

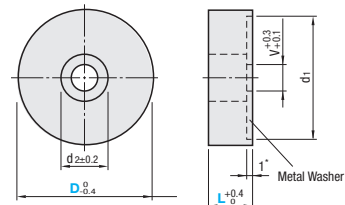
# Bumpers with Metal Washer

Urethane / Antistatic Polyurethane / Rubber

MISUMI original product. Baked Metal Washer, Urethane and Rubber.

**RoHS**

| L Selectable | L Configurable | Urethane / Rubber                                   | Washer              |
|--------------|----------------|---|---------------------|
| Type         | Type           | Material Color Hardness                             | Material            |
| AYSK         | AYFS           | Ether Type Polyurethane Black Shore A95             | 304 Stainless Steel |
| AYHK         | AYFH           |   |                     |
| AYMK         | AYFM           |   |                     |
| AYLK         | AYFL           | Ester Type Polyurethane Black Shore A50             | 304 Stainless Steel |
| -            | AYFY           |   |                     |
| -            | AYFHE          | Antistatic Polyurethane Gray Shore A90              | 304 Stainless Steel |
| -            | AYFME          |   |                     |
| -            | AYFLE          |   |                     |
| -            | RBFN           | Nitrile Rubber (NBR Nitrile Rubber) Black Shore A70 | 304 Stainless Steel |
| -            | RBFU           | Low Elasticity Rubber (Hanenaito®) Black Shore A57  |                     |
| -            | RBFS           | Silicon Rubber (SI) Light Gray Shore A70            |                     |
| -            | RBFF           | Fluororubber (FPM) Black Shore A80                  |                     |



\*The washer thickness of RBF\_ is 2mm.

Ⓜ Hanenaito® is a registered trademark of Naigai Rubber Industry Co., Ltd.

## L Selectable (Urethane)

| Part Number             | Type | D              | L | (M) Applicable Screw | d1 | d2  | V  | Unit Price |     |     |     |     |     |     |  |  |
|-------------------------|------|----------------|---|----------------------|----|-----|----|------------|-----|-----|-----|-----|-----|-----|--|--|
|                         |      |                |   |                      |    |     |    | L10        | L15 | L20 | L25 | L30 | L40 | L50 |  |  |
| AYSK (x1.1)             | 12   | 10             |   | M3                   | 11 | 6   | 3  |            |     |     |     |     |     |     |  |  |
| AYHK (x1.0)             | 15   | 10 15 20       |   | M4                   | 14 | 8   | 4  |            |     |     |     |     |     |     |  |  |
| AYMK (x1.1)             | 20   | 10 15 20 25    |   | M5                   | 19 | 9.5 | 5  |            |     |     |     |     |     |     |  |  |
| AYLK (x1.1)             | 25   | 10 15 20 25 30 |   | M6                   | 24 | 11  | 6  |            |     |     |     |     |     |     |  |  |
| ( ) Material Multiplier | 30   | 15 20 25 30 40 |   | M8                   | 29 | 14  | 8  |            |     |     |     |     |     |     |  |  |
|                         | 40   | 25 30 40 50    |   | M10                  | 39 | 17  | 10 |            |     |     |     |     |     |     |  |  |

## L Configurable (Urethane)

| Part Number             | Type | D | L 1mm Increment | (M) Applicable Screw | d1 | d2  | V  | Unit Price |        |        |
|-------------------------|------|---|-----------------|----------------------|----|-----|----|------------|--------|--------|
|                         |      |   |                 |                      |    |     |    | L5-40      | L41-60 | L61-80 |
| AYFS (x1.1)             | 12   |   | 5-80            | M3                   | 11 | 6   | 3  |            |        |        |
| AYFH (x1.0)             | 15   |   |                 | M4                   | 14 | 8   | 4  |            |        |        |
| AYFM (x1.1)             | 20   |   |                 | M5                   | 19 | 9.5 | 5  |            |        |        |
| AYFL (x1.0)             | 25   |   |                 | M6                   | 24 | 11  | 6  |            |        |        |
| AYFY (x1.3)             | 30   |   |                 | M8                   | 29 | 14  | 8  |            |        |        |
| ( ) Material Multiplier | 40   |   |                 | M10                  | 39 | 17  | 10 |            |        |        |

### Characteristic Values of Antistatic Urethane

|                             |                          |
|-----------------------------|--------------------------|
| Specific Volume Resistivity | 2.1x10 <sup>9</sup> Ω·cm |
| Surface Resistivity         | 4.0x10 <sup>9</sup> Ω    |

(Conditions: Temperature 30°C Humidity 60%)

Ⓜ All other properties are equal to those of urethane of the same hardness.

## L Configurable (Rubber)

| Part Number             | Type | D | L 1mm Increment | (M) Applicable Screw | d1 | d2  | V | Unit Price |      |      |      |
|-------------------------|------|---|-----------------|----------------------|----|-----|---|------------|------|------|------|
|                         |      |   |                 |                      |    |     |   | RBFN       | RBFU | RBFS | RBFF |
| RBFN                    | 15   |   | 5-30            | M4                   | 14 | 8   | 4 |            |      |      |      |
| RBFU                    | 20   |   |                 | M5                   | 19 | 9.5 | 5 |            |      |      |      |
| RBFS                    | 25   |   |                 | M6                   | 24 | 11  | 6 |            |      |      |      |
| RBFF                    | 30   |   |                 | M8                   | 29 | 14  | 8 |            |      |      |      |
| ( ) Material Multiplier |      |   |                 |                      |    |     |   |            |      |      |      |

Ordering Example: Part Number - L

AYSK12 - 10

AYFY25 - 52

Days to Ship: [Configure Online](#)

Price: [Configure Online](#)

# Urethane / Rubber Baked Bumpers

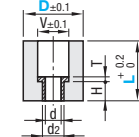
Collar Baked Type / Threaded Type

Collar Baked Type can be easily mounted as there is no backlash which often arises from tolerance between urethane and collar.

Threaded Type Bumpers contribute to reduce assembly time, improve tightening force and save space by integrating conventional parts (counterbored bumper, bolt and collar) into a single part.

**Collar Baked Type RoHS**

| Type  | Collar              | Material           | Urethane           | Hardness  | Color         |
|-------|---------------------|--------------------|--------------------|-----------|---------------|
| AZKSS | 304 Stainless Steel | Ether Polyurethane | Ester Polyurethane | Shore A95 | Natural Color |
| AZKHS |                     |                    |                    | Shore A90 |               |
| AZKMS |                     |                    |                    | Shore A70 |               |
| AZKLS |                     |                    |                    | Shore A50 |               |



## L Selectable

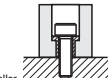
| Part Number       | Type | D     | L | M (Coarse) | V    | d   | d2   | T | H | Unit Price |       |       |       |
|-------------------|------|-------|---|------------|------|-----|------|---|---|------------|-------|-------|-------|
|                   |      |       |   |            |      |     |      |   |   | AZKSS      | AZKHS | AZKMS | AZKLS |
| Collar Baked Type |      |       |   | M3         | 7.5  | 3.5 | 5.5  | 2 | 5 |            |       |       |       |
| AZKSS (Shore A95) | 15   | 12 15 |   | M4         | 8.5  | 4.5 | 6.5  |   |   |            |       |       |       |
| AZKHS (Shore A90) | 20   | 20 25 |   | M5         | 10   | 5.5 | 8    |   |   |            |       |       |       |
| AZKMS (Shore A70) | 25   | 20 25 |   | M6         | 12   | 6.6 | 9    |   |   |            |       |       |       |
| AZKLS (Shore A50) |      |       |   | M8         | 14.5 | 9   | 11.5 |   | 8 |            |       |       |       |

Ordering Example: Part Number - L - M

AZKSS15 - 15 - M3

Price: [Configure Online](#)

Days to Ship: [Configure Online](#)

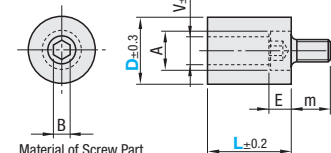
Example: 

**Product Features**

- Collar-Baked Urethane Bumpers with Counterbore Hole Advantages
- Eliminates backlash which arises from tolerance between urethane and collar.
- Reduced number of parts leads to reduction in time and labor for press-fitting and management.

## Threaded Type RoHS

| Type   | L Selectable | L Configurable | Material                           | Urethane                            | Hardness  | Color         |
|--------|--------------|----------------|------------------------------------|-------------------------------------|-----------|---------------|
| USBKS  | USBYS        |                | Ether Polyurethane                 | Ester Polyurethane                  | Shore A95 | Natural Color |
| UHBKS  | UHBYS        |                |                                    |                                     | Shore A90 |               |
| UMBKS  | UMBYS        |                | Abrasion Resistant Urethane        | Nitrile Rubber (NBR Nitrile Rubber) | Shore A70 | Dark Brown    |
| ULBKS  | ULBYS        |                |                                    |                                     | Shore A50 |               |
| UEHBKS | UEHBYS       |                | Low Elasticity Rubber (Hanenaito®) | Low Elasticity Rubber (Hanenaito®)  | Shore A90 | Black         |
| UEMBKS | UEMBYS       |                |                                    |                                     | Shore A70 |               |
| NBBKS  | NBBYS        |                |                                    |                                     | Shore A70 |               |
| NSBKS  | UNBYS        |                |                                    |                                     | Shore A32 |               |



Material of Screw Part: Ⓜ 302HQ Stainless Steel Ⓢ Surface Treatment: None

## L Selectable

| Part Number                                    | Type | D        | L      | M (Coarse) | B  | A  | V  | E  | m  | Unit Price |        |       |       |
|--|------|----------|--------|------------|----|----|----|----|----|------------|--------|-------|-------|
|  |      |          |        |            |    |    |    |    |    | U_BKS      | UE_BKS | NBBKS | NSBKS |
| USBKS (Ether Polyurethane Shore A95)           | 12   | 10 15    |        | M4x0.7     | 3  | 7  | 5  | 4  | 6  |            |        |       |       |
| UHBKS (Ether Polyurethane Shore A90)           | 15   | 10 15 20 |        | M4x0.7     | 3  | 7  | 5  | 4  | 6  |            |        |       |       |
| UMBKS (Ester Polyurethane Shore A70)           | 20   | 20 25 30 |        | M6x1.0     | 5  | 10 | 8  | 6  | 10 |            |        |       |       |
| ULBKS (Ester Polyurethane Shore A50)           |      |          | M5x0.8 | 4          | 9  | 7  | 5  | 8  |    |            |        |       |       |
| UEHBKS (Abrasion Resistant Urethane Shore A90) | 25   | 20 25 30 |        | M8x1.25    | 6  | 13 | 9  | 8  | 12 |            |        |       |       |
| UEMBKS (Abrasion Resistant Urethane Shore A70) |      |          | M6x1.0 | 5          | 10 | 8  | 6  | 10 |    |            |        |       |       |
| NBBKS (Nitrile Rubber Shore A70)               | 30   | 20 25 30 |        | M10x1.5    | 8  | 16 | 11 | 10 | 15 |            |        |       |       |
| NSBKS (Hanenaito® Shore A32)                   |      |          | M6x1.0 | 5          | 10 | 8  | 6  | 10 |    |            |        |       |       |
|  |      |          |        | M8x1.25    | 6  | 13 | 9  | 8  | 12 |            |        |       |       |
|  |      |          |        | M10x1.5    | 8  | 16 | 11 | 10 | 15 |            |        |       |       |

## L Configurable

| Part Number                                    | Type | D     | L 1mm Increment | (Coarse) M | B  | A  | V  | E  | m  | Unit Price |        |       |
|--|------|-------|-----------------|------------|----|----|----|----|----|------------|--------|-------|
|  |      |       |                 |            |    |    |    |    |    | U_BYS      | UE_BYS | NBBYS |
| USBYS (Ether Polyurethane Shore A95)           | 12   | 5-50  |                 | M4x0.7     | 3  | 7  | 5  | 4  | 6  |            |        |       |
| UHBYS (Ether Polyurethane Shore A90)           | 15   | 7-50  |                 | M6x1.0     | 5  | 10 | 8  | 6  | 10 |            |        |       |
| UMBYS (Ester Polyurethane Shore A70)           | 20   | 9-50  |                 | M8x1.25    | 6  | 13 | 9  | 8  | 12 |            |        |       |
| ULBYS (Ester Polyurethane Shore A50)           |      |       | M10x1.5         | 8          | 16 | 11 | 10 | 15 |    |            |        |       |
| UEHBYS (Abrasion Resistant Urethane Shore A90) | 25   | 11-50 |                 | M10x1.5    | 8  | 16 | 11 | 10 | 15 |            |        |       |
| UEMBYS (Abrasion Resistant Urethane Shore A70) |      |       |                 |            |    |    |    |    |    |            |        |       |
| NBBYS (Nitrile Rubber Shore A70)               | 30   | 11-50 |                 |            |    |    |    |    |    |            |        |       |
| UNBYS (Hanenaito® Shore A32)                   |      |       |                 |            |    |    |    |    |    |            |        |       |

L dimension of Nitrile Rubber (NBBYS) and Low Elasticity Rubber (UNBYS) is up to 30.

Ordering Example: Part Number - L - M

USBYS12 - 10 - M4

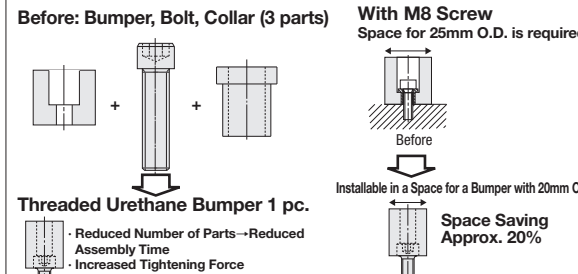
Days to Ship: [Configure Online](#)

Example: 

**Product Features**

**Before: Bumper, Bolt, Collar (3 parts)**

**With M8 Screw**  
Space for 25mm O.D. is required.



**Threaded Urethane Bumper 1 pc.**

- Reduced Number of Parts → Reduced Assembly Time
- Increased Tightening Force
- Space Saving

Installable in a Space for a Bumper with 20mm O.D.

**Space Saving Approx. 20%**

Threaded Urethane Bumper

Price: [Configure Online](#)