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ELECTRICAL GROUNDING PRODUCTS

- **THREADLESS GROUND ROD COUPLERS**
- **"COPPERHEAD" & "SLIDER" GROUND WIRE TO GROUND ROD CONNECTORS**
- **MANUAL GROUND ROD DRIVERS**
- **TEMPORARY GROUNDER FOR TRUCKS AND RESISTANCE TESTING**
- **DRIVE BITS FOR IMPACT HAMMERS TO DRIVE GROUND RODS**
- **DRIVE DRILLS TO HELP DRIVE GROUND RODS**
- **DRIVE POINTS TO HELP DRIVE GROUND RODS**
- **SPECIAL PRODUCTS MADE TO YOUR SPECIFICATIONS THROUGH OUR CONTRACT MACHINING OPERATIONS**

GENERAL INFORMATION

Company incorporated in State of Ohio – 1984 Federal I.D. #34-1528561

CONTACTS

BONNIE HEACOCK – President
JUSTIN SHAFFNER – General Manager & Estimator
TERRY ESTEL – General Manager & Quality Manager
MICHELLE LEININGER – Purchasing
BROOKE THATCHER – Production Supervisor
BRENT SHEA – Chief Financial Officer

TYPE OF BUSINESS

PROVIDES ASSEMBLY AND DISTRIBUTION OF CONTRACT PRODUCTS

DOES CUSTOM CNC MACHINING

MANUFACTURES & MARKETS PROPRIETARY PRODUCTS IN ELECTRICAL GROUNDING

PROVIDES DEMARK PRODUCT UNDER PRIVATE LABEL PROGRAMS

CONTRACT MACHINING & MANUFACTURING

DeMARK provides contract machining services to all manufacturing industries. DeMARK offers an innovative combination of production machining, CNC machining, screw machining, multi-spindle drilling, through broaching, button broaching, assembly, and dedicated manufacturing cells. DeMARK is ISO 9001 certified.

PROPRIETARY ELECTRICAL PRODUCTS

DeMARK proprietary products are related to electrical grounding for utilities and telephone companies. Founded in the early 1980's, DeMARK has taken to market products that improve grounding and the installation of electrical grounds. DeMARK introduced new designs in manual ground rod drivers, temporary grounders, drive drills, special drive bits, quick connect wire to rod connectors, and most notably "Threadless Ground Rod Couplers". The Threadless coupler has proven to be a better method of splicing ground rods than the traditional "threaded" couplers. Not only have these couplers proven a better connection, but also are economical and save time in installation. DeMARK holds 4 patents related to electrical grounding.

DeMARK GROUNDING PRODUCTS OFFER SOMETHING BETTER

THREADLESS GROUND ROD COUPLERS

These ground rod splices are available to fit all ground rods from .44" to 1.00" in any kind of metal – copper clad, galvanized, stainless, steel & etc.

GROUND WIRE TO GROUND ROD CONNECTIONS

The "COPPERHEAD" & "SLIDER" connectors are easy to install with a minimum amount of time required and without special tools for regular, multiple wire, and "T" connections. They are available for all types of ground wire and ground rod combinations.

MANUAL GROUND ROD DRIVERS

These unique drivers allow an individual to drive an 8 foot ground rod while standing on the ground with the impact force contained inside the unit.

TEMPORARY GROUNDERS

This tool can easily be installed in any kind of ground with ease and easily retrieved. It is good for truck grounding as well as doing soil resistivity tests.

DRIVE BITS WITH INTEGRITY CHAMBER

The drive bit will not damage rod tips while driving ground rods. They are available for all sizes and types of ground rods and for all kinds of impact drivers, breakers, and other such ground rod driving equipment.

DRIVE DRILLS & DRIVE POINTS

These special parts to put on the ends of ground rods make installation easier and sometimes will allow for deeper driving of ground rods.

SPECIAL PRODUCTS & SERVICES

DeMARK does contract machining and can provide special products to your specifications. We can design products to meet your needs.

DeMARK COUPLERS ARE BETTER

AGAINST COMPETITION

Available for all sizes and types of threadless ground rods from .44” to 1” for copper, zinc, galvanized and stainless.

Works on all standard manufacturers’ ground rods regardless of manufacturer.

Greater tensile strength.

Greater pull out strength.

Greater contact area between rod and coupler.

Handles more rod variation.

Tests over 100% conductivity.

AGAINST OTHER TYPES OF SPLICING OR COUPLING OF GROUND RODS

Cost effective.

Saves time.

No cracked or loose connection.

Easy to install.

GROUND ROD COUPLERS

DeMARK COUPLERS are high strength specially designed units that will work with copper or galvanized ground rods from .44" through 1.00" diameters. They were developed to improve efficiency and save money over other methods of coupling. They do not require any special tools or rods. In addition, they have the physical characteristics required for optimal performance.

Conductivity	over 100%
Tensile Strength	over 70,000#
Yield Strength	over 50,000#
Pull out Strength	over 4,000#

Meets UL Requirements

REA Approved

To use the coupler only requires slipping it over the end of a ground rod after the rod has been driven into the ground; and then inserting the additional rod in the other end. The impact force of driving the second rod will force fit the two rods securely into coupler providing an excellent connection.

GRC-12UL	**BRONZE COUPLER FOR ½" UL COPPER CLAD RODS**
GRC-12B	BRONZE COUPLER FOR ½" COPPER CLAD RODS
GRC-12CP	COPPER PLATE COUPLER FOR ½" COPPER CLAD RODS
GRC-54G	SPECIAL GALVANIZED COUPLER FOR THE UNDERSIZED 5/8" GALVANIZED RODS
GRC-58G	GALVANIZED COUPLER FOR 5/8" GALVANIZED RODS
GRC-58GF	GALVANIZED COUPLER FOR FULL 5/8" GALVANIZED RODS
GRC-58G625	GALVANIZED COUPLER FOR FULL 5/8" GALVANIZED RODS
GRC-58B	BRONZE COUPLER FOR 5/8" COPPER CLAD RODS – REA/RUS
GRC-58CP	COPPER PLATE COUPLER FOR 5/8" COPPER CLAD RODS
GRC-58SS	STAINLESS STEEL COUPLER FOR 5/8" STAINLESS STEEL RODS
GRC-34GU	UNIVERSAL GALVANIZED COUPLER – HANDLES ALL ¾" GALVANIZED RODS
GRC-34B	BRONZE COUPLER FOR ¾" COPPER CLAD RODS – REA/RUS
GRC-34G	GALVANIZED COUPLER FOR ¾" GALVANIZED RODS
GRC-34CP	COPPER PLATE COUPLER FOR ¾" COPPER CLAD RODS
GRC-34SS	STAINLESS STEEL COUPLER FOR ¾" STAINLESS STEEL RODS

GROUND ROD COUPLERS

Pictured Above (L-R): GRC12CP, GRC58CP, GRC34CP

Pictured Above (L-R): GRC58B, GRC58BT, GRC34B

Pictured Above (L-R): GRC58CON, GRC58G625, GRC58GF

Pictured Above (L-R): GRC58SS, GRC58SST, GRC34SS, GRC34SST

DeMARK targets an internal specified quantity of stock for almost all of our couplers as well as other electrical grounding products.

DeMARK COUPLERS
vs. the competition

COMPARISON	DeMARK COUPLERS	THREADED COUPLING	EXOTHERMIC COUPLING
TIME SAVINGS	Very Efficient	Less Efficient	Least Efficient
MATERIAL COSTS	Low Cost	About the Same	Substantially More Costly
CONDUCTIVITY	100%	Much Less	100%
STRENGTH	Great Characteristics	Less	Much Less
SPECIAL ROD	Not Required	Required	Not Required
SPECIAL TOOLS	Not Required	Not Required	Required
WEATHER A FACTOR IN INSTALLATION	Not a Factor	Not a Factor	A Major Factor

THREADLESS COUPLERS

"A real improvement in coupling ground rods."

The Industry is rapidly moving to the DeMARK "threadless" couplers to splice ground rods in applications requiring more than 8' of depth. The old "threaded" and "exothermic" concepts do not provide the best connections and economics that are found in the DeMARK products. An additional plus of the DeMARK threadless couplers is not being hampered by weather conditions in the installation process.

Figure 1 illustrates the two basic features of the DeMARK CONCEPT.
1 – The coupler is tapered from the ends to the middle.
2 – There are serrations, or splines, that run the length of the coupler that are deeper as you get near the center of the coupler.

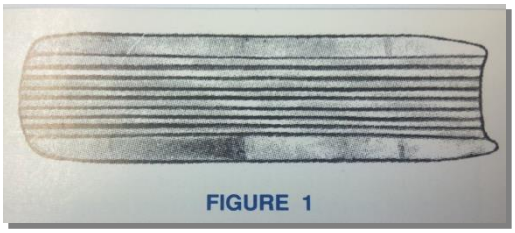


FIGURE 1

When seen in this way one can readily understand the DeMARK CONCEPT. Theory and common sense say the concept works…. With the DeMARK COUPLER reality in operation matches the theory.

Simply, DeMARK THREADLESS COUPLERS are a better, more practical method of coupling rods than threaded couplers or the exothermic method. We have success stories; we have a track record; and we have had successful development.

The DeMARK CONCEPT was developed in collaboration with Detroit Edison. Over the years, Detroit Edison had registered concerns to many people over their grounding practices and were looking for a better way. Detroit Edison established as their primary objectives in a review of all grounding connector concepts: safety, 100% conductivity, strength and economy. These objectives were met with the DeMARK THREADLESS COUPLER.

Needless to say….it was a bit more difficult than saying simply, "We did it!" It required time; it required ingenuity; it required research; and it required some trial and error. We have supplied major utility companies for over 20 years.

An article written by Jim Mumper from E&J DeMARK and Gil Gaibrois, (Principal Engineer, Detroit Edison) published in *ELECTRICAL WORLD* traces this development. (See back page).

The *ELECTRICAL WORLD* article points out that Detroit Edison had determined that the two prominent methods of coupling had inherent deficiencies. The threaded coupler could not be expected to form a tight connection and therefore would not achieve 100% conductivity. The exothermic concept potentially afforded a dangerous situation during the installation process and was difficult to install during certain weather conditions. The disadvantages of these alternatives are noted in Figure 2.

DISADVANTAGES OF ALTERNATIVES

EXOTHERMIC	THREADED
EXTREME LABOR COST	POOR CONDUCTIVITY
SENSITIVE TO WEATHER	REQUIRES THREADED ROD
MATERIAL COST	LOOSENS IN DRIVING
SPECIAL TOOLS	LABOR COST

FIGURE 2

THREADLESS COUPLERS

The DeMARK coupler has proven to be economical and has performed extremely well. All tests run by utilities have shown the DeMARK couplers to have greater than 100% conductivity. Tests have consistently shown pull out strength in excess of 4000# which translates into a very tight connection. Further, actual field tests have shown that DeMARK requires less time to install than other forms of coupling.

The summary of performance standards shown here, (Figure 3) are based on tests confirmed by testing of major utilities. A copy of this test data is available upon request.

CONDUCTIVITY OVER 100%
TENSILE STRENGTH OVER 60,000#
PULL OUT STRENGTH OVER 4,000#
YIELD STRENGTH OVER 40,000#

FIGURE 3

The key to the success is two fold. As you can see from the cross sectional view of the DeMARK coupler (Figure 1), there are two primary features – the taper and the splines. The amount of taper is critical to insure a tight fit. The splines increase the surface contact area and allow for some variation in rod diameter.

Today we are successfully supplying numerous utilities with these couplers covering the full range of rod sizes from .44" through 1.00". Besides Detroit Edison a number of other large and small utilities have approved the use of DeMARK COUPLERS such as Florida Power Corp., Florida Power and Light, Duke, United Telephone, Virginia Power, Indiana Michigan Power, Central Vermont, Alabama Power, GTE, and Public Service of Indiana. There are also numerous companies currently testing DeMARK COUPLERS. There are other threadless couplers on the market today. Two other manufacturers have models for 5/8" copper rods as well as one foreign company (based on metric rods). These units do work in most cases, HOWEVER, they lack the overall advantages of DeMARK COUPLERS. Specifically, they do not have the splines that provide additional surface contact, their taper is not as long, and they are not capable of meeting much variation in rod diameter causing a possible fit problem.

As most people in the industry are aware diameter dimensions of ground rods are nominal. Neither a 5/8" copper clad rod or a 5/8" galvanized rod are actually 5/8". In addition, the specifications for rods allow for variation in diameter size. In the case of galvanized rods it is +/- 1/32".

To be installed properly, are must be taken so as not to cause major distortion of the ground rod end in driving. Some damage, "mushrooming", is acceptable with DeMARK COUPLERS. The damage to the rod tip must not be so great as to keep the rod from being inserted into the coupler.

We have developed solutions to this particular problem of driving rods without damaging the rod tip. The actual answer depends on the difficulty in driving. We have three driving tools that can handle the job.

1. Using the DeMARK GROUND ROD DRIVER (Figure 4) is very effective in simple installations. The inside of the driving chamber is "tapered" and will contain the "mushrooming" effect sufficiently so that the coupler can be fitted over the rod. In addition, the DeMARK GROUND ROD DRIVER can put an eight foot rod into the ground from start to finish without getting on steps, on a boom, or the back of a truck.

COUPLERS AND GROUND ROD DRIVERS

2) For medium hard driving situations where impact equipment is used, our basic driving cap can be utilized that will fit most driving bits on impact equipment.

3) For extremely difficult situations, we have worked with Bruner and Lay to provide our "integrity chamber" in their driving bits. This special tapered design has two advantages:

First of all, the impact area in the hole does allow for some mushrooming – but importantly dictates the form of the distortion. Secondly, the taper to the bottom of the driving bit allows for easy removal of the rod. Driving bits can be provided for most any "impact" or "demolition" hammer.

There are other means that have been developed by various utilities. One that deserves mention is used in Northern Florida. They drive the initial rod, which is relatively easy, by driving on the DeMARK coupler directly. The second rod is then inserted in the coupler with the point at the top and driving is done directly on the rod tip. The resulting mushrooming does not result in the rod tip being too large to fit into the next coupler. This "point upward" procedure is repeated in succeeding rods. This will not work in tough driving conditions.

Depending on the situation and the company, .44" through 1.00" rods are being used for grounding in both galvanized and copper clad or copper plated. There is no uniform standardization and what appears to be the best for one company may not fit the needs of another. In some cases local city and state regulations can affect the decision.

There does not appear to be a move away from copper clad to galvanized rods. Here it is important to be sure of the specifications of the rod you are acquiring. There are many manufacturers of galvanized rods and in some cases the utility will have to set specs to assure that the rods received will provide the performance required.

While utilities do not all have the same standards, they do have a common goal. That is: To improve grounding which obviously has economic "paybacks" due to having fewer problems over time.

● VOLUME 201 ● NUMBER 11

ELECTRICAL WORLD

SERVING THE ELECTRIC UTILITY INDUSTRY FOR OVER A CENTURY

A McGRAW-HILL PUBLICATION

Detroit Edison Co has struggled, as have other utilities, to develop an efficient and reliable method of coupling ground rods end-to-end into a length that would develop the low resistance value desired and yet be simple to drive. Now, after several years of developmental work, that goal has been met.

New coupler solves ground rod problems

The need for such a coupler arises primarily because of the requirement for low grounding resistance at substations. Because of the more stringent requirements in establishment of a station ground mat, substation ground rods must be driven deeper, requiring end-to-end coupling.

Historically, to obtain proper ground-mat resistance at substations, Detroit Edison had used 1-in X 6-ft ground rods to which a 1/0 stranded copper conductor was attached by means of a special compression connector. This connector had been approved only after testing by driving a coupled rod through hard and rocky soil. By 1978, however, this connector had become unavailable.

Since the National Electric Code required that ground rods be a minimum of 8 ft in length, the company decided at that time to standardize on 5/8-in X 8 ft rods for both overhead-line and substation installations. Various methods of coupling were tested and exothermically welded joints were chosen because of the quality of the joints and their permanent conductivity.

These joints proved to be reliable, but driving tandem 8-ft rods solidly coupled proved to be difficult. No simple and quick method could be found, and they were mostly driven by pneumatic hammer from the bucket of an aerial lift.

A new coupler was obviously needed. Development began in 1984, using the following design criteria:

1. Safety
2. Joint conductivity must be such that a spliced rod must have 100% of the conductivity of an unspliced rod of equal length, and it must be maintained permanently.
3. It must provide sufficient mechanical strength to permit driving in hard or frozen soil.
4. It must impose minimum labor costs

These criteria were successfully met, and the new coupler is now in use. Made of high specification bronze, it is 3 in. long. The critical design feature is the presence of tapered splines in the connector bore. As the coupled rods are driven, the splines ensure that the coupler becomes increasingly tighter, resulting in an excellent connection.

Originally, the coupler was made of copper-plated steel. However, it proved impossible to obtain a uniform 5 mils of plating as required by Detroit Edison, and the bimetallic composition posed a problem with corrosion. The material selected eliminates potential for corrosion while still meeting or exceeding Underwriters Laboratory specifications.

Coupled rods were driven at various locations and then pulled to test both pull-out strength and percent conductivity as compared to an equal length of uncoupled rod (table).

Comparison showed that to achieve the low ground resistance and ampacity necessary in substation installations, three 5/8-in. X 5-ft rods with the new couplers could be used and at a lower cost than two 5/8-in. X 8-ft rods in tandem. The cost of one drive coupler is less than half that of an exothermic weld and the cost of labor to make up three drive couplings and drive the three 5-ft rods is only 25% of that required to weld and install two 8-ft rods.

Tapered splines in coupler bore ensure good connection when rods are driven, permitting joining shorter sections for economy, safety

A major consideration in designing the new coupler was safety. The shorter rods can be driven by personnel at grade level, eliminating the need to operate a pneumatic hammer from a bucket truck.

The coupling has also found use in grounding overhead lines. Normally, grounding for a pole line consists of only a single rod or perhaps two rods in parallel. To satisfy Detroit Edison's requirement of 15-Ohm maximum ground resistance in these cases, it is now the practice to drive couplers until the 15-Ohm value is reached.

Test results for drive coupler

Coupler	Composition	Conductivity,%	Pull-out strength,lb
1	Steel, Cu plated	115.0	2,600-5,000
2	High-spec bronze (Alloy I)	96.2	5,860
3	High-spec bronze (Alloy II)	115.0	3,800-5,600

By Gilbert L. Gaibrois, *Principal Engineer, Detroit Edison Co, Detroit, Mich;* and **James O. Mumper,** *E&J DeMark Inc.*

COPPERHEAD®
DRIVE ON
CONNECTORS

AVAILABLE FOR ALL GROUND RODS. CONNECT GROUND WIRE FROM #6 COPPER TO 4/0 – SOLID AND STRANDED

HIGH CONTACT

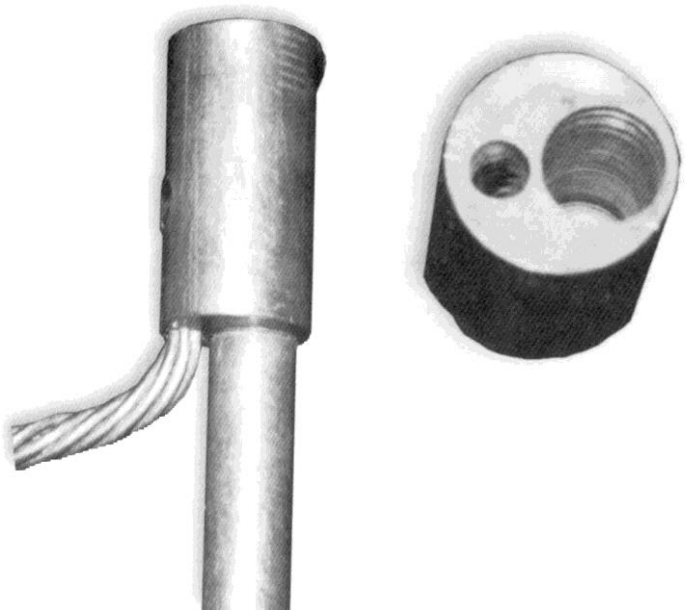
SECURE CONNECTION

EASY & FAST TO INSTALL

NO SPECIAL TOOLS REQUIRED

THE COPPERHEAD®

Can handle two different size wires in the same connector or two of the same size.



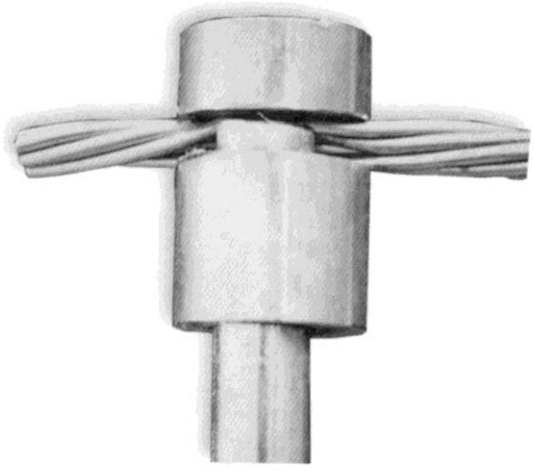
THE “T CONNECTOR”

Wire goes through hole across top of rod.

Can connect two locations or dead end.

THE SLIDER

Can slip connector over continuous ground and then onto ground rod.

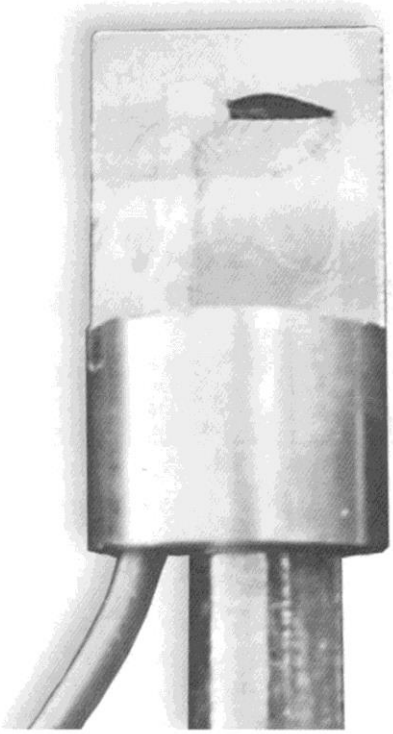


THE CONTACT AREA

SECURE – EXTENSIVE - COMPRESSED

#2 STRANDED
T CONNECTOR

#6 SOLID
COPPERHEAD®



#4 SOLID
T CONNECTOR

MATERIAL: Available in High Spec copper of specially treated Aircraft aluminum

CONNECTION: Contact and compression.

ROD CHAMBER: Tapered to increase compression.

WIRES: All types of wire from #6 copper to 4/0 solid or stranded

GROUND ROD SIZED: .375" - .75"

GROUND ROD TYPES: Copper plate, Galvanized, Stainless, or any other material.

Patents Pending & Patent #5,864,093

Our mission is to provide products that fit a customer's specific needs in an economical manner. We can often make variations of these products without significant addition cost. Tell us what you need so that we may help solve your problem.

DeMARK® GROUNDING PRODUCTS OFFER SOMETHING BETTER

Threadless Couplers Manual Ground Rod Drives
Ground Rod to Ground Wire Connectors Drive Drills
Drive Points Drive Bits Temporary Grounders
Stainless Ground Rods

DeMARK® THE COMPANY

DeMARK was founded in 1984. In addition to grounding products, the Company provides extensive contract machining services through their inhouse turning and milling operations. Customers include automotive, trucking, plumbing, as well as electrical. DeMARK private labels finished products for certain companies in the utility business. DeMARK manufactures and designs all its own products. DeMARK pioneered a number of grounding products including threadless couplers, drive bits with the **Integrity Chamber®, Drive-On Copperhead®, "Slider" and "T Connectors"** for ground rod to ground wire connections.

For more information give us a call or check us out on our website at www.ejdemark.com

THE "COPPERHEAD" CONNECTOR
COPPER AND ALUMINUM
(Ground Rod to Wire)

The design of the DeMARK ground rod connector is unique. This product has significant advantages over other means of connecting ground wire to a ground rod. It utilizes a concept of compression, which helps provide a good ground, by driving the connector that has a tapered hole. (The opening hole is larger than the ground rod diameter and the end of the hole is smaller than the rod.)

The connection is made by first inserting the ground wire into the designated hole of the connector. The connector is then driven on the ground rod with a hammer or sledge hammer. Two or three hits with a 3# field hammer is more than sufficient. The result of this "drive on approach" forces the ground rod to make a strong bond with both the ground wire and the internal walls of the connector.

The material is a special high spec "Tellurium" copper that allows for the ease of driving the connector onto the rod and yet has the strength necessary to form a tight and strong connection.

There are more and more concerns in the field about adequate ground wire to ground rod connections. We have found that many companies using the inexpensive "acorn" type connector are dissatisfied. They have found for different reasons that the connection is not good or has deteriorated over time.

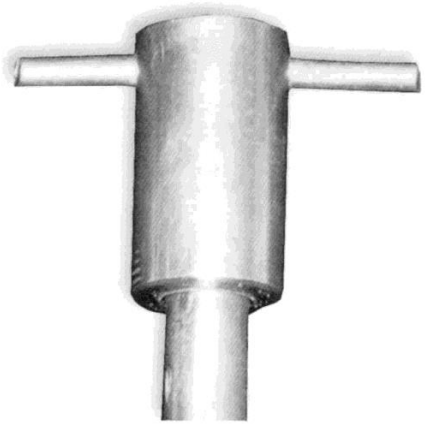
Obviously if the customer who uses an "acorn" type connector knows they have a problem, the DeMARK "COPPERHEAD" CONNECTOR is a viable alternative. The only disadvantage being the expense of the product.

At the high end of the market, "EXOTHERMIC" type connection, the "COPPERHEAD" measures up in all ways. It is a good connection; it is priced competitive or less expensive when considering the time element; it is fast and easy. The only special tool it requires is a hammer…. One does not have to worry about weather either.

There is no limit to the type of rod or wire that can be used. While the most used ground wires are #4 and #6, we have made these units for several other types of wire up to a #4/0. We have made these units to handle more than one wire at a time and even able to accommodate different wire sizes in the same connector.

PATENTED AND PATENT PENDING 2-99

GROUNDING PRODUCTS



THRU-HOLE

DRIVE ON CONNECTORS

FOR ROD TO WIRE APPLICATIONS

100% CONDUCTIVITY

TERMINATING

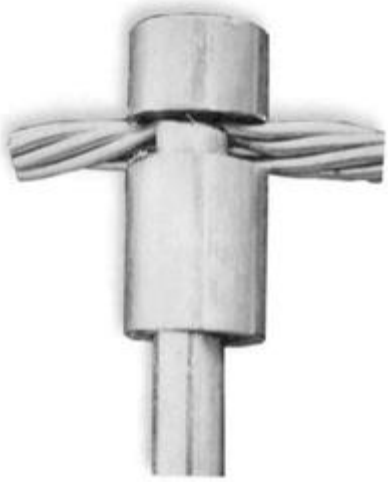
NO SPECIAL TOOLS

QUICK & EASY TO INSTALL

TIGHT COMPRESSION FIT

DIRECT ROD TO WIRE CONTACT

RUS ACCEPTED



SLIDE-ON

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Tel. 419-337-5866 ● Fax 419-337-5089
WEB: www.ejdemark.com ● Email: ground@ejdemark.com

GROUNDLOCK™

DeMARK'S "DRIVE-ON" WIRE TO ROD CONNECTOR
FAST, EASY, SECURE, ECONOMICAL

Insert wire, place on rod, hit connector with 3# field hammer 3-5 times

#6 WIRE
5/8" CU ROD
Model #GL58C6

Groundlock maximizes contact area with wire to 100%

"Acorns" only provide 15% of this contact area

Groundlock will NOT loosen like "Acrons"

Groundlock installs in less time with NO special tools

CUTOUT
#4 SOLID WIRE
5/8" CU ROD
Model #GL58C4

MATERIAL: Available in High Spec *BRONZE*
CONNECTION: Contact and compression.
ROD CHAMBER: Tapered to increase compression.
WIRES: All types of wire from #6 copper to #2 solid or stranded
GROUND ROD SIZED: .375" - .75"
GROUND ROD TYPES: Copper plate, Galvanized, Stainless, or any other material.

GROUND ROD DRIVERS
DRIVE RODS FROM GROUND LEVEL

STANDARD

MODEL
A-58

WEIGHT	**18 LBS.**
LENGTH	**28 IN.**
DIAM.	**2.4 IN.**
STROKE	**18 IN.**

WITH HANDLES

MODEL
A-58H

WEIGHT	**22 LBS.**
LENGTH	**28 IN.**
DIAM.	**2.4 IN.**
STROKE	**18 IN.**

HEAVY DUTY

MODEL
A-58HW

WEIGHT	**28 LBS.**
LENGTH	**34 IN.**
DIAM.	**2.4 IN.**
STROKE	**24 IN.**

GROUND ROD DRIVERS
DRIVE RODS FROM GROUND LEVEL

Another type of Ground Rod Drivers DeMARK offers is the A58COL. This unit weighs 23# and offers the same application as the A58H with the only difference being the operator uses the "collar" style handles instead of the side handles that are on the A58H.

TEMPORARY GROUNDERS

- **PENETRATE HARD OR FROZEN SOIL**
- **DRIVE GROUND ROD TO DESIRED DEPTH**
- **RETRUEVE ROD QUICKLY & EASILY**
- **EASIER THAN "AUGER" GROUNDS**

This tool is an adaption of the patented DeMARK Model A-58 ground rod driver. The DeMARK Temporary Ground Rod Driver was designed in response to a customers request for a better means of temporary truck grounding. The TG-58 allows for easy and safe driving of a temporary ground rod and also easy removal of the rod. The TG-58 is also a quick and efficient tool for use in soil resistivity or neutral to Earth voltage testing.

The exposed end of the TG-58 is internally threaded so that a standard 5/8" sectional ground rod can be threaded into the shaft. The ground rod can then be driven to the desired depth and a suitable clamp attached to the rod. When the work has been completed, simply disconnect the clamp and the rod can easily be removed.

The driver has the striking force inside the unit that allows for force to be directed upward as well as downward. Removal of the rod is accomplished by impacting the driver in an upward direction.

The system of temporary grounding has definite advantages over a ground auger method of grounding. The sectional ground rods (GR558) are sold separately.

DRIVE DRILLS

DeMARK Drive Drills make it easier to driver ground rods and allows for deeper driving. This is an exclusive design that utilizes the proven advantages of the "star chisel".

DRIVE RODS WITH LESS EFFORT

EFFECTIVE IN ADVERSE CONDITIONS

ECONOMICAL

ALLOWS DRIVING THROUGH HARDER GROUND MATERIAL

Pictured above (L-R):: DD12C, DD58C, DD34C

Available for nominal ½' through ¾" rods

MODEL #	FOR
DD12C	½" Copper Clad Ground Rods
DD58C	5/8" Copper Clad Ground Rods
DD58G	5/8" Galvanized Ground Rods
DD34C	¾" Copper Clad Ground Rods

DRIVE POINTS

DeMARK Drive Points make is easier to drive ground rods and sometimes allow for deeper driving. This is an exclusive design that is simple and proven to be effective.

The tip is much more pronounced than on a ground rod and has a greater diameter that the diameter of the rod. It is designed to fit tightly so that it will not fall off and will accept normal variations of individual ground rods.

History has shown that the speed of driving ground rods increases with the use of Drive Points. In addition, one may be able to break through some hard areas that could not be penetrated with the standard ground rod.

FASTER TO DRIVE – EASIER TO DRIVE – COST EFFECTIVE DRIVE RODS DEEPER IN SOME GROND MATERIAL

Pictured above (L-R): DP58G, DP58CU, DP58C, DP34C

MODEL #	FOR
DP12C	½" Copper Clad Ground Rods
DP58C	5/8" Copper Clad Ground Rods
DP58G	5/8" Galvanized Ground Rods
DD34C	¾" Copper Clad Ground Rods

DRIVE BITS

The DeMARK **"INTEGRITY CHAMBER"** controls damage (mushrooming) of ground rods when driving with impact hammers. This allows for use of threadless ground rod couplers without use of additional tools.

Tis concept has been applied to a variety of Drive Bit styles that can be made to fit all "impact hammers', "demolition hammers" and "breakers" that use hydraulic, pneumatic or electric power.

The DeMARK **"INTEGRITY CHAMBER"** is a close tolerance double taper designed cavity that controls rod flaring or mushrooming. Resulting deformation of the rod is forced upward and is contained within the diameter of the rod. This allows for easy installation of threadless ground rods without additional tools.

Due to the close tolerances required, the concept must be ordered for the specific size ground rod being used; ½ copper, 5/8" copper, 5/8" galvanized, ¾" copper, etc.

Drive Bits have been manufactured for Fairmont, Stanley, Ingersoll Rand, Chicago Pneumatic, Kango, Bosh, Milwaukee and other special hammers.

DRIVE BIT ORDERING INFORMATION

The following chart lists models that Demark manufactures by rod size. The key for Demark is to supply the correct Drive Bit is to have proper information from the user.

Rod Size/Type	Model #	Hex/Diameter Size	Shank Length	Overall Length
1/2" Copper Rod	DB12C087	7/8"	3 1/2"	11 3/4"
	DB12C100	1"	4 1/4"	12 1/2"
	DB12C112	1 1/8"	6"	15 1/2"
	DB12C125	1 1/4"	6"	15 1/2"
	DB12C075	3/4"	2 3/4"	12 3/4"
	DB12C075L	3/4"	4 1/2"	10"
5/8" Copper Rod	DB58C087	7/8"	3 1/2"	11 3/4"
	DB58C100	1"	4 1/4"	12 1/2"
	DB58C112	1 1/8"	6"	15 1/2"
	DB58C125	1 1/4"	6"	15 1/2"
	DB58C075	3/4"	2 3/4"	12 3/4"
	DB58C075L	3/4"	4 1/2"	10"
	DB58C125-36	1 1/4"	6"	36"
	DB58C062	5/8"	5 3/4"	12 1/2"
5/8" Galvanized Rod	DB58G087	7/8"	3 1/2"	11 3/4"
	DB58G100	1"	4 1/4"	12 1/2"
	DB58G112	1 1/8"	6"	15 1/2"
	DB58G125	1 1/4"	6"	15 1/2"
	DB58G075	3/4"	2 3/4"	12 3/4"
	DB58C075L	3/4"	4 1/2"	10"
	DB58G125-36	1 1/4"	6"	36"
3/4" Copper Rod	DB34C087	7/8"	3 1/2"	11 3/4"
	DB34C100	1"	4 1/4"	12 1/2"
	DB34C112	1 1/8"	6"	15 1/2"
	DB34C125	1 1/4"	6"	15 1/2"
	DB34C075	3/4"	2 3/4"	12 3/4"
	DB34C075L	3/4"	4 1/2"	10"