

Contact Springs

Contact strips are used to ensure shielding, or electrical continuity and close gaps between two surfaces. For optimal shielding performance, the band must be able to cover the minimum and maximum gap. These strips are made of Beryllium Copper strips, this material offers excellent elastic characteristics which ensures a good spring effect (low persistence), combined with a material of high mechanical strength. These other advantages are, among others: good corrosion resistance and self-cleaning by the simple action of the openings and closures of the contacts. Beryllium Copper is resistant to air, ozone, solvents, UV and even nuclear radiation. It can be used over a wide range of frequencies and temperatures.



In addition, it has excellent thermal and electrical conductivity. Compared to other EMI/RFI seals, the contact bands are lighter and require less closing force. They are also flammable and free of degassing.

Welding or spot welding ensures very good contact and grounding. Generally, the electrochemical reaction must be taken into account to limit the galvanic torque. In many cases, it is recommended to use a specific treatment (example: tinning) to get closer to the tables of electrochemical potentials.

Contact strips are supplied as standard without Cu/Be treatment. On request, a surface treatment can be added such as: tinning, zinc plating, nickel plating or silver. By using the appropriate compression force, the contacts will not be damaged and will retain their elastic/spring characteristics.

Our standard range offers a wide variety of contact tape. Of course, we can also provide custom/customized contact bands. From a map and a description of the environment, we will offer a suitable contact finger.

Technical characteristics and properties of CuBe

Features	Units	Values
Surface treatment	/	Silver, nickel-plated, tinned, zinc-plated
Density	g/cm ³	8.36
Elastic modulus	kg/mm ²	13.4
Elastic limit	kg/mm ²	112 - 138
Elongation	%	12 - 30
Tensile strength	kg/mm ²	130 - 152
Average compression ratio	%	+/- 25
Electric conductivity	% (IACS**)	22 - 28
Temperature use with adhesive	°C	- 30 + 100
Temperature use without adhesive	°C	- 55 + 230
Melting point	°C	870 - 980
Thermal Conductivity	W/m-K	104
Thermal expansion coefficient	m/m/°C (-20°C + 200°C)	9,7 x 10 ⁻⁶
Hardness - Diamond Pyramid*	/	373 - 435 (after heat treatment)
Storage condition	HR	< 50

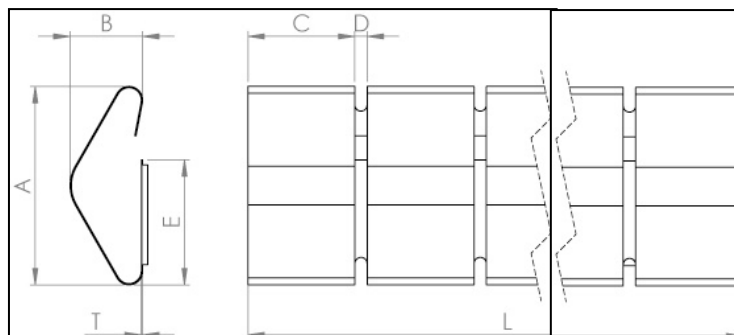
*Hardness values with diamond pyramid are derived from direct conversion of the Rockwell hardness scale

** IACS : International Annealed Copper Standard (norme internationale du cuivre recuit)

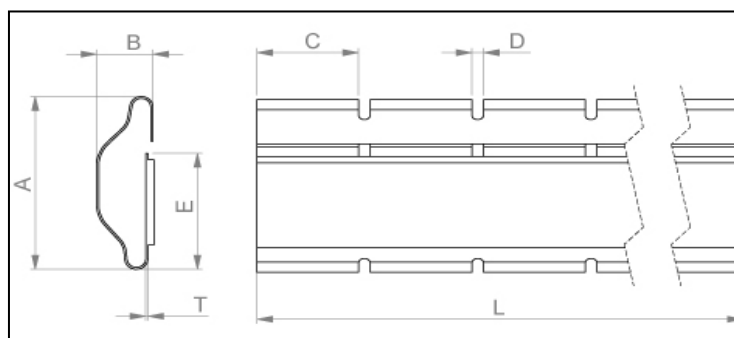
Contact Springs

+ Shapes and dimensions: Contact fingers ADHESIFS

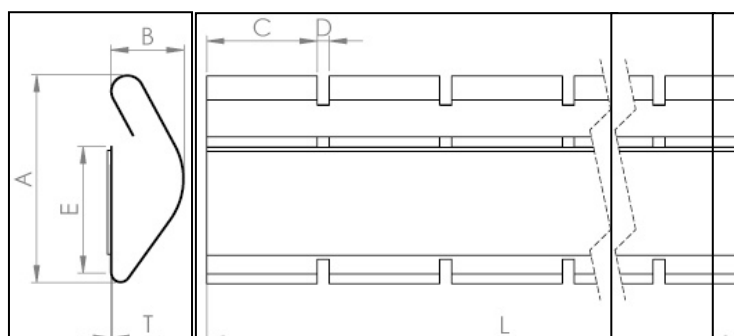
Ref	A	B	C	D	E	T	L
302	9.4	3.3	5.7	0.6	5.3	0.05	406
304	19.8	8.3	8.7	0.8	11.2	0.1	455
371	25.9	10.1	11.7	1	20.4	0.08	420



Ref	A	B	C	D	E	T	L
311	8.1	2.4	4.3	0.5	5.5	0.09	406
312	9.4	3.3	5.7	0.6	5.2	0.09	406



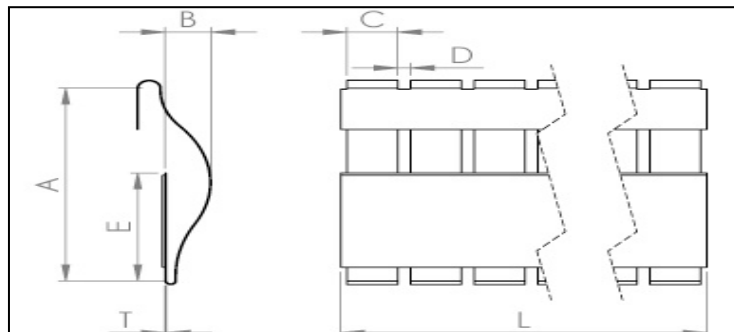
Ref	A	B	C	D	E	T	L
341	8.1	2.8	4.2	0.5	5.3	0.05	408
342	15.2	5.6	8.7	0.8	7.1	0.08	608



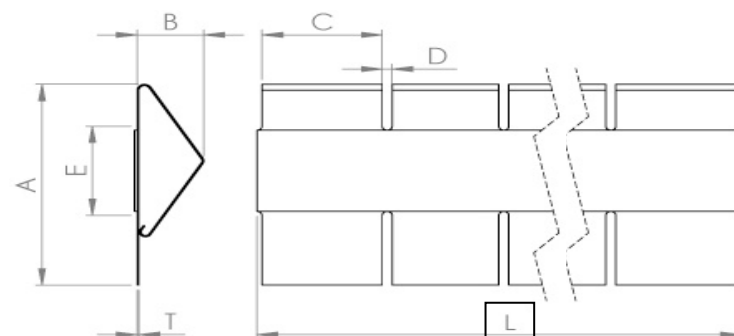
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Shapes and dimensions: Contact fingers ADHESIFS

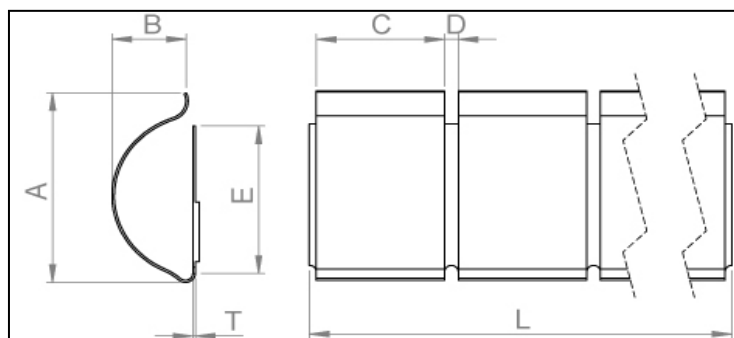
Ref	A	B	C	D	E	T	L
362	15.2	2.3	2.5	0.6	8.3	0.06	407



Ref	A	B	C	D	E	T	L
381	12.7	3.3	6	0.5	9.6	0.08	403



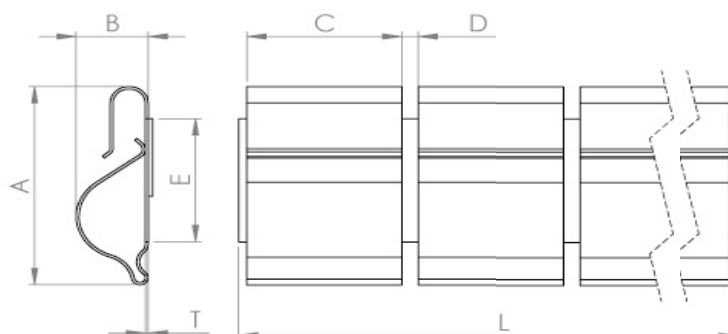
Ref	A	B	C	D	E	T	L
404	19.8	6.4	8.5	1	13.5	0.13	608
405	28.8	10.4	11.7	1	19.8	0.18	304
421	7.1	2.7	4.3	0.5	5.8	0.08	406
422	9.4	3.9	5.8	0.6	7.8	0.08	406
423	15.3	5.9	8.7	0.8	12.6	0.1	409
441	21.1	5.9	8.5	1	17.6	0.1	408
777	17	7.5	8.5	1	13.5	0.1	610



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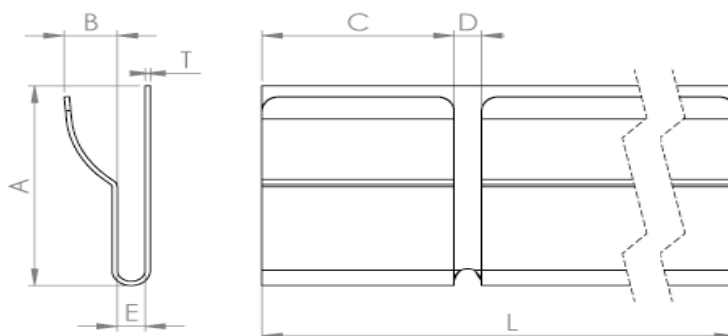
Shapes and dimensions: Contact fingers **ADHESIFS**

Ref	A	B	C	D	E	T	L
411	6.4	2	4.3	0.5	4	0.08	406
413	13	3.8	5.8	0.6	7.5	0.08	406
414	19.3	5.8	8.7	0.8	10.5	0.1	608

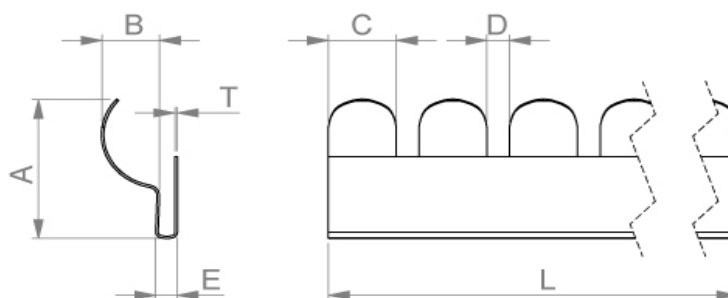


Shapes and dimensions: Contact fingers with **CLIP**

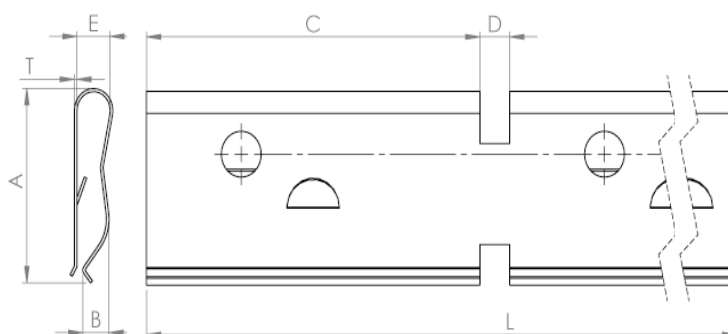
Ref	A	B	C	D	E	T	L
101	7.1	1.5	5.6	0.8	0.8	0.15	407



Ref	A	B	C	D	E	T	L
112	8	2.9	3.6	1.2	1	0.13	407
113	7.8	2.9	3.6	1.2	1.5	0.13	407
123	11.1	3.5	3.6	1.2	1.7	0.13	407
131	11.4	2.3	3.6	1.2	1.7	0.08	407
152	13.8	4.5	3.6	1.2	1.2	0.13	407
153	13.9	4.5	3.6	1.2	1.7	0.13	407
187	11.1	2.9	3.6	0.6	1.2	0.1	32.1



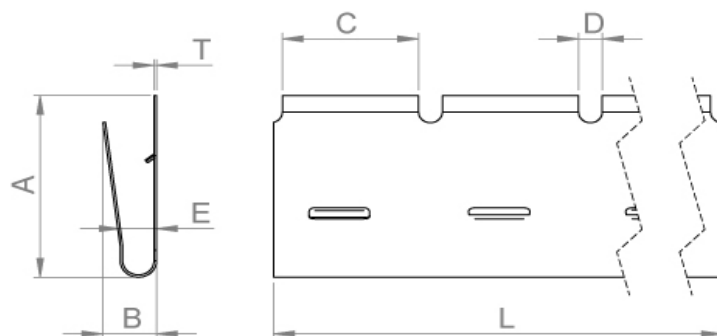
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161	6.4	1	12.7	1.1	1.3	0.1	414



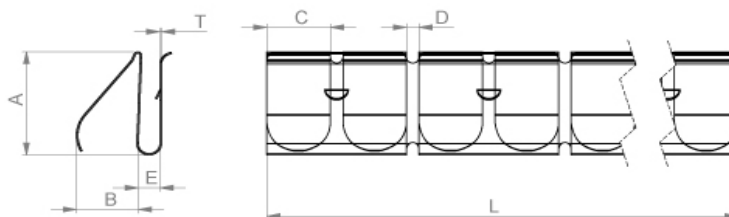
Contact Springs

Shapes and dimensions: Contact fingers with CLIP

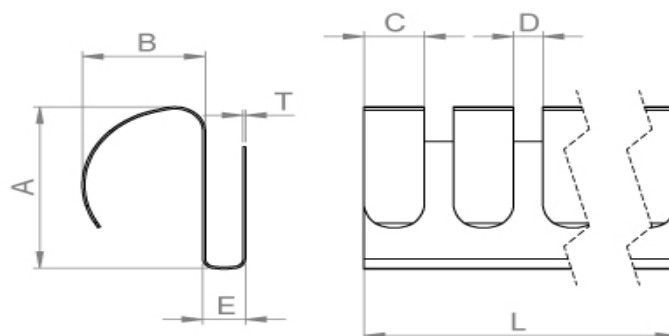
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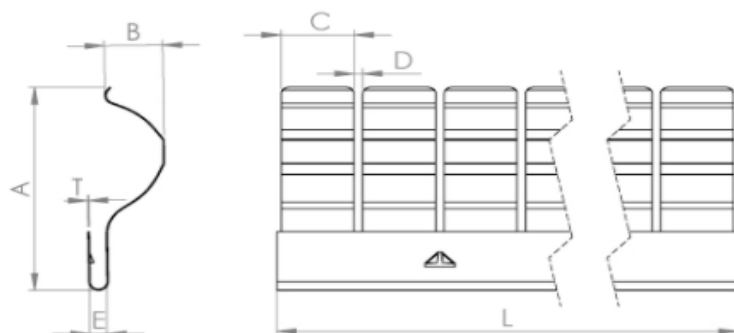
Ref	A	B	C	D	E	T	L
201	9.6	5.2	5.3	1	1.8	0.13	406



Ref	A	B	C	D	E	T	L
211	10.6	6.5	3.2	1.6	2	0.13	405



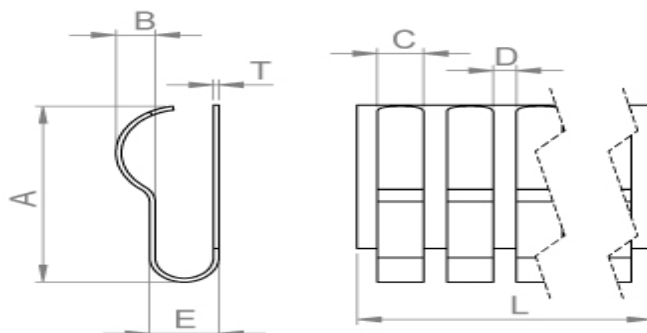
Ref	A	B	C	D	E	T	L
241	27	6.8	8.5	1	2	0.13	494
818	27.3	6.2	8.5	1	1.7	0.12	406



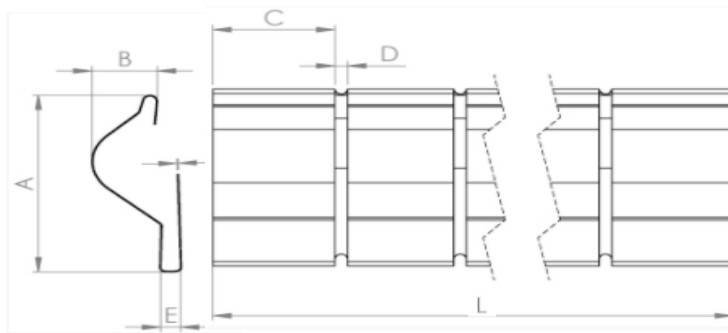
Contact Springs

Shapes and dimensions: Contact fingers with CLIP

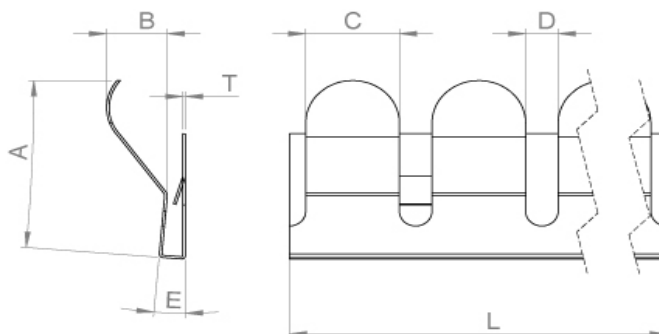
Ref	A	B	C	D	E	T	L
171	6.9	1.1	1.3	0.6	1.9	0.15	406



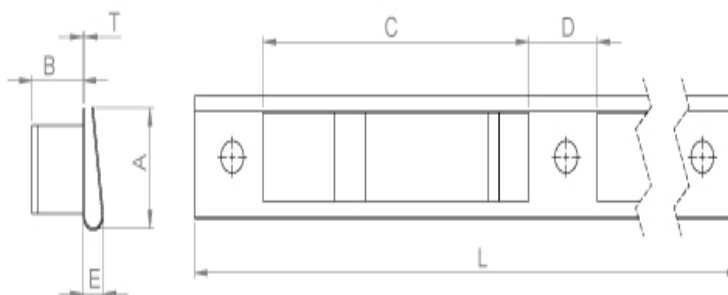
Ref	A	B	C	D	E	T	L
221	10.3	3.2	5.7	0.6	0.9	0.05	409
222	10.2	3.2	5.7	0.6	1.6	0.05	409
231	16.2	5.2	8.7	0.8	1.5	0.09	455



Ref	A	B	C	D	E	T	L
176	8	2.1	3.5	1.2	1.6	0.1	406
186	7.6	2.3	3.6	1.3	0.8	0.1	427



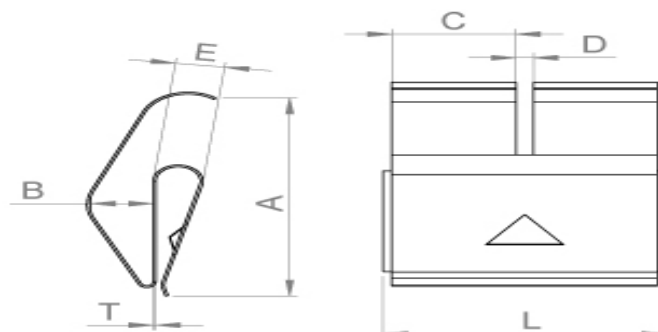
Ref	A	B	C	D	E	T	L
291	7.5	4.5	23.2	6	1.5	0.13	433



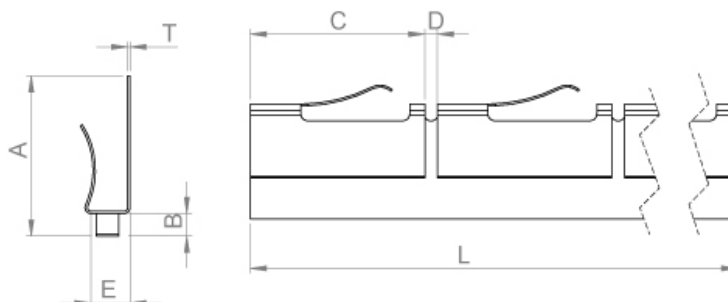
Contact Springs

Shapes and dimensions: Contact fingers with CLIP

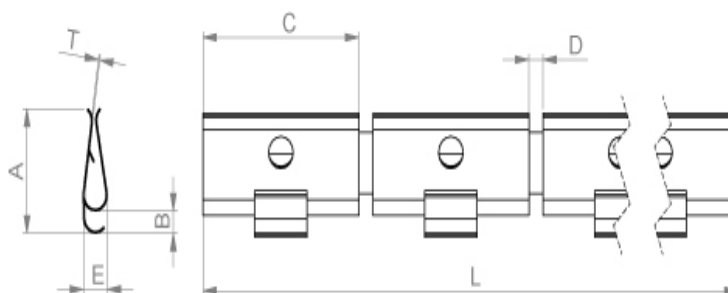
Ref	A	B	C	D	E	T	L
599-1	13.1	3.6	5.6	0.8	1	0.13	409.6
599-1,5	13.1	2.8	5.6	0.8	1.5	0.13	409.6
599-2	13.1	2.1	5.6	0.8	2	0.13	409.6
600	14.8	3.1	5.6	0.8	1.8	0.1	406
601-1	14.6	3.6	5.6	0.8	1	0.13	409.6
601-1,5	14.5	3.3	5.6	0.8	1.5	0.13	409.6
601-2	14.2	3.1	5.6	0.8	2	0.13	409.6
863	9.1	2.9	8	8	1.2	0.15	25



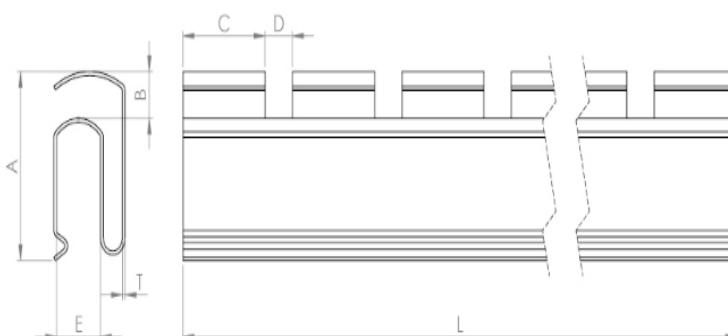
Ref	A	B	C	D	E	T	L
296	5.4	0.8	7.1	0.5	1.4	0.08	404



Ref	A	B	C	D	E	T	L
602	7.7	1.4	12.7	1.1	1.8	0.1	415



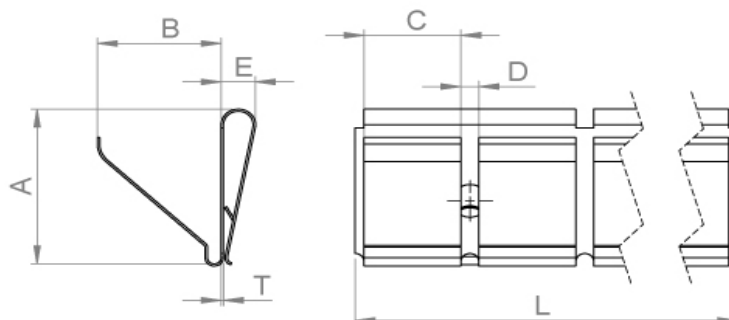
Ref	A	B	C	D	E	T	L
603	4.9	1.2	3	1	1.6	0.1	240



Contact Springs

Shapes and dimensions: Contact fingers with **CLIP**

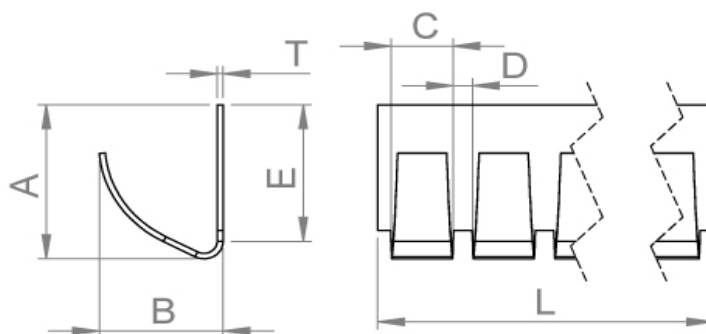
Ref	A	B	C	D	E	T	L
261	9.6	7	5.4	1	1.6	0.13	405



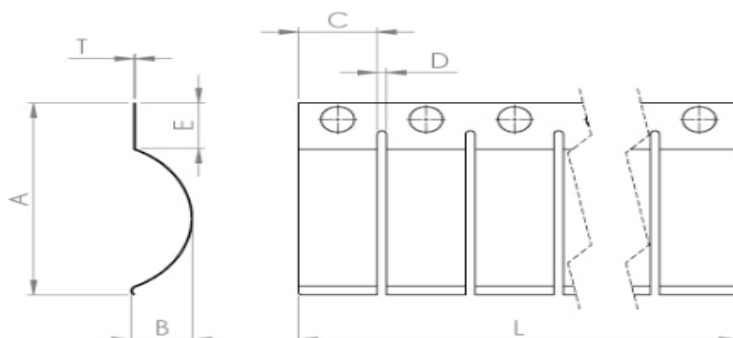
Shapes and dimensions: Contact fingers **A SPECIAL ASSEMBLY**

Vissage, soudure, rivetage.

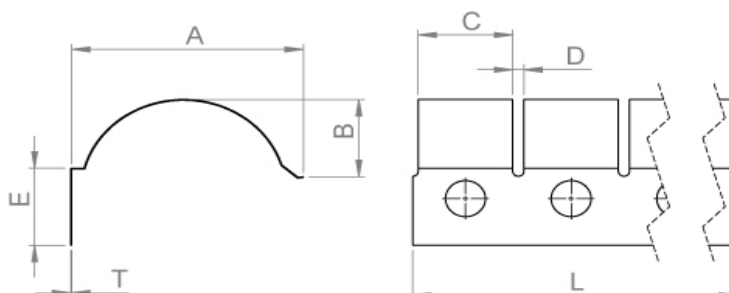
Ref	A	B	C	D	E	T	L
391	7.1	5.2	2.5	0.9	6.3	0.25	406.0



Ref	A	B	C	D	E	T	L
801	27	6.6	8.5	1	6.5	0.13	408.0
803	41.4	9.9	11.7	1	9.9	0.18	406.0
832	42.3	11.5	11.5	1.2	9.5	0.1	406.0



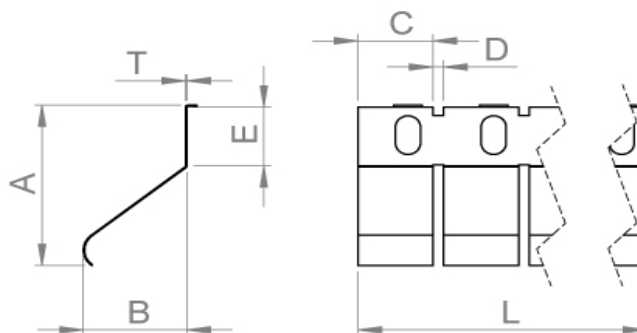
Ref	A	B	C	D	E	T	L
811	20.9	7.9	8.5	1	7.6	0.08	409
815	9.4	3.7	5.8	0.6	7.9	0.08	406
816	18.8	6.9	8.5	1	8.7	0.13	406
823	7.1	3.2	4.3	0.5	5.7	0.08	408
824	28.7	10.7	11.7	1	18.8	0.18	406
847	9.4	3.6	5.8	0.6	8.1	0.08	406



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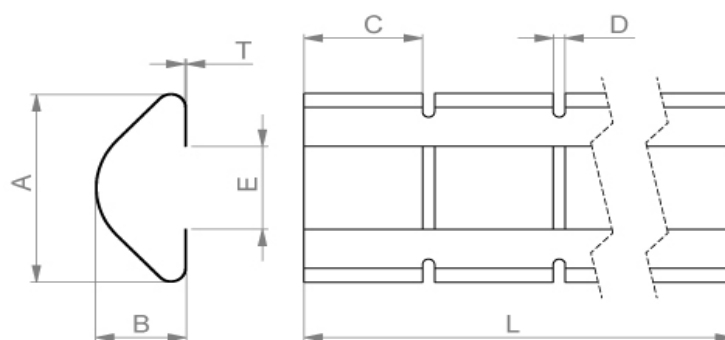
+ Shapes and dimensions: Contact fingers **A SPECIAL ASSEMBLY**

Ref	A	B	C	D	E	T	L
835	24.9	15.9	10.5	1.5	9.5	0.15	406
856	17.5	6.2	9	1	10.1	0.1	600



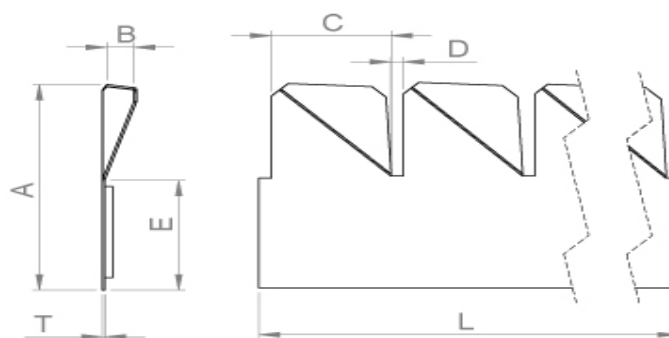
+ Shapes and dimensions: Contact fingers **TO ENGAGE**

Ref	A	B	C	D	E	T	L
721	20.3	8.1	8.7	/	10.1	0.1	8.7
732	7.6	3.3	4.3	0.4	3.3	0.05	333
736	8.1	2.8	4.3	0.5	3.8	0.08	402
748	15.3	5.7	6.4	0.8	8.3	0.13	400
762	8.9	2.8	4.3	0.5	2.1	0.08	406
792	9.4	3.6	4.5	0.7	5	0.08	14.9

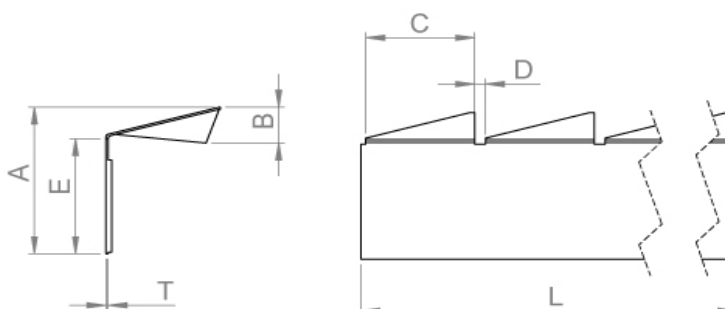


+ Shapes and dimensions: contact fingers **TWISTED**

Ref	A	B	C	D	E	T	L
504	8.8	1.1	3.8	0.4	4.7	0.08	21.4
571	5.9	0.8	2.1	0.4	3.6	0.08	610



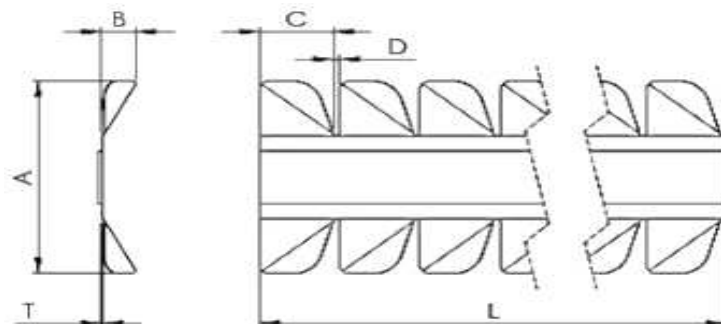
Ref	A	B	C	D	E	T	L
505	5.7	1.4	3.8	0.4	4.5	0.08	504
506	6.8	1.8	3.8	0.4	5	0.08	406
524	4.1	0.6	2.1	0.4	3.6	0.08	501



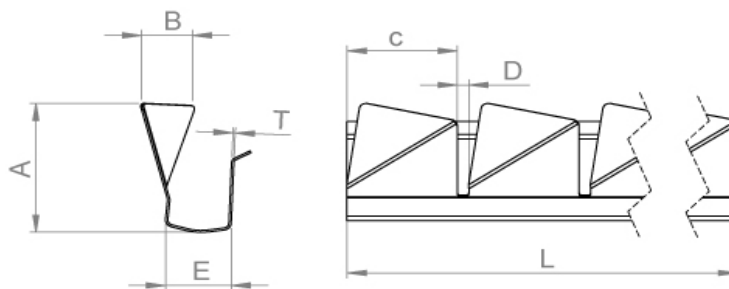
Contact Springs

Shapes and dimensions: contact fingers **TWISTED**

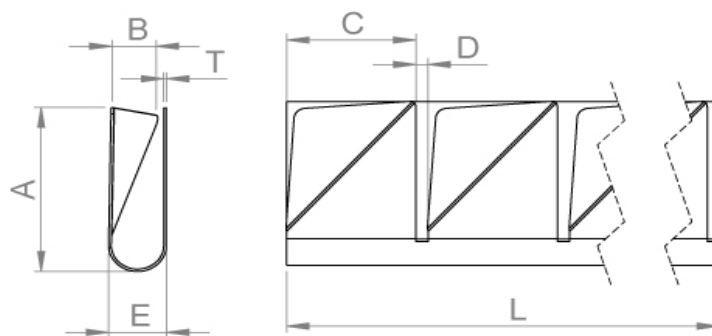
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510	12	1.7	3.9	0.3	0.08	406



Ref	A	B	C	D	E	T	L
512	5.2	1.5	3.8	0.4	1.5	0.07	407
516	6.5	1.2	3.8	0.6	2	0.03	407



Ref	A	B	C	D	E	T	L
582	3.8	1	2	0.4	1.2	0.05	192



The results were obtained under laboratory conditions and should be considered only as an indication. As AB2E has no control over its customers' equipment and many other factors, it is the user's responsibility to carry out its own tests to ensure that the product corresponds to its needs.