ConductaClean®

Improper cleaning of conductor strands can result in higher resistance terminations and splices that cause fittings to operate at higher temperatures leading to premature failure. To alleviate this concern, AFL now offers ConductaClean, a reliable, cost-effective system for cleaning the ends of overhead conductors prior to installing compression terminations and splices. ConductaClean incorporates technology developed by the Electric Power Research Institute.

Manufactured by EDM International, Inc., ConductaClean agitates a specialized solution to remove oxidation and grime from conductor strands, and can be adjusted for one, three or six minute cycles depending on the condition of the conductor. With ConductaClean, line crews can thoroughly clean conductors in much less time than traditional hand-cleaning methods. The compact and portable design allows linemen to operate wherever the splice is most efficiently made – whether on the ground or up in a bucket.

before *after*

Features

- Cost effective, saving time for line crews
- Easy to use, simple to operate
- Stand is adjustable for stability and removable for flexibility
- Requires no maintenance
- Cleans to the core for better quality
- Minimizes likelihood of premature failures
- 12 and 18 volt systems

Specifications

PARAMETER	VALUE
Tool Dimensions	8"w x 6"d x 22"h (23cm x 15 cm x 65cm)
Tool Weight	20 lbs. (9 kg)
Tube Dimensions	3" dia. x 26" L (7.6cm x 66cm)
Tube Weight	4 lbs. (1.8 kg)
Cleanings/bottle	5-12 (depending on condition)

Average Cleaning Times (regardless of conductor size)

TEMPERATURE	CLEANING #1	CLEANING #2 - #6
70°F (21°C)	2 min.	3 min.
30°F (-1°C)	3 min.	4 min.

NOTE: For cleanings #7-#12 the average cleaning time may increase slightly depending on conductor condition.

Ordering Information

AFL NO.	DESCRIPTION
CC-SYS	ConductaClean 12 V System – Includes tool, tube, two batteries, battery charger and carrying case
CC-SYS18	ConductaClean 18 V System – Includes tool, tube, two batteries, battery charger and carrying case
CC-MIX1	Mix for Solution, 12 Bottle Package
CC-TUBE	Cleaning Tube
CC-BATT	Tool Battery, 12 volt
CC-BATT18	Tool Battery, 18 volt
CC-CHGR	Battery Charger, 12 volt
CC-CHGR18	Battery Charger, 18 volt

Patent Pending

ConductaClean®
Long Term Connector Resistance Tests
(Data provided by EPRI)

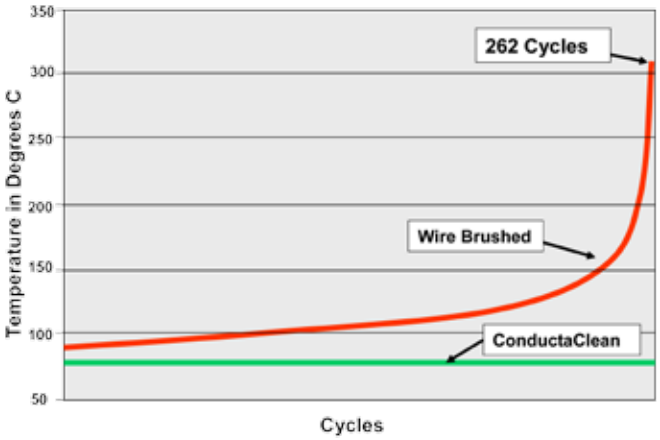
Long term performance was evaluated by heat cycle testing conducted using EPRI's multi-stress compression connector test facility at EPRI's Power Delivery & Utilization Laboratories in Charlotte, North Carolina (photograph). Heat cycle loops were fabricated on aged/contaminated conductor using matched sets (2 samples per set) of two-stage compression connectors (2 prepared with wire brushing and 2 prepared with ConductaClean).

Each loop was subjected to 262 cycles of heating and cooling. Each cycle consisted of raising the sample temperature as measured using thermocouples to 93°C (200°F), holding it for 2 hours and then allowing it to cool to room temperature. Depending on ambient temperatures each cycle lasted for a total of 3.5 to 4.5 hours. Connector temperatures were measured using thermocouples (see chart).

After the 262 cycles the electrical resistance of conductors and each connector were measured using a micro ohm meter. The measurement results are provided in the following chart.

The results show that the connectors installed using ConductaClean outperformed (i.e., lower resistance) those installed using wire brushing.

Test Loop Setup in EPRI Lab



COMPONENT TYPE	MEASUREMENT POINT	RESISTANCE (MICRO OHMS) AFTER 262 CYCLES			
		WIRE BRUSHED		CONDUCTACLEAN®	
		MEASUREMENT	RATIO (MEASURED/REFERENCE)	MEASUREMENT	RATIO (MEASURED/REFERENCE)
Conductor	Reference	23	1.00	23.5	1.00
Two-Stage Connectors	Position A	87.5	3.80	20	0.85
	Position B	111	4.83	23.5	1.00