INSTALLATION INSTRUCTIONS

Cutting & assembly guide
for wire & cable management
How to use this guide

Selecting a conduit system

Choose the Adaptaflex conduit system you are about to install. Turn to the appropriate section in this guide. On each page in the guide you will find an illustration of the conduit type and a typical fitting.

Tools required

Tools required to cut the conduit and assemble the fitting will be illustrated here.

The full range of tools are illustrated opposite. N.B., not all tools are applicable to all conduits.

Cutting the conduit

Illustrations show you how to cut the conduit cleanly and accurately.

Fitting assembly

How to assemble and securely fix the fitting to the conduit.

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Non-metallic systems

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Metallic systems

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011 ADAPTASTEEL - Type SB, STC, SSB & SSBGS Specialist EMI screen conduit & SB fittings
011 ADAPTASTEEL - Type SPB & SPTC specialist Liquid resistant, EMI Screen conduit and Type SPB fitting
011 ADAPTASTEEL - Type SPLHCB specialist liquid tight high strength conduit & Type SPLB fittings
Tools required

Standard hand & specialist tools

**Standard hand tools**

- Utility knife. **Note:** Do not use to cut conduit for use with Adaptalok & ATS fitting as IP integrity cannot be maintained.
- Tin snips.
- Junior hacksaw.
- Groove joint plier or adjustable spanner.
- Fine tooth hacksaw - minimum 32TPI. **Note:** When cutting braided conduit use insulating tape.

**Specialist tools**

Required to maintain IP integrity. Designed to speed up installation and available from Adaptaflex.

- **Kwickcut**
  Up to 32mm / 1” conduit.
- **Rotocut**
  20 & 25mm / 1/2 & 3/4” conduit.
- **Cut-vice**
  Between 10 - 32mm / 1/4 - 1” conduit.

- Adaptalok removal tool
  All sizes.
Non-metallic systems
Adaptalok & Adaptalok ATS™ with Type PA, PR, CP, PADL, PF & PP

Cutting the conduit

Use the Kwikcut cutting tool. **Note:** Do not use a utility knife to cut conduit for use with Adaptalok & ATS fitting as IP integrity cannot be maintained.

Or use a fine-tooth hacksaw. De-burr as necessary.

Adaptalok IP67, IP68 & IP69 seal

1) Angle seal approx. 30º and push one half to engage 2 ribs.
2) Push down on the ribs and feed the second half of the seal into the conduit.
3) Push conduit into Adaptalok as normal - see below.

NOTE:
This seal is to be used with Adaptalok AL fittings only to achieve advised IP ratings. Not to use with Adaptalok ATS fittings.

Tools required
- Kwikcut cutting tool, fine-tooth hacksaw
- Adaptalok removal tool to assist fitting removal

Fitting assembly

Offer up the fitting.

Push and twist to ensure a firm fit and seal.

Pull back the fitting to ensure fittings lugs have properly located in conduit groove.

Hints and tips

Ensure the cutting of the conduit is square and the cut remains in the ‘valley’ of the corrugation. Adaptalok & ATS fittings can also be removed by lifting the locking tabs with a small screwdriver and easing the fitting off the conduit, but we recommend you use the removal tool. Seal accessory is only required if you want to upgrade Adaptalok performance from IP66 to IP67/8/9.

Use the Kwikcut cutting tool or use a fine-tooth hacksaw. **Note:** Do not use a utility knife to cut conduit for use with Adaptalok & Adaptalok ATS fitting as IP integrity cannot be maintained.
Non-metallic systems
Adaptalok with Type PA & PR Jumbo

Cutting the conduit

Securely clamp the conduit and cut using a fine tooth hacksaw, in the valley of the corrugation.

Locate the flat sealing washer in the first conduit corrugation and proceed as below.

Fit the ‘O’ ring into the corresponding groove in the flange face.

Fitting assembly - Straight flange

The straight flange fitting is assembled in a similar manner.

Clamping ring ‘halves’ are aligned and clipped together.

The clamping ring can be removed with a screwdriver if required.

Tools required

- Fine-tooth hacksaw

Hints and tips

Ensure the cutting of the conduit is square and the cut remains in the ‘valley’ of the corrugation.

Remove any excess burr from the cut conduit.
Non-metallic systems
Adaptaseal & Adaptaring with Type PA, PR, CP, PF & PP

Cutting the conduit

Use the Kwikcut cutting tool.

Use a fine-tooth hacksaw. De-burr as necessary.

Tools required
- Kwikcut cutting tool, fine-tooth hacksaw

Fitting assembly - Adaptaseal

Apply the capnut over the end of the conduit.

Fit sealing ring over conduit, ensuring the ribs seat in valley of the conduit, chamfered end of ring towards capnut.

Offer fitting body up to sealing ring and fully tighten capnut by hand.

Hints and tips
Before the body of the fitting is positioned, there should be three rings of the conduit visible after the seal or ‘C-ring’ is fitted. Fitting of an anti-vibration washer (type AWB), between capnut and body, will prevent accidental disassembly and ensure integrity of assembled fitting.

Fitting assembly - Adaptaring

Apply capnut over end of the conduit.

Fit ‘C-ring’ onto the conduit, chamfered end towards the capnut.

Apply the fitting body up to the ‘C-ring’ and fully tighten by hand.
Non-metallic systems
Type KF, RF & XF

Cutting the conduit

Tools required
• Fine-tooth hacksaw
• Kwikcut cutting tool

Fitting assembly - Korifit 3 part fitting
(push on fitting assembly is as for Adaptalok fittings - see pages 4-5)

Hints and tips
When using push-on fittings with Korifit, use a push and twist action to ensure a good seal.

Fitting assembly - RF & XF fittings (13-32mm)

Apply capnut over conduit. Insert conduit into fitting between 'barbs' and inner shoulder. Fully tighten the capnut by hand.

Tools required

Fitting assembly - RF & XF fittings (13-32mm)

Apply the capnut over the end of the conduit.
Fit ‘C-ring’ onto the conduit, chamfered end towards the capnut, and in the fourth corrugation groove.
Apply the fitting body up to the ‘C-ring’ and fully tighten by hand.

Use the Kwikcut cutting tool.
Use a fine-tooth hacksaw. De-burr as necessary.
Metallic systems
Hi-spec with Type PKTC, PKSS, PRTC, PRSS, PFTC & PFSS

Cutting the conduit

Apply insulating tape at the cutting point - 2 revolutions recommended.

Securely clamp the conduit - preferably with a cut-vice. Cut through the centre line of the tape.

Fitting assembly

Apply the outer capnut over the braiding before removing tape.

Remove tape and pull back braided sheath. Apply inner capnut.

Apply sealing ring - chamfered edge towards capnut, 3 corrugations in from end of conduit.

Hints and tips

Use tin snips as required to trim the braiding after cutting with hacksaw.

Other types of tape such as parcel tape, masking tape etc, can be used to facilitate cutting.

Tools required

- Kine-tooth hacksaw
- Cut vice
- Tin snips
- Adjustable grips or spanners
- Insulating tape

Apply body over conduit.

Hand tighten body of fitting onto inner capnut.

Position braiding over steps of inner locknut and secure with outer capnut. (Ensure braid is trapped between capnuts).

Tighten components as shown to recommended torque values.
Metallic systems
Type S, SS, SP, SN & LFH-SP

Cutting the conduit

- Securely clamp the conduit - preferably with a cut-vice and use a fine tooth hacksaw, or
- Use a Rotocut. (Sizes 20 & 25mm). Position and clamp conduit at position of required cut.
- As handle is turned, gently squeeze onto conduit to cut through spiral, then remove and twist to separate.

Tools required
- Fine-tooth hacksaw and cut-vice
- Rotocut
- Adjustable grips or spanners
- Utility knife

Hints and tips

Fitting assembly - Types A, B, C & F fittings

- Fit ferrule over end of conduit.
- Screw fitting through ferrule into conduit.
- Tighten with grips.

If using Rotocut with covered conduit, use a utility knife to cut through the pvc sheath. A clean, square cut will ease subsequent fitting assembly.

Fitting assembly - Type M fitting

- Apply capnut then sealing ring - chamfered end towards capnut.
- Screw insert into end of conduit.
- Offer up body and tighten capnut.
- Install and position fittings into desired threaded entry, then fully tighten the fitting. System IP is achieved when blue seal is visible between
Metallic systems
Liquid tight fittings with liquid tight conduits

Cutting the conduit

- Fine-tooth hacksaw
- Cut-vice conduit vice
- Swingcut conduit cutter
- Adjustable grips or spanners

Tools required

Securely clamp the conduit - preferably with a cut-vice - and use a fine tooth hacksaw.

Fitting assembly - Type M fitting

Push capnut then seal over conduit, chamfered end towards capnut. Screw in end fitting.

Offer up body of fitting and hand tighten capnut.

Install and position fittings into desired threaded entry, then fully tighten the fitting. System IP is achieved when blue seal is visible between capnut & conduit.

Fitting assembly - Type B fitting

Apply capnut and sealing ring over conduit, ensuring chamfered edge of seal is towards fitting body.

Fully screw the fitting into the conduit.

Screw the capnut onto the fitting and tighten with grips or spanners as above.

Fitting assembly - F&B Type SAM fitting

Cut conduit to required length.

Screw whole fitting in a clockwise direction onto the conduit, until hand tight.

While holding the flats of the thread, rotate the back nut clockwise until the seal is just visible between conduit and compression nut.

Install into threaded hole or knockout to the recommended torque values.

Hints and tips

For M type fitting, ensure liquid tight seal is applied as shown, with tapered side towards capnut.

For fitting types A & B, seal is applied with chamfered side to fitting body.
Metallic systems
Overbraided with Type SB, STC, SBB, SSBGS, SPB, SPTC & SPLHCB

Cutting the conduit

- Apply insulating tape at the cutting point – 2 revolutions recommended.
- Securely clamp the conduit - preferably with a cut-vice. Cut through centre line of tape.

Fitting assembly - for conduit Type SB, STC, SPB, & SPTC

- Remove tape, pinch braiding against inner conduit and apply ferrule.
- Screw fitting body into conduit.
- Tighten with grips or spanners to the recommended torque values as per fittings datasheet.

Tools required
- Fine-tooth hacksaw
- Cut-vice
- Tin snips
- Adjustable grips or spanners
- Insulating tape

Hints and tips
Use tin snips as required to trim the braiding after cutting with hacksaw. Take care when pulling back the outer braiding.

Due to the specialist nature of this conduit we offer a cutting and assembly service. Please ask for details.

Fitting assembly - for conduit Type SPLHCB

- Before removing tape, place outer capnut onto conduit.
- Remove tape and pull back braiding to expose approx. 50mm (2in) of conduit.
- Apply inner nut to seat under braiding.
- Apply sealing ring with chamfer towards cut end of conduit.
- Screw body of fitting into conduit.
- Screw inner nut onto fitting.
- Screw outer nut onto inner nut ensuring braid is trapped securely and tighten with grips or spanners to the recommended torque values as per fittings datasheet.