

## Pole Restoration Products

### Trusses, Banding, Installation Equipment

Pole Restoration is a third or less of the cost of pole replacement. A successful program can save a utility millions of dollars in unnecessary replacement costs. Osmose restoration products add many years of service life to older, weakened poles.

#### Osmo-C2-Truss®

Lighter weight, higher strength, lower cost—The optimized truss design provides the highest strength-to-weight ratio in the industry at a lower cost than other systems.

Patent pending design—Finite Element Analyses were used to optimize the cross-sectional shape and maximize the efficiency of the design.

Reduced rotation—The patent pending design concept enables the C2-Truss to minimize the twisting caused by transverse wind loads that reduce the performance of other truss shapes.

Engineered for safety and reliability—The Osmo-C2-Truss system is installed to exceed the strength requirements of the National Electric Safety Code (NESC).

Higher yield strength steel — 100,000 psi — combined with an optimized design allows the truss to develop its full strength potential. The high strength-to-weight ratio helps lower overall weight and cost.

Low profile—The unique design of the Osmo-C2-Truss results in a lower profile on the pole.

Longer lengths for high decay—The standard truss extends 5 feet above ground. Single piece trusses are available for applications up to 8 feet above ground. A two-piece design is available for taller applications.

Galvanized for corrosion protection—Every Osmo-C2-Truss system is hot-dip galvanized to ASTM A-123 specifications, ensuring long term corrosion protection.



## Pole Restoration Products

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### Trusses, Banding, Installation Equipment

#### Osmo-C-Truss®

The Osmo-C-Truss system is constructed from A-572 Grade 60 and A-715 Grade 80 steel and exceeds the strength requirements of the National Electric Safety Code (NESC). Every Osmo-C-Truss is galvanized to the heaviest Coating Thickness Grade specified by ASTM A-123 for long-term corrosion protection.

The Osmo-C-Truss has been extensively tested throughout its' 40 year history. Tests have been conducted by Osmose, independent laboratories and pole owners nationwide.

Full-scale foundation testing allows Osmose to offer trusses with a shorter driving depth, saving pole owners money. The design of the Osmo-C-Truss system and the installation tools allow it to maintain positive contact with the pole butt below ground, insuring transfer of loads during bending.



## Pole Restoration Products

### Ordering Information:

<b>Osmo C2 Truss®</b>			
<b>Lighter - Stronger - Lower Cost</b>			
<b>Part Number</b>	<b>Size</b>	<b>Bending Strength (ft-lb)</b>	<b>Weight</b>
Call for specific part numbers	C2-3610	36,544	82 lbs.
	C2-4910	49,628	94 lbs.
	C2-5610	56,442	103 lbs.
	C2-7110	71,759	116 lbs.

<b>Osmo-C-Truss®</b>			
<b>Part Number</b>	<b>Size</b>	<b>Bending Strength (ft-lb)</b>	<b>Weight</b>
Call for specific part numbers	6 x 10'	21,875	108 lbs.
	7 x 10'	25,525	112 lbs.
	8 x 10'	36,500	126 lbs.
	9 x 10'	55,135	178 lbs.
	980 x 10'	73,515	178 lbs.
	1080 x 11'	90,825	209 lbs.
	1180 x 11'	111,670	228 lbs.
	1280 x 11'	128,875	245 lbs.
	1380 x 11'	152,005	291 lbs.
	1480 x 11'	169,560	315 lbs.
	1580 x 12'	191,125	324 lbs.
	1680 x 12'	210,460	337 lbs.

All C-Trusses are also available in lengths from 10' to 25'. Bolted design C-Trusses are also available.

<b>C-Truss Materials</b>				
<b>Part Number</b>	<b>Item</b>	<b>Size</b>	<b>Shipping Weight</b>	<b>Unit</b>
75-020-001-010	Banding	2" x 290'	103 lbs.	Roll
75-020-001-020	Seals	Single 250/Box	50 lbs.	Box
75-020-001-021	Seals	Double 250/Box	50 lbs.	Box
75-020-001-030	CoverCap	Small	1.5 lbs.	Each
75-020-001-031	CoverCap	Large	3.5 lbs.	Each
75-020-001-033	C2 CoverCap	Small	1.5 lbs.	Each

C-Truss Installation Equipment—call for detailed equipment listing and pricing

## Pole Restoration Products

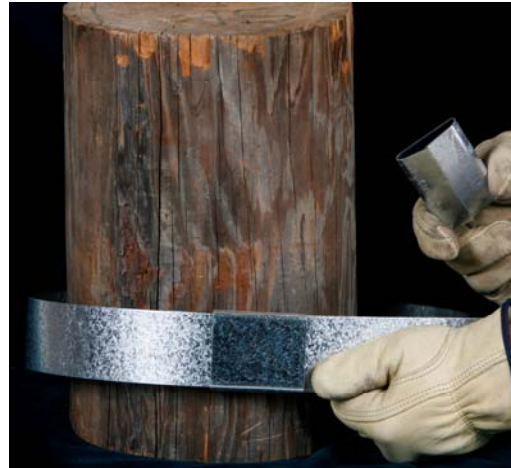
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### Trusses, Banding, Installation Equipment

#### Banding and Seals

Osmose banding is stronger than other banding systems in the industry with over 138,000 psi tensile strength. The banding is hot-dip galvanized to 2.0 ounces per square foot—two to three times heavier than others—for long term corrosion protection unmatched by any other system. Banding comes in a 290 ft. coil.

Seals come in both the Single Band Galvanized Seal (push-type) or the Double Band Galvanized Seal (closed-type). Both are 2" W x 3" L and are packaged 250 seals per box.



## Additional Products: Pole Restoration

### Trusses, Banding, Installation Equipment

#### Installation Systems

Osmose offers both a pneumatic and manual installation system.

##### Pneumatic:

Air Hammer Kit—includes modified air hammer with muffler, hammer cradle & chain assembly and sheath driver & shank.

Pull-Down Winch and Steel Dolly—2000 lb. capacity winch with heavy duty steel cable.

Tension Roller—Connects air hammer and pull-down winch for steady driving force and faster installation.

Pike Pole & Winch Assembly—18' Fiberglass pike pole with 800 lb. capacity winch assembly and automatic locking mechanism for greater safety and easier use. Optional 16' sectional pike pole assembly is available. Note: Pike poles are recommended for lifting driving hammers only.

Air Tensioner (2") - High strength industrial tensioner with 2000 lb tensioning capacity at 100 psi air pressure.

Air Crimper (2") - Crimps both single and double-wrap band applications. 3000 lb crimp capacity to maximize joint efficiency.

Band Shear (2") - High capacity shear for easy and fast cutting of bands.

Band Dispenser (2") - Accommodates 100 lb. coils of banding.

##### Optional Systems:

##### Drop Weight/Manual:

Drop Weight Assembly—Includes ten 25 lb. wafer weights and driving shank with shackle.

Nylon Sling—2" x 8' two-ply nylon.

Pulley (8") - Sling and Pulley assembly used for hoisting drop weight assembly.

Electric Capstan Hoist—3000 lb. capacity hoist with bracket and chain assembly for easy attachment to the pole.

Hoist Rope—3/4" x 65' polyester rope.

High Capacity Manual Tensioner (2") - Tensioner modified with extended arm and hook assembly for greater tensioning capacity.

Manual Crimper (2").

Band Punch—Used for installation with manual tensioning systems.

##### Hydraulic Installation:

Hydraulic Hammer Kit— Includes modified hydraulic hammer with hammer cradle and chain assembly and sheath driver and shank.



## Pole Restoration Products

### Woodpecker Damage Repair Products

Osmose pole treatment and restoration products have helped pole owners restore and maintain wood poles for more than 60 years. Osmose is committed to providing the most cost-effective and reliable asset management solutions for transmission and distribution system owners.

#### OsmoWeld® MPF™

This multi-purpose filler is designed primarily to repair wood poles damaged by woodpeckers. It can also be used to repair decayed or split tops and other damage that results in decay.

Woodpecker damage repair is fast, easy and clean with MPF compared to other systems. The KwikMixx™ cartridge system provides even mixing of the two-part epoxy formula. Cartridges come in two sizes, 600 ml and 1500 ml, for small or large repairs. The 600 ml cartridges fill approximately 36 cubic inches of void and the 1500 ml fill approximately 90 cubic inches.

For maximum results, all debris and foreign materials should be removed from the damaged area and tape should be placed over the entry hole. After drilling a filling hole at a 45° angle, OsmoWeld MPF filler is injected into the cavity. The product will flow easily and evenly, completely filling the hollow, which is vital in preventing the return behavior of woodpeckers. OsmoWeld MPF filler is designed to bond to wood without shrinking or cracking.



#### Installation Guide:

**Step 1** - Inspect woodpecker damage area and remove any standing water and or loose debris.

**Step 2** - To ward off future decay, it is recommended that the surface of the damaged area be treated with Pole Topper Fluid™ (CU-89 RTU II) in one pint squirt bottles. The surface of the cavity should receive a light even coat.

**Step 3** - To insure complete filling of the damaged cavity, it is recommended to drill a pilot hole from above the damaged area into the crown of the cavity. This should be done with a 7/8" drill bit. If the hole is not completely filled and a hollow remains the woodpecker may return to the damage area and cause further destruction. Filling the hole through the crown will prevent this.

**Step 4** - Prior to filling, make several wraps of light duty adhesive tape around the pole to completely cover the woodpecker entry hole. This tape can be removed after the repair has initially cured (approx. 30 - 45 minutes at 70 degrees F, complete cure occurs after approx. 24 hours).

**Step 5** - Remove black end caps from KwikMixx™ cartridge and attach mixing nozzle (use retaining nuts if needed). End caps can be replaced if a cartridge is not completely dispensed. Place cartridge into installation dispensing tool.

**Step 6** - Insert mixing nozzle into pilot hole and begin to fill void. Continue to fill void until MPF™ begins to fill up pilot hole.

**Step 7** - Plug pilot hole with 15/16" treated wood dowel and wipe off excess. Instead of using a treated dowel, pilot hole can also be sealed with a wrap of the light duty adhesive tape.

**Step 8** - Prior to curing, excess MPF™ can be cleaned with industrial wipes or with denatured alcohol. Excess MPF™ should be wiped or removed from all surfaces (i.e. tools, clothes, equipment) before curing.

**For safety and disposal, please refer to the Material Safety Data Sheet (MSDS).  
If you have questions or comments about this product, call (800) 877-POLE  
and ask for the Manager - Product Sales, Osmose Utilities Services, Inc.**

## Pole Restoration Products

### Woodpecker Damage Repair Products

#### OsmoWeld® MPF™

Technical Data	
Active Ingredients	Hardener: Amine/Filler Blend—100.00% Resin: Epoxy Resin Blend—<1.00% Total—100.00%
Packaging:	1500 ml – (6) cartridges per carton 600 ml – (6) cartridges per carton
Shipping Description:	"Consumer commodity", ORM-D
Weight:	38 lbs. per 1500 ml carton 15 lbs. per 600 ml carton
Handling and Storage precautions:	Store in a warm (50°F - 90°F), dry, ventilated, place. Avoid breathing vapors. Handle in well-ventilated workspace. Avoid contact with skin, eyes or clothing. Wear protective clothing, boots, gloves and eye protection.
In the event of accidental release:	For small spills, i.e. broken tubes, react components and dispose of in a sanitary landfill. For large spills, i.e. drums in a manufacturing facility, reduce vapor spreading with a water spray. Stop the leak, if possible. Construct a dike to prevent spreading. Spread absorbent material over area. Transfer to containers by suction. Dispose of material in accordance with local, state, and federal regulations. Wash the area with soap and water. Prevent washing from entering sewers or waterways.
Waste Disposal:	This material does not contain any VOC's (volatile organic compounds). Empty tubes may be disposed of in chemical trash. Reacted material may be disposed of in sanitary landfill. Dispose of material in accordance with applicable local, state, and federal laws and regulations. The state and local regulations and laws may differ from federal regulations, and laws may change or be reinterpreted. This information only applies to the material as manufactured. Process, use or contamination may make the information inappropriate, inaccurate, or incomplete. Responsibility for proper waste disposal is with the owner of the waste.
Basic Personal Protection:	<b>RESPIRATORY PROTECTION:</b> Not necessary under most operating conditions. NIOSH approved organic vapor respirator should be used in confined areas, or when conditions cause high vapor concentrations. If the percent of oxygen is below the normal then use self-contained breathing apparatus. <b>PROTECTIVE GLOVES:</b> Neoprene rubber gloves. Cuffed butyl rubber gloves, Nitrile rubber gloves. <b>EYE PROTECTION:</b> Chemical splash goggles or safety glasses with side shields should be worn as appropriate. Contact lenses should not be worn while using this product. Eye wash stations should be readily available. <b>FOOTWEAR:</b> As necessary to avoid dermal contact.
<i>For more detailed Personal Protective Measures please refer to the label &amp; MSDS Information.</i>	
Appearance:	The hardener is a tan viscous liquid with an amine odor. The epoxy resin is a white viscous liquid.
Odor:	The hardener has an amine odor. The epoxy resin has a slight sweet odor.
Freezing Point:	Not Determined
Melting Point:	N/A
Flash Point/Auto Ignition Temperature:	Resin: >200°F/ Not Determined Hardener: > 200°F/ Not Determined
Compression Strength (PSI):	5240 lbs.

## Pole Restoration Products

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### Ordering Information:

#### OsmoWeld® MPF™

Item Description	Item ID	UOM	Shipping Weight
1500ml—6 cartridges per carton (includes: 3 mixing nozzle kits per carton)	70-070-200-015	Cartridge	38 lbs. per carton
600 ml—6 cartridges per carton (includes: 3 mixing nozzle kits per carton)	70-070-200-600	Cartridge	15 lbs. per carton

## Pole Restoration Products

### Woodpecker Damage Repair Products

#### PowerPush™ 7000—Power Dispenser for MPF

Functional Description:

Each Power Dispenser Kit contains (1) PowerPush 7000, (1) AC or DC Charger, (2) Re-chargeable Batteries, (1) Carry-Strap and Instruction Manual



Technical Data	
Size:	Model 7030T - 600 ml gun Model 7075 - 1500 ml gun
Capacity:	Model 7030T – 22 oz (300:300 ml) Model 7075 – 56 oz (750:750 ml)
Weight:	Model 7030T – 8.2 lbs. (3.88 kg.) Model 7075 – 8.9 lbs. (4.03kg)
Thrust:	Factory set – up to 1,800 lbs. (8kN)
Speed:	Variable up to 6 inches/per minute (2.5mm/s)
Dosing Limit	Variable - 10-30 seconds
Charger	<p>One hour NiCd AC Charger                      Uses 120 Volt AC Power                      Recharges 14.4 volt battery packs                      Plugs into standard American 120 VAC wall socket</p> <p>One hour NiCd DC Charger                      Uses 12 Volt DC Automotive Power                      Recharges 14.4 Volt battery packs</p> <p><b><i>Both chargers recharge battery packs in one hour once proper temperature is reached                      Use battery chargers in accordance with separate instructions supplied with the charger</i></b></p>
Battery Pack	<p>14.4 volt 1.7 amp-hour Nickel-Cadmium Battery Pack                      Higher voltage (14.4 volts DC) increases the speed of the tool.                      Higher 1.7 amp-hour capacity for longer capacity for longer run time than the 12 volt battery pack</p>

## Pole Restoration Products

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### Ordering Information:

#### OsmoWeld Power Dispenser

Item Description	Item ID	UOM	Shipping Weight
OsmoWeld Power Dispenser w/DC Charger 1500 ml	70-070-400-1500	Each	16 lbs. each
OsmoWeld Power Dispenser w/AC Charger 1500 ml	70-070-410-1500	Each	16 lbs. each
OsmoWeld Power Dispenser w/DC Charger 600 ml	70-070-400-600	Each	14 lbs. each
OsmoWeld Power Dispenser w/AC Charger 600 ml	70-070-410-600	Each	14 lbs. each
DC Charger Only	70-070-400-001	Each	1 lb. each
AC Charger Only	70-070-410-001	Each	1 lb. each

## Pole Restoration Products

### Woodpecker Damage Repair Products

#### Accessories for OsmoWeld® MPF™

Osmose offers a full line of accessories to help in the repair of damaged wood poles:

**Nozzle**— Newly designed integrated one-piece dispensing nozzle. Two sizes available, 600 ml and 1500 ml. Attaches to Kwik-Mixx cartridges to mix and dispense product.

**Entry Way Tape**—3" x 300' - used to cover damaged area on pole so product remains in pole until it is set-up.

**Woodpecker Repair Tags**—3" Round—orange background with white writing "This pole has been repaired for woodpecker damage" to mark poles that have been repaired.

**Wooden Spacer Dowels**—5/8" x 4" - packaged 144 pieces per bag—used with larger voids to help fill the cavity so you use less product.

**Steel Fluted Reinforcing Pins**—3/8" x 16"

### Ordering Information:

#### OsmoWeld Accessories

Item Description	Item ID	UOM	Shipping Weight
Nozzle 1500 ml	70-140-780-150	Each	<1 lb. each
Nozzle 600 ml	70-140-120-600	Each	<1 lb. each
Entry Way Tape—3" x 300' Roll Heat Resistant	70-140-030-020	Each	1 lb. each
Woodpecker Repair Tags—3" Round	70-140-090-120	Each	<1 lb. each
Wooden Spacer Dowels 5/8" x 4" 144 per carton	75-070-110-110	Each	6 lbs. per carton
Steel Fluted Reinforcing Pin 3/8" x 16"	75-110-010-000	Each	<1 lb. each