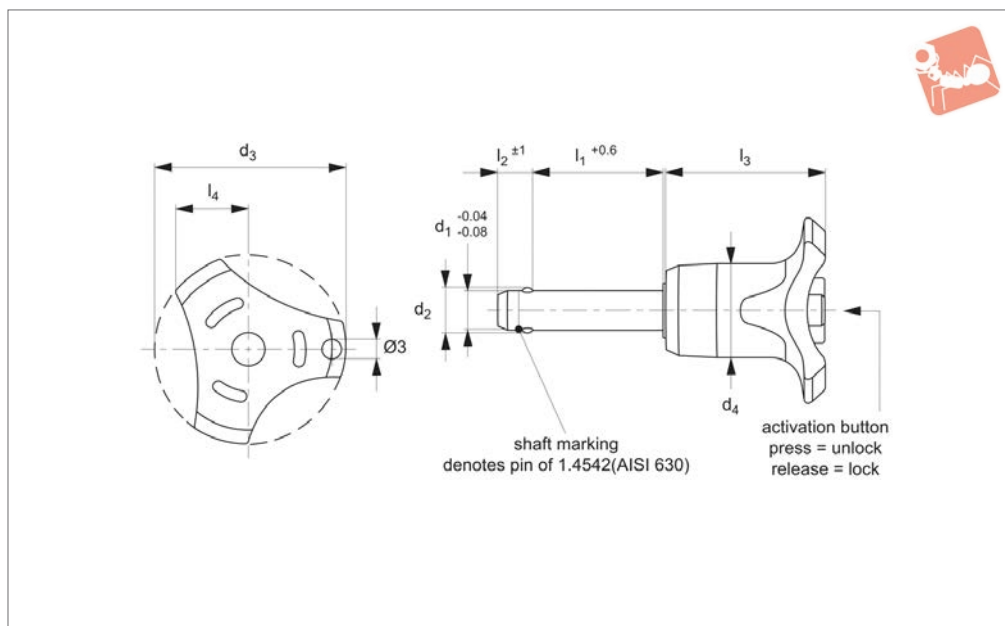




# Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4542 (AISI 630)

# Ball Lock Pins & Quick Release



**33060.GR**

BALL LOCK PINS & QUICK RELEASE PINS

## Material

Pin: stainless steel 1,4542 (AISI 630),  
precipitation hardened, blast finish.  
(marked at end of shaft to denote 1.4542  
material).

Ball: stainless steel 1.3541

Spring: stainless steel.

Handle: thermoplastic PA 6.

Available colours: grey/orange, grey/blue,  
grey/grey, black/black.

## Technical Notes

Pressing = unlocking.

Releasing = locking.

Temperature resistance -30°C to +80°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

**Extreme load capacity due to high mate-  
rial grade.**

\*Shearing resistance similar to DIN 50141.

Also available in stainless grade 1.4305

(AISI 303), see part no.33080.

| Order No.   | d <sub>1</sub> | l <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | Loc'n hole<br>tol. H11 | Shearing resistance, double<br>kN min. | Weight<br>g |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|----------------------------------------|-------------|
| 33060.W0292 | 5              | 10             | 5.5            | 33.2           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 24                                     | 15          |
| 33060.W0293 | 5              | 15             | 5.5            | 33.2           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 24                                     | 15          |
| 33060.W0294 | 5              | 20             | 5.5            | 33.2           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 24                                     | 16          |
| 33060.W0295 | 5              | 25             | 5.5            | 33.2           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 24                                     | 17          |
| 33060.W0296 | 5              | 30             | 5.5            | 33.2           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 24                                     | 18          |
| 33060.W0297 | 6              | 60             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 21                                     | 26          |
| 33060.W0298 | 6              | 70             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 21                                     | 28          |
| 33060.W0299 | 6              | 80             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 21                                     | 30          |
| 33060.W0285 | 5              | 35             | 5.5            | 33.3           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 19          |
| 33060.W0286 | 5              | 40             | 5.5            | 33.4           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 20          |
| 33060.W0287 | 5              | 45             | 5.5            | 33.5           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 21          |
| 33060.W0288 | 5              | 50             | 5.5            | 33.6           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 23          |
| 33060.W0289 | 5              | 60             | 5.5            | 33.7           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 24          |
| 33060.W0290 | 5              | 70             | 5.5            | 33.8           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 18          |
| 33060.W0291 | 5              | 80             | 5.5            | 33.9           | 14.5           | 6.0            | 26.7           | 10.8           | 5                      | 14                                     | 19          |
| 33060.W0301 | 8              | 100            | 9.6            | 39.2           | 18.4           | 8.2            | 33.3           | 13.4           | 8                      | 38                                     | 54          |
| 33060.W0302 | 6              | 10             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 16          |
| 33060.W0303 | 6              | 15             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 17          |
| 33060.W0304 | 6              | 20             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 18          |
| 33060.W0305 | 6              | 25             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 19          |
| 33060.W0306 | 6              | 30             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 20          |
| 33060.W0307 | 6              | 35             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 21          |
| 33060.W0308 | 6              | 40             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 22          |
| 33060.W0309 | 6              | 45             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 23          |
| 33060.W0310 | 6              | 50             | 7.0            | 33.2           | 14.5           | 7.0            | 26.7           | 10.8           | 6                      | 35                                     | 24          |
| 33060.W0311 | 8              | 90             | 7.0            | 39.2           | 18.4           | 8.2            | 33.3           | 13.4           | 8                      | 38                                     | 36          |

# Ball Lock Pins & Quick Release

## Ball Lock Pins - Single Acting - Grey self-locking - stainless steel 1.4542 (AISI 630)



BALL LOCK PINS & QUICK RELEASE PINS

| Order No.   | d <sub>1</sub> | l <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | Loc'n hole<br>tol. H11 | Shearing resistance, double<br>kN<br>min. | Weight<br>g |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|-------------------------------------------|-------------|
| 33060.W0312 | 8              | 10             | 9.6            | 39.2           | 18.5           | 8.2            | 33.3           | 13.4           | 8                      | 38                                        | 38          |
| 33060.W0313 | 8              | 15             | 9.6            | 39.2           | 18.5           | 8.2            | 33.3           | 13.4           | 8                      | 38                                        | 58          |
| 33060.W0314 | 8              | 20             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 40          |
| 33060.W0315 | 8              | 25             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 42          |
| 33060.W0316 | 8              | 30             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 44          |
| 33060.W0317 | 8              | 35             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 46          |
| 33060.W0318 | 8              | 40             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 47          |
| 33060.W0319 | 8              | 45             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 49          |
| 33060.W0320 | 8              | 50             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 51          |
| 33060.W0321 | 8              | 50             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 51          |
| 33060.W0322 | 8              | 50             | 9.6            | 39.2           | 19.3           | 8.2            | 33.3           | 13.4           | 8                      | 63                                        | 51          |
| 33060.W0323 | 8              | 80             | 9.6            | 39.2           | 18.4           | 8.2            | 33.3           | 13.4           | 8                      | 38                                        | 69          |
| 33060.W0324 | 10             | 20             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 47          |
| 33060.W0325 | 10             | 25             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 49          |
| 33060.W0326 | 10             | 30             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 53          |
| 33060.W0327 | 10             | 35             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 55          |
| 33060.W0328 | 10             | 40             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 58          |
| 33060.W0329 | 10             | 45             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 61          |
| 33060.W0330 | 10             | 50             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 64          |
| 33060.W0331 | 10             | 15             | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 86          |
| 33060.W0332 | 10             | 60             | 12.0           | 39.2           | 19.3           | 9.6            | 33.3           | 13.4           | 10                     | 100                                       | 70          |
| 33060.W0333 | 10             | 91             | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 70          |
| 33060.W0334 | 10             | 80             | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 97          |
| 33060.W0335 | 10             | 90             | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 103         |
| 33060.W0336 | 10             | 100            | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 109         |
| 33060.W0337 | 10             | 110            | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 115         |
| 33060.W0338 | 10             | 120            | 12.0           | 39.2           | 18.4           | 9.6            | 33.3           | 13.4           | 10                     | 60                                        | 53          |
| 33060.W0339 | 12             | 20             | 14.5           | 47.6           | 25.2           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 156         |
| 33060.W0344 | 12             | 20             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 156         |
| 33060.W0345 | 12             | 25             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 96          |
| 33060.W0346 | 12             | 30             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 100         |
| 33060.W0347 | 12             | 35             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 105         |
| 33060.W0348 | 12             | 40             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 109         |
| 33060.W0349 | 12             | 45             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 113         |
| 33060.W0350 | 12             | 50             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 117         |
| 33060.W0352 | 12             | 60             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 126         |
| 33060.W0354 | 12             | 70             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 134         |
| 33060.W0356 | 12             | 80             | 14.5           | 47.6           | 26.3           | 10.6           | 39.7           | 16.7           | 12                     | 144                                       | 143         |
| 33060.W0357 | 12             | 90             | 14.5           | 47.6           | 25.2           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 165         |
| 33060.W0358 | 12             | 100            | 14.5           | 47.6           | 25.2           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 173         |
| 33060.W0359 | 12             | 110            | 14.5           | 47.6           | 25.2           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 182         |
| 33060.W0360 | 12             | 120            | 14.5           | 47.6           | 25.2           | 10.6           | 39.7           | 16.7           | 12                     | 87                                        | 96          |
| 33060.W0366 | 16             | 30             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 132         |
| 33060.W0367 | 16             | 35             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 140         |
| 33060.W0368 | 16             | 40             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 148         |
| 33060.W0369 | 16             | 45             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 155         |
| 33060.W0370 | 16             | 50             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 168         |
| 33060.W0372 | 16             | 60             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 178         |
| 33060.W0374 | 16             | 70             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 194         |
| 33060.W0376 | 16             | 80             | 19.0           | 47.6           | 26.3           | 14.0           | 39.7           | 16.7           | 16                     | 257                                       | 208         |
| 33060.W0377 | 16             | 90             | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 234         |
| 33060.W0378 | 16             | 100            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 251         |
| 33060.W0379 | 16             | 110            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 266         |
| 33060.W0380 | 16             | 120            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 281         |
| 33060.W0381 | 16             | 130            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 297         |
| 33060.W0382 | 16             | 140            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 313         |
| 33060.W0383 | 16             | 150            | 19.0           | 47.6           | 25.2           | 14.0           | 39.7           | 16.7           | 16                     | 155                                       | 328         |
| 33060.W0391 | 20             | 50             | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 329         |
| 33060.W0392 | 20             | 60             | 25.0           | 57.1           | 35.4           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 343         |
| 33060.W0393 | 20             | 90             | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 377         |
| 33060.W0396 | 20             | 80             | 25.0           | 57.1           | 35.4           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 392         |
| 33060.W0397 | 20             | 90             | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 426         |
| 33060.W0400 | 20             | 100            | 25.0           | 57.1           | 35.4           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 440         |
| 33060.W0401 | 20             | 110            | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 474         |
| 33060.W0404 | 20             | 120            | 25.0           | 57.1           | 35.4           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 488         |
| 33060.W0405 | 20             | 130            | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 523         |
| 33060.W0406 | 20             | 140            | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 546         |



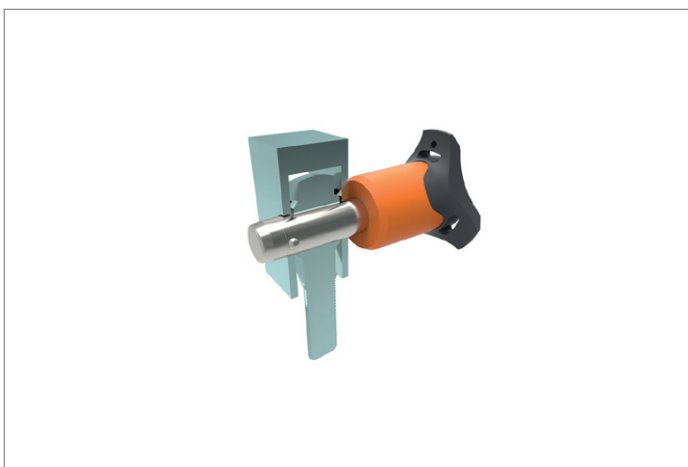
# Ball Lock Pins - Single Acting - Grey

self-locking - stainless steel 1.4542 (AISI 630)

# Ball Lock Pins & Quick Release



| Order No.          | d <sub>1</sub> | l <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>4</sub> | l <sub>2</sub> | l <sub>3</sub> | l <sub>4</sub> | Loc'n hole<br>tol. H11 | Shearing resistance, double<br>kN<br>min. | Weight<br>g |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|-------------------------------------------|-------------|
| <b>33060.W0407</b> | 20             | 150            | 25.0           | 57.1           | 33.8           | 20.5           | 50.7           | 21.5           | 20                     | 403                                       | 571         |
| <b>33060.W0409</b> | 25             | 50             | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 415         |
| <b>33060.W0410</b> | 25             | 60             | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 453         |
| <b>33060.W0411</b> | 25             | 70             | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 490         |
| <b>33060.W0412</b> | 25             | 80             | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 528         |
| <b>33060.W0413</b> | 25             | 90             | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 565         |
| <b>33060.W0414</b> | 25             | 100            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 603         |
| <b>33060.W0415</b> | 25             | 110            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 640         |
| <b>33060.W0416</b> | 25             | 120            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 678         |
| <b>33060.W0417</b> | 25             | 130            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 715         |
| <b>33060.W0418</b> | 25             | 140            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 753         |
| <b>33060.W0419</b> | 25             | 150            | 30.8           | 57.1           | 33.8           | 22.0           | 50.7           | 21.5           | 25                     | 631                                       | 790         |



BALL LOCK PINS & QUICK RELEASE PINS



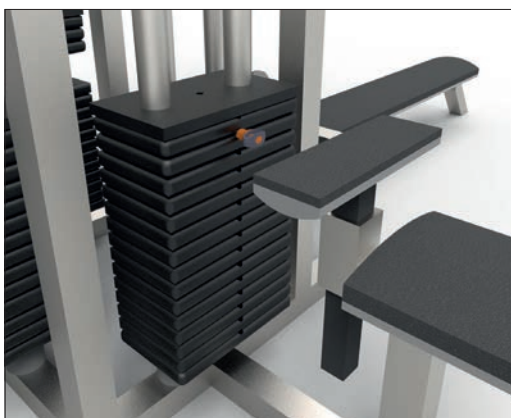
### Sound Rigging Systems

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

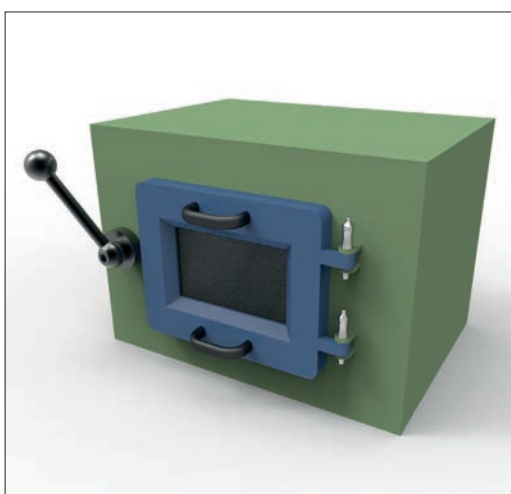
In addition full black powder coating of grip and actuation button eliminates glare from other stage lighting.



### Gym Equipment



### Scientific and Medical





# Wixroyd Ball Lock Pins

features

33060 - 33250

Positioning Elements

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



## Pin Material



Plastic tri-star



T-handled, metal



L-handled, metal



Mushroom, metal



Single piece metal,  
contoured

## Handle Style



Special plastic  
self-spring



Adjustable grip  
length, plastic



Key ring



Safety, metal



Mushroom Type  
B aviation



Type R aviation



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

## Lanyards and Locating Bushes



Press = unlock  
Release = lock  
(standard)



Press = unlock and position  
Release = lock and  
simultaneous clamp



Simple spring loaded balls  
"pullout pin"

## Actuation

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



Shear force



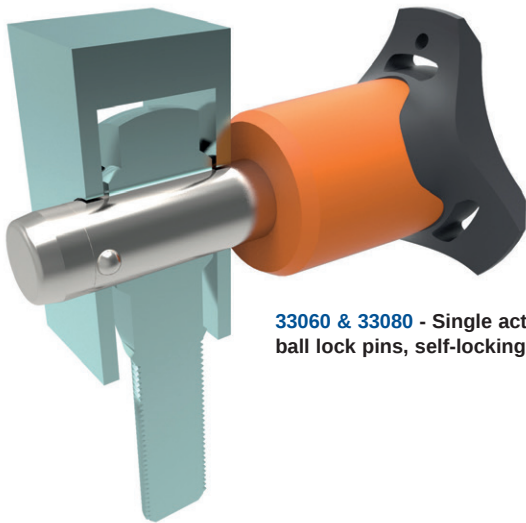
Lifting force

## Important Note



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.

## Special Variations



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



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



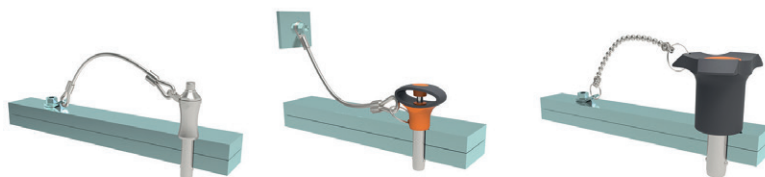
**33140** - Socket pins, non-locking, spring loaded balls.



**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

### Applications

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