

600-Amp Elbow Connectors

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	600 Series Elbow (w/ Insul. Plug, Cap, Stud, Lug and Cable Adapter)	15/25kV 35kV	K655LR-WOX Use Tables W7 and X6 755LR-WOX Use Tables W9 and X6	N1, 2 N1, 2
	600 Series Direct Test Elbow (w/ Insul. Plug, Cap, Stud, Lug and Cable Adapter)	15/25kV 35kV	K655DLR-WOX Use Tables W7 and X6 755DLR-WOX Use Tables W9 and X6	N1, 2, 12 N1, 2, 12
	600 Series Elbow w/ Test Point (w/ Insul. Plug, Cap, Stud, Lug and Cable Adapter)	15/25kV 35kV	K656LR-WOX Use Tables W7 and X6 756LR-WOX Use Tables W9 and X6	N1, 2 N1, 2
	600 Series Direct Test Elbow w/ Test Point (w/ Insul. Plug, Cap, Stud, Lug and Cable Adapter)	15/25kV 35kV	K656DLR-WOX Use Tables W7 and X6 756DLR-WOX Use Tables W9 and X6	N1, 2, 12 N1, 2, 12
	600 Series Elbow w/ Test Point Housing only (w/ Stud)	15/25kV 35kV	K655BLR 755BLR	N1, 3 N1, 3
	600 Series Elbow w/ Test Point Housing only (w/ Stud)	15/25kV 35kV	K656BLR 756BLR	N1, 3 N1, 3
	600 Series Replacement Elbow Housing only w/o Test Point	15/25kV	K655BRLR	N14
	600 Series Replacement Elbow Housing only w/ Test Point	15/25kV	K656BRLR	N14
	600 Series Straight Receptacle (w/ Cable Adapter, Lug & Retaining Ring)	15/25kV	K655SR-WOX Use Tables W7 and X6	N1, 2, 11
	600 Series Direct Test Straight Receptacle Elbow	15/25kV	K655DSR-WOX Use Tables W7 and X6	N1, 2, 11, 12
	600 Series Straight Receptacle Housing (Lug & Cable Adapter not included)	15/25kV	K655BSR	N1, 11
	Straight Receptacle Adapter	15/25kV	K650SRA	N1, 4
	600 Series Vault Stretcher (Housing only w/ Stud)	15/25kV 35kV	K655BVS 755BVS	N1, 9 N1, 9
	Cable Size Adapter	15/25kV 35kV	655CA-W Use Table W7 755CA-W Use Table W9	
	Compression Lug	All	03700X Use Table X6 03702X Use Table X6	N5 N6
	600 Series Elbow & Vault Stretcher Size Sensitive Kit (Cable Adapter & Lug)	15/25kV 35kV	655CK-WOX Use Tables W7 and X6 755CK-WOX Use Tables W9 and X6	N2 N2
	Adapter Retaining Ring	ALL	650ARR-X Use Table X6	
	600 Series Straight Receptacle Size Sensitive Kit (Cable Adapter, Retaining Ring & Lug)	15/25kV	655CK-WOX-ARR Use Tables W7 and X6	N2
	Bushing Extender (w/ Stud)	15/25kV 35kV	K655BE 755BE	N1, 3 N1, 3
	Insulated Cap w/ Test Point (w/ Stud)	15/25kV	K656DR	N3, 7
	Insulated Cap w/ Test Point (w/ Stud)	15/25kV	K656DRG	N3, 7

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Insulating Plug (w/Cap)	15/25kV 35kV	K650BIP 750BIP	N1, 7, 8 N1, 7, 8
	Grounding Plug (Ground Lead 2/0 AWG x 30")	15/25kV 35kV	650GP 750GP	N1, 7, 8 N1, 7, 8
	Insulated Parking Bushing	15/25kV 35kV	K650SOP 750SOP	N7, 8 N7, 8
	Connecting Plug	15/25kV 35kV	K651CP 750CP	N1, 7, 8, 10 N1, 7, 8, 10
	Deadbreak Reducing Tap Plug	15/25kV	K650RTP	N1, 7, 8, 9
	Reducing Tap Well	15/25kV	K650RTW	N1, 7, 8, 9
	Loadbreak Elbow Tap Plug	15kV 25kV 35kV	650ETP K650ETP 750ETP	N1, 7, 8, 10 N1, 7, 8, 10 N1, 7, 8, 10
	Vault Stretcher Threaded Stud	15/25kV 35kV	650VSA 750VSA	N1 N1
	600 Series Elbow Threaded Stud	15/25kV 35kV	650SA 750SA	N1 N1
	Assembly Tool (Window-OP)	All	600ATM	
	Spanner Wrench	All	600SW	N9
	Direct Voltage Test Meter Adapter for: <i>HD Electric Meters</i> <i>Ross Meters</i> <i>Chance Meters</i>	All	200TC-1 200TC-2 200TC-4	N12 N12 N12

- N1. For 900-amp ratings, substitute 675 for 650 and 655; 676 for 656; K671 for K651; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the catalog number. The 900-amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. Add suffix symbol from **page H-41** to include cable shield grounding kit and/or cable jacket sealing kit.
- N3. Available without the stud by adding "N" to the catalog number.
- N4. Straight Receptacle Adapter is used to connect Straight Receptacles K655BSR and K655YSR-WOX (**page H-24**) to equipment bushings.
- N5. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N6. Copper lug for use on COPPER CONDUCTOR ONLY. Do not substitute threaded 03602X lug.
- N7. Available with the stud factory-assembled by adding "SP" to the catalog number. 675ETP, K675ETP and 775ETP are available as -SP only. The stud is not field removable.
- N8. Available with a loose stud by adding suffix "S" to the catalog number.
- N9. 600SW spanner wrench is recommended for installation of deadbreak reducing tap plugs and reducing tap wells.
- N10. Use 600ATM Assembly Tool.
- N11. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the catalog number.
- N12. Direct Test Connectors, along with a 200TC-X series meter adapter, a properly rated voltage meter and Hot-line Stick; provides a means for direct conductor voltage testing.
- N13. With stainless steel bracket.
- N14. Replacement Elbow includes an I-Adapter, and Straight Receptacle, resulting in a net gain of 20".

Refer to the **W** and **X** tables on **page H-45** for sizing to cable insulation diameter and conductor size. For cable shield adapters and jacket seals, see **page H-37**.

600-Amp Elbow Connectors

600 Series Deadbreak Components (continued)

600 Series deadbreak elbows, straight receptacles, junctions, vault stretchers and accessories are used to connect equipment and cable on primary feeder and network circuits. Designs accommodate large conductors and feature bolted connections and deadfront modular construction for maximum reliability, performance and versatility.

De-energized connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. Optional accessories allow visible external separation, bypass, isolation, dead-ending, grounding and testing as well as adding taps, surge arresters and circuit protection.

Hotstick operable and separable joint systems are shown on **pages H-14–H-17** and **H-23–H-24**.



Ratings Overview

See **page H-2** for complete information.

Current Ratings

(Prefixes: 650, K650, K651, K655, K656, 750, 755, 756 & 03700)

600 Amp Continuous
25kA sym., 10 cycles

(Prefixes 675, K675, K671, K676, 775, 776 & 03702)

900-amp Continuous
25kA sym., 10 cycles

Note: 900-amp ratings require copper cable and copper current-carrying components.

Voltage Ratings

15/25kV Class (5kV thru 28kV)

16.2kV Phase-to-Ground
28kV Phase-to-Phase
140kV BIL
45kV AC Withstand
84kV DC Withstand
21.5kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

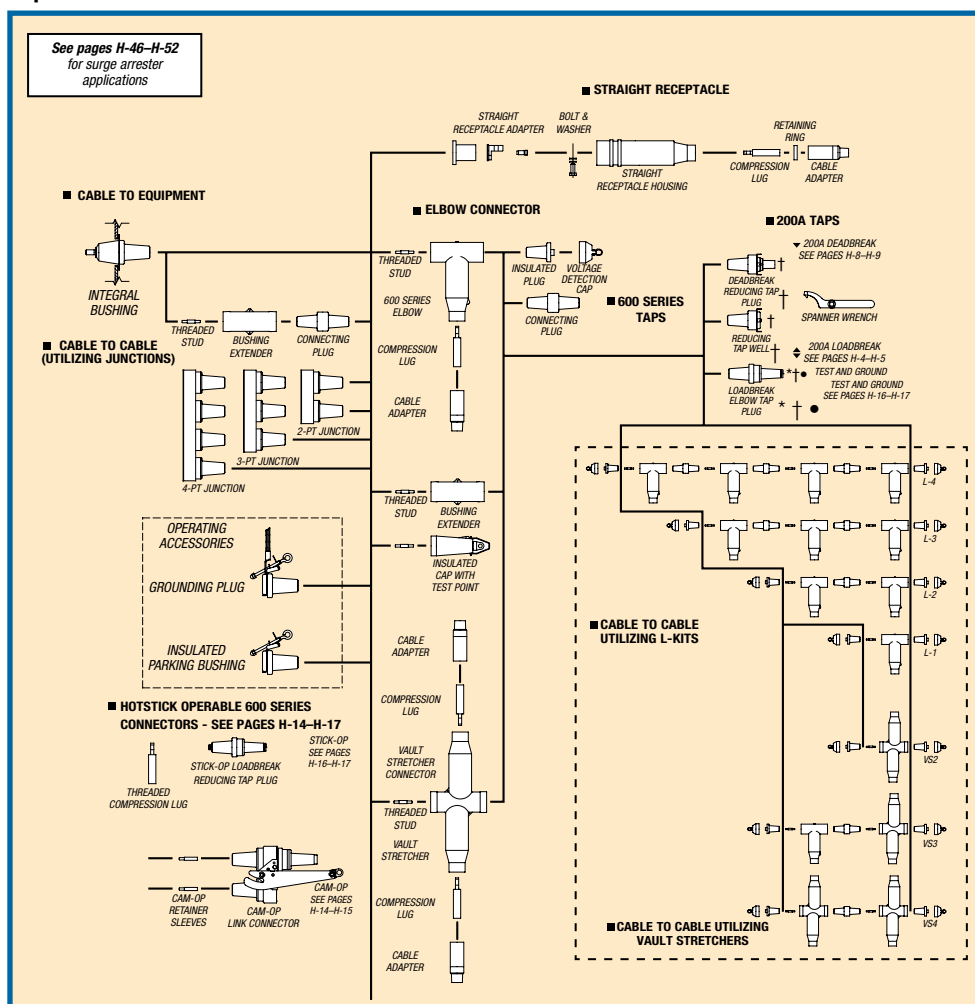
Note: Elastimold has increased the IEEE Standard Production and Design Test levels for 25kV Class products to include 27kV and 28kV systems.

* Tested @ 8.3/14.9kV

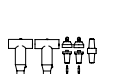
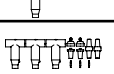
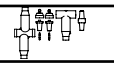
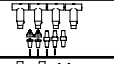
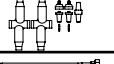
† Tested @ 15.2/26.3kV

• Tested @ 21.1/36.6kV

Separable Connectors 600 Series Deadbreak



600-Amp Elbow Connectors

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	2-Point Junction	15/25kV 35kV	K650J2 750J2	N1, 7, 8 N1, 7, 8
	3-Point Junction	15/25kV 35kV	K650J3 750J3	N1, 7, 8 N1, 7, 8
	4-Point Junction	15/25kV 35kV	K650J4 750J4	N1, 7, 8 N1, 7, 8
	1-Way L-Kit	15/25kV 35kV	K655L1 755L1	N1, 2, 3 N1, 2, 3
	2-Way L-Kit	15/25kV 35kV	K655L2 755L2	N1, 2, 3, 4, 5, 6 N1, 2, 3, 4, 5, 6
	2-Way VS-Kit	15/25kV 35kV	K655VSL2 755VSL2	N1, 2, 3 N1, 2, 3
	3-Way L-Kit	15/25kV 35kV	K655L3 755L3	N1, 2, 3, 4 N1, 2, 3, 4
	3-Way VS Kit	15/25kV 35kV	K655VSL3 755VSL3	N1, 2, 3, 5, 6 N1, 2, 3, 5, 6
	4-Way L-Kit	15/25kV 35kV	K655L4 755L4	N1, 2, 3, 4 N1, 2, 3, 4
	4-Way VS-Kit	15/25kV 35kV	K655VSL4 755VSL4	N1, 2, 3, 5, 6 N1, 2, 3, 5, 6
	Assembly Tool	ALL	600ATM	—

- N1. For 900-amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the catalog number. The 900-amp rating requires copper current-carrying connector components and copper conductor cable.
- N2. L-Kits and VS-Kits do not include cable adapters or compression lugs. These items must be ordered separately.
- N3. 600 Series Elbows and Straight Receptacles with IEEE Std. 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the catalog number.
- N4. 600ATM is recommended for installing K651CP and 750CP.
- N5. Can be used as a repair joint. (Gains 3½" of repair length.)
- N6. Can be used as a reducing joint for different size cables.
- N7. Rubber junction with stainless steel mounting plate and back plate. Add "-U" for rubber junction with stainless steel mounting plate, back plate and adjustable mounting bracket. Add "-4" for rubber junction only. Add "-5" for rubber junction, stainless steel U-straps and back plate.
- N8. Two - six-position multi-point junctions shown on **pages H-25—H-26**.

600-Amp Elbow Connectors

600 Series Cam-Op™ Deadbreak Connector System

Elastimold's 600 Series Cam-Op™ deadbreak connector system incorporates provisions for hotstick operation of de-energized primary feeder or network circuits. Configurations allow external visible break, testing, grounding and isolation. Retrofit kits allow upgrading existing equipment.

The Cam-Op system utilizes pin and socket connectors and can be retrofitted to existing equipment. The Cam-Op connector is easily installed or removed by hotstick operation of the cam action disconnect lever.



Ratings Overview

See page H-2 for complete information.

Current Ratings

600 & 900 Amp Continuous

25kA sym., 10 cycles

Note: 900-amp ratings require copper cable and copper current-carrying components.

Continuous Voltage Ratings

15kV Class

8.3kV Phase-to-Ground

14.4kV Phase-to-Phase

95kV BIL

34kV AC Withstand

53kV DC Withstand

11kV Corona Extinction

25kV Class

15.2kV Phase-to-Ground

26.3kV Phase-to-Phase

125kV BIL

40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground

36.6kV Phase-to-Phase

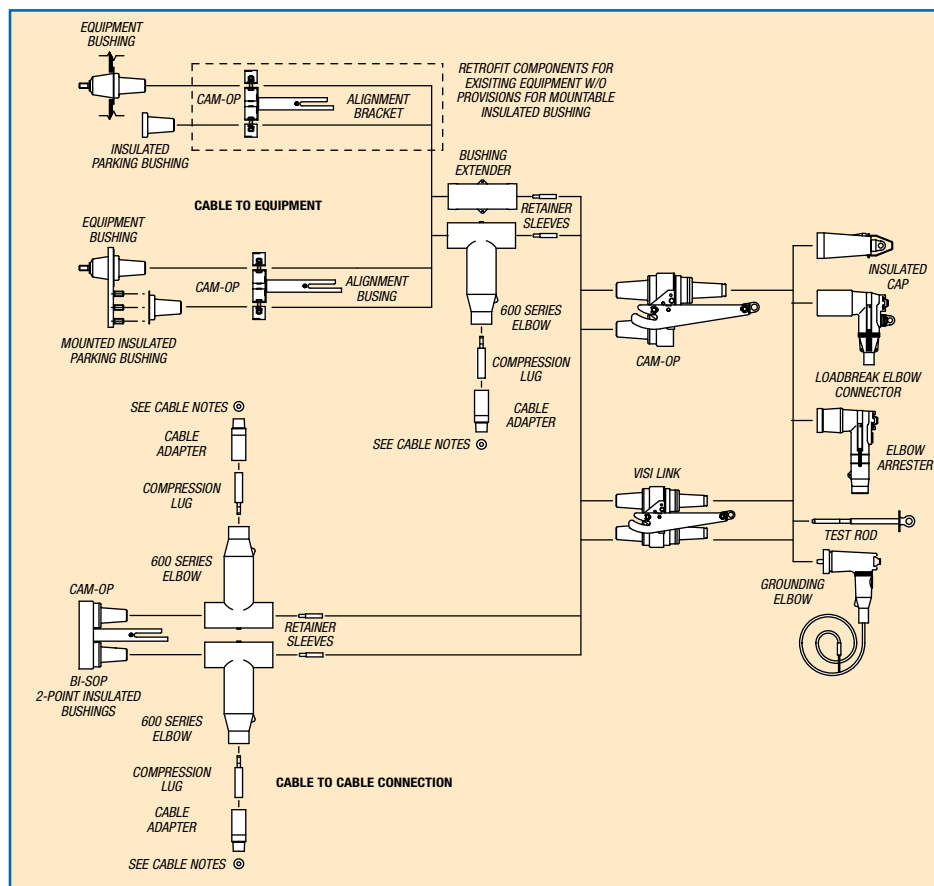
150kV BIL

50kV AC Withstand

103kV DC Withstand

26kV Corona Extinction

Cam-Op™ System — 600 Series Deadbreak



600-Amp Elbow Connectors

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Cam-Op Connector Kit	15kV	655LINK-C-LR-WOX-B-DRG Use Tables W7 and X6	N1, 2, 8, 10, 11, 12
		25kV	K655LINK-C-LR-WOX-B-DRG Use Tables W7 and X6	N1, 2, 8, 10, 11, 12
		35kV	755LINK-C-LR-WOX-B-DRG Use Tables W9 and X6	N1, 2, 8, 10, 11, 12
	Mountable Insulated Bushing	25kV	K650LBM-3	N2
		35kV	750LBM-3	N2
	Retrofit Cam-Op Connector Kit	15kV	655LINK-C-LR-WOX-A-DRG Use Tables W7 and X6	N4, 8, 10, 11, 12
		25kV	K655LINK-C-LR-WOX-A-DRG Use Tables W7 and X6	N4, 8, 10, 11, 12
		35kV	755LINK-C-LR-WOX-A-DRG Use Tables W9 and X6	N4, 8, 10, 11, 12
	Insulating Plug	25kV	K650LB	N3
		35kV	750LB	N3
	Cam-Op Alignment Bracket	15kV	650CAB	—
		25kV	K650CAB	
		35kV	750CAB	
	Compression Lug	All	03700X Use Table X6	N5
			03702X Use Table X6	N6
	Cam-Op Size Sensitive Kit (Cable Adapter & Lug)		655CK-WOX Use Tables W7 and X6	N10
			755CK-WOX Use Tables W9 and X6	N10
	Cam-Op Retaining Sleeve	All	650RSC	N8
	Cam-Op Cable Joint Kit	15kV	655BI-LINK-C-LR-WOX-DRG Use Tables W7 and X6	N7, 8, 10, 11, 12
		25kV	K655BI-LINK-C-LR-WOX-DRG Use Tables W7 and X6	N7, 8, 10, 11, 12
		35kV	755BI-LINK-C-LR-WOX-DRG Use Tables W9 and X6	N7, 8, 10, 11, 12
	Cam-Op Loadbreak Reducing Tap Plugs (Visi-Break)	15kV	650LK-C-VB	—
		25kV	K650LK-C-VB	
		35kV	750LK-C-VB	
	Cam-Op Link	15kV	650LK-C	—
		25kV	K650LK-C	
		35kV	750LK-C	
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV	160GLR	N 13
		25kV	370GLR	N 13
		35kV	370GLR	N 13
	Test Rod	All	370TR	—

- N1. Cam-Op connector kit includes: (1) Cam-Op link; (1) elbow housing; (1) cable adapter; (1) 0370 style lug; (1) bushing extender; (2) retainer sleeves; (1) insulated cap; (1) mountable insulated bushing and (1) alignment bracket.
- N2. Mountable insulated bushing included with Cam-Op connector kit. Requires three threaded studs on equipment faceplate for installation.
- N3. Use with the Retrofit Cam-Op connector kit.
- N4. Retrofit Cam-Op connector kit includes: (1) link; (1) elbow housing; (1) cable adapter; (1) 0370 style lug; (1) bushing extender; (2) retainer sleeves; (1) insulated cap; (1) insulating plug; and (1) alignment bracket.
- N5. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N6. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N7. Cam-Op Cable Joint Kit includes: (1) Cam-Op link; (1) Cam-Op BI-SOP; (2) elbow housings; (2) cable adapters; (2) 0370 style lugs; (2) retainer sleeves; (1) insulated cap.
- N8. 600ATM is recommended for installing Cam-Op retaining sleeves.
- N9. For 900-amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the catalog number. The 900-amp rating requires copper current-carrying connector components and copper conductor cable.
- N10. Add suffix symbol from **page H-38** to include cable shield grounding kit and/or cable jacket sealing kit.
- N11. To add elbows or arresters instead of insulating caps, replace the "DRG" with "LR-WX" for elbows (with test point) or "ESA" for elbow arresters.
- N12. 600 Series Elbows with IEEE 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the catalog number.
- N13. Rated for both 25kV and 35kV applications.

Refer to the **W** and **X** tables on **page H-45** for sizing to cable insulation diameter and conductor size. For cable shield adapters and jacket seals, see **page H-37**.

600-Amp Elbow Connectors

600 Series Test and Ground and Stick-Op™ — Deadbreak Connector Systems

Elastimold's 600 Series Test and Ground and Stick-Op™ deadbreak connector systems incorporate provisions for hotstick operation of de-energized primary feeder or network circuits.

The Test and Ground and Stick-Op connectors allow direct testing and grounding with no required cable movement.

Test and Ground is ideal for equipment applications which include viewing windows to provide an internal visible break that does not require hotstick removal of the elbows.

Stick-Op provides an external visible break by hotstick removal of the elbow.

Test and Ground and Stick-Op connectors are bolted and installed using torque-controlled tools.



Ratings Overview

See [page H-2](#) for complete information.

Current Ratings

600 & 900-amp Continuous

25kA sym., 10 cycles

Note: 900-amp ratings require copper cable and copper current-carrying components.

Continuous Voltage Ratings

15kV Class

8.3kV Phase-to-Ground

14.4kV Phase-to-Phase

95kV BIL

34kV AC Withstand

53kV DC Withstand

11kV Corona Extinction

25kV Class

15.2kV Phase-to-Ground

26.3kV Phase-to-Phase

125kV BIL

40kV AC Withstand

78kV DC Withstand

19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground

36.6kV Phase-to-Phase

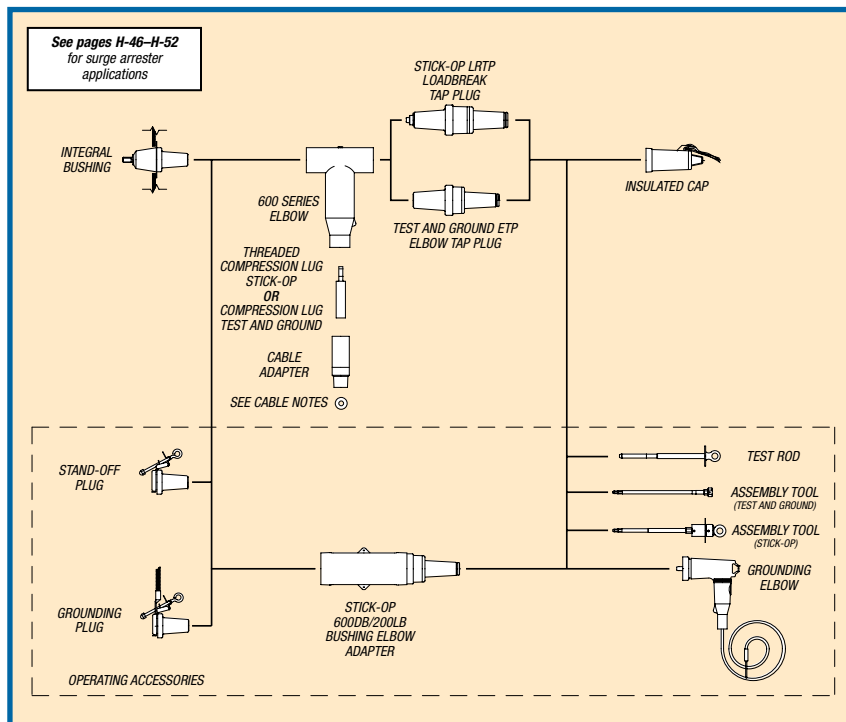
150kV BIL

50kV AC Withstand

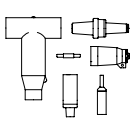
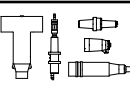
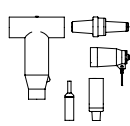
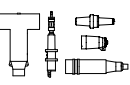
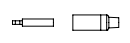
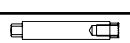
103kV DC Withstand

26kV Corona Extinction

Stick-Op™ & Test and Ground System — 600 Series Deadbreak



600-Amp Elbow Connectors

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Test and Ground Connector Kit	15kV	655ETP-WOX-DRG Use Tables W7 and X6	N1, 4, 5, 6, 11, 13
		25kV	K655ETP-WOX-DRG Use Tables W7 and X6	
		35kV	755ETP-WOX-DRG Use Tables W9 and X6	
	Test and Ground Replacement Connector Kit	15kV	655RETP	N4, 5, 6, 11, 13, 14
		25kV	K655RETP	
	Stick-Op Connector Kit	15kV	655LRTP-WOX-DRG Use Tables W7 and X6	N2, 3, 4, 5, 8, 11
		25kV	K655LRTP-WOX-DRG Use Tables W7 and X6	
		35kV	755LRTP-WOX-DRG Use Tables W9 and X6	
	Stick-Op Replacement Connector Kit	15kV	655RLRTP	N3, 4, 5, 8, 11, 14
		25kV	K655RLRTP	
	Test and Ground Loadbreak Elbow Tap Plug	15kV	650ETP	N4, 13
		25kV	K650ETP	
		35kV	750ETP	
	Stick-Op Loadbreak Reducing Tap Plug	15kV	650LRTPA3	N3, 4
		25kV	K650LRTPA2	
		35kV	750LRTPA2	
	Stick-Op Bushing Adapter	15kV	655BEA3	N3, 4
		25kV	K655BEA2	
		35kV	755BEA2	
	Compression Lug Test and Ground	All	03700X Use Tables X6	N6
		All	03702X Use Tables X6	N7
	Threaded Compression Lug Stick-Op	All	03600X Use Tables X6	N8, 15
		All	03602X Use Tables X6	N9
	Test and Ground Size Sensitive Kit (Cable Adapter & Lug)	15/25kV	655CK-WOX Use Tables W7 and X6	N5
		35kV	755CK-WOX Use Tables W9 and X6	N5
	Stick-Op Size Sensitive Kit (Cable Adapter & Threaded Lug)	15/25kV	655TCK-WOX Use Tables W7 and X6	N5
		35kV	755TCK-WOX Use Tables W9 and X6	N5
	Extraction Tool	All	650ET	N10
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV	160GLR	N12 N12
		25kV	370GLR	
		35kV	370GLR	
	Test Rod	All	370TR	—
	Assembly Tool (Stick-Op)	All	600AT	N3
	Assembly Tool (Test and Ground)	All	600ATM	N13

- N1. Test and Ground Kit includes: insulated cap; Test and Ground reducing tap plug; 600 Series elbow housing; cable adapter; and 0370 style compression lug.
- N2. Stick-Op Kit includes insulated cap; Stick-Op Loadbreak reducing tap plug; 600 Series Elbow Housing; cable adapter; and threaded 0360 style compression lug.
- N3. 600AT assembly tool required for operation and/or installation of Stick-Op.
- N4. For 900-amp ratings, substitute 675 for 650 and 655; 676 for 656; K675 for K650 and K655; K676 for K656; 775 for 750 and 755; 776 for 756 and 2X for 0X in the catalog number. The 900-amp rating requires copper current-carrying connector components and copper conductor cable.
- N5. Add suffix symbol from **page H-38** to include cable shield grounding kit and/or cable jacket sealing kit.
- N6. Aluminum lug for use on aluminum or copper conductors. DO NOT substitute threaded 03600X lug.
- N7. Copper lug for use on COPPER CONDUCTOR ONLY. DO NOT substitute 03602X threaded lug.
- N8. Threaded aluminum lug (Stick-Op only) for use on copper or aluminum conductors. DO NOT substitute unthreaded 03700X lugs. DO NOT use with 675, 676, K675, K676, 775 or 776 catalog numbers.
- N9. Threaded copper lug (Stick-Op only) for use on copper conductors only. DO NOT substitute unthreaded 03702X lugs.
- N10. Required to disassemble Stick-Op loadbreak reducing tap plug from the threaded compression lug and 600 Series elbow after the shear-pin is broken during assembly.
- N11. 600 Series Elbows with IEEE 386 capacitive test points are available by substituting 656 for 655; K656 for K655; K676 for K675; 756 for 755; 676 for 675; K676 for K675 and 776 for 775 in the catalog number.
- N12. Rated for both 25kV and 35kV applications.
- N13. 600ATM assembly tool required for Test and Ground assembly. 50–60 ft./lbs. torque wrench required but not included.
- N14. Replacement Elbow includes: insulated cap; reducing tap plug; 600 series elbow housing; I-Adapter; straight receptacle, resulting in a net gain of 20" in length vs. a standard elbow kit. Compression lugs and cable adapters are ordered separately.
- N15. Retrofit sleeve to convert 03600X Series lug to a 03700X Series lug (catalog number 650-353).

Refer to the **W** and **X** tables on **page H-45** for sizing to cable insulation diameter and conductor size. For cable shield adapters and jacket seals, see **page H-37**.