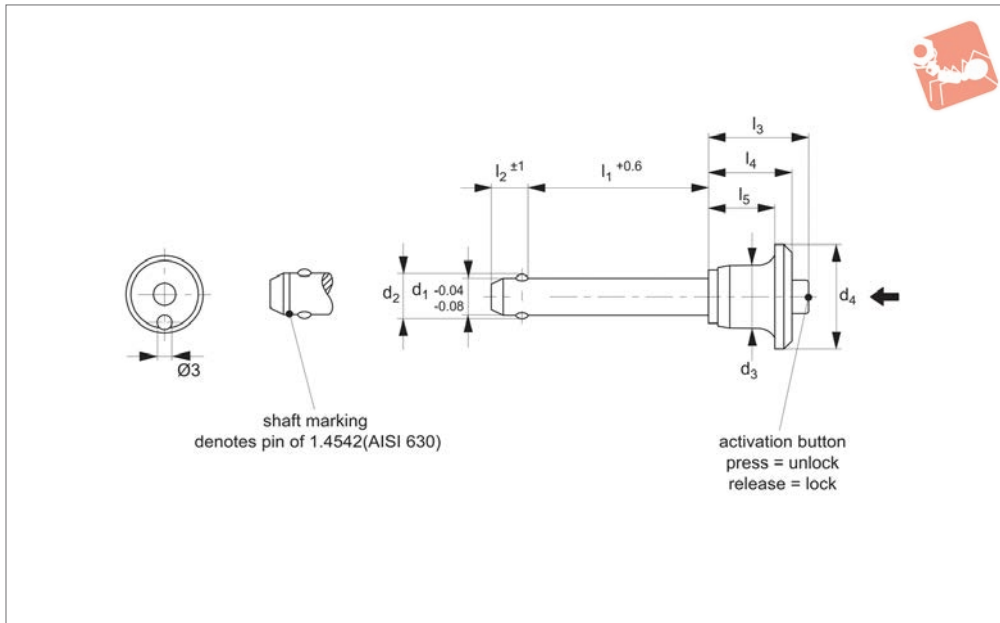




# Ball Lock Pins - Mushroom Handle

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 kN	Weight 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 kN	Weight 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

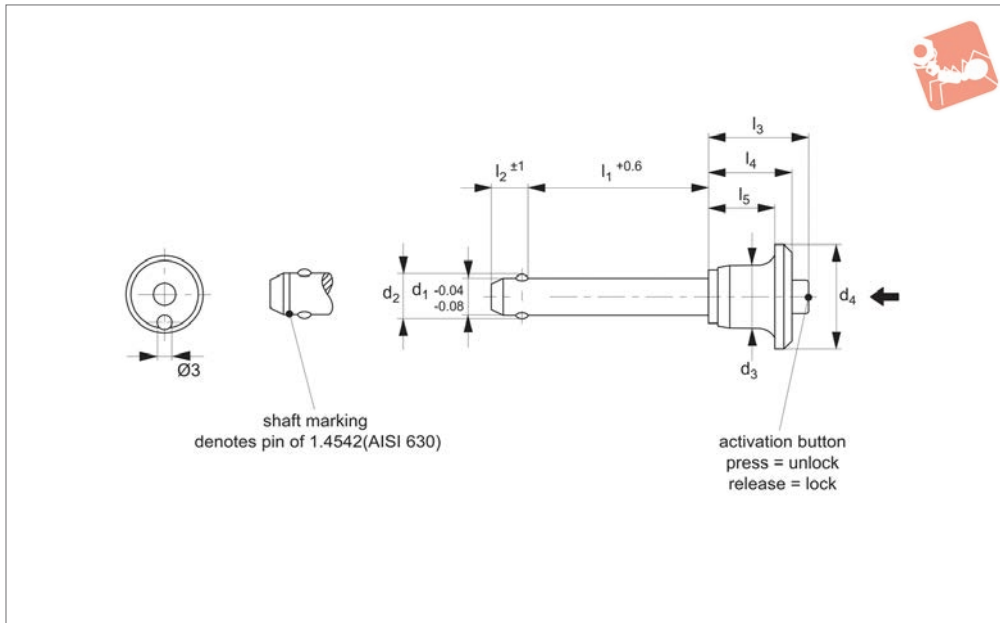




# Ball Lock Pins - Mushroom Handle

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 kN	Weight 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



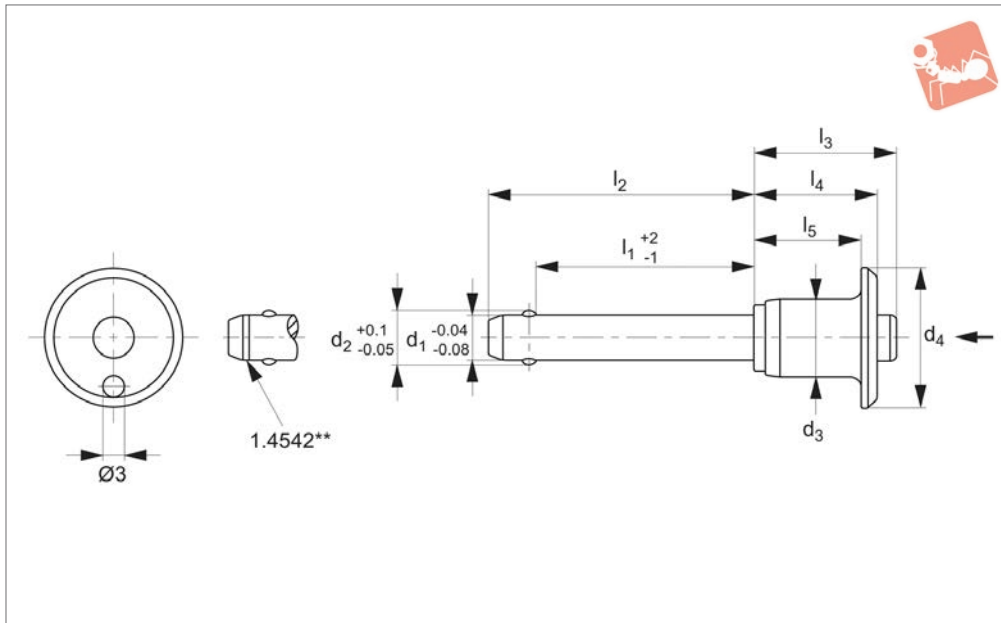
Order No.	Stainless type	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	Location hole	Shearing resistance, double kN	Weight g
<b>33224.W0552</b>	Stainless 1.4542	10	12.0	14.1	25	60	9.6	27.3	22.6	18.6	10	100	59
<b>33224.W0565</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.	$d_1$	Type	$d_2$	$d_3$	$d_4$	Weight 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. tol. H11	Shearing resistance, double (1.4305)		Shearing resistance, double (1.4542)	
						kN min.		kN 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

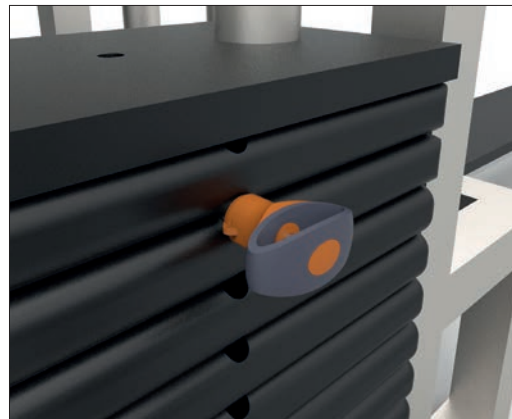


## Sound Rigging Systems

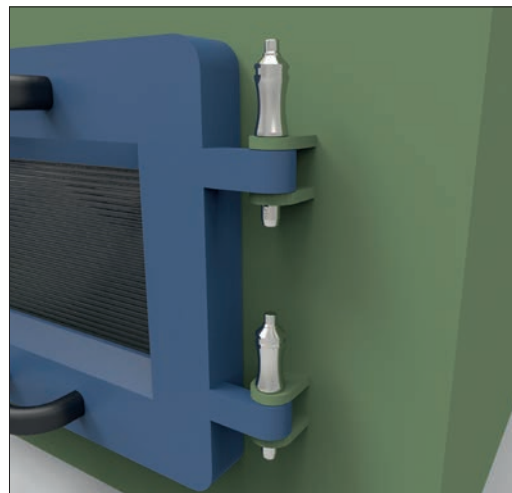
Ball lock pins on a sound rigging system. Offering secure fixing with high shear forces and easy fitting for operators at heights.

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

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



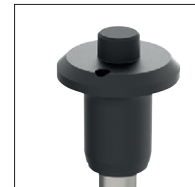
Plastic tri-star



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

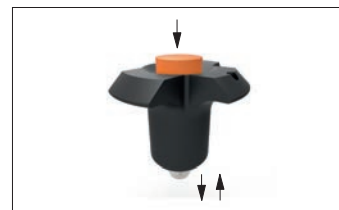


Locating bushes

## 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



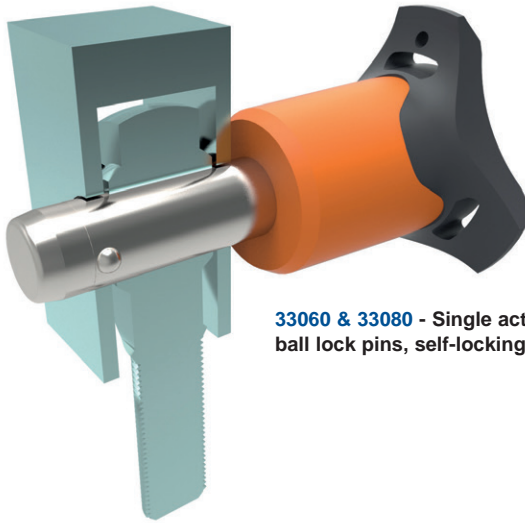
Variations on our standard designs are possible, please contact our sales team for technical assistance. Quick production on specials can be as little as 3 weeks.





### 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.



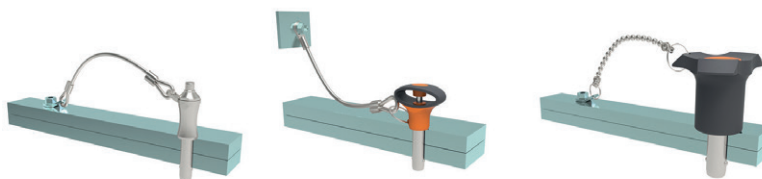
**33140** - Socket pins, non-locking, spring loaded balls.



**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