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bruno

CONDUCTORS



COLLEGAMENTI ELETTRICI FLESSIBILI IN RAME
FLEXIBLE COPPER CONDUCTORS

PROFILO AZIENDA

Dal **1959** abbiamo accumulato 50 anni di ininterrotta esperienza assistendo i clienti dalla progettazione fino al prodotto finito, con l'utilizzo di sistemi CAD-CAM e macchinari a Controllo Numerico.

Tutti i prodotti sono interamente sviluppati all'interno dell'azienda dai nostri tecnici specializzati, con sviluppo di tecnologie, processi ed attrezzature.

Sono disponibili esecuzioni standard e speciali.

Il nostro impegno è rivolto ad una stretta collaborazione con i clienti offrendo consegne rapide e prodotti personalizzati.



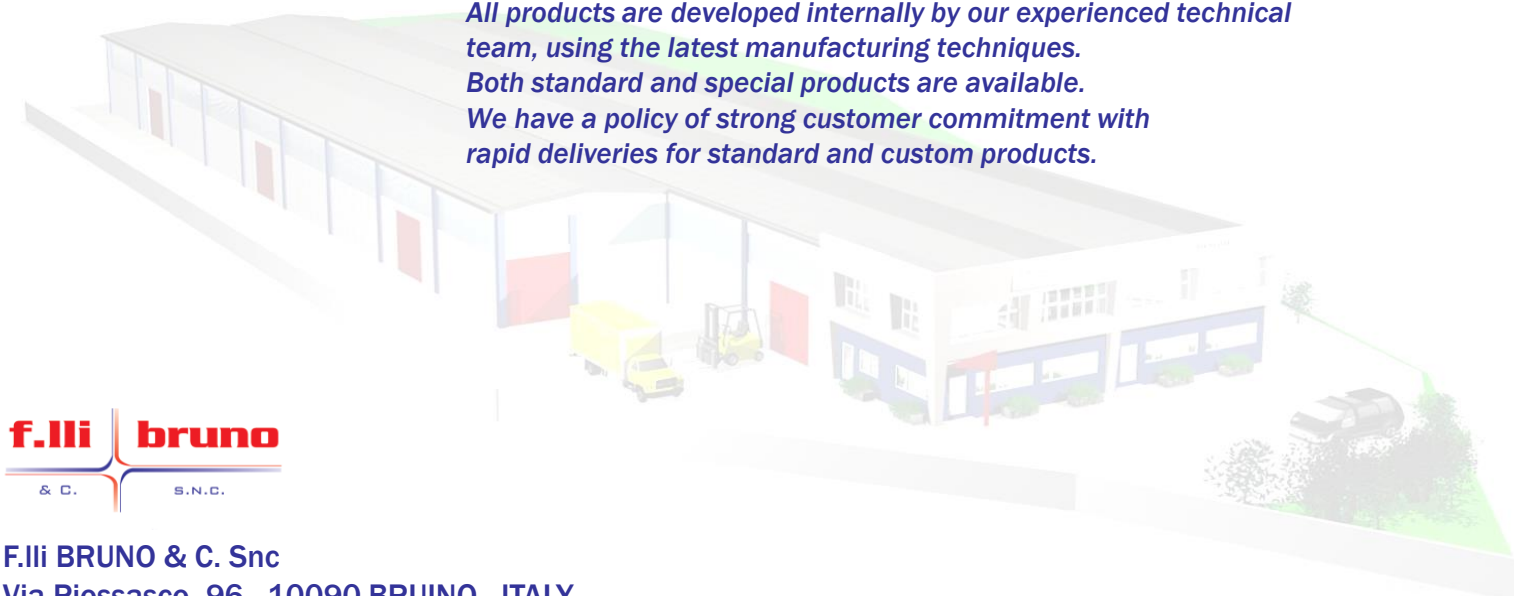
THE COMPANY

*From **1959** we amassed 50 years of uninterrupted experience assisting clients from concept to finished product and using CAD-CAM design and manufacturing systems linked to CNC equipment.*

All products are developed internally by our experienced technical team, using the latest manufacturing techniques.

Both standard and special products are available.

We have a policy of strong customer commitment with rapid deliveries for standard and custom products.



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Please take notice that it is not allowed to use our photos, drawings or catalogue pages without having our explicit authorization.



50 ANNI YEARS
1959 - 2009



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TRECCE DI MASSA EARTHING BRAIDS



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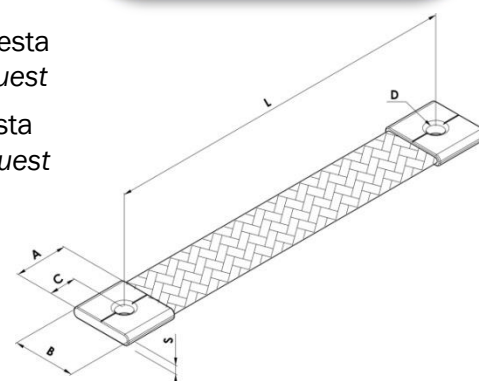


FS



FR/S

- Terminali in lamiera di rame ETP
ETP Copper strip terminals
- Filo elementare Cu-ETP UNI EN 13602
Single wire Cu-ETP UNI EN 13602
- Isolamento speciale su richiesta
Special insulation upon request
- Terminali pressostagnati su richiesta
Press-tinned terminals upon request
- Terminali pressosaldati su richiesta
Presswelded terminals upon request
- In Alluminio su richiesta
Aluminium upon request



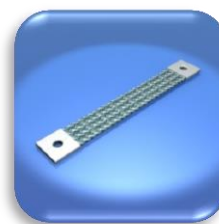
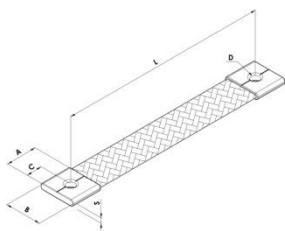
Soluzioni personalizzate Custom-made solutions

Rame Rosso Bare Copper	Rame Stagnato Tin-Plated Copper	Terminali Stagnati Tin-Plated Terminals	Sezione Cross-Sect. [mm ²]	Filo Elem. Single wire Ø [mm]	A [mm]	B [mm]	C [mm]	D [mm]	S [mm]
FR 2,5-7/L-D	FS 2,5-7/L-D	FR/S 2,5-7/L-D	2,5	0,10	8	7	4	3,2	1,5
FR 2,5-7/L-D	FS 2,5-7/L-D	FR/S 2,5-7/L-D	2,5	0,10	11	7	5	4,3	1,5
FR 4-9/L-D	FS 4-9/L-D	FR/S 4-9/L-D	4	0,10	11	9	5	4,3-5,3	1,7
FR 6-9/L-D	FS 6-9/L-D	FR/S 6-9/L-D	6	0,10	11	9	5	4,3-5,3	2
FR 6-11/L-D	FS 6-11/L-D	FR/S 6-11/L-D	6	0,10	13	11	5	5,3-7	1,5
FR 10-11/L-D	FS 10-11/L-D	FR/S 10-11/L-D	10	0,20	13	11	5	5,3-7	2,2
FR 10-14/L-D	FS 10-14/L-D	FR/S 10-14/L-D	10	0,20	13	14	6	5,3-7	2,1
FR 10-17/L-D	FS 10-17/L-D	FR/S 10-17/L-D	10	0,20	23	17	10	7-9-11-13	2
FR 10-17/L-9x14	FS 10-17/L-9x14	FR/S 10-17/L-9x14	10	0,20	23	17	10	9+Asola/Slot 9x14	2
FR 16-14/L-D	FS 16-14/L-D	FR/S 16-14/L-D	16	0,20	13	14	6	5,3-7	2,6
FR 16-17/L-D	FS 16-17/L-D	FR/S 16-17/L-D	16	0,20	23	17	10	7-9-11-13	2,5
FR 16-17/L-9x14	FS 16-17/L-9x14	FR/S 16-17/L-9x14	16	0,20	23	17	10	9+Asola/Slot 9x14	2,5
FR 25-23/L-D	FS 25-23/L-D	FR/S 25-23/L-D	25	0,20	23	23	10	7-9-11-13	3,2
FR 25-23/L-9x14	FS 25-23/L-9x14	FR/S 25-23/L-9x14	25	0,20	23	23	10	9+Asola/Slot 9x14	3,2
FR 35-23/L-D	FS 35-23/L-D	FR/S 35-23/L-D	35	0,20	23	23	10	7-9-11-13	3,4
FR 35-23/L-9x14	FS 35-23/L-9x14	FR/S 35-23/L-9x14	35	0,20	23	23	10	9+Asola/Slot 9x14	3,4
FR 50-23/L-D	FS 50-23/L-D	FR/S 50-23/L-D	50	0,20	23	23	10	7-9-11-13	4,5
FR 50-30/L-D	FS 50-30/L-D	FR/S 50-30/L-D	50	0,20	30	30	15	9-11-13-15	4
FR 75-30/L-D	FS 75-30/L-D	FR/S 75-30/L-D	75	0,20	30	30	15	9-11-13-15	5
FR 100-35/L-D	FS 100-35/L-D	FR/S 100-35/L-D	100	0,20	35	35	15	9-11-13-15	6
FR 150-35/L-D	FS 150-35/L-D	FR/S 150-35/L-D	150	0,20	35	35	15	9-11-13-15	8
FR 200-35/L-D	FS 200-35/L-D	FR/S 200-35/L-D	200	0,20	35	35	15	9-11-13-15	10

- Per ordinare, completare il codice con le misure "L" e "D"
Please insert "L" and "D" dimensions in your orders
- Sezioni e forature non comprese in tabella vengono allestite su richiesta
Special dimensions and design upon request

TRECCE DI MASSA EARTHING BRAIDS

Dimensioni Standard
Standard dimensions

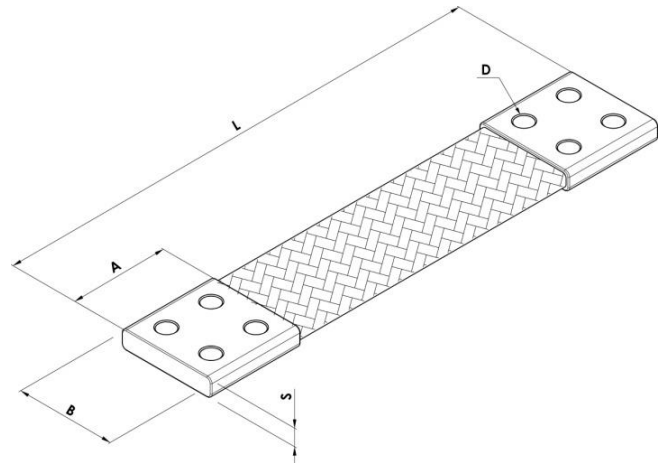


Rame Rosso Bare Copper	Rame Stagnato Tin-Plated Copper	Terminali Stagnati Tin-Plated Terminals	Sezione Cross-Sect. [mm ²]	Filo Elem. Single wire Ø [mm]	A [mm]	B [mm]	C [mm]	D [mm]	S [mm]	L [mm]
FR 6-11/75-7	FS 6-11/75-7	FR/S 6-11/75-7	6	0,10	13	11	5	7	1,5	75
FR 6-11/100-7	FS 6-11/100-7	FR/S 6-11/100-7	6	0,10	13	11	5	7	1,5	100
FR 6-11/150-7	FS 6-11/150-7	FR/S 6-11/150-7	6	0,10	13	11	5	7	1,5	150
FR 10-17/100-9	FS 10-17/100-9	FR/S 10-17/100-9	10	0,20	23	17	10	9	2	100
FR 10-17/150-9	FS 10-17/150-9	FR/S 10-17/150-9	10	0,20	23	17	10	9	2	150
FR 10-17/200-9	FS 10-17/200-9	FR/S 10-17/200-9	10	0,20	23	17	10	9	2	200
FR 10-17/250-9	FS 10-17/250-9	FR/S 10-17/250-9	10	0,20	23	17	10	9	2	250
FR 10-17/300-9	FS 10-17/300-9	FR/S 10-17/300-9	10	0,20	23	17	10	9	2	300
FR 16-17/150-9	FS 16-17/150-9	FR/S 16-17/150-9	16	0,20	23	17	10	9	2,5	150
FR 16-17/200-9	FS 16-17/200-9	FR/S 16-17/200-9	16	0,20	23	17	10	9	2,5	200
FR 16-17/250-9	FS 16-17/250-9	FR/S 16-17/250-9	16	0,20	23	17	10	9	2,5	250
FR 16-17/300-9	FS 16-17/300-9	FR/S 16-17/300-9	16	0,20	23	17	10	9	2,5	300
FR 16-17/350-9	FS 16-17/350-9	FR/S 16-17/350-9	16	0,20	23	17	10	9	2,5	350
FR 25-23/150-9	FS 25-23/150-9	FR/S 25-23/150-9	25	0,20	23	23	10	9	3,2	150
FR 25-23/200-9	FS 25-23/200-9	FR/S 25-23/200-9	25	0,20	23	23	10	9	3,2	200
FR 25-23/250-9	FS 25-23/250-9	FR/S 25-23/250-9	25	0,20	23	23	10	9	3,2	250
FR 25-23/300-9	FS 25-23/300-9	FR/S 25-23/300-9	25	0,20	23	23	10	9	3,2	300
FR 25-23/350-9	FS 25-23/350-9	FR/S 25-23/350-9	25	0,20	23	23	10	9	3,2	350
FR 35-23/150-9	FS 35-23/150-9	FR/S 35-23/150-9	35	0,20	23	23	10	9	3,4	150
FR 35-23/200-9	FS 35-23/200-9	FR/S 35-23/200-9	35	0,20	23	23	10	9	3,4	200
FR 35-23/250-9	FS 35-23/250-9	FR/S 35-23/250-9	35	0,20	23	23	10	9	3,4	250
FR 35-23/300-9	FS 35-23/300-9	FR/S 35-23/300-9	35	0,20	23	23	10	9	3,4	300
FR 35-23/350-9	FS 35-23/350-9	FR/S 35-23/350-9	35	0,20	23	23	10	9	3,4	350
FR 50-30/150-11	FS 50-30/150-11	FR/S 50-30/150-11	50	0,20	30	30	15	11	4	150
FR 50-30/200-11	FS 50-30/200-11	FR/S 50-30/200-11	50	0,20	30	30	15	11	4	200
FR 50-30/250-11	FS 50-30/250-11	FR/S 50-30/250-11	50	0,20	30	30	15	11	4	250
FR 50-30/300-11	FS 50-30/300-11	FR/S 50-30/300-11	50	0,20	30	30	15	11	4	300
FR 50-30/350-11	FS 50-30/350-11	FR/S 50-30/350-11	50	0,20	30	30	15	11	4	350
FR 75-30/150-11	FS 75-30/150-11	FR/S 75-30/150-11	75	0,20	30	30	15	11	5	150
FR 75-30/200-11	FS 75-30/200-11	FR/S 75-30/200-11	75	0,20	30	30	15	11	5	200
FR 75-30/250-11	FS 75-30/250-11	FR/S 75-30/250-11	75	0,20	30	30	15	11	5	250
FR 75-30/300-11	FS 75-30/300-11	FR/S 75-30/300-11	75	0,20	30	30	15	11	5	300
FR 75-30/350-11	FS 75-30/350-11	FR/S 75-30/350-11	75	0,20	30	30	15	11	5	350
FR 100-35/150-13	FS 100-35/150-13	FR/S 100-35/150-13	100	0,20	35	35	15	13	6	150
FR 100-35/200-13	FS 100-35/200-13	FR/S 100-35/200-13	100	0,20	35	35	15	13	6	200
FR 100-35/250-13	FS 100-35/250-13	FR/S 100-35/250-13	100	0,20	35	35	15	13	6	250
FR 100-35/300-13	FS 100-35/300-13	FR/S 100-35/300-13	100	0,20	35	35	15	13	6	300
FR 100-35/350-13	FS 100-35/350-13	FR/S 100-35/350-13	100	0,20	35	35	15	13	6	350
FR 150-35/150-13	FS 150-35/150-13	FR/S 150-35/150-13	150	0,20	35	35	15	13	8	150
FR 150-35/200-13	FS 150-35/200-13	FR/S 150-35/200-13	150	0,20	35	35	15	13	8	200
FR 150-35/250-13	FS 150-35/250-13	FR/S 150-35/250-13	150	0,20	35	35	15	13	8	250
FR 150-35/300-13	FS 150-35/300-13	FR/S 150-35/300-13	150	0,20	35	35	15	13	8	300
FR 150-35/350-13	FS 150-35/350-13	FR/S 150-35/350-13	150	0,20	35	35	15	13	8	350
FR 200-35/150-13	FS 200-35/150-13	FR/S 200-35/150-13	200	0,20	35	35	15	13	10	150
FR 200-35/200-13	FS 200-35/200-13	FR/S 200-35/200-13	200	0,20	35	35	15	13	10	200
FR 200-35/250-13	FS 200-35/250-13	FR/S 200-35/250-13	200	0,20	35	35	15	13	10	250
FR 200-35/300-13	FS 200-35/300-13	FR/S 200-35/300-13	200	0,20	35	35	15	13	10	300
FR 200-35/350-13	FS 200-35/350-13	FR/S 200-35/350-13	200	0,20	35	35	15	13	10	350

CONNESSIONI DI POTENZA POWER CONDUCTORS



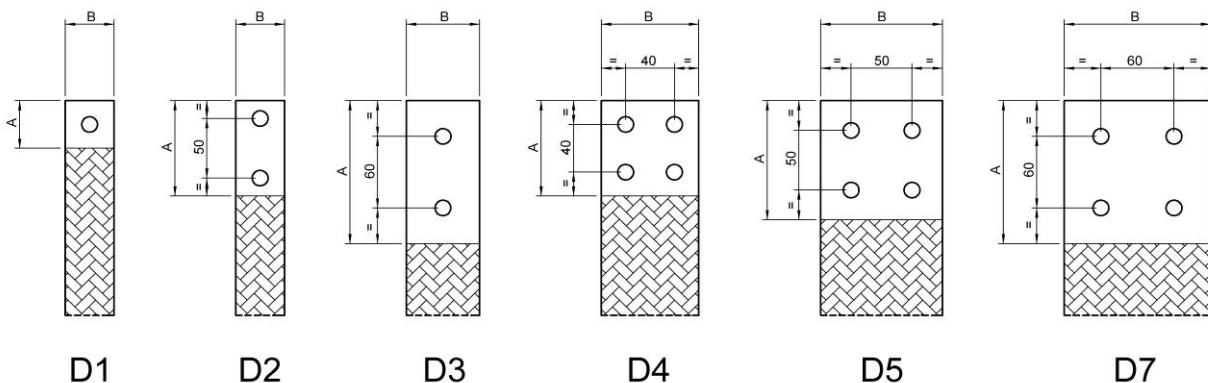
- Terminali in tubo di rame stagnato
Tin-plated tubular copper terminals
- Terminali in rame argentato su richiesta
Silver-plated copper terminals upon request
- Terminali in rame nichelato su richiesta
Nickel-plated copper terminals upon request
- Filo elem. Cu-ETP UNI EN 13602 - Ø 0,20 mm
(Ø 0,05 - 0,07 - 0,10 - 0,15 mm su richiesta)
*Single wire Cu-ETP UNI EN 13602 - Ø 0,20 mm
(Ø 0,05 - 0,07 - 0,10 - 0,15 mm upon request)*
- Materiali e formazioni treccia speciali su richiesta
Special braid materials and structure upon request
- Allestimenti speciali su richiesta
Special dimensions and design upon request



- Dimensionamenti standard disponibili per quota "B":
Available standard die dimensions for "B":

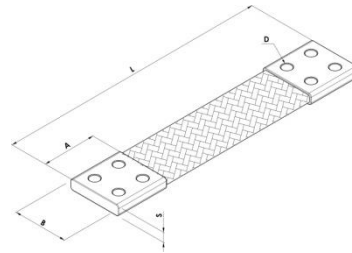
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SCHEMI DI FORATURA DRILLING PATTERNS



- Sono inoltre disponibili forature speciali o in accordo con la norma DIN 43673
Custom-made drilling patterns or according to DIN 43673 are also available

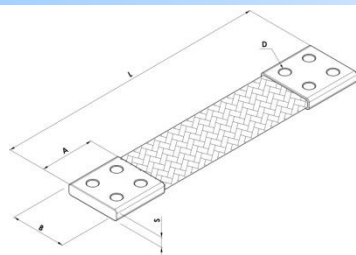
CONNESSIONI DI POTENZA POWER CONDUCTORS



Rame Rosso <i>Bare Copper</i>	Rame Stagnato <i>Tin-Plated Copper</i>	Sezione <i>Cross-Sect.</i> [mm ²]	A [mm]	B [mm]	S [mm]	L [mm]	D [mm]	Foratura <i>Drilling</i>	Portata <i>Current load</i> 65 °C 105 °C	
FRS 10/020-200/10	FSS 10/020-200/10	10	10	10	2,5	200	5	D1	80 A	140 A
FRS 10/020-200/12	FSS 10/020-200/12	10	12	12	2,2	200	6	D1	80 A	140 A
FRS 16/020-200/15	FSS 16/020-200/15	16	15	15	2,5	200	7	D1	110 A	190 A
FRS 16/020-200/17	FSS 16/020-200/17	16	17	17	3,3	200	9	D1	120 A	200 A
FRS 25/020-200/20	FSS 25/020-200/20	25	20	20	3,7	200	9	D1	150 A	260 A
FRS 25/020-200/22	FSS 25/020-200/22	25	22	22	3,5	200	9	D1	160 A	270 A
FRS 25/020-200/25	FSS 25/020-200/25	25	25	25	3,3	200	11	D1	160 A	280 A
FRS 35/020-200/22	FSS 35/020-200/22	35	22	22	4,1	200	9	D1	190 A	320 A
FRS 35/020-200/25	FSS 35/020-200/25	35	25	25	4,3	200	11	D1	200 A	330 A
FRS 50/020-200/25	FSS 50/020-200/25	50	25	25	4,6	200	11	D1	230 A	400 A
FRS 50/020-200/30	FSS 50/020-200/30	50	30	30	4,2	200	11	D1	250 A	420 A
FRS 50/020-250/35	FSS 50/020-250/35	50	35	35	3,8	250	13	D1	260 A	430 A
FRS 75/020-200/30	FSS 75/020-200/30	75	30	30	5,2	200	13	D1	300 A	510 A
FRS 75/020-250/35	FSS 75/020-250/35	75	35	35	4,8	250	13	D1	320 A	540 A
FRS 100/020-200/30	FSS 100/020-200/30	100	30	30	6	200	13	D1	350 A	600 A
FRS 100/020-250/35	FSS 100/020-250/35	100	35	35	5,6	250	13	D1	370 A	620 A
FRS 100/020-250/40	FSS 100/020-250/40	100	40	40	5,2	250	13	D1	380 A	650 A
FRS 120/020-200/30	FSS 120/020-200/30	120	30	30	7	200	13	D1	390 A	660 A
FRS 120/020-250/35	FSS 120/020-250/35	120	35	35	6,5	250	13	D1	410 A	690 A
FRS 120/020-250/40	FSS 120/020-250/40	120	40	40	6	250	13	D1	420 A	710 A
FRS 150/020-200/30	FSS 150/020-200/30	150	30	30	8	200	13	D1	440 A	750 A
FRS 150/020-250/35	FSS 150/020-250/35	150	35	35	7,5	250	13	D1	460 A	780 A
FRS 150/020-250/40	FSS 150/020-250/40	150	40	40	6,8	250	13	D1	470 A	800 A
FRS 150/020-250/45	FSS 150/020-250/45	150	45	45	6,2	250	13	D1	490 A	830 A
FRS 200/020-300/40	FSS 200/020-300/40	200	40	40	8,3	300	13	D1	550 A	940 A
FRS 200/020-300/45	FSS 200/020-300/45	200	45	45	7,6	300	13	D1	570 A	960 A
FRS 200/020-300/50	FSS 200/020-300/50	200	50	50	7	300	13	D1	590 A	990 A
FRS 200/020-350/40	FSS 200/020-350/40	200	100	40	8,3	350	13	D2	550 A	940 A
FRS 200/020-350/50	FSS 200/020-350/50	200	100	50	7	350	13	D2	590 A	990 A
FRS 250/020-300/40	FSS 250/020-300/40	250	40	40	10	300	13	D1	630 A	1060 A
FRS 250/020-300/45	FSS 250/020-300/45	250	45	45	9	300	13	D1	640 A	1090 A
FRS 250/020-300/50	FSS 250/020-300/50	250	50	50	8,3	300	13	D1	660 A	1120 A
FRS 250/020-350/40	FSS 250/020-350/40	250	100	40	10	350	13	D2	630 A	1060 A
FRS 250/020-350/50	FSS 250/020-350/50	250	100	50	8,3	350	13	D2	660 A	1120 A
FRS 300/020-300/45	FSS 300/020-300/45	300	45	45	10,6	300	13	D1	710 A	1200 A
FRS 300/020-300/50	FSS 300/020-300/50	300	50	50	9,5	300	13	D1	730 A	1230 A
FRS 300/020-300/60	FSS 300/020-300/60	300	60	60	8,5	300	13	D1	770 A	1300 A
FRS 300/020-400/45	FSS 300/020-400/45	300	80	45	10,6	400	13	D2	710 A	1200 A
FRS 300/020-400/50	FSS 300/020-400/50	300	100	50	9,5	400	13	D2	730 A	1230 A
FRS 300/020-400/60	FSS 300/020-400/60	300	120	60	8,5	400	13	D2	770 A	1300 A
FRS 300/020-400/70	FSS 300/020-400/70	300	120	70	8,3	400	13	D2	800 A	1360 A
FRS 400/020-300/50	FSS 400/020-300/50	400	50	50	12	300	13	D1	850 A	1450 A
FRS 400/020-400/40	FSS 400/020-400/40	400	80	40	15	400	13	D2	820 A	1390 A
FRS 400/020-400/50	FSS 400/020-400/50	400	100	50	12	400	13	D2	850 A	1450 A
FRS 400/020-400/60	FSS 400/020-400/60	400	120	60	11,5	400	13	D3	900 A	1520 A
FRS 400/020-400/80	FSS 400/020-400/80	400	80	80	9,5	400	13	D4	970 A	1650 A
FRS 400/020-400/100	FSS 400/020-400/100	400	100	100	9	400	13	D5	1040 A	1770 A
FRS 400/020-400/120	FSS 400/020-400/120	400	120	120	6,5	400	13	D7	1100 A	1870 A
FRS 500/020-400/50	FSS 500/020-400/50	500	100	50	16	400	13	D2	980 A	1650 A
FRS 500/020-400/60	FSS 500/020-400/60	500	120	60	13,5	400	13	D3	1010 A	1720 A
FRS 500/020-400/80	FSS 500/020-400/80	500	80	80	11	400	13	D4	1090 A	1850 A
FRS 500/020-400/90	FSS 500/020-400/90	500	120	90	10	400	13	D4	1130 A	1920 A
FRS 500/020-400/100	FSS 500/020-400/100	500	100	100	9	400	13	D5	1170 A	1980 A
FRS 500/020-450/120	FSS 500/020-450/120	500	120	120	10,2	450	13	D7	1240 A	2100 A
FRS 500/020-450/150	FSS 500/020-450/150	500	120	150	7	450	13	D7	1330 A	2260 A

CONNESSIONI DI POTENZA

POWER CONDUCTORS

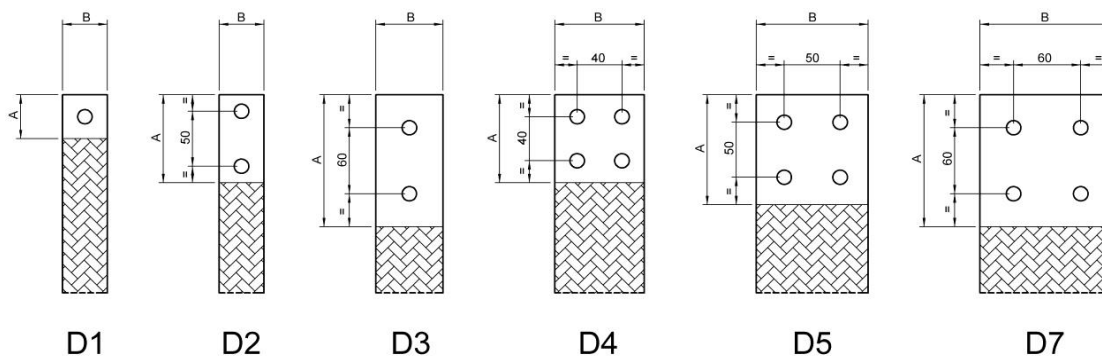


Rame Rosso Bare Copper	Rame Stagnato Tin-Plated Copper	Sezione Cross-Sect. [mm ²]	A [mm]	B [mm]	S [mm]	L [mm]	D [mm]	Foratura Drilling	Portata Current load 65 °C 105 °C	
FRS 600/020-400/60	FSS 600/020-400/60	600	100	60	16	400	13	D2	1120 A	1900 A
FRS 600/020-400/70	FSS 600/020-400/70	600	120	70	14	400	13	D3	1160 A	1970 A
FRS 600/020-400/80	FSS 600/020-400/80	600	80	80	12,5	400	13	D4	1210 A	2040 A
FRS 600/020-400/90	FSS 600/020-400/90	600	120	90	11,5	400	13	D4	1250 A	2110 A
FRS 600/020-400/100	FSS 600/020-400/100	600	100	100	10,5	400	13	D5	1290 A	2180 A
FRS 600/020-450/120	FSS 600/020-450/120	600	120	120	10,2	450	13	D7	1360 A	2310 A
FRS 600/020-450/150	FSS 600/020-450/150	600	120	150	8	450	13	D7	1460 A	2480 A
FRS 800/020-400/80	FSS 800/020-400/80	800	80	80	15,5	400	13	D4	1410 A	2380 A
FRS 800/020-400/100	FSS 800/020-400/100	800	100	100	13	400	13	D5	1500 A	2530 A
FRS 800/020-450/120	FSS 800/020-450/120	800	120	120	12	450	13	D7	1580 A	2670 A
FRS 800/020-450/150	FSS 800/020-450/150	800	120	150	10	450	13	D7	1700 A	2880 A
FRS 800/020-450/160	FSS 800/020-450/160	800	120	160	11,2	450	13	D7	1740 A	2950 A
FRS 1000/020-450/80	FSS 1000/020-450/80	1000	80	80	20	450	13	D4	1600 A	2710 A
FRS 1000/020-450/100	FSS 1000/020-450/100	1000	100	100	16,5	450	13	D5	1690 A	2860 A
FRS 1000/020-500/120	FSS 1000/020-500/120	1000	120	120	14,3	500	13	D7	1780 A	3020 A
FRS 1000/020-500/150	FSS 1000/020-500/150	1000	120	150	13,3	500	13	D7	1910 A	3240 A
FRS 1000/020-500/160	FSS 1000/020-500/160	1000	120	160	12,8	500	13	D7	1950 A	3310 A
FRS 1200/020-450/100	FSS 1200/020-450/100	1200	100	100	19	450	15	D5	1870 A	3160 A
FRS 1200/020-450/120	FSS 1200/020-450/120	1200	120	120	16,5	450	15	D7	1960 A	3320 A
FRS 1200/020-500/150	FSS 1200/020-500/150	1200	120	150	15	500	15	D7	2100 A	3560 A
FRS 1200/020-500/160	FSS 1200/020-500/160	1200	120	160	14,3	500	15	D7	2150 A	3630 A
FRS 1500/020-450/120	FSS 1500/020-450/120	1500	120	120	20	450	15	D7	2210 A	3750 A
FRS 1500/020-500/150	FSS 1500/020-500/150	1500	120	150	17,5	500	15	D7	2360 A	4000 A
FRS 1500/020-500/160	FSS 1500/020-500/160	1500	120	160	16,6	500	15	D7	2410 A	4080 A
FRS 1800/020-450/120	FSS 1800/020-450/120	1800	120	120	23	450	15	D7	2440 A	4140 A
FRS 1800/020-500/150	FSS 1800/020-500/150	1800	120	150	20	500	15	D7	2600 A	4410 A
FRS 1800/020-500/160	FSS 1800/020-500/160	1800	120	160	19	500	15	D7	2650 A	4490 A
FRS 2000/020-450/120	FSS 2000/020-450/120	2000	120	120	25	450	15	D7	2590 A	4390 A
FRS 2000/020-500/150	FSS 2000/020-500/150	2000	120	150	22	500	15	D7	2760 A	4670 A
FRS 2000/020-500/160	FSS 2000/020-500/160	2000	120	160	21	500	15	D7	2810 A	4760 A
FRS 2200/020-450/120	FSS 2200/020-450/120	2200	120	120	28	450	15	D7	2740 A	4630 A
FRS 2200/020-500/150	FSS 2200/020-500/150	2200	120	150	24	500	15	D7	2900 A	4920 A
FRS 2200/020-500/160	FSS 2200/020-500/160	2200	120	160	23	500	15	D7	2960 A	5010 A
FRS 2400/020-450/120	FSS 2400/020-450/120	2400	120	120	30	450	15	D7	2870 A	4860 A
FRS 2400/020-500/150	FSS 2400/020-500/150	2400	120	150	26	500	15	D7	3050 A	5160 A
FRS 2400/020-500/160	FSS 2400/020-500/160	2400	120	160	25	500	15	D7	3100 A	5250 A

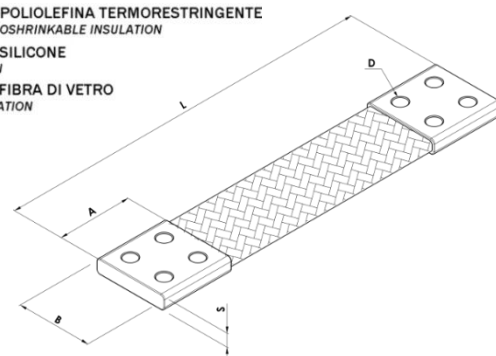
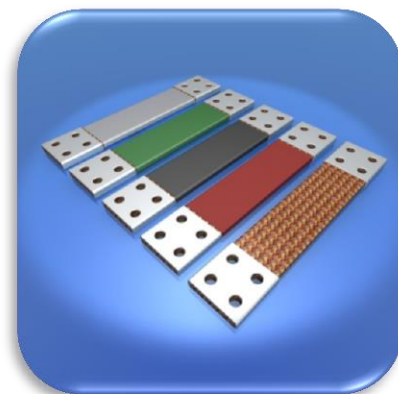
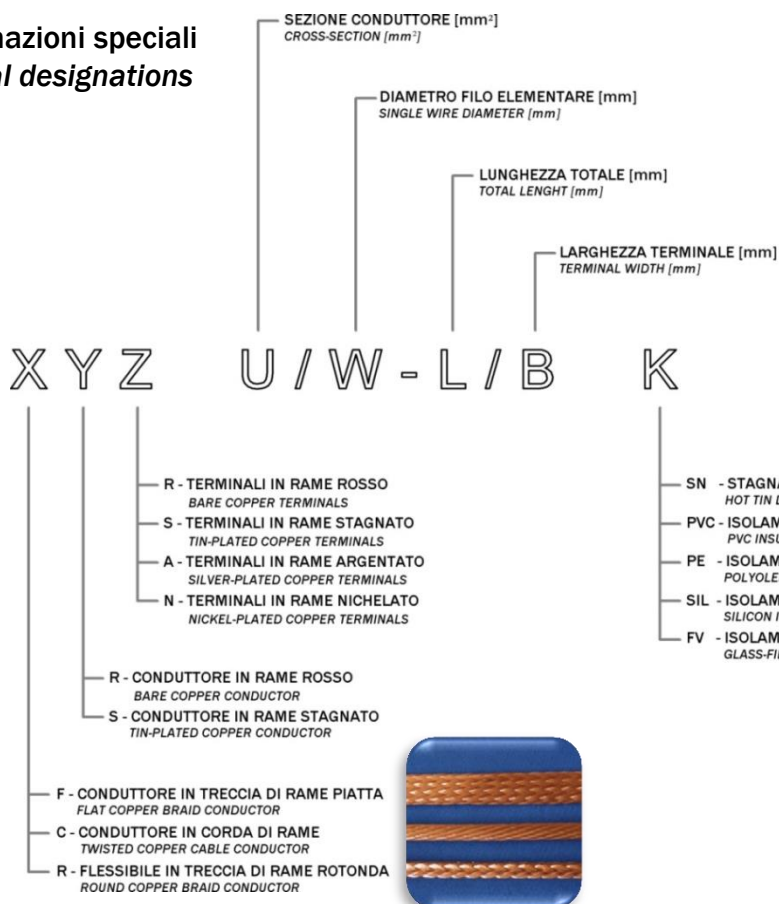
Sezioni, formazioni e forature non comprese in tabella vengono allestite su richiesta / *Special drillings, dimensions and design upon request*
 Le portate dei conduttori sono indicative (vedi pag. 20) / *Conductors current loads are approximated (please see page 20)*

SCHEMI DI FORATURA

DRILLING PATTERNS

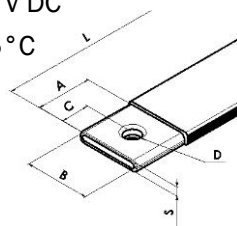


Designazioni speciali Special designations



CONNESSIONI ISOLATE - POWERFLEX INSULATED CONDUCTORS - POWERFLEX

- Terminali in rame stagnato / *Tin-plated copper terminals*
- Filo elementare / *Single wire*: Cu-ETP UNI EN 13602 - Ø 0,20 mm
- Isolamento in PVC nero / *Black PVC insulation*
- Autoestinguenza / *Self extinguishing*: UL 94 V0
- Tensione di esercizio / *Operating voltage*: 1000 V AC - 1500 V DC
- Temperatura di esercizio / *Operating temperature*: -40/+105 °C
- Rigidità dielettrica / *Dielectric strenght*: 20 kV/mm
- Spessore isolamento / *Insulation thickness*: 2 mm
- Schema di foratura / *Drilling pattern*: D1



Rame Rosso <i>Bare Copper</i>	Rame Stagnato <i>Tin-Plated Copper</i>	Sezione Cross-Sect. [mm ²]	A [mm]	B [mm]	C [mm]	S [mm]	D [mm]	Foratura <i>Drilling</i>	Portata Current load 65 °C 105 °C
PRS 16/020- L /17	PSS 16/020- L /17	16	22	17	10	3,3	7	D1	102 A 160 A
PRS 25/020- L /22	PSS 25/020- L /22	25	22	22	10	3,5	9 - 11	D1	136 A 216 A
PRS 35/020- L /22	PSS 35/020- L /22	35	22	22	10	4	9 - 11	D1	162 A 256 A
PRS 50/020- L /22	PSS 50/020- L /22	50	22	22	10	5	11	D1	196 A 304 A
PRS 100/020- L /32	PSS 100/020- L /32	100	32	32	15	6	11	D1	306 A 488 A
PRS 120/020- L /32	PSS 120/020- L /32	120	32	32	15	7	11	D1	340 A 536 A
PRS 240/020- L /40	PSS 240/020- L /40	240	40	40	20	9,5	13	D1	518 A 832 A

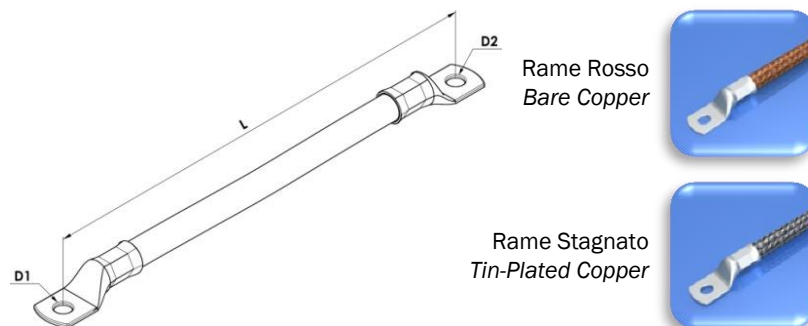
Per ordinare, completare il codice con la misura "L" (lunghezza totale) / *Please insert "L" dimension (total length) in your orders*
 Sezioni, formazioni e forature non comprese in tabella vengono allestite su richiesta / *Special drillings, dimensions and design upon request*
 Le portate dei conduttori sono indicative (vedi pag. 20) / *Conductors current loads are approximated (please see page 20)*

CONNESSIONI CON CAPICORDA PRESSATI

PRESSED TERMINAL LUG CONDUCTORS



- Filo elementare / *Single wire*: Cu-ETP UNI EN 13602
- Capicorda in rame stagnato / *Tin-plated copper terminal lugs*
- Isolamento speciale su richiesta / *Special insulation upon request*



Collegamenti in treccia rotonda

Round braid conductors

Rame Rosso Bare Copper	Rame Stagnato Tin-Plated Copper	Sezione Cross-Sect. [mm ²]	Filo Elem. Single wire Ø [mm]	L [mm]	D1 [mm]	D2 [mm]
LRR 10/020-200/M6	LRS 10/020-200/M6	10	0,20	200	6,4	6,4
LRR 16/020-200/M8	LRS 16/020-200/M8	16	0,20	200	8,4	8,4
LRR 25/020-200/M8	LRS 25/020-200/M8	25	0,20	200	8,4	8,4
LRR 35/020-250/M10	LRS 35/020-250/M10	35	0,20	250	10,5	10,5
LRR 50/020-250/M10	LRS 50/020-250/M10	50	0,20	250	10,5	10,5
LRR 75/020-300/M12	LRS 75/020-300/M12	75	0,20	300	13,2	13,2
LRR 100/020-300/M12	LRS 100/020-300/M12	100	0,20	300	13,2	13,2
LRR 120/020-350/M12	LRS 120/020-350/M12	120	0,20	350	13,2	13,2
LRR 150/020-350/M12	LRS 150/020-350/M12	150	0,20	350	13,2	13,2

Allestimenti speciali su richiesta / *Special dimensions and design upon request*

Collegamenti in corda

Twisted cable conductors

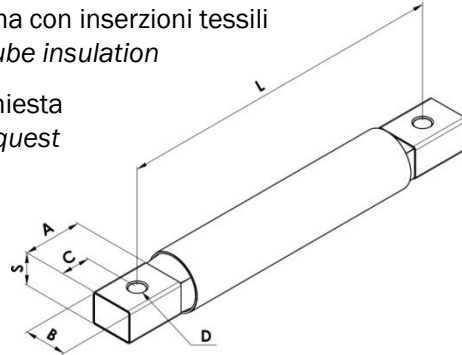
Rame Rosso Bare Copper	Rame Stagnato Tin-Plated Copper	Sezione Cross-Sect. [mm ²]	Filo Elem. Single wire Ø [mm]	L [mm]	D1 [mm]	D2 [mm]
LCR 10/020-200/M6	LCS 10/020-200/M6	10	0,20	200	6,4	6,4
LCR 16/020-200/M8	LCS 16/020-200/M8	16	0,20	200	8,4	8,4
LCR 25/020-200/M8	LCS 25/020-200/M8	25	0,20	200	8,4	8,4
LCR 35/020-250/M10	LCS 35/020-250/M10	35	0,20	250	10,5	10,5
LCR 50/020-250/M10	LCS 50/020-250/M10	50	0,20	250	10,5	10,5
LCR 75/020-300/M12	LCS 75/020-300/M12	75	0,20	300	13,2	13,2
LCR 100/020-300/M12	LCS 100/020-300/M12	100	0,20	300	13,2	13,2
LCR 120/020-350/M12	LCS 120/020-350/M12	120	0,20	350	13,2	13,2
LCR 150/020-350/M12	LCS 150/020-350/M12	150	0,20	350	13,2	13,2

Allestimenti speciali su richiesta / *Special dimensions and design upon request*

CORDE RAFFREDDATE AD ARIA

AIR-COOLED CABLES

- Filo elementare Cu-ETP UNI EN 13602 - Ø 0,10/0,20 mm
Single wire Cu-ETP UNI EN 13602 - Ø 0,10/0,20 mm
- Corda flessibile in rame rosso - Terminali in tubo di rame stagnato
Twisted bare copper cable - Tubular tin-plated copper terminals
- Rivestimento in tubo gomma con inserzioni tessili
Textile reinforced rubber tube insulation
- Isolamento speciale su richiesta
Special insulation upon request
- Consegne veloci
Punctual deliveries



Soluzioni personalizzate

Custom-made solutions

Codice Ref. No.	Sezione Cross-Section [mm ²]	A [mm]	B [mm]	C [mm]	S [mm]	Foratura Drilling	D [mm]
FCA 150 - L	150	50	32	16	8,0	D1	13
FCA 200 - L	200	50	32	16	10,0	D1	13
FCA 300 - L	300	50	32	16	14,0	D1	13
FCA 400 - L	400	50	32	16	18,0	D1	13
FCA 500 - L	500	50	32	16	22,0	D1	13
FCA 600 - L	600	50	32	16	26,0	D1	13

Per ordinare, completare il codice con la misura "L" (interasse fori) / Please insert "L" dimension (distance between holes) in your orders
Dimensioni non comprese in tabella vengono allestite su richiesta / Special dimensions and design upon request

Dimensioni Standard

Standard dimensions

Codice Ref. No.	Sezione Cross-Section [mm ²]	A [mm]	B [mm]	C [mm]	S [mm]	L [mm]	D [mm]
FCA 300-250	300	50	32	16	14,0	250	13
FCA 300-300	300	50	32	16	14,0	300	13
FCA 300-350	300	50	32	16	14,0	350	13
FCA 300-400	300	50	32	16	14,0	400	13
FCA 300-450	300	50	32	16	14,0	450	13
FCA 300-500	300	50	32	16	14,0	500	13
FCA 400-250	400	50	32	16	18,0	250	13
FCA 400-300	400	50	32	16	18,0	300	13
FCA 400-350	400	50	32	16	18,0	350	13
FCA 400-400	400	50	32	16	18,0	400	13
FCA 400-450	400	50	32	16	18,0	450	13
FCA 400-500	400	50	32	16	18,0	500	13
FCA 500-300	500	50	32	16	22,0	300	13
FCA 500-350	500	50	32	16	22,0	350	13
FCA 500-400	500	50	32	16	22,0	400	13
FCA 500-450	500	50	32	16	22,0	450	13
FCA 500-500	500	50	32	16	22,0	500	13
FCA 500-600	500	50	32	16	22,0	600	13
FCA 600-400	600	50	32	16	26,0	400	13
FCA 600-450	600	50	32	16	26,0	450	13
FCA 600-500	600	50	32	16	26,0	500	13
FCA 600-550	600	50	32	16	26,0	550	13
FCA 600-600	600	50	32	16	26,0	600	13
FCA 600-700	600	50	32	16	26,0	700	13

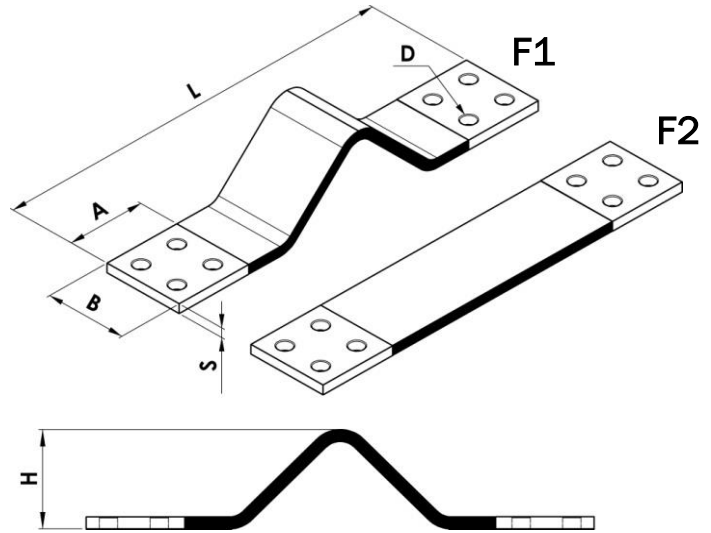
GIUNTI LAMELLARI PRESSOSTAGNATI

PRESS-TINNED LAMINATED SHUNTS



PLR - PLS

- Giunti di compensazione - Terminali pressostagnati
Compensation shunts - Press-tinned terminals
- Lamine Cu-ETP ricotto UNI EN 1652 spessore 0,3/0,5 mm
Annealed Cu-ETP UNI EN 1652 strips tickness 0,3/0,5 mm



- Forme e dimensioni speciali su richiesta
Special dimensions and design upon request
- Isolamento su richiesta
Insulation upon request
- Rivestimenti galvanici su richiesta
Galvanic coating upon request

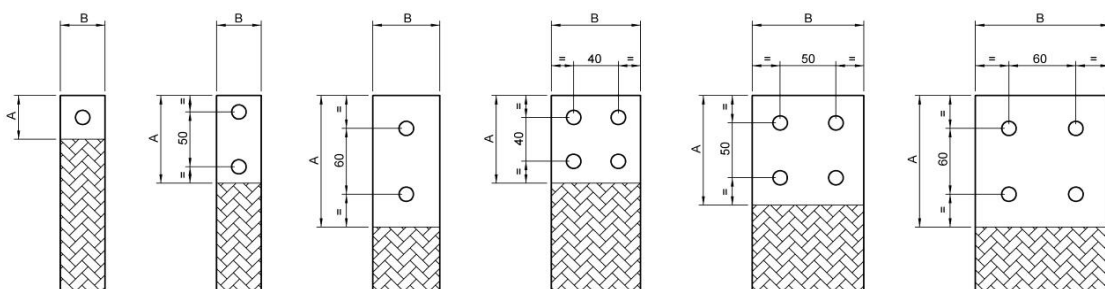
Rame Rosso <i>Bare Copper</i>	Rame Stagnato <i>Tin-Plated Copper</i>	Sezione Cross-Sect. [mm ²]	A [mm]	B [mm]	S [mm]	L [mm]	H (F1) [mm]	D [mm]	Foratura Drilling	Portata Current load	
										65 °C	105 °C
PLR 100-200 F1	PLS 100-200 F1	100	50	50	2	200	30-55	13	D1	400 A	680 A
PLR 150-250 F1	PLS 150-250 F1	150	50	50	3	250	40-70	13	D1	490 A	840 A
PLR 200-300 F1	PLS 200-300 F1	200	50	50	4	300	50-85	13	D1	570 A	970 A
PLR 250-300 F1	PLS 250-300 F1	250	50	50	5	300	50-85	13	D1	650 A	1100 A
PLR 400-400 F1	PLS 400-400 F1	400	80	80	5	400	70-105	13	D4	950 A	1620 A
PLR 500-400 F1	PLS 500-400 F1	500	80	80	6,3	400	70-105	13	D4	1070 A	1820 A
PLR 600-400 F1	PLS 600-400 F1	600	80	80	7,5	400	70-105	13	D4	1180 A	2000 A
PLR 800-400 F1	PLS 800-400 F1	800	80	80	10	400	70-105	13	D4	1380 A	2330 A
PLR 1000-450 F1	PLS 1000-450 F1	1000	100	100	10	450	70-105	13	D5	1660 A	2800 A
PLR 1200-450 F1	PLS 1200-450 F1	1200	100	100	12	450	70-105	13	D5	1830 A	3090 A
PLR 1500-500 F1	PLS 1500-500 F1	1500	120	120	12,5	500	70-105	13	D7	2170 A	3670 A
PLR 1800-500 F1	PLS 1800-500 F1	1800	120	120	15	500	70-105	13	D7	2390 A	4050 A
PLR 2000-500 F1	PLS 2000-500 F1	2000	120	120	16,7	500	70-105	13	D7	2530 A	4290 A

Esempio di codice di ordinazione per tipo F2: PLR 100-200 F2 / Example of ordering code for F2 type: PLR 100-200 F2

Sezioni e forature non comprese in tabella vengono allestite su richiesta / Special dimensions and design upon request

Le portate dei conduttori sono indicative (vedi pag. 20) / Conductors current loads are approximated (please see page 20)

SCHEMI DI FORATURA / DRILLING PATTERNS



D1

D2

D3

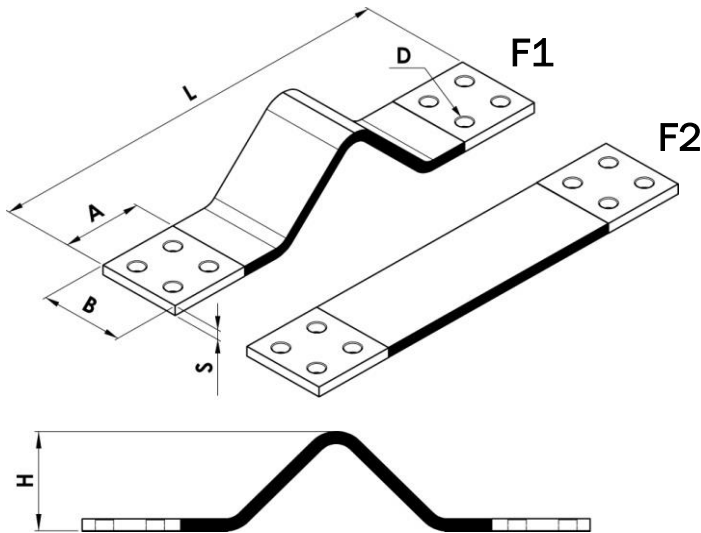
D4

D5

D7

GIUNTI LAMELLARI PRESSOSALDATI PRESSWELDED LAMINATED SHUNTS

- Giunti di compensazione - Terminali pressosaldati
Compensation shunts - Presswelded terminals
- Lamine Cu-ETP ricotto UNI EN 1652 spessore 0,3/0,5 mm
Annealed Cu-ETP UNI EN 1652 strips tickness 0,3/0,5 mm



- Forme e dimensioni speciali su richiesta
Special design upon request
- Isolamento su richiesta
Insulation upon request
- Rivestimenti galvanici su richiesta
Galvanic coating upon request

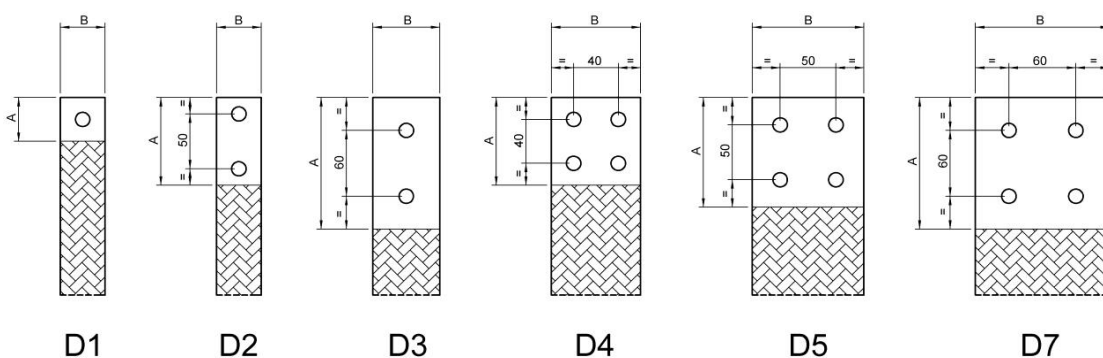
Rame Rosso Bare Copper	Sezione Cross-Sect. [mm ²]	A [mm]	B [mm]	S [mm]	L [mm]	H (F1) [mm]	D [mm]	Foratura Drilling	Portata Current load	
									65°C	105°C
PWD 100-200 F1	100	50	50	2	200	30-55	13	D1	400 A	680 A
PWD 150-250 F1	150	50	50	3	250	40-70	13	D1	490 A	840 A
PWD 200-300 F1	200	50	50	4	300	50-85	13	D1	570 A	970 A
PWD 250-300 F1	250	50	50	5	300	50-85	13	D1	650 A	1100 A
PWD 400-400 F1	400	80	80	5	400	70-105	13	D4	950 A	1620 A
PWD 500-400 F1	500	80	80	6,3	400	70-105	13	D4	1070 A	1820 A
PWD 600-400 F1	600	80	80	7,5	400	70-105	13	D4	1180 A	2000 A
PWD 800-400 F1	800	80	80	10	400	70-105	13	D4	1380 A	2330 A
PWD 1000-450 F1	1000	100	100	10	450	70-105	13	D5	1660 A	2800 A
PWD 1200-450 F1	1200	100	100	12	450	70-105	13	D5	1830 A	3090 A
PWD 1500-500 F1	1500	120	120	12,5	500	70-105	13	D7	2170 A	3670 A
PWD 1800-500 F1	1800	120	120	15	500	70-105	13	D7	2390 A	4050 A
PWD 2000-500 F1	2000	120	120	16,7	500	70-105	13	D7	2530 A	4290 A

Codice di ordinazione per tipo F2: PWD 100-200 F2 / Ordering code for F2 type: PWD 100-200 F2

Sezioni e forature non comprese in tabella vengono allestite su richiesta / Special dimensions and design upon request

Le portate dei conduttori sono indicative (vedi pag. 20) / Conductors current loads are approximated (please see page 20)

SCHEMI DI FORATURA / DRILLING PATTERNS

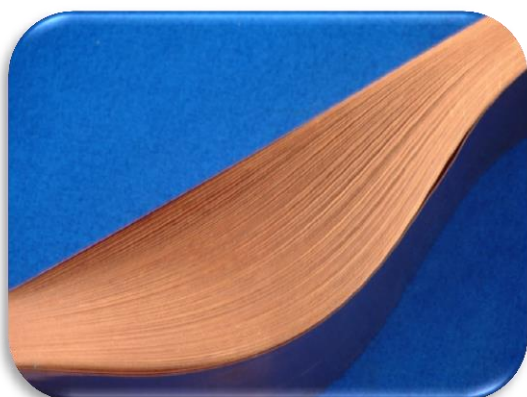


PACCHI LAMELLARI DINAMICI

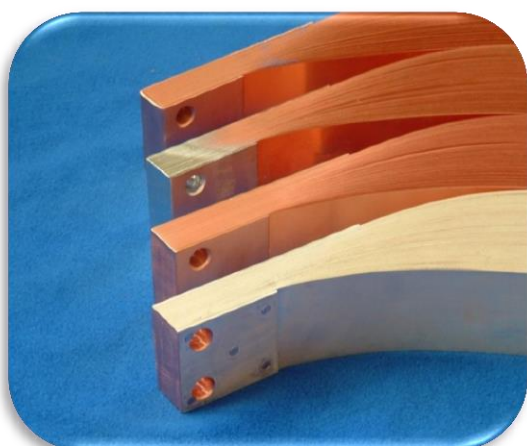
MOVING LAMINATED SHUNTS







- Ampia gamma di prodotti
Wide range of products
- Soluzioni personalizzate
Custom-made solutions



- Materiali di origine certificati
Certified Origin of Materials
- Consegne veloci
Punctual deliveries



- Lamine Cu-ETP H90 UNI EN 1652
H90 Cu-ETP UNI EN 1652 strips
- Terminali rivettati, pressostagnati o pressosaldati
Riveted, press-tinned or presswelded terminals
- Realizzati in rame ROSSO, STAGNATO ed ARGENTATO per un alto rendimento delle macchine elettriche
Made in BARE, TIN-PLATED, SILVER-PLATED Copper for the highest efficiency of electric machines
- Costruiti da disegni o campioni
Manufactured from drawings or samples
- Progettati per le esigenze speciali dei clienti
Designed for customers' special needs
- Ottimizzazione dei cicli produttivi mediante analisi FEM (Metodo degli Elementi Finiti)
Manufacturing processes optimized by FEM analysis (Finite Element Method)

SHUNT CHARACTERIZATION FOR SPOT WELDING CURRENTS

Studio sviluppato in collaborazione con il Prof. Aldo Caronza - Dipartimento di Ingegneria Elettrica, Politecnico di Torino

Distribuzione del potenziale elettrico e della densità di corrente all'interno della connessione flessibile

www.brunoconductors.it

DISSIPATORE DI CALORE RAFFREDDATO AD ACQUA E AD ARIA WATER AND AIR-COOLED HEAT DISSIPATOR

Il calore viene dissipato grazie alla conduttività termica del metallo utilizzato (rame o alluminio), alle caratteristiche dell'impianto di raffreddamento ed alle correnti convettive che si generano nell'aria intorno al dissipatore.

Heat can be wasted thanks to the raw material thermal conductivity (copper or aluminium), to the cooling plant peculiarity and to the convective current generated in the air around the shunt cooler.

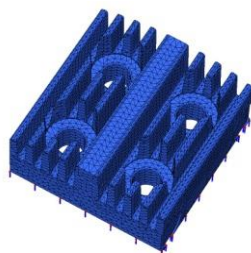
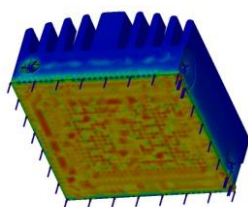
Progettato per aumentare l'efficienza e la durata dei collegamenti elettrici flessibili impiegati nelle condizioni di lavoro più gravose.
It is designed to improve the duration and the efficiency of flexible conductors used in hard work application.

Grazie alla distribuzione della forza di serraggio migliora l'accoppiamento tra le superfici di contatto elettrico.

It improves the connection between electrical contact areas thanks to the distributed clamping strength.

Progettati per le esigenze speciali dei clienti
Designed for customers' special needs

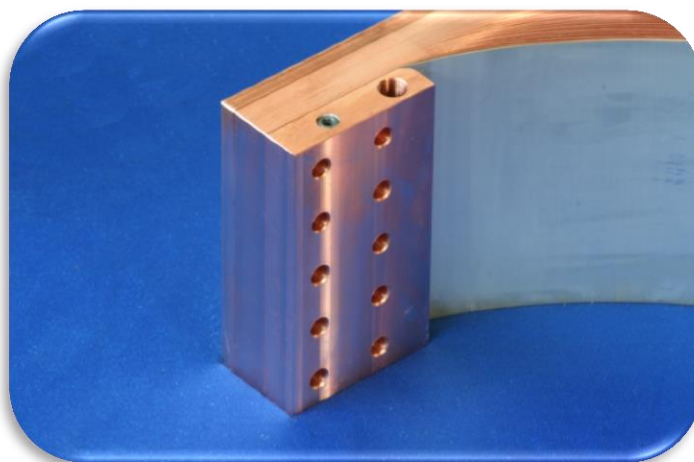
Soluzioni personalizzate
Custom-made solutions



PACCHI LAMELLARI SPECIALI RAFFREDDATI AD ACQUA SPECIAL WATER-COOLED SHUNTS

Pacchi lamellari dinamici di grandissima sezione corredati da terminali dissipatori raffreddati ad acqua sviluppati per le macchine di saldatura a resistenza di elevata potenza.

Very large cross-section lamellar shunts with water-cooled dissipator terminals designed for high-power resistance welding machines.





- Lamina elementare Cu-ETP UNI EN 1652
Single strip Cu-ETP UNI EN 1652
- Isolamento in PVC nero autoestinguente UL 94 V0
Self extinguishing UL 94 V0 black PVC insulation
- Tensione di esercizio 1000 V AC - 1500 V DC
Operating voltage 1000 V AC - 1500 V DC
- Temperatura di esercizio -40/+105 °C
Operating temperature -40/+105 °C
- Rigidità dielettrica 20 kV/mm
Dielectric strenght 20 kV/mm
- Spessore isolamento: 1,6 - 2 mm
Insulation thickness: 1,6 - 2 mm
- Esente da alogeni / in Silicone su richiesta
Halogen free / Silicon Insulation upon request
- Lunghezza barra standard: 2 metri (3 m su richiesta)
Standard bar lenght: 2 metres (3 m upon request)

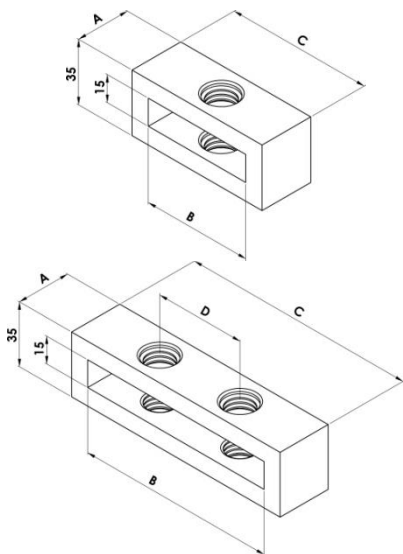
Codice Item	Dimensioni Dimensions	Sezione Cross-Sect. [mm ²]	Portata Current load	
			65 °C	105 °C
FB 20-2	20x1x2	40	188 A	291 A
FB 20-3	20x1x3	60	237 A	367 A
FB 20-4	20x1x4	80	278 A	431 A
FB 20-5	20x1x5	100	319 A	494 A
FB 20-6	20x1x6	120	355 A	550 A
FB 20-8	20x1x8	160	410 A	680 A
FB 24-2	24x1x2	48	201 A	312 A
FB 24-3	24x1x3	72	276 A	428 A
FB 24-4	24x1x4	96	322 A	499 A
FB 24-5	24x1x5	120	369 A	575 A
FB 24-6	24x1x6	144	407 A	631 A
FB 24-8	24x1x8	192	483 A	749 A
FB 32-2	32x1x2	64	289 A	448 A
FB 32-3	32x1x3	96	359 A	556 A
FB 32-4	32x1x4	128	418 A	648 A
FB 32-5	32x1x5	160	477 A	739 A
FB 32-6	32x1x6	192	526 A	815 A
FB 32-8	32x1x8	256	623 A	966 A
FB 40-3	40x1x3	120	415 A	685 A
FB 40-4	40x1x4	160	475 A	790 A
FB 40-5	40x1x5	200	573 A	888 A
FB 40-6	40x1x6	240	590 A	980 A
FB 40-8	40x1x8	320	739 A	1145 A
FB 40-10	40x1x10	400	850 A	1318 A

Codice Item	Dimensioni Dimensions	Sezione Cross-Sect. [mm ²]	Portata Current load	
			65 °C	105 °C
FB 50-3	50x1x3	150	460 A	710 A
FB 50-4	50x1x4	200	575 A	950 A
FB 50-5	50x1x5	250	697 A	1080 A
FB 50-6	50x1x6	300	710 A	1175 A
FB 50-8	50x1x8	400	891 A	1381 A
FB 50-10	50x1x10	500	1020 A	1581 A
FB 63-4	63x1x4	252	670 A	1020 A
FB 63-5	63x1x5	315	826 A	1280 A
FB 63-6	63x1x6	378	942 A	1460 A
FB 63-8	63x1x8	504	1038 A	1609 A
FB 63-10	63x1x10	630	1180 A	2089 A
FB 80-4	80x1x4	320	954 A	1689 A
FB 80-5	80x1x5	400	1070 A	1894 A
FB 80-6	80x1x6	480	1156 A	2046 A
FB 80-8	80x1x8	640	1328 A	2351 A
FB 80-10	80x1x10	800	1500 A	2655 A
FB 100-4	100x1x4	400	950 A	1450 A
FB 100-5	100x1x5	500	1300 A	2301 A
FB 100-6	100x1x6	600	1070 A	1630 A
FB 100-8	100x1x8	800	1606 A	2843 A
FB 100-10	100x1x10	1000	1810 A	3204 A
FB 100-12	100x1x12	1200	1974 A	3494 A
FB 120-8	120x1x8	960	1794 A	3175 A
FB 120-10	120x1x10	1200	2110 A	3735 A

Dimensioni: Larghezza lamina x spessore lamina x numero di lamine / Dimensions: Width x single thickness x number of strips
 Barre flessibili in Rame Stagnato o Alluminio su richiesta / Tin-plated Copper or Aluminium flexible bars upon request
 Le portate dei conduttori sono indicative (vedi pag. 20) / Conductors current loads are approximated (please see page 20)
 Per 2 barre in parallelo moltiplicare per 1,72, per 3 barre per 2,25 / For 2 bars in parallel multiply with 1,72, for 3 bars with 2,25

ACCESSORI PER BARRE FLESSIBILI FLEXIBLE BAR TOOLS

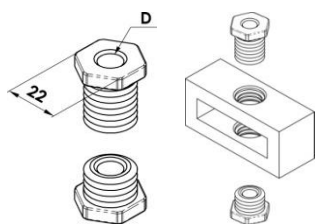
UNITA' DI FORATURA - DU - DRILLING UNIT



Codice Item	Barra max. Max. Bar	A [mm]	B [mm]	C [mm]	D [mm]
DU 16	15,5x0,8x10	25	16	50	-
DU 20	20x1x10	25	20,5	50	-
DU 24	24x1x10	25	24,5	50	-
DU 32	32x1x10	30	32,5	65	-
DU 40	40x1x10	30	40,5	70	-
DU 50	50x1x10	30	50,5	80	-
DU 63	63x1x10	40	63,5	95	-
DU 80	80x1x10	40	80,5	110	40
DU 100	100x1x10	50	101	130	50



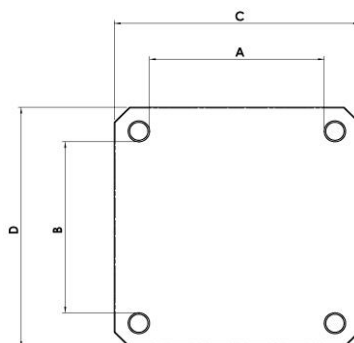
MORSETTO DI DERIVAZIONE - BC - BAR CONNECTOR



GUIDA FORO DG DRILL GUIDE

Codice Item	D [mm]
DG 07	7
DG 09	9
DG 11	11
DG 13	13

Codice Item	A [mm]	B [mm]	C [mm]	D [mm]	Viti Screws
BC 21	23	18	40	35	M6X30
BC 22	20	20	40	40	M6X30
BC 33	32	32	52	50	M6X30
BC 42	40	20	60	40	M6X40
BC 43	43	33	63	50	M6X40
BC 44	40	40	60	60	M6X40
BC 52	53	25	70	45	M6X50
BC 54	53	42	75	63	M6X50
BC 55	53	53	75	75	M6X50
BC 63	63	32	82	52	M6X50
BC 64A	63	40	82	60	M6X50
BC 64	64	42	80	63	M6X50
BC 66	64	64	80	80	M6X50
BC 84	80	40	110	70	M10X50
BC 88	82	82	120	120	M10X50
BC 100	102	102	140	120	M12X80



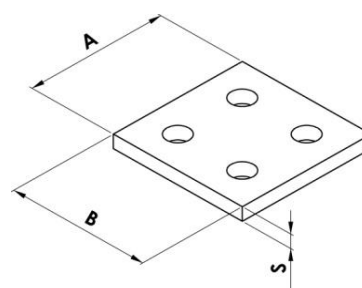
Geometrie e dimensioni speciali su richiesta
Special dimensions and design upon request

COLLEGAMENTI IN BARRA FLEX FLEX-BAR CONDUCTORS



PIASTRE RAME STAGNATO - DP / UP - TIN-PLATED COPPER PLATES

Forato Drilled	Fori Holes	A [mm]	B [mm]	S [mm]	Non forato Undrilled
DP 30	D1	30	30	5	UP 30
DP 40	D1	40	40	5	UP 40
DP 50	D1	50	50	5	UP 50
DP 60	D4	60	60	5	UP 60
DP 80	D4	80	80	5	UP 80
DP 100	D5	100	100	5	UP 100
DP 120	D7	120	120	5	UP 120

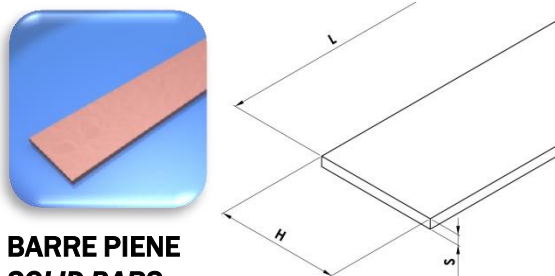


Siamo inoltre in grado di realizzare collegamenti speciali in barra flessibile secondo specifiche cliente.
We can also realize special flexible bar conductors according to the customers' requirements.

BANDELLE DI RAME

COPPER BUSBARS

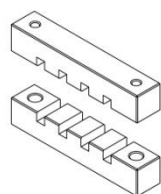
- Bandelle in rame Cu-ETP UNI EN 13601
Cu-ETP UNI EN 13601 copper busbars
- Realizzate in piatto con spigoli arrotondati
Made by rounded corners bar



BARRE PIENE
SOLID BARS

Codice Item	HxS [mm]	L [mm]	Sezione Cross-Sect. [mm ²]
SB 12-4	12x4	2000	48
SB 25-4	25x4	2000	100
SB 15-5	15x5	2000	75
SB 20-5	20x5	2000	100
SB 25-5	25x5	2000	125
SB 30-5	30x5	2000	150
SB 40-5	40x5	2000	200
SB 50-5	50x5	2000	250
SB 60-5	60x5	2000	300
SB 80-5	80x5	2000	400
SB 100-5	100x5	2000	500
SB 125-5	125x5	2000	625
SB 30-10	30x10	2000	300
SB 40-10	40x10	2000	400
SB 50-10	50x10	2000	500
SB 60-10	60x10	2000	600
SB 80-10	80x10	2000	800
SB 100-10	100x10	2000	1000
SB 120-10	120x10	2000	1200
SB 160-10	160x10	2000	1600
SB 200-10	200x10	2000	2000

SUPPORTI BARRE DISTANZIALI PER BARRE BUSBAR SUPPORTS BUSBAR SPACERS



Supporti e distanziali per barre fresate, realizzati in poliestere GPO3 o altri materiali secondo le specifiche cliente.

Milled busbar supports and spacers, made by polyester GPO3 or different raw materials according to the customers' requirements.

- Stagnate, argentate e nichelate su richiesta
Tin-plated, silver-plated and nickel-plated upon request
- Geometrie e dimensioni speciali su richiesta
Special dimensions and design upon request



BARRE FORATE
PERFORATED BARS

Codice Item	HxS [mm]	D [mm]	P [mm]	A - B [mm]	L [mm]	Sezione Cross-Sect. [mm ²]
PB 25-5	25x5	10,5	25	12,5	1750	125
PB 50-5	50x5	10,5	25	12,5	1750	250
PB 60-5	60x5	10,5	25	12,5	1750	300
PB 80-5	80x5	10,5	25	12,5	1750	400
PB 100-5	100x5	10,5	25	12,5	1750	500
PB 125-5	125x5	10,5	25	12,5	1750	625
PB 50-10	50x10	10,5	25	12,5	1750	500
PB 60-10	60x10	10,5	25	12,5	1750	600
PB 80-10	80x10	10,5	25	12,5	1750	800
PB 100-10	100x10	10,5	25	12,5	1750	1000
PB 120-10	120x10	10,5	25	12,5	1750	1200

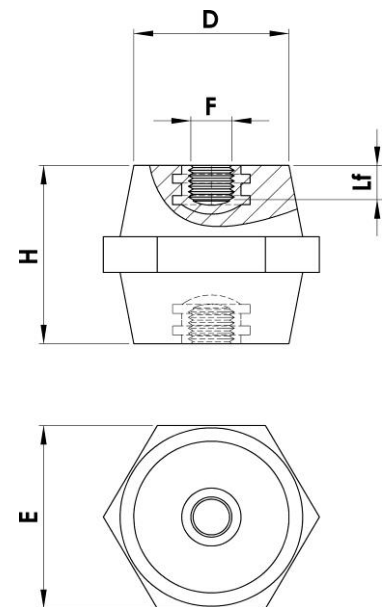


BARRE FILETTATE
THREADED BARS

Codice Item	HxS [mm]	D [mm]	P [mm]	A [mm]	L [mm]	Sezione Cross-Sect. [mm ²]
TB 12-4/1	12x4	M5	18	14	1000	48
TB 25-4/1	25x4	M6	20	10	1000	100
TB 15-5/1	15x5	M6	25	12,5	1000	75
TB 20-5/1	20x5	M6	25	12,5	1000	100
TB 30-5/1	30x5	M6	25	12,5	1000	150
TB 12-4/2	12x4	M5	18	10	2000	48
TB 25-4/2	25x4	M6	20	10	2000	100
TB 15-5/2	15x5	M6	25	12,5	2000	75
TB 20-5/2	20x5	M6	25	12,5	2000	100
TB 30-5/2	30x5	M6	25	12,5	2000	150

ISOLATORI SPACING INSULATORS

Codice Item	H [mm]	F [mm]	E [mm]	D [mm]	Lf [mm]	Imballo Packing [pcs]
12 M3-10	12	3 MA	10	10		100
16 M4-12	16	4 MA	15	12	4	100
16 M5-12	16	5 MA	15	12	4	100
20 M4-15	20	4 MA	19	15	6	100
20 M5-15	20	5 MA	19	15	6	100
20 M6-15	20	6 MA	19	15	6	100
25 M4-18	25	4 MA	22	18	6	100
25 M5-18	25	5 MA	22	18	6	100
25 M6-18	25	6 MA	22	18	6	100
30 M6-26	30	6 MA	30	26	9	100
30 M8-26	30	8 MA	30	26	9	100
31 M8-26	31	8 MA	30	26	9	100
35 M6-29	35	6 MA	32	29	10	120
35 M8-29	35	8 MA	32	29	10	120
35 M10-29	35	10 MA	32	29	10	120
35 M6-35	35	6 MA	41	35	10	80
35 M8-35	35	8 MA	41	35	10	80
35 M10-35	35	10 MA	41	35	10	80
40 M6-34	40	6 MA	41	34	10	60
40 M8-34	40	8 MA	41	34	10	60
40 M10-34	40	10 MA	41	34	10	60
40 M12-34	40	12 MA	41	34	10	60
40 M8-40	40	8 MA	46	40	10	48
40 M10-40	40	10 MA	46	40	10	48
40 M12-40	40	12 MA	46	40	10	48
45 M8-38	45	8 MA	46	38	13	48
45 M10-38	45	10 MA	46	38	13	48
45 M12-38	45	12 MA	46	38	13	48
50 M6-30	50	6 MA	36	30	13	75
50 M8-30	50	8 MA	36	30	13	75
50 M10-30	50	10 MA	36	30	15	75
50 M8-40	50	8 MA	50	40	13	36
50 M10-40	50	10 MA	50	40	13	36
50 M12-40	50	12 MA	50	40	13	36
60 M8-43	60	8 MA	55	43	15	24
60 M10-43	60	10 MA	55	43	18	24
60 M12-43	60	12 MA	55	43	18	24
65 M8-32	65	8 MA	41	32	15	36
65 M10-32	65	10 MA	41	32	18	36
65 M12-32	65	12 MA	41	32	18	36
70 M8-48	70	8 MA	60	48	18	15
70 M10-48	70	10 MA	60	48	18	15
70 M12-48	70	12 MA	60	48	18	15
70 M16-48	70	16 MA	60	48	24	15
75 M8-38	75	8 MA	50	38	18	24
75 M10-38	75	10 MA	50	38	18	24
75 M12-38	75	12 MA	50	38	18	24
80 M10-52	80	10 MA	65	52	18	12
80 M12-52	80	12 MA	65	52	18	12
80 M16-52	80	16 MA	65	52	24	12
100 M10-52	100	10 MA	65	52	18	9
100 M12-52	100	12 MA	65	52	18	9
100 M16-52	100	16 MA	65	52	24	9



Materiale - massa poliestere con fibra di vetro

Raw material - polyester mass with glass fiber

Inseri metallici femmina alle estremità

Female metallic inserts in extremities

Colore rosso RAL 3002

Colour Red RAL 3002

Esenti da alogeni e silicone

Halogen free - Silicone free

Autoestinguenza UL 94 V0

Self-extinguishing UL 94 V0

Temperatura d'impiego: -40°C to +130°C

Working temperature: -40°C to +130°C

Temp.distorsione sotto carico (ASTM D643): °C>200

Distortion temp. under charge (ASTM D643): °C>200

Costante dielettrica (ASTM D150): 4/5

Dielectric constant (ASTM D150): 4/5

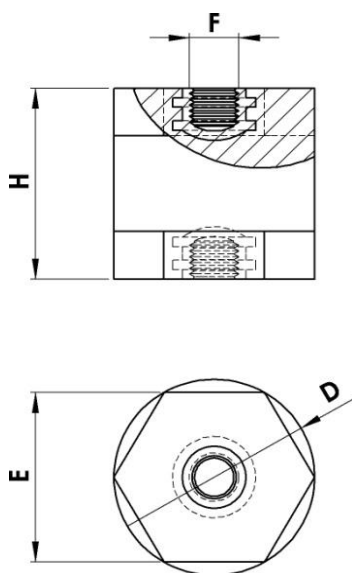
Resistenza all'arco (ASTM D495): sec>180

Arc resistance (ASTM D495): sec>180

Assorbimento acqua (ASTM D570) %<0,3

Water absorption (ASTM D570) %<0,3

COLONNINE DISTANZIALI SPACING COLUMNS



Materiale - massa poliestere con fibra di vetro

Raw material - polyester mass with glass fiber

Inseri metallici femmina alle estremità

Female metallic inserts in extremities

Colore rosso RAL 3002

Colour Red RAL 3002

Esenti da alogeni e silicone

Halogen free - Silicone free

Autoestinguenza UL 94 V0

Self-extinguishing UL 94 V0

Temperatura d'impiego: -40 °C to +130 °C

Working temperature: -40 °C to +130 °C

Temp.distorsione sotto carico (ASTM D643): °C>200

Distortion temp. under charge (ASTM D643): °C>200

Costante dielettrica (ASTM D150): 4/5

Dielectric constant (ASTM D150): 4/5

Resistenza all'arco (ASTM D495): sec>180

Arc resistance (ASTM D495): sec>180

Assorbimento acqua (ASTM D570) %<0,3

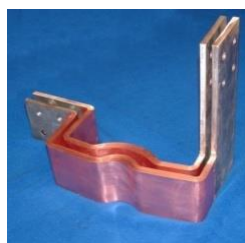
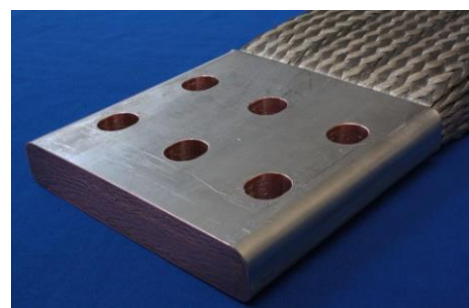
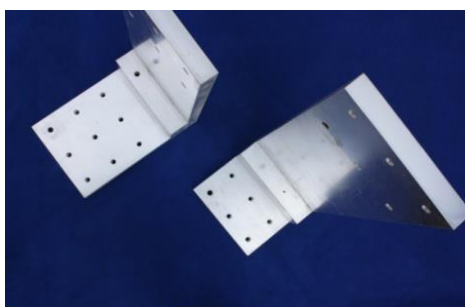
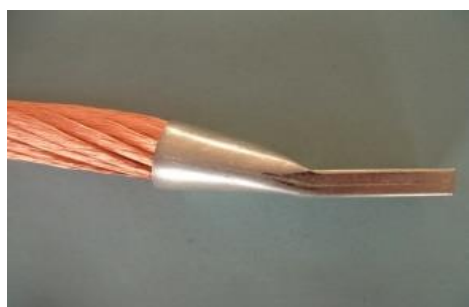
Water absorption (ASTM D570) %<0,3

Codice Item	H [mm]	F [mm]	E [mm]	D [mm]	Imballo Packing [pcs]
C25 M6-20	25	6 MA	18	20	100
C25 M8-20	25	8 MA	18	20	100
C30 M6-20	30	6 MA	18	20	100
C30 M8-20	30	8 MA	18	20	100
C35 M6-20	35	6 MA	18	20	100
C35 M8-20	35	8 MA	18	20	100
C40 M6-20	40	6 MA	18	20	100
C40 M8-20	40	8 MA	18	20	100
C45 M6-20	45	6 MA	18	20	100
C45 M8-20	45	8 MA	18	20	100
C50 M6-20	50	6 MA	18	20	100
C50 M8-20	50	8 MA	18	20	100
C60 M6-20	60	6 MA	18	20	80
C60 M8-20	60	8 MA	18	20	80
C30 M6-30	30	6 MA	27	30	100
C30 M8-30	30	8 MA	27	30	100
C35 M6-30	35	6 MA	27	30	140
C35 M8-30	35	8 MA	27	30	140
C40 M6-30	40	6 MA	27	30	140
C40 M8-30	40	8 MA	27	30	140
C45 M6-30	45	6 MA	27	30	120
C45 M8-30	45	8 MA	27	30	120
C50 M6-30	50	6 MA	27	30	100
C50 M8-30	50	8 MA	27	30	100
C60 M6-30	60	6 MA	27	30	80
C60 M8-30	60	8 MA	27	30	80
C40 M8-40	40	8 MA	36	40	80
C40 M10-40	40	10 MA	36	40	80
C45 M8-40	45	8 MA	36	40	60
C45 M10-40	45	10 MA	36	40	60
C50 M8-40	50	8 MA	36	40	60
C50 M10-40	50	10 MA	36	40	60
C60 M8-40	60	8 MA	36	40	50
C60 M10-40	60	10 MA	36	40	50

PRODOTTI SPECIALI SPECIAL PRODUCTS

Da molti anni, oltre ad un'ampia gamma di prodotti standard, sviluppiamo e realizziamo i piu' diversi tipi di collegamenti elettrici speciali con i nostri clienti.

From many years, besides our wide range of standard products we develop and manufacture the most different types of special electrical conductors with our customers.



DATI TECNICI TECHNICAL INFORMATION

Le portate definite nelle tabelle fanno riferimento alle temperature del conduttore di 65 e di 105 °C ed alla temperatura ambiente di 35 °C. Esse costituiscono valori indicativi validi per collegamenti non inguainati. In caso di utilizzo di guaine isolanti prevedere un fattore di riduzione della portata di circa il 20%.

Si prega di tenere in considerazione che la temperatura di un conduttore dipende dalle condizioni di installazione e di funzionamento e se necessario deve essere previsto un coefficiente di riduzione della portata.

La sezione dei flessibili puo' essere ridotta fino all'80% delle barre piene in accordo con la norma DIN 46276.

Current loads on our data sheets are related to the temperatures of the conductor of 65 °C and 105 °C and to the ambient temperature of 35 °C. These are approximated values for non insulated connections.

For insulated applications please consider a reducing current load factor about 20%.

Please notice that the temperature of a conductor depends on the installation and the working conditions and a reducing current load factor has to be considered if necessary.

The cross-section of a conductor can be reduced to 80% of the solid bars according to DIN 46276 norm.

Fattore di correzione della portata H

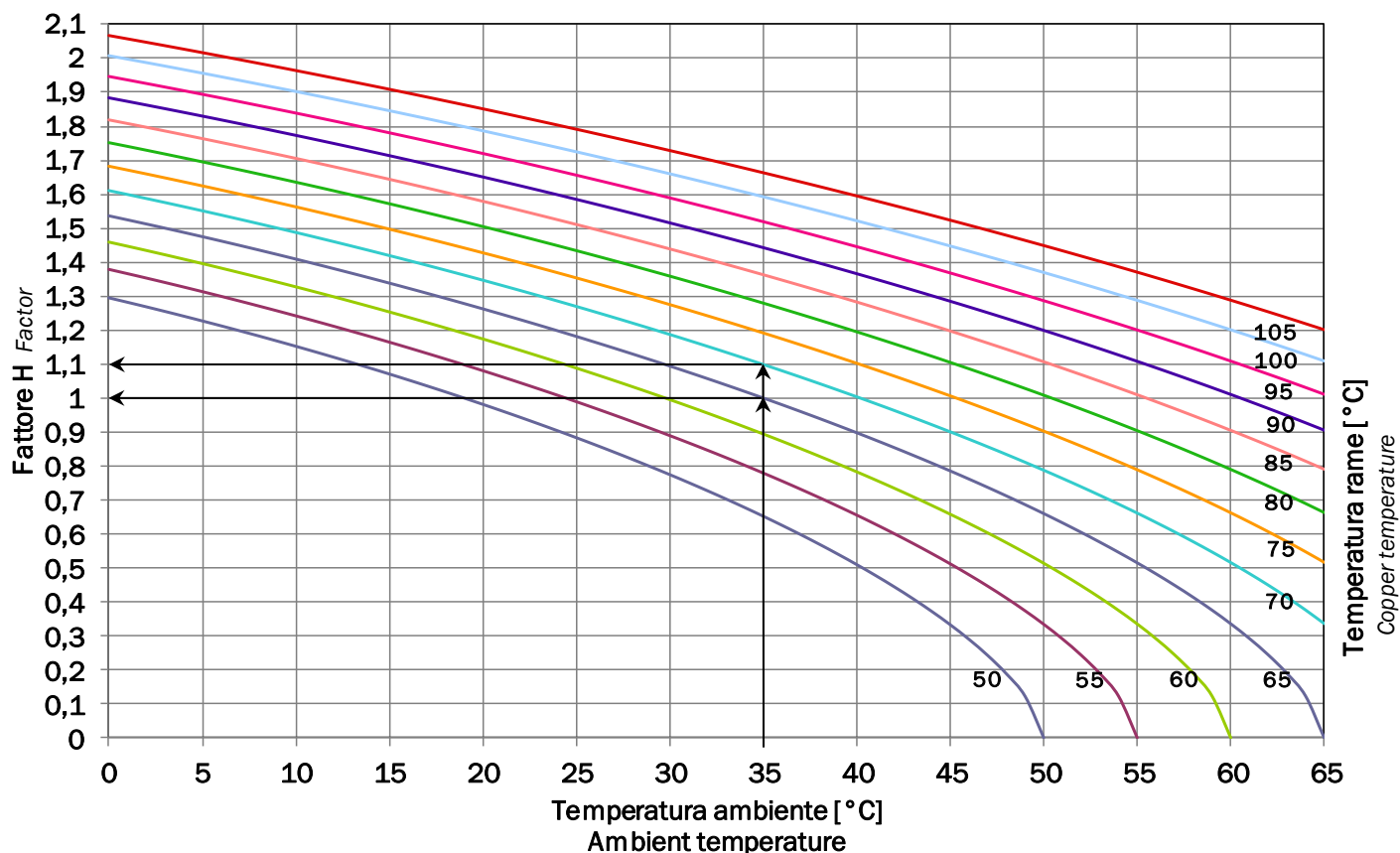
Adjustment current load factor H

I valori di portata definiti nelle tabelle possono essere corretti in funzione delle variazioni di temperatura. Il fattore di correzione della portata H è uguale ad 1 alla temperatura ambiente di 35 °C ed alla temperatura del conduttore di 65 °C. Se per esempio alla medesima temperatura ambiente di 35 °C si ammettesse una temperatura sul conduttore di 70 °C, la portata di corrente va moltiplicata per il fattore correttivo H=1,1.

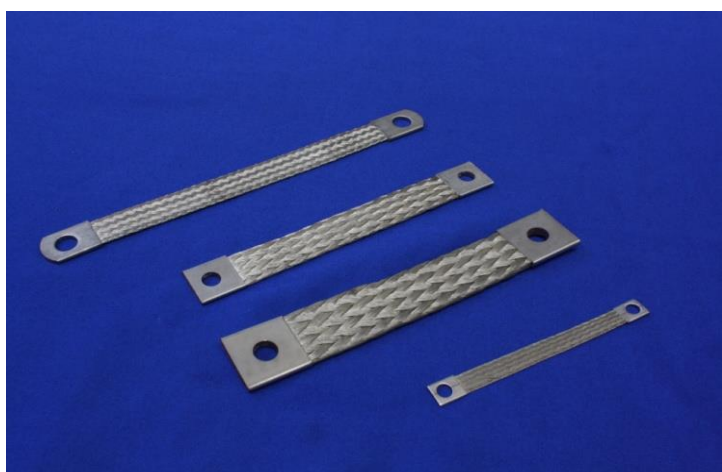
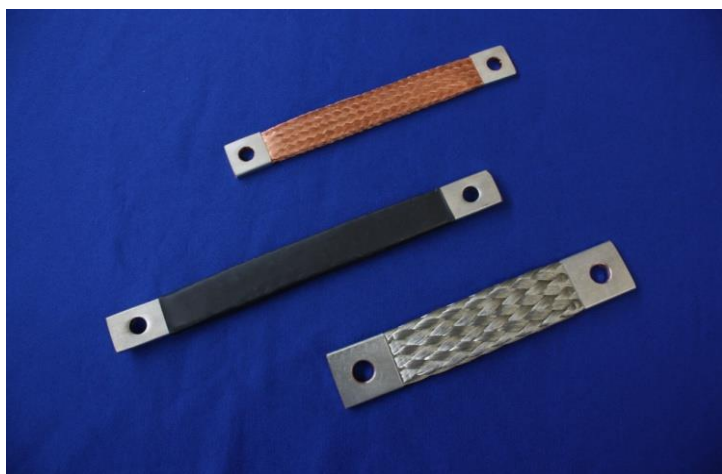
Current loads on our data sheets can be adjusted with reference to variations of temperature.

Adjustment Current load factor H=1 at ambient temperature of 35 °C and copper temperature of 65 °C.

For example, if you allow at the same ambient temperature of 35 °C a copper temperature of 70 °C, the current load has to be multiplied for a factor H=1,1.

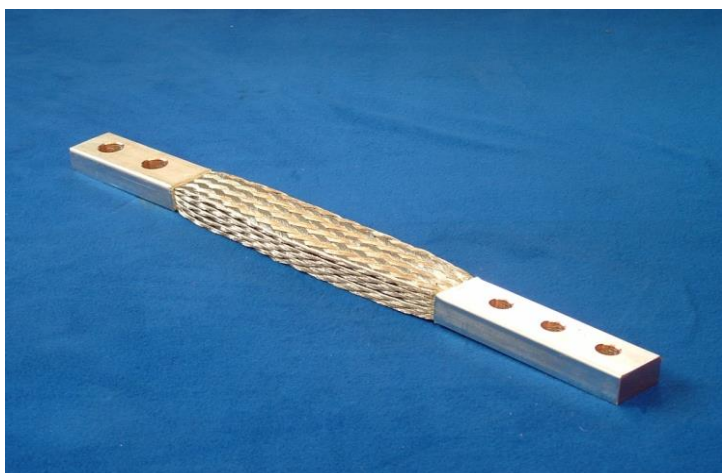
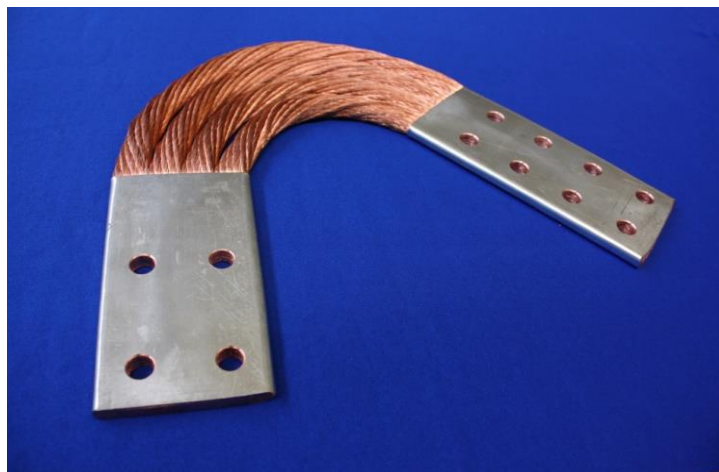
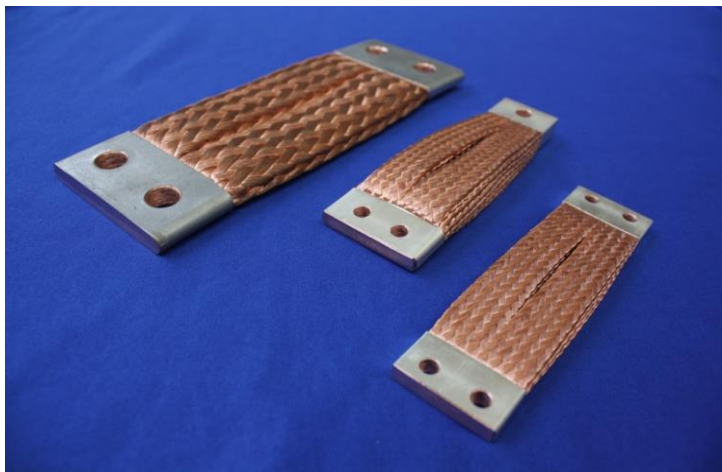
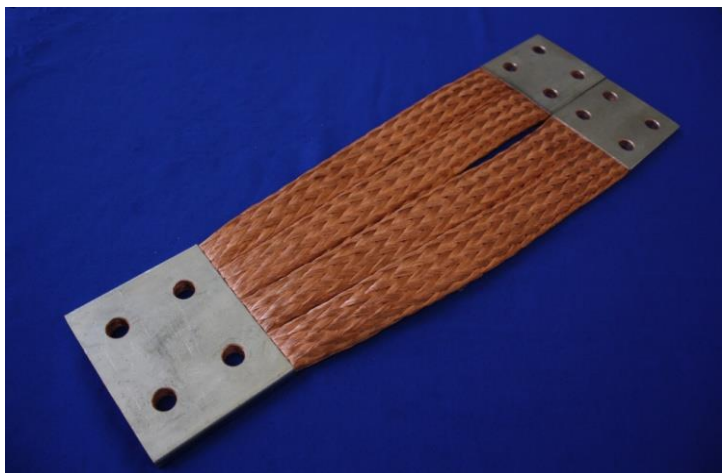
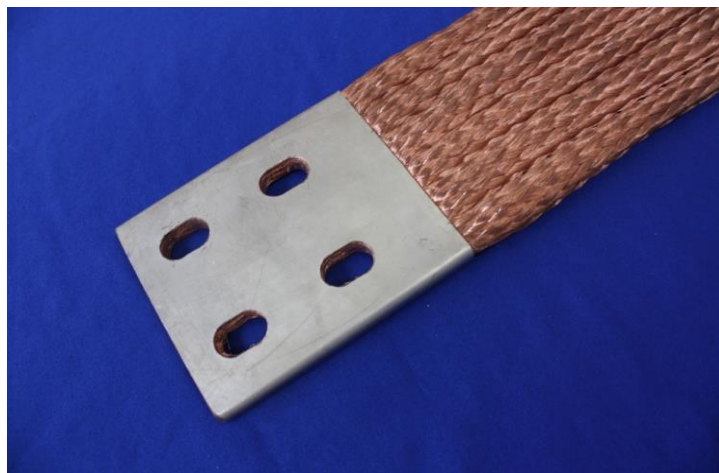


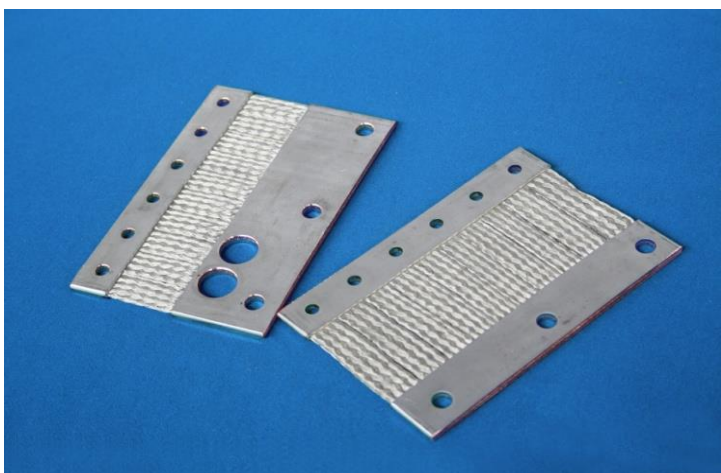
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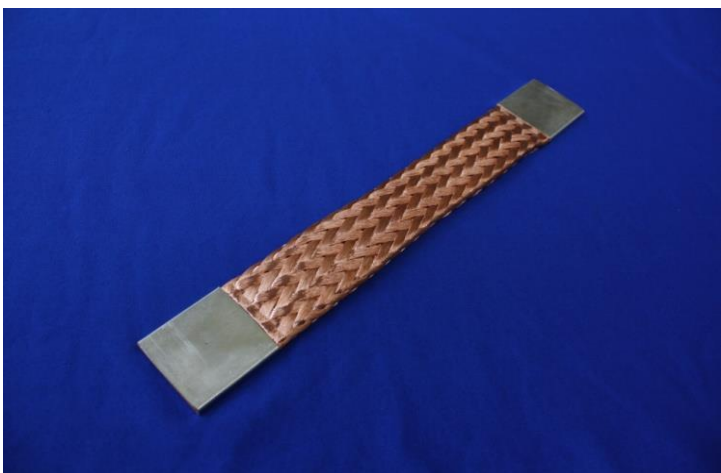
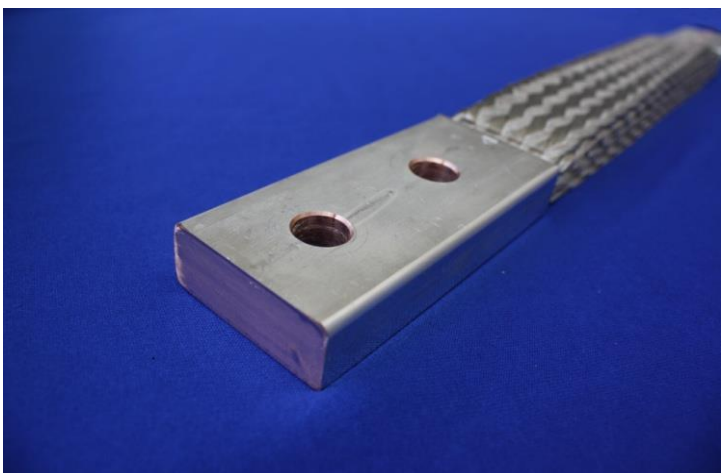
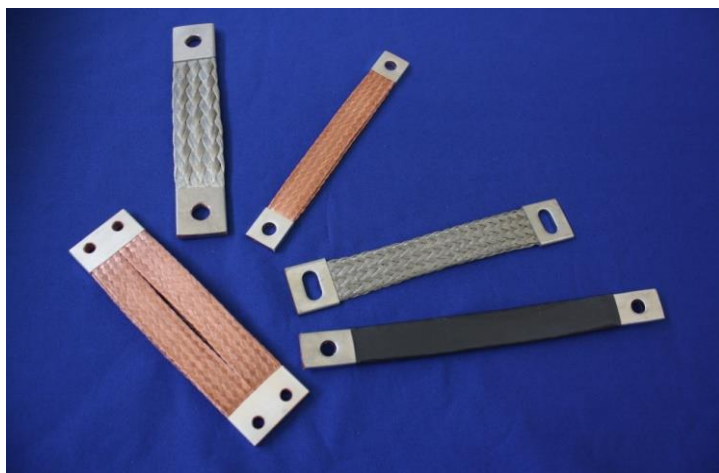




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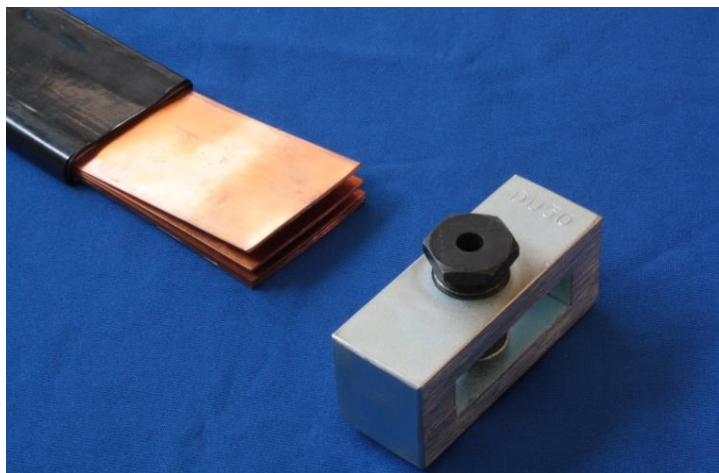
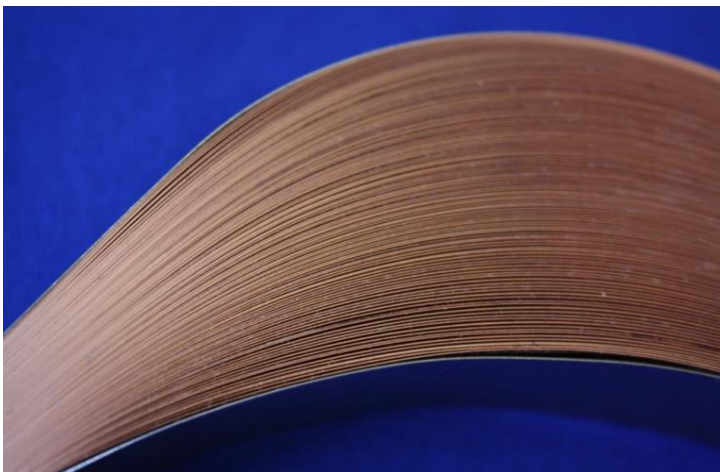
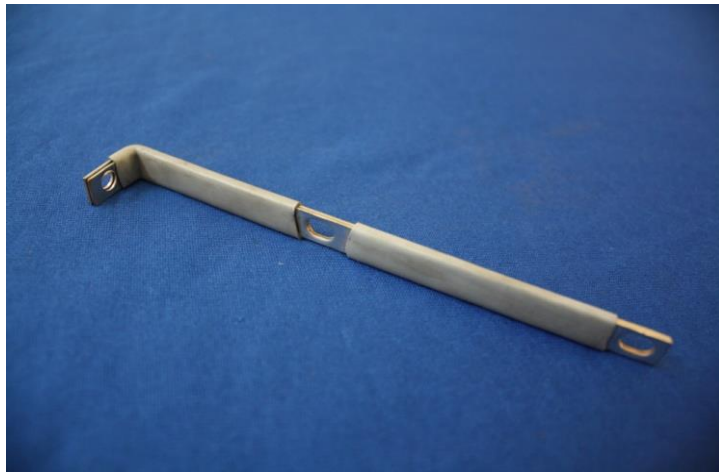
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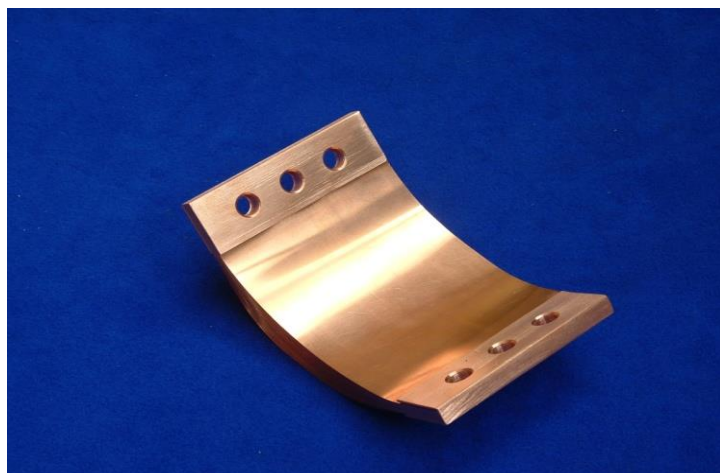
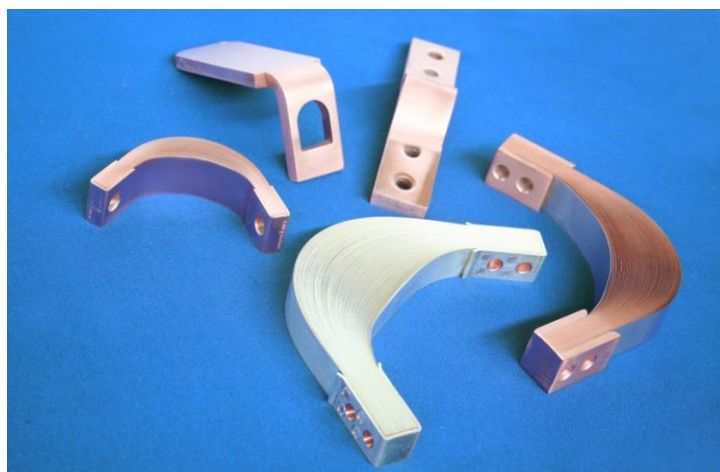
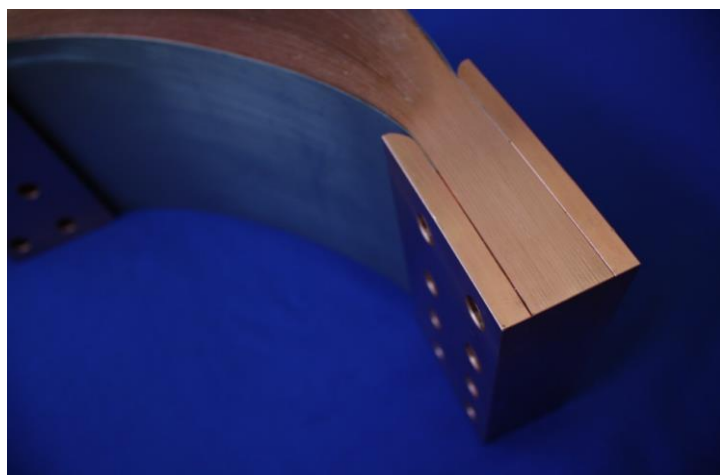
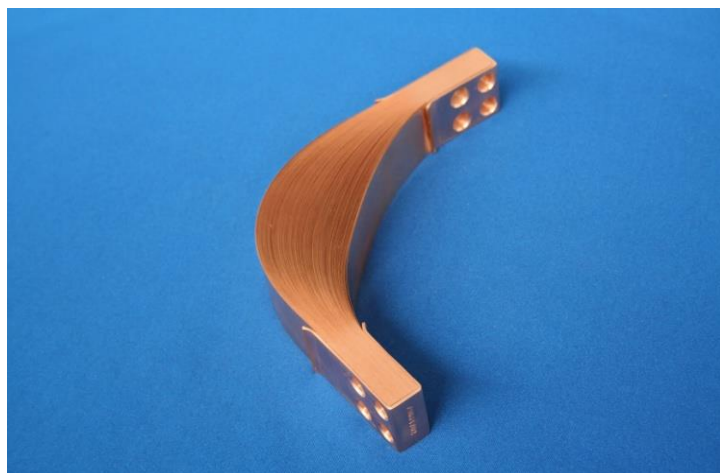
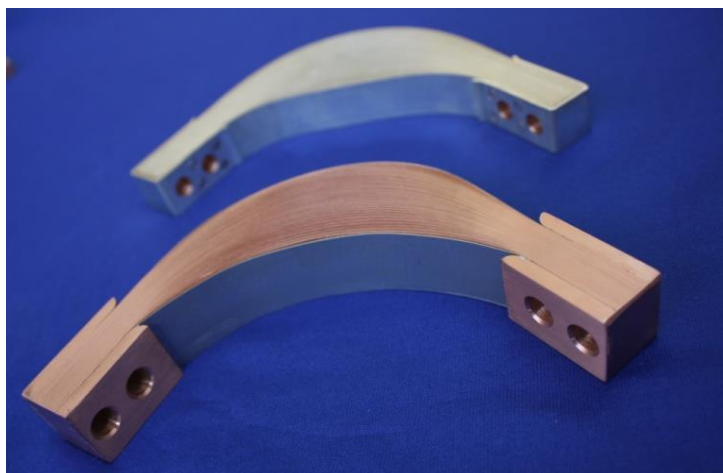


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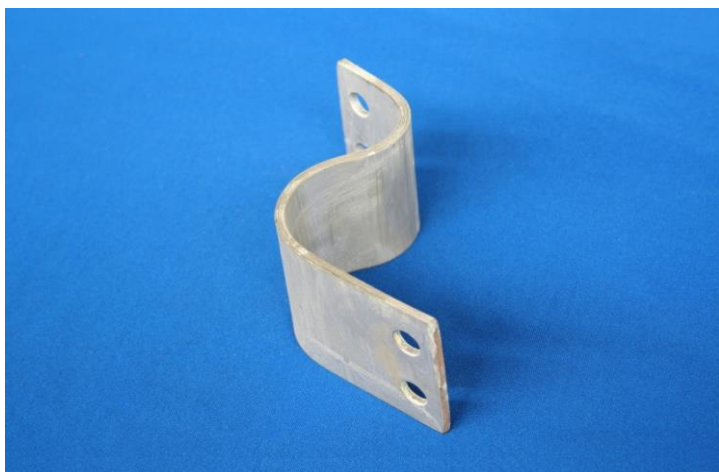
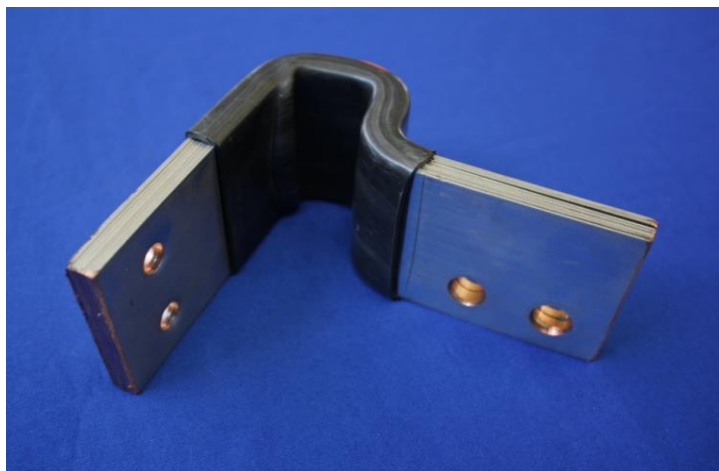
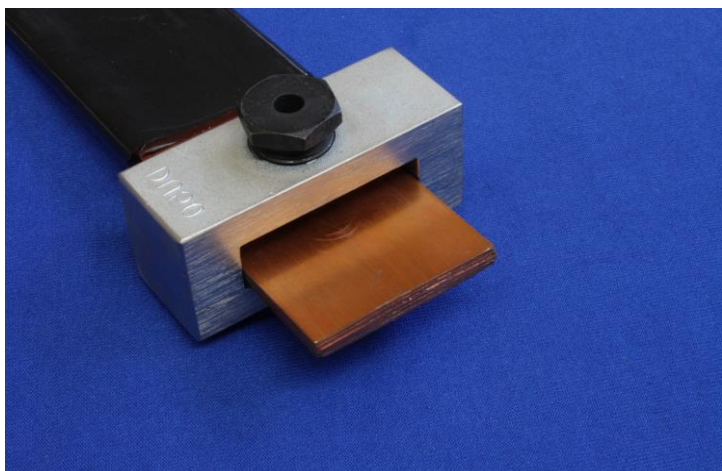


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