

## Ball Lock Pins • single acting - comply with NAS / MS17986 EH 4212.



### Product Description

Ball Lock Pins according to MS17986 / NAS1333-1343 are used for quick fastening, locking, adjusting, changing and securing. Quickly and easily unlockable for frequently repeated connections.

Ball Lock Pins (Quick Release Pins) are produced according to Aviation Norm MS / NAS and tested to NAS 1332.

Surface treatment:

- All stainless steel parts are passivated according AMS2700
- All aluminium parts alloy anodized according MIL-A-8625

Heat treatment:

- Body: Rc. 40 min. (AMS2759, Condition H900)
- Spindle: Rc. 40 min. (AMS2759, Condition H900)
- Ball: Rc. 58-62 min. (AMS2759)

### Material

#### Body

- Stainless steel, precipitation-hardened, passivated - CRES 17-4PH (specification AMS5643)

#### Spindle

- Stainless steel, precipitation-hardened, passivated - CRES 17-4PH (specification AMS5643)

#### Spring

- Stainless steel, passivated - CRES 302 (specification ASTM-A-313)

#### Handle

- Aluminium, black anodised - Alum.Alloy A380 (specification ASTM B85/B85)

#### Attaching ring

- Stainless steel, passivated - CRES 302 (specification ASTM A-313/A313M)

#### Press button

- Stainless steel, passivated - CRES 303 (specification ASTM A484/484M)

#### Ball

- Stainless steel, precipitation-hardened, passivated - CRES 440C (specification AMS5630)

### Operation

Ball lock pins single acting are self-locking and require a push of the button to release the balls.

### More information

#### Notes

All further dimensions are available on request.

Other diameter / length combinations not listed which comply with the standard can be produced at short notice on customer request. Customized design on request.



- This product is manufactured in INCH dimensions.



Drawing







Order information



Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.	Temperature		Weight [g]	Standard description	Art. No.
				B ±0.005	C 0 max.	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]	[lbf]	[°F]		[g]		
3/16	0.1870	0.1885	0.4	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	18.6	MS17986C304 / NAS1333A5C04D	4212.A04
3/16	0.1870	0.1885	0.5	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	18.9	MS17986C305 / NAS1333A5C05D	4212.A05
3/16	0.1870	0.1885	0.6	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	19.2	MS17986C306 / NAS1333A5C06D	4212.A06
3/16	0.1870	0.1885	0.8	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	19.9	MS17986C308 / NAS1333A5C08D	4212.A08
3/16	0.1870	0.1885	1.0	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	20.6	MS17986C310 / NAS1333A5C10D	4212.A10
3/16	0.1870	0.1885	1.3	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	21.6	MS17986C313 / NAS1333A5C13D	4212.A13
3/16	0.1870	0.1885	1.4	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	22.0	MS17986C314 / NAS1333A5C14D	4212.A14
3/16	0.1870	0.1885	1.6	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	22.6	MS17986C316 / NAS1333A5C16D	4212.A16
3/16	0.1870	0.1885	1.7	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	23.0	MS17986C317 / NAS1333A5C17D	4212.A17
3/16	0.1870	0.1885	1.8	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	23.3	MS17986C318 / NAS1333A5C18D	4212.A18
3/16	0.1870	0.1885	2.0	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	24.0	MS17986C320 / NAS1333A5C20D	4212.A20
3/16	0.1870	0.1885	2.2	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	24.7	MS17986C322 / NAS1333A5C22D	4212.A22
3/16	0.1870	0.1885	2.3	0.220	0.260	0.310	0.500	1.80	1.27	0.76	0.34	0.1940	5,150	-65	200	25.0	MS17986C323 / NAS1333A5C23D	4212.A23
1/4	0.2470	0.2485	0.4	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	20.6	MS17986C404 / NAS1334A5C04D	4212.B04
1/4	0.2470	0.2485	0.5	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	21.2	MS17986C405 / NAS1334A5C05D	4212.B05
1/4	0.2470	0.2485	0.6	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	21.8	MS17986C406 / NAS1334A5C06D	4212.B06
1/4	0.2470	0.2485	0.7	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	22.5	MS17986C407 / NAS1334A5C07D	4212.B07
1/4	0.2470	0.2485	0.8	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	23.1	MS17986C408 / NAS1334A5C08D	4212.B08

Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.				Standard description	Art. No.
				B ±0.005	C 0 -0.04	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]						
1/4	0.2470	0.2485	1.0	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	24.3	MS17986C410 / NAS1334A5C10D	4212.B10
1/4	0.2470	0.2485	1.1	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	24.8	MS17986C411 / NAS1334A5C11D	4212.B11
1/4	0.2470	0.2485	1.2	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	25.6	MS17986C412 / NAS1334A5C12D	4212.B12
1/4	0.2470	0.2485	1.3	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	26.2	MS17986C413 / NAS1334A5C13D	4212.B13
1/4	0.2470	0.2485	1.4	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	26.8	MS17986C414 / NAS1334A5C14D	4212.B14
1/4	0.2470	0.2485	1.5	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	27.4	MS17986C415 / NAS1334A5C15D	4212.B15
1/4	0.2470	0.2485	1.6	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	28.0	MS17986C416 / NAS1334A5C16D	4212.B16
1/4	0.2470	0.2485	1.7	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	28.6	MS17986C417 / NAS1334A5C17D	4212.B17
1/4	0.2470	0.2485	1.8	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	29.2	MS17986C418 / NAS1334A5C18D	4212.B18
1/4	0.2470	0.2485	1.9	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	29.8	MS17986C419 / NAS1334A5C19D	4212.B19
1/4	0.2470	0.2485	2.0	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	30.4	MS17986C420 / NAS1334A5C20D	4212.B20
1/4	0.2470	0.2485	2.1	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	31.1	MS17986C421 / NAS1334A5C21D	4212.B21
1/4	0.2470	0.2485	2.2	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	31.7	MS17986C422 / NAS1334A5C22D	4212.B22
1/4	0.2470	0.2485	2.3	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	32.0	MS17986C423 / NAS1334A5C23D	4212.B23
1/4	0.2470	0.2485	2.4	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	32.9	MS17986C424 / NAS1334A5C24D	4212.B24
1/4	0.2470	0.2485	2.5	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	33.5	MS17986C425 / NAS1334A5C25D	4212.B25
1/4	0.2470	0.2485	2.6	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	34.2	MS17986C426 / NAS1334A5C26D	4212.B26
1/4	0.2470	0.2485	2.8	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	35.4	MS17986C428 / NAS1334A5C28D	4212.B28
1/4	0.2470	0.2485	3.0	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	36.6	MS17986C430 / NAS1334A5C30D	4212.B30
1/4	0.2470	0.2485	3.1	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	37.2	MS17986C431 / NAS1334A5C31D	4212.B31
1/4	0.2470	0.2485	3.4	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	39.0	MS17986C434 / NAS1334A5C34D	4212.B34
1/4	0.2470	0.2485	3.6	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	40.3	MS17986C436 / NAS1334A5C36D	4212.B36
1/4	0.2470	0.2485	4.5	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	45.8	MS17986C445 / NAS1334A5C45D	4212.B45
1/4	0.2470	0.2485	5.2	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	50.1	MS17986C452 / NAS1334A5C52D	4212.B52
1/4	0.2470	0.2485	6.0	0.289	0.290	0.310	0.500	1.80	1.27	0.76	0.34	0.2540	9,200	-65	200	55.0	MS17986C460 / NAS1334A5C60D	4212.B60
5/16	0.3095	0.3110	0.4	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	23.8	MS17986C504 / NAS1335A5C04D	4212.C04
5/16	0.3095	0.3110	0.5	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	24.8	MS17986C505 / NAS1335A5C05D	4212.C05
5/16	0.3095	0.3110	0.6	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	25.7	MS17986C506 / NAS1335A5C06D	4212.C06
5/16	0.3095	0.3110	0.7	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	26.7	MS17986C507 / NAS1335A5C07D	4212.C07
5/16	0.3095	0.3110	0.8	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	27.6	MS17986C508 / NAS1335A5C08D	4212.C08
5/16	0.3095	0.3110	1.0	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	29.5	MS17986C510 / NAS1335A5C10D	4212.C10
5/16	0.3095	0.3110	1.1	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	30.4	MS17986C511 / NAS1335A5C11D	4212.C11

Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.				Standard description	Art. No.
				B ±0.005	C 0 -0.04	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]						
5/16	0.3095	0.3110	1.2	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	31.4	MS17986C512 / NAS1335A5C12D	4212.C12
5/16	0.3095	0.3110	1.3	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	32.3	MS17986C513 / NAS1335A5C13D	4212.C13
5/16	0.3095	0.3110	1.4	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	33.3	MS17986C514 / NAS1335A5C14D	4212.C14
5/16	0.3095	0.3110	1.5	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	34.2	MS17986C515 / NAS1335A5C15D	4212.C15
5/16	0.3095	0.3110	1.6	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	35.2	MS17986C516 / NAS1335A5C16D	4212.C16
5/16	0.3095	0.3110	1.7	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	36.1	MS17986C517 / NAS1335A5C17D	4212.C17
5/16	0.3095	0.3110	1.8	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	37.1	MS17986C518 / NAS1335A5C18D	4212.C18
5/16	0.3095	0.3110	2.0	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	39.0	MS17986C520 / NAS1335A5C20D	4212.C20
5/16	0.3095	0.3110	2.3	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	41.8	MS17986C523 / NAS1335A5C23D	4212.C23
5/16	0.3095	0.3110	2.4	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	42.8	MS17985C524 / NAS1335A5C24D	4212.C24
5/16	0.3095	0.3110	2.5	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	43.7	MS17986C525 / NAS1335A5C25D	4212.C25
5/16	0.3095	0.3110	2.8	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	46.5	MS17986C528 / NAS1335A5C28D	4212.C28
5/16	0.3095	0.3110	2.9	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	47.5	MS17986C529 / NAS1335A5C29D	4212.C29
5/16	0.3095	0.3110	3.0	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	48.4	MS17986C530 / NAS1335A5C30D	4212.C30
5/16	0.3095	0.3110	3.3	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	51.3	MS17986C533 / NAS1335A5C33D	4212.C33
5/16	0.3095	0.3110	3.4	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	52.2	MS17986C534 / NAS1335A5C34D	4212.C34
5/16	0.3095	0.3110	3.6	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	54.1	MS17986C536 / NAS1335A5C36D	4212.C36
5/16	0.3095	0.3110	3.8	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	56.0	MS17986C538 / NAS1335A5C38D	4212.C38
5/16	0.3095	0.3110	4.0	0.375	0.330	0.310	0.500	1.80	1.27	0.76	0.34	0.3165	14,400	-65	200	64.0	MS17986C540 / NAS1335A5C40D	4212.C40
3/8	0.3720	0.3735	0.5	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	38.4	MS17986C605 / NAS1336A5C05D	4212.D05
3/8	0.3720	0.3735	0.8	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	42.5	MS17986C608 / NAS1336A5C08D	4212.D08
3/8	0.3720	0.3735	1.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	45.2	MS17986C610 / NAS1336A5C10D	4212.D10
3/8	0.3720	0.3735	1.1	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	47.0	MS17986C611 / NAS1336A5C11D	4212.D11
3/8	0.3720	0.3735	1.2	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	47.0	MS17986C612 / NAS1336A5C12D	4212.D12
3/8	0.3720	0.3735	1.3	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	49.3	MS17986C613 / NAS1336A5C13D	4212.D13
3/8	0.3720	0.3735	1.4	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	50.7	MS17986C614 / NAS1336A5C14D	4212.D14
3/8	0.3720	0.3735	1.5	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	52.0	MS17986C615 / NAS1336A5C15D	4212.D15
3/8	0.3720	0.3735	1.6	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	53.4	MS17986C616 / NAS1336A5C16D	4212.D16
3/8	0.3720	0.3735	1.4	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	54.8	MS17986C617 / NAS1336A5C17D	4212.D17
3/8	0.3720	0.3735	1.8	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	56.1	MS17986C618 / NAS1336A5C18D	4212.D18
3/8	0.3720	0.3735	2.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	58.8	MS17986C620 / NAS1336A5C20D	4212.D20
3/8	0.3720	0.3735	2.2	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	61.6	MS17986C622 / NAS1336A5C22D	4212.D22

Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.				Standard description	Art. No.
				B ±0.005	C 0 -0.04	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]	[lb]	[°F]		[g]		
3/8	0.3720	0.3735	2.4	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	64.3	MS17986C624 / NAS1336A5C24D	4212.D24
3/8	0.3720	0.3735	2.5	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	65.6	MS17986C624 / NAS1336A5C25D	4212.D25
3/8	0.3720	0.3735	2.6	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	67.0	MS17986C626 / NAS1336A5C26D	4212.D26
3/8	0.3720	0.3735	2.8	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	69.7	MS17986C628 / NAS1336A5C28D	4212.D28
3/8	0.3720	0.3735	3.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	72.4	MS17986C630 / NAS1336A5C30D	4212.D30
3/8	0.3720	0.3735	3.2	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	75.2	MS17986C632 / NAS1336A5C32D	4212.D32
3/8	0.3720	0.3735	4.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	86.0	MS17986C640 / NAS1336A5C40D	4212.D40
3/8	0.3720	0.3735	4.3	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	90.1	MS17986C643 / NAS1336A5C43D	4212.D43
3/8	0.3720	0.3735	4.5	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	92.8	MS17986C645 / NAS1336A5C45D	4212.D45
3/8	0.3720	0.3735	4.8	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	96.9	MS17986C648 / NAS1336A5C48D	4212.D48
3/8	0.3720	0.3735	5.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	99.6	MS17986C650 / NAS1336A5C50D	4212.D50
3/8	0.3720	0.3735	6.0	0.440	0.365	0.390	0.625	2.03	1.45	0.85	0.39	0.3790	20,700	-65	200	113.0	MS17986C660 / NAS1336A5C60D	4212.D60
7/16	0.4345	0.4360	1.0	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	52.1	MS17986C710 / NAS1337A5C10D	4212.E10
7/16	0.4345	0.4360	1.2	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	55.8	MS17986C712 / NAS1337A5C12D	4212.E12
7/16	0.4345	0.4360	1.3	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	57.7	MS17986C713 / NAS1337A5C13D	4212.E13
7/16	0.4345	0.4360	1.4	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	59.6	MS17986C714 / NAS1337A5C14D	4212.E14
7/16	0.4345	0.4360	1.5	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	61.4	MS17986C715 / NAS1337A5C15D	4212.E15
7/16	0.4345	0.4360	1.6	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	63.3	MS17986C716 / NAS1337A5C16D	4212.E16
7/16	0.4345	0.4360	2.0	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	70.7	MS17986C720 / NAS1337A5C20D	4212.E20
7/16	0.4345	0.4360	2.1	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	72.5	MS17986C721 / NAS1337A5C21D	4212.E21
7/16	0.4345	0.4360	2.5	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	80.0	MS17986C725 / NAS1337A5C25D	4212.E25
7/16	0.4345	0.4360	2.6	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	81.8	MS17986C726 / NAS1337A5C26D	4212.E26
7/16	0.4345	0.4360	2.8	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	85.6	MS17986C728 / NAS1337A5C28D	4212.E28
7/16	0.4345	0.4360	3.0	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	89.2	MS17986C730 / NAS1337A5C30D	4212.E30
7/16	0.4345	0.4360	3.2	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	93.0	MS17986C732 / NAS1337A5C32D	4212.E32
7/16	0.4345	0.4360	3.5	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	98.5	MS17986C735 / NAS1337A5C35D	4212.E35
7/16	0.4345	0.4360	4.0	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	108.0	MS17986C740 / NAS1337A5C40D	4212.E40
7/16	0.4345	0.4360	4.2	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	112.0	MS17986C742 / NAS1337A5C42D	4212.E42
7/16	0.4345	0.4360	5.5	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	136.0	MS17986C755 / NAS1337A5C55D	4212.E55
7/16	0.4345	0.4360	5.6	0.509	0.380	0.390	0.625	2.03	1.47	0.85	0.39	0.4425	28,500	-65	200	138.0	MS17986C756 / NAS1337A5C56D	4212.E56
1/2	0.4970	0.4985	0.7	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	67.8	MS17986C807 / NAS1338A5C07D	4212.F07
1/2	0.4970	0.4985	1.0	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	75.1	MS17986C810 / NAS1338A5C10D	4212.F10

Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.				Standard description	Art. No.
				B ±0.005	C 0 -0.04	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]	[lbf]	[°F]		[g]		
1/2	0.4970	0.4985	1.2	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	80.0	MS17986C812 / NAS1338A5C12D	4212.F12
1/2	0.4970	0.4985	1.4	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	84.9	MS17986C814 / NAS1338A5C14D	4212.F14
1/2	0.4970	0.4985	1.5	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	87.2	MS17986C815 / NAS1338A5C15D	4212.F15
1/2	0.4970	0.4985	1.6	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	89.7	MS17986C816 / NAS1338A5C16D	4212.F16
1/2	0.4970	0.4985	1.7	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	92.2	MS17986C817 / NAS1338A5C17D	4212.F17
1/2	0.4970	0.4985	1.8	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	94.6	MS17986C818 / NAS1338A5C18D	4212.F18
1/2	0.4970	0.4985	1.9	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	97.0	MS17986C819 / NAS1338A5C19D	4212.F19
1/2	0.4970	0.4985	2.0	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	99.5	MS17986C820 / NAS1338A5C20D	4212.F20
1/2	0.4970	0.4985	2.1	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	102.0	MS17986C821 / NAS1338A5C21D	4212.F21
1/2	0.4970	0.4985	2.2	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	104.0	MS17986C822 / NAS1338A5C22D	4212.F22
1/2	0.4970	0.4985	2.3	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	107.0	MS17986C823 / NAS1338A5C23D	4212.F23
1/2	0.4970	0.4985	2.4	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	109.0	MS17986C824 / NAS1338A5C24D	4212.F24
1/2	0.4970	0.4985	2.5	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	112.0	MS17986C825 / NAS1338A5C25D	4212.F25
1/2	0.4970	0.4985	2.6	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	114.0	MS17986C826 / NAS1338A5C26D	4212.F26
1/2	0.4970	0.4985	2.8	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	119.0	MS17986C828 / NAS1338A5C28D	4212.F28
1/2	0.4970	0.4985	2.9	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	121.0	MS17986C829 / NAS1338A5C29D	4212.F29
1/2	0.4970	0.4985	3.0	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	124.0	MS17986C830 / NAS1338A5C30D	4212.F30
1/2	0.4970	0.4985	3.1	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	126.0	MS17986C831 / NAS1338A5C31D	4212.F31
1/2	0.4970	0.4985	3.4	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	134.0	MS17986C834 / NAS1338A5C34D	4212.F34
1/2	0.4970	0.4985	3.5	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	136.0	MS17986C835 / NAS1338A5C35D	4212.F35
1/2	0.4970	0.4985	3.6	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	138.0	MS17986C836 / NAS1338A5C36D	4212.F36
1/2	0.4970	0.4985	3.7	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	141.0	MS17986C837 / NAS1338A5C37D	4212.F37
1/2	0.4970	0.4985	4.0	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	148.0	MS17986C840 / NAS1338A5C40D	4212.F40
1/2	0.4970	0.4985	4.1	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	151.0	MS17986C841 / NAS1338A5C41D	4212.F41
1/2	0.4970	0.4985	4.2	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	153.0	MS17986C842 / NAS1338A5C42D	4212.F42
1/2	0.4970	0.4985	4.3	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	156.0	MS17986C843 / NAS1338A5C43D	4212.F43
1/2	0.4970	0.4985	4.5	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	160.0	MS17986C845 / NAS1338A5C45D	4212.F45
1/2	0.4970	0.4985	4.8	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	168.0	MS17986C848 / NAS1338A5C48D	4212.F48
1/2	0.4970	0.4985	5.3	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	180.0	MS17986C853 / NAS1338A5C53D	4212.F53
1/2	0.4970	0.4985	5.5	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	185.0	MS17986C855 / NAS1338A5C55D	4212.F55
1/2	0.4970	0.4985	5.6	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	187.0	MS17986C856 / NAS1338A5C56D	4212.F56
1/2	0.4970	0.4985	6.0	0.594	0.460	0.565	0.800	2.36	1.60	0.85	0.50	0.5050	36,900	-65	200	197.0	MS17986C860 / NAS1338A5C60D	4212.F60

Nominal diameter A	A min.	A max.	Clamping length L +0.02 0	Dimensions								Location hole max.	Shearing resistance, two-shear min.				Standard description	Art. No.
				B ±0.005	C 0 -0.04	D max.	E max.	F max.	G max.	H min.	K max.			min.	max.			
[in]	[in]	[in]	[in]	[in]								[in]						
9/16	0.5595	0.5610	1.6	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	104.0	MS17986C916 / NAS1339A5C16D	4212.G16
9/16	0.5595	0.5610	1.7	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	107.0	MS17986C917 / NAS1339A5C17D	4212.G17
9/16	0.5595	0.5610	2.0	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	117.0	MS17986C920 / NAS1339A5C20D	4212.G20
9/16	0.5595	0.5610	2.5	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	132.0	MS17986C925 / NAS1339A5C25D	4212.G25
9/16	0.5595	0.5610	3.6	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	166.0	MS17986C936 / NAS1339A5C36D	4212.G36
9/16	0.5595	0.5610	4.0	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	179.0	MS17986C940 / NAS1339A5C40D	4212.G40
9/16	0.5595	0.5610	5.0	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	210.0	MS17986C950 / NAS1339A5C50D	4212.G50
9/16	0.5595	0.5610	5.5	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	226.0	MS17986C955 / NAS1339A5C55D	4212.G55
9/16	0.5595	0.5610	6.0	0.666	0.510	0.565	0.800	2.36	1.60	0.85	0.50	0.5675	46,700	-65	200	241.0	MS17986C960 / NAS1339A5C60D	4212.G60
5/8	0.6220	0.6235	0.9	0.750	0.580	0.580	0.970	3.07	1.70	0.97	0.60	0.6300	57,800	-65	200	127.0	MS17986C1009 / NAS1340A5C09D	4212.H09
5/8	0.6220	0.6235	1.4	0.750	0.580	0.580	0.970	3.07	1.70	0.97	0.60	0.6300	57,800	-65	200	147.0	MS17986C10114 / NAS1340A5C14D	4212.H14
5/8	0.6220	0.6235	2.0	0.750	0.580	0.580	0.970	3.07	1.70	0.97	0.60	0.6300	57,800	-65	200	170.0	MS17986C1020 / NAS1340A5C20D	4212.H20
5/8	0.6220	0.6235	4.0	0.750	0.580	0.580	0.970	3.07	1.70	0.97	0.60	0.6300	57,800	-65	200	247.0	MS17986C1040 / NAS1340A5C40D	4212.H40
3/4	0.7470	0.7485	0.9	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	159.0	MS17986C1209 / NAS1341A5C09D	4212.K09
3/4	0.7470	0.7485	1.2	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	175.0	MS17986C1212 / NAS1341A5C12D	4212.K12
3/4	0.7470	0.7485	2.4	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	242.0	MS17986C1224 / NAS1341A5C24D	4212.K24
3/4	0.7470	0.7485	3.2	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	286.0	MS17986C1232 / NAS1341A5C32D	4212.K32
3/4	0.7470	0.7485	3.5	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	303.0	MS17986C1235 / NAS1341A5C35D	4212.K35
3/4	0.7470	0.7485	3.6	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	309.0	MS17986C1236 / NAS1341A5C36D	4212.K36
3/4	0.7470	0.7485	4.0	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	331.0	MS17986C1240 / NAS1341A5C40D	4212.K40
3/4	0.7470	0.7485	5.1	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	392.0	MS17986C1251 / NAS1341A5C51D	4212.K51
3/4	0.7470	0.7485	5.5	0.887	0.670	0.700	1.000	3.07	1.72	0.98	0.60	0.7570	83,200	-65	200	414.0	MS17986C1255 / NAS1341A5C55D	4212.K55
7/8	0.8720	0.8735	3.1	1.046	0.760	0.840	1.320	3.70	2.17	1.20	0.80	0.8820	112,500	-65	200	409.0	MS17986C1431 / NAS1342A5C31D	4212.L31
7/8	0.8720	0.8735	4.0	1.046	0.760	0.840	1.320	3.70	2.17	1.20	0.80	0.8820	112,500	-65	200	509.0	MS17986C1440 / NAS1342A5C40D	4212.L40
1	0.9970	0.9985	2.4	1.219	0.890	0.840	1.320	3.70	2.17	1.20	0.80	1.0100	147,200	-65	200	475.0	MS17986C1624 / NAS1343A5C24D	4212.M24
1	0.9970	0.9985	4.0	1.219	0.890	0.840	1.320	3.70	2.17	1.20	0.80	1.0100	147,200	-65	200	631.0	MS17986C1640 / NAS1343A5C40D	4212.M40
1	0.9970	0.9985	4.2	1.219	0.890	0.840	1.320	3.70	2.17	1.20	0.80	1.0100	147,200	-65	200	653.0	MS17986C1642 / NAS1343A5C42D	4212.M42
1	0.9970	0.9985	6.0	1.219	0.890	0.840	1.320	3.70	2.17	1.20	0.80	1.0100	147,200	-65	200	832.0	MS17986C1660 / NAS1343A5C60D	4212.M60

## Compliance

### RoHS compliant

Compliant according to Directive 2011/65/EU and Directive 2015/863.

### Does not contain SVHC substances

No SVHC substances with more than 0.1% w/w contained - SVHC list [REACH] as of 27.06.2024.

### Does not contain Proposition 65 substances

No Proposition 65 substances included.

<https://www.P65Warnings.ca.gov/>

### Free from Conflict Minerals

This product does not contain any substances designated as "conflict minerals" such as tantalum, tin, gold or tungsten from the Democratic Republic of Congo or adjacent countries.