

## A Better Solution for Sectionalizing Urban Underground Distribution Networks

Adding switching points to underground distribution networks is an important step for improving customer reliability and reducing system maintenance and repair costs. But for urban underground distribution networks, it's tough to find products that meet the requirements of what can be a very challenging application.

Switchgear in urban areas is frequently installed subsurface or in street or sidewalk vaults, so a compact size is generally required along with an ability to withstand routine flooding. Available fault-current levels also may be very high and exceed the capabilities of most compact and submersible switchgear. Few switchgear products offer all the capabilities needed to perform reliably under such difficult conditions.

S&C's Vista® Underground Distribution Switchgear offers a superior solution for adding switching points to urban distribution networks. New 15-kV Vista Switchgear models incorporate loadbreak switches with a momentary rating of 40 kA symmetrical, giving you a new option for switching underground distribution networks with high available fault currents. Vista Switchgear provides all the features needed for vault and subsurface switching applications, including a fully submersible design that offers reliable performance even in vaults prone to flooding.

### Rugged Design Offers Superior Performance

Vista Switchgear is gas-insulated, eliminating the maintenance and safety concerns associated with oil-insulated switchgear. And unlike lower-rated switchgear, it eliminates the need to incorporate current-limiting devices, which are difficult to coordinate and increase operating complexity.

These Vista Switchgear models feature loadbreak switches encased in a welded steel tank that is filled and sealed at the factory and requires no other gas handling over the life of the device. Vista Switchgear provides a compact solution for incorporating 40-kA loadbreak switches into vaults, even in densely populated urban areas. Vista Switchgear can be floor-mounted or wall-mounted in a vault application, offering further options for installing the switchgear when available space is limited.



**Figure 1.** New 15-kV Vista Switchgear models incorporate loadbreak switches with a momentary rating of 40 kA symmetrical.



### Simplified Operating Procedures

Vista loadbreak switches are three-pole, group-operated devices that provide three positions (closed-open-ground) and offer a clearly visible gap when the switch is open. Large windows in the tank provide a clear view of the open gap, ground position, and ground bus, providing a higher level of safety for operating personnel and simplifying operating procedures for obtaining a visible gap and ground.

Just one person is needed to operate Vista Switchgear, and there's no exposure to medium voltage. An operation selector prevents inadvertent operation from the "closed" position directly to the "grounded" position, and vice versa. Vista Switchgear also is available with motor operators and a handheld control, allowing operation of the loadbreak switches while operating personnel are outside the vault.

An optional voltage indicator further simplifies routine operating procedures by providing an easier method to test for voltage. The voltage indicator also can be furnished with a low-voltage phasing option, which allows confirmation of proper phasing without ever accessing the cables.

Vista Underground Distribution Switchgear additionally allows performance of fault-locating and hi-potting tests with the cables attached—and the bus energized.

Switches and fault interrupters can be directly opened and closed using the manual handle furnished. Opening and closing speed is not dependent upon the speed with which handle is moved. Operating shafts are padlockable in any position.

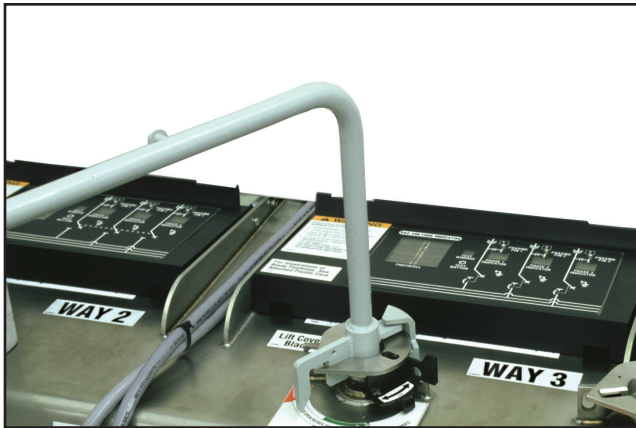


Figure 2. Opening the load interrupter switch.



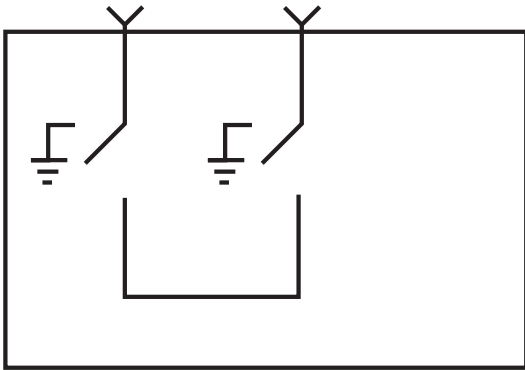
Figure 3. Measuring the phase-to-phase voltage—Phase 1 to Phase 1—using an optional potential indicator with a low-voltage phasing feature.)

### Proven Switchgear Design with Minimal Maintenance Requirements

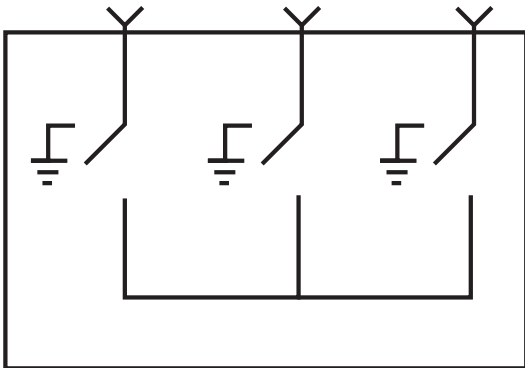
Vista Switchgear is installed in thousands of locations worldwide and has provided decades of reliable performance in real-world applications. Vista Switchgear requires minimal maintenance over its life, reducing operating costs and enhancing reliability. Contact S&C Electric Company today to learn how Vista Switchgear can help you improve reliability on your urban underground distribution network.

<b>System Voltage, Max</b>	<b>BIL</b>	<b>Continuous current and load interrupting</b>	<b>Peak withstand</b>	<b>Short-time rating</b>	<b>Fault Closing, Sym.</b>
15.5 kV	95 kV	600 A	104 kA peak	40 kA sym. 0.50 sec.	40 kA, 3 time

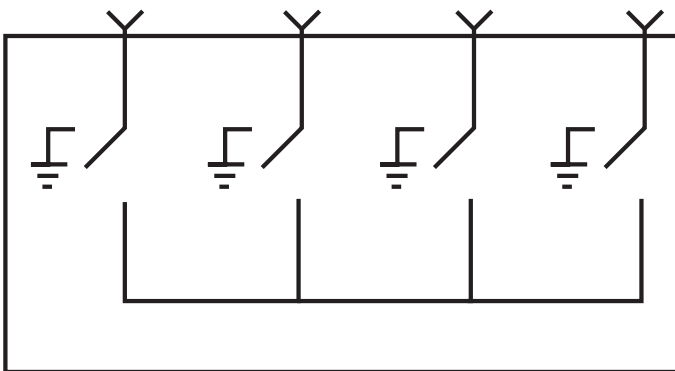
**Models**



**Model 220**



**Model 330**



**Model 440**

