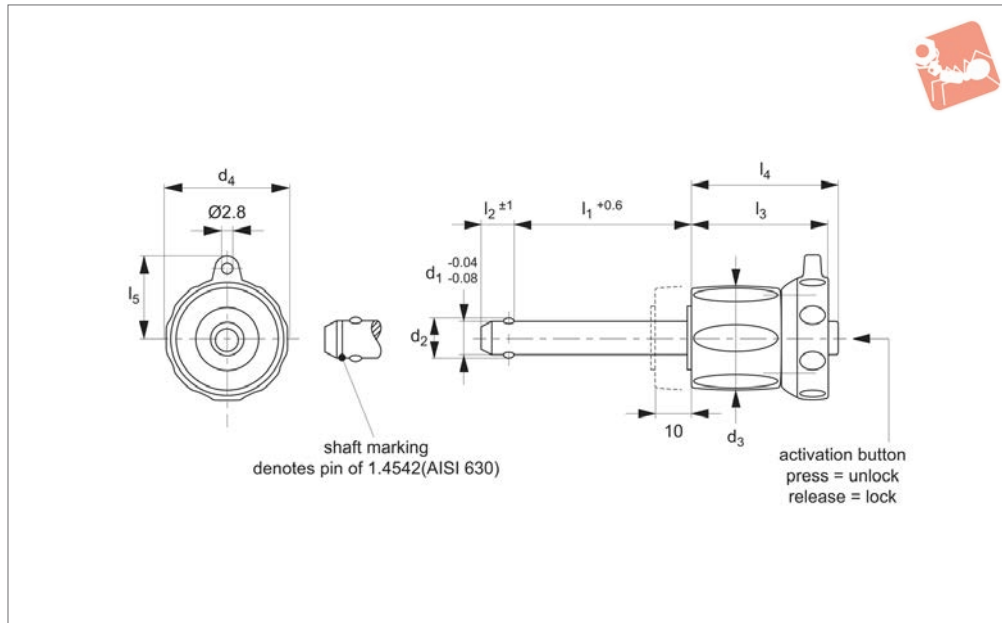




# Ball Lock Pins - Single Acting

self-locking - adj. length - stainless 1.4305

# Ball Lock Pins & Quick Release



## 33104.1

BALL LOCK PINS & QUICK RELEASE PINS

### Material

Pin: stainless steel 1.4305 (AISI 303).  
Ball: stainless steel 1.3541  
Spring: stainless steel.  
Adj. Grip: thermoplastic, grey/black.

### Technical Notes

Pressing = unlocking.  
Releasing = locking.

### Unique design; adj.grip offers up to 10mm of clamping stroke on pin length $l_1$ after installation.

Temperature resistance -30°C to +80°C.  
For quick fastening and locking of frequently repeated connections, with additional clamping capacity of up to 10mm stroke.

### 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.	$d_1$	$l_1$	Material	$d_2$	$d_3$	$d_4$	$l_2$	$l_3$	$l_4$	$l_5$	Loc'n hole tol. H11	Shearing resistance, double	Weight
												kN min.	g
33104.W0192	5	0 - 10	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	24
33104.W0193	5	5 - 15	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	25
33104.W0194	5	10 - 20	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	26
33104.W0195	5	15 - 25	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	27
33104.W0196	5	20 - 30	Stainless 1.4305	5.5	17.6	23.6	6.0	25.7	26.2	15.9	5	14	27
33104.W0202	6	0 - 10	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	25
33104.W0203	6	5 - 15	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	26
33104.W0204	6	10 - 20	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	27
33104.W0205	6	15 - 25	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	28
33104.W0206	6	20 - 30	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	29
33104.W0207	6	25 - 35	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	30
33104.W0208	6	30 - 40	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	31
33104.W0209	6	35 - 45	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	32
33104.W0210	6	40 - 50	Stainless 1.4305	7.0	17.6	23.6	7.0	25.7	26.2	15.9	6	21	33
33104.W0214	8	10 - 20	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	57
33104.W0215	8	15 - 25	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	58
33104.W0216	8	20 - 30	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	60
33104.W0217	8	25 - 35	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	62
33104.W0218	8	30 - 40	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	64
33104.W0219	8	35 - 45	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	66
33104.W0220	8	40 - 50	Stainless 1.4305	9.6	23.0	27.6	8.2	31.2	33.1	18.0	8	38	68
33104.W0224	10	10 - 20	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	63
33104.W0225	10	15 - 25	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	66
33104.W0226	10	20 - 30	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	69
33104.W0227	10	25 - 35	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	72
33104.W0228	10	30 - 40	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	75
33104.W0229	10	35 - 45	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	78
33104.W0230	10	40 - 50	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	81

# Ball Lock Pins & Quick Release

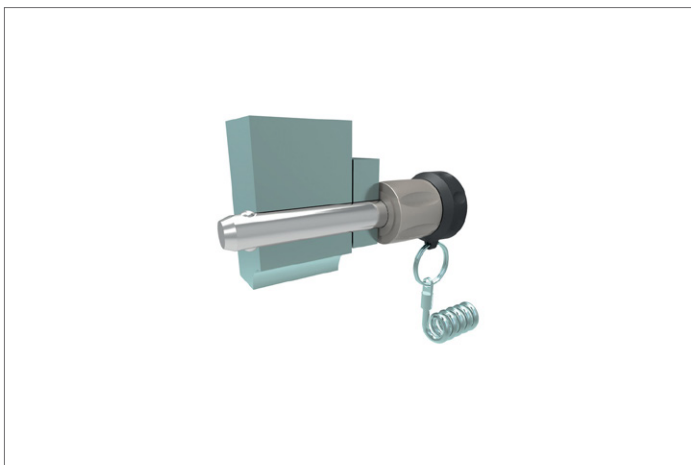
# Ball Lock Pins - Single Acting

self-locking - adj. length - stainless 1.4305



BALL LOCK PINS & QUICK RELEASE PINS

Order No.	d <sub>1</sub>	l <sub>1</sub>	Material	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	Loc'n hole tol. H11	Shearing resistance, double kN min.	Weight g
<b>33104.W0232</b>	10	50 - 60	Stainless 1.4305	12.0	23.0	27.6	9.6	31.2	33.1	18.0	10	60	87
<b>33104.W0235</b>	12	15 - 25	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	123
<b>33104.W0236</b>	12	20 - 30	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	127
<b>33104.W0237</b>	12	25 - 35	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	131
<b>33104.W0238</b>	12	30 - 40	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	135
<b>33104.W0239</b>	12	35 - 45	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	140
<b>33104.W0240</b>	12	40 - 50	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	144
<b>33104.W0242</b>	12	50 - 60	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	152
<b>33104.W0244</b>	12	60 - 70	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	161
<b>33104.W0246</b>	12	70 - 80	Stainless 1.4305	14.5	29.0	34.6	10.6	36.7	39.5	21.8	12	87	169
<b>33104.W0256</b>	16	20 - 30	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	159
<b>33104.W0257</b>	16	25 - 35	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	166
<b>33104.W0258</b>	16	30 - 40	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	174
<b>33104.W0259</b>	16	35 - 45	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	182
<b>33104.W0260</b>	16	40 - 50	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	189
<b>33104.W0262</b>	16	50 - 60	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	205
<b>33104.W0264</b>	16	60 - 70	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	220
<b>33104.W0266</b>	16	70 - 80	Stainless 1.4305	19.0	29.0	34.6	14.0	36.7	39.5	21.8	16	155	235





# Wixroyd Ball Lock Pins

applications

33060 - 33250  
Positioning Elements

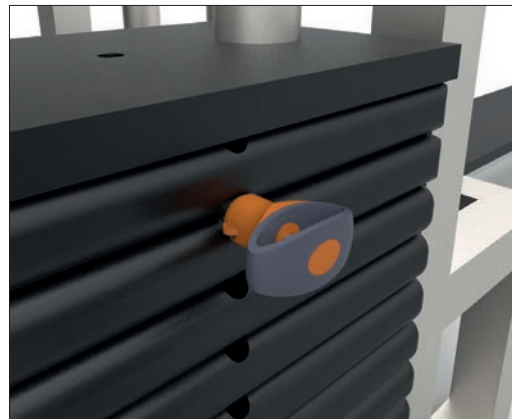
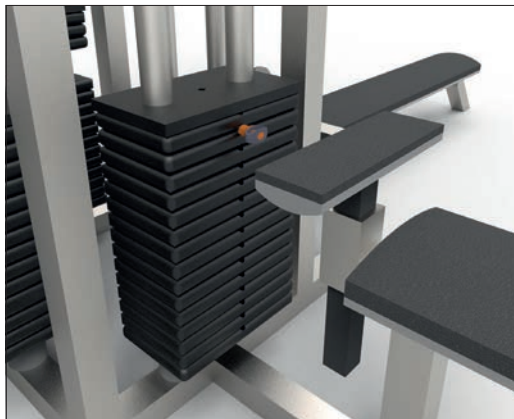


## Sound Rigging Systems

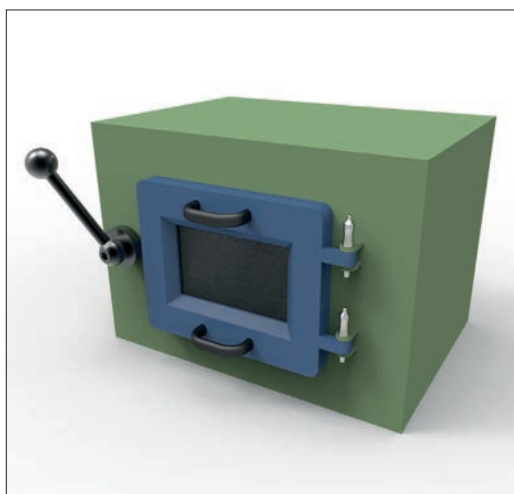
Ball lock pins on a sound rigging system. Offering secure fixing with high shear forces and easy fitting for operators at heights.

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

ov-W33060.BK-A-TOR1706-W33250-A-TLA1066-a-rmh - Updated - 27-10-2022



## 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



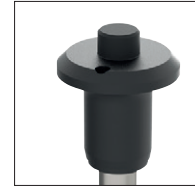
Plastic tri-star



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

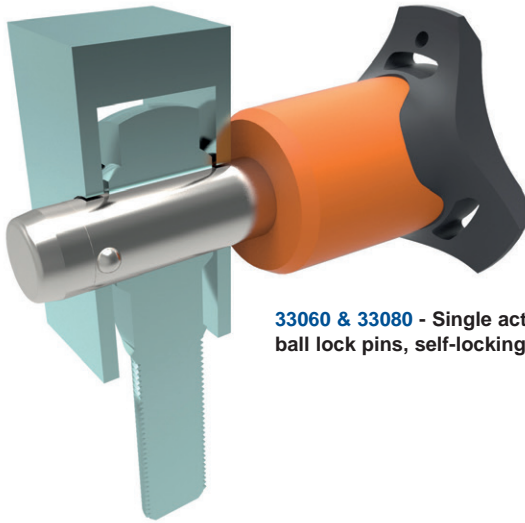


Variations on our standard designs are possible, please contact our sales team for technical assistance. Quick production on specials can be as little as 3 weeks.



### 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.**



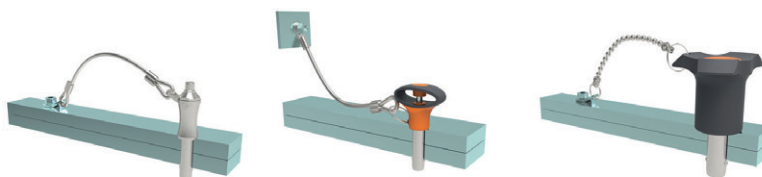
**33140 - Socket pins, non-locking, spring loaded balls.**



**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**