



Southwire

**CABLETECH
SUPPORT™**

Services

APPLICATION NOTE

MachineFLEX™ Power Cable

INSTALLATION TIPS

Southwire MachineFLEX™ power cables ease the shaping of cables in switchgear, panel-boards, and other tight spaces allowing for easier and faster installations.

These installation tasks can be accomplished more quickly and easily due to the cable's conductor being constructed with many fine strands, thus making the cable more flexible. For example, a standard 500 kcmil Class B power cable has 37 strands, whereas a 500 kcmil MachineFLEX™ power cable has 1,221 strands.

These high-strand-count cables require different installation techniques and tools when terminating than standard cables.

CUTTERS

- The high-strand-count of MachineFLEX™ cables will tend to flatten or tear when cut with conventional cable cutters. Cutting tools designed for high-strand-count cable should be used.

STRIPPERS

- The strands on MachineFLEX™ cable are very fine and delicate, so choose a cable stripping tool that is adjustable and cuts precisely or the conductor can be easily damaged. Compression lugs or pin adapters should be installed on the cable immediately after the insulation is removed to prevent the fine strands from relaxing and expanding, making the installation more difficult.

There are a variety of high-strand-count cable stripping tools available, that are specifically designed to be used when stripping MachineFLEX™ Power Cable.

BENDING

- When installing flexible power cables, consider the cable bending radius. Even though MachineFLEX™ power cables are easy to bend, the minimum bend radius is the same as standard power cables. If cables are overbent, insulation damage can occur.

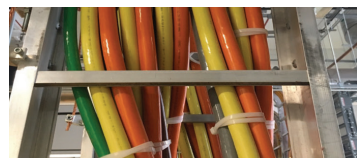
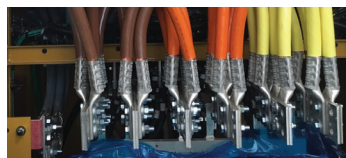
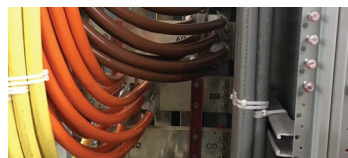
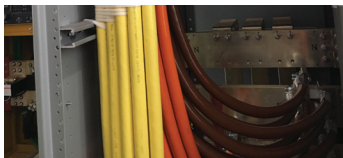
COMPRESSION LUGS & PIN ADAPTERS

- The compression lugs or pin adapters used for MachineFLEX™ Power Cables should be specifically designed for high-strand-count cables because the conductor diameter is slightly larger than standard cables (5 - 11%) and the fine strands can be easily damaged.

Some compression lugs and pin adapters have a flared ferrule for easier conductor entry into the barrel. When mechanical lugs cannot be changed to accept flexible strand cable, pin adapters can be used to interface between the cable and the mechanical lugs in the equipment. Compression lugs and pin adapters can reduce the cable bending space in equipment, so working clearances should be investigated.

Always consult the manufacturer's datasheet for the proper use and installation instructions.

For more information on MachineFLEX™ Power Cable and its applications, please visit southwire.com or contact factoryautomation@southwire.com.





Southwire

**CABLETECH
SUPPORT™**

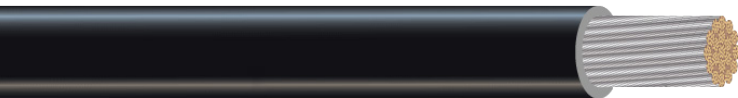
Services

APPLICATION NOTE

MachineFLEX™ Power Cable



Machine Flexible Power



Machine Flexible Power XLPE RW90

Cable Diameter

Less than 1 inch

1 inch to 2 inches

Bend Radius

4 x Cable Diameter

5 x Cable Diameter

Always use the proper tools for cutting, stripping, and crimping the lugs on MachineFLEX™ cable.

Also, when ordering electrical equipment with lug terminations, inform the equipment manufacturers that MachineFLEX™ cable will be used to ensure proper lug selection.



For information on tools and lug selection, please click the boxes below.

Tools and Adapters for High-Strand-Count Cables

Cutters	Wire Strippers	Lugs & Pin Adapters	Crimpers
Burndy		Burndy	Burndy
Milwaukee	Milwaukee	Greaves	Milwaukee
Dewalt	Dewalt	ILSCO	



Southwire®