 |  |
| 4                        |      | ○            | ○   | ○   | ○   | ○ | ○   | ○ |      | ○ |      |   |   |   |    |     |    |  |
| 5                        | +0.5 | ○            | ○   | ○   | ○   | ○ | ○   | ○ |      | ○ |      |   |   |   |    |     |    |  |
| 6                        | 0    | ○            | ○   | ○   | ○   | ○ | ○   | ○ | ○    |   |      |   |   |   |    |     |    |  |
| 8                        |      | ○            | ○   | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ |   |    |     |    |  |
| 10                       |      | ○            | ○   | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ |    |     |    |  |
| 12                       |      | ○            | ○   | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 14                       |      |              | ○   | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※15                      |      |              | ○   | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 16                       |      |              |     | ○   | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 18                       |      |              |     | ○   |     | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 20                       |      |              |     |     | ○   | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 22                       |      |              |     |     |     | ○ | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 24                       |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 25                       | +1   |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※26                      | 0    |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 28                       |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※30                      |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 32                       |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※35                      |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 36                       |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※38                      |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 40                       |      |              |     |     |     |   | ○   | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 45                       |      |              |     |     |     |   |     | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 50                       |      |              |     |     |     |   |     | ○ | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 55                       |      |              |     |     |     |   |     |   | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 56                       |      |              |     |     |     |   |     |   |      | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 60                       |      |              |     |     |     |   |     |   | ○    | ○ | ○    | ○ | ○ | ○ | ○  |     |    |  |
| 63                       |      |              |     |     |     |   |     |   |      |   | ○    | ○ | ○ | ○ | ○  |     |    |  |
| ※65                      |      |              |     |     |     |   |     |   |      |   |      | ○ | ○ | ○ | ○  |     |    |  |
| 70                       |      |              |     |     |     |   |     |   |      |   |      |   | ○ | ○ | ○  |     |    |  |
| ※75                      |      |              |     |     |     |   |     |   |      |   |      |   |   | ○ | ○  |     |    |  |
| 80                       | +1.5 |              |     |     |     |   |     |   |      |   |      |   |   |   | ○  |     |    |  |
| 85                       | 0    |              |     |     |     |   |     |   |      |   |      |   |   |   |    | ○   |    |  |
| 90                       |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     | ○  |  |
| 95                       |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     | ○  |  |
| 100                      |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     | ○  |  |
| 110                      |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     |    |  |
| 120                      |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     |    |  |
| 130                      |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     |    |  |
| 140                      |      |              |     |     |     |   |     |   |      |   |      |   |   |   |    |     |    |  |

Material = Carbon spring steel. Hardness = HRC45~50HRC (HRC40~50 for the nominal dia. 13 only).

Material = Stainless steel (SUS304CS).

## Notes

- ※ marks stand for our Ochiai's specification.
- Max. D shall be the maximum value on the circumference of the pin. Min. D shall be the average of the D1, D2, and D3 diameter values.
- Contact us for products having lengths other than the ○ marked dimensions.
- marks stand for the dimensions of products of carbon spring steel. The dimensions of products of stainless steel may not be manufactured. Contact us.
- Our products with little marketability may not be in stock. When employing our products, consult with us for their availability.



Unit: mm

| Nominal dia. |    | 1.6        | 2          | 2.5        | 3          | 4          |
|--------------|----|------------|------------|------------|------------|------------|
| Spring pin   | D  | Max. 1.8   | 2.25       | 2.75       | 3.25       | 4.4        |
|              |    | Min. 1.7   | 2.15       | 2.65       | 3.15       | 4.2        |
|              | t  | 0.15       | 0.2        | 0.25       | 0.3        | 0.4        |
| Hole size    |    | 1.6        | 2          | 2.5        | 3          | 4          |
|              |    | +0.08<br>0 | +0.09<br>0 | +0.09<br>0 | +0.09<br>0 | +0.12<br>0 |
| Length<br>Ø  | 5  | ○          | ○          |            |            |            |
|              | 6  | +0.5       | ○          | ○          | ○          |            |
|              | 8  | 0          | ○          | ○          | ○          | ○          |
|              | 10 |            | ○          | ○          | ○          | ○          |
|              | 12 |            | ○          | ○          | ○          | ○          |
|              | 14 |            |            | ○          |            | ○          |
|              | 16 |            |            | ○          |            | ○          |
|              | 18 |            |            | ○          |            | ○          |
|              | 20 | +1         |            | ○          |            | ○          |
|              | 22 | 0          |            |            | ○          | ○          |
|              | 25 |            |            |            | ○          | ○          |
|              | 28 |            |            |            |            | ○          |
|              | 30 |            |            |            |            | ○          |
|              | 32 |            |            |            |            | ○          |
| 36           |    |            |            |            | ○          |            |

Material = Stainless steel for spring (SUS304-CSP-3/4H). Hardness: HRC31 and over (HV310 and over).

## Notes

1. Max. D shall be the maximum value on the circumference of the pin. Min. D shall be the average of the D<sub>1</sub>, D<sub>2</sub>, and D<sub>3</sub> diameter values.
2. Our products with little marketability may not be in stock. When employing our products, consult with us for their availability.
3. Contact us for products having lengths other than the ○ marked dimensions.