



September 2016

# Cable termination solutions

## Lugs and tools for reliable crimping

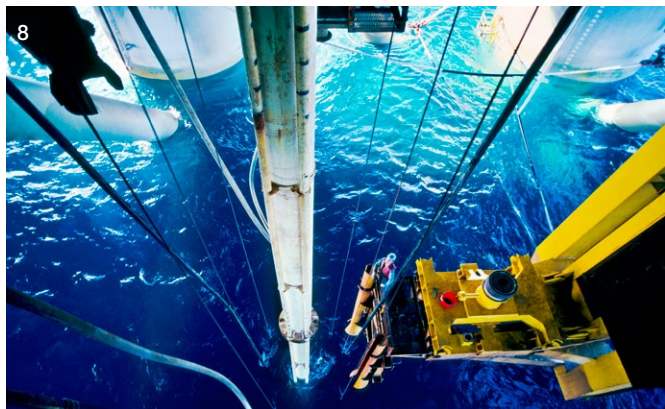
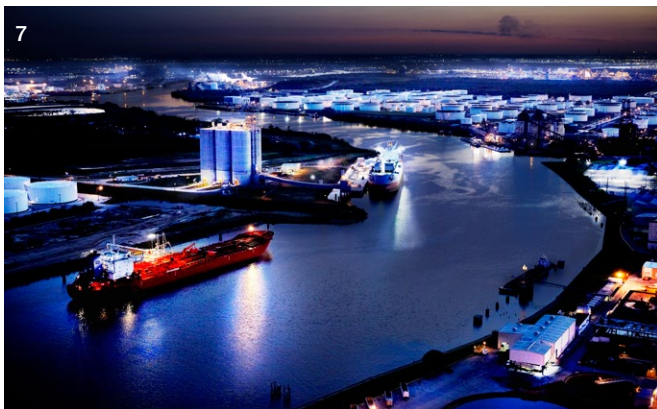
**Spec-Kon®**

Power and productivity  
for a better world™ **ABB**



# ABB products are part of your success

## Designed to perform



1 Rail and transportation | 2 Power utility and renewable energy | 3 Aerospace | 4 Food beverage and agriculture |  
5 Commercial, institutional, residential | 6 Automation, OEM, panel builders | 7 Chemicals and pharmaceutical, mining and minerals |  
8 On and offshore, marine



# Spec-Kon®

## Lugs and links

Thomas & Betts (today a Member of the ABB Group) developed the first tool-applied solderless terminals and connectors more than 60 years ago in response to industry awareness of the need for better performance of electrical systems. Today, our Spec-Kon lugs and links are renowned for higher quality, delivering easy installation and reliable connections.

The quality of this humble component is often compromised on, and the resultant crimp can become the source of an electrical fault leading to potential hazards and costly downtime. A reliable crimp is the product of using the right combination of lug, die, tool and technique. This helps to avoid electrical failures associated with over-crimping (winging) or under-crimping (lack of distinct hex edges). A good crimp forms the lug and conductor into a solid,

homogenous mass to provide an optimum electrical bond. One sign of a good crimp is the achievement of accurate A/F (across the flats) measurement after the crimp to match the recommendations in the product selection chart. This is usually done using Vernier callipers. Some lugs must be crimped more than once. In this case, always execute the first crimp starting from the palm end of the barrel as barrel lengthening (cold flow) will occur.



### Easy to select

- Lugs and links available for various applications
- Can accommodate conductors 1.5mm<sup>2</sup> to 1000mm<sup>2</sup>
- Customisation service available



### Easy to crimp

- Ergonomic and reliable crimping tools and dies available
- Lugs also compatible with dies and tools from other recognised Australian suppliers
- Annealed barrel for optimum compression



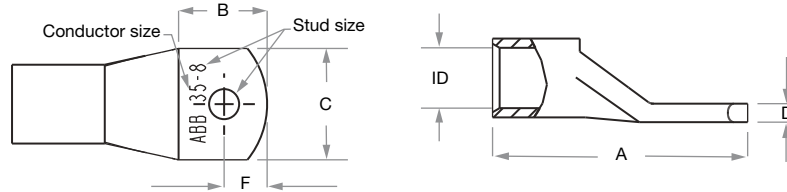
### Easy to trust

- Australian Standards AS/NZS4325-1 and AS/NZS 4437 conformant
- International Standards IEC61238 and IEC60352 conformant
- UL 486 Standard compliant
- Highly conductive 99.9% Pure IACS Copper
- Corrosion resistant Tin plating

# Spec-Kon® Copper standard lugs



Spec-Kon CZ lugs are made from over 99.95% pure, high conductivity Copper as per the International Annealed Copper Standard. They are also Tin plated for protection against corrosion. They are rated for voltage up to 30kV suitable for use with stranded (class 2) and flexible (class 5) power cables according to AS/NZS 1125 and IEC 60228. The barrel diameters and thicknesses are in accordance with the Australian Barrel Scheme. This allows the lugs to be crimped accurately with equivalent dies and tools offered by recognized Australian suppliers.



Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F	
CZL1.5-4	1.5	M4	1.8	18	9	8	1	4	100	ERG9000		
CZL1.5-5		M5	1.8	18	9	8	1	4	100			
CZL1.5-6		M6	1.8	19	10	10	0.8	4	100			
CZL2.5-4	2.5	M4	2.4	19	9	8	1	4	100			
CZL2.5-5		M5	2.4	21	11	10	0.8	5	100			
CZL2.5-6		M6	2.4	21	11	10	0.8	5	100			
CZL2.5-8		M8	2.4	24	15	12	0.6	6	100			
CZL4-5	4	M5	3.1	22	11	10	1	5	100			
CZL4-6		M6	3.1	22	11	10	1	5	100			
CZL4-8		M8	3.1	27	15	12	0.88	6	100			
CZL4-10		M10	3.1	32	19	15	0.7	8	100			
CZL6-4	6	M4	3.1	23	11	10	1.24	5	100		TBM6120AU	4.4
CZL6-5		M5	3.8	23	11	10	1.24	5	100			4.4
CZL6-6		M6	3.8	27	15	12	1	6	100			4.4
CZL6-8		M8	3.8	27	15	12	1	6	100			4.4
CZL6-10		M10	3.8	32	19	15	1	8	100			4.4
CZL10-5	10	M5	4.7	27	13	12	1.8	6	100		TBM58AU	5.7
CZL10-6		M6	4.7	27	13	12	1.8	6	100			5.7
CZL10-8		M8	4.7	29	15	14	1.6	7	100			5.7
CZL10-10		M10	4.7	32	18	15	1.5	8	100			5.7
CZL10-12		M12	4.7	38	23	18	1	10	100			5.7
CZL16-6	16	M6	5.5	39	16	11	2.4	7	50		TBM58AU	6.3
CZL16-8		M8	5.5	39	16	14	1.7	7	50			6.3
CZL16-10		M10	5.5	41	18	16	1.5	8	50			6.3
CZL16-12		M12	5.5	46	23	18	1.4	10	50			6.3
CZL25-6	25	M6	7.1	41	16	13.5	2.4	7	50			7.7
CZL25-8		M8	7.1	41	16	13.5	2.4	7	50			7.7
CZL25-10		M10	7.1	44	19	16	1.96	9	50			7.7
CZL25-12		M12	7.1	48	23	18	1.74	10	50			7.7
CZL35-6	35	M6	8.4	45	19	16	3	9	50			9.2
CZL35-8		M8	8.4	45	19	16	3	9	50	9.2		
CZL35-10		M10	8.4	45	19	18	2.6	9	50	9.2		
CZL35-12		M12	8.4	51	24	20	2.42	11	50	9.2		

# Spec-Kon®

## Copper standard lugs

Cat number	Wire size (mm²)	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F			
CZL50-6	50	M6	9.5	46	18	18	3.2	8	50	TBM6120AU	10.4			
CZL50-8		M8	9.5	46	18	18	3.2	8	50		10.4			
CZL50-10		M10	9.5	46	18	18	3.2	8	50		10.4			
CZL50-12		M12	9.5	52	24	21	2.7	11	50		10.4			
CZL70-6	70	M6	11.3	54	24	21	3.2	11	25		TBM6120AU	11.5		
CZL70-8		M8	11.3	54	24	21	3.2	11	25			11.5		
CZL70-10		M10	11.3	54	24	21	3.2	11	25			11.5		
CZL70-12		M12	11.3	54	24	21	3.2	11	25			11.5		
CZL70-14		M15	11.3	54	24	21	3.2	11	25			11.5		
CZL70-16		M16	11.3	61	27	26	3	13	25			11.5		
CZL95-8	95	M8	13.5	60	26	25	3.8	12	25			TBM6120AU	14.2	
CZL95-10		M10	13.5	60	26	25	3.8	12	25				14.2	
CZL95-12		M12	13.5	60	26	25	3.8	12	25	14.2				
CZL95-14		M14	13.5	60	26	25	3.8	12	25	14.2				
CZL95-16		M16	13.5	64	30	25	3.8	14	25	14.2				
CZL120-8	120	M8	15.6	64	26	30	4.7	12	25	TBM6120AU			16.5	
CZL120-10		M10	15.6	64	26	30	4.7	12	25		16.5			
CZL120-12		M12	15.6	64	26	30	4.7	12	25		16.5			
CZL120-14		M14	15.6	64	26	30	4.7	12	25		16.5			
CZL120-16		M16	15.6	70	32	30	4.7	16	25		16.5			
CZL150-10		150	M10	16.7	71	32	32	5.25	16		20		TBM6120AU	18.3
CZL150-12	M12		16.7	75	36	32	5.25	18	20		18.3			
CZL150-14	M14		16.7	75	36	32	5.25	18	20		18.3			
CZL150-16	M16		16.7	75	36	32	5.25	18	20		18.3			
CZL185-10	185	M10	18.4	74	32	36	5.39	16	20		TBM6120AU	20.0		
CZL185-12		M12	18.4	79	36	36	5.39	18	20			20.0		
CZL185-16		M16	18.4	79	36	36	5.39	18	20			20.0		
CZL240-10	240	M10	21.2	98	42	41	7	21	1	TBM6120AU		23.1		
CZL240-12		M12	21.2	98	42	41	7	21	1			23.1		
CZL240-16		M16	21.2	98	42	41	7	21	1			23.1		
CZL300-12	300	M12	23.8	101	46	46	7.7	23	1			TBM6120AU		26.0
CZL300-14		M14	23.8	101	46	46	7.7	23	1					26.0
CZL300-16		M16	23.8	101	46	46	7.7	23	1				26.0	
CZL400-BL	400	Blank	26.8	114	52	50	7.9	24	1				TBM6120AU	28.1
CZL500-BL	500	Blank	30.0	119	54	56	7.6	27	1					31.0
CZL630-BL	630	Blank	34.0	139	64	64.4	9.5	32	1					37.0
CZL800-BL	800	Blank	39.3	275	125	74	14	62.5	1		43.2			
CZL1000-BL	1000	Blank	44.0	295	125	84.6	16	62.5	1		48.0			

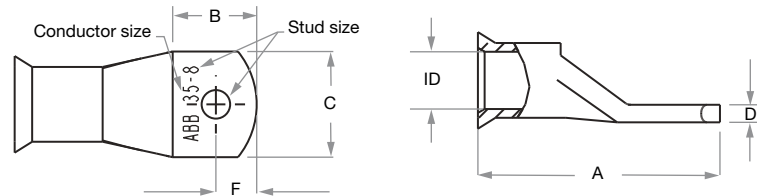


- For 90 degree palm to barrel angled variant please add suffix 'RA' after catalogue number. Example CZL35-10RA
- For 45 degree palm to barrel angled variant please add suffix 'HRA' after catalogue number. Example CZL70-10HRA
- Blank lugs CZL400-BL and above can also be punched as per your specification. Please contact our sales office

# Spec-Kon® Copper bell-mouth lugs



These lugs are similar in design to standard lugs but come with a flared funnel-shaped barrel designed to ease cable insertion. This becomes extremely useful when crimping fine stranded flexible cable. This is because the fine conductor strands splay outward after stripping the insulation. Larger flexible cables (185mm<sup>2</sup> upwards) will simply not fit into the nominal sized lug. In this scenario, the industry practice is to use the next size up lug, executing the crimp with a hybrid die (half cable size, half lug size).



Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F
CZL10-5BM	10	M5	4.7	27	13	12	1.8	6	100	TBM6120AU	5.7
CZL10-6BM		M6	4.7	27	13	12	1.8	6	100		5.7
CZL10-8BM		M8	4.7	29	15	14	1.6	7	100		5.7
CZL10-10BM		M10	4.7	32	18	15	1.5	8	100		5.7
CZL10-12BM		M12	4.7	38	23	18	1	10	100		5.7
CZL16-6BM	16	M6	5.5	39	16	11	2.4	7	50	TBM6120AU	6.3
CZL16-8BM		M8	5.5	39	16	14	1.8	7	50		6.3
CZL16-10BM		M10	5.5	41	18	16	1.5	8	50		6.3
CZL16-12BM		M12	5.5	46	23	18	1.4	10	50		6.3
CZL25-6BM	25	M6	7.1	41	16	13.5	2.4	7	50	TBM6120AU	7.7
CZL25-8BM		M8	7.1	41	16	13.5	2.4	7	50		7.7
CZL25-10BM		M10	7.1	44	19	16	1.96	9	50		7.7
CZL25-12BM		M12	7.1	48	23	18	1.74	10	50		7.7
CZL35-6BM	35	M6	8.4	45	19	16	3	9	50	TBM6120AU	9.2
CZL35-8BM		M8	8.4	45	19	16	3	9	50		9.2
CZL35-10BM		M10	8.4	45	19	18	2.6	9	50		9.2
CZL35-12BM		M12	8.4	51	24	20	2.42	11	50		9.2
CZL50-6BM	50	M6	9.5	46	18	18	3.2	8	50	TBM6120AU	10.4
CZL50-8BM		M8	9.5	46	18	18	3.2	8	50		10.4
CZL50-10BM		M10	9.5	46	18	18	3.2	8	50		10.4
CZL50-12BM		M12	9.5	52	24	21	2.7	11	50		10.4
CZL70-6BM	70	M6	11.3	54	24	21	3.2	11	25	TBM6120AU	11.5
CZL70-8BM		M8	11.3	54	24	21	3.2	11	25		11.5
CZL70-10BM		M10	11.3	54	24	21	3.2	11	25		11.5
CZL70-12BM		M12	11.3	54	24	21	3.2	11	25		11.5
CZL70-14BM		M15	11.3	54	24	21	3.2	11	25		11.5
CZL70-16BM		M16	11.3	61	27	26	3	13	25		11.5

# Spec-Kon®

## Copper bell-mouth lugs

Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F
CZL95-8BM	95	M8	13.5	60	26	25	3.8	12	25	TBM6120AU	14.2
CZL95-10BM		M10	13.5	60	26	25	3.8	12	25		14.2
CZL95-12BM		M12	13.5	60	26	25	3.8	12	25		14.2
CZL95-14BM		M14	13.5	60	26	25	3.8	12	25		14.2
CZL95-16BM		M16	13.5	64	30	25	3.8	14	25		14.2
CZL120-8BM	120	M8	15.6	64	26	30	4.7	12	25	TBM6120AU	16.5
CZL120-10BM		M10	15.6	64	26	30	4.7	12	25		16.5
CZL120-12BM		M12	15.6	64	26	30	4.7	12	25		16.5
CZL120-14BM		M14	15.6	64	26	30	4.7	12	25		16.5
CZL120-16BM		M16	15.6	70	32	30	4.7	16	25		16.5
CZL150-10BM	150	M10	16.7	71	32	32	5.25	16	20	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	18.3
CZL150-12BM		M12	16.7	75	36	32	5.25	18	20		18.3
CZL150-14BM		M14	16.7	75	36	32	5.25	18	20		18.3
CZL150-16BM		M16	16.7	75	36	32	5.25	18	20		18.3
CZL185-10BM	185	M10	18.4	74	32	36	5.39	16	20	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	20.0
CZL185-12BM		M12	18.4	79	36	36	5.39	18	20		20.0
CZL185-16BM		M16	18.4	79	36	36	5.39	18	20		20.0
CZL240-10BM	240	M10	21.2	92	42	41	7	21	1	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	23.1
CZL240-12BM		M12	21.2	92	42	41	7	21	1		23.1
CZL240-16BM		M16	21.2	92	42	41	7	21	1		23.1
CZL300-12BM	300	M12	23.8	101	46	46	7.7	23	1	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	26.0
CZL300-14BM		M14	23.8	101	46	46	7.7	23	1		26.0
CZL300-16BM		M16	23.8	101	46	46	7.7	23	1		26.0
CZL400-BM	400	Blank	26.8	114	52	50	7.9	24	1	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	28.1
CZL500-BM	500	Blank	30.0	119	54	56	7.6	27	1	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	31.0
CZL630-BM	630	Blank	34.0	139	64	64.4	9.5	32	1	TBM5BAU TBM13MAU, TBM13RAU, TBM14CR-LI TBM23RAU	37.0

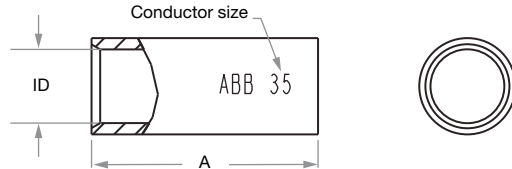
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# Spec-Kon®

## Copper standard links



Spec-Kon CZ Links are made from over 99.95% pure Copper as per the International Annealed Copper Standard. They are also Tin plated for protection against corrosion. They are rated for voltage up to 30kV suitable for use with stranded (class 2) and flexible (class 5) power cables according to AS/NZS 1125 and IEC 60228. The barrel diameters and thicknesses are in accordance with the Australian Barrel Scheme. This allows the links to be crimped accurately with equivalent dies and tools offered by recognised Australian suppliers.



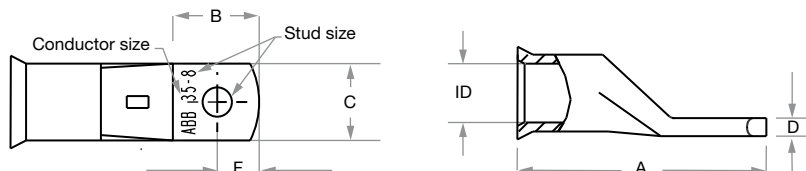
Cat number	Wire size (mm <sup>2</sup> )	ID	A	Quantity per box	Tooling	A/F	
CZS1.5	1.5	1.8	22	100	ERG9000		
CZS2.5	2.5	2.4	22	100			
CZS4	4	3.1	22	100			
CZS6	6	3.8	22	100			4.4
CZS10	10	4.7	22	100			5.7
CZS16	16	5.5	44	50			6.3
CZS25	25	7.1	47	50		TBM6120AU	7.7
CZS35	35	8.4	47	50		TBMSBAU	9.2
CZS50	50	9.5	47	50		TBM13MAU, TBM13RAU, TBM14GR-LI	10.4
CZS70	70	11.3	50	25			11.5
CZS95	95	13.5	54	25		14.2	
CZS120	120	15.6	65	25		16.5	
CZS150	150	16.7	65	20		18.3	
CZS185	185	18.4	65	20		20.0	
CZS240	240	21.2	90	1		23.1	
CZS300	300	23.8	90	1		26.0	
CZS400	400	26.8	90	1		28.1	
CZS500	500	30.0	112	1		31.0	
CZS630	630	34.0	112	1		37.0	
CZS800	800	39.6	230	1		43.2	
CZS1000	1000	44.0	230	1		48.0	



# Spec-Kon® Copper circuit-breaker lugs



These lugs are designed with a narrow palm and are ideal for connecting to circuit breakers with limited terminal tunnel widths. The barrel of these lugs are designed as per the Australian Barrel Scheme hence the same crimping rules apply. The barrel entry has a bell-mouth design to ease cable insertion, specially when using fine stranded (flexible) cable.



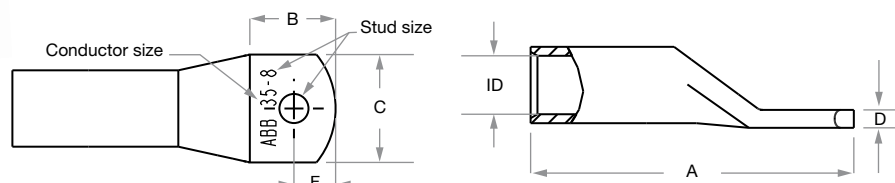
Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F
CZL35-6BM	35	M6	8.4	41	15	15	3	7	25	TBM6120AU	9.2
CZL50-6BM	50	M6	9.5	43	15	15	3.7	7	10		10.4
CZL50-10BM		M10	9.5	49	21	19	2.9	9	10	10.4	
CZL70-6BM	70	M6	11.3	45	15	17	3.9	6.5	10	TBM58AU	11.5
CZL70-10BM		M10	11.3	51	21	19	3.5	9	10		11.5
CZL95-8CB	95	M8	13.5	51	17	19	4.9	8	10	TBM13MAU, TBM13RAU, TBM14CR-LI	14.2
CZL95-10CB		M10	13.5	55	21	19	4.9	9	10		14.2
CZL120-8CB	120	M8	15.6	61	23	19	7.4	11	10	TBM23RAU	16.5
CZL120-10CB		M10	15.6	61	23	19	7.4	11	10		16.5
CZL150-8CB	150	M8	16.7	66	27	19	8.8	12	5	TBM23RAU	18.3
CZL150-10CB		M10	16.7	66	27	19	8.8	12	5		18.3
CZL185-10CB	185	M10	18.4	74	32	24.5	7.7	14.5	5		20.0
CZL240-10CB	240	M10	21.2	82	32	31	8.9	13.5	5		23.1
CZL240-12CB		M12	21.2	82	32	31	8.9	13.5	5		23.1
CZL300-10CB	300	M10	23.8	87	32	31	10.8	12	5		26.0
CZL300-12CB		M12	23.8	87	32	31	10.8	12	5		26.0

# Spec-Kon®

## Copper long barrel lugs



Long barrel lugs are designed for installation into harsh, outdoor or industrial conditions. The long barrel creates a larger contact surface area which contributes to lower electrical resistance and also prevents cable pull-out due to vibration and mechanical strain. Additionally these lugs are also internally solder-sealed at the palm, and the viewing window is absent. This creates an air-tight crimp protecting the joint from water and dust ingress.



Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	F	Quantity per box	Tooling	A/F
CZL10-6LB	10	M6	4.7	35	16	12	1.8	6	100		5.7
CZL16-6LB	16	M6	5.5	41	20	11	2.4	7	50		6.3
CZL16-8LB		M8	5.5	41	20	14	1.7	7	50		6.3
CZL25-8LB	25	M8	7.1	49	22	13.5	2.4	7	50		7.7
CZL25-10LB		M10	7.1	52	22	16	1.96	9	50		7.7
CZL25-12LB		M12	7.1	56	22	18	1.74	10	50		7.7
CZL35-8LB	35	M8	8.4	59	25	16	3	9	50		9.2
CZL35-10LB		M10	8.4	59	25	18	2.6	9	50	TBM6120AU	9.2
CZL35-12LB		M12	8.4	64	25	20	2.42	11	50	TBM6120AU TBM6120AU	9.2
CZL50-10LB	50	M10	9.5	68	27	18	3.2	8	50		10.4
CZL50-12LB		M12	9.5	76	27	21	2.7	11	50	TBM6120AU	10.4
CZL70-10LB	70	M10	11.3	78	27	21	3.2	11	25		11.5
CZL70-12LB		M12	11.3	78	27	21	3.2	11	25	TBM2318AU	11.5
CZL95-10LB	95	M10	13.5	87	27	25	3.8	12	25		14.2
CZL95-12LB		M12	13.5	87	27	25	3.8	12	25	TBM13MAU, TBM13RAU, TBM14CR-LI	14.2
CZL120-10LB	120	M10	15.6	94	30	30	4.7	12	25		16.5
CZL120-12LB		M12	15.6	94	30	30	4.7	12	25		16.5
CZL150-12LB	150	M12	16.7	105	41	32	5.25	18	20		18.3
CZL150-16LB		M16	16.7	105	41	32	5.25	18	20		18.3
CZL185-12LB	185	M12	18.4	111	41	36	5.39	18	20		20.0
CZL240-12LB	240	M12	21.2	134	50	41	7	21	15		23.1
CZL300LB	300	M12	23.8	149	50	46	7.7	23	10		26.0
CZL400LB	400	BLANK	26.8	163	52	50	7.9	24	6		28.1
CZL500LB	500	BLANK	30.0	174	56	56	7.6	27	6		31.0
CZL630LB	630	BLANK	34.0	191	56	64.4	9.5	32	5		37.0

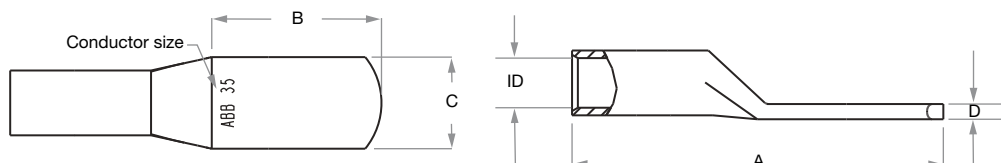
- Blank Lugs CZL400LB and above can also be punched as per your specification. Please contact our sales office

# Spec-Kon®

## Copper long palm and long barrel lugs



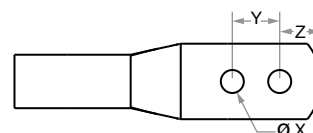
These lugs are available as usually punched with two bolt holes and are designed for installation into harsh, outdoor or industrial conditions. The long barrel creates a larger contact surface area which contributes to lower electrical resistance and also prevents cable pull-out due to vibration and mechanical strain. Additionally these lugs are also internally solder-sealed at the palm, and the viewing window is absent. This creates an air-tight crimp protecting the joint from water and dust ingress.



Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	C	D	Quantity per box	Tooling	A/F
CZL16LPB	16	BLANK	5.5	86	61	11	2.4	50		6.3
CZL25LPB	25	BLANK	7.1	94	61	18	1.74	50		7.7
CZL35LPB	35	BLANK	8.4	112	72	16	3	50		9.2
CZL50LPB	50	BLANK	9.5	130	80	21	2.7	50		10.4
CZL70LPB	70	BLANK	11.3	154	100	21	3.2	25		11.5
CZL95LPB	95	BLANK	13.5	161	100	25	3.8	25		14.2
CZL120LPB	120	BLANK	15.6	168	100	30	4.7	25		16.5
CZL150LPB	150	BLANK	16.7	169	100	32	5.25	20		18.3
CZL185LPB	185	BLANK	18.4	174	100	36	5.39	20		20.0
CZL240LPB	240	BLANK	21.2	192	100	41	7	15		23.1
CZL300LPB	300	BLANK	23.8	208	105	46	7.7	10		26.0
CZL400LPB	400	BLANK	26.8	225	110	50	7.9	6		28.1
CZL500LPB	500	BLANK	30.0	230	110	56	7.6	6		31.0
CZL630LPB	630	BLANK	34.0	242	110	64.4	9.5	5	37.0	

### Customised order form

Please print and email to [austsales@tnb.com](mailto:austsales@tnb.com) or fax to 1300 666 594



Name	Date
Company	
Email address	Telephone
Purchase order number	Delivery date required

Product requiring customisation

CZL \_\_\_\_\_ LBP

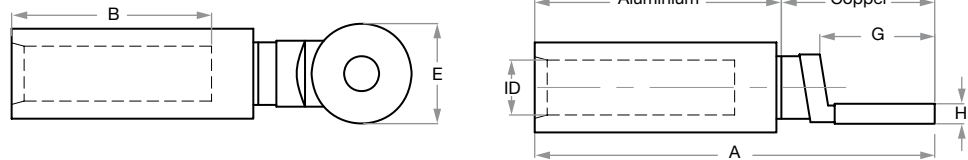
Number of holes required	Hole size required (X)	Hole centres spacing (Y)	First hole to palm-end (Z)	Quantity of lugs required
<input type="text"/>	<input type="text"/> mm	<input type="text"/> mm	<input type="text"/> mm	<input type="text"/>

Additional comments

# Spec-Kon® Bi-metal lugs



These lugs are used to terminate Aluminium conductors to Copper termination points. They are made from 99.9% pure copper palm and 99.6% pure aluminium barrel, friction-welded together for a strong and highly conductive electrical joint. Each lug is individually packaged and comes capped with jointing compound pre-filled inside the barrel ready for use. These lugs are crimped using dies compatible with Aluminium barrels.



Cat number	Wire size (mm <sup>2</sup> )	Stud size	ID	A	B	E	G	H	Tooling
BZL16	16	BLANK	5.5	75	32	20	24	4.5	TBM13MAU, TBM13RAU, TBM14CR-LI, TBM23RAU
BZL25-10	25	10	7.5	75	32	20	24	4.5	
BZL25-12		12	7.5	75	32	20	24	4.5	
BZL35-10	35	10	8.5	75	32	20	24	4.5	
BZL35-12		12	8.5	75	32	20	24	4.5	
BZL50-10	50	10	9.5	75	32	24	26	4.5	
BZL50-12		12	9.5	75	32	24	26	4.5	
BZL70-10	70	10	11.5	75	32	24	26	4.5	
BZL70-12		12	11.5	75	32	24	26	4.5	
BZL95-10	95	10	13.5	115	60	24	26	6	
BZL95-12		12	13.5	115	60	24	26	6	
BZL120-10	120	10	15.5	115	60	30	33	6	
BZL120-12		12	15.5	115	60	30	33	6	
BZL150-10	150	10	16.5	120	60	30	33	7	
BZL150-12		12	16.5	120	60	30	33	7	
BZL185-10	185	10	18.5	120	60	35	38	7	
BZL185-12		12	18.5	120	60	35	38	7	
BZL240-10	240	10	22	135	60	35	38	7	
BZL240-12		12	22	135	60	35	38	7	
BZL300		BLANK	23.5	135	60	36	38	7	
BZL300-10	300	10	23.5	135	60	36	38	7	
BZL300-12		12	23.5	135	60	36	38	7	
BZL400	400	BLANK	26.5	165	70	50	52	10	



# Furse®





## Copper C-shaped connectors



Furse CN series C-tap connectors are designed for parallel connection of two conductors such as cables with cables or earth rods in tight spaces. They are made from 99.9% pure IACS Copper in accordance with EN16800. Care must be taken during underground installations to ensure connections are sealed/waterproofed. This can be done using Denso Tape. These products are also available in Tin plated variants. Please add suffix 'T' to cat number if required. Example CN1010-T. Additional styles such as wide-jaw connectors and Figure 6 and Figure 8 connectors also available

Cat number	Conductor range main (mm <sup>2</sup> )	Conductor range tap (mm <sup>2</sup> )	Tooling	Crimp die
CN1010	10	1.5-10	TBM13MAU, TBM13RAU, TBM14CR-LI, TBM23RAU	HD100
CN1616	16	1.5-16		HD200
CN2510	16-25	1.5-10		HD200
CN2525	25	16-25		HD200
CN3516	35	1.5-16		HD300
CN3535	35	25-35		HD300
CN5025	50	4-25		HD300
CN5050	50	35-50		HD400
CN7025	70	1.5-25		HD400
CN7035	50-70	4-35		HD400
CN7070	50-70	35-70		HD400
CN9535	95	4-35		HD500
CN9570	95	35-70		HD500
CN9595	95	70-95		HD500
CN120120	120	25-120		HD600
CN150120	150	25-120		HD600
CN150150	150	70-150		HD600
CN18595	185	16-95		HD600
CN185185	120-185	120-185		HD700
CN240120	150-240	95-120		HD700
CN240150	150-240	150-240		
CN240185	185-240	185-240		
CN240240	240	240		
CN300120	120-300	120-300		
CN300300	300	300		

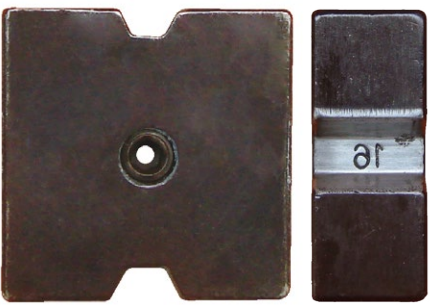

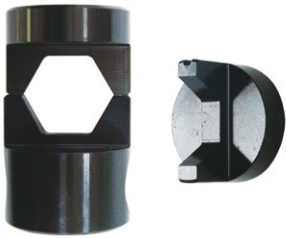

# Spec-Kon® Crimping tools

	Tool type	For lug sizes (mm <sup>2</sup> )	Part number
	<p>Manual ergonomic crimp tool. Fully self contained die nests</p>	<p>1.5 to 10</p>	<p>ERG9000</p>
	<p>Manual ergonomic hex crimp tool. Fully self contained rotating die nests.</p>	<p>6 to 120</p>	<p>TBM6120AU</p>
	<p>Manual hydraulic hex crimp 13 ton. Rapid two-stroke system with 180 head rotation, fully insulated compact handles. Accepts dies and lugs from all recognised Australian suppliers. Comes in carry case.</p>	<p>10 to 400</p>	<p>TBM13MAU</p>
	<p>Battery powered 5 ton crimp tool pistol grip style. Accepts dies and lugs from all recognised Australian suppliers. Comes in case with 1 Li-ion battery, charger, shoulder strap.</p>	<p>185 to 240</p>	<p>TBM5BAU</p>

# Spec-Kon® Crimping tools

	Tool type	For lug sizes (mm <sup>2</sup> )	Part number
	<p>Battery powered 13 ton crimp tool pistol grip style. Accepts dies and lugs from all recognised Australian suppliers. Comes in case with 1 Li-ion battery, charger, shoulder strap.</p>	<p>10 to 400</p>	<p>TBM13BAU</p>
	<p>Battery powered 14 ton crimp tool. Accepts dies and lugs from all recognised Australian suppliers. Comes in case with 2 Li-ion batteries, charger, shoulder strap.</p>	<p>10 to 400</p>	<p>TBM14CR-Li</p>
	<p>Remote hydraulic head with 23 ton capacity. Used in combination with pump delivering 700 bar (10,000 psi) pressure. Comes in carry case with 3 dies (400mm<sup>2</sup>, 500mm<sup>2</sup>, 630mm<sup>2</sup>) and hydraulic couplers.</p>	<p>400 to 630 as standard 10 to 630 with adaptor</p>	<p>TBM23RAU</p>
	<p>Battery powered hydraulic pump delivering 700 bar (10,000 psi) pressure. Comes complete with remote control, 2 meter hose, and hydraulic couplers.</p>	<p>10 to 1000</p>	<p>TBM700BAU</p>
	<p>Hand/foot operated hydraulic pump delivering 700 bar (10,000 psi) pressure. Rapid two-stroke system. Comes complete in carry case with lever/pedal, 2 meter hose, and hydraulic couplers.</p>	<p>10 to 1000</p>	<p>TBM700MAU</p>

# Spec-Kon® Crimping dies

	Compatible crimp tool	Wire size (mm <sup>2</sup> )	A/F hex die value	Part number
	<p>TBM5BAU Battery powered 5 ton crimp tool.</p> <p>Many of these dies are double sided and will give you different crimping options depending on which way they are inserted into the tool.</p>	10	5.7	5TON10-16CZ
		16	6.3	
		25	7.7	5TON25-35CZ
		35	9.2	
		50	10.4	5TON50-70CZ
		70	11.5	
		95	14.2	5TON95-120CZ
		120	16.5	
		150	18.3	5TON150CZ
		185	20.0	5TON185CZ
	<p>TBM13MAU TBM13BAU TBM14CR-Li</p> <p>Hydraulic and Battery powered 13 to 14 ton crimp tools</p> <p>Also compatible with other recognised Australian supplier crimp tools and lugs.</p>	10	5.7	155010CZ
		16	6.3	155016CZ
		25	7.7	155025CZ
		35	9.2	155035CZ
		50	10.4	155050CZ
		70	11.5	155070CZ
		95	14.2	155095CZ
		120	16.5	155120CZ
		150	18.3	155150CZ
		185	20.0	155185CZ
	<p>TBM23RAU Remote hydraulic 23 tonne crimp head Please note these 3 dies come standard with the purchase of TBM23RAU tool.</p>	400	28.1	MCD400-23CZ
		500	31.0	MCD500-23CZ
		630	37.0	MCD630-23CZ
	<p>TBM23RAU Adaptor to use smaller 13-14 ton dies (155 series) in 23 tonne remote head.</p>	10 to 400	N/A	MCD-23ADP

**Note:** Tolerances of +/- 2% are acceptable with regards to A/F validation



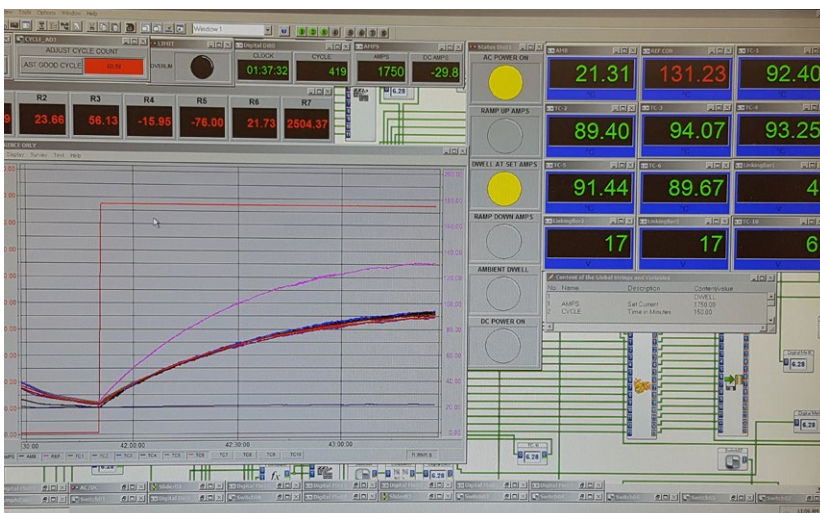
# Spec-Kon®

## Lugs and links

### Technical data

<b>Material</b>	99.95% pure, high conductivity Copper
<b>Treatment</b>	Tin electro-plated and Annealed
<b>For conductors</b>	Stranded (Class 2) and Flexible (Class 5) Copper conductors as per AS/NZS 1125, IEC 60228
<b>Voltage rating</b>	30kV max
<b>Pull-out force</b>	20,000N max
<b>Conformant standards</b>	Australian & New Zealand AS/NZS 4325-1 and AS/NZS 4437* International IEC 61238 and IEC 60352* North American UL 486A,B,C Canadian CSA C22.2 No. 65-03 International Annealed Copper Standard
<b>Environmental</b>	RoHS Conformant

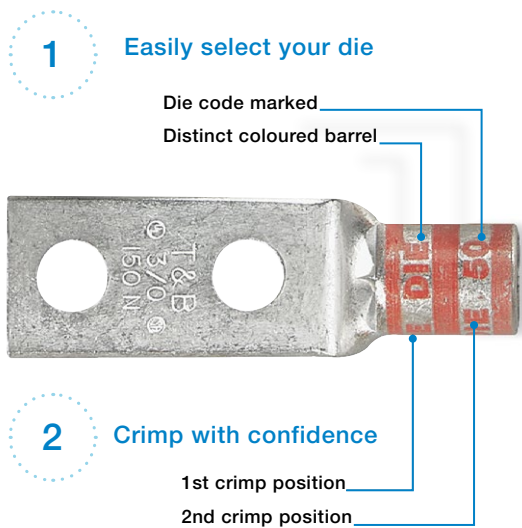
\* As of November 2016



## Also available Lugs featuring the Color-Keyed® system

The world-renowned Color-Keyed® method of installing compression connectors on power cables is designed to provide the highest degree of reliability in electrical wiring. This method allows electrical contractors to make installations with little effort and at a considerable savings in time. The benefit is a high-quality, standards compliant connection at low installed cost.





These premium lugs have coloured bands that correspond to colour markings on the dies. Lugs and dies also have a die code number marked or stamped on them. Dies have a code number engraved in the crimp surface. This allows for easy inspection and validation of a connection during commissioning phase or as part of a maintenance schedule.




















# Quick guide

## Lugs featuring the Color-Keyed® system



Type	Standard barrel	Wire sizes in mm <sup>2</sup>														
		6	10	16	25	35	50	70	95	120	150	185	240	300	400	
One hole	Straight 	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	45° 	X	X	X	X	X	X	X	X	X	X	X	X	X		
	90° 	X	X	X	X	X	X	X	X	X	X	X	X	X		
Two holes	Straight 					X	X	X	X	X	X	X	X	X	X	

Type	Standard barrel	Long barrel	Wire sizes in mm <sup>2</sup>																					
			#10-14 AWG	#8 AWG	#6 AWG	#4 AWG	#3 AWG	#2 AWG	#1 AWG	1/0 AWG	2/0 AWG	3/0 AWG	4/0 AWG	250kcmi	300kcmi	350kcmi	400kcmi	500kcmi	600kcmi	700kcmi	750kcmi	800kcmi	900kcmi	1000kcmi
One holes	Straight  	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	45°  		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	90°  		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Narrow tongue straight 				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Narrow tongue 45° 				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Two holes	Straight  	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	45°  		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	90°  	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Narrow tongue straight 				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Butt splice	 		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

# Contact us

## **ABB Australia Pty Limited**

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E-mail: [austsales@tnb.com](mailto:austsales@tnb.com)

[www.abbaustralia.com.au](http://www.abbaustralia.com.au)

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