



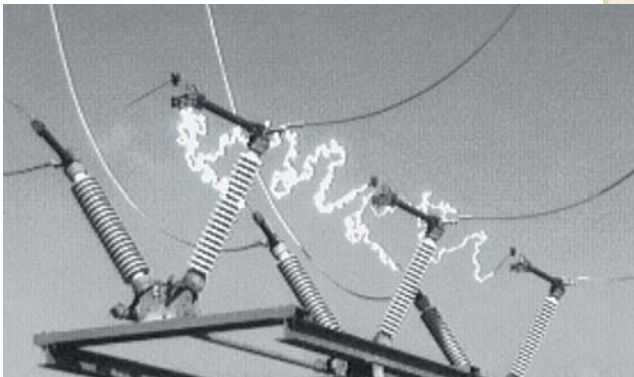
Polywhip™ Quick Break Interrupter

The Polywhip™ interrupter is an ultra-quick break device for interrupting the capacitive line charging current of long transmission lines. The Polywhip™ is available for use on Cleaveland/Price center break CB-AV and hookstick operated ILO-C switches rated 69 kV through 161 kV. Consult the factory for the availability of the Polywhip™ on other Cleaveland/Price switches.

The advantage of the Polywhip™ over other quick break whip designs is the extraordinary speed of the device. The patented whip applies new technologies that enable the whip to establish an open gap faster than the voltage can increase to cause a re-strike once the arc is extinguished at current zero. Because the interrupting capability of the Polywhip™ is so high, transmission line switching sites can be located further apart without the need for expensive vacuum or SF6 interrupters.



The Polywhip™ interrupter shown on a 138 kV CB-AV switch.



Actual line charging interrupting on a 115 kV circuit using a traditionally designed whip. During the switch opening there were eleven re-strikes because the whip was too slow. The photo to the right shows the difference using a Polywhip™ interrupter.



Same circuit, same location with a Polywhip™ interrupter on a CB-AV switch. The whips interrupted the circuit without re-strike. The arcs were fully extinguished within 8 milliseconds.

U.S. Patent Nos. 6392181B1
6762385B1
7078642B2
Canadian Patent No. 2357453



14000 Rt. 993, Trafford, PA 15085 (724) 864-4177
FAX (724) 864-9040
E-mail: sales@cleavelandprice.com

Speed is the key to successful interruption of line charging currents.

The Polywhip™ delivers the speed you need. The sequence of photos below show actual laboratory interruption on a 145 kV circuit with 48.8 A. of capacitive current.



0 ms.
Whip contacts are just beginning to separate. A slight spark can be seen.



4 ms.
The arc is at full length.



6 ms.
The arc starts to extinguish.



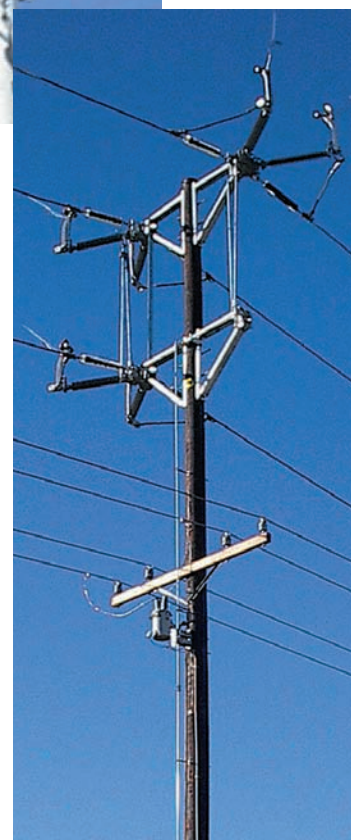
10 ms.
The arc is completely extinguished.



48 ms.
The whip has fully opened without re-strike.



The Polywhip™ can be installed on Cleveland/Price CB-AV center break switches. The switches could be mounted side by side, phase-over-phase, or phase-opposite-phase.



Polywhip™ Line Dropping Capability

System Voltage/Max. Voltage kV *	69 /72.5 kV	115 /123 kV	138 /145 kV	161/170 kV
Approximate line length	174 miles	111 miles	94 miles	56 miles
Current	48.8 A.	48.8 A.	48.8 A.	34.3 A.

* Grounded neutral system. For ungrounded systems, use the next higher voltage whip.