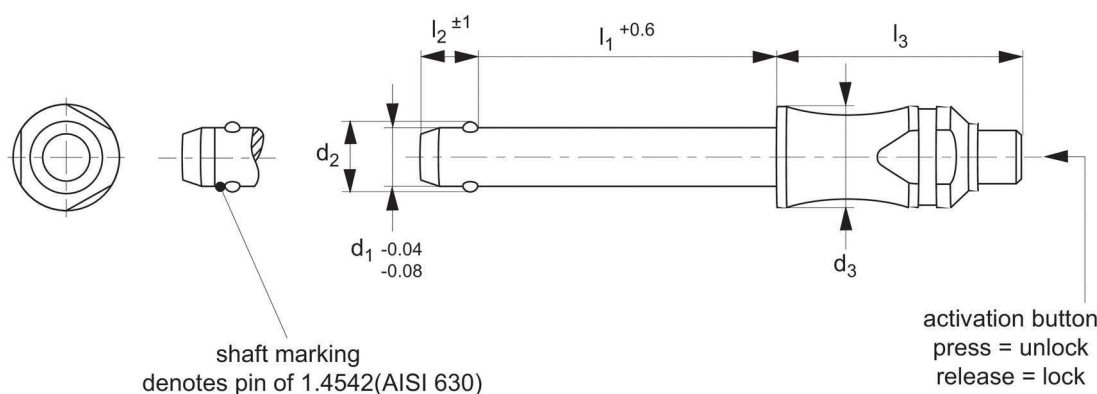


# Ball Lock Pins - Contoured Handle

self-locking - single acting



# 33194



Order No.	Type	Order No.	Type	$d_1$	$l_1$	$d_2$	$d_3$	$l_2$	$l_3$	Location hole H11	Shearing resistance, double 1.4305	Shearing resistance, double 1.4542	g
33194.W0012	One Stainless 1,4305	33194.W0312	Two Stainless 1,4542	5	10	5,5	10	6,0	26,2	5	14	24	10
33194.W0013		33194.W0313		5	15	5,5	10	6,0	26,2	5	14	24	11
33194.W0014		33194.W0314		5	20	5,5	10	6,0	26,2	5	14	24	12
33194.W0015		33194.W0315		5	25	5,5	10	6,0	26,2	5	14	24	13
33194.W0016		33194.W0316		5	30	5,5	10	6,0	26,2	5	14	24	13
33194.W0017		33194.W0317		5	35	5,5	10	6,0	26,2	5	14	-	14
33194.W0018		33194.W0318		5	40	5,5	10	6,0	26,2	5	14	-	15
33194.W0007		33194.W0307		5	45	5,5	10	6,0	26,2	5	14	-	15
33194.W0008		33194.W0308		5	50	5,5	10	6,0	26,2	5	14	-	16
33194.W0009		33194.W0309		5	60	5,5	10	6,0	26,2	5	14	-	17
33194.W0010		33194.W0310		5	70	5,5	10	6,0	26,2	5	14	-	19
33194.W0011		33194.W0311		5	80	5,5	10	6,0	26,2	5	14	-	20
33194.W0022		33194.W0322		6	10	7,0	10	7,0	26,2	6	21	35	11
33194.W0023		33194.W0323		6	15	7,0	10	7,0	26,2	6	21	35	12
33194.W0024		33194.W0324		6	20	7,0	10	7,0	26,2	6	21	35	13
33194.W0025		33194.W0325		6	25	7,0	10	7,0	26,2	6	21	35	14
33194.W0026		33194.W0326		6	30	7,0	10	7,0	26,2	6	21	35	15
33194.W0027		33194.W0327		6	35	7,0	10	7,0	26,2	6	21	35	16
33194.W0028		33194.W0328		6	40	7,0	10	7,0	26,2	6	21	35	17
33194.W0029		33194.W0329		6	45	7,0	10	7,0	26,2	6	21	35	18
33194.W0030		33194.W0330		6	50	7,0	10	7,0	26,2	6	21	35	19
33194.W0019		33194.W0319		6	60	7,0	10	7,0	26,2	6	21	-	21
33194.W0020		33194.W0320		6	70	7,0	10	7,0	26,2	6	21	-	21
33194.W0021		33194.W0321		6	80	7,0	10	7,0	26,2	6	21	-	25
33194.W0032		33194.W0032		8	10	9,6	14	8,2	33,1	8	38	-	29
33194.W0033		33194.W0033		8	15	9,6	14	8,2	33,1	8	38	-	31
33194.W0034		33194.W0334		8	20	9,6	14	8,2	33,1	8	38	63	33
33194.W0035		33194.W0335		8	25	9,6	14	8,2	33,1	8	38	63	34
33194.W0036		33194.W0336		8	30	9,6	14	8,2	33,1	8	38	63	36
33194.W0037		33194.W0337		8	35	9,6	14	8,2	33,1	8	38	63	38
33194.W0038		33194.W0338		8	40	9,6	14	8,2	33,1	8	38	63	40
33194.W0039		33194.W0339		8	45	9,6	14	8,2	33,1	8	38	63	42
33194.W0040		33194.W0340		8	50	9,6	14	8,2	33,1	8	38	63	44
33194.W0031		33194.W0331		8	60	9,6	14	8,2	33,1	8	38	-	47
33194.W0041		33194.W0041		8	70	9,6	14	8,2	33,1	8	38	-	51
33194.W0042		33194.W0042		8	80	9,6	14	8,2	33,1	8	38	-	55
33194.W0043		33194.W0043		8	90	9,6	14	8,2	33,1	8	38	-	58
33194.W0051		33194.W0051		8	100	9,6	14	8,2	33,1	8	38	-	62
33194.W0059		33194.W0051		10	15	12,0	14	9,6	33,1	10	60	-	36
33194.W0044		33194.W0344		10	20	12,0	14	9,6	33,1	10	60	100	39
33194.W0045		33194.W0345		10	25	12,0	14	9,6	33,1	10	60	100	42
33194.W0046		33194.W0346		10	30	12,0	14	9,6	33,1	10	60	100	45
33194.W0047		33194.W0347		10	35	12,0	14	9,6	33,1	10	60	100	48
33194.W0048		33194.W0348		10	40	12,0	14	9,6	33,1	10	60	100	51
33194.W0049		33194.W0349		10	45	12,0	14	9,6	33,1	10	60	100	54
33194.W0050		33194.W0350		10	50	12,0	14	9,6	33,1	10	60	100	57
33194.W0052		33194.W0352		10	60	12,0	14	9,6	33,1	10	60	100	63
33194.W0053		33194.W0353		10	70	12,0	14	9,6	33,1	10	60	-	69
33194.W0054		33194.W0354		10	80	12,0	14	9,6	33,1	10	60	-	74
33194.W0055		33194.W0355		10	90	12,0	14	9,6	33,1	10	60	-	80

### Material

**Type One-**  
Pin: stainless steel 1.4305 (AISI 303).  
Spring: stainless steel.

**Type Two-**  
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).  
End of shaft marked for material type 1.4542.  
Spring: stainless steel.

### Technical Notes

Pressing = unlocking.  
Releasing = locking.  
Single piece contoured design for limited space applications.  
Temperature resistance up to 250°C.  
For quick fastening and locking of frequently repeated connections.  
For suitable lanyards see part no. 33250.W0970 and .W0974 only.  
Easy install locating bushes available see part no. 33248.

### Tips

Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.

### Important Notes

\*Shearing resistance similar to DIN 50141.




# Ball Lock Pins - Contoured Handle

self-locking - single acting



# 33194

Order No. Type One Stainless 1,4305	Order No. Type Two Stainless 1,4542	d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	l <sub>3</sub>	Location hole H11	Shearing resistance, double kN min 1.4305	Shearing resistance, double kN min 1.4542	 g
33194.W0056	33194.W0356	10	100	12,0	14	9,6	33,1	10	60	-	86
33194.W0057	33194.W0357	10	110	12,0	14	9,6	33,1	10	60	-	92
33194.W0058	33194.W0358	10	120	12,0	14	9,6	33,1	10	60	-	98
33194.W0064	33194.W0364	12	20	14,5	20	10,6	39,5	12	87	-	98
33194.W0065	33194.W0365	12	25	14,5	20	10,6	39,5	12	87	144	84
33194.W0066	33194.W0366	12	30	14,5	20	10,6	39,5	12	87	144	88
33194.W0067	33194.W0367	12	35	14,5	20	10,6	39,5	12	87	144	92
33194.W0068	33194.W0368	12	40	14,5	20	10,6	39,5	12	87	144	96
33194.W0069	33194.W0369	12	45	14,5	20	10,6	39,5	12	87	144	101
33194.W0070	33194.W0370	12	50	14,5	20	10,6	39,5	12	87	144	105
33194.W0072	33194.W0372	12	60	14,5	20	10,6	39,5	12	87	144	113
33194.W0074	33194.W0374	12	70	14,5	20	10,6	39,5	12	87	144	122
33194.W0076	33194.W0376	12	80	14,5	20	10,6	39,5	12	87	144	130
33194.W0060	33194.W0360	12	90	14,5	20	10,6	39,5	12	87	-	139
33194.W0061	33194.W0361	12	100	14,5	20	10,6	39,5	12	87	-	148
33194.W0062	33194.W0362	12	110	14,5	20	10,6	39,5	12	87	-	157
33194.W0063	33194.W0360	12	120	14,5	20	10,6	39,5	12	87	-	165
33194.W0086	33194.W0386	16	30	19,0	20	14,0	39,5	16	155	257	120
33194.W0087	33194.W0387	16	35	19,0	20	14,0	39,5	16	155	257	127
33194.W0088	33194.W0388	16	40	19,0	20	14,0	39,5	16	155	257	135
33194.W0089	33194.W0389	16	45	19,0	20	14,0	39,5	16	155	257	143
33194.W0090	33194.W0390	16	50	19,0	20	14,0	39,5	16	155	257	150
33194.W0092	33194.W0392	16	60	19,0	20	14,0	39,5	16	155	257	166
33194.W0094	33194.W0394	16	70	19,0	20	14,0	39,5	16	155	257	181
33194.W0096	33194.W0396	16	80	19,0	20	14,0	39,5	16	155	257	196
33194.W0097	33194.W0397	16	90	19,0	20	14,0	39,5	16	155	-	216
33194.W0098	33194.W0398	16	100	19,0	20	14,0	39,5	16	155	-	233
33194.W0099	33194.W0399	16	110	19,0	20	14,0	39,5	16	155	-	248
33194.W0100	33194.W3100	16	120	19,0	20	14,0	39,5	16	155	-	263
33194.W0101	33194.W3101	16	130	19,0	20	14,0	39,5	16	155	-	279
33194.W0102	33194.W3102	16	140	19,0	20	14,0	39,5	16	155	-	295
33194.W0103	33194.W3103	16	150	19,0	20	14,0	39,5	16	155	-	310
33194.W0111	33194.W0311	20	50	25,0	28	20,5	50,1	20	244	-	303
33194.W0112	33194.W0412	20	60	25,0	28	20,5	50,1	20	244	403	322
33194.W0116	33194.W0416	20	80	25,0	28	20,5	50,1	20	244	403	370
33194.W0117	33194.W0417	20	90	25,0	28	20,5	50,1	20	244	-	400
33194.W0120	33194.W0420	20	100	25,0	28	20,5	50,1	20	244	403	414
33194.W0124	33194.W0424	20	120	25,0	28	20,5	50,1	20	244	403	466
33194.W0125	33194.W0125	20	130	25,0	28	20,5	50,1	20	244	-	497
33194.W0126	33194.W0426	20	140	25,0	28	20,5	50,1	20	244	-	520
33194.W0127	33194.W0427	20	150	25,0	28	20,5	50,1	20	244	-	545
33194.W0129	33194.W0429	20	50	30,8	28	22,0	50,1	25	386	-	466
33194.W0130	33194.W0430	25	60	30,8	28	22	50,1	25	386	-	432
33194.W0131	33194.W0431	20	70	30,8	28	22,0	50,1	25	386	-	470
33194.W0132	33194.W0424	25	810	30,8	28	22,0	50,1	25	386	-	507
33194.W0133	33194.W0433	25	90	30,8	28	22,0	50,1	25	386	-	545
33194.W0134	33194.W0434	25	100	30,8	28	22,0	50,1	25	386	-	582
33194.W0135	33194.W0435	25	110	30,8	28	22,0	50,1	25	386	-	620
33194.W0136	33194.W0436	25	120	30,8	28	22,0	50,1	25	386	-	657
33194.W0137	33194.W0433	25	130	30,8	28	22,0	50,1	25	386	-	695
33194.W0138	33194.W0438	25	140	30,8	28	22,0	50,1	25	386	-	732
33194.W0139	33194.W0439	25	150	30,8	28	22,0	50,1	25	386	-	770



### Material

**Type One-**  
Pin: stainless steel 1.4305 (AISI 303).  
Spring: stainless steel.

**Type Two-**  
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).  
End of shaft marked for material type 1.4542.  
Spring: stainless steel.

### Technical Notes

Pressing = unlocking.  
Releasing = locking.  
Single piece contoured design for limited space applications.  
Temperature resistance up to 250°C.  
For quick fastening and locking of frequently repeated connections.  
For suitable lanyards see part no. 33250.W0970 and .W0974 only.  
Easy install locating bushes available see part no. 33248.

### Tips

**Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.**

### Important Notes

\*Shearing resistance similar to DIN 50141.

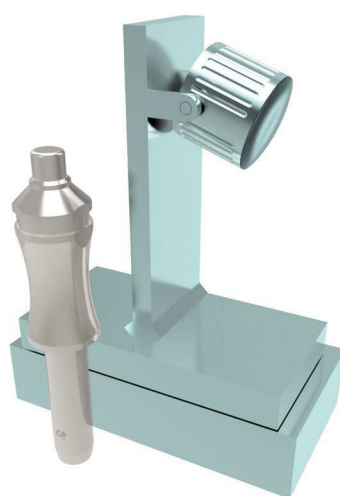
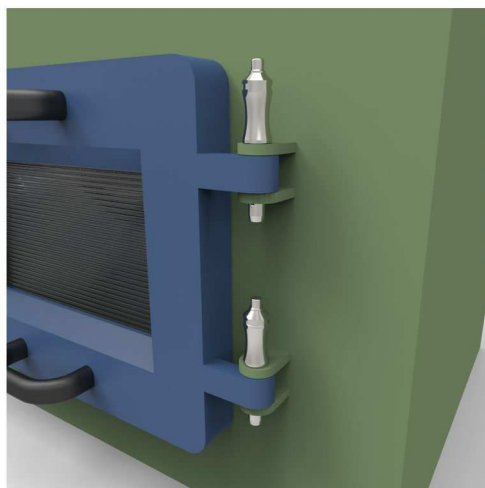


# Ball Lock Pins - Contoured Handle

self-locking - single acting



# 33194



## Material

### Type One-

Pin: stainless steel 1.4305 (AISI 303).

Spring: stainless steel.

### Type Two-

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).

End of shaft marked for material type 1.4542.

Spring: stainless steel.

## Technical Notes

Pressing = unlocking.

Releasing = locking.

Single piece contoured design for limited space applications.

Temperature resistance up to 250°C.

For quick fastening and locking of frequently repeated connections.

For suitable lanyards see part no. 33250.W0970 and .W0974 only.

Easy install locating bushes available see part no. 33248.

## Tips

**Single piece design, no danger of parts coming away from pin - ideal for applications with F.O.B (Foreign Object Body) issues.**

## Important Notes

\*Shearing resistance similar to DIN 50141.

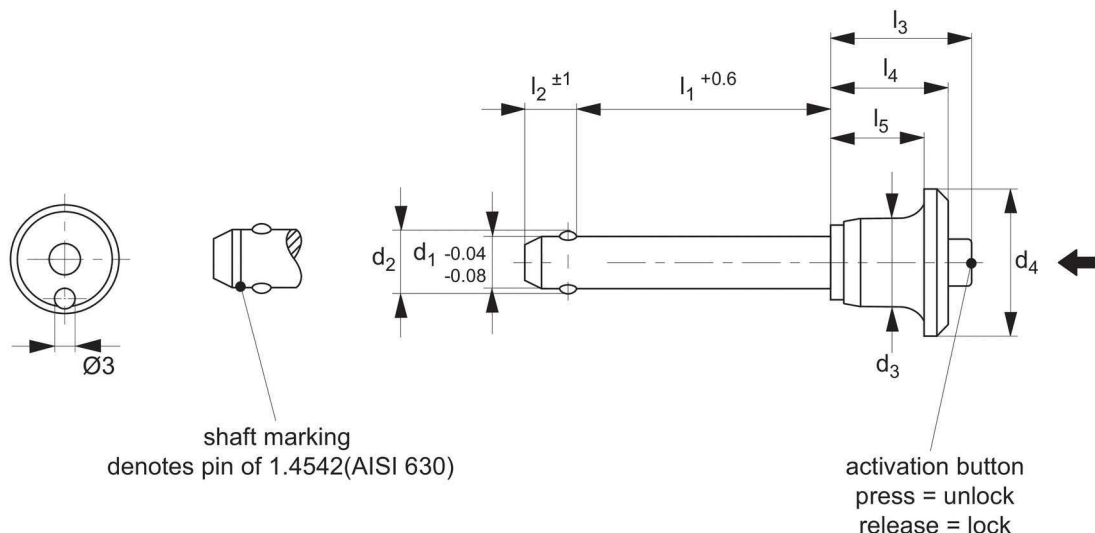


# Ball Lock Pins - Single Acting - Mushroom Handle

self-locking



# 33224



Order No. Type One Stainless 1.4305	Order No. Type Two Stainless 1.4542	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>	l <sub>5</sub>	Location hole H11	Shear ring resistance kN min. 1.4305	Shear resistance kN min. 1.4542	g
33224.W0212	33224.W0512	5	10	5,5	11,3	20	6,0	20,7	17,6	14,6	5	14	24	12
33224.W0213	33224.W0513	5	15	5,5	11,3	20	6,0	20,7	17,6	14,6	5	14	24	12
33224.W0214	33224.W0514	5	20	5,5	11,3	20	6,0	20,7	17,6	14,6	5	14	24	13
33224.W0215	33224.W0515	5	25	5,5	11,3	20	6,0	20,7	17,6	14,6	5	14	24	14
33224.W0216	33224.W0516	5	30	5,5	11,3	20	6,0	20,7	17,6	14,6	5	14	24	15
33224.W0222	33224.W0522	6	10	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	13
33224.W0223	33224.W0523	6	15	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	14
33224.W0224	33224.W0524	6	20	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	15
33224.W0225	33224.W0525	6	25	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	16
33224.W0226	33224.W0526	6	30	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	17
33224.W0227	33224.W0527	6	35	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	18
33224.W0228	33224.W0528	6	40	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	19
33224.W0229	33224.W0529	6	45	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	20
33224.W0230	33224.W0530	6	50	7,0	11,3	20	7,0	20,7	17,6	14,6	6	21	35	21
33224.W0234	33224.W0534	8	20	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	28
33224.W0235	33224.W0535	8	25	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	30
33224.W0236	33224.W0536	8	30	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	32
33224.W0237	33224.W0537	8	35	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	34
33224.W0238	33224.W0538	8	40	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	36
33224.W0239	33224.W0539	8	45	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	38
33224.W0240	33224.W0540	8	50	9,5	14,1	25	8,2	27,3	22,6	18,6	8	38	63	40
33224.W0244	33224.W0544	10	20	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	35
33224.W0245	33224.W0545	10	25	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	38
33224.W0246	33224.W0546	10	30	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	40
33224.W0247	33224.W0547	10	35	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	44
33224.W0248	33224.W0548	10	40	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	47
33224.W0249	33224.W0549	10	45	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	50
33224.W0250	33224.W0550	10	50	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	53
33224.W0252	33224.W0552	10	60	12,0	14,1	25	9,6	27,3	22,6	18,6	10	60	100	59
33224.W0265	33224.W0565	12	25	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	69
33224.W0266	33224.W0566	12	30	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	73
33224.W0267	33224.W0567	12	35	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	78
33224.W0268	33224.W0568	12	40	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	82
33224.W0269	33224.W0569	12	45	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	86
33224.W0270	33224.W0570	12	50	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	90
33224.W0272	33224.W0572	12	60	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	99
33224.W0274	33224.W0574	12	70	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	108
33224.W0276	33224.W0576	12	80	14,5	17,7	35	10,6	33,2	27,3	22,3	12	87	144	116

### Material

**Type One -**  
Pin: Stainless steel 1.4305 (AISI 303).

Ball: stainless steel 1.3541  
Spring: stainless steel.

**Type Two -**  
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.



# Ball Lock Pins - Single Acting - Mushroom Handle

self-locking



# 33224



## Material

### Type One -

Pin: Stainless steel 1.4305 (AISI 303).

Ball: stainless steel 1.3541

Spring: stainless steel.

### Type Two -

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.





**33060  
-33250**

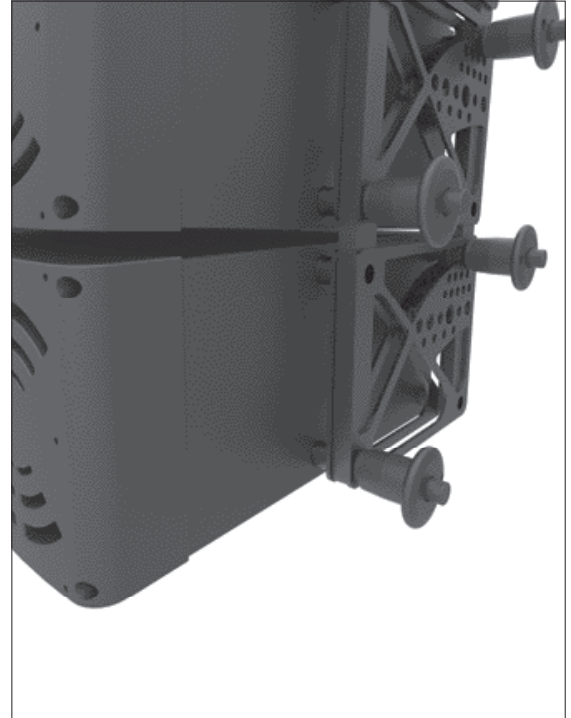
**Wixroyd Ball Lock Pins**  
applications



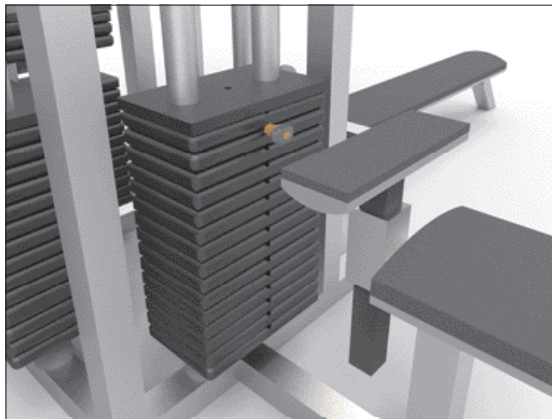
### Sound rigging systems

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

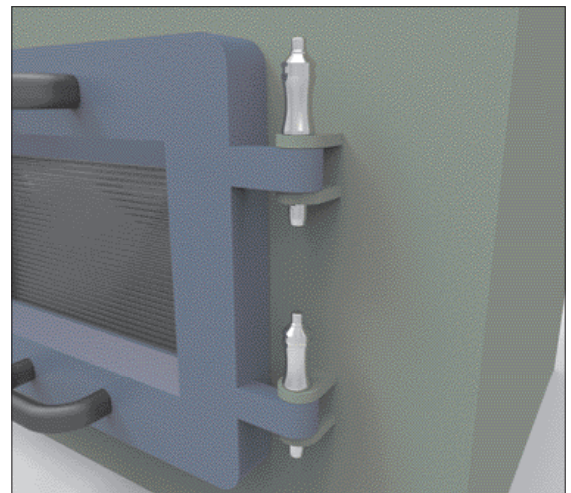
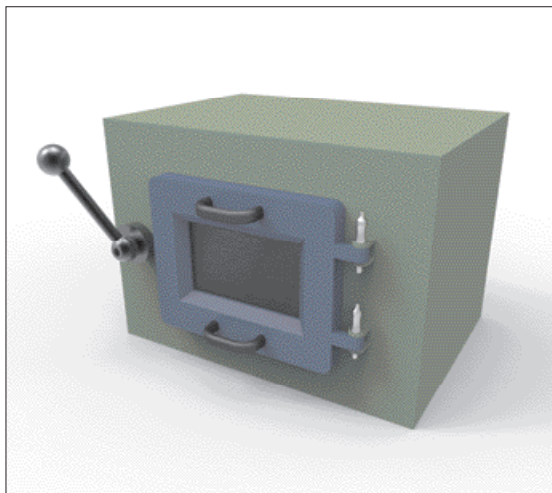
In addition full black powder coating of grip and actuation button eliminates glare from other stage lighting.



### Gym equipment



### Scientific and medical

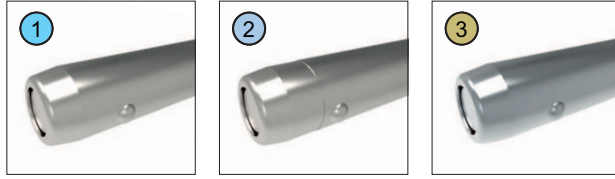


# Wixroyd Ball Lock Pins

features



- ① 1.4305 (AISI 303) - shear force approx. 60% of higher material version 1.4542
- ② 1.4542 (AISI 630) - identified by the ridge on the pin
- ③ 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"

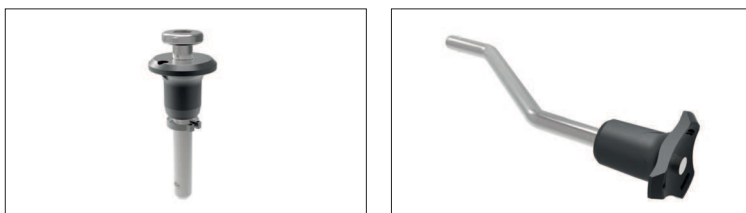
## Actuation

**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



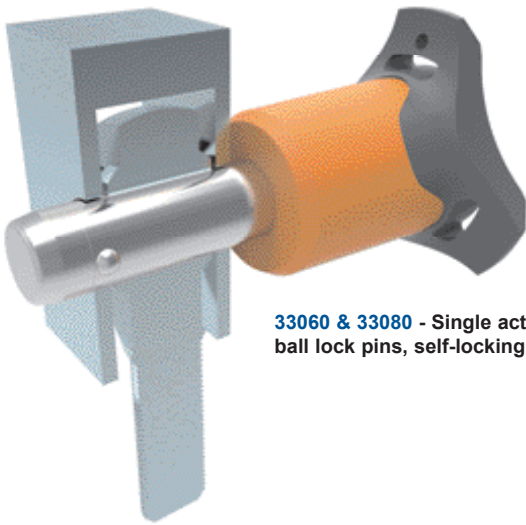
Variations on our standard designs are possible, please contact our sales team for technical assistance. Quick production on specials can be as little as 3 weeks.

## Special variations



## Applications

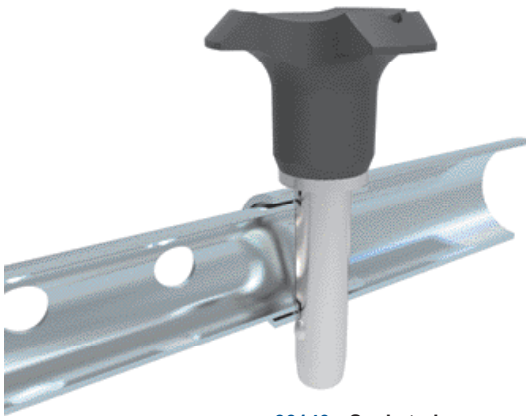
- Positioning.
- Lifting.
- Locking.
- Indexing.
- Joining.



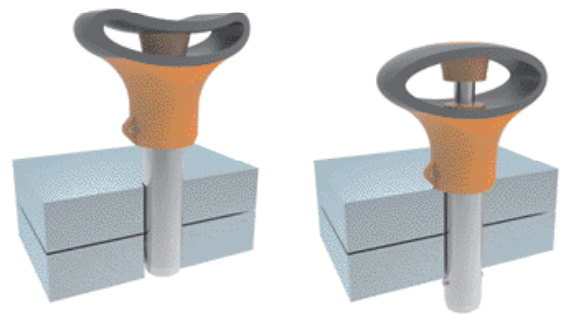
**33060 & 33080** - Single acting ball lock pins, self-locking.



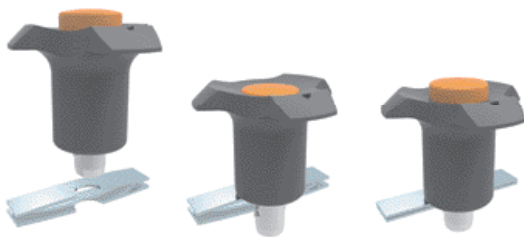
**33194** - Single acting ball lock pins, self locking, simple finish.



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



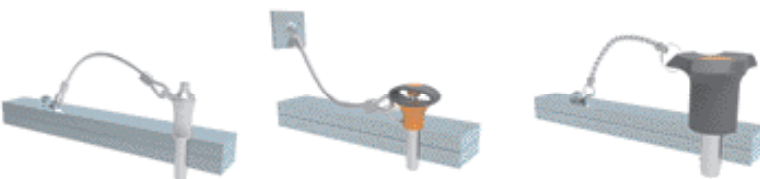
**33100** - Single acting ball lock pin, self locking.



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



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



**33250 & 33270** - Lanyards.