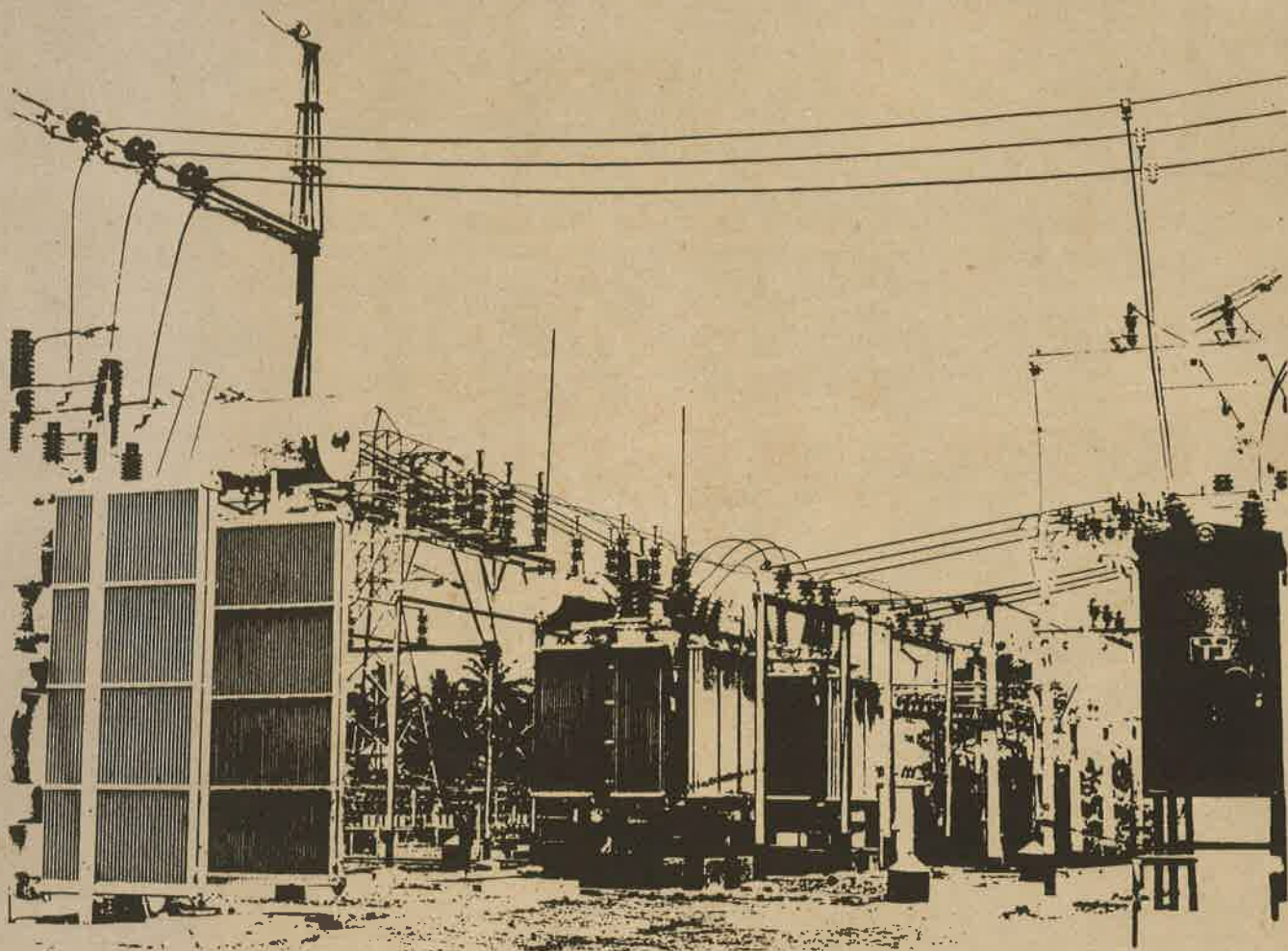


# VACUUM SWITCHGEAR



from  
**S&S**

# TYPE FV

## VACUUM SWITCHGEAR

### Low-Maintenance Costs

The principle of current interruption in a high vacuum ensures long contact life without inspection or replacement.

### Long Life and Reliability of Performance

The Vacuum interrupters are capable of many load and fault operations and the operating mechanism has been designed to ensure a life comparable with the life of the interrupters with the minimum of maintenance.

### Minimum Fire Risk

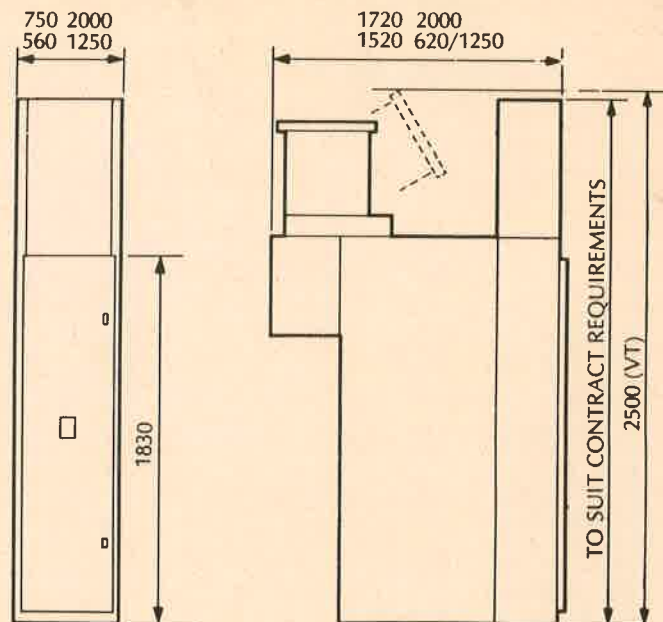
The absence of oil and inflammable gases ensures minimum fire risk.

### Application

The type FV equipment is suitable for systems up to 13.8kV for all duties; i.e. distribution switchgear, arc furnace control, capacitor switching and motor starting. It is also suitable for high speed fault clearance and auto-reclose duties.

### Bottom Busbars

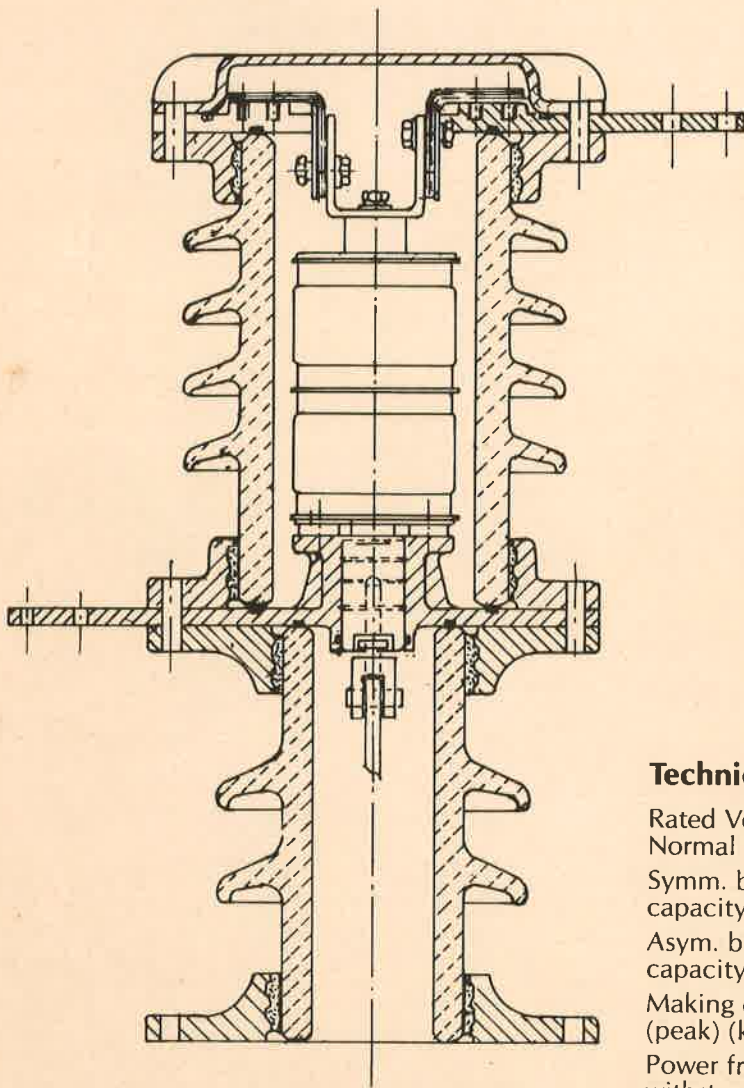
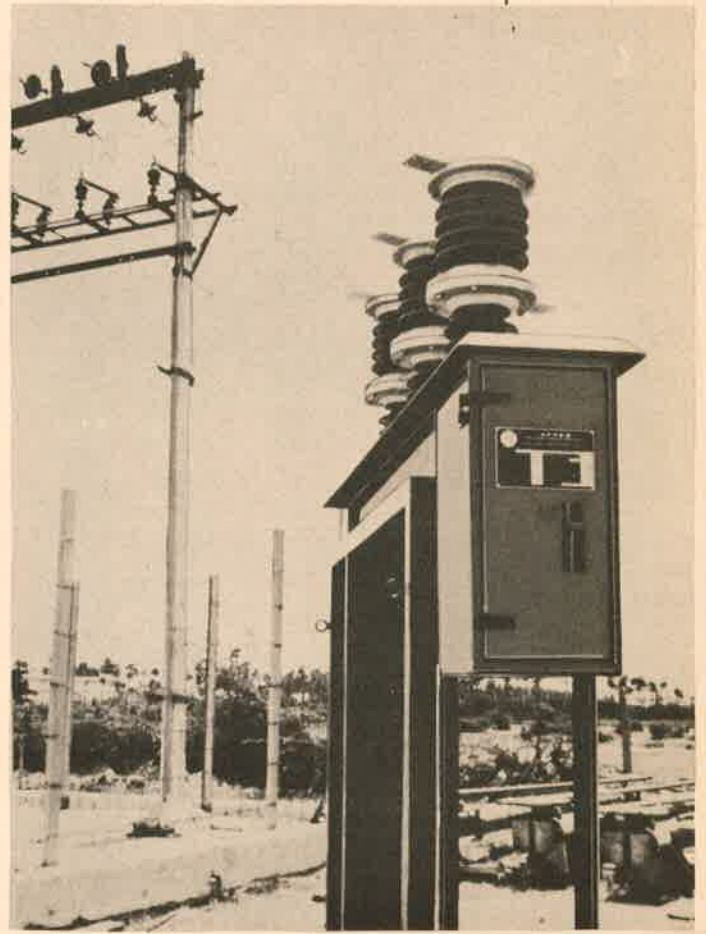
Each unit is equipped with a 3-phase set of busbars located in the lower chamber of the unit and supported on cast resin insulators.



### Technical Data :

Type	FV6/12	FV12/12	FV12/25	FV20/31.5	FV20/40
Rated Voltage, kV	12	12	12	12	12
Rated continuous current (amps)	400/630	1250	1250	2000	2000
Short-circuit rating					
Symm. breaking capacity (kA)	12.5	12.5	26.3	31.5	40
Asym. breaking capacity (kA)	15.3	15.3	33	39	50
Making capacity (peak) (kAp)	31.3	31.3	67	79	100
Power frequency withstand (kV)	28	28	28	28	28
Impulse withstand (kVp)	75	75	75	75	75

# TYPE OFV<sub>p</sub> VACUUM SWITCHGEAR



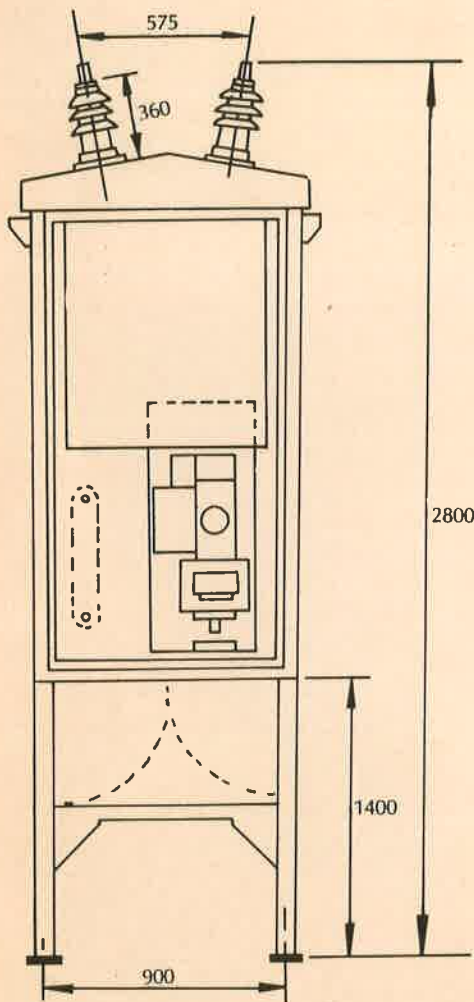
**Pole Unit Construction  
(Closed Condition)**

## Technical Data:

Rated Voltage	12kV		
Normal Current Rating	630A, 800A, 1250A, 1600A, 2000A, 2500A		
Symm. breaking capacity (kA)	12.5	20	25
Asym. breaking capacity (kA)	16.6	26.8	33
Making capacity (peak) (kAp)	31.3	50	62.5
Power frequency withstand (kV)	28	28	28
Impulse withstand (1.2/50 $\mu$ s) (kVp)	75	75	75



# TYPE OFV VACUUM SWITCHGEAR



## Technical Data :

Rated system voltage, kV	12		
Rated continuous current (amps)	630/800/1250/1600		
Short-circuit rating symm. breaking capacity (kA)	12.5	20	25
Asym. breaking capacity (kA)	16.6	26.8	33
Making capacity (peak) (kA)	31.3	50	62.5
Power frequency withstand (kV)	28	28	28
Impulse withstand (1.2/50 $\mu$ s) (kVp)	75	75	75

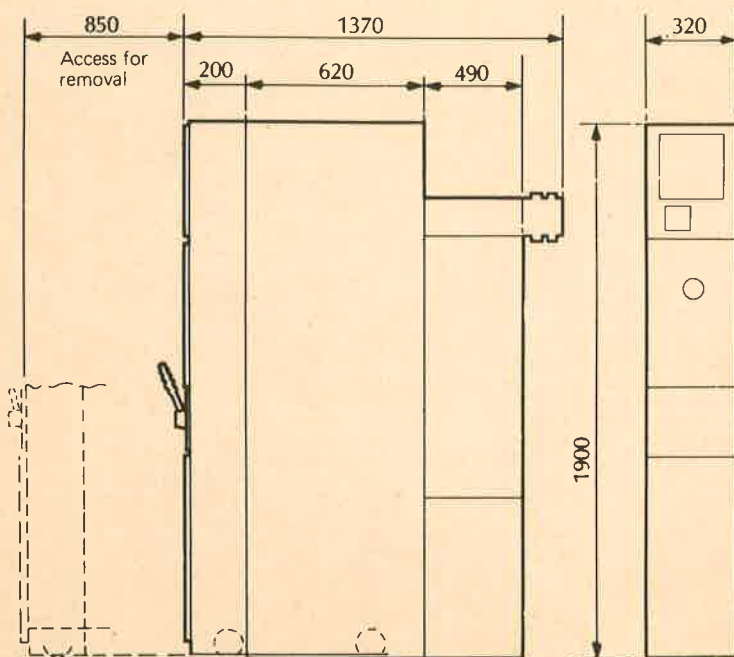
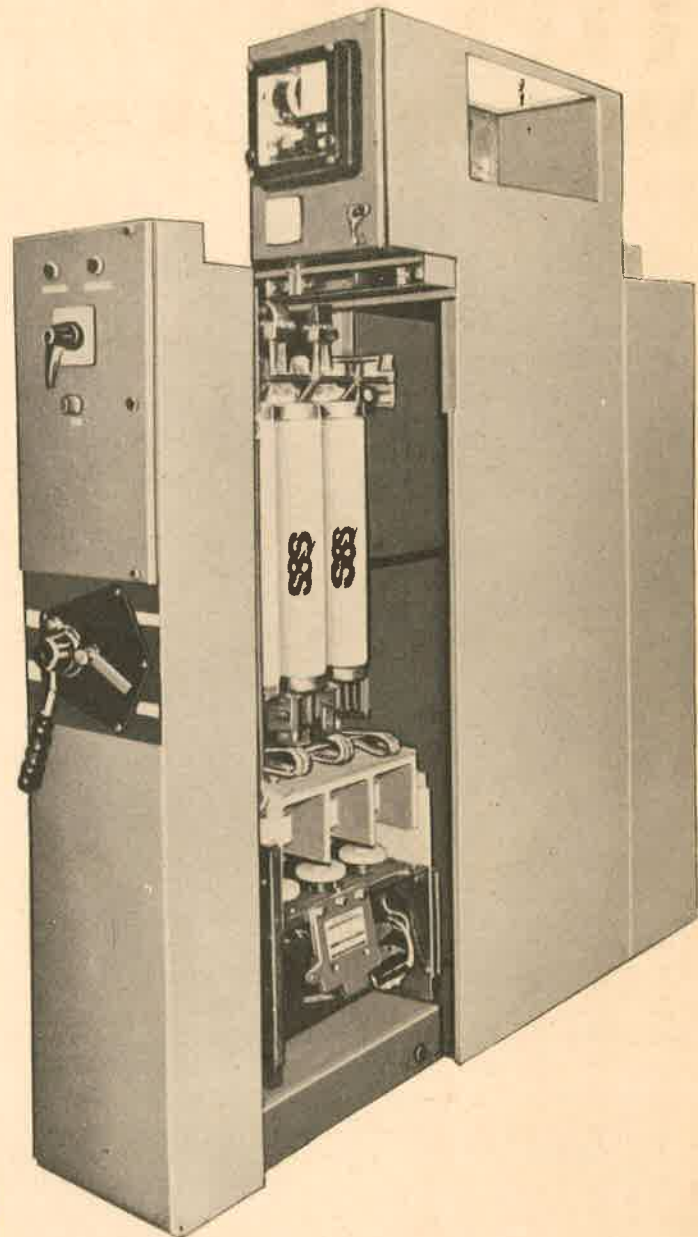
# HAWKVAC 6 VACUUM SWITCHGEAR

The S & S range of HAWKVAC 6 vacuum contactor equipment is suitable for use on systems upto and including 6.6 kV with short circuit fault levels up to and including 40kA.

Basic philosophy is a fixed housing accommodating busbars, protection relays, earth switch, C.T's and cable area and a removable carriage accommodating HRC fuses, vacuum contactor, and control equipment.

Units can be supplied as single free standing starters or individual units can be connected together to form complete control boards.

The unit has been designed for direct-on-line starting of squirrel cage induction motors but other units will become available for assisted start requirements.



## Technical Data:

Rated Voltage	3.6kV	7.2kV
Normal Current Rating	250A	
Busbar current	continuous 800A, 1250A, 1600A, 2000A, 2500A	
Busbar short time rating	upto 40kA for 3secs	
Busbar peak withstand current	100kA	100kA
Impulse level	40kV	40kV
Power frequency withstand	for one minute	
	10kV	20kV
Motor switching	1150kW	2150kW
Transformer switching	1400kVA	2750kVA
Capacitor switching	1400kVAR	2750kVAR
Maximum fuse rating	350A	315A
Contactors	400A	400A
Maximum interrupting capacity	5.0kA	5.0kA
Contactors power consumption	80Watts	80Watts