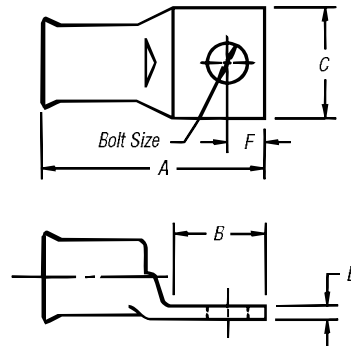


## Compression Connectors for Copper Conductor

### Bell-Ended Lugs — Standard Barrel



#### Bell-Shaped Barrel

CAT. NO.	WIRE SIZE			CLASS G	CLASS H	CLASS I	CLASS K	CLASS M	BOLT SIZE (IN.)	DIMENSIONS (IN.)					DIE CODE	DIE COLOR
	CODE	NAVY	FLEX							A	B	C	D	F		
54104BS	8	23	37/24	8	8	—	8	8	#10	1 1/16	15/32	13/32	5/64	1/32	21	RED
54105BS	6	30	61/24	5	5	5	5	5	1/4	1 1/16	9/16	7/16	7/64	1/4	24	BLUE
54106BS	4	40-50	91/24	5	5	5	5	5	1/4	1 1/32	9/16	9/16	1/64	1/4	29	GRAY
54139BS	3 & 4	40-50	91/24	4	4	4	4	4	1/16	1 1/16	25/32	19/32	5/64	11/32	29	BROWN
54142BS	2	60	125/24	3	3	3	3	3	5/16	1 11/32	29/32	21/32	5/64	11/32	33	GREEN
54147BS	1	75	150, 175/24	2	2	2	2	2	3/16	1 1/23	23/32	43/64	1/8	3/8	37	PINK
54153BS	1/0	100	225/24	1	1	1	1	1	3/16	1 1/8	23/32	3/4	9/64	3/8	42	BLACK
54110BS	2/0	125	275/24	1/0	1/0	1/0	1/0	1/0	3/8	1 1/8	13/16	13/16	9/64	3/8	45	ORANGE
54165BS	3/0	150	325/24	2/0	2/0	2/0	2/0	2/0	1/2	2 1/32	1 1/16	1 1/16	9/64	1/2	50	PURPLE
54170BS	4/0	200	450/24	3/0	3/0	3/0	3/0	3/0	1/2	2 1/16	1 1/16	1 1/32	5/32	1/2	54	YELLOW
58165BS	250	—	550/24	4/0	4/0	—	—	—	1/2	2 19/32	1 1/8	1 1/4	3/16	1/2	62	WHITE
54114BS	300	300	—	250	250	4/0	4/0	4/0	1/2	2 1/8	1 1/8	1 1/4	3/16	1/2	66	BLUE
54152BS	350	350	650/24	—	—	250	250	250	1/2	2 1/8	1 3/16	1 1/8	13/64	9/16	66	N/A
54185BS	400	400	775/24	300	300	300	300	300	5/8	3 1/16	1 11/16	1 13/32	7/32	13/16	76	GREEN
58177BS	500	—	925/24	400	400	400	350	350	1/2	3	1 3/16	1 1/8	1/4	13/16	80	PINK
58180BS	600	—	1100/24	—	—	450	450	450	3/8	3 3/8	1 11/16	1 25/32	17/64	13/16	94	BLACK
54122BS	700	—	1325/24	500	500	500	500	500	3/8	3 3/8	1 11/16	1 25/32	9/32	13/16	99	ORANGE
54123BS	750	—	—	600	—	—	—	550	3/8	3 3/8	1 11/16	1 19/16	5/16	13/16	106	YELLOW
54124BS	800	800	—	—	—	—	600	—	3/8	3 13/16	1 11/16	2	5/16	3/8	107	
54126BS	900	—	1925/24	—	—	—	—	—	5/8	4 1/8	1 3/16	2 3/16	11/32	7/8	115	

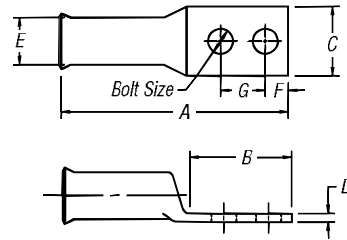
Tooling: pp. F-80-F-100

Die Selector Chart: pp. F-101-F-104

Connectors & Grounding — Blackburn® Compression Connectors Featuring the Color-Keyed™ System

## Compression Connectors for Copper Conductor

### Bell-Ended Lugs — Long Barrel



Bell-Shaped Copper Lugs with Two Bolt Holes



CAT. NO.	WIRE SIZE			CLASS G	CLASS H	CLASS I	CLASS K	CLASS M	BOLT SIZE (IN.)	DIMENSIONS (IN.)							DIE CODE	DIE COLOR
	CODE	NAVY	FLEX							A	B	C	D	E	F	G		
54850BEBS	8	23	8	8	8	—	8	—	¼	2.19	1.88	.42	.07	.26	.25	.63	21	RED
54851BEBS	8	23	8	8	8	—	8	—	¼	2.31	1.29	.47	.06	.26	.25	.75	21	
54851BE0616BS	8	23	8	8	8	—	8	—	¾	3.00	2.10	.56	.06	.26	.38	1.00	21	BLUE
54852BE0616BS	6	30	6	5	5	5	5	—	¾	2.93	1.93	.59	.06	.30	.38	1.00	24	
54852BEBS	6	30	6	5	5	5	5	—	¼	2.28	1.28	.44	.08	.30	.25	.63	24	GRAY
54852BE0412BS	6	30	6	5	5	5	5	—	¼	2.43	1.43	.43	.07	.30	.25	.75	24	
54854BEBS	4-3	40-50	5	5	5	5	5	—	¼	2.31	1.19	.52	.10	.37	.25	.63	29	BROWN
54854BE0412BS	4-3	40-50	5	5	5	5	5	—	¼	2.31	1.31	.56	.09	.37	.25	.75	29	
54854BE0616BS	4-3	40-50	5	5	5	5	5	—	¾	3.13	1.98	.59	.09	.37	.38	1.00	29	GREEN
54855BE0412BS	2	60	3	3	3	3	3	3	¼	2.63	1.35	.68	.11	.41	.25	.75	33	
54855BEBS	2	60	3	3	3	3	3	3	¼	2.43	1.28	.59	.11	.41	.25	.63	33	BROWN
54856BEBS	2	60	3	3	3	3	3	3	¾	2.78	1.63	.59	.11	.41	.38	.75	33	
54810BE0616BS	2	60	3	3	3	3	3	3	¾	3.08	1.94	.59	.11	.41	.38	1.00	33	GREEN
54811BEBS	2	60	3	3	3	3	3	3	½	4.28	3.00	.88	.09	.41	.50	1.75	33	
54809BEBS	1	75	2	2	2	2	2	2	¼	2.88	1.19	.67	.11	.47	.25	.63	37	PINK
54812BEBS	1	75	2	2	2	2	2	2	¼	2.75	1.40	.67	.11	.47	.25	.75	37	
54858BEBS	1	75	2	2	2	2	2	2	¾	2.97	1.63	.67	.11	.47	.38	.88	37	BLACK
54857BEBS	1	75	2	2	2	2	2	2	½	4.43	3.00	.88	.10	.47	.50	1.75	37	
54859BEBS	1/0	100	1	1	1	1	1	1	¼	2.63	1.19	.75	.13	.52	.25	.63	42	ORANGE
54813BEBS	1/0	100	1	1	1	1	1	1	¼	2.71	1.38	.75	.13	.52	.25	.75	42	
54860BEBS	1/0	100	1	1	1	1	1	1	¾	2.97	1.63	.75	.13	.52	.38	.88	42	PURPLE
54860BE0616BS	1/0	100	1	1	1	1	1	1	¾	3.23	1.93	.75	.13	.52	.38	1.00	42	
5414BEBS	2/0	125	1/0	1/0	1/0	1/0	1/0	1/0	¼	2.62	1.25	.83	.13	.57	.25	.63	45	BLACK
54814BE0412BS	2/0	125	1/0	1/0	1/0	1/0	1/0	1/0	¼	2.69	1.31	.81	.13	.57	.25	.75	45	
54862BE0616BS	2/0	125	1/0	1/0	1/0	1/0	1/0	1/0	¾	3.19	1.81	.83	.13	.57	.38	1.00	45	ORANGE
54862BEBS	2/0	125	1/0	1/0	1/0	1/0	1/0	1/0	½	4.20	2.81	.83	.13	.57	.50	1.75	45	
54815BEBS	3/0	150	2/0	2/0	2/0	2/0	2/0	2/0	¼	2.89	1.45	.92	.13	.63	.25	.75	50	PURPLE
54816BEBS	3/0	150	2/0	2/0	2/0	2/0	2/0	2/0	¾	3.25	1.63	.92	.13	.63	.38	1.00	50	
54864BEBS	3/0	150	2/0	2/0	2/0	2/0	2/0	2/0	½	4.45	3.00	.92	.13	.63	.50	1.75	50	YELLOW
54817BEBS	4/0	200	3/0	3/0	3/0	3/0	3/0	3/0	¼	3.15	1.38	1.03	.14	.70	.50	.75	54	
54818BE0616BS	4/0	200	3/0	3/0	3/0	3/0	3/0	3/0	¾	3.35	1.81	1.03	.14	.70	.25	1.00	54	BLACK
54818BEBS	4/0	200	3/0	3/0	3/0	3/0	3/0	3/0	¾	4.38	2.63	1.03	.14	.70	.38	1.75	54	
54866BEBS	4/0	200	3/0	3/0	3/0	3/0	3/0	3/0	½	4.70	3.00	1.03	.14	.70	.50	1.75	54	YELLOW
54868BE0616BS	250	—	4/0	4/0	4/0	4/0	4/0	4/0	¾	3.83	1.93	1.13	.14	.77	.50	1.00	62	
54868BEBS	250	—	4/0	4/0	4/0	4/0	4/0	4/0	½	4.92	3.00	1.13	.14	.77	.50	1.75	62	WHITE
54819BEBS	300	300	262 kcmil	250 kcmil	250	250	250	—	¾	5.04	2.80	1.25	.15	.85	.50	1.00	66	
54870BEBS	300	300	262 kcmil	250 kcmil	250	250	250	—	½	5.23	3.00	1.25	.15	.85	.50	1.75	66	BLUE
54822BEBS	400	400	313 kcmil	300 kcmil	300	300	300	—	¼	4.38	1.93	1.41	.17	.96	.63	.75	76	
54821BEBS	400	400	313 kcmil	300 kcmil	300	300	300	—	¾	4.43	1.93	1.41	.17	.96	.63	1.00	76	BROWN
54874BEBS	400	400	313 kcmil	300 kcmil	300	300	300	—	½	5.51	3.00	1.41	.17	.96	.63	1.75	76	
54823BEBS	500	—	373 kcmil	400 kcmil	400	400	350	—	¼	4.93	1.94	1.61	.22	1.10	.50	.75	87	GREEN
54876BE0616BS	500	—	373 kcmil	400 kcmil	400	400	350	—	¾	5.00	1.93	1.61	.22	1.10	.50	1.00	87	
54876BEBS	500	—	373 kcmil	400 kcmil	400	400	350	—	½	6.00	3.00	1.61	.22	1.10	.50	1.75	87	BLACK
54824BEBS	—	—	444 kcmil	—	—	450	450	—	¾	5.70	2.80	1.75	.24	1.20	.63	1.00	94	
54878BEBS	—	—	444 kcmil	—	—	450	450	—	½	5.83	3.00	1.75	.24	1.20	.63	1.75	94	YELLOW
54880BEBS	700	—	535 kcmil	500 kcmil	500	500	500	—	½	6.20	3.00	1.94	.27	1.33	.63	1.75	106	
58826BEBS	900	—	777 kcmil	—	—	—	—	—	½	6.49	2.80	2.27	.30	1.50	.63	1.75	115	

Tooling: pp. F-80-F-100

Die Selector Chart: pp. F-101-F-104

Connectors & Grounding — Blackburn® Compression Connectors Featuring the Color-Keyed® System

## Overview

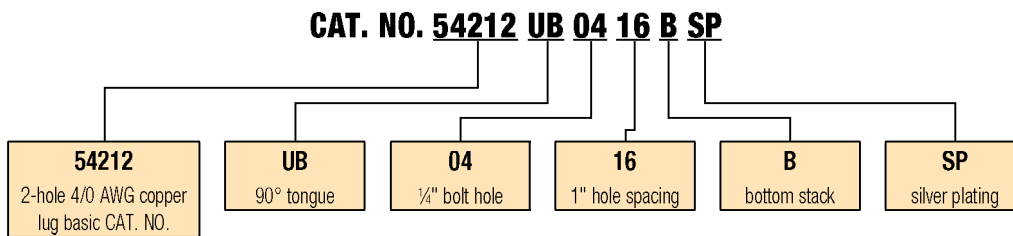
### Order Form

Catalog No. \_\_\_\_\_ Qty. \_\_\_\_\_  
 (For 54100, 54200, 54800 & 54900 Series Copper Lugs Only)

### Design Controls and Requirements

All "MADE-UP" catalog numbers start with a standard or basic catalog number and are followed by the customer-required extra features: tongue shape, bolt hole size, distance between bolt holes, stacking, plating and inspection hole (peep hole). A code letter or a number has been assigned to each extra feature. See CODE TABLE.

- Notes:** 1) Lack of any of the extra features on the "MADE-UP" catalog number means that the standard Cat. No. features are prevalent.  
 2) If either bolt hole size or distance between bolt holes needs to be changed from standard Cat. No., both code numbers will appear on the "MADE-UP" Cat. No. (See example below)



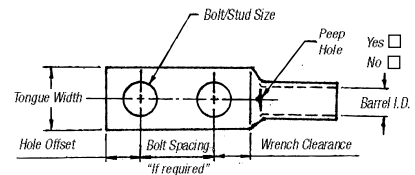
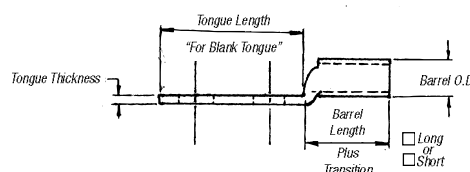
### Code Table

TONGUE SHAPE		BOLT HOLES		BOLT HOLE CENTERS		STACKING		FINISH (PLATING)		INSPECTION HOLE (LONG BARREL)		INSPECTION HOLE (SHORT BARREL)		
TYPE	CODE	SIZE	.020	CODE	DISTANCE .015	CODE	TYPE	CODE	TYPE 1	CODE	I.D.	CODE	I.D.	CODE
15°	UI	#8	.173	02	1/2"	08	Top	T**	Silver Plate	SP	Peep Hole	PH	Blind End	BE
30°	UT	#10	.204	03	5/8"	10	Bottom	B	Lead Plate	LP				
45°	UF	1/4"	.281	04	3/4"	12			Nickel Plate	NP				
60°	US	5/16"	.344	05	1/2"	14			Plain Finish	PF				
90°	UB	3/8"	.406	06	1"	16			No Marking	NM				
Blank	BT	1/2"	.531	08	1 1/8"	18			Not QTP if					
(No Bolt Hole)		5/8"	.656	10	1 1/4"	20			suffix other					
		3/4"	.812	12	1 3/8"	22			than - PF or					
		7/8"	.937	14	1 1/2"	24			standard					
		1"	1.062	16	1 5/8"	26			tin plate					
					1 3/4"	28								
					1 7/8"	30								
					2"	32								

\* These bolt centers not available for bolt holes larger than 3/8".

\*\* Not required for 45° & 90° top stacking.

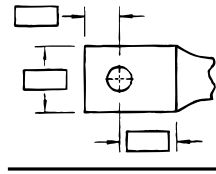
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	Weld <input type="checkbox"/>	
<input type="checkbox"/> #8	<input type="checkbox"/> #6	<input type="checkbox"/> #4
<input type="checkbox"/> #2	<input type="checkbox"/> #1	<input type="checkbox"/> 1/0
<input type="checkbox"/> 2/0	<input type="checkbox"/> 3/0	<input type="checkbox"/> 4/0
<input type="checkbox"/> 250 kcmil & up (Code Only)		



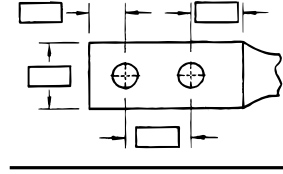
## Overview

### Tongue Specifications — See Chart “A” For Dimensions

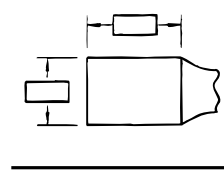
Stud Sizes		
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<input type="checkbox"/> ⅜"	<input type="checkbox"/> ⅝"	<input type="checkbox"/> ½"
<input type="checkbox"/> ⅞"	<input type="checkbox"/> ¾"	<input type="checkbox"/> ⅝"
<input type="checkbox"/> 1"		



Single Hole



Double Hole



Blank

Chart A

NOMINAL BOLT HOLE SIZE .015	HOLE OFFSET .030	WRENCH CLEARANCE MIN.	TONGUE WIDTH CABLE SIZE										
			#8 CODE #8 WELD	#6 CODE #6 WELD	#4 CODE #4 WELD	#2 CODE #2 WELD	#1 CODE #1 WELD	1/0 CODE 1/0 WELD	2/0 CODE 2/0 WELD	3/0 CODE 3/0 WELD	4/0 CODE 3/0 WELD	250 CODE	
#8	.173	.200	.240	.406	.437	.562	.593	.672	.750	.825	.937	1.030	1.125
#10	.204	.218	.250	.406	.437	.562	.593	.672	.750	.825	.937	1.030	1.125
¼	.281	.250	.312	.469	.500	.562	.593	.672	.750	.825	.937	1.030	1.125
⅜	.344	.375	.406	.562	.562	.562	.675	.672	.750	.825	.937	1.030	1.125
⅝	.406	.375	.440	.578	.578	.594	.675	.672	.750	.825	.937	1.030	1.125
½	.531	.500	.562	—	—	—	.750	.750	.750	.825	.937	1.030	1.125
⅞	.656	.625	.875	—	—	—	—	—	—	—	.937	1.030	1.125
¾	.812	.750	.770	—	—	—	—	—	—	—	—	—	—
⅞*	.937	.875	.890	—	—	—	—	—	—	—	—	—	—
1*	1.062	.937	1.000	—	—	—	—	—	—	—	—	—	—

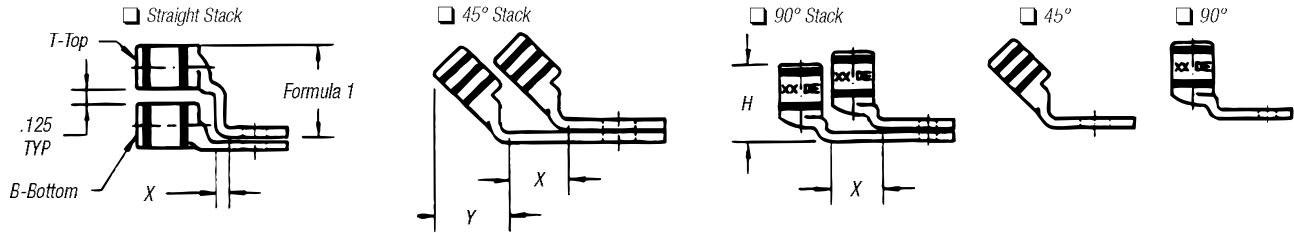
\* These bolt holes available in one-hole lug only.

Chart B

CABLE SIZE	TONGUE THICKNESS	STRAIGHT LUG BARREL LENGTH PLUS TRANSITION		BARREL		DIM "X" STACKED LUGS			DIM "Y"		DIM "H"	
		SHORT	LONG	O.D.	I.D.	STRAIGHT	45°	90°	SHORT	LONG	SHORT	LONG
#8	.080	.635	.935	.260	.180	.158	.478	.394	.595	.808	.779	1.079
#6	.081	.675	.975	.296	.215	.134	.544	.432	.587	.799	.767	1.067
#4	.099	.685	.985	.365	.266	.175	.622	.502	.637	.849	.838	1.138
#2	.108	.815	1.115	.410	.302	.216	.649	.535	.711	.923	.958	1.258
#1	.106	.825	1.275	.467	.361	.212	.731	.592	.710	1.028	.956	1.406
1/0	.125	.975	1.325	.520	.396	.250	.789	.646	.794	1.042	1.075	1.425
2/0	.125	.965	1.315	.571	.446	.250	.859	.696	.829	1.077	1.125	1.475
3/0	.125	1.085	1.435	.632	.507	.250	.946	.757	.900	1.148	1.225	1.575
4/0	.137	1.255	1.705	.701	.564	.274	1.031	.826	1.015	1.333	1.387	1.837
250	.137	1.375	1.925	.766	.629	.274	1.123	.891	1.085	1.474	1.487	2.037
300	.153	1.900	2.675	.850	.660	.459	1.226	.975	1.180	1.726	1.924	2.679
350	.177	2.090	2.896	.926	.720	.531	1.333	1.103	1.267	1.830	2.096	2.896
400	.173	2.460	2.980	.960	.757	.519	1.370	1.085	1.551	1.913	2.484	2.984
500	.218	2.670	3.610	1.100	.852	.654	1.514	1.225	1.629	2.266	2.669	3.619
600	.244	2.900	3.490	1.200	.926	.732	1.630	1.325	1.762	2.147	2.897	3.497
700	.228	2.784	—	1.255	.997	.684	1.662	1.375	1.780	—	3.011	—
750	.270	3.050	3.925	1.330	1.030	.810	1.745	1.455	1.827	2.434	3.050	3.925
800	.266	3.213	—	1.375	1.079	.800	1.728	1.625	1.952	2.787	3.213	4.554
900	.313	3.450	4.550	1.500	1.145	.940	1.900	1.650	2.065	—	1.387	—
1,000	.297	3.356	4.500	1.550	1.203	.890	2.070	1.675	2.031	2.787	1.487	4.506

**Note:** Stacking lugs are available for one bolt only.  
 Consult Factory: Straight: 700 kcmil & up.  
 45°: 400 kcmil & up  
 90°: 500 kcmil & up

## Overview



**Formula 1 = (.125 + 2 (OD) + .037 – Tongue Thickness)**

**Chart C**

BOLT HOLE SIZE	TONGUE WIDTH .030 CODE CABLE SIZE										
	300 KCMIL 4/0 WELD	350 KCMIL	400 KCMIL	500 KCMIL 400 WELD	600 KCMIL 500 WELD	1325/24	700 KCMIL	750 KCMIL	800 KCMIL	900 KCMIL	1000 KCMIL
#8	—	—	—	—	—	—	—	—	—	—	—
#10	—	—	—	—	—	—	—	—	—	—	—
¼	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅓	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅕	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
½	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
¾	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
⅞	1.250	1.355	1.410	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
1*	—	—	—	1.605	1.745	1.805	1.840	1.935	2.010	2.180	2.265
1*	—	—	—	—	1.745	1.805	1.840	1.935	2.010	2.180	2.265

\* These bolt holes available in one-hole lug only.