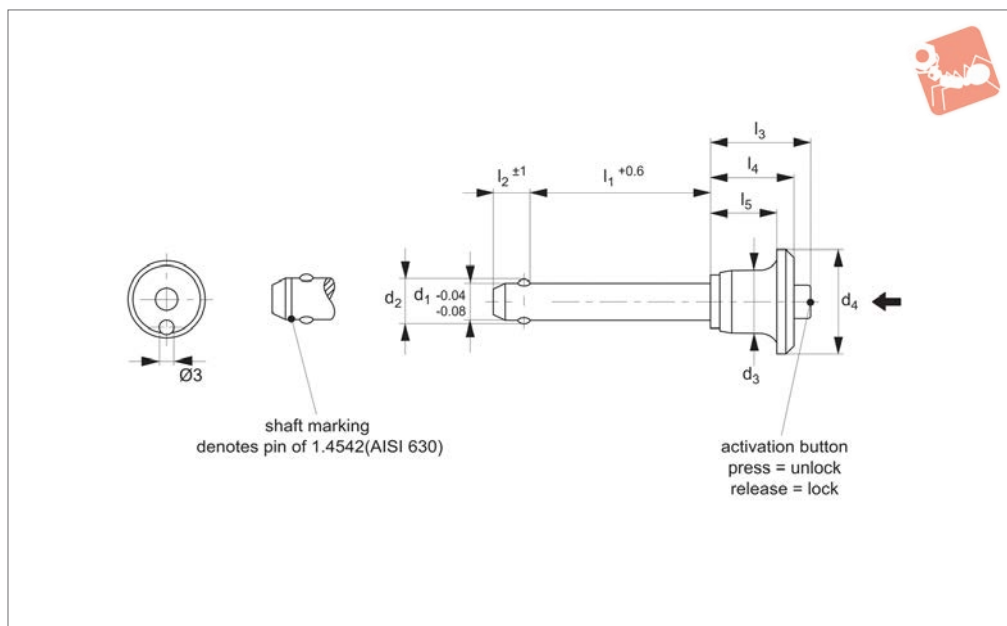


# Ball Lock Pins - Mushroom Handle

single acting - self-locking - stainless 1.4305

# Ball Lock Pins & Quick Release



**33224.1**

BALL LOCK PINS & QUICK RELEASE PINS

## Material

Pin: Stainless steel 1.4305 (AISI 303).  
Ball: stainless steel 1.3541  
Spring: stainless steel.  
Handle: aluminium, black (RAL9003).

Releasing = locking.

Temperature resistance -30°C to +150°C  
For quick fastening and locking of frequently repeated connections.

available see part no. 33248.

## Important Notes

\*Shearing resistance similar to DIN 50141.

## Technical Notes

Pressing = unlocking.

## Tips

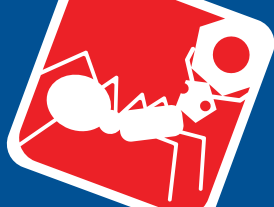
For lanyards & retaining cables see part no. 33250. Easy install locating bushes

| Order No.   | Stainless type   | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | l <sub>5</sub> | Location hole | Shearing resistance, double<br>kN | Weight<br>g |
|-------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-----------------------------------|-------------|
| 33224.W0085 | Stainless 1.4305 | 16             | 19.0           | 23.4           | 40             | 120            | 14.0           | 42.2           | 34.5           | 28.5           | 16            | 155                               | 283         |
| 33224.W0212 | Stainless 1.4305 | 5              | 5.5            | 11.3           | 20             | 10             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 14                                | 12          |
| 33224.W0213 | Stainless 1.4305 | 5              | 5.5            | 11.3           | 20             | 15             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 14                                | 12          |
| 33224.W0214 | Stainless 1.4305 | 5              | 5.5            | 11.3           | 20             | 20             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 14                                | 13          |
| 33224.W0215 | Stainless 1.4305 | 5              | 5.5            | 11.3           | 20             | 25             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 14                                | 14          |
| 33224.W0216 | Stainless 1.4305 | 5              | 5.5            | 11.3           | 20             | 30             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 14                                | 15          |
| 33224.W0221 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 80             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 27          |
| 33224.W0222 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 10             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 13          |
| 33224.W0223 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 15             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 14          |
| 33224.W0224 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 20             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 15          |
| 33224.W0225 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 25             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 16          |
| 33224.W0226 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 30             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 17          |
| 33224.W0227 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 35             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 18          |
| 33224.W0228 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 40             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 19          |
| 33224.W0229 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 45             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 20          |
| 33224.W0230 | Stainless 1.4305 | 6              | 7.0            | 11.3           | 20             | 50             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 21                                | 21          |
| 33224.W0234 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 20             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 28          |
| 33224.W0235 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 25             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 30          |
| 33224.W0236 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 30             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 32          |
| 33224.W0237 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 35             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 34          |
| 33224.W0238 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 40             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 36          |
| 33224.W0239 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 45             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 38          |
| 33224.W0240 | Stainless 1.4305 | 8              | 9.5            | 14.1           | 25             | 50             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 38                                | 40          |
| 33224.W0244 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 20             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 35          |
| 33224.W0245 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 25             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 38          |
| 33224.W0246 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 30             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 40          |
| 33224.W0247 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 35             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 44          |
| 33224.W0248 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 40             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 47          |
| 33224.W0249 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 45             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 50          |
| 33224.W0250 | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 50             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 53          |



| Order No.          | Stainless type   | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | l <sub>5</sub> | Location hole | Shearing resistance, double<br>kN | Weight<br>g |
|--------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-----------------------------------|-------------|
| <b>33224.W0252</b> | Stainless 1.4305 | 10             | 12.0           | 14.1           | 25             | 60             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 60                                | 59          |
| <b>33224.W0265</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 25             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 69          |
| <b>33224.W0266</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 30             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 73          |
| <b>33224.W0267</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 35             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 78          |
| <b>33224.W0268</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 40             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 82          |
| <b>33224.W0269</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 45             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 86          |
| <b>33224.W0270</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 50             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 90          |
| <b>33224.W0272</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 60             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 99          |
| <b>33224.W0274</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 70             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 108         |
| <b>33224.W0276</b> | Stainless 1.4305 | 12             | 14.5           | 17.7           | 35             | 80             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 87                                | 116         |
| <b>33224.W0303</b> | Stainless 1.4305 | 25             | 31.0           | 30.4           | 50             | 80             | 22.0           | 54.8           | 43.5           | 36.5           | 25            | 386                               | 547         |
| <b>33224.W0304</b> | Stainless 1.4305 | 25             | 31.0           | 30.4           | 50             | 90             | 22.0           | 54.8           | 43.5           | 36.5           | 25            | 386                               | 585         |
| <b>33224.W0306</b> | Stainless 1.4305 | 25             | 31.0           | 30.4           | 50             | 110            | 22.0           | 54.8           | 43.5           | 36.5           | 25            | 386                               | 660         |

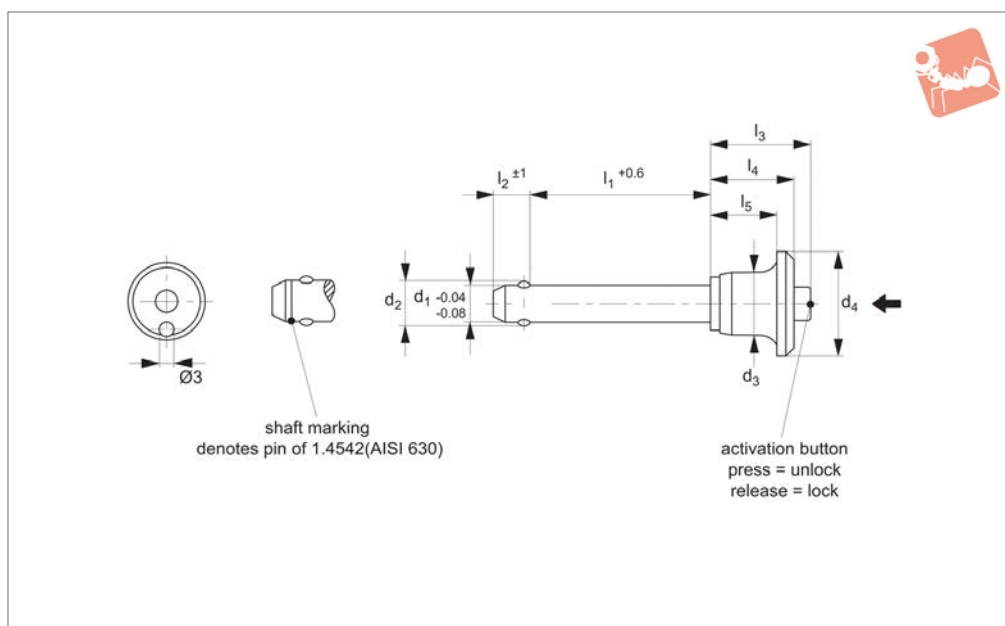




# Ball Lock Pins - Mushroom Handle

single acting - self-locking - stainless 1.4542

# Ball Lock Pins & Quick Release



## 33224.2

BALL LOCK PINS & QUICK RELEASE PINS

### Material

Pin: Stainless steel 1.4542 (AISI 630), precipitation hardened, blast finish. Offering extreme load capacity. (Marked at end of shaft to denote 1.4542 material).  
Ball: stainless steel 1.3541  
Spring: stainless steel.  
Handle: aluminium, black (RAL9003).

### Technical Notes

Pressing = unlocking.  
Releasing = locking.  
Temperature resistance -30°C to +150°C  
For quick fastening and locking of frequently repeated connections.

### Tips

For lanyards & retaining cables see part no. 33250. Easy install locating bushes available see part no. 33248.

### Important Notes

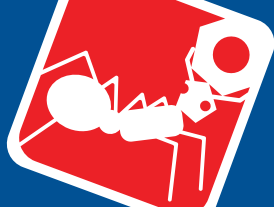
\*Shearing resistance similar to DIN 50141.

| Order No.   | Stainless type   | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | l <sub>5</sub> | Location hole | Shearing resistance, double<br>kN | Weight<br>g |
|-------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-----------------------------------|-------------|
| 33224.W0512 | Stainless 1.4542 | 5              | 5.5            | 11.3           | 20             | 10             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 24                                | 12          |
| 33224.W0513 | Stainless 1.4542 | 5              | 5.5            | 11.3           | 20             | 15             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 24                                | 12          |
| 33224.W0514 | Stainless 1.4542 | 5              | 5.5            | 11.3           | 20             | 20             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 24                                | 13          |
| 33224.W0515 | Stainless 1.4542 | 5              | 5.5            | 11.3           | 20             | 25             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 24                                | 14          |
| 33224.W0516 | Stainless 1.4542 | 5              | 5.5            | 11.3           | 20             | 30             | 6.0            | 20.7           | 17.6           | 14.6           | 5             | 24                                | 15          |
| 33224.W0522 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 10             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 13          |
| 33224.W0523 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 15             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 14          |
| 33224.W0524 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 20             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 15          |
| 33224.W0525 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 25             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 16          |
| 33224.W0526 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 30             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 17          |
| 33224.W0527 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 35             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 18          |
| 33224.W0528 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 40             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 19          |
| 33224.W0529 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 45             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 20          |
| 33224.W0530 | Stainless 1.4542 | 6              | 7.0            | 11.3           | 20             | 50             | 7.0            | 20.7           | 17.6           | 14.6           | 6             | 35                                | 21          |
| 33224.W0531 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 60             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 44          |
| 33224.W0534 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 20             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 28          |
| 33224.W0535 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 25             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 30          |
| 33224.W0536 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 30             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 32          |
| 33224.W0537 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 35             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 34          |
| 33224.W0538 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 40             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 36          |
| 33224.W0539 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 45             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 38          |
| 33224.W0540 | Stainless 1.4542 | 8              | 9.5            | 14.1           | 25             | 50             | 8.2            | 27.3           | 22.6           | 18.6           | 8             | 63                                | 40          |
| 33224.W0544 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 20             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 35          |
| 33224.W0545 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 25             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 38          |
| 33224.W0546 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 30             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 40          |
| 33224.W0547 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 35             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 44          |
| 33224.W0548 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 40             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 47          |
| 33224.W0549 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 45             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 50          |
| 33224.W0550 | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 50             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 53          |



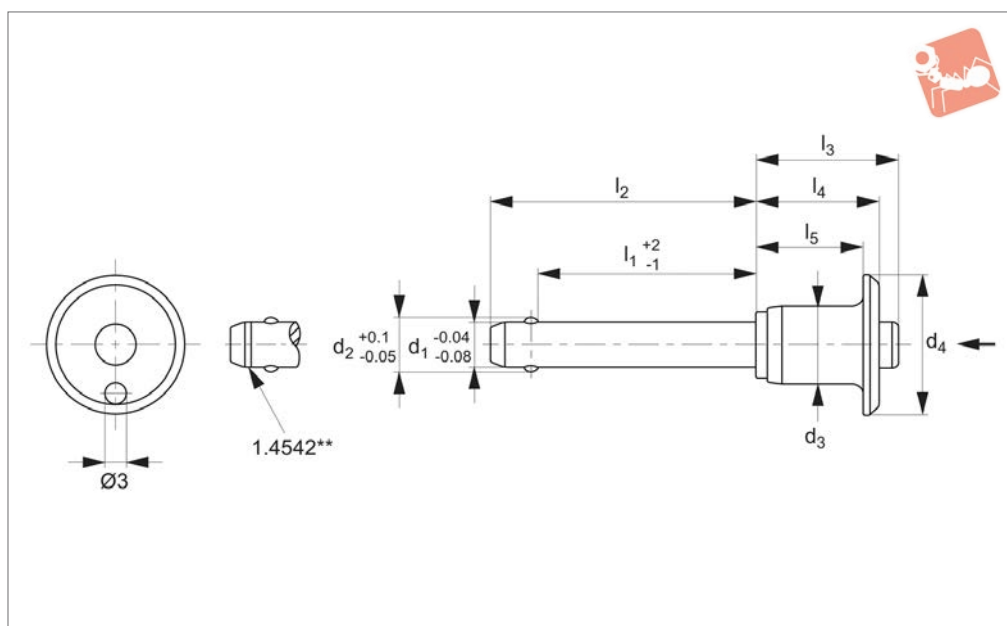
| Order No.          | Stainless type   | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | l <sub>5</sub> | Location hole | Shearing resistance, double<br>kN | Weight<br>g |
|--------------------|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-----------------------------------|-------------|
| <b>33224.W0552</b> | Stainless 1.4542 | 10             | 12.0           | 14.1           | 25             | 60             | 9.6            | 27.3           | 22.6           | 18.6           | 10            | 100                               | 59          |
| <b>33224.W0565</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 25             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 69          |
| <b>33224.W0566</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 30             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 73          |
| <b>33224.W0567</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 35             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 78          |
| <b>33224.W0568</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 40             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 82          |
| <b>33224.W0569</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 45             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 86          |
| <b>33224.W0570</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 50             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 90          |
| <b>33224.W0572</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 60             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 99          |
| <b>33224.W0574</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 70             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 108         |
| <b>33224.W0576</b> | Stainless 1.4542 | 12             | 14.5           | 17.7           | 35             | 80             | 10.6           | 33.2           | 27.3           | 22.3           | 12            | 144                               | 116         |
| <b>33224.W0590</b> | Stainless 1.4542 | 20             | 24.8           | 23.4           | 40             | 60             | 17.0           | 43.1           | 34.5           | 28.5           | 20            | 403                               | 261         |





# Clamp Lock Pins - Single Acting button handle - stainless steel

## Ball Lock Pins & Quick Release



# 33230

BALL LOCK PINS & QUICK RELEASE PINS

### Material

#### Type One

Pin: Stainless steel 1.4305 (AISI 303).

#### Type Two

Pin: Stainless steel 1.4542 (AISI 630),  
precipitation hardened.

#### Both

Handle: Aluminium, black.

Button: Stainless steel, yellow.

Spring: Stainless steel.

### Technical Notes

Not suitable for lifting loads.

Corrosion resistant.

Press button = unlocking.

Release button = clamping.

For securing in blind holes  $H_{11}$ . Tempera-

ture range -30 to 150°C.

Quick fastening , adjusting and locking of  
frequently repeated connections.

### Tips

Used with:

33250: Lanyards & retaining cables

### Important Notes

\*Shearing resistance similar to DIN 50141.

| Order No.   | d <sub>1</sub> | Type     | d <sub>2</sub>   | d <sub>3</sub> | d <sub>4</sub> | Weight<br>g |    |
|-------------|----------------|----------|------------------|----------------|----------------|-------------|----|
| 33230.W0022 | 6              | Type One | Stainless 1.4305 | 6.2            | 11.3           | 20          | 13 |
| 33230.W0122 | 6              | Type Two | Stainless 1.4542 | 6.2            | 11.3           | 20          | 13 |
| 33230.W0024 | 6              | Type One | Stainless 1.4305 | 6.2            | 11.3           | 20          | 15 |
| 33230.W0124 | 6              | Type Two | Stainless 1.4542 | 6.2            | 11.3           | 20          | 15 |
| 33230.W0028 | 6              | Type One | Stainless 1.4305 | 6.2            | 11.3           | 20          | 19 |
| 33230.W0128 | 6              | Type Two | Stainless 1.4542 | 6.2            | 11.3           | 20          | 19 |
| 33230.W0032 | 6              | Type One | Stainless 1.4305 | 6.2            | 11.3           | 20          | 23 |
| 33230.W0132 | 6              | Type Two | Stainless 1.4542 | 6.2            | 11.3           | 20          | 23 |
| 33230.W0042 | 8              | Type One | Stainless 1.4305 | 8.3            | 14.1           | 25          | 25 |
| 33230.W0142 | 8              | Type Two | Stainless 1.4542 | 8.3            | 14.1           | 25          | 25 |
| 33230.W0044 | 8              | Type One | Stainless 1.4305 | 8.3            | 14.1           | 25          | 28 |
| 33230.W0144 | 8              | Type Two | Stainless 1.4542 | 8.3            | 14.1           | 25          | 28 |
| 33230.W0048 | 8              | Type One | Stainless 1.4305 | 8.3            | 14.1           | 25          | 36 |
| 33230.W0148 | 8              | Type Two | Stainless 1.4542 | 8.3            | 14.1           | 25          | 36 |
| 33230.W0052 | 8              | Type One | Stainless 1.4305 | 8.3            | 14.1           | 25          | 43 |
| 33230.W0152 | 8              | Type Two | Stainless 1.4542 | 8.3            | 14.1           | 25          | 43 |
| 33230.W0056 | 8              | Type One | Stainless 1.4305 | 8.3            | 14.1           | 25          | 51 |
| 33230.W0156 | 8              | Type Two | Stainless 1.4542 | 8.3            | 14.1           | 25          | 51 |
| 33230.W0062 | 10             | Type One | Stainless 1.4305 | 10.3           | 14.1           | 25          | 35 |
| 33230.W0162 | 10             | Type Two | Stainless 1.4542 | 10.3           | 14.1           | 25          | 35 |
| 33230.W0066 | 10             | Type One | Stainless 1.4305 | 10.3           | 14.1           | 25          | 47 |
| 33230.W0166 | 10             | Type Two | Stainless 1.4542 | 10.3           | 14.1           | 25          | 47 |
| 33230.W0070 | 10             | Type One | Stainless 1.4305 | 10.3           | 14.1           | 25          | 58 |
| 33230.W0170 | 10             | Type Two | Stainless 1.4542 | 10.3           | 14.1           | 25          | 58 |
| 33230.W0072 | 10             | Type One | Stainless 1.4305 | 10.3           | 14.1           | 25          | 70 |
| 33230.W0172 | 10             | Type Two | Stainless 1.4542 | 10.3           | 14.1           | 25          | 70 |
| 33230.W0074 | 10             | Type One | Stainless 1.4305 | 10.3           | 14.1           | 25          | 83 |
| 33230.W0174 | 10             | Type Two | Stainless 1.4542 | 10.3           | 14.1           | 25          | 83 |

# Ball Lock Pins & Quick Release

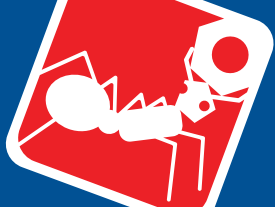
# Clamp Lock Pins - Single Acting

button handle - stainless steel



BALL LOCK PINS & QUICK RELEASE PINS

| Order No.   | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | Location hole dia.<br>tol. H11 | Shearing resistance, double (1.4305)<br>kN<br>min. | Shearing resistance, double (1.4542)<br>kN<br>min. |
|-------------|----------------|----------------|----------------|----------------|--------------------------------|----------------------------------------------------|----------------------------------------------------|
| 33230.W0022 | 10             | 17.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0122 | 10             | 17.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0024 | 20             | 27.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0124 | 20             | 27.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0028 | 40             | 47.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0128 | 40             | 47.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0032 | 60             | 67.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0132 | 60             | 67.4           | 17.6           | 20.7           | 6                              | 21                                                 | 35                                                 |
| 33230.W0042 | 10             | 18.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0142 | 10             | 18.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0044 | 20             | 28.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0144 | 20             | 28.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0048 | 40             | 48.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0148 | 40             | 48.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0052 | 60             | 68.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0152 | 60             | 68.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0056 | 80             | 88.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0156 | 80             | 88.6           | 22.6           | 27.3           | 8                              | 38                                                 | 63                                                 |
| 33230.W0062 | 20             | 30.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0162 | 20             | 30.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0066 | 40             | 50.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0166 | 40             | 50.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0070 | 60             | 70.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0170 | 60             | 70.0           | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0072 | 80             | 100.0          | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0172 | 80             | 100.0          | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0074 | 100            | 120.0          | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |
| 33230.W0174 | 100            | 120.0          | 22.6           | 27.3           | 10                             | 60                                                 | 100                                                |



# Wixroyd Ball Lock Pins

## applications

33060 - 33250  
Positioning Elements

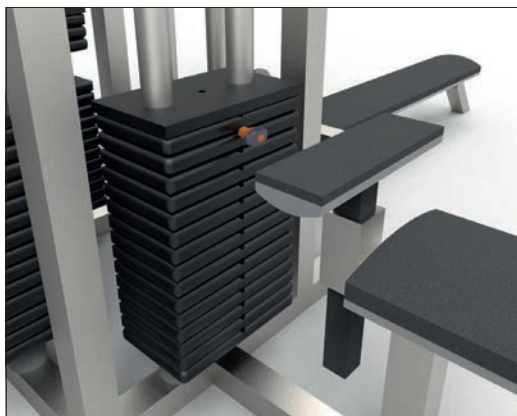


### Sound Rigging Systems

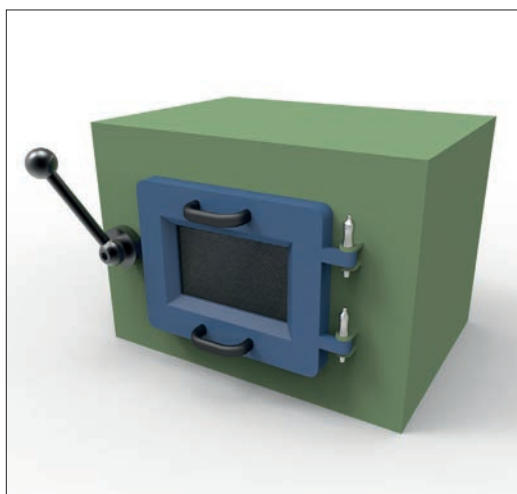
Ball lock pins on a sound rigging system. Offering secure fixing with high shear forces and easy fitting for operators at heights.

In addition full black powder coating of grip and actuation button eliminates glare from other stage lighting.

BALL LOCK PINS & QUICK RELEASE PINS



### Gym Equipment



### Scientific and Medical



### Pin Material

1.4305 (AISI 303) - shear force approx. 60% of higher material version 1.4542

1.4542 (AISI 630) - identified by the ridge on the pin

CRES 17-4PH (AMS 5643) aviation standard



### Handle Style



Plastic tri-star



T-handled, metal



L-handled, metal



Mushroom, metal



Single piece metal, contoured



Special plastic self-spring



Adjustable grip length, plastic



Key ring



Safety, metal



Mushroom Type B aviation

Type R aviation

### Lanyards and Locating Bushes



Stainless wire - (coated) - 2 x key ring



Stainless wire - Key ring and fixing loop



Plastic - 2 x cable tie



Steel wire - (coated) - 2 x key ring



Stainless bead chain - 2 x key ring

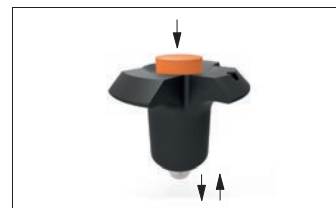


Locating bushes

### Actuation



Press = unlock  
Release = lock (standard)



Press = unlock and position  
Release = lock and simultaneous clamp



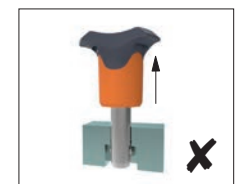
Simple spring loaded balls "pullout pin"

### Important Note

**Important Note: Ball lock pins are not suited to lifting applications!**  
**For quick release lifting pins, see part 33400.**



Shear force

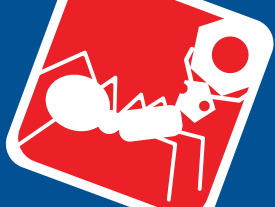


Lifting force

### Special Variations

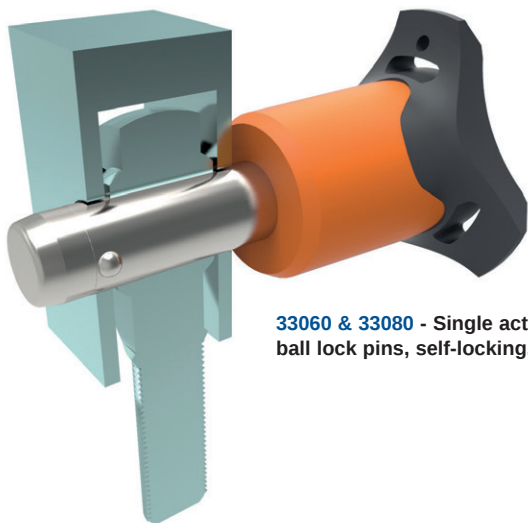


Variations on our standard designs are possible, please contact our sales team for technical assistance. Quick production on specials can be as little as 3 weeks.



### Applications

- Positioning.
- Lifting.
- Locking.
- Indexing.
- Joining.



**33060 & 33080** - Single acting ball lock pins, self-locking.



**33194** - Single acting ball lock pins, self locking, simple finish.



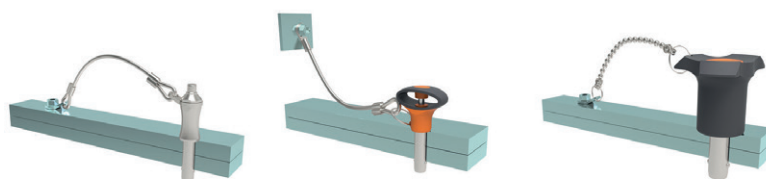
**33140** - Socket pins, non-locking, spring loaded balls.



**33100** - Single acting ball lock pin, self locking.



**33180** - Clamping pins, with span compensation, self-locking.



**33250 & 33270** - Lanyards.



**33220** - Ball lock pins, single acting - L-handle