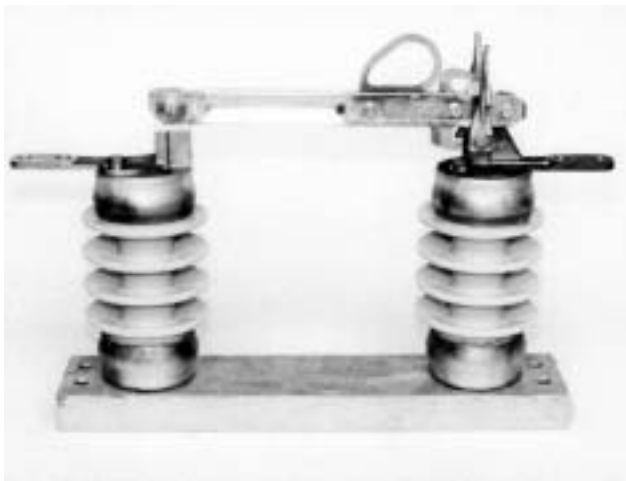


OUTDOOR HOOKSTICK OPERATED DISCONNECT SWITCHES

*7.5 kV through 169 kV
600 to 6000 Ampere*



TYPE DHS

TYPE STV



MEMCO Design Hookstick Switches

GENERAL DESIGN FEATURES

Type STV & STU

The STV or STU type of outdoor disconnect is available in voltage ratings from 8.25 to 169 kV and in continuous current ratings from 600 to 3000 ampere. The STV and STU switches are identical in design except that one is arranged for vertical mounting and the other for underhung mounting.

APPLICATION: As a single pole disconnect it can be readily used in substations or on transmission and distribution lines.

FEATURES

• Jaw Contact

High-pressure, self-wiping line type contacts are provided on all switches. The contact pressure is maintained by heavy phosphor bronze spring washers, or stainless steel coil springs, properly positioned on each side of the contact surfaces.

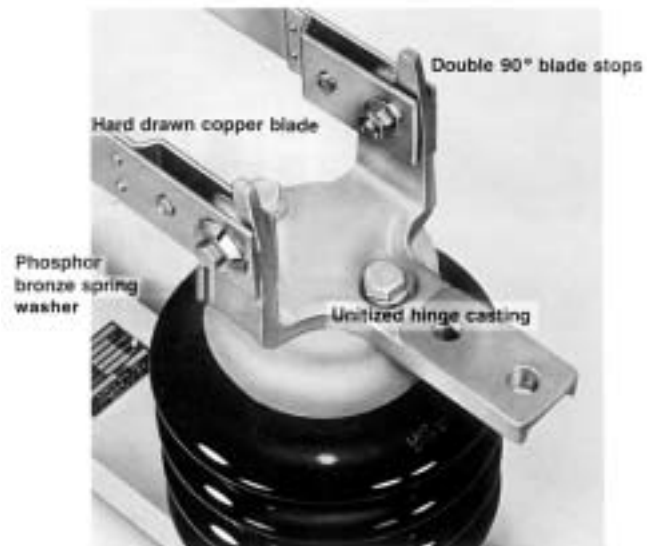
Typical jaw assembly 8.25-72.5 kV, 600 ampere



• Hinge Contact

High-pressure, self-wiping ring shaped hinge contacts are standard on all switches. Heavy phosphor bronze spring washers assure uniform contact loading.

Typical hinge assembly 8.25-72.5 kV, 600 ampere



• Unitized Jaw & Hinge Construction

Single unit castings are used for both hinge and jaw terminals thereby reducing the number of transfer points and providing a better distribution of current.

• Contact Surfaces

Standard contact surfaces are determined by switch rating and contact construction and are shown in the following table. Other combinations of silver and copper may be specified on the hinge and/or jaw as a special option.

Switch Rating	Hinge Contact (non make-break)	Jaw Contact (make-break)
8.25 - 72.5 kV: 600 Ampere 1200 Ampere 2000,3000 Ampere	copper to copper copper to copper silver to copper	copper to copper silver to copper silver to copper
121 - 169 kV: All ratings	silver to copper	silver to copper

MEMCO Design Hookstick Switches

• Blade Construction

All switches are furnished with blades of hard drawn high conductivity round edge copper bar. Switches through 2000 ampere are provided with wide truss type blades. Copper cross braces providing extra strength and rigidity are utilized on the larger switches.

• Large Opening Eye

A large opening eye of heavy bronze construction assures ease of operation.

• Positive Blade Latch

Positive side-operating, phosphor bronze spring-type blade latches prevent the switch from opening as a result of fault current or through vibration.

• Pry-Out Leverage

The action of the opening eye with its increased leverage spreads the blade latches and imparts an easy initiating motion to open the switch.

• Rigid Blade Guides

Rigid cast bronze blade guides are provided to assure positive closing of blade on each operation, regardless of position of hookstick.

• Terminals

Terminal pads are provided with NEMA standard 9/16" holes on 13/4" centers.

• Blade Stop

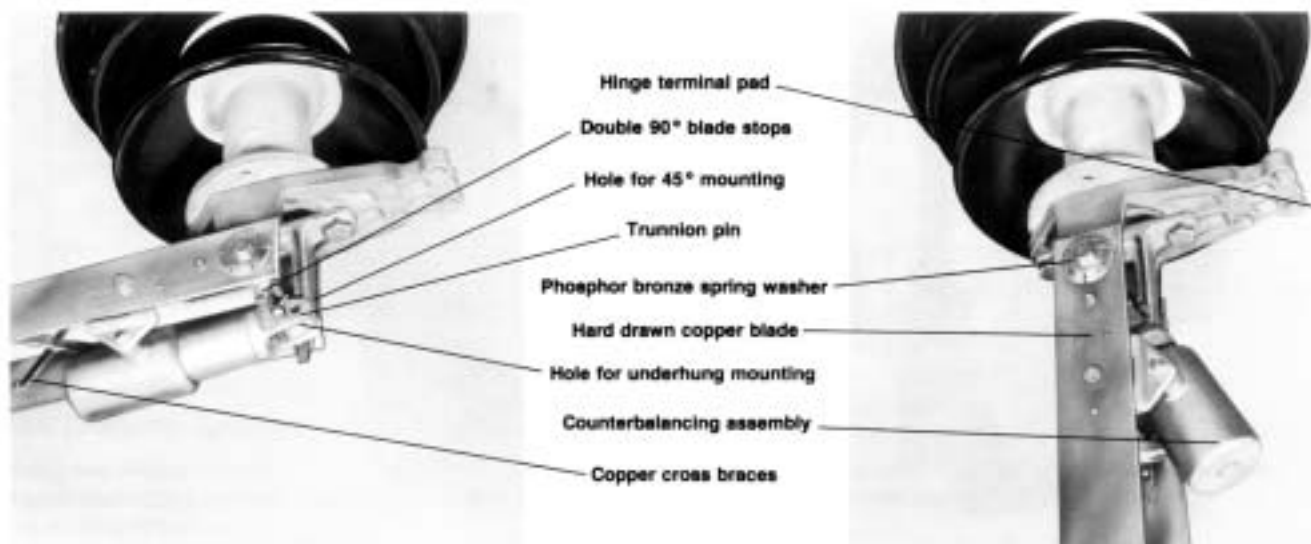
Double 90° open blade stops are standard. Other opening stops can be provided when specified.

• Counterbalancing

Switches rated 72.5 kV, (5" B.C.) and above are normally furnished with a compression spring counterbalancing assembly which offsets the weight of the blade when opening or closing the switch. This unique feature makes it practical to use this switch through 169 kV.

Hinge assembly arrangement of a closed, underhung mounted, switch complete with counterbalancing.

Hinge assembly showing underhung mounted, counterbalanced switch when in open position.



MEMCO Design Hookstick Switches

- **Bases**

Rigid galvanized structural steel channel bases are furnished on all switches. Switches through 72.5 kV, (3" B.C.) are normally furnished on flat channel bases. Welded, built-up double channel bases are furnished at the higher voltage ratings. Aluminum bases are available when specified.

- **Factory Assembled & Adjusted**

Switches 48.3 kV and below are pre-assembled and adjusted at the factory. Switches 72.5 kV and above are assembled and adjusted, less insulators. Only minor adjustments, if any, are required at installation.

- **Angular Mounted Switches**

A single pole angular mounted disconnect is available at 600, 1200, and 2000 ampere from 8.25 kV through 38.0 kV. It is designated as a type STA and utilizes the same parts that are common on the STV and STU switch.

Type STA



- **Standard Specifications**

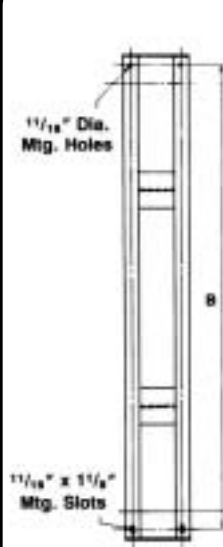
The type STV and STU disconnect switches meet or exceed all of the requirements of NEMA, IEEE and ANSI specifications. They are designed to give years of trouble-free service under the most adverse atmospheric and climatic conditions.

- **Tandem Transfer and Regulator Bypass Switches**

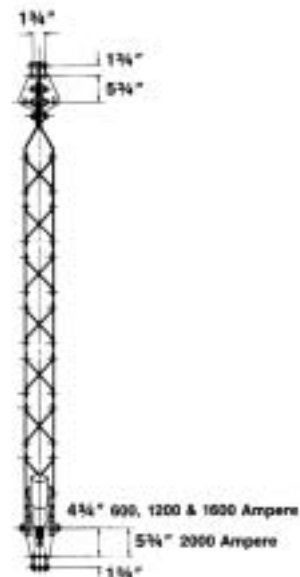
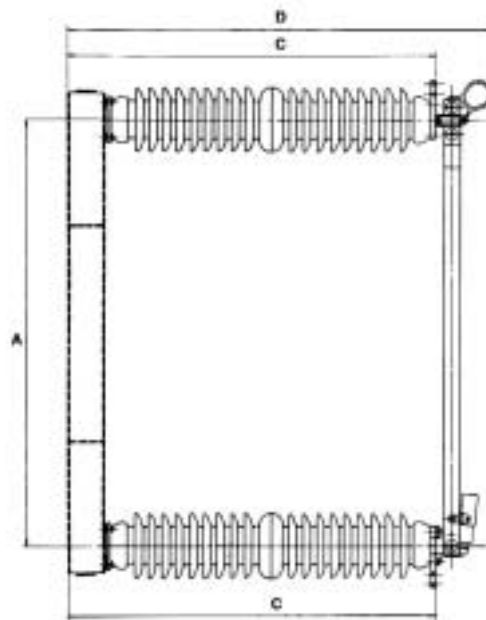
These switches can be arranged for either underhung or vertical mounting and employ the same design concepts as the STV and STU disconnects.

Type TTV and TTU
Tandem Transfer Switch





STANDARD BASE



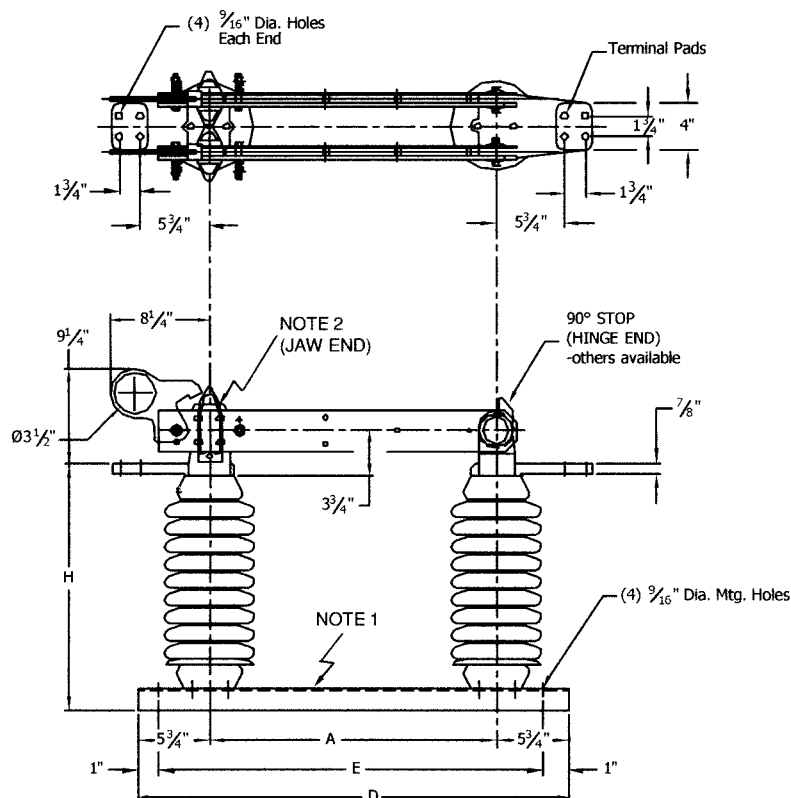
72.5 kV - 161 kV 600, 1200, 1600 & 2000 AMPERE

Insul. Type	RATINGS				Insul. Tech. Ref. No.	CATALOG NUMBER		Approx. Net Weight	APPROXIMATE DIMENSIONS IN INCHES (Refer to Factory for Certified Prints)			
	Voltage Rating kV		Current Rating AMPS			Vertical Mounted	Underhung or 45° Mounted †		A	B	C	D
	Max.	BIL	Cont.	Momentary								
STATION POST	72.5	350	600	40,000	278	69STV-6P5	69STU-6P5	490	45	51	38	44 1/8
			1200	61,000		69STV-12P5	69STU-12P5	500			38	45 7/8
			1600	70,000		69STV-16P5	69STU-16P5	515			38	45 7/8
			2000	80,000		69STV-20P5	69STU-20P5	535			38 1/8	46 1/8
	121	550	600	40,000	286	115STV-6P5	115STU-6P5	575	60	66	53	59 3/8
			1200	61,000		115STV-12P5	115STU-12P5	595			53	60 7/8
			1600	70,000		115STV-16P5	115STU-16P5	615			53	60 7/8
			2000	80,000		115STV-20P5	115STU-20P5	635			53 1/8	61 3/8
	145	650	600	40,000	288	138STV-6P5	138STU-6P5	660	72	78	62	68 3/8
			1200	61,000		138STV-12P5	138STU-12P5	680			62	69 1/8
			1600	70,000		138STV-16P5	138STU-16P5	695			62	69 7/8
			2000	80,000		138STV-20P5	138STU-20P5	725			62 1/8	70 3/8
	169	750	600	40,000	291	161STV-6P5	161STU-6P5	735	84	90	70	76 3/8
1200			61,000	161STV-12P5		161STU-12P5	755	70			77 1/8	
1600			70,000	161STV-16P5		161STU-16P5	775	70			77 1/8	
2000			80,000	161STV-20P5		161STU-20P5	815	70 1/8			78 3/8	

† Specify if switch is to be arranged for underhung or 45° mounting. Switch can be easily converted to either position in the field.

When Ordering Specify:

1. Rating and catalog number.
2. If other than NEMA standard station post insulators are required refer to factory.
3. Base drilling if different from that shown.
4. If terminal connectors are to be provided with switch, specify size and type of conductor.
5. If underhung or 45° mounted, specify which. Switch can be readily converted in field.



NOTES

1 ---- Standard base shown, others available.

2 ---- For jaw and hinge contact information, see amperage table.

Voltage Rating kV		CATALOG NUMBER (1) (2) (3)	Insul. Tech. Ref. No.	Approximate Dimensions (Refer to Factory for Certified Prints)						
Max.	BIL			A	D	E	F	H	S	Y
8.2	95	7STV-30P3	202	12"	20"	18"	4"	10 1/8"	2"	4"
15.5	110	15STV-30P3	205	15"	23"	21"	4"	12 3/4"	2"	4"
25.8	150	23STV-30P3	208	18"	26"	24"	4"	16 3/4"	2"	4"
38	200	34STV-30P3	210	24"	32"	30"	4"	20 3/4"	3"	6"

(1) Catalog numbers shown are with station post insulators. If cap and pin insulators are required, change the P to C in the catalog number (eg.: 7STV-30C3).

(2) Catalog numbers are for vertical mounted switches. If underhung mounting is required, change the V to U in the catalog number (eg.: 7STU-30C3).

(3) Catalog numbers are for 30° rise ANSI-C37.37 ACCC designation A01.

Ampere Rating	Momentary Rating	Contacts	
		Hinge	Jaw
3000A	120 KA	Slvr-Cu	Slvr-Cu

For higher voltages and higher Amp. ratings contact Morpac for further details.

Type STV & STU 8.2 kV - 38 kV 3000 Ampere