

EXTREME

Contact Guide



ELPAKCO ELECTRONICS



Get The
Double "E" Brand



30 contacts accept leads from .006" to .102"

ELPAKCO offers 30 "multi-finger" contacts with a full range of lead sizes and shapes from the new .006 diameter up to the .102" diameter. The heart of ELPKCO receptacles is the BECU contact stamped by precision Swiss Bruderer presses. Intense attention to coining, tumbling, and heat treating produce high quality smooth surfaces that can handle any challenge. Contact housings are turned on Swiss Bechlers, Tornos, and Esco cam machines offering 100's of styles for soldering, swaging, or pressing into circuit boards as well as wire termination. The economy of turned parts allows ELPKCO to produce custom receptacles fast.

ELPAKCO ELECTRONICS



GET THE
DOUBLE "E" BRAND

Elpakco Electronics is a major manufacturer of Screw Machine pins, receptacles, and other interconnect devices. We are proud to introduce this contact design catalog to assist customers in selecting the proper contact for pin diameter, insertion and extraction forces, current rating, and functionality. This contact design catalog was produced in an effort to simplify the process of selecting the correct contact for your application. You will find that the guide uses a more visual approach that displays full color insertion/extraction force graphs and color-coded reference charts throughout.

Elpakco also offers a full line of receptacles to mate with the contact selection shown within this guide. These receptacles can be found online at www.elpakco.com or in our comprehensive catalog that can be obtained by calling (978)-392-0400. In addition to all the receptacles Elpakco currently manufactures, a customized receptacle design can be developed for your application in a short period of time.

We pride ourselves on our ability to develop solutions that are both successful and cost-effective. We provide engineering design support to aid our customers with their applications and to ensure proper mating of the contact and receptacle. Our engineering design team has decades of experience in the screw machine industry. They can help you get your product working and out the door.

Contact Specifications

Material:	Stamped Beryllium Copper Alloy UNS C17200 Astm-B194-92
Contact Structure:	3,4, or 6 finger
Plating:	Gold per MIL-G-45204, Type 1, Grade C Tin/Lead per MIL-P-81728, Grade C Nickel per QQ-N-290
Current Rating:	See Chart
Pin Range:	.006" to .102" Diameters Rectangular and Square part leads can be accommodated as well

Compliance:

Our multi-fingered contacts provide an ability to accept not only the pin diameter for which it is designed, but can cover a range that is smaller or larger by as much as .007". Please note that the overall range shifts once the largest permissible mating pin has been inserted. For example; the #42 contact has an acceptance range of .032-.045", but after insertion of a pin diameter of .045" the contact becomes dimensioned and the minimum pin diameter acceptance becomes .036".

Insertion/Extraction

Forces: The insertion/extraction force characteristics that follow were derived using 30μ" gold plated contacts and polished steel gauge pins having bullet shaped tips. The curves represent typical average values. The graphs serve as a guide in selecting a contact close to your specification. Your results may vary. Also, BeCu loses its spring properties over time at temperatures above 150°C. For example; at 225°C after 1000 hours BeCu loses 50% of initial insertion force.

Contents

One-Piece Receptacles

grouped for compatibility	contact type	page #	minimum pin dia.	maximum pin dia.	# of fingers
Baby Pinto	2220	3	.011	.019	3
Pinto	12	3	.015	.021	3
Pony Pin	99	5	.016	.030	4
Polo Pin	98	5	.016	.030	4

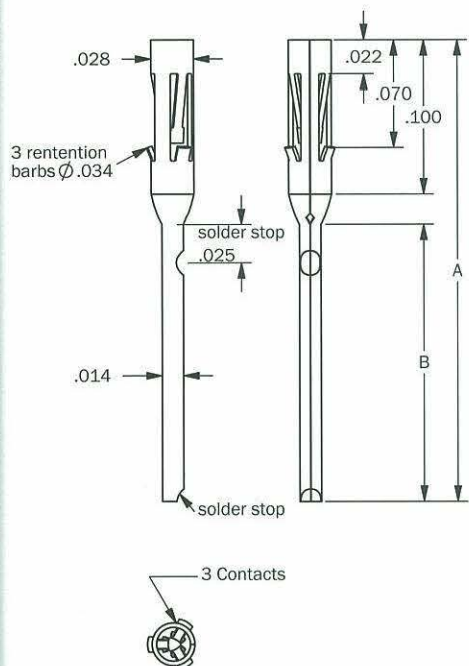
Two-Piece Receptacles

#10	7	.006	.011	3
#63	7	.007	.012	3
#28	7	.012	.017	6
#20	8	.015	.018	3
#61	8	.015	.021	3
#30	8	.015	.020	3
#21	9	.012	.019	6
#32	9	.015	.020	3
#36	9	.015	.020	4
#62	10	.015	.022	4
#33	10	.015	.022	4
#34	10	.015	.023	6
#46	11	.015	.026	6
#45	11	.015	.026	6
#44	11	.022	.032	4
#54	12	.025	.035	6
#64	12	.030	.037	6
#74	12	.025	.037	6
#39	13	.037	.043	6
#42	13	.032	.045	4
#56	13	.032	.046	4
#58	14	.022	.042	4
#59	14	.032	.045	4
#60	14	.040	.050	6
#50	15	.036	.050	4
#41	15	.040	.059	4
#67	15	.048	.064	4
#57	16	.045	.065	6
#40	16	.065	.082	4
#55	16	.084	.102	6

One - Piece Receptacles

Baby Pinto type 2220

For Use With .011 To .019 Dia. & .012 sq. Pins

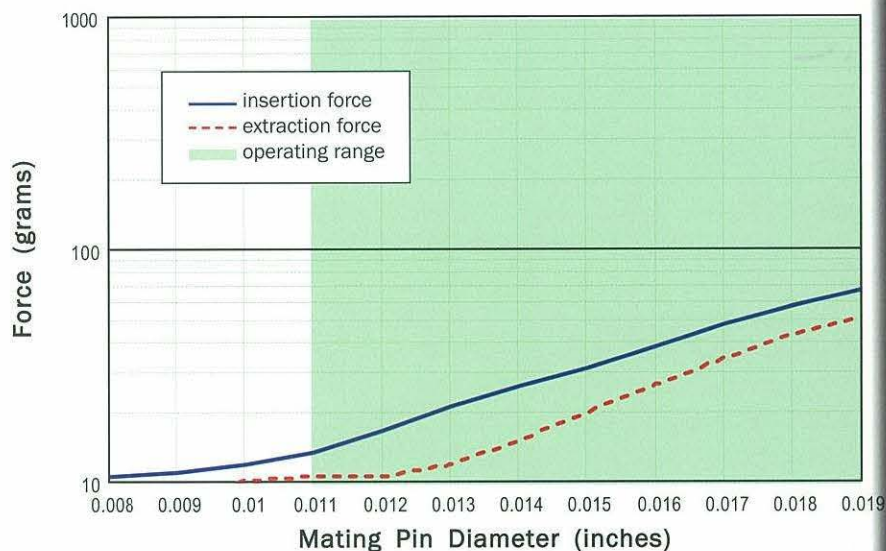


Additional Specs:

- .028" head dia. for 1mm spacing
- .034" barb dia. for .030" mounting holes

Configuration Chart

Part No.	Dim A	Dim B
2220-1	.300	.180
2220-2	.220	.100
2220-3	.180	.060
2220-4	.250	.130

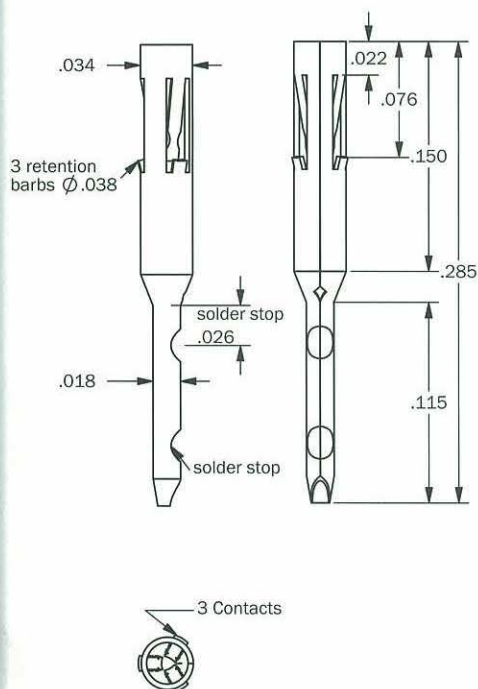


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

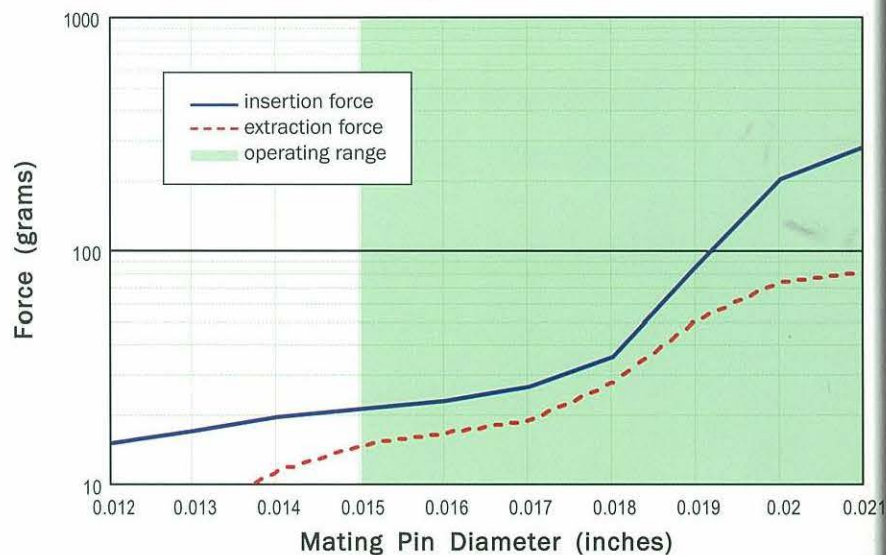
Pinto type 12

For Use With .015 To .021 Dia. Pins



Additional Specs:

- .034" head dia. for .050" spacing
- .038" barb dia. for .035" mounting holes



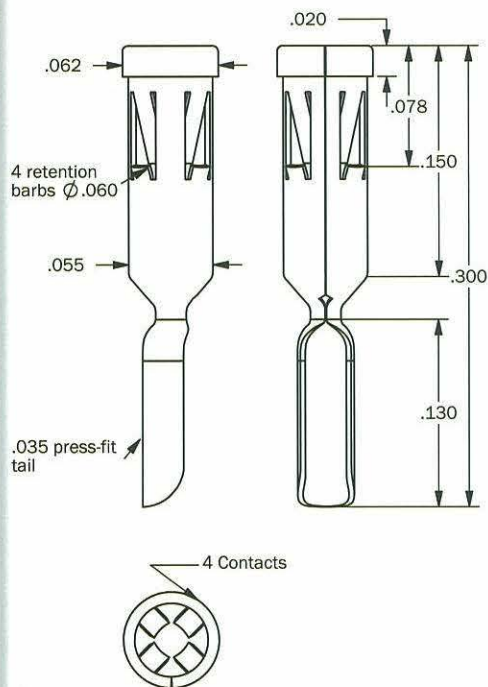
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

One-Piece Receptacles

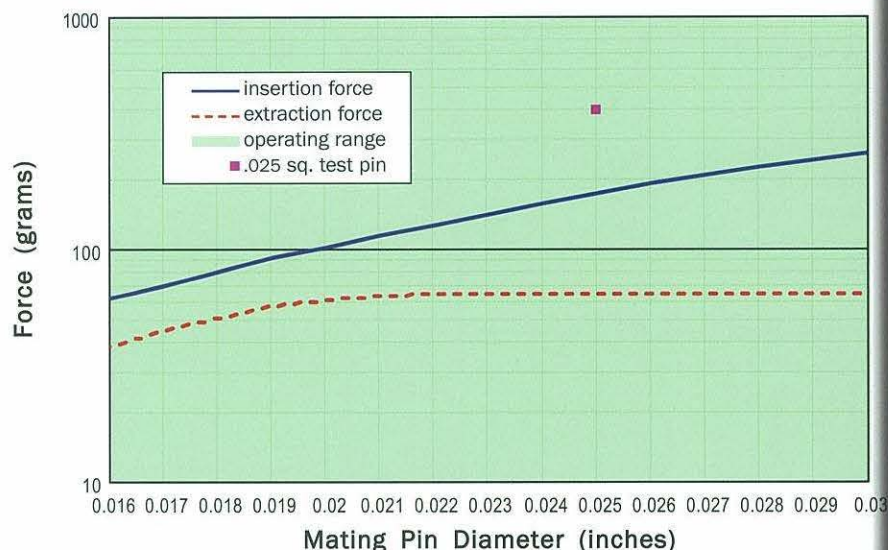
Pony Pin type 99

For Use With .016 To .030 Dia. & .025 sq. Pins



Additional Specs:

- .062" head dia. for 2mm spacing
- .060" barb dia. for .056" mounting holes
- "C" shaped tail press fits into standard .030" +/- .003 plated thru mounting holes

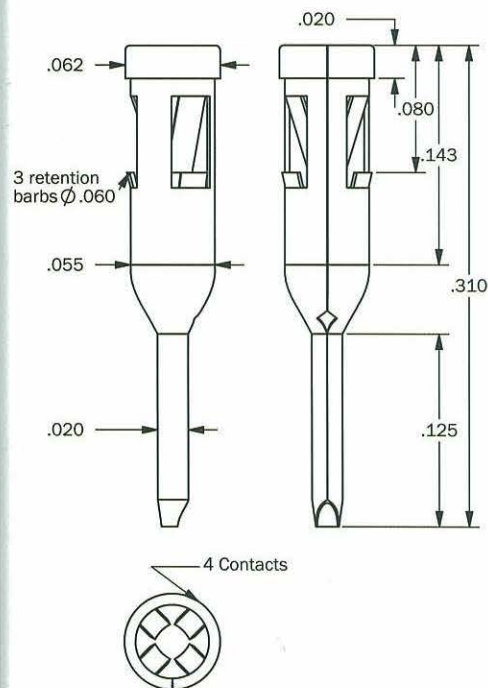


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

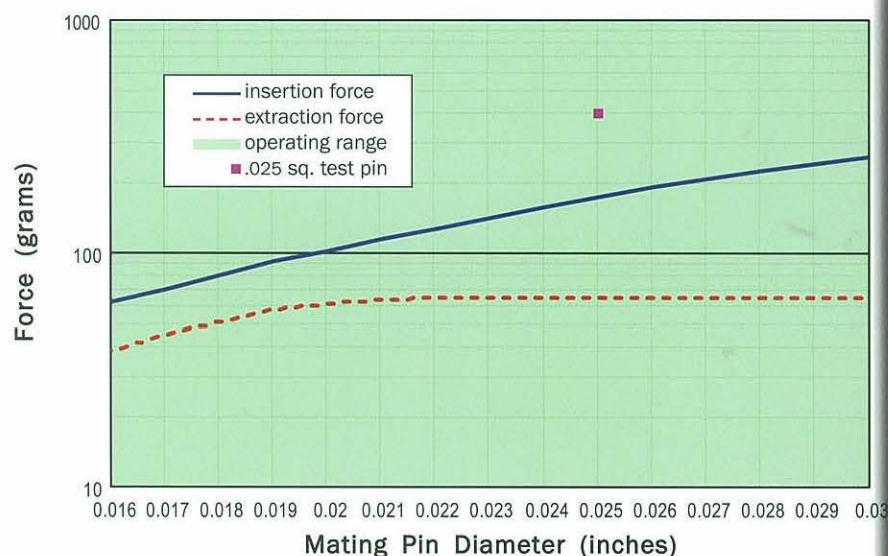
Polo Pin type 98

For Use With .016 To .030 Dia. & .025 sq. Pins



Additional Specs:

- .062" head dia. for 2mm spacing
- .060" barb dia. for .056" mounting holes



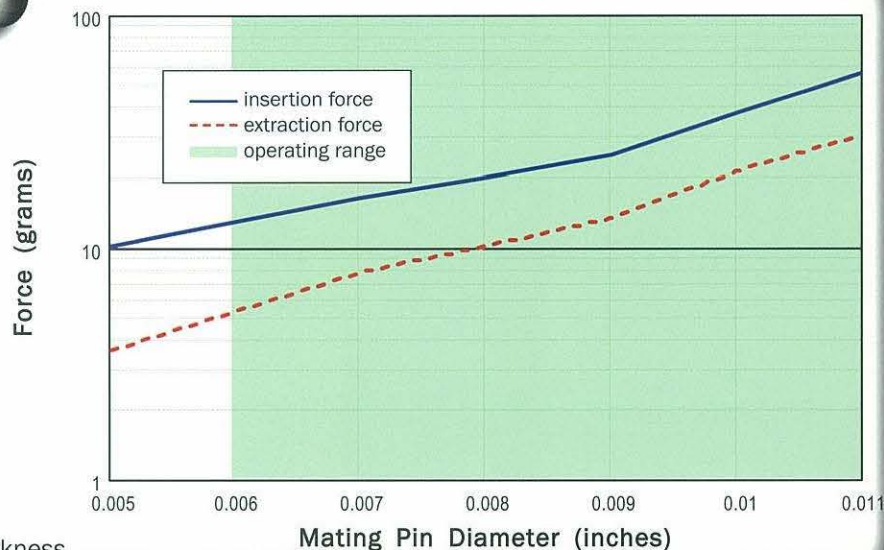
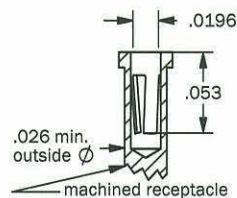
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Two-Piece Receptacles

Contact #10 3-finger

For Use With .006 To .011 Dia. Pins

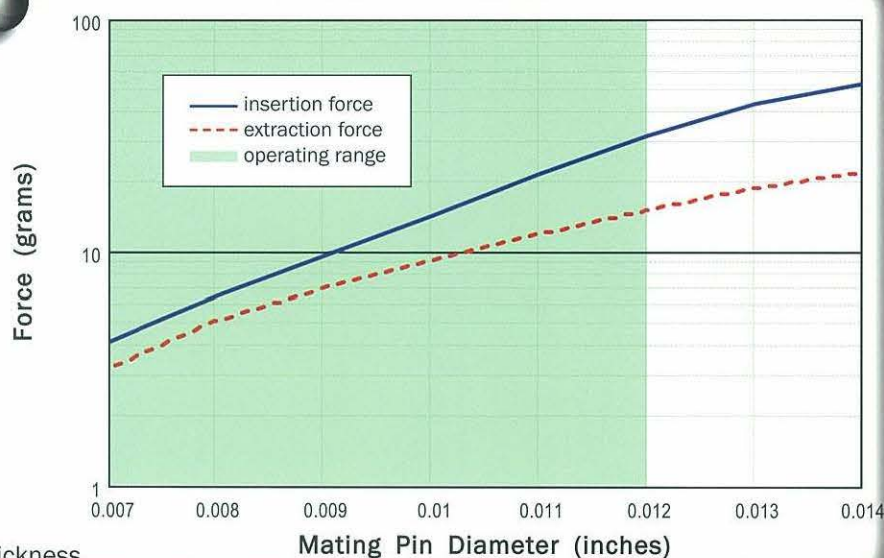
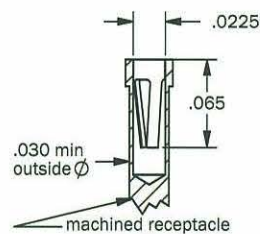


Contact Material:

BERYLLIUM COPPER Alloy 172, HT .003 thickness

Contact #63 3-finger

For Use With .007 To .012 Dia. Pins

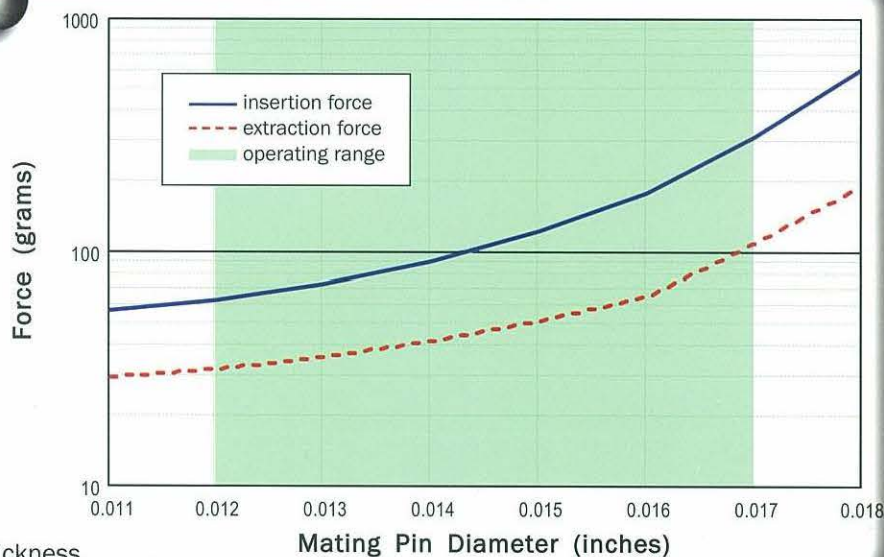
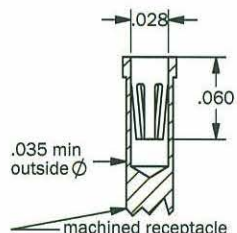


Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0035 thickness

Contact #28 6-finger

For Use With .012 To .017 Dia. Pins



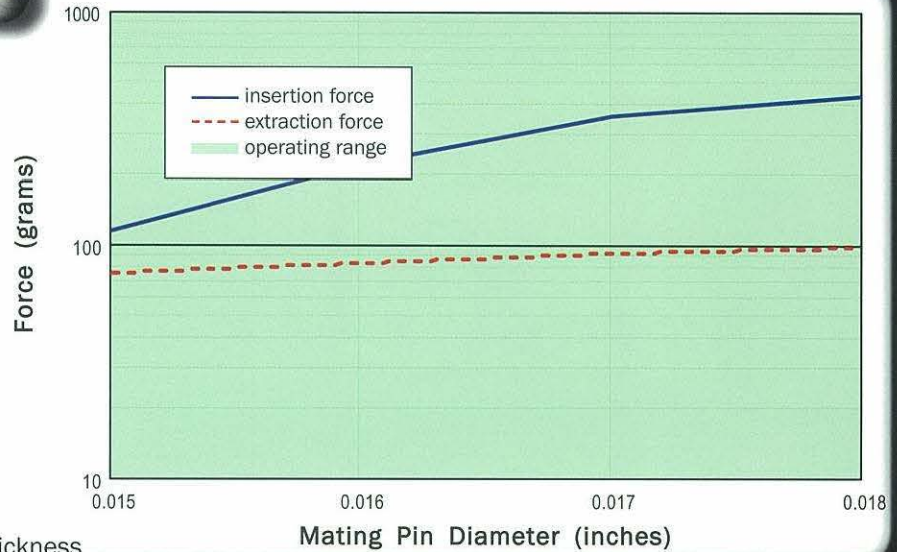
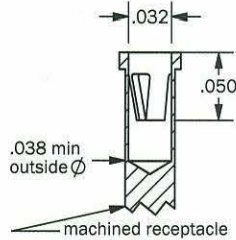
Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0045 thickness

Two-Piece Receptacles

Contact #20 3-finger

For Use With .015 To .018 Dia. Pins

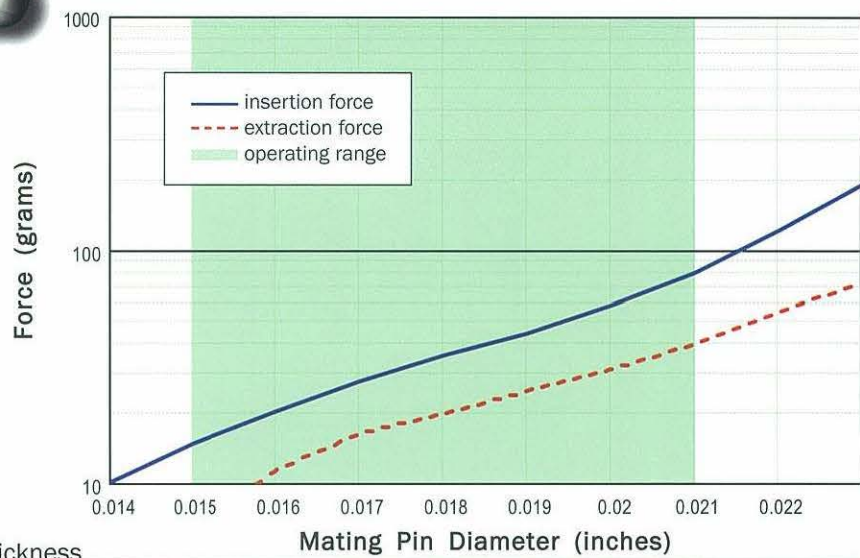
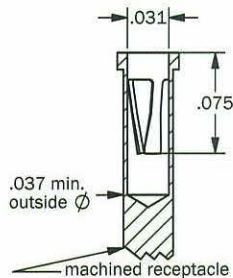


Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0055 thickness

Contact #61 3-finger

For Use With .015 To .021 Dia. Pins

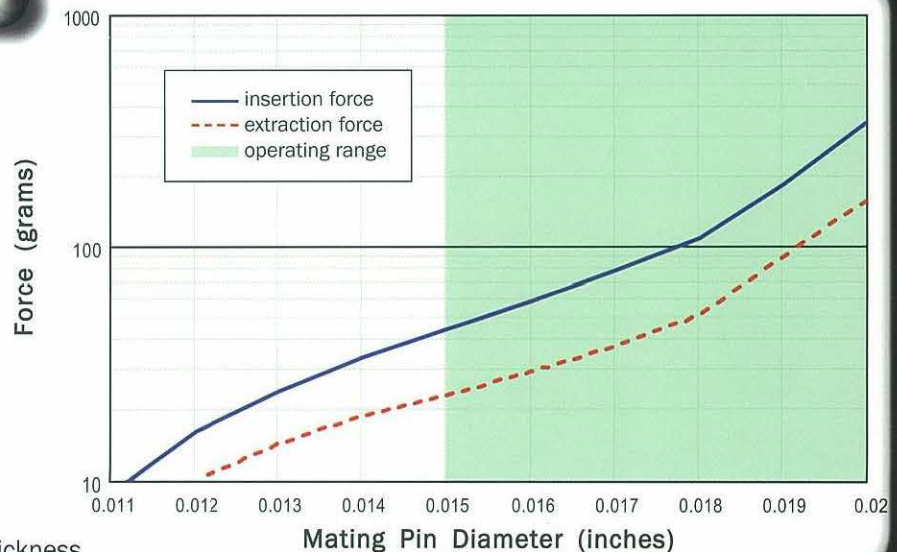
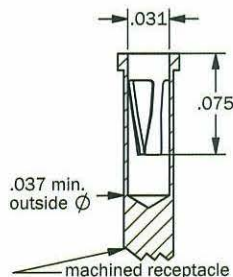


Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0035 thickness

Contact #30 3-finger

For Use With .015 To .020 Dia. Pins



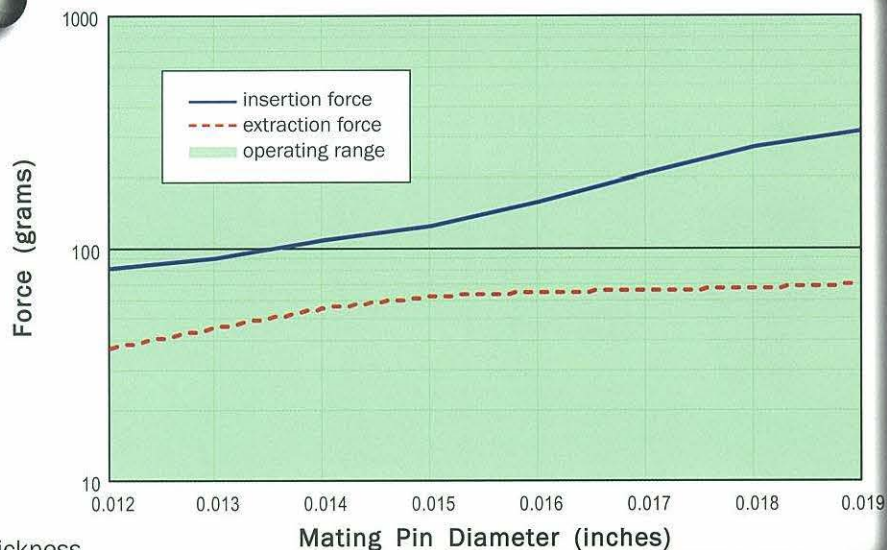
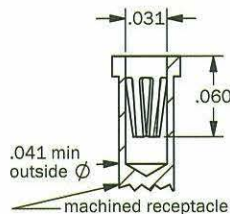
Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0045 thickness

Two-Piece Receptacles

Contact #21 3-finger

For Use With .012 To .019 Dia. Pins

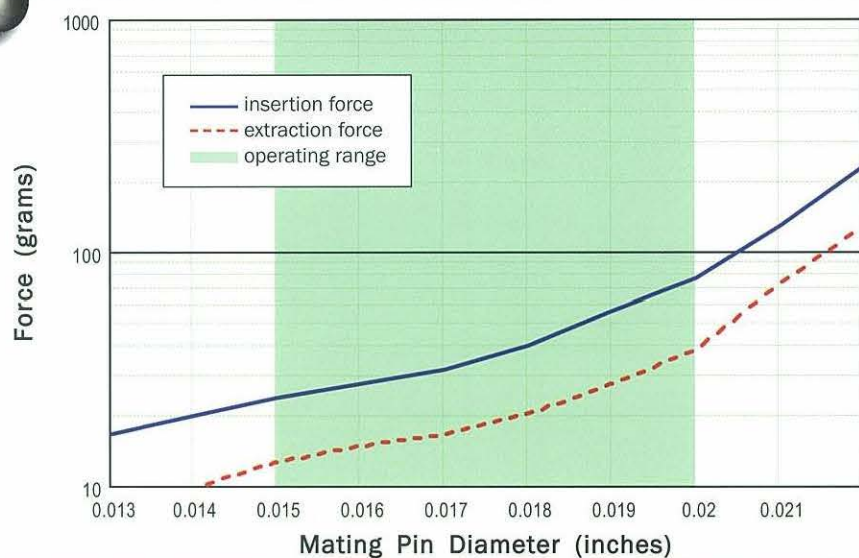
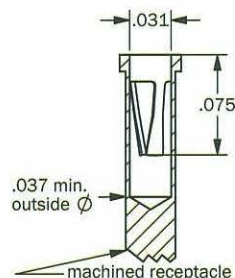


Contact Material:

BERYLLIUM COPPER Alloy 172, HT .0045 thickness

Contact #32 3-finger

For Use With .015 To .020 Dia. Pins

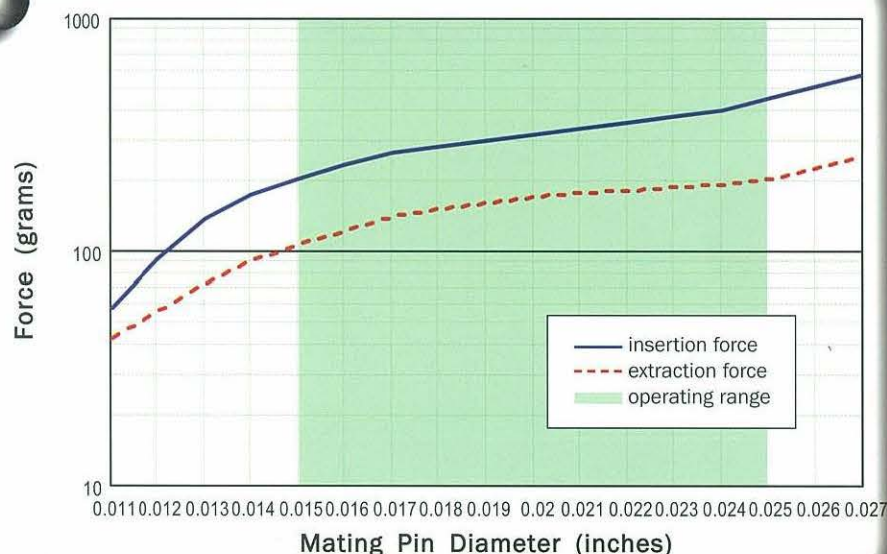
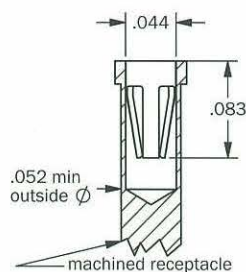


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #36 4-finger

For Use With .015 To .025 Dia. Pins



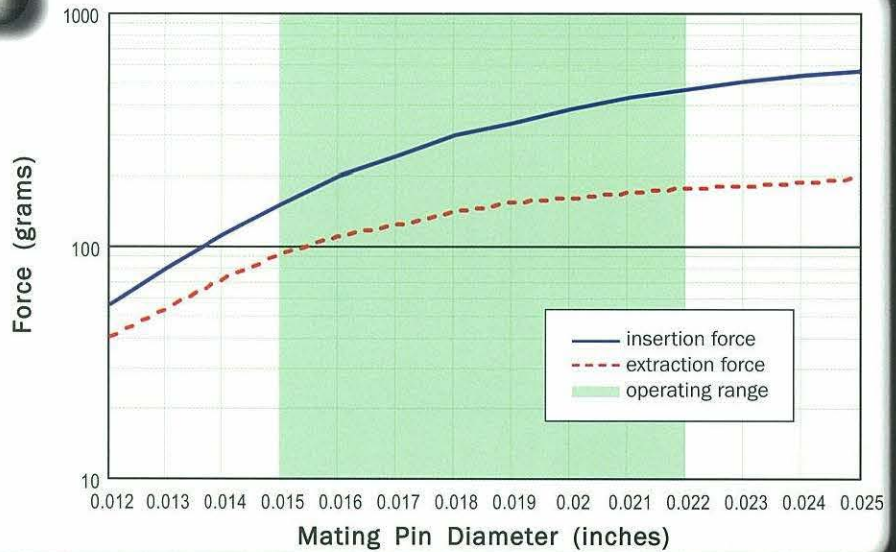
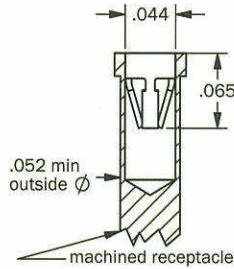
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Two -Piece Receptacles

Contact #62 4-finger

For Use With .015 To .022 Dia. Pins

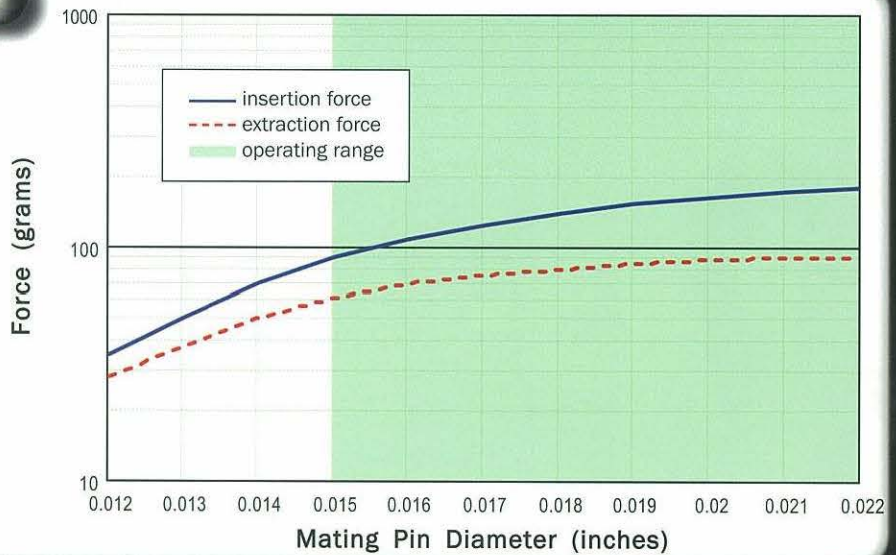
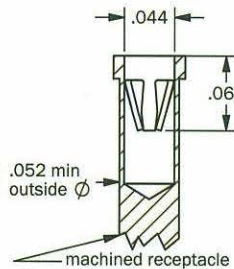


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #33 4-finger

For Use With .015 To .022 Dia. Pins

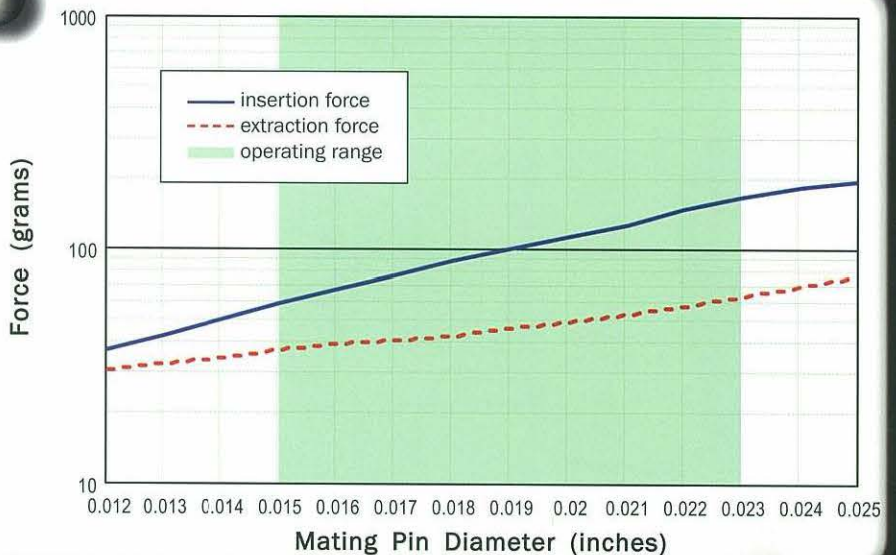
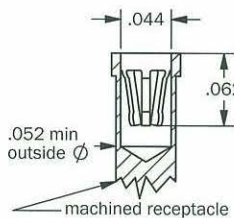


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #34 6-finger

For Use With .015 To .023 Dia. Pins



Contact Material:

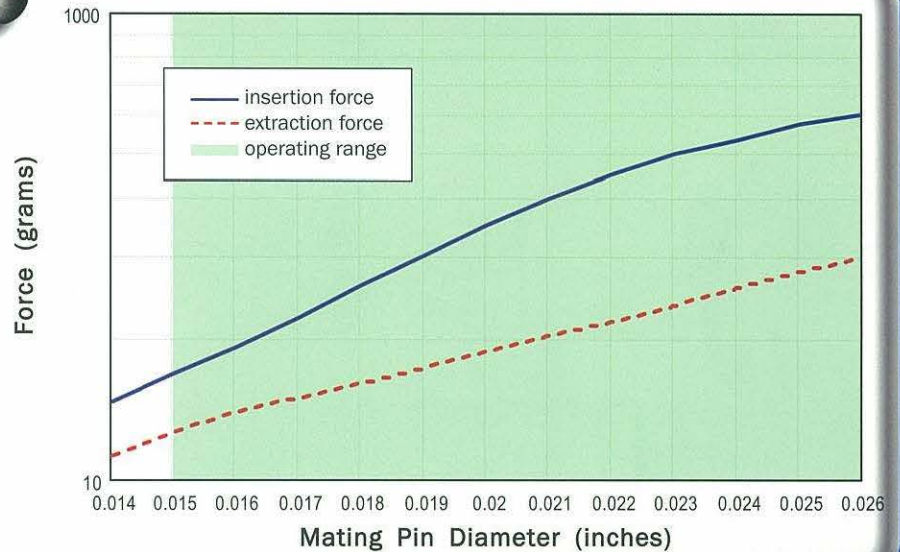
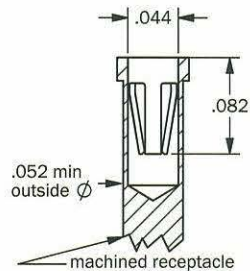
BERYLLIUM COPPER Alloy 172, HT

Two-Piece Receptacles

Contact #46

6-finger

For Use With .015 To .026 Dia. Pins



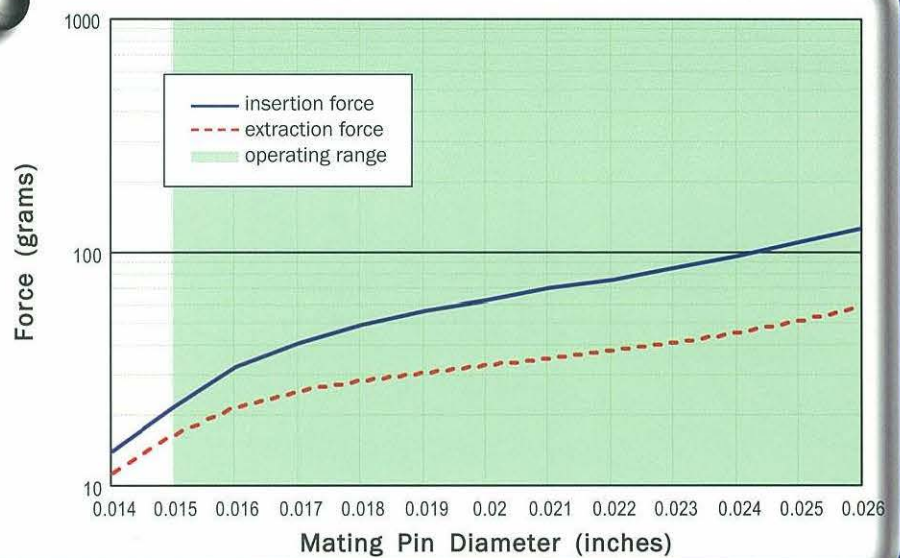
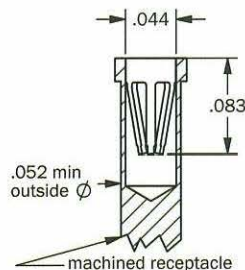
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #45

6-finger

For Use With .015 To .026 Dia. Pins



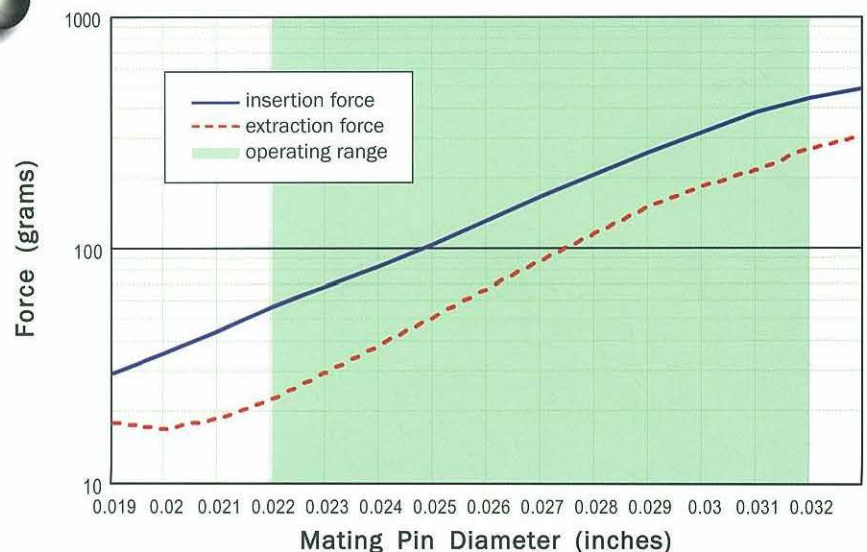
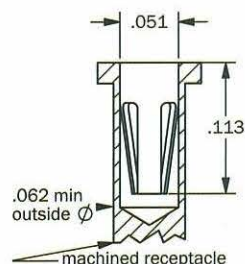
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #44

4-finger

For Use With .022 To .032 Dia. Pins



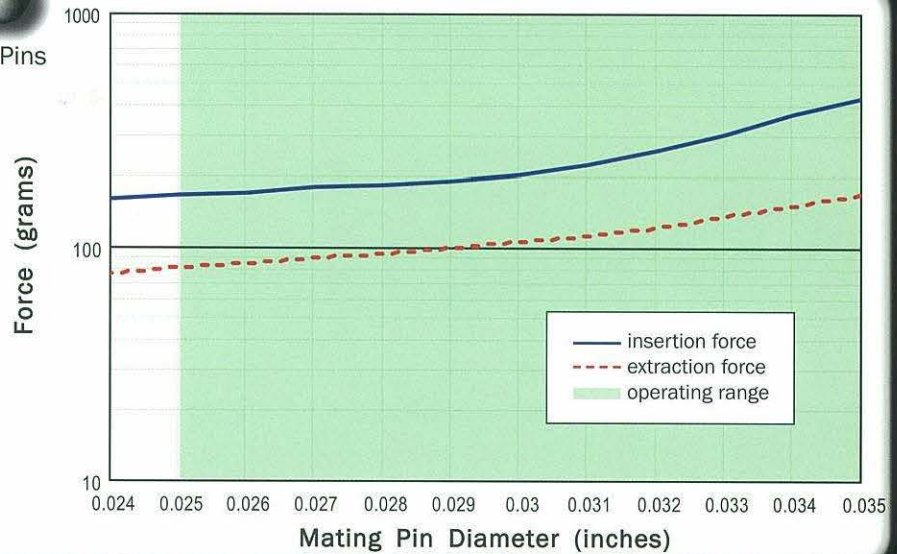
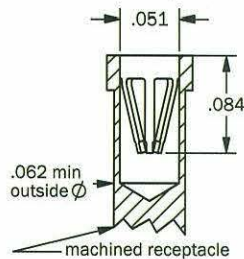
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Two -Piece Receptacles

Contact #54 6-finger

For Use With .025 To .037 Dia. & .025 Sq. Pins

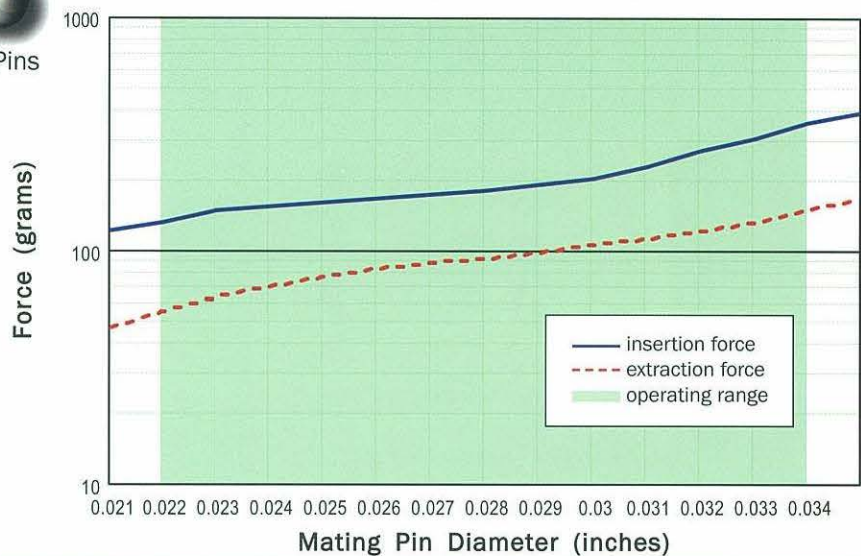
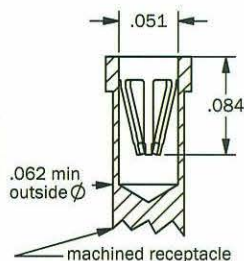


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #64 6-finger

For Use With .022 To .034 Dia. & .025 Sq. Pins

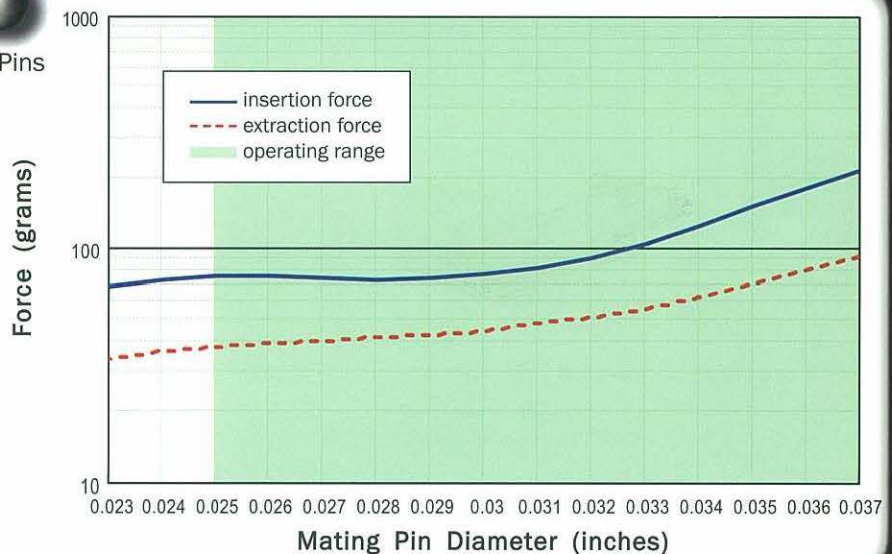
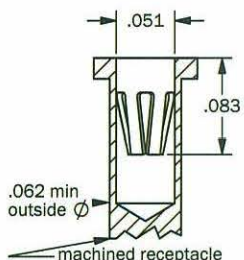


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #74 6-finger

For Use With .025 To .037 Dia. & .025 Sq. Pins



Contact Material:

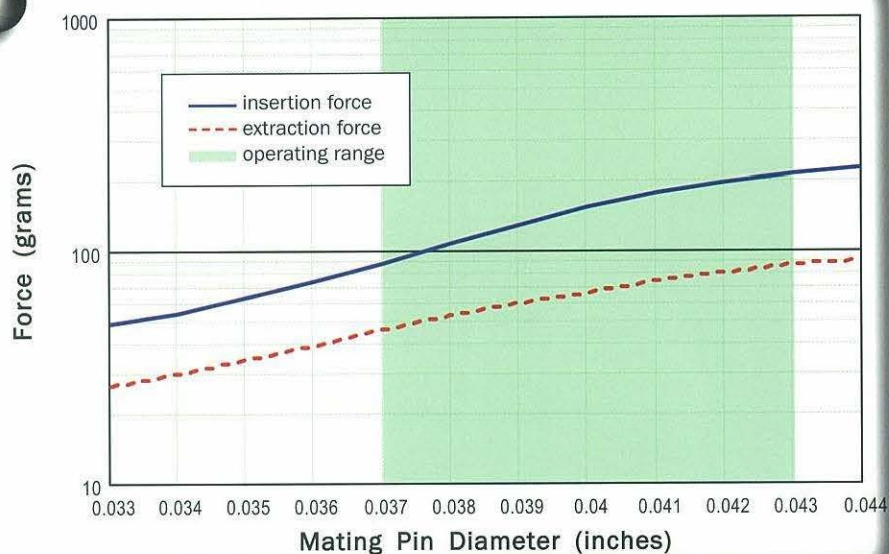
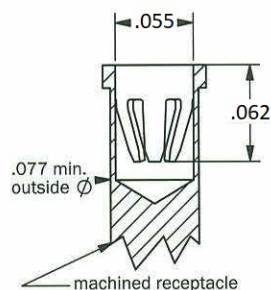
BERYLLIUM COPPER Alloy 172, HT

Two-Piece Receptacles

Contact #39

6-finger

For Use With .037 To .043 Dia. Pins



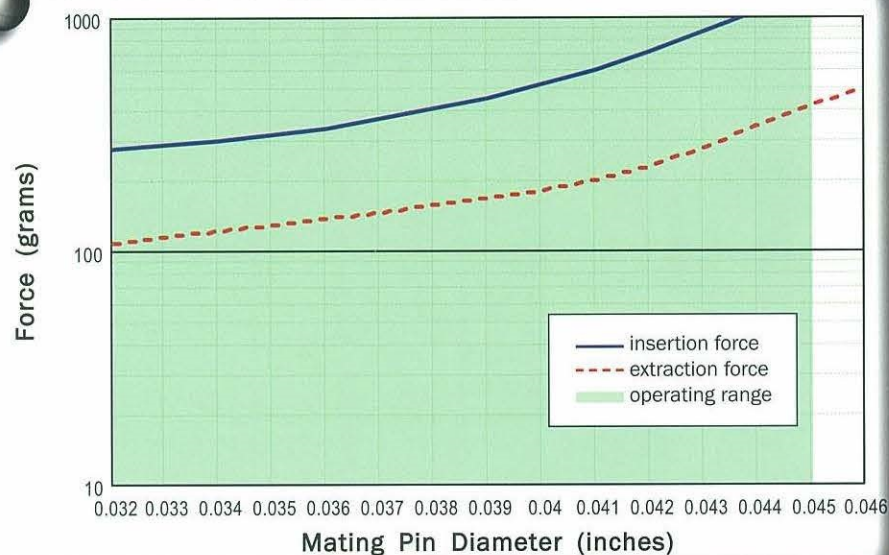
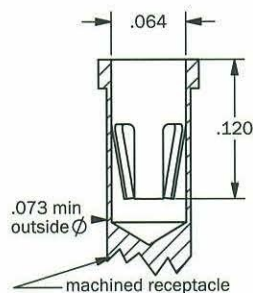
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #42

4-finger

For Use With .032 To .045 Dia. Pins



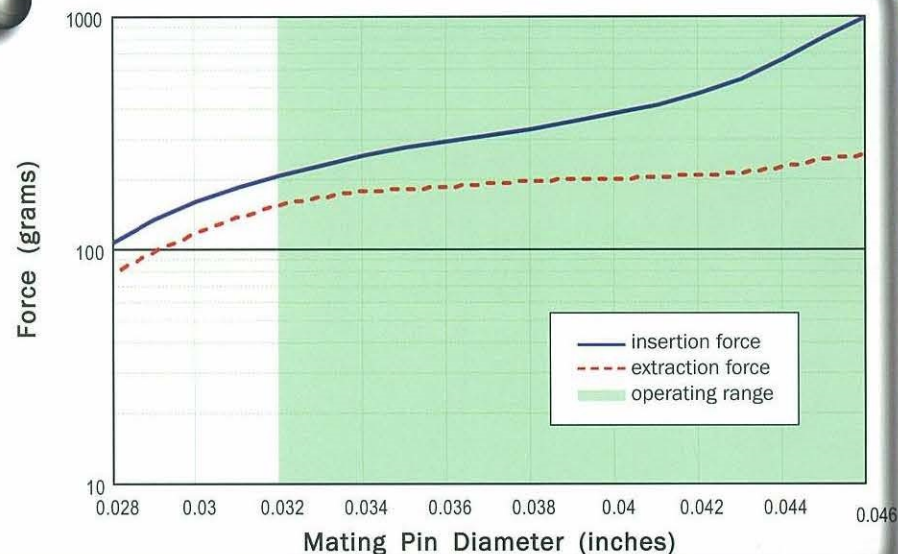
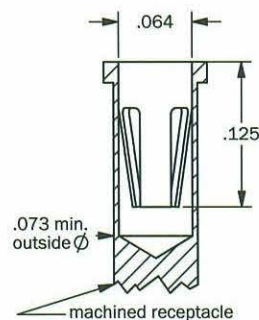
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #56

4-finger

For Use With .032 To .046 Dia. Pins



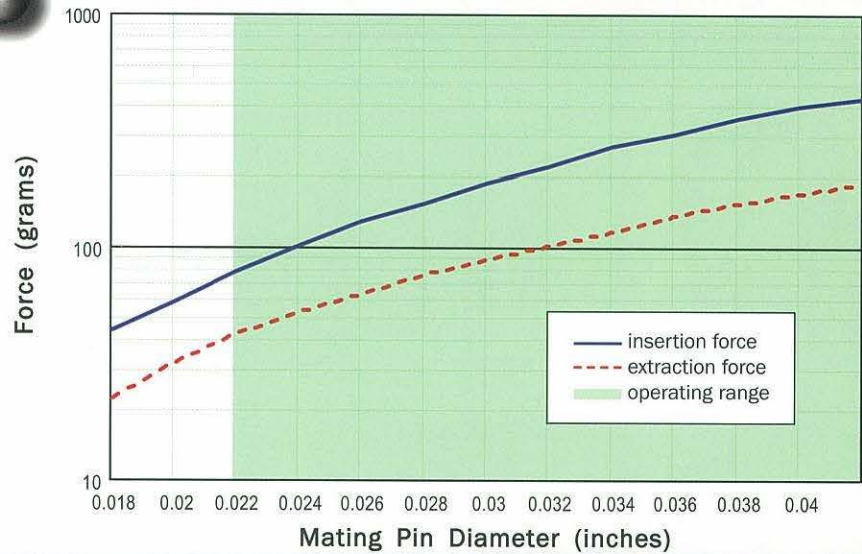
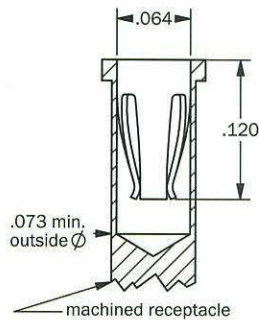
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Two-Piece Receptacles

Contact #58 4-finger

For Use With .022 To .042 Dia. Pins

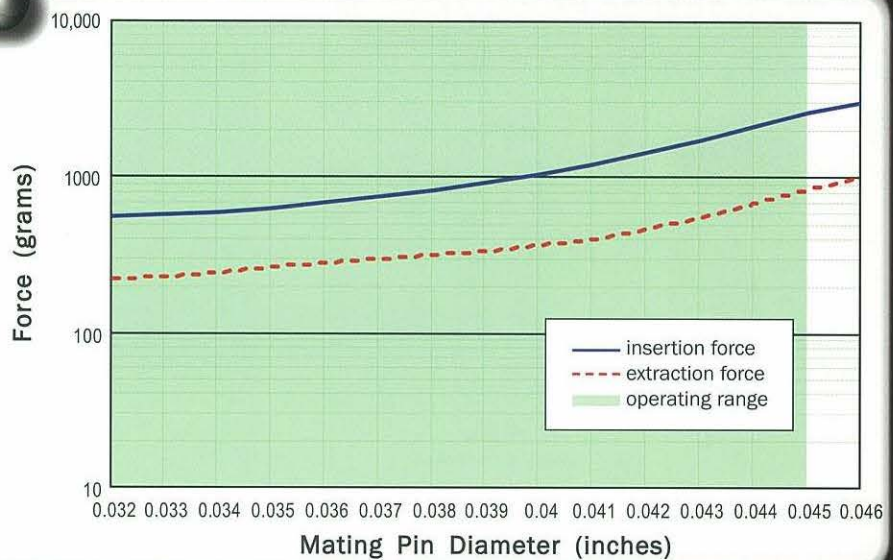
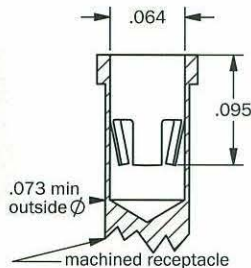


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #59 4-finger

For Use With .032 To .045 Dia. Pins

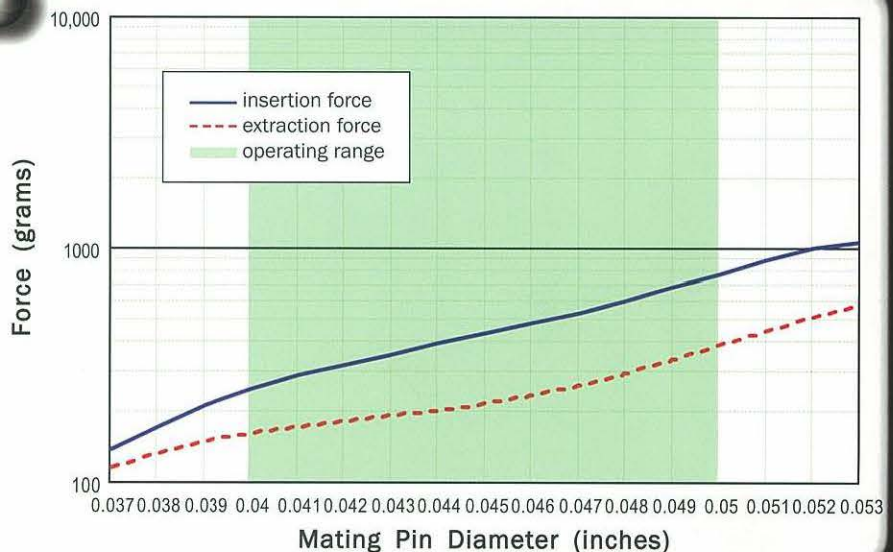
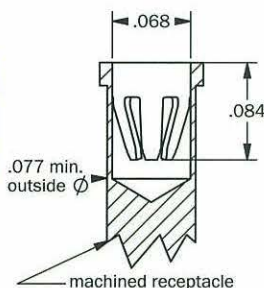


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #60 6-finger

For Use With .040 To .50 Dia. Pins



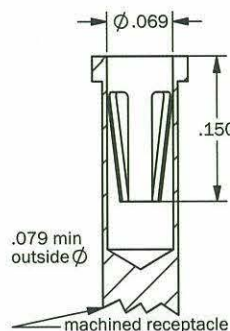
Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Two-Piece Receptacles

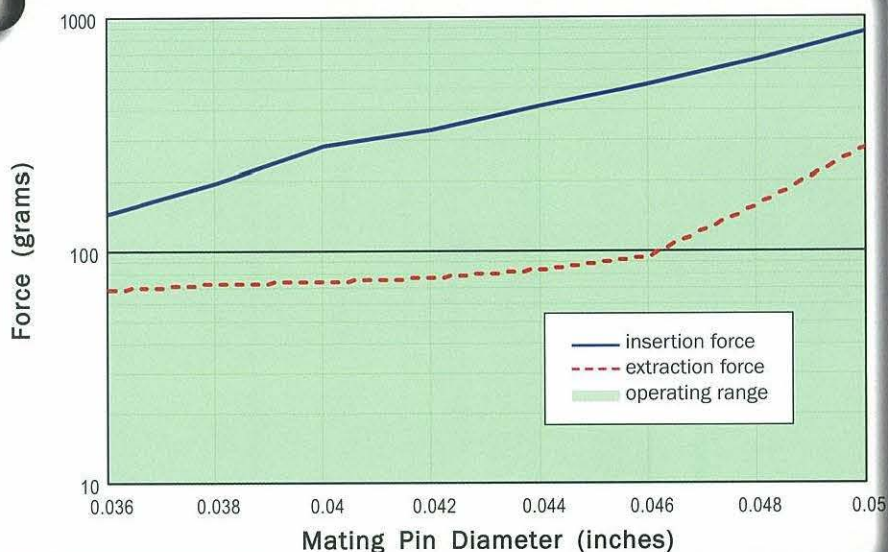
Contact #50 4-finger

For Use With .036 To .050 Dia. Pins



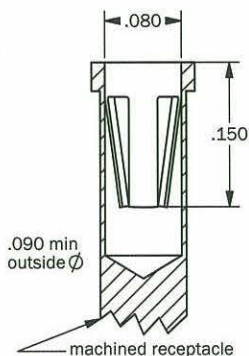
Contact Material:

BERYLLIUM COPPER Alloy 172, HT



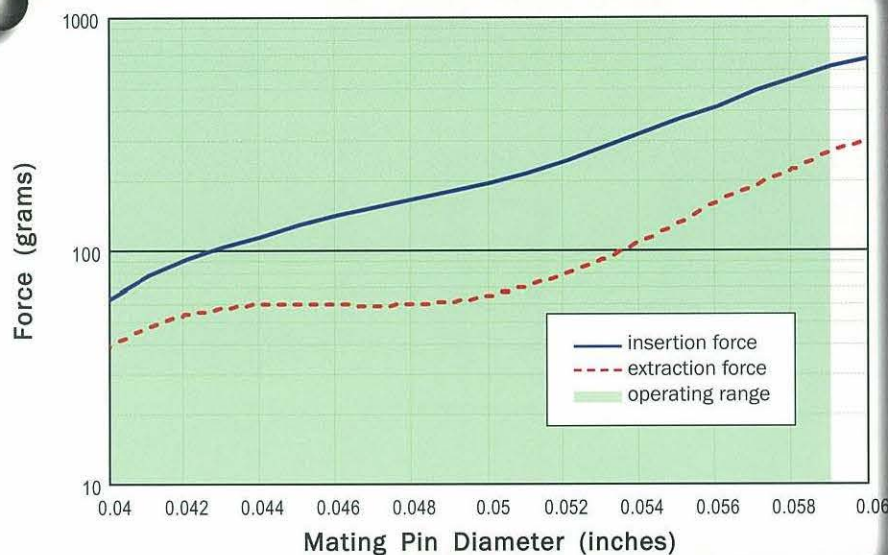
Contact #41 4-finger

For Use With .040 To .059 Dia. Pins



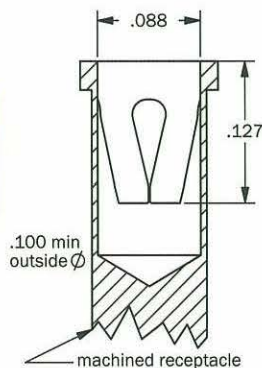
Contact Material:

BERYLLIUM COPPER Alloy 172, HT



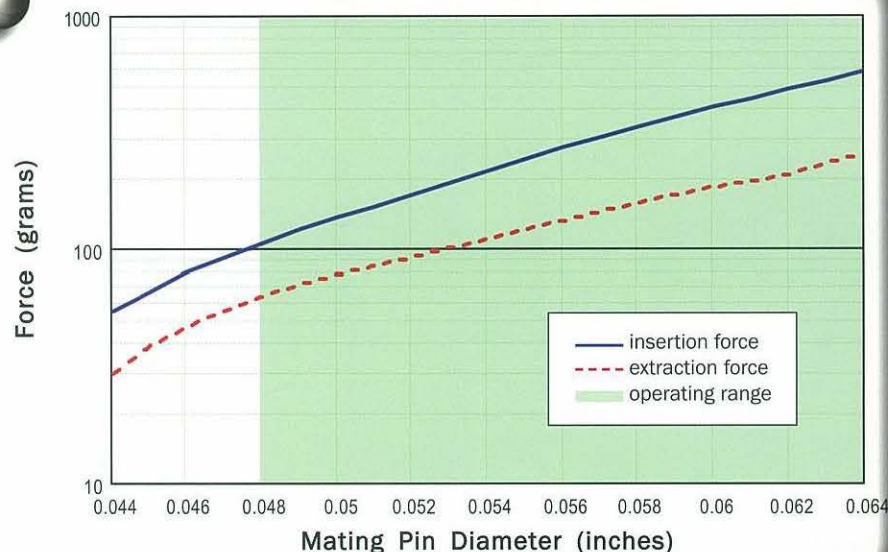
Contact #67 4-finger

For Use With .048 To .064 Dia. Pins



Contact Material:

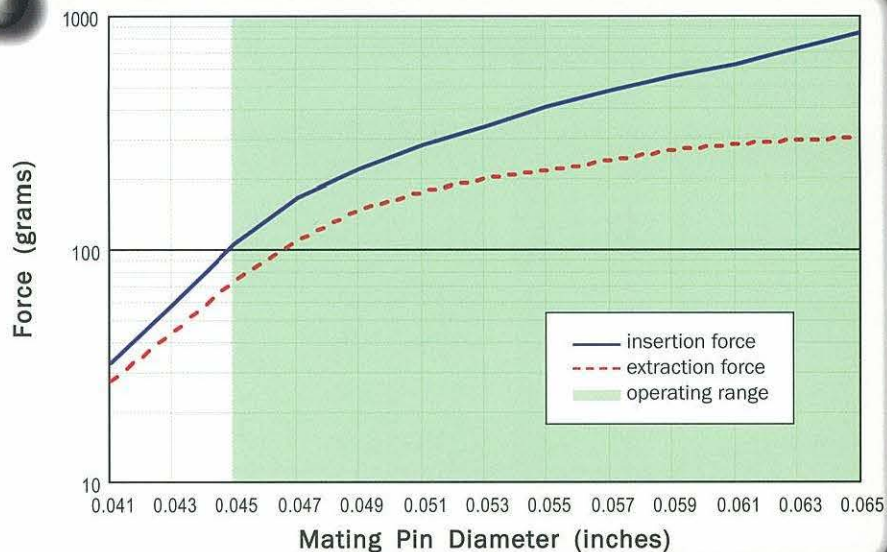
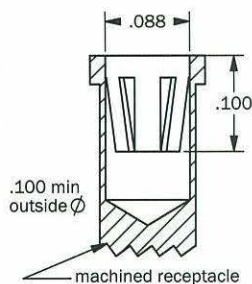
BERYLLIUM COPPER Alloy 172, HT



Two-Piece Receptacles

Contact #57 6-finger

For Use With .046 To .065 Dia. Pins

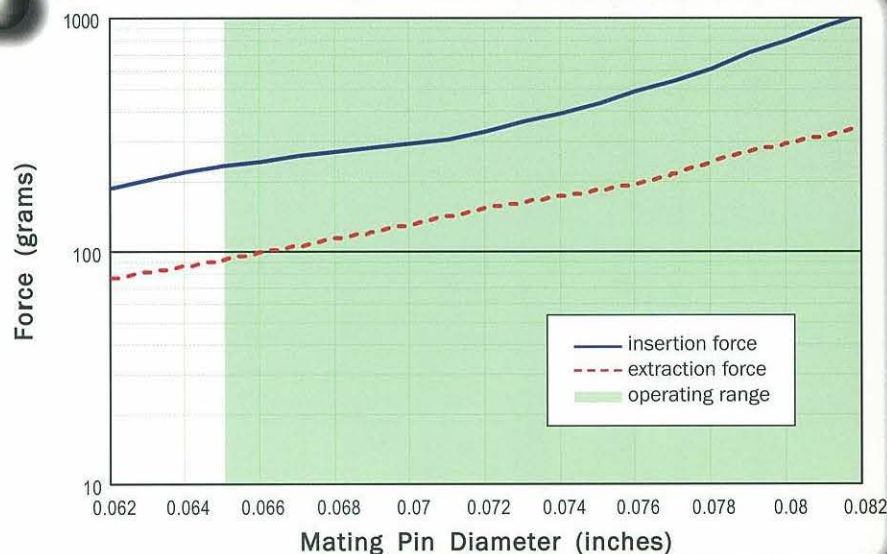
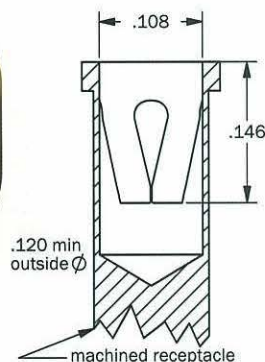


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #40 4-finger

For Use With .065 To .082 Dia. Pins

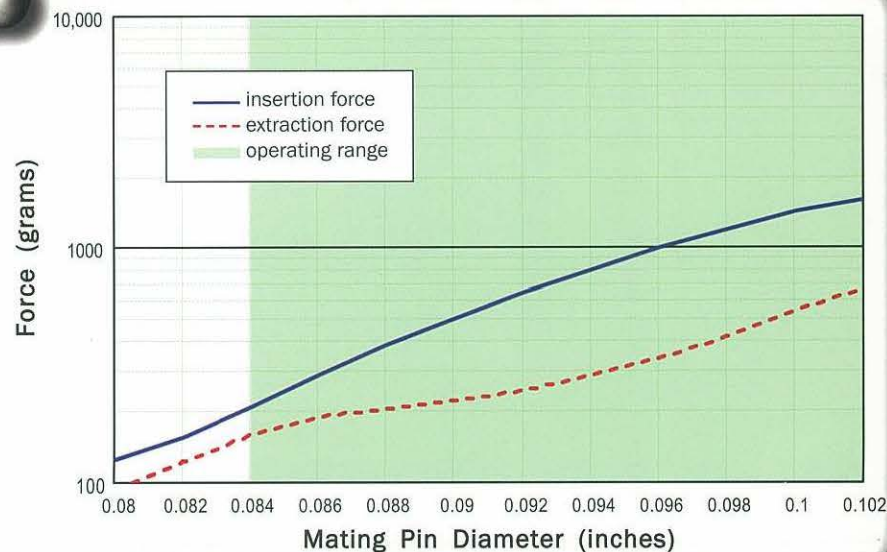
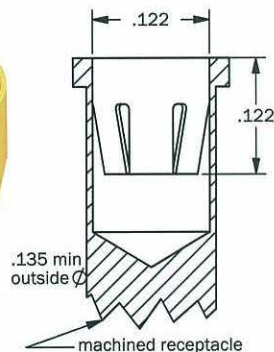


Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact #55 6-finger

For Use With .084 To .102 Dia. Pins



Contact Material:

BERYLLIUM COPPER Alloy 172, HT

Contact Selection Chart

Grouped For Compatibility	Contact Type	Acceptance Range	# of Fingers	Insertion Force(gm)	Test Pin	Outside Dia.	Length	Current Amps
	#10	.006-.011	3	66	.011	.0196	.053	2A
	#63	.007-.012	3	22	.011	.0225	.065	2A
	#28	.012-.017	6	120	.015	.028	.060	2A
	#20	.015-.018	3	118	.015	.031	.050	2A
	#61	.015-.021	3	35	.018	.031	.075	3A
	#30	.015-.020	3	110	.018	.031	.075	3A
	#21	.012-.019	6	120	.015	.031	.060	3A
	#32	.015-.020	3	40	.018	.031	.075	3A
	#36	.015-.025	4	270	.018	.044	.083	3A
	#62	.015-.022	4	380	.018	.044	.065	3A
	#33	.015-.022	4	135	.018	.044	.065	3A
	#34	.015-.023	6	90	.018	.044	.062	3A
	#46	.015-.026	6	25	.018	.044	.082	3A
	#45	.015-.026	6	50	.018	.044	.083	3A
	#44	.022-.032	4	300	.030	.051	.113	4A
	#54	.025-.035	6	375	.034	.051	.084	4A
	#64	.030-.037	6	140	.034	.052	.084	4A
	#74	.025-.037	6	125	.034	.051	.083	4A
	#39	.037-.043	6	160	.040	.055	.062	8A
	#42	.032-.045	4	500	.040	.064	.120	8A
	#56	.032-.046	4	290	.040	.064	.125	8A
	#58	.022-.042	4	300	.040	.064	.120	8A
	#59	.032-.045	4	1000	.040	.064	.095	8A
	#60	.040-.050	6	450	.045	.068	.084	8A
	#50	.036-.050	6	290	.040	.069	.15	8A
	#41	.040-.059	4	200	.050	.080	.150	8A
	#67	.048-.064	4	500	.066	.088	.127	10A
	#57	.045-.065	6	650	.062	.088	.100	10A
	#40	.065-.082	4	800	.080	.108	.140	15A
	#55	.084-.102	6	850	.095	.084	.125	18A



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