

# Flanged Idlers with Teeth

S2M, S3M Type

Ⓢ Tensioners can be selected from P.1530-1531 Ⓢ Idler shafts (cantilever shafts) can be selected from P.912

## Flanged Idlers with Teeth - S2M, S3M Type

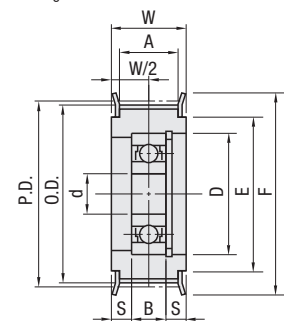


| Type           |                    | Material                             |                | Surface Treatment |                            |
|----------------|--------------------|--------------------------------------|----------------|-------------------|----------------------------|
| Center Bearing | Both Sides Bearing | Main Body                            | Flange         | Bearing           |                            |
| AHTF           | AHTFW              | Ultra Duralumin-Based Aluminum Alloy | Aluminum Alloy | Steel             | Clear Anodize              |
| —              | KHTFW              |                                      |                |                   | Hard Clear Anodize*        |
| NHTF           | NHTFW              | 304 Stainless Steel                  | —              | Stainless Steel   | Electroless Nickel Plating |
| SHTF           | —                  |                                      |                |                   | —                          |

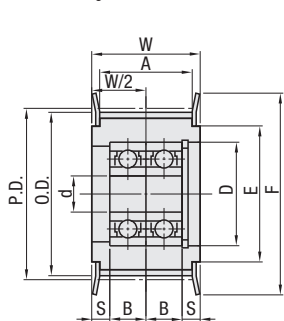
\*Hard Anodize Treatment: Film Hardness 300 HV min.

### Center Bearing Type

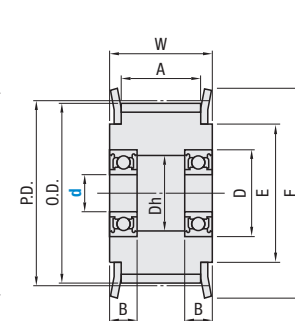
Bearing 1 Pc.



Bearing 2 Pcs.



### Both Sides Bearing Type



Ⓢ Bearings are press-fitted.

\*Bearing Accuracy JIS B1514 Class 0

## S2M Type (Center Bearing Type)

| Type | Part Number |                 | Shaft Diameter d | P.D.  | O.D.  | F  | E  | A  | W  | S   | Bearing Dimensions |    |   |
|------|-------------|-----------------|------------------|-------|-------|----|----|----|----|-----|--------------------|----|---|
|      | Teeth       | Applicable Belt |                  |       |       |    |    |    |    |     | No.                | D  | B |
| AHTF | 40          | S2M040          | 5                | 25.46 | 24.96 | 30 | 20 | 5  | 9  | 2.5 | 695ZZx1            | 13 | 4 |
|      |             | S2M060          | 6                |       |       |    |    | 7  | 11 | 3   | 696ZZx1            | 15 | 5 |
|      |             | S2M100          | 6                |       |       |    |    | 11 | 15 | 5   | 696ZZx1            | 15 | 5 |
|      | 48          | S2M040          | 6                | 30.56 | 30.05 | 35 | 25 | 5  | 9  | 2   | 696ZZx1            | 15 | 5 |
|      |             | S2M060          | 8                |       |       |    |    | 7  | 11 | 3   | 696ZZx1            | 15 | 5 |
|      | 50          | S2M040          | 6                | 31.83 | 31.32 | 35 | 25 | 5  | 9  | 2   | 696ZZx1            | 15 | 5 |
|      |             | S2M060          | 8                |       |       |    |    | 7  | 11 | 2.5 | 698ZZx1            | 19 | 6 |
|      | 60          | S2M040          | 10               | 38.20 | 37.69 | 44 | 32 | 5  | 9  | 1.5 | 6900ZZx1           | 22 | 6 |
|      |             | S2M060          | 10               |       |       |    |    | 7  | 11 | 2.5 | 6900ZZx1           | 22 | 6 |

## S3M Type (Both Sides Bearing Type)

| Type           | Part Number |                 | Shaft Diameter d | P.D.  | O.D.  | F  | E  | A  | W  | Dh      | Bearing Dimensions |     |     |
|----------------|-------------|-----------------|------------------|-------|-------|----|----|----|----|---------|--------------------|-----|-----|
|                | Teeth       | Applicable Belt |                  |       |       |    |    |    |    |         | No.                | D   | B   |
| AHTFW<br>NHTFW | 20          | S2M040          | 3                | 12.73 | 12.22 | 16 | 10 | 5  | 9  | 5       | 673ZZx2            | 6   | 2.5 |
|                |             | S2M060          | 4                |       |       |    |    | 7  | 11 | 6       | 674ZZx2            | 7   | 2.5 |
|                |             | S2M100          | 4                |       |       |    |    | 11 | 15 | 6       | 674ZZx2            | 7   | 2.5 |
|                | 30          | S2M040          | 3                | 19.01 | 18.59 | 22 | 14 | 5  | 9  | 5       | 673ZZx2            | 6   | 2.5 |
|                |             | S2M060          | 4                |       |       |    |    | 7  | 11 | 6       | 674ZZx2            | 7   | 2.5 |
|                | 32          | S2M040          | 3                | 20.37 | 19.86 | 25 | 16 | 5  | 9  | 5       | 673ZZx2            | 6   | 2.5 |
|                |             | S2M060          | 4                |       |       |    |    | 7  | 11 | 6       | 674ZZx2            | 7   | 2.5 |
|                | 36          | S2M040          | 4                | 22.92 | 22.41 | 28 | 18 | 5  | 9  | 6       | 674ZZx2            | 7   | 2.5 |
|                |             | S2M060          | 5                |       |       |    |    | 7  | 11 | 6       | 674ZZx2            | 7   | 2.5 |
|                | 40          | S2M040          | 4                | 25.46 | 24.96 | 30 | 20 | 5  | 9  | 6       | 674ZZx2            | 7   | 2.5 |
|                |             | S2M060          | 5                |       |       |    |    | 7  | 11 | 6       | 674ZZx2            | 7   | 2.5 |
|                | 48          | S2M040          | 6                | 30.56 | 30.05 | 35 | 25 | 5  | 9  | 6       | 674ZZx2            | 7   | 2.5 |
| S2M060         |             | 8               | 7                |       |       |    |    | 11 | 6  | 674ZZx2 | 7                  | 2.5 |     |
| 50             | S2M040      | 6               | 31.83            | 31.32 | 35    | 25 | 5  | 9  | 6  | 674ZZx2 | 7                  | 2.5 |     |
|                | S2M060      | 8               |                  |       |       |    | 7  | 11 | 6  | 674ZZx2 | 7                  | 2.5 |     |
| 60             | S2M040      | 8               | 38.20            | 37.69 | 44    | 32 | 5  | 9  | 6  | 674ZZx2 | 7                  | 2.5 |     |
|                | S2M060      | 8               |                  |       |       |    | 7  | 11 | 6  | 674ZZx2 | 7                  | 2.5 |     |

**Part Number Example**

Both Sides Bearing Type

|      |       |                 |       |       |                 |   |
|------|-------|-----------------|-------|-------|-----------------|---|
| Type | Teeth | Applicable Belt | Type  | Teeth | Applicable Belt | d |
| AHTF | 40    | S2M060          | AHTFW | 32    | S3M100          | 8 |

# Flanged Idlers with Teeth

S2M, S3M Type, continued

## S3M Type (Center Bearing Type)

| Type                 | Part Number |                 | Shaft Diameter d | P.D.  | O.D.  | F  | E     | A     | W       | S        | Bearing Dimensions |    |     | Available Types |      |      |
|----------------------|-------------|-----------------|------------------|-------|-------|----|-------|-------|---------|----------|--------------------|----|-----|-----------------|------|------|
|                      | Teeth       | Applicable Belt |                  |       |       |    |       |       |         |          | No.                | D  | B   | AATF            | BATF | MATF |
| AHTF<br>NHTF<br>SHTF | 20          | S3M060          | 5                | 19.10 | 18.34 | 22 | 14    | 7     | 11      | 3        | 685ZZx1            | 11 | 5   | •               | •    | —    |
|                      |             | S3M100          | 11               |       |       |    |       | 15    | 2.5     | 685ZZx2  | —                  | —  | —   |                 |      |      |
|                      | 24          | S3M060          | 5                | 22.92 | 22.16 | 25 | 16    | 7     | 11      | 3.5      | 695ZZx1            | 13 | 4   | •               | •    | •    |
|                      |             | S3M100          | 11               |       |       |    |       | 15    | 3.5     | 695ZZx2  | —                  | —  | —   |                 |      |      |
|                      | 25          | S3M060          | 5                | 23.87 | 23.11 | 28 | 18    | 7     | 11      | 3.5      | 695ZZx1            | 13 | 4   | •               | •    | •    |
|                      |             | S3M100          | 11               |       |       |    |       | 15    | 3.5     | 695ZZx2  | —                  | —  | —   |                 |      |      |
|                      | 26          | S3M060          | 6                | 24.83 | 24.07 | 28 | 18    | 7     | 11      | 3        | 696ZZx1            | 15 | 5   | •               | •    | •    |
|                      |             | S3M100          | 6                |       |       |    |       | 7     | 11      | 3        | 696ZZx1            | 15 | 5   | •               | •    | •    |
|                      | 28          | S3M060          | 6                | 26.74 | 25.98 | 30 | 20    | 7     | 11      | 3        | 696ZZx1            | 15 | 5   | •               | •    | •    |
|                      |             | S3M100          | 6                |       |       |    |       | 7     | 11      | 3        | 696ZZx1            | 15 | 5   | •               | •    | •    |
|                      | 30          | S3M060          | 6                | 28.65 | 27.89 | 32 | 23    | 7     | 11      | 3        | 696ZZx1            | 15 | 5   | •               | •    | •    |
|                      |             | S3M100          | 11               |       |       |    |       | 15    | 4.5     | 626ZZx1  | 19                 | 6  | •   | •               | •    |      |
| 32                   | S3M060      | 8               | 30.56            | 29.80 | 35    | 25 | 7     | 11    | 2.5     | 698ZZx1  | 19                 | 6  | •   | •               | •    |      |
|                      | S3M100      | 11              |                  |       |       |    | 15    | 4.5   | 698ZZx1 | 19       | 6                  | •  | •   | •               |      |      |
| 36                   | S3M060      | 8               | 34.38            | 33.62 | 40    | 28 | 7     | 11    | 2.5     | 698ZZx1  | 19                 | 6  | •   | •               | •    |      |
|                      | S3M100      | 10              |                  |       |       |    | 38.20 | 37.44 | 44      | 32       | 7                  | 11 | 2.5 | 6900ZZx1        | 22   | 6    |
| 40                   | S3M060      | 10              | 42.02            | 41.25 | 48    | 36 | 7     | 11    | 2.5     | 6900ZZx1 | 22                 | 6  | •   | •               | •    |      |
|                      | S3M100      | 10              |                  |       |       |    | 45.84 | 45.07 | 50      | 38       | 7                  | 11 | 2.5 | 6900ZZx1        | 22   | 6    |
| 48                   | S3M060      | 10              | 47.75            | 46.98 | 52    | 40 | 7     | 11    | 2.5     | 6900ZZx1 | 22                 | 6  | •   | •               | •    |      |
|                      | S3M100      | 10              |                  |       |       |    | 57.30 | 56.53 | 61      | 46       | 7                  | 11 | 2.5 | 6900ZZx1        | 22   | 6    |

## S3M Type (Both Sides Bearing Type)

| Type           | Part Number |                 | Shaft Diameter d | P.D.  | O.D.  | F  | E  | A    | W        | Dh       | Bearing Dimensions |    |     |
|----------------|-------------|-----------------|------------------|-------|-------|----|----|------|----------|----------|--------------------|----|-----|
|                | Teeth       | Applicable Belt |                  |       |       |    |    |      |          |          | No.                | D  | B   |
| AHTFW<br>KHTFW | 20          | S3M060          | 3                | 19.10 | 18.34 | 22 | 14 | 7    | 11       | 5        | 673ZZx2            | 6  | 2.5 |
|                |             | S3M100          | 4                |       |       |    |    | 11   | 15       | 6        | 674ZZx2            | 7  | 2.5 |
|                |             | S3M150          | 5                |       |       |    |    | 17   | 21       | 9        | 685ZZx2            | 11 | 5   |
|                | 24          | S3M060          | 5                | 22.92 | 22.16 | 25 | 16 | 7    | 11       | 11       | 695ZZx2            | 13 | 4   |
|                |             | S3M100          | 11               |       |       |    |    | 15   | 11       | 695ZZx2  | 13                 | 4  |     |
|                | 25          | S3M100          | 6                | 23.87 | 23.11 | 28 | 18 | 11   | 15       | 13       | 696ZZx2            | 15 | 5   |
|                |             | S3M150          | 17               |       |       |    |    | 21   | 13       | 696ZZx2  | 15                 | 5  |     |
|                | 26          | S3M100          | 6                | 24.83 | 24.07 | 28 | 18 | 11   | 15       | 13       | 696ZZx2            | 15 | 5   |
|                |             | S3M150          | 17               |       |       |    |    | 21   | 13       | 696ZZx2  | 15                 | 5  |     |
|                | 28          | S3M100          | 6                | 26.74 | 25.98 | 30 | 20 | 11   | 15       | 13       | 696ZZx2            | 15 | 5   |
|                |             | S3M150          | 17               |       |       |    |    | 21   | 13       | 696ZZx2  | 15                 | 5  |     |
|                | 30          | S3M100          | 6                | 28.65 | 27.89 | 32 | 23 | 11   | 15       | 13       | 696ZZx2            | 15 | 5   |
| S3M150         |             | 17              | 21               |       |       |    |    | 13   | 696ZZx2  | 15       | 5                  |    |     |
| 32             | S3M100      | 8               | 30.56            | 29.80 | 35    | 25 | 11 | 15   | 16.5     | 698ZZx2  | 19                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 16.5 | 698ZZx2  | 19       | 6                  |    |     |
| 36             | S3M100      | 10              | 34.38            | 33.62 | 40    | 28 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 19.5 | 6900ZZx2 | 22       | 6                  |    |     |
| 40             | S3M100      | 10              | 38.20            | 37.44 | 44    | 32 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 19.5 | 6900ZZx2 | 22       | 6                  |    |     |
| 44             | S3M100      | 10              | 42.02            | 41.25 | 48    | 36 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 19.5 | 6900ZZx2 | 22       | 6                  |    |     |
| 48             | S3M100      | 10              | 45.84            | 45.07 | 50    | 38 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 19.5 | 6900ZZx2 | 22       | 6                  |    |     |
| 50             | S3M100      | 10              | 47.75            | 46.98 | 52    | 40 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 17              |                  |       |       |    | 21 | 19.5 | 6900ZZx2 | 22       | 6                  |    |     |
| 60             | S3M100      | 10              | 57.30            | 56.53 | 61    | 46 | 11 | 15   | 19.5     | 6900ZZx2 | 22                 | 6  |     |
|                | S3M150      | 12              |                  |       |       |    | 17 | 21   | 25       | 6001ZZx2 | 28                 | 8  |     |

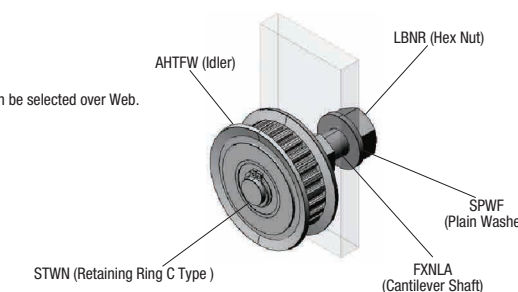
**Part Number Alterations**

Part Number - (FC / NFC / LFC / RFC)

AHTF40S2M060 - FC28

**Application Example**

Combination of these use examples can be selected over Web.



| Alteration | Flange Cut   | Flange Not Swaged                                 | Flange Swaged on One Side  |
|------------|--|---|--|
| Code       | FC   | NFC   | LFC / RFC  |
| Spec.      | <p>Lowers flange by cutting. FC: 0.5 mm Increment</p> <p>Ⓢ Not applicable to Stainless Steel Type<br/>Ⓢ No surface treatment applied on flange circumference.<br/>Ⓢ FC=(O.D.)+2 Ⓢ FC≤F-2<br/>Ordering Code: FC28</p> | <p>Flange is not installed. (Flange included)</p> | <p>Flange installed on the retaining ring side (RFC) or the opposite side (LFC).</p> |