

**NOVEL ENERGY
DISTRIBUTION**

**Pole Line Hardware –
Connectors, Clamps and
Electrical Grounding**

**The Power of Novel
Energy Distribution**

Overview

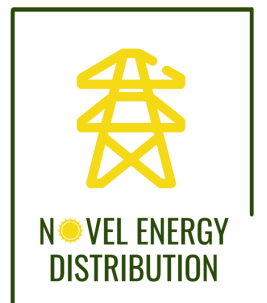
About Us:

- Proprietary Manufacturing Processes to Meet Power Transmission and Electrical Industry Requirements
- Novel Energy Distribution Systems Catalog of Product Available
- Customer-Designed Build-to-Print Product Available
- Sold Direct to OEM and Distribution/Wholesale

Mfg & QC Capabilities:

- ISO9000 Registered Manufacturing
- In-house Foundry, Plating, Machining, and Assembly

Novel Energy Distribution Systems has established in-house design and manufacturing capability and decades of industry experience manufacturing product for electrical distribution and grounding.



Overview

Novel Energy Distribution Systems is a Partnership between Bath Touch Metal, Ltd and TNE International, LLC.

Bath Touch Metal was established in 1985 with foundry, machining, and plating capability.

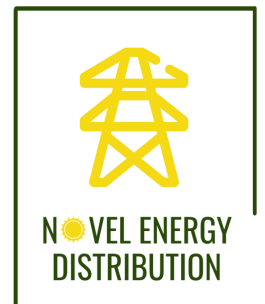
TNE International, LLC was established in 1999 with expertise in International Sourcing, Manufacturing, and Logistics.

Novel Energy Distribution Systems focuses on power transmission and electrical grounding markets.

We offer our own catalogue of product for Power Transmission, Electrical Grounding, Connector Applications, and customer-designed build-to-print.

These applications require proprietary processes to maintain torque and other requirements driven by ANSI C119.4.

Though a custom product foundry for ferrous and non-ferrous cast product, a specialization has been developed with proprietary processes to meet the unique application requirements of electrical applications.



Our Markets:



Power Transmission:

- Bronze and Aluminum Hot line Clamps
- Bronze Vice Connectors
- Eye Bolts
- Grounding Clamp Connectors
- Jumper Cable Clamps – K Series

Power Transmission - OEM Mfg:

- Transformer Tank Grounding Connectors
- Spade Terminals
- Lay-in Ground Clamps
- Terminal Lugs

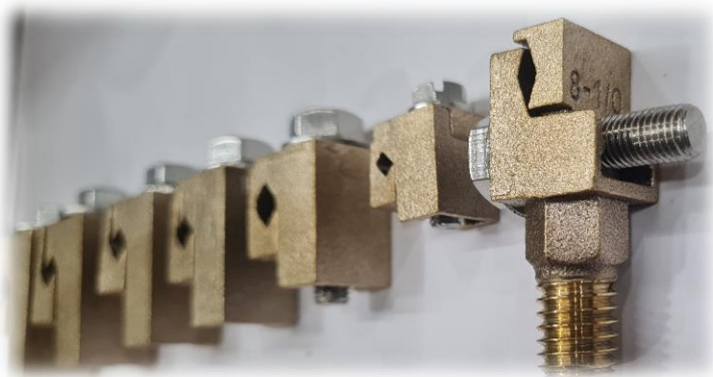
Residential and Industrial Electrical:

- Water Pipe Clamps (J)
- Water Pipe Clamps – Other
- Budget Line Ground Clamps
- Universal Ground Rod Clamps
- Ground Rod Clamps – WB Series
- Ground Rod Clamps - Other
- Grounding Rod Couplings
- Parallel Groove Connectors



NOVEL ENERGY
DISTRIBUTION

Power Transmission Product:



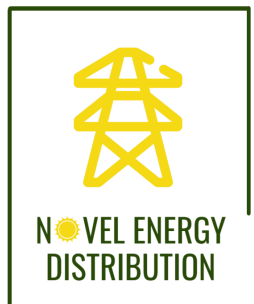
- Novel Energy Distribution Systems supplies its own catalogue of products and Build-to-print products for OEM, OEM Mfg, and for Distribution/Wholesale.
- **Our Catalogue of Products:**
 - Bronze and Aluminum Hot line Clamps
 - Bronze Vice Connectors
 - Eye Bolts
 - Grounding Clamp Connectors
 - Jumper Cable Clamps – K Series
- **Customer-Designed Build-to-Print:**
 - Matching our Catalogue of Products, or
 - To Customer Design for Power Transmission Products – especially high reliability thread torque applications.

Power Transmission Product:

Novel Energy Distribution Systems Catalogue of Product:

Bronze and Aluminum Hot-Line Clamps:

Item No.	Connection Type		Main Line Range Dia. (inch)	Main Line Range Size (MCM/AVG)	Tap Line Range Dia. (inch)	Tap Line Range Size (MCM/AVG)
	Run	Tap				
C1520	CU	CU	0.128"- 0.414"	#8 sol – 2/0 str	0.128"- 0.414"	#8 sol – 2/0 str
C1520P	CU	CU	0.128"- 0.414"	#8 sol – 2/0 str	0.128"- 0.414"	#8 sol – 2/0 str
C1520A	AL	AL	0.128"- 0.414"	#8 sol – 2/0 str	0.128"- 0.414"	#8 sol – 2/0 str
C1520AP	AL	AL	0.128"- 0.414"	#8 sol – 2/0 str	0.128"- 0.414"	#8 sol – 2/0 str
C1530	CU	CU	0.162"- 0.745"	#6 sol – 400 MCM	0.152"- 0.682"	#6 sol – 4/0 str
C1530P	CU	CU	0.162"- 0.745"	#6 sol – 400 MCM	0.152"- 0.682"	#6 sol – 4/0 str
C1530A	AL	AL	0.162"- 0.745"	#6 ACSR – 336.4 MCM	0.152"- 0.682"	#6 sol – 4/0 str
C1530AP	AL	AL	0.162"- 0.745"	#6 ACSR – 336.4 MCM	0.152"- 0.682"	#6 sol – 4/0 str
C1540	CU	CU	0.502"- 1.031"	4/0 ACSR – 800MCM	0.198"- 0.703"	#4 sol – 350MCM
C1540P	CU	CU	0.502"- 1.031"	4/0 ACSR – 800MCM	0.198"- 0.703"	#4 sol – 350MCM
C1540A	AL	AL	0.502"- 1.031"	4/0 ACSR – 800MCM	0.198"- 0.703"	#4 sol – 350MCM
C1540AP	AL	AL	0.502"- 1.031"	4/0 ACSR – 800MCM	0.198"- 0.703"	#4 sol – 350MCM

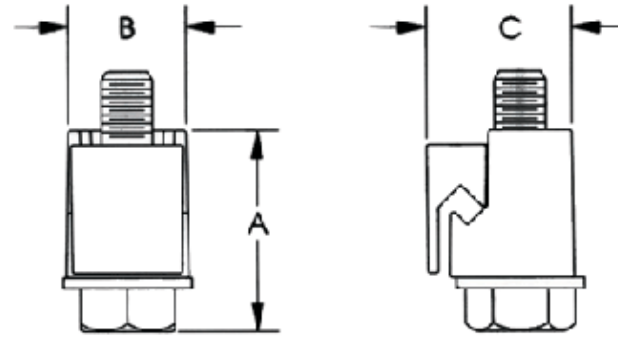


Product is un-plated Bronze unless otherwise specified per suffix. Suffix Codes: A = Aluminum Material P = Tin Plated.

Power Transmission Product:

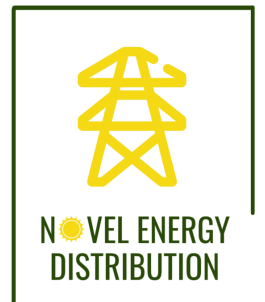
Novel Energy Distribution Systems Catalogue of Product:

Bronze Vice Connectors



Item No.	Conductor Diameter Range	Bolt Thread Size	Bolt Hex Size	A	B	C
BVC-2	6 sol – 2 sol	5/16"	9/16"	1.33	0.81	0.93
BVC-20	4 sol- 1/0 str	5/16"	9/16"	1.72	0.80	1.03
BVC-20S	3 sol – 2/0 str	3/8"	9/16"	1.91	0.94	1.19
BVC-2S	5 sol – 2 str	5/16"	9/16"	1.52	0.79	0.93
BVC-4	8 sol – 4 str	5/16"	9/16"	1.13	0.73	0.83
BVC-40	1/0 sol – 4/0 str	3/8"	9/16"	2.14	0.95	1.27
BVC-6	10 sol – 6 str	1/4"	3/8"	0.88	0.64	0.73

Note: Please contact Novel Energy Distribution Systems for detailed Catalog and product Information.

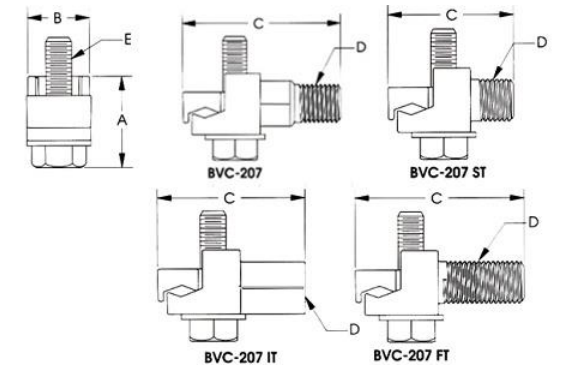


Power Transmission Product:

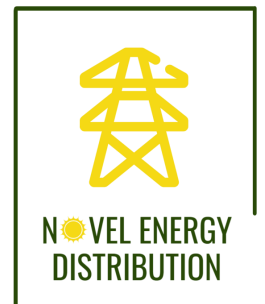
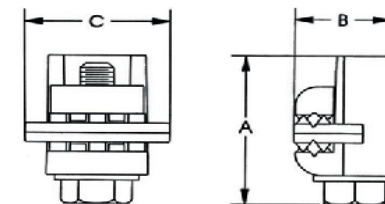
Novel Energy Distribution Systems Catalogue of Product:

Bronze Vice Connectors

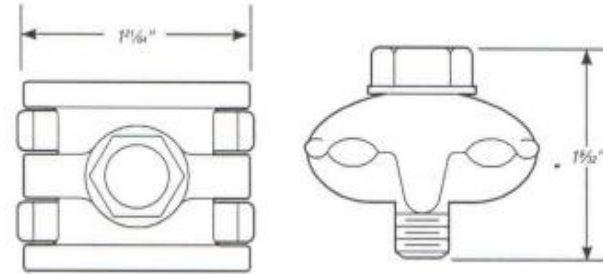
Item No.	Conductor Diameter Range	Bolt Thread Size	Bolt Hex Size	A	B	C
BVC-2	6 sol – 2 sol	5/16"	9/16"	1.33	0.81	0.93
BVC-20	4 sol- 1/0 str	5/16"	9/16"	1.72	0.80	1.03
BVC-20S	3 sol – 2/0 str	3/8"	9/16"	1.91	0.94	1.19
BVC-2S	5 sol – 2 str	5/16"	9/16"	1.52	0.79	0.93
BVC-4	8 sol – 4 str	5/16"	9/16"	1.13	0.73	0.83
BVC-40	1/0 sol – 4/0 str	3/8"	9/16"	2.14	0.95	1.27
BVC-6	10 sol – 6 str	1/4"	3/8"	0.88	0.64	0.73



Item No.	Messenger Diameter Range	Ground Tap Diameter	Bolt Thread Size	Bolt Hex Size	A	B	C
BVC-167P	0.146" - 0.312"	0.146" - 0.312"	5/16"	9/16"	1.56	0.89	1.27

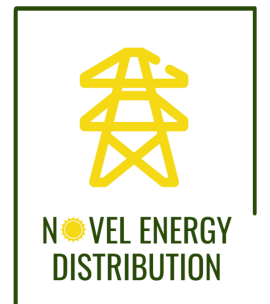


Jumper Cable Clamp – K- Series



Item No.	Copper Groove (Max.)	Copper Groove (Min.)
BTK1	2/0 str Copper	8 sol Copper
BTK2	1/0 ASCR	6 ASCR 8 sol
BTK3	2/0 str Copper	8 sol Copper

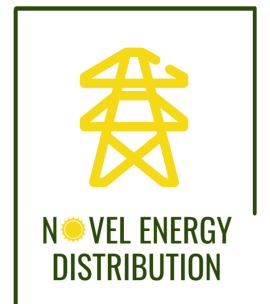
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Grounding Clamp Connector



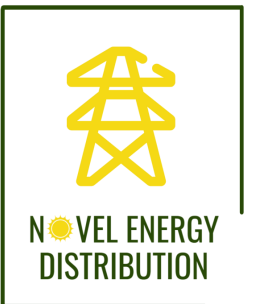
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Power Transmission Product - OEM Mfg:

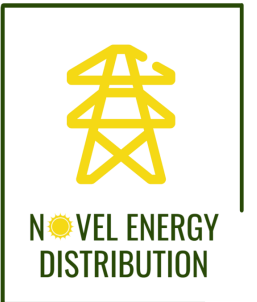
- Novel Energy Distribution Systems supplies its own Catalogue of products and Build-to-Print products for OEM, OEM Mfg, and for Distribution/Wholesale.
- Components for Applications such as Transformers, Switchgear, Substations, etc...
- **Our Product Lines:**
 - Transformer Tank Grounding Connecters
 - Spade Terminals
 - Terminal Lugs
- **Customer-Designed Build-to-Print:**
 - Matching our Catalogue of Products, or
 - To Customer Design for Power Transmission Products – especially high reliability thread torque applications.



Eye Bolts



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Power Transmission Product OEM:

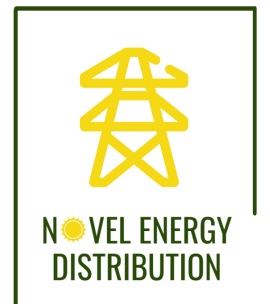
Novel Energy Distribution Systems Catalogue of Product:

Transformer Tank Grounding Connectors

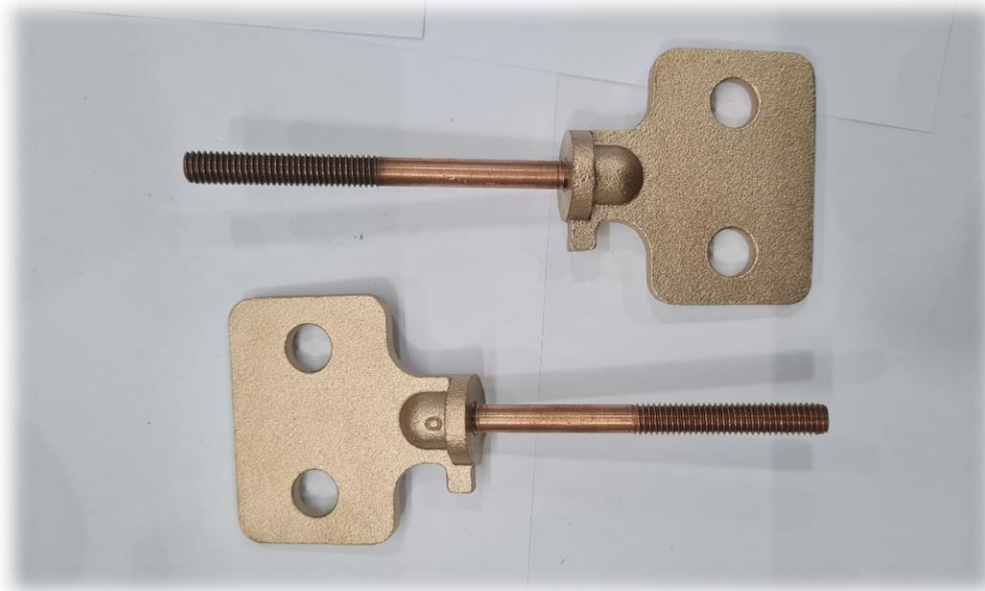


Item No.	Wire Range		Wire Range (Min.)	Wire Range (Max.)	Stud Thread Size	A	B	C
BTTTC2	2/0 str	8 sol	67.4	8.30	1/2-13	1-51/64	1-9/64	1-21/64
BTTTC2P	2/0 str	10 sol	67.4	8.30	1/2-13	1-51/64	1-9/64	1-21/64
BTTTC3	1 str	10 sol	42.4	5.20	1/2-13	1-3/8	1-3/64	1-3/8
BTTTC3P	1 str	8 sol	42.4	5.20	1/2-13	1-3/8	1-3/64	1-3/8
BTTTC4	1 str	10 sol	42.4	5.20	1/2-13	1-3/8	7/8	1-9/16
BTTTC4P	1 str	10 sol	42.4	5.20	1/2-13	1-3/8	7/8	1-9/16

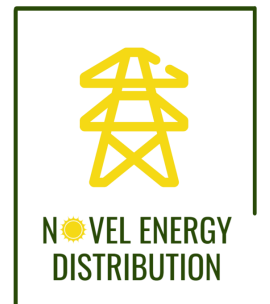
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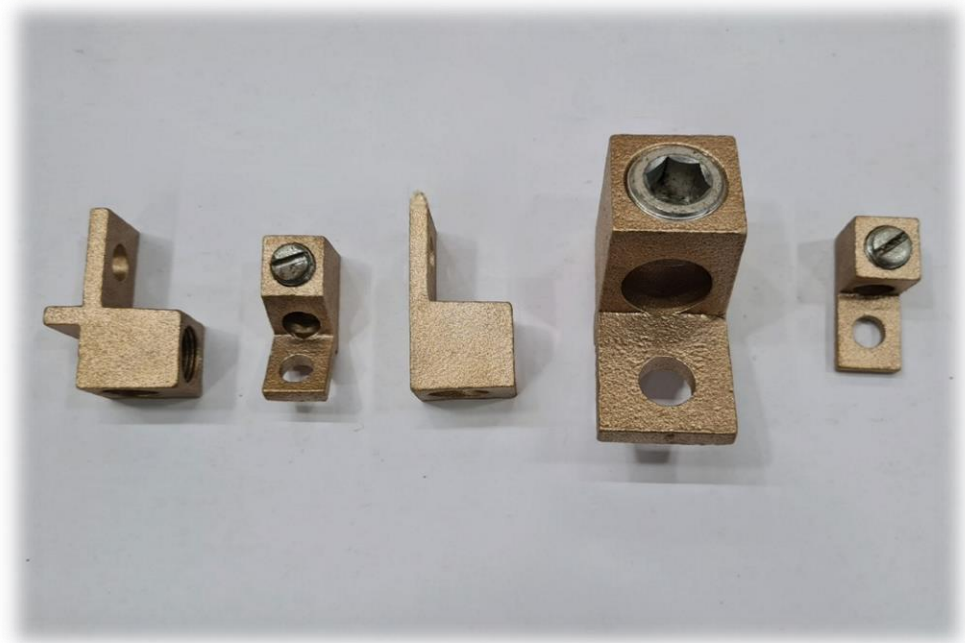
Spade Terminals



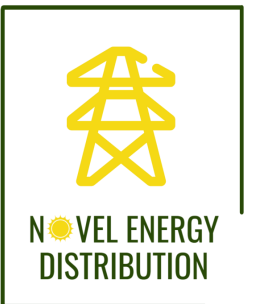
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Terminal Lugs

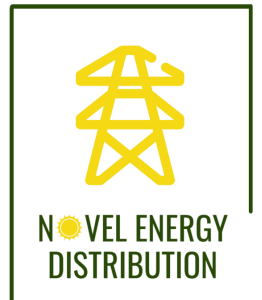


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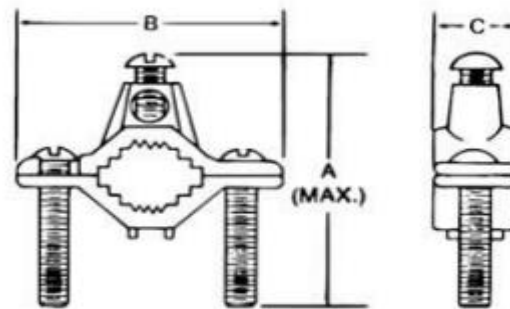


Residential and Industrial Electrical Product:

- Novel Energy Distribution Systems supplies its own Catalogue of products and Build-to-Print products for OEM, OEM Mfg, and for Distribution/Wholesale.
- Components for Applications such as Grounding, Earthing, Bonding, Lighting Protection, Transformers, Switchgear, etc...
- **Our Product Lines:**
 - Water Pipe Clamps (J)
 - Water Pipe Clamps – Other
 - Budget Line Ground Clamps
 - Universal Ground Rod Clamps
 - Ground Rod Clamps – WB Series
 - Ground Rod Clamps – Other
 - Grounding Rod Couplings
 - Lay-in Ground Clamps
 - Parallel Groove Connectors
- **Custom Build-to-Print:**
 - Matching our Catalogue of Products, or
 - To Customer Design for Electrical Products – especially high reliability thread torque applications.

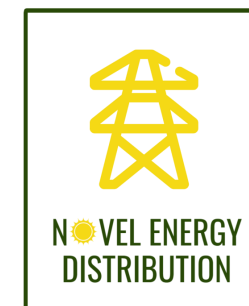


Water Pipe Clamp - J

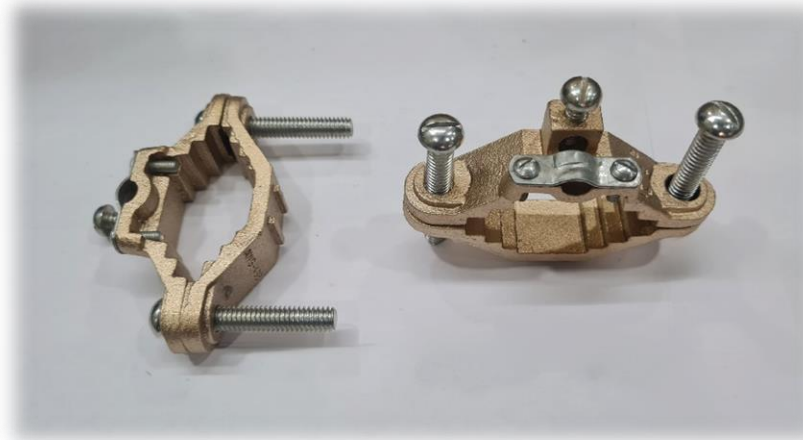


Item No.	Water Pipe Size	Conductor Size (Max.)	Wire Range (Min.)	A	B	C
BTJ	1/2"-1"	# 2 str	# 10 sol.	2 3/4	2 11/32	23/32
BTJ2	1 1/4"-2"	# 2 str	# 10 sol.	3 3/4	3 1/2	13/16
BTJ2124	2 1/2"-4"	# 4 str	# 10 sol.	6	6 5/16	1
BTJ6	4 1/4"-6"	# 4 str	# 10 sol.	7 1/4	8 1/8	1
BTJD	1/2"-1"	# 2 str	# 10 sol.	2 3/4	2 11/32	23/32
BTJ2D	1 1/4"-2"	# 2 str	# 10 sol.	3 3/4	3 1/2	13/16
BTJJR	1/2"-1"	# 2 str	# 10 sol.	2 15/32	23/32	17/32

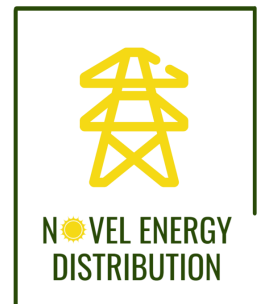
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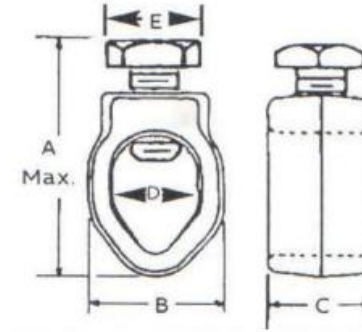
Water Pipe Clamps



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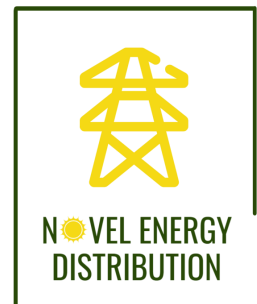


Budget Line Ground Clamps

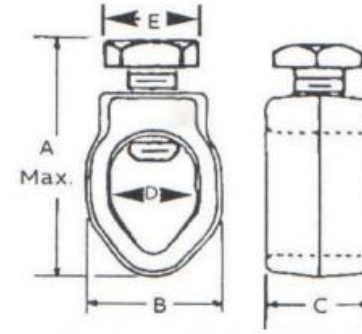


Item No.	Ground Rod Size	Wire Range (Max.)	Wire Range (Min.)	Screw Size
BTG3	3/8"	4 str	10 sol	5/16 - 18
BTG4	1/2"	2 str	10 sol	3/8 - 16
BTG5	1/2" & 5/8", #4 Rebar	2 str	10 sol	3/8 - 16
BTG6	3/4"	2 str	10 sol	3/8 - 16
BTG3P	3/8"	4 str	10 sol	5/16 - 18
BTG4P	1/2"	2 str	10 sol	3/8 - 16
BTG5P	1/2" & 5/8", #4 Rebar	2 str	10 sol	3/8 - 16
BTG6P	3/4"	2 str	10 sol	3/8 - 16

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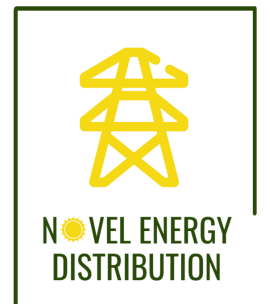


Universal Ground Rod Clamps

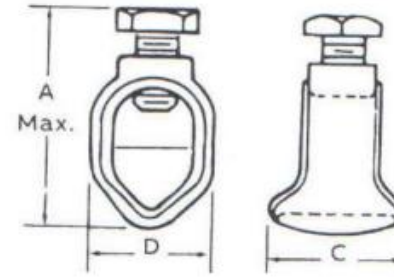


Item No.	Ground Rod Size	Wire Range (Max.)	Wire Range (Min.)	Screw Size	A	B	C	D	E
BTUGRC38	3/8"	1 str	8 sol	5/16-18	1.535	1.050	0.812	0.652	-
BTUGRC12	1/2"	1 str	8 sol	5/16-18	1.535	1.050	0.812	0.652	-
BTUGRC58	5/8"	1 str	8 sol	5/16-18	1.535	1.050	0.812	0.652	-
BTUGRC34	3/4"	1 str	8 sol	5/16-18	1.535	1.050	0.812	0.652	-

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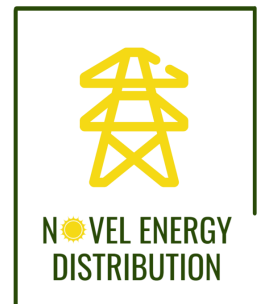


Ground Rod Clamps – WB Series

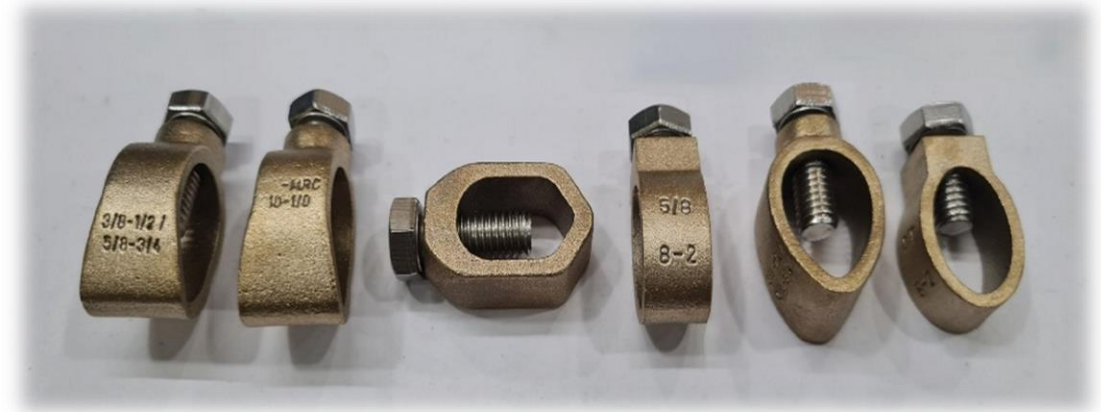


Item No.	Ground Rod Size	Wire Range (Max.)	Wire Range (Min.)	Screw Size	A Socket Screw	A Hex Screw	B	C	D
BTWB12	1/2"	2 str	10 sol	1-19/32	1-19/32	-	27/32	7/8	19/32
BTWB58	5/8"	1/0 str	8 sol	1-27/32	1-27/32	-	29/32	1	11/16
BTWB34	3/4"	1/0 str	8 sol	2	2	-	11/16	1	13/16
BTWB1	1"	4/0 str	8 sol	2-1/4	2-1/4	-	1-1/8	1-1/16	1
BTWB12H	1/2"	2 str	10 sol	1-19/32	-	2-3/32	27/32	7/8	19/32
BTWB58H	5/8"	1/0 str	8 sol	1-27/32	-	2-13/64	29/32	1	11/16
BTWB34H	3/4"	1/0 str	8 sol	2	-	2-11/32	11/16	1	13/16
BTWB1H	1"	4/0 str	8 sol	2-1/4	-	3	1-1/8	1-1/16	1
BTWB58HH	3/8"	4 str	10 sol	5/16-18	-	5/16-18	29/32	1	11/16
BTWB34HH	1/2"	2 str	10 sol	3/8-16	-	3/8-16	11/16	1	13/16

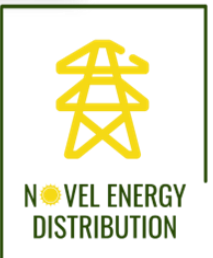
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Ground Rod Clamps – Others



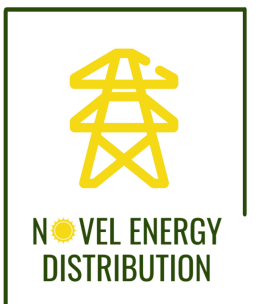
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Lay-in Ground/JRD/REBAR Clamps



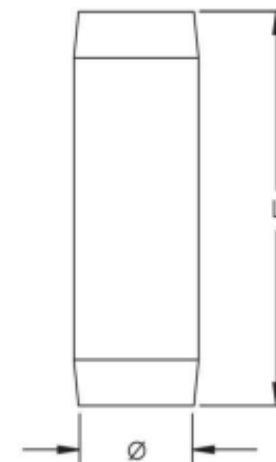
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Parallel Groove Connectors

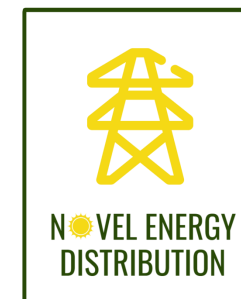


Ground Rod Couplings



Item No - Gnd Rod Coupling	Rod Diameter	Thread Size
BT916C	1/2"	9/16"-12 UNC
BT58C	5/8"	5/8"-11 UNC
BT34C	3/4"	3/4"-10 UNC
BT1C	1"	1"-8 UNC

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Manufacturing and Quality Systems

Foundry:

- Shell Mold Casting and Resin Sand Casting in Ferrous and Non-Ferrous Material.
- High Volume Capacity: 20 MM Parts/Mo.
- Materials: Brass, Bronze, Aluminum Bronze, and Cast Iron.
- Proprietary alloying and casting for high-Torque Applications.



Manufacturing and Quality Systems

Machining & Assembly

- Thread Rolling
- Drilling & Tapping – Proprietary Process to Support High-Torque Applications.
- Turning
- Welding
- Assembly



Manufacturing and Quality Systems

Quality and Testing



- ISO9001: 2015 Registered
- Torque Testing
- Spectrometer
- REACH, ROHS, and CE Compliance
- Automotive Quality Standards:
 - Use of PFMEA
 - Level III PPAP
 - Use of 8D
- 48 Hr. Slip Test for Hot Line Clamps
- Plating Thickness



Our Valuable Customers

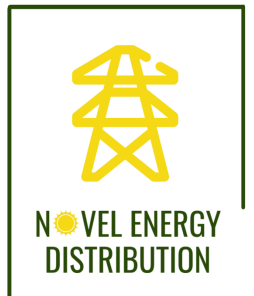


ALUMA-FORM®



POWERLINE
HARDWARE


Raychem RPG





**NOVEL ENERGY
DISTRIBUTION**

USA

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**The Power of Novel
Energy Distribution**