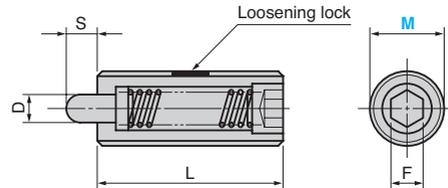


# Spring Plunger

## NYLON NOSE TYPE

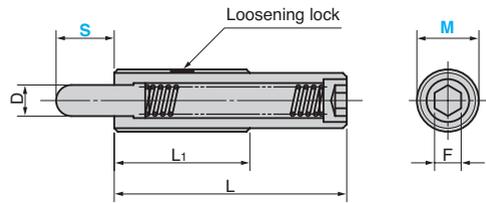
### NSPS

(Short Travel Type)



### NSPL

(Long Travel Type)



Material : Nose: Nylon  
Thread: SCM435  
Hardness : 36 to 40 HRC  
Surface treatment :  
Black chromating

| Travel S | D   | L  | F   | Applicable wrench | M × P     | Load N (kgf) |           | Catalog No. | M |
|----------|-----|----|-----|-------------------|-----------|--------------|-----------|-------------|---|
|          |     |    |     |                   |           | Initial      | Final     |             |   |
| 3.0      | 2.0 | 20 | 1.5 | PW5               | M 5×P0.8  | 1.9 (0.2)    | 7.8 (0.8) | NSPS        | 5 |
|          | 2.5 | 25 | 2.0 | PW6               | M 6×P1.0  | 2.9 (0.3)    | 9.8 (1.0) |             | 6 |
| 4.0      | 3.1 |    | 2.5 | PW8               | M 8×P1.25 |              |           | 8           |   |
| 5.0      | 3.8 | 30 | 3.0 | PW10              | M10×P1.5  | 1.9 (0.2)    | 9.8 (1.0) | 10          |   |
|          | 5.5 |    | 4.0 | PW12              | M12×P1.75 |              |           | 12          |   |

| D    | L   | L1 | F   | Applicable wrench | M × P     | Load N (kgf) |             | Catalog No. | M  | Travel S |
|------|-----|----|-----|-------------------|-----------|--------------|-------------|-------------|----|----------|
|      |     |    |     |                   |           | Initial      | Final       |             |    |          |
| 5.5  | 43  |    | 4.0 | PW12              | M12×P1.75 | 3.9 (0.4)    | 19.6 (2.0)  | NSPL        | 16 | 10       |
| 8.0  | 60  | 35 | 5.0 | PW16              | M16×P2.0  | 12.7 (1.3)   | 39.2 (4.0)  |             |    | 15       |
|      |     |    |     |                   |           | 9.8 (1.0)    |             | 20          |    |          |
|      |     |    |     |                   |           | 12.7 (1.3)   |             | 30          |    |          |
|      | 125 |    |     |                   |           | 17.6 (1.8)   |             | 24          | 15 |          |
| 10.0 | 60  | 45 | 8.0 | PW24              | M24×P3.0  | 19.6 (2.0)   | 98.0 (10.0) |             |    |          |

| Order | Catalog No. | M  | S  |
|-------|-------------|----|----|
|       | NSPS        | 8  |    |
|       | NSPL        | 16 | 15 |

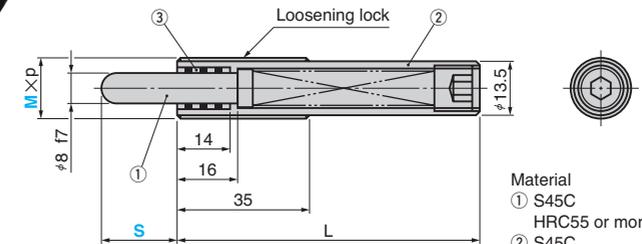
See page 40 for applicable wrench standard.

# Spring Plunger

## OILLESS BUSHING TYPE

PRJM (Heavy Load Type)

PRJL (Light Load Type)



Material  
① S45C  
HRC55 or more  
② S45C  
28 to 35 HRC  
③ Bronze with  
Graphite (SO2)

| Load N (kgf) |            | M × P    | L   | Catalog No. | M  | Travel S |
|--------------|------------|----------|-----|-------------|----|----------|
| Initial      | Final      |          |     |             |    |          |
| 24 (2.4)     | 186 (19.0) | M16×P2.0 | 80  | PRJM        | 16 | 20       |
| 40 (4.1)     | 180 (18.4) |          | 120 |             |    | 30       |
| 59 (6.0)     | 177 (18.0) |          | 150 |             |    | 40       |

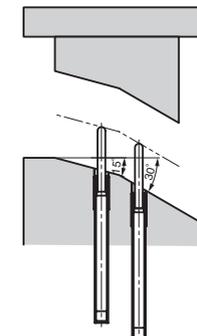
| Load N (kgf) |          | M × P    | L   | Catalog No. | M  | Travel S |
|--------------|----------|----------|-----|-------------|----|----------|
| Initial      | Final    |          |     |             |    |          |
| 4 (0.4)      | 47 (4.8) | M16×P2.0 | 80  | PRJL        | 16 | 30       |
| 13 (1.3)     | 45 (4.6) |          | 150 |             |    | 50       |
| 11 (1.1)     | 40 (4.1) |          | 200 |             |    | 60       |
| 5 (0.5)      | 38 (3.9) |          |     |             |    | 70       |
| 2 (0.2)      |          |          |     |             |    | 80       |

| Order | Catalog No. | M  | S  |
|-------|-------------|----|----|
|       | PRJM        | 16 | 40 |

### Durability test

The durability test was performed 500,000 times with the procedures shown in the figure below. The test was performed on the slope of 15° and 30°. Each test did not show problems such as galling, seizure or damage.

- (Contents of the test)
- Testing material : PRJL 16-50
  - Testing machine : 110-ton press
  - Number of strokes : 500,000 strokes
  - Stroke speed : 35SPM
  - No lubrication



### Plunger Wrench



| Catalog No. |
|-------------|
| PRJR16      |

| Order | Catalog No. |
|-------|-------------|
|       | PRJR16      |