

36220

LOCATING PINS

Material

Tool steel, hardened, ground. Bearing surface without centre.

Technical Notes

Produced to DIN 6321.

Cylindrical locating pins serve to locate workpieces and fixture elements into tole-

ranced holes. The flattened locating pin can be used to overcome differences in tolerances, between holes or to position an element in one direction only.

Standard seating pins 36220.W0011 to .W0014 only, have tolerance h9 on dimension l_1 , and can act as bearing

surfaces for tools and jigs.

Tips

Suggested hole tolerance for shaft d_2 , is a hole to H7.

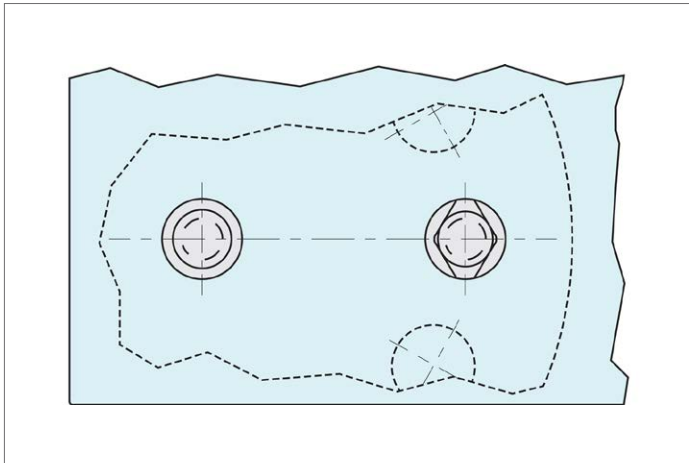
For standard type length tolerance is h_{-9} , for all other types length tolerance is $\pm 0,1$.

Order No.	Size	Type	d_1 tol. g6	l_1	d_2 tol. n6	l_2	l_3	w_1	Weight g
36220.W0011	Short	Standard seating pin	6	5	6	6	-	-	2
36220.W0012	Short	Standard seating pin	10	6	6	9	-	-	6
36220.W0013	Short	Standard seating pin	16	8	8	12	-	-	17
36220.W0014	Short	Standard seating pin	25	10	12	18	-	-	50
36220.W0020	Short	Cylindrical locating pin	6	7	4	6	4	-	2
36220.W0021	Long	Cylindrical locating pin	6	12	4	6	6	-	3
36220.W0022	Short	Cylindrical locating pin	8	10	6	9	6	-	5
36220.W0023	Long	Cylindrical locating pin	8	16	6	9	6	-	8
36220.W0024	Short	Cylindrical locating pin	10	10	6	9	8	-	7
36220.W0025	Long	Cylindrical locating pin	10	18	6	9	9	-	12
36220.W0026	Short	Cylindrical locating pin	12	10	6	9	9	-	10
36220.W0027	Long	Cylindrical locating pin	12	18	6	9	4	-	17
36220.W0028	Short	Cylindrical locating pin	16	13	8	12	4	-	23
36220.W0029	Long	Cylindrical locating pin	16	22	8	12	6	-	36
36220.W0030	Short	Cylindrical locating pin	20	15	12	18	6	-	47
36220.W0031	Long	Cylindrical locating pin	20	25	12	18	6	-	72
36220.W0032	Short	Cylindrical locating pin	25	15	12	18	6	-	66
36220.W0033	Long	Cylindrical locating pin	25	25	12	18	6	-	106
36220.W0040	Short	Diamond locating pin	6	7	4	6	6	1.0	2
36220.W0041	Long	Diamond locating pin	6	12	4	6	8	1.0	2
36220.W0042	Short	Diamond locating pin	8	10	6	9	8	1.6	5
36220.W0043	Long	Diamond locating pin	8	16	6	9	9	1.6	6
36220.W0044	Short	Diamond locating pin	10	10	6	9	9	2.5	6
36220.W0045	Long	Diamond locating pin	10	18	6	9	9	2.5	9
36220.W0046	Short	Diamond locating pin	12	10	6	9	9	2.5	7
36220.W0047	Long	Diamond locating pin	12	18	6	9	4	2.5	11
36220.W0048	Short	Diamond locating pin	16	13	8	12	6	3.5	17
36220.W0049	Long	Diamond locating pin	16	22	8	12	6	3.5	26
36220.W0050	Short	Diamond locating pin	20	15	12	18	6	5.0	39
36220.W0051	Long	Diamond locating pin	20	25	12	18	8	5.0	55



Order No.	Size	Type	d_1 tol. g6	l_1	d_2 tol. n6	l_2	l_3	w_1	Weight g
36220.W0052	Short	Diamond locating pin	25	15	12	18	9	5.0	49
36220.W0053	Long	Diamond locating pin	25	25	12	18	9	5.0	72

LOCATING PINS



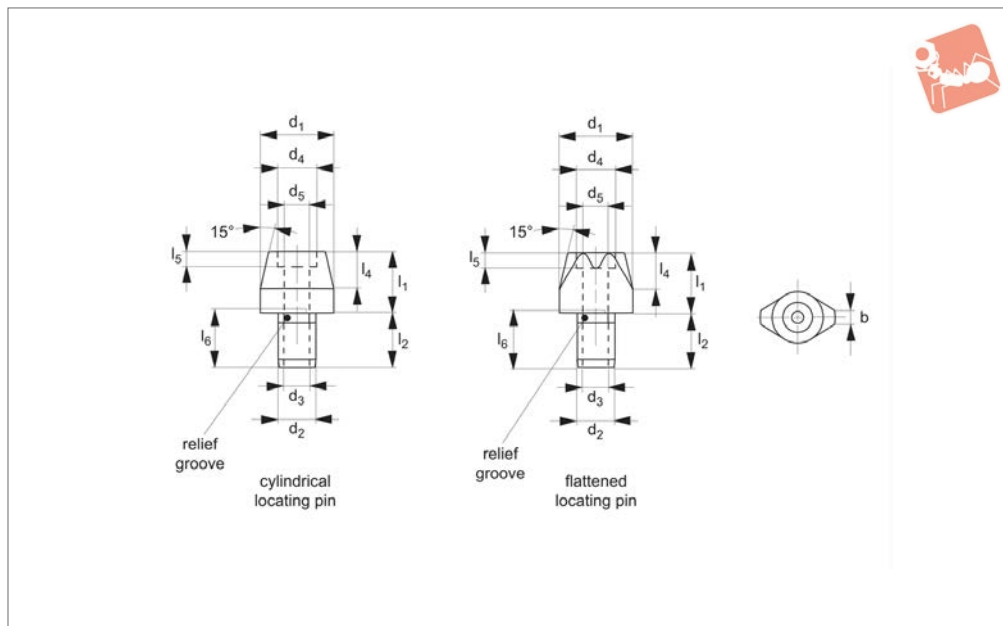


Locating Pins

with bore holes - similar to DIN 6321



Locating Pins



36240

LOCATING PINS

Material

Case hardened steel, blackened and ground.

Technical Notes

Cylindrical locating pins for locating work pieces in toleranced holes and also to be used as stops and feet. Flattened locating

pins used to overcome differences in tolerances, between holes or to position an element in one direction only.

Outer dimensions similar to DIN 63210.

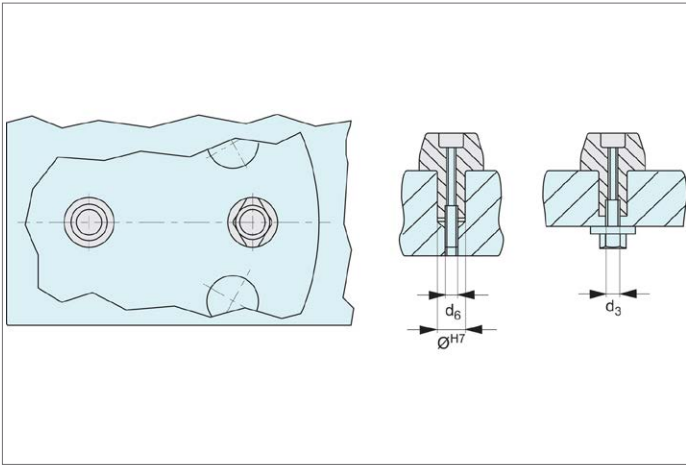
For additional safety these parts can be secured to the jig from above, see dimension d_6 for cap screw size, or from below,

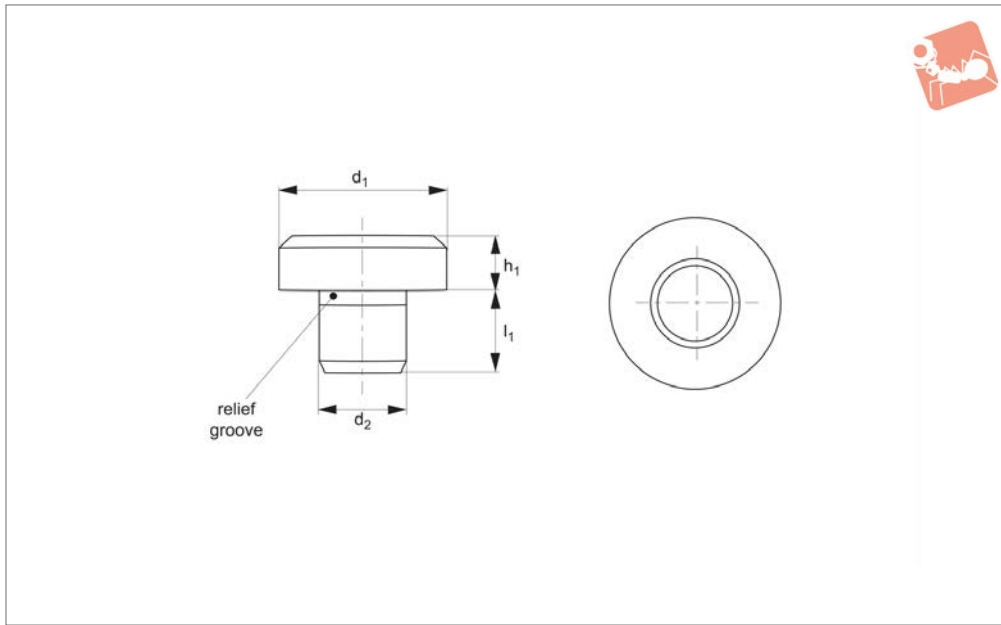
see dimension d_3 for thread size.

*** size $d_1 = 6$, can only be fixed from above.**

Suggested hole tolerance for shaft d_2 , is a hole to H7.

Order No.	Type	b	d_1 tol. g6	l_1	d_2 tol. k6	l_2	d_3	d_4	l_4	d_5	l_5	d_6	l_6	Weight g
36240.W0220	Cylindrical	-	6*	7	4	6	-	-	4	2.1	-	M2,0	-	1.2
36240.W0221	Cylindrical	-	6*	12	4	6	-	-	4	2.1	-	M2,0	-	2.0
36240.W0222	Cylindrical	-	8	10	6	9	M 3	-	6	2.6	-	M2,5	10	3.9
36240.W0223	Cylindrical	-	8	16	6	9	M 3	-	6	2.6	-	M2,5	10	6.6
36240.W0224	Cylindrical	-	10	10	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	5.9
36240.W0225	Cylindrical	-	10	18	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	8.5
36240.W0226	Cylindrical	-	12	10	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	8.4
36240.W0227	Cylindrical	-	12	18	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	10.5
36240.W0228	Cylindrical	-	16	13	8	12	M 4	6.5	8	3.3	3.1	M3,0	13	19.5
36240.W0229	Cylindrical	-	16	22	8	12	M 4	6.5	8	3.3	3.1	M3,0	13	27.7
36240.W0230	Cylindrical	-	20	15	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	39.5
36240.W0231	Cylindrical	-	20	25	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	53.5
36240.W0232	Cylindrical	-	25	15	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	57.5
36240.W0233	Cylindrical	-	25	25	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	87.5
36240.W0240	Flattened	1.0	6*	7	4	6	-	-	4	2.1	-	M2,0	-	0.7
36240.W0241	Flattened	1.0	6*	12	4	6	-	-	4	2.1	-	M2,0	-	0.9
36240.W0242	Flattened	1.6	8	10	6	9	M 3	-	6	2.6	-	M2,5	10	2.9
36240.W0243	Flattened	1.6	8	16	6	9	M 3	-	6	2.6	-	M2,5	10	4.1
36240.W0244	Flattened	2.5	10	10	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	4.5
36240.W0245	Flattened	2.5	10	18	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	7.4
36240.W0246	Flattened	2.5	12	10	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	5.9
36240.W0247	Flattened	2.5	12	18	6	9	M 3	5.0	6	2.6	2.6	M2,5	10	9.8
36240.W0248	Flattened	3.5	16	13	8	12	M 4	6.5	8	3.3	3.1	M3,0	13	14.5
36240.W0249	Flattened	3.5	16	22	8	12	M 4	6.5	8	3.3	3.1	M3,0	13	22.2
36240.W0250	Flattened	5.0	20	15	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	30.3
36240.W0251	Flattened	5.0	20	25	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	43.9
36240.W0252	Flattened	5.0	25	15	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	40.6
36240.W0253	Flattened	5.0	25	25	12	18	M 6	10.0	9	5.2	5.1	M5,0	19	61.7





36300

LOCATING PINS

Material

Tool steel (DIN 6321), hardened and ground.

Seating pins serve as bearing surfaces for tools and jigs.

Suggested hole tolerance for shaft d_2 is a hole to N6.

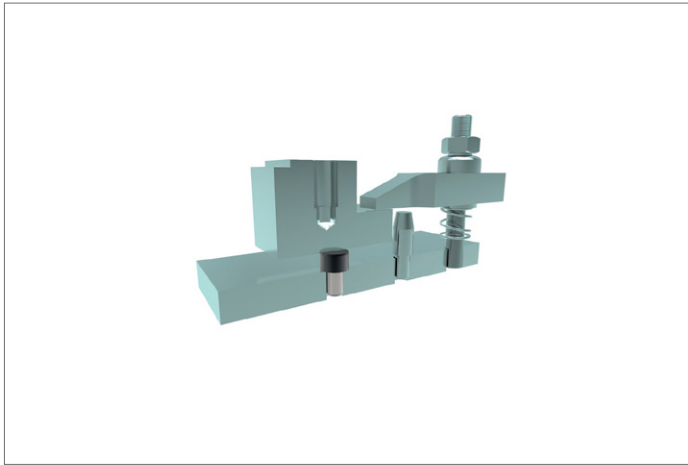
Technical Notes

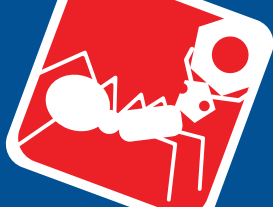
Bearing surface without centering.

Order No.	Type	d_1	l_1	d_2 tol. N6	h_1 tol. H9	Location hole = d_2 to tol. H7	Weight g
36300.W0001	DIN 6321 Standard	6	6.0	4	5.0	4	1.8
36300.W0002	DIN 6321 Standard	10	8.0	6	8.0	6	6.5
36300.W0003	DIN 6321 Standard	16	10.0	8	5.0	8	11
36300.W0004	DIN 6321 Standard	16	10.0	8	13.0	8	24
36300.W0005	DIN 6321 Standard	25	14.0	12	8.0	12	41
36300.W0006	DIN 6321 Standard	25	14.0	12	20.0	12	88
36300.W0007	DIN 6321 Standard	40	20.0	20	13.0	20	171
36300.W0008	DIN 6321 Standard	40	20.0	20	32.0	20	358
36300.W0110	Intermediate Sizes	6	6.5	4	2.5	4	1.2
36300.W0112	Intermediate Sizes	6	8.5	4	4.5	4	1.9
36300.W0116	Intermediate Sizes	8	8.0	5	4.0	5	3.1
36300.W0118	Intermediate Sizes	8	8.0	5	7.0	5	4.2
36300.W0120	Intermediate Sizes	10	8.5	6	4.5	6	4.4
36300.W0124	Intermediate Sizes	12	10.0	6	6.0	6	7.6
36300.W0126	Intermediate Sizes	12	10.0	6	10.0	6	11
36300.W0130	Intermediate Sizes	20	12.0	10	6.0	10	21
36300.W0132	Intermediate Sizes	20	12.0	10	12.0	10	36
36300.W0135	Intermediate Sizes	25	14.0	12	30.0	12	125
36300.W0137	Intermediate Sizes	30	20.0	16	25.0	16	164
36300.W0140	Intermediate Sizes	30	20.0	16	40.0	16	248
36300.W0144	Intermediate Sizes	30	20.0	16	50.0	16	305
36300.W0148	Intermediate Sizes	30	20.0	16	65.0	16	385
36300.W0152	Intermediate Sizes	30	20.0	20	80.0	20	485
36300.W0156	Intermediate Sizes	30	20.0	20	100.0	20	594



LOCATING PINS

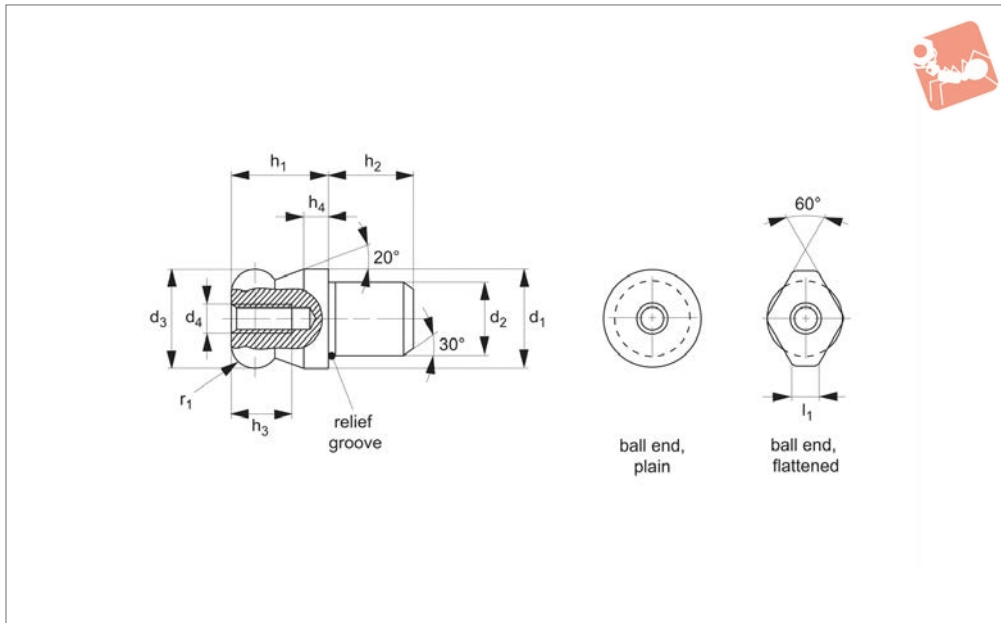




Location Pins ball end



Locating Pins



36340

LOCATING PINS

Material

Steel type:

Tool steel, hardened, blackened and ground.

Stainless steel type:

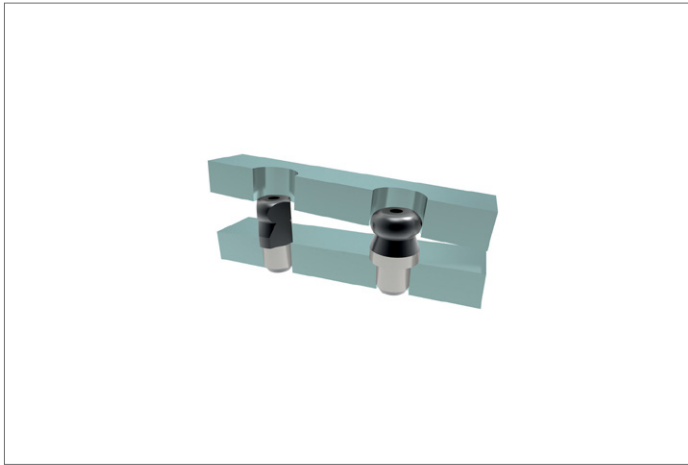
Stainless steel (AISI 303, 1.4305), ground, surface heat-treated.

Technical Notes

Ball ended straight pins facilitate inserting

workpieces and avoid clamping inclination. Suggested installation is a hole = d_2 H7 tolerance.

Order No.	Type	Material	d_1 tol. g6	l_1	d_2 tol. n6	d_3 -0.01 -0.05	d_4	h_1	h_2	h_3	h_4	r_1	Weight g
36340.W0310	Plain	Steel	10	-	7	10	M 3	10	7	6	2.5	2.5	7
36340.W0312	Plain	Steel	12	-	8	12	M 4	12	8	8	3.0	3.0	11
36340.W0316	Plain	Steel	16	-	12	16	M 5	16	12	10	4.0	4.0	30
36340.W0320	Plain	Steel	20	-	14	20	M 5	20	14	10	5.0	5.0	57
36340.W0322	Plain	Steel	22	-	16	22	M 5	22	16	10	5.5	5.5	79
36340.W0325	Plain	Steel	25	-	18	25	M 5	25	18	10	6.0	6.0	116
36340.W0410	Flattened	Steel	10	2.5	7	10	M 3	10	7	6	2.5	2.5	5
36340.W0412	Flattened	Steel	12	2.5	8	12	M 4	12	8	8	3.0	3.0	8
36340.W0416	Flattened	Steel	16	4.3	12	16	M 5	16	12	10	4.0	4.0	23
36340.W0420	Flattened	Steel	20	5.0	14	20	M 5	20	14	10	5.0	5.0	45
36340.W0422	Flattened	Steel	22	5.0	16	22	M 5	22	16	10	5.5	5.5	62
36340.W0425	Flattened	Steel	25	5.6	18	25	M 5	25	18	10	6.0	6.0	91
36340.W0350	Plain	Stainless	10	-	7	10	M 3	10	7	6	2.5	2.5	7
36340.W0352	Plain	Stainless	12	-	8	12	M 4	12	8	8	3.0	3.0	11
36340.W0356	Plain	Stainless	16	-	12	16	M 5	16	12	10	4.0	4.0	30
36340.W0360	Plain	Stainless	20	-	14	20	M 5	20	14	10	5.0	5.0	57
36340.W0450	Flattened	Stainless	10	2.5	7	10	M 3	10	7	6	2.5	2.5	5
36340.W0452	Flattened	Stainless	12	2.5	8	12	M 4	12	8	8	3.0	3.0	8
36340.W0456	Flattened	Stainless	16	4.3	12	16	M 5	16	12	10	4.0	4.0	23
36340.W0460	Flattened	Stainless	20	5.0	14	20	M 5	20	14	10	5.0	5.0	45

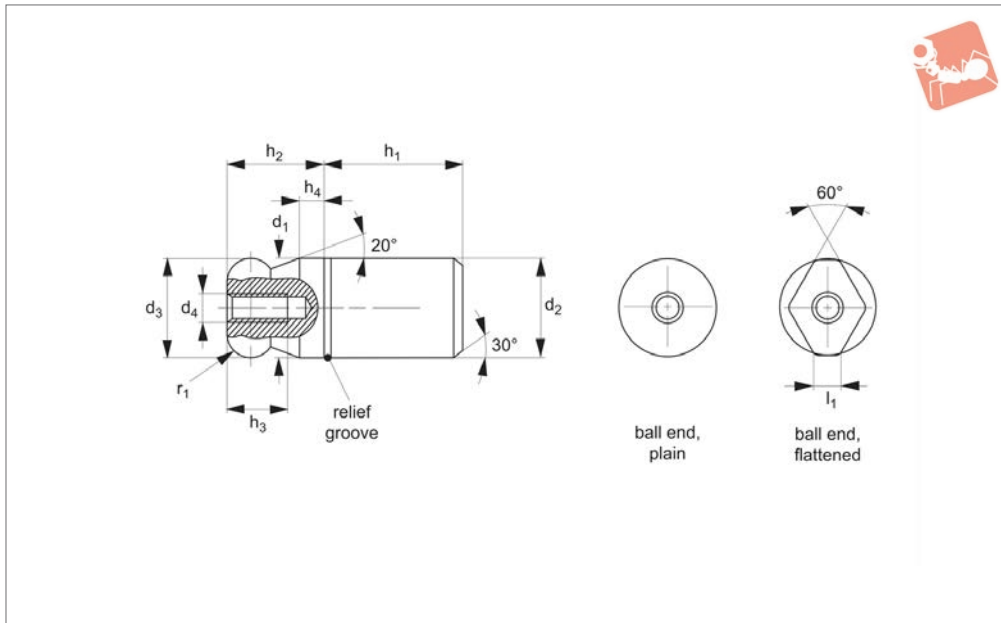




Location Pins - Non-Stepped ball end



Locating Pins



36341

LOCATING PINS

Material

Steel type:

Tool steel, hardened, ground, blackened.

Stainless steel type:

Stainless steel 1.4305 (AISI 303), ground, surface heat-treated.

Technical Notes

Ball ended straight pins facilitate inserting workpieces and avoid clamping inclination. Suggested installation is a hole = d_2 H7

Order No.	Type	Material	d_1 tol. g6	l_1	d_2 tol. n6	d_3 -0.01 -0.05	d_4	h_1	h_2	h_3	h_4	r_1	Weight g
36341.W0508	Plain	Steel	8	-	8	8	M 3	10	8	6	2.0	2.0	6
36341.W0510	Plain	Steel	10	-	10	10	M 3	13	10	6	2.5	2.5	12
36341.W0512	Plain	Steel	12	-	12	12	M 4	15	12	8	3.0	3.0	21
36341.W0516	Plain	Steel	16	-	16	16	M 5	20	16	10	4.0	4.0	51
36341.W0520	Plain	Steel	20	-	20	20	M 5	25	20	10	5.0	5.0	101
36341.W0525	Plain	Steel	25	-	25	25	M 5	25	25	10	6.0	6.0	176
36341.W0530	Plain	Steel	30	-	30	30	M 6	30	30	12	8.0	8.0	307
36341.W0540	Plain	Steel	40	-	40	40	M 6	40	40	12	10.0	10.0	729
36341.W0550	Plain	Steel	50	-	50	50	M 6	50	50	12	12.0	12.0	1422
36341.W0608	Flattened	Steel	8	1.9	8	8	M 3	10	8	6	2.0	2.0	5
36341.W0610	Flattened	Steel	10	2.5	10	10	M 3	13	10	6	2.5	2.5	11
36341.W0612	Flattened	Steel	12	2.5	12	12	M 4	15	12	8	3.0	3.0	17
36341.W0616	Flattened	Steel	16	4.3	16	16	M 5	20	16	10	4.0	4.0	44
36341.W0620	Flattened	Steel	20	5.0	20	20	M 5	25	20	10	5.0	5.0	88
36341.W0625	Flattened	Steel	25	5.6	25	25	M 5	25	25	10	6.0	6.0	149
36341.W0630	Flattened	Steel	30	8.8	30	30	M 6	30	30	12	8.0	8.0	270
36341.W0640	Flattened	Steel	40	12.8	40	40	M 6	40	40	12	10.0	10.0	657
36341.W0650	Flattened	Steel	50	16.7	50	50	M 6	50	50	12	12.0	12.0	1243
36341.W0568	Plain	Stainless	8	-	8	8	M 3	10	8	6	2.0	2.0	6
36341.W0570	Plain	Stainless	10	-	10	10	M 3	13	10	6	2.5	2.5	12
36341.W0572	Plain	Stainless	12	-	12	12	M 4	15	12	8	3.0	3.0	21
36341.W0576	Plain	Stainless	16	-	16	16	M 5	20	16	10	4.0	4.0	51
36341.W0580	Plain	Stainless	20	-	20	20	M 5	25	20	10	5.0	5.0	101
36341.W0668	Flattened	Stainless	8	1.9	8	8	M 3	10	8	6	2.0	2.0	5
36341.W0670	Flattened	Stainless	10	2.5	10	10	M 3	13	10	6	2.5	2.5	11
36341.W0672	Flattened	Stainless	12	2.5	12	12	M 4	15	12	8	3.0	3.0	17
36341.W0676	Flattened	Stainless	16	4.3	16	16	M 5	20	16	10	4.0	4.0	44
36341.W0680	Flattened	Stainless	20	5.0	20	20	M 5	25	20	10	5.0	5.0	88