

ROUND & DIAMOND PINS

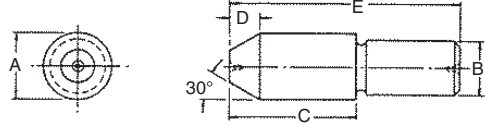
1144 STEEL, HEAT TREATED RC 50-55, BLACK OXIDE FINISH



Round Pin

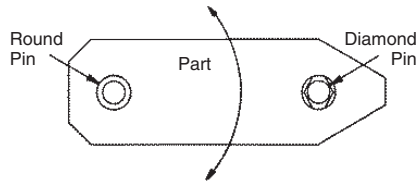


Diamond Pin



ROUND PINS (INCH)

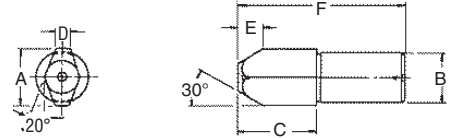
PART NO.	A HEAD DIA		B SHANK DIA		C	D	E
	NOMINAL	ACTUAL	NOMINAL	ACTUAL			
CL-1-RP	1/4	.2495/.2492	3/16	.1878/.1876	11/32	3/32	3/4
CL-2-RP	5/16	.3120/.3117	1/4	.2503/.2501	13/32		7/8
CL-3-RP	3/8	.3745/.3742	5/16	.3128/.3126	1/2	1/8	1
CL-4-RP	7/16	.4370/.4367	3/8	.3753/.3751	19/32		1-1/4
CL-5-RP	1/2	.4995/.4992	7/16	.4378/.4376	21/32	5/32	1-3/8
CL-6-RP	9/16	.5620/.5617	1/2	.5003/.5001	3/4	3/16	1-1/2
CL-7-RP	5/8	.6240/.6237	9/16	.5628/.5626	27/32	7/32	1-3/4
CL-8-RP	11/16	.6865/.6862	5/8	.6253/.6251	29/32		2
CL-9-RP	3/4	.7490/.7487	11/16	.6885/.6880	1	1/4	2-1/8
CL-10-RP	13/16	.8115/.8112	3/4	.7510/.7505	1-3/32		2-1/4
CL-11-RP	7/8	.8740/.8737	13/16	.8135/.8130	1-5/32	9/32	2-1/2
CL-12-RP	15/16	.9365/.9362	7/8	.8760/.8755	1-1/4		2-3/4
CL-13-RP	1	.9985/.9980	15/16	.9385/.9380	1-5/16	5/16	2-7/8



Round Pins and Diamond (relieved) Pins are frequently used together to locate from holes in a workpiece. Diamond Pins are relieved to locate only radially around the Round Pin, avoiding redundant location. This prevents binding while loading and unloading the part, yet still maintains high accuracy. Note: Round Pins also make excellent edge locators. Head and shank diameters are concentric to within .0005 TIR.

ROUND PINS (METRIC)

CLM-60-RP	6mm	.2357/.2354	5mm	.1972/.1970	11/32	3/32	3/4
CLM-80-RP	8mm	.3145/.3142	6mm	.2365/.2363	13/32		7/8
CLM-100-RP	10mm	.3932/.3929	8mm	.3153/.3151	1/2	1/8	1
CLM-120-RP	12mm	.4719/.4716	10mm	.3940/.3938	21/32	5/32	1-3/8
CLM-140-RP	14mm	.5507/.5504	12mm	.4727/.4725	3/4	3/16	1-1/2
CLM-160-RP	16mm	.6289/.6286	14mm	.5515/.5513	27/32	7/32	1-3/4
CLM-180-RP	18mm	.7077/.7074	16mm	.6302/.6300	29/32		2
CLM-200-RP	20mm	.7864/.7861	18mm	.7097/.7092	1-3/32	9/32	2-1/4



DIAMOND PINS (INCH)

PART NO.			A HEAD DIA				B SHANK DIA		C	D	E	F
X (Tight)	Y (Medium)	Z (Loose)	NOMINAL	X	Y	Z	NOMINAL	ACTUAL				
CL-1-DPX	CL-1-DPY	CL-1-DPZ	1/4	.2493/.2490	.2485/.2482	.2470/.2467	3/16	.1878/.1876	11/32	.062	3/32	3/4
CL-2-DPX	CL-2-DPY	CL-2-DPZ	5/16	.3118/.3115	.3110/.3107	.3095/.3092	1/4	.2503/.2501	13/32	.078		7/8
CL-3-DPX	CL-3-DPY	CL-3-DPZ	3/8	.3743/.3740	.3735/.3732	.3720/.3717	5/16	.3128/.3126	1/2	.093	1/8	1
CL-4-DPX	CL-4-DPY	CL-4-DPZ	7/16	.4368/.4365	.4360/.4357	.4345/.4342	3/8	.3753/.3751	19/32	.109	5/32	1-1/4
CL-5-DPX	CL-5-DPY	CL-5-DPZ	1/2	.4993/.4990	.4985/.4982	.4970/.4967	7/16	.4378/.4376	21/32	.125		1-3/8
CL-6-DPX	CL-6-DPY	CL-6-DPZ	9/16	.5615/.5610	.5595/.5590	.5575/.5570	1/2	.5003/.5001	3/4	.140	3/16	1-1/2
CL-7-DPX	CL-7-DPY	CL-7-DPZ	5/8	.6240/.6235	.6220/.6215	.6200/.6195	9/16	.5628/.5626	27/32	.156	7/32	1-3/4
CL-8-DPX	CL-8-DPY	CL-8-DPZ	11/16	.6865/.6860	.6845/.6840	.6825/.6820	5/8	.6253/.6251	29/32	.172		2
CL-9-DPX	CL-9-DPY	CL-9-DPZ	3/4	.7490/.7485	.7470/.7465	.7450/.7445	11/16	.6885/.6880	1	.187	1/4	2-1/8
CL-10-DPX	CL-10-DPY	CL-10-DPZ	13/16	.8115/.8110	.8095/.8090	.8075/.8070	3/4	.7510/.7505	1-3/32	.203		2-1/4
CL-11-DPX	CL-11-DPY	CL-11-DPZ	7/8	.8740/.8735	.8720/.8715	.8700/.8695	13/16	.8135/.8130	1-5/32	.219	9/32	2-1/2
CL-12-DPX	CL-12-DPY	CL-12-DPZ	15/16	.9365/.9360	.9345/.9340	.9325/.9320	7/8	.8760/.8755	1-1/4	.234		2-3/4
CL-13-DPX	CL-13-DPY	CL-13-DPZ	1	.9980/.9972	.9960/.9952	.9920/.9912	15/16	.9385/.9380	1-5/16	.250	5/16	2-7/8

DIAMOND PINS (METRIC)

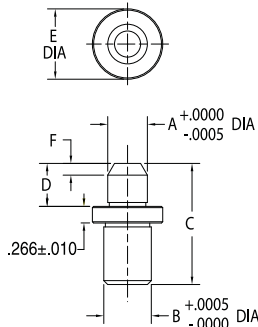
CLM-60-DPX	CLM-60-DPY	CLM-60-DPZ	6mm	.2355/.2352	.2347/.2344	.2332/.2329	5mm	.1972/.1970	11/32	.062	3/32	3/4
CLM-80-DPX	CLM-80-DPY	CLM-80-DPZ	8mm	.3143/.3140	.3135/.3132	.3120/.3117	6mm	.2365/.2363	13/32	.078		7/8
CLM-100-DPX	CLM-100-DPY	CLM-100-DPZ	10mm	.3930/.3927	.3922/.3919	.3907/.3904	8mm	.3153/.3151	1/2	.093	1/8	1
CLM-120-DPX	CLM-120-DPY	CLM-120-DPZ	12mm	.4717/.4714	.4709/.4706	.4694/.4691	10mm	.3940/.3938	21/32	.125	5/32	1-3/8
CLM-140-DPX	CLM-140-DPY	CLM-140-DPZ	14mm	.5502/.5497	.5482/.5477	.5462/.5457	12mm	.4727/.4725	3/4	.140	3/16	1-1/2
CLM-160-DPX	CLM-160-DPY	CLM-160-DPZ	16mm	.6289/.6284	.6269/.6264	.6249/.6244	14mm	.5515/.5513	27/32	.156	7/32	1-3/4
CLM-180-DPX	CLM-180-DPY	CLM-180-DPZ	18mm	.7077/.7072	.7057/.7052	.7037/.7032	16mm	.6302/.6300	29/32	.172		2
CLM-200-DPX	CLM-200-DPY	CLM-200-DPZ	20mm	.7864/.7859	.7844/.7839	.7824/.7819	18mm	.7097/.7092	1-3/32	.203	9/32	2-1/4

ROUND & DIAMOND LOCATING PINS

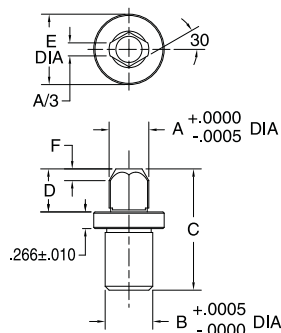
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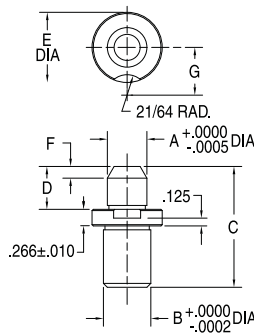
Press-Fit Type Round Pin



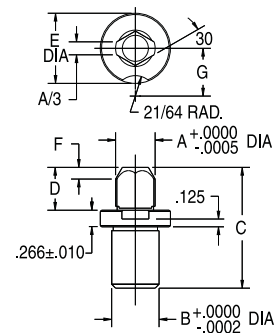
Press-Fit Type Diamond Pin



Lockscrew-Type Round Pin

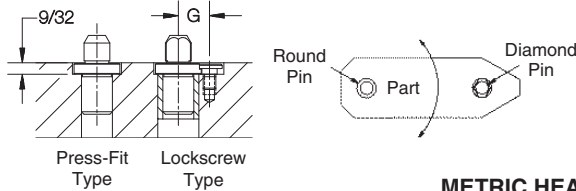


Lockscrew-Type Diamond Pin



Similar in function to the Round and Diamond Pins (INFO+) on page 193, except with a wider selection of head diameters. The added shoulder also resists forces from above, even when the head diameter is smaller than the shank diameter.

Available either with a press-fit shank for permanent installation, or a slip-fit shank and lockscrew slot for renewable installation. Each nominal head diameter is available in a choice of two fits: medium or tight. Head and shank diameters are concentric to within .0005 TIR.



Order liner bushings and lock screws separately. See table below for proper sizes. (See drilling catalog section for additional dimensions).

Special head diameters (A dimensions) are readily available in any of the four standard shank diameters:

- 5 = 5/16" shank (.1150-.3180 head dia)
- 8 = 1/2" shank (.2780-.5040 head dia)
- 12 = 3/4" shank (.4640-.7540 head dia)
- 16 = 1" shank (.7140-1.0040 head dia)

Example: For a press-fit round pin with a 1/2-inch shank and A=.4000 inches, order CL-8-RPT-.4000.

METRIC HEAD DIAMETER

PRESS-FIT TYPE		LOCKSCREW TYPE		B SHANK DIA	A HEAD DIA		C	D	E DIA	F	G	LINER PART NO.	HEAD LINER PART NO.	LOCK-SCREW PART NO.
ROUND PIN PART NO.	DIAMOND PIN PART NO.	ROUND PIN PART NO.	DIAMOND PIN PART NO.		NOMINAL	ACTUAL								
CL-5-RPT-.2347	CL-5-DPT-.2347	CL-5-RLT-.2347	CL-5-DLT-.2347	5/16	6mm	.2347	1-3/16	7/16	5/8	3/32	33/64	L-32-8	HL-32-8	LS-1
CL-5-RPT-.2357	CL-5-DPT-.2357	CL-5-RLT-.2357	CL-5-DLT-.2357			.2357								
CL-8-RPT-.3130	CL-8-DPT-.3130	CL-8-RLT-.3130	CL-8-DLT-.3130	1/2	8mm	.3130	1-1/2	1/2	7/8	1/8	41/64	L-48-12	HL-48-12	
CL-8-RPT-.3140	CL-8-DPT-.3140	CL-8-RLT-.3140	CL-8-DLT-.3140			.3140								
CL-8-RPT-.3917	CL-8-DPT-.3917	CL-8-RLT-.3917	CL-8-DLT-.3917	1/2	10mm	.3917	1-1/2	1/2	7/8	1/8	41/64	L-48-12	HL-48-12	
CL-8-RPT-.3927	CL-8-DPT-.3927	CL-8-RLT-.3927	CL-8-DLT-.3927			.3927								
CL-8-RPT-.4704	CL-8-DPT-.4704	CL-8-RLT-.4704	CL-8-DLT-.4704	1/2	12mm	.4704	1-1/2	1/2	7/8	1/8	41/64	L-48-12	HL-48-12	
CL-8-RPT-.4714	CL-8-DPT-.4714	CL-8-RLT-.4714	CL-8-DLT-.4714			.4714								
CL-12-RPT-.5492	CL-12-DPT-.5492	CL-12-RLT-.5492	CL-12-DLT-.5492	3/4	14mm	.5492	1-15/16	11/16	1-1/8	3/16	49/64	L-64-16	HL-64-16	
CL-12-RPT-.5502	CL-12-DPT-.5502	CL-12-RLT-.5502	CL-12-DLT-.5502			.5502								
CL-12-RPT-.6279	CL-12-DPT-.6279	CL-12-RLT-.6279	CL-12-DLT-.6279	3/4	16mm	.6279	1-15/16	11/16	1-1/8	3/16	49/64	L-64-16	HL-64-16	
CL-12-RPT-.6289	CL-12-DPT-.6289	CL-12-RLT-.6289	CL-12-DLT-.6289			.6289								
CL-12-RPT-.7067	CL-12-DPT-.7067	CL-12-RLT-.7067	CL-12-DLT-.7067	3/4	18mm	.7067	1-15/16	11/16	1-1/8	3/16	49/64	L-64-16	HL-64-16	
CL-12-RPT-.7077	CL-12-DPT-.7077	CL-12-RLT-.7077	CL-12-DLT-.7077			.7077								
CL-16-RPT-.7854	CL-16-DPT-.7854	CL-16-RLT-.7854	CL-16-DLT-.7854	1	20mm	.7854	2-5/8	1	1-1/2	9/32	61/64	L-88-22	HL-88-22	
CL-16-RPT-.7864	CL-16-DPT-.7864	CL-16-RLT-.7864	CL-16-DLT-.7864			.7864								

ROUND & DIAMOND LOCATING PINS

INCH HEAD DIAMETER

PRESS-FIT TYPE		LOCKSCREW TYPE		B SHANK DIA	A HEAD DIA		C	D	E DIA	F	G	LINER PART NO.	HEAD LINER PART NO.	LOCK-SCREW PART NO.
ROUND PIN PART NO.	DIAMOND PIN PART NO.	ROUND PIN PART NO.	DIAMOND PIN PART NO.		NOMINAL	ACTUAL								
CL-123-RPT	CL-123-DPT	CL-123-RLT	CL-123-DLT	5/16	1/8	.1235	1-3/16	7/16	5/8	3/32	33/64	L-32-8	HL-32-8	
CL-124-RPT	CL-124-DPT	CL-124-RLT	CL-124-DLT		.1245									
CL-154-RPT	CL-154-DPT	CL-154-RLT	CL-154-DLT		.1548									
CL-155-RPT	CL-155-DPT	CL-155-RLT	CL-155-DLT		.1558									
CL-186-RPT	CL-186-DPT	CL-186-RLT	CL-186-DLT		.1860									
CL-187-RPT	CL-187-DPT	CL-187-RLT	CL-187-DLT		.1870									
CL-217-RPT	CL-217-DPT	CL-217-RLT	CL-217-DLT		.2173									
CL-218-RPT	CL-218-DPT	CL-218-RLT	CL-218-DLT		.2183									
CL-248-RPT	CL-248-DPT	CL-248-RLT	CL-248-DLT		.2485									
CL-249-RPT	CL-249-DPT	CL-249-RLT	CL-249-DLT		.2495									
CL-279-RPT	CL-279-DPT	CL-279-RLT	CL-279-DLT		.2798									
CL-280-RPT	CL-280-DPT	CL-280-RLT	CL-280-DLT		.2808									
CL-311-RPT	CL-311-DPT	CL-311-RLT	CL-311-DLT		.3110									
CL-312-RPT	CL-312-DPT	CL-312-RLT	CL-312-DLT		.3120									
CL-310-RPT	CL-310-DPT	CL-310-RLT	CL-310-DLT		.3105									
CL-3115-RPT	CL-3115-DPT	CL-3115-RLT	CL-3115-DLT		.3115									
CL-341-RPT	CL-341-DPT	CL-341-RLT	CL-341-DLT	.3418										
CL-342-RPT	CL-342-DPT	CL-342-RLT	CL-342-DLT	.3428										
CL-373-RPT	CL-373-DPT	CL-373-RLT	CL-373-DLT	.3730										
CL-374-RPT	CL-374-DPT	CL-374-RLT	CL-374-DLT	.3740										
CL-404-RPT	CL-404-DPT	CL-404-RLT	CL-404-DLT	.4043										
CL-405-RPT	CL-405-DPT	CL-405-RLT	CL-405-DLT	.4053										
CL-435-RPT	CL-435-DPT	CL-435-RLT	CL-435-DLT	.4355										
CL-436-RPT	CL-436-DPT	CL-436-RLT	CL-436-DLT	.4365										
CL-466-RPT	CL-466-DPT	CL-466-RLT	CL-466-DLT	.4668										
CL-467-RPT	CL-467-DPT	CL-467-RLT	CL-467-DLT	.4678										
CL-498-RPT	CL-498-DPT	CL-498-RLT	CL-498-DLT	.4980										
CL-499-RPT	CL-499-DPT	CL-499-RLT	CL-499-DLT	.4990										
CL-4980-RPT	CL-4980-DPT	CL-4980-RLT	CL-4980-DLT	.4980										
CL-4990-RPT	CL-4990-DPT	CL-4990-RLT	CL-4990-DLT	.4990										
CL-529-RPT	CL-529-DPT	CL-529-RLT	CL-529-DLT	.5293										
CL-530-RPT	CL-530-DPT	CL-530-RLT	CL-530-DLT	.5303										
CL-560-RPT	CL-560-DPT	CL-560-RLT	CL-560-DLT	.5605										
CL-561-RPT	CL-561-DPT	CL-561-RLT	CL-561-DLT	.5615										
CL-591-RPT	CL-591-DPT	CL-591-RLT	CL-591-DLT	.5918										
CL-592-RPT	CL-592-DPT	CL-592-RLT	CL-592-DLT	.5928										
CL-623-RPT	CL-623-DPT	CL-623-RLT	CL-623-DLT	.6230										
CL-624-RPT	CL-624-DPT	CL-624-RLT	CL-624-DLT	.6240										
CL-654-RPT	CL-654-DPT	CL-654-RLT	CL-654-DLT	.6543										
CL-655-RPT	CL-655-DPT	CL-655-RLT	CL-655-DLT	.6553										
CL-685-RPT	CL-685-DPT	CL-685-RLT	CL-685-DLT	.6855										
CL-686-RPT	CL-686-DPT	CL-686-RLT	CL-686-DLT	.6865										
CL-716-RPT	CL-716-DPT	CL-716-RLT	CL-716-DLT	.7168										
CL-717-RPT	CL-717-DPT	CL-717-RLT	CL-717-DLT	.7178										
CL-748-RPT	CL-748-DPT	CL-748-RLT	CL-748-DLT	.7480										
CL-749-RPT	CL-749-DPT	CL-749-RLT	CL-749-DLT	.7490										
CL-7480-RPT	CL-7480-DPT	CL-7480-RLT	CL-7480-DLT	.7480										
CL-7490-RPT	CL-7490-DPT	CL-7490-RLT	CL-7490-DLT	.7490										
CL-779-RPT	CL-779-DPT	CL-779-RLT	CL-779-DLT	.7793										
CL-780-RPT	CL-780-DPT	CL-780-RLT	CL-780-DLT	.7803										
CL-810-RPT	CL-810-DPT	CL-810-RLT	CL-810-DLT	.8105										
CL-811-RPT	CL-811-DPT	CL-811-RLT	CL-811-DLT	.8115										
CL-841-RPT	CL-841-DPT	CL-841-RLT	CL-841-DLT	.8418										
CL-842-RPT	CL-842-DPT	CL-842-RLT	CL-842-DLT	.8428										
CL-873-RPT	CL-873-DPT	CL-873-RLT	CL-873-DLT	.8730										
CL-874-RPT	CL-874-DPT	CL-874-RLT	CL-874-DLT	.8740										
CL-904-RPT	CL-904-DPT	CL-904-RLT	CL-904-DLT	.9043										
CL-905-RPT	CL-905-DPT	CL-905-RLT	CL-905-DLT	.9053										
CL-935-RPT	CL-935-DPT	CL-935-RLT	CL-935-DLT	.9355										
CL-936-RPT	CL-936-DPT	CL-936-RLT	CL-936-DLT	.9365										
CL-966-RPT	CL-966-DPT	CL-966-RLT	CL-966-DLT	.9668										
CL-967-RPT	CL-967-DPT	CL-967-RLT	CL-967-DLT	.9678										
CL-998-RPT	CL-998-DPT	CL-998-RLT	CL-998-DLT	.9980										
CL-999-RPT	CL-999-DPT	CL-999-RLT	CL-999-DLT	.9990										