



nVent JBS-100-E Single Entry Power Connection with Junction Box Instruction Manual

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nVent JBS-100-E Single Entry Power Connection with Junction Box



Product Information

- Product Name: JBS-100-E, JBS-100-EP, JBS-100-L-E, JBS-100-L-EP – Available Languages: English (EN), German (DE), French (FR), Dutch (NL), Norwegian (NO), Swedish (SV), Danish (DA), Finnish (FI), Italian (IT), Spanish (ES), Polish (PL), Russian (RU), Czech (CZ), Hungarian (HU), Croatian (HR)
- Product Types: BTV, QTVR, XTV(R), KTV, HTV
- Rated Voltage: JBS-100-E(P): 480 Vac, JBS-100-L-E(P): 277 Vac
- Maximum Pipe Temperature: Tmax intermittent, Tmax continuous, 1000 h cumulative Tmax power off
- Heater Types: BTV, QTVR, XTV, XTVR, KTV, HTV, VPL

Product Usage Instructions

1. Installation:

- Before installing the product, read the installation instructions completely.
- To prevent electrical shock, short circuit or arcing, the product must be installed correctly and water ingress must be avoided during the installation.
- The purchaser should inform the manufacturer about any external effects or aggressive substances that the equipment may be exposed to.

2. Safety Precautions:

- Prolonged or repeated contact with the sealant in the core sealer may cause skin irritation. Wash hands thoroughly.
- Overheating or burning the sealant will produce fumes that may cause polymer fume fever. Avoid contamination of cigarettes or tobacco. Refer to MSDS VEN 0033 for further information.

3. Specific Conditions for Use:

- For ATEX and IECEx approvals, specific conditions for use apply.
- For voltages >254Vac and BTV, QTVR, XTV(R), KTV or HTV heating cables, use a power cable with continuous temperature resistance of minimum.
- Use a metallic power cable gland approved for use in hazardous areas.
- The maximum operating current shall be reduced to maximum 20 A. Please refer to the complete user manual for detailed instructions and safety information.

Single entry power connection with junction box

	BS-100-E BS-100-EP BS-100-L-E BS-100-L-EP		
	TB 20 ATEX 1008 U AS 21UKEX0657U	Lighted version(1) II 2 G Ex eb IIC Gb II 2 D Ex tb IIIC Db	Lighted version(2) II 2 G Ex eb mb IIC Gb II 2 D Ex tb m b IIIC Db
	ECEX PTB 20.0014U	Ex eb IIC Gb Ex tb IIIC Db	Ex eb mb IIC Gb Ex tb mb IIIC Db
		JBS-100-E(P): TC RU C-BE.МЮ62.В.00054/18 Ex e IIC Gb U Ex tb IIIC Db U Ex e mb IIC Gb U Ex tb mb IIIC Db U Ta -55°C...+56°C IP66 ООО "ТехИмпорт"	
		JBS-100-L-E(P): TC RU C-BE.МЮ62.В.00054/18 Ex e IIC Gb U Ex tb IIIC Db U Ex e mb IIC Gb U Ex tb mb IIIC Db U Ta -55°C...+40°C IP66 ООО "ТехИмпорт"	
		Non lighted versions(1): Ex eb IIC Gb Ex tb IIIC Db	Lighted versions(2): Ex eb mb IIC Gb Ex tb mb IIIC Db
		Ex eb IIC T* Gb Ex eb mb IIC T* Gb	

		Non lighted versions(1): CL I ZN 1 AEx eb IIC T* Gb ZN 21 AEx tb IIIC T*°C Db Ex eb IIC T* Gb Ex tb IIIC T*°C Db	Lighted versions(2): CL I ZN 1 AEx eb mb IIC T* Gb ZN 21 AEx mb tb IIIC T*°C Db Ex eb mb IIC T* GbEx mb tb IIIC T*°C Db
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* For system Temperature Code, see heating cable or design documentation.

1. Non lighted versions:

2. Lighted versions:

Warning: To prevent electrical shock, short circuit or arcing, this product must be installed correctly and water ingress must be avoided before and during the installation.

Warning: The purchaser should make the manufacturer aware of any external effects or aggressive substances that the equipment may be exposed to.
Before installing this product, read the installation instructions completely.

Caution: Prolonged or repeated contact with the sealant in the core sealer may cause skin irritation. Wash hands thoroughly. Overheating or burning the sealant will produce fumes that may cause polymer fume fever. Avoid contamination of cigarettes or tobacco. Consult MSDS VEN 0033 for further information.

Rated voltage:	JBS-100-E(P): 480 Vac** JBS-100-L-E(P): 277 Vac
Ambient temperature	JBS-100-E(P): -55°C to +56°C** JBS-100-L-E(P): -40°C to +40°C up to 277 V for BTV, QTVR, XTV(R), KTV, HT V and VPL.

** Specific conditions for use apply for ATEX and IECEx.

Maximum pipe temperature:

Heater type	Tmax continuous	Tmax intermittent 1000 h cumulative	Tmax power off
BTV	65°C	85°C	–
QTVR	110°C	110°C	–
XTV	121°C	250°C	–
XTVR	150°C	250°C (2000 h)	–
KTV	150°C	250°C	–
HTV	205°C	260°C (2000 h)	–
VPL	See tables below	–	260°C

VPL: Maximum pipe temperature in dependence of heater type, voltage and current

Heater Type	230 Vac	254 Vac	277 Vac	20 A	25 A	30 A
5VPL2-CT	230°C	225°C	225°C	180°C – 235°C	150°C – 180°C	≤150°C
10VPL2-CT	210°C	200°C	195°C	180°C – 235°C	150°C – 180°C	≤150°C
15VPL2-CT	180°C	145°C	105°C	≤180°C	150°C – 180°C	≤150°C
20VPL2-CT	150°C	Not allowed		≤150°C	≤150°C	≤150°C
Heater Type	385 Vac	400 Vac	480 Vac	20 A	25 A	30 A
5VPL4-CT	230°C	230°C	230°C	180°C – 235°C	150°C – 180°C	≤150°C
10VPL4-CT	215°C	215°C	205°C	180°C – 235°C	150°C – 180°C	≤150°C
15VPL4-CT	195°C	195°C	160°C	≤180°C	150°C – 180°C	≤150°C
20VPL4-CT	150°C	150°C	150°C	≤150°C	≤150°C	≤150°C

Specific conditions for use using ATEX or IECEx approvals:

For ambient temperatures >+40°C:

Use a power cable with continuous temperature resistance of minimum +90°C

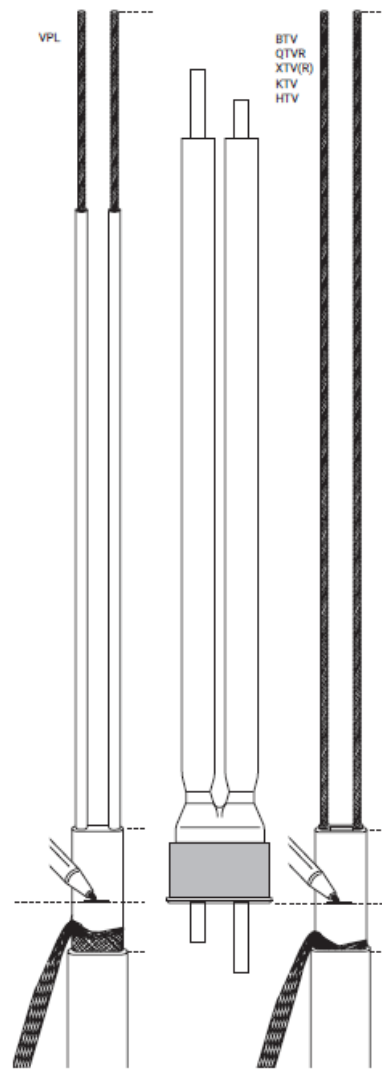
Use a metallic power cable gland approved for use in hazardous areas (for example GL-38-M25-METAL).

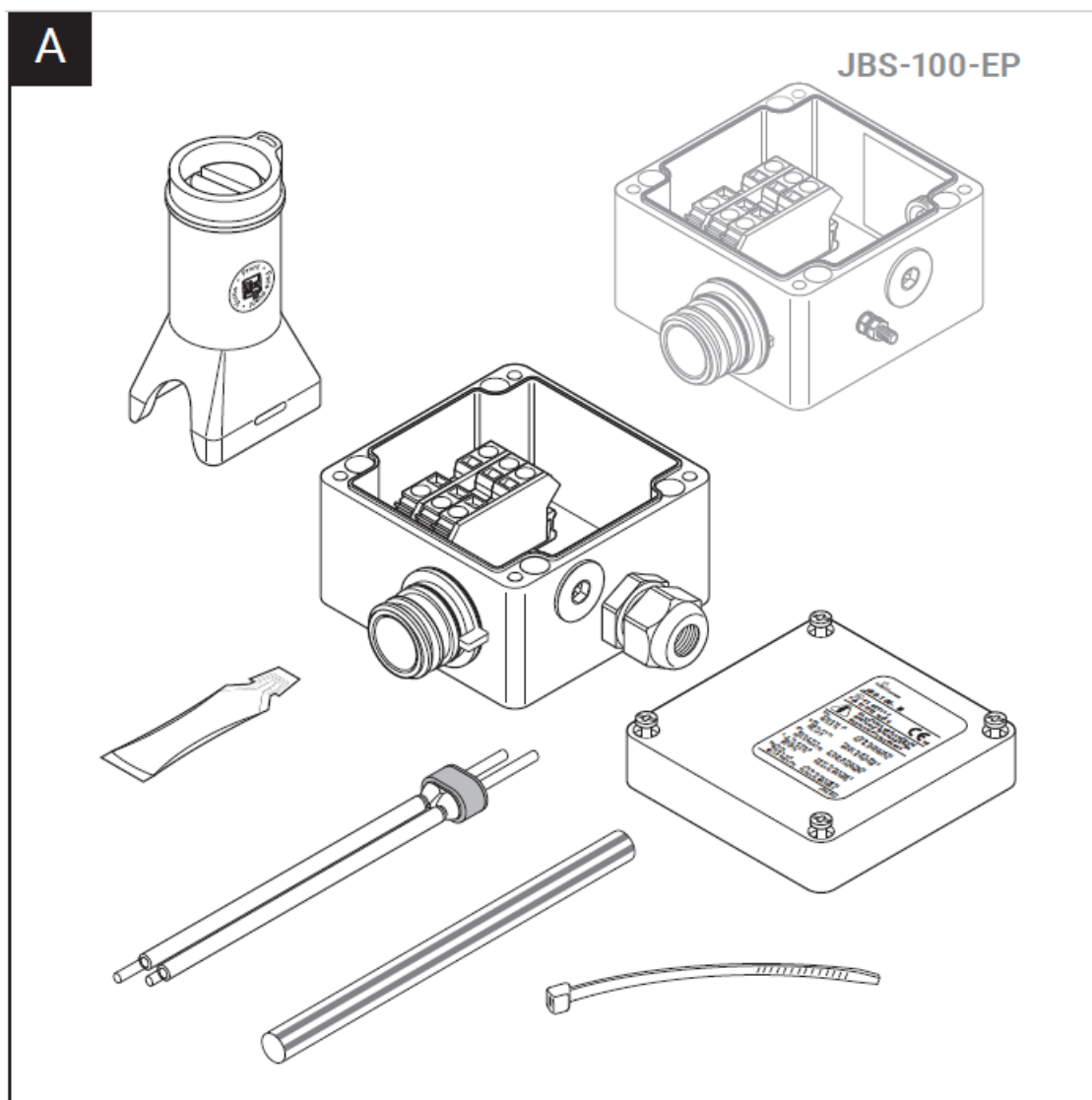
For voltages >254Vac and BTV, QTVR, XTV(R), KTV or HTV heating cables:

Use a power cable with continuous temperature resistance of minimum +90°C

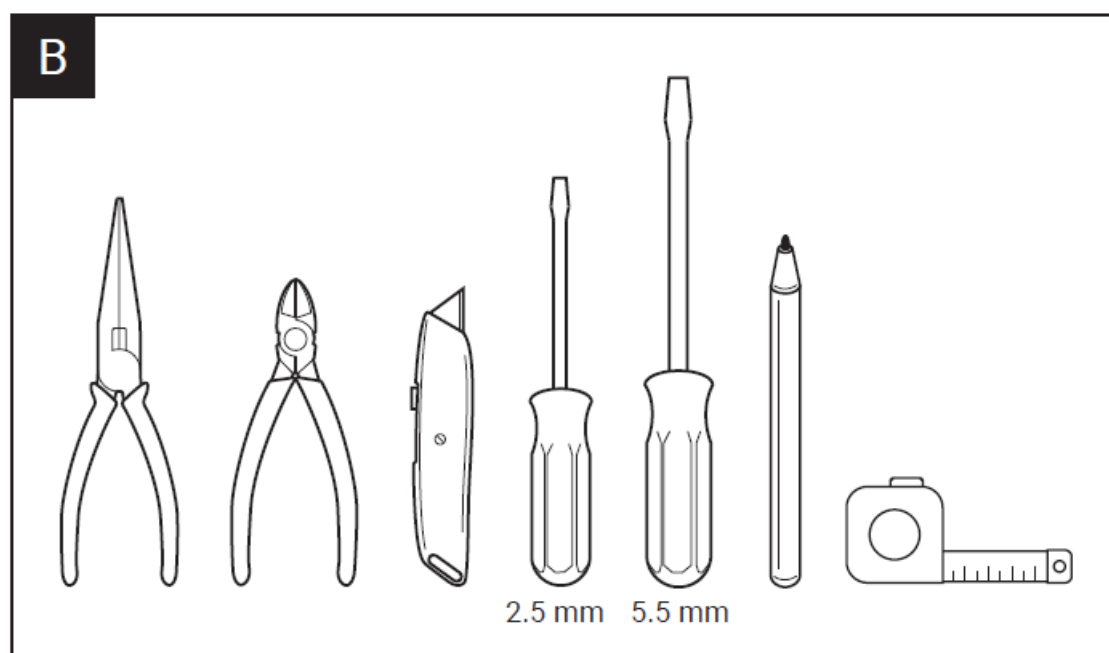
Use a metallic power cable gland approved for use in hazardous areas (for example GL-38-M25-METAL).

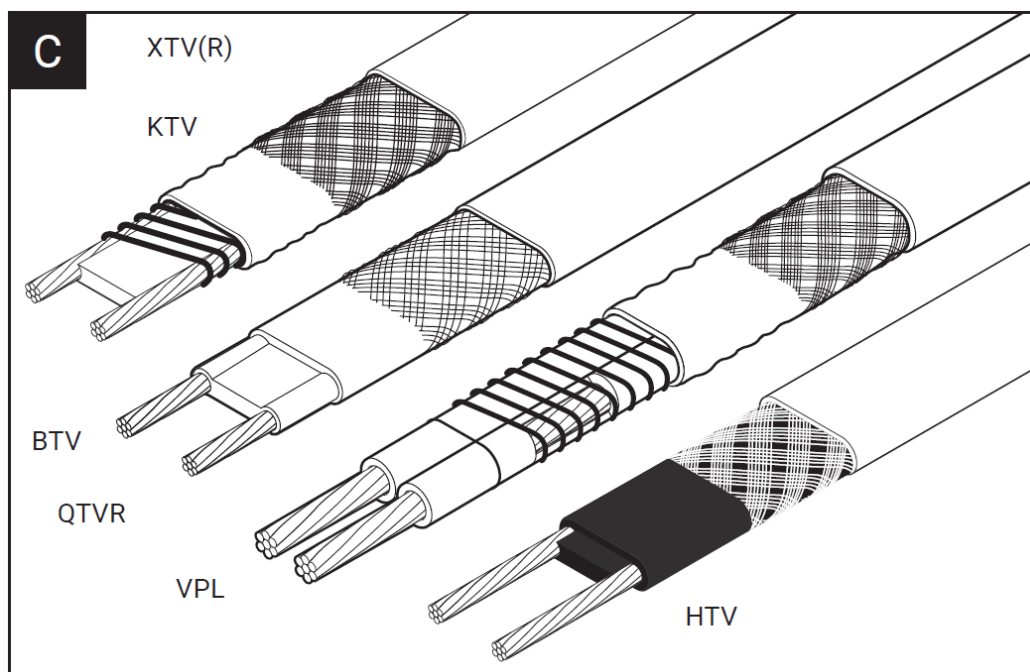
For pipe temperature > 150°C and XTV(R), KTV or HTV heating cables, the maximum operating current shall be reduced to maximum 20 A.



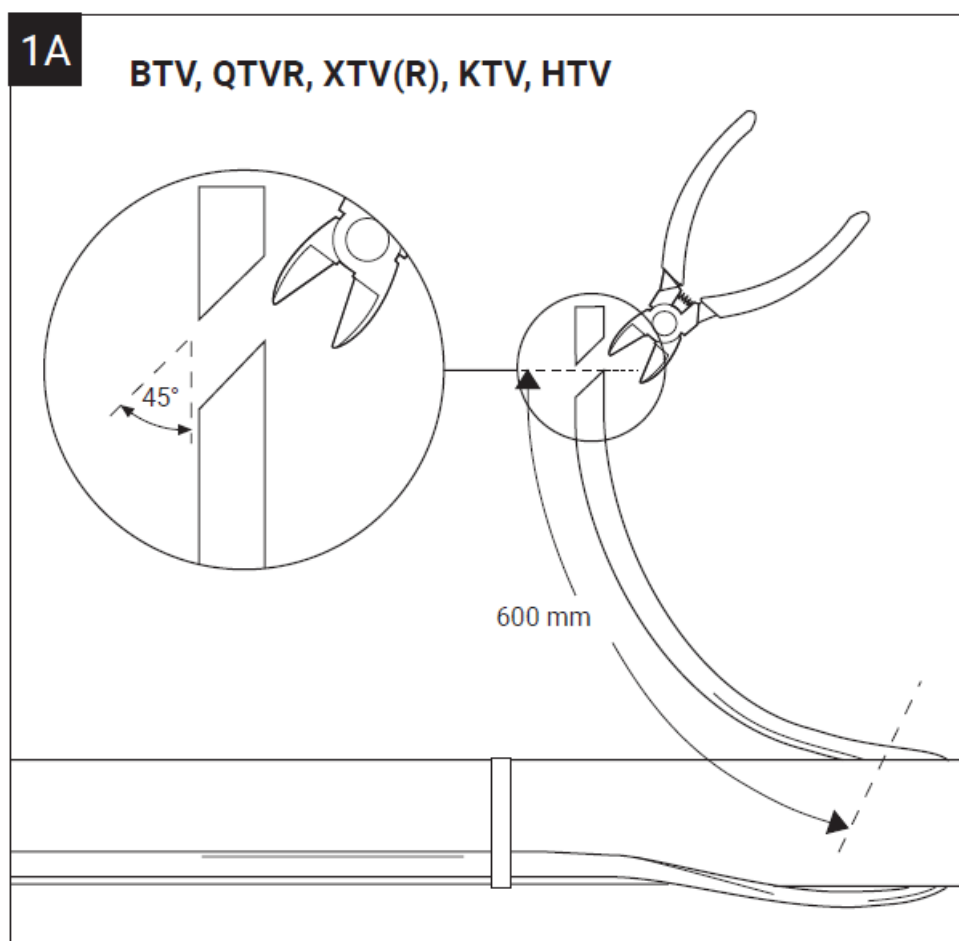


Tool Required



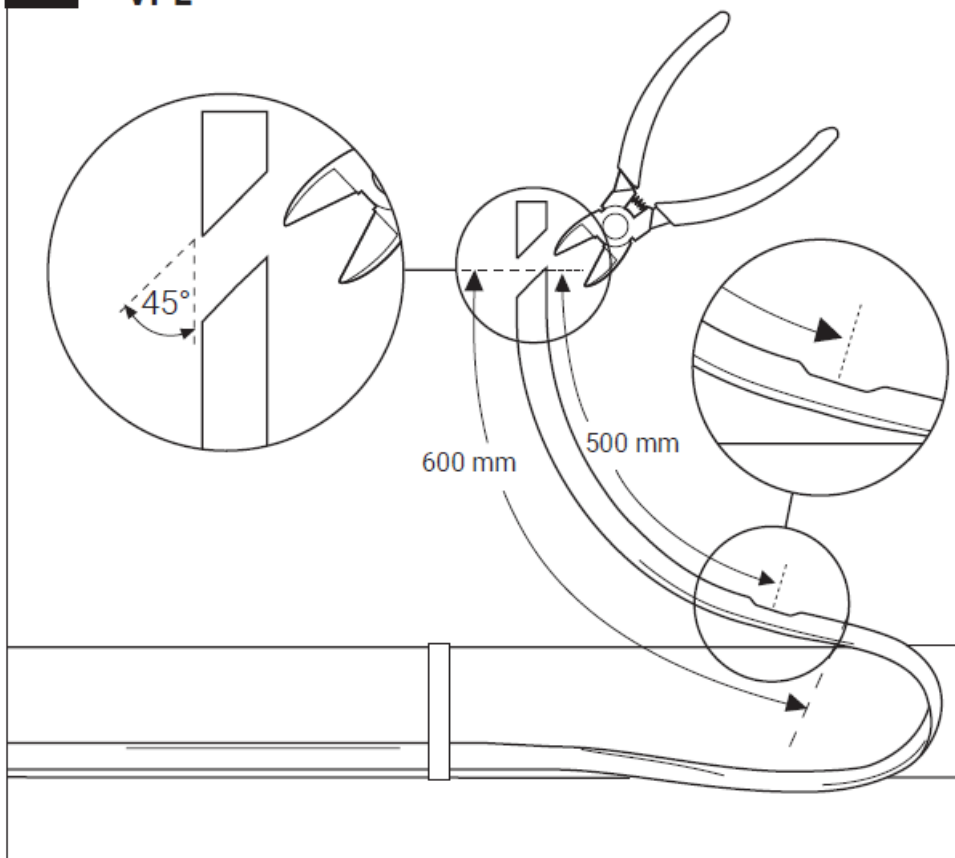


Assembly



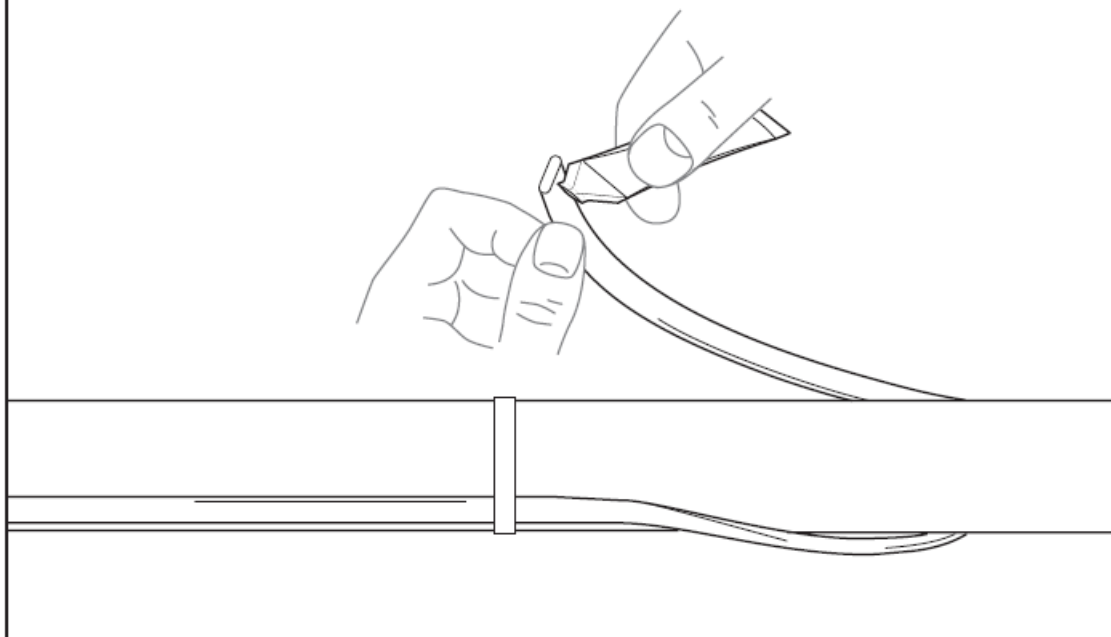
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VPL



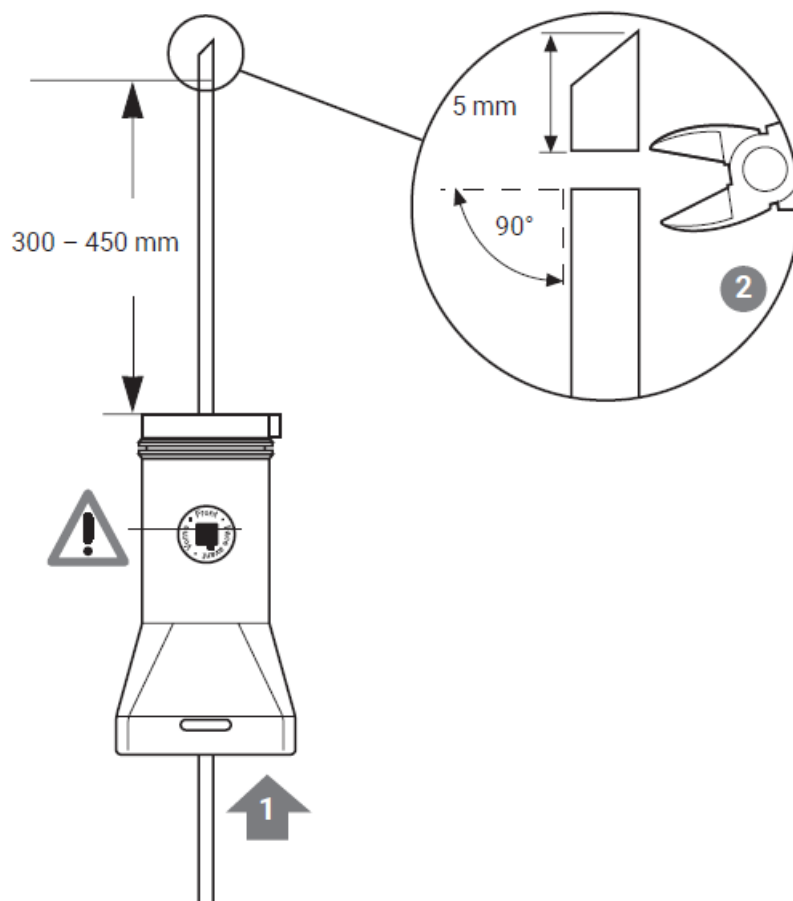
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BTV, QTVR, XTV(R), KTV, HTV, VPL



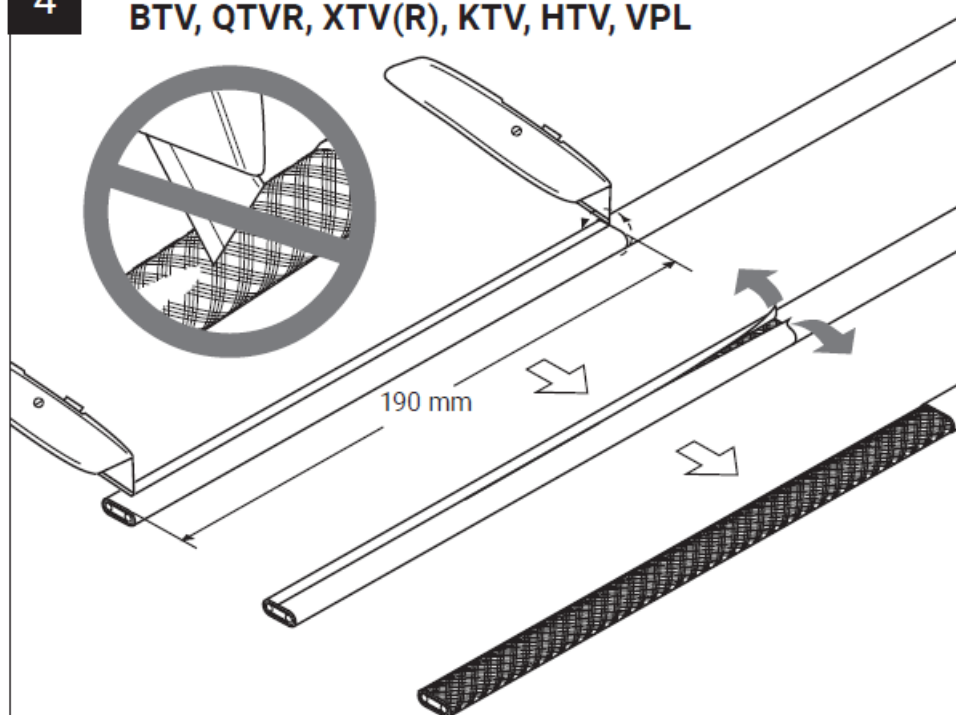
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BTV, QTVR, XTV(R), KTV, HTV, VPL



4

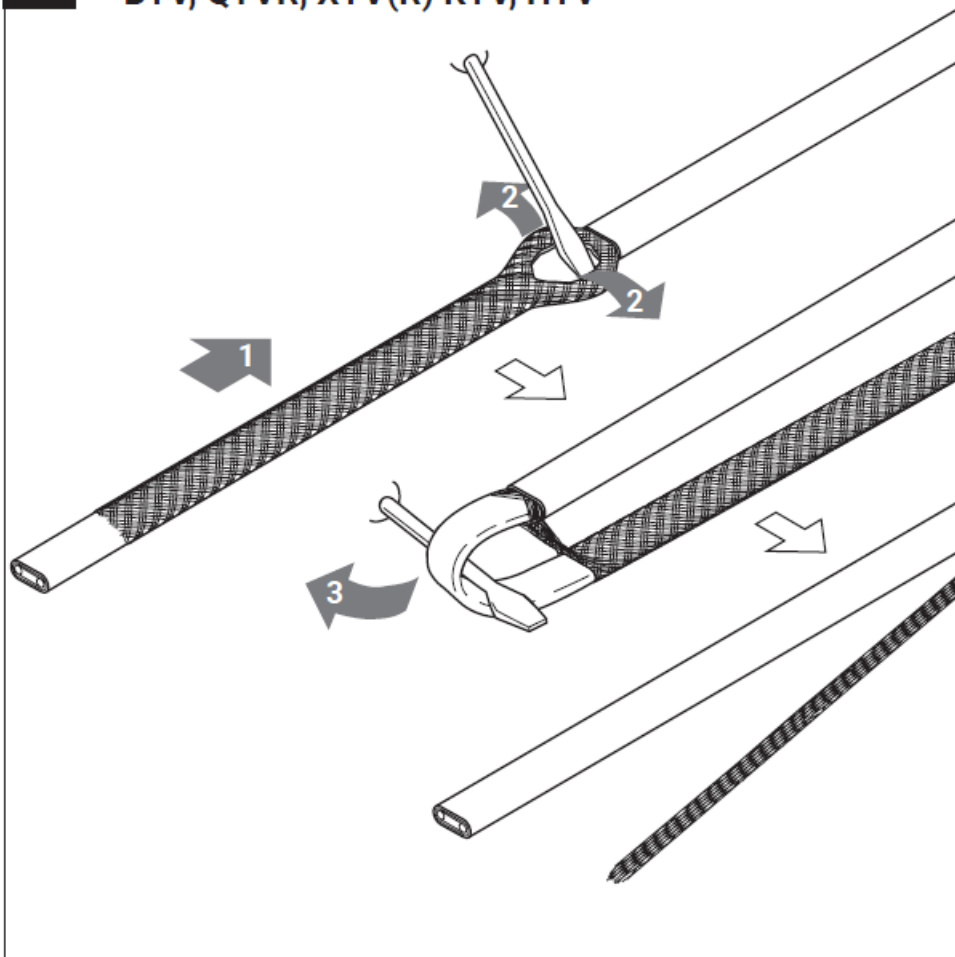
BTV, QTVR, XTV(R), KTV, HTV, VPL



VPL → 8

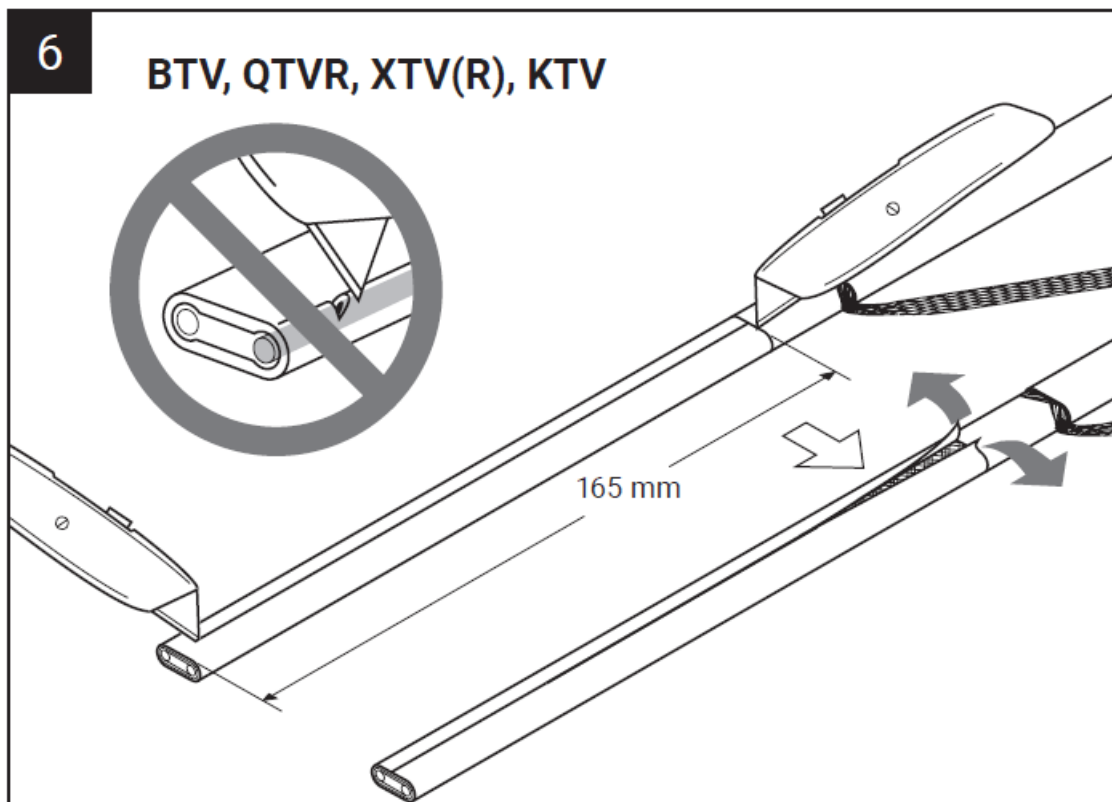
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BTV, QTVR, XTV(R) KTV, HTV



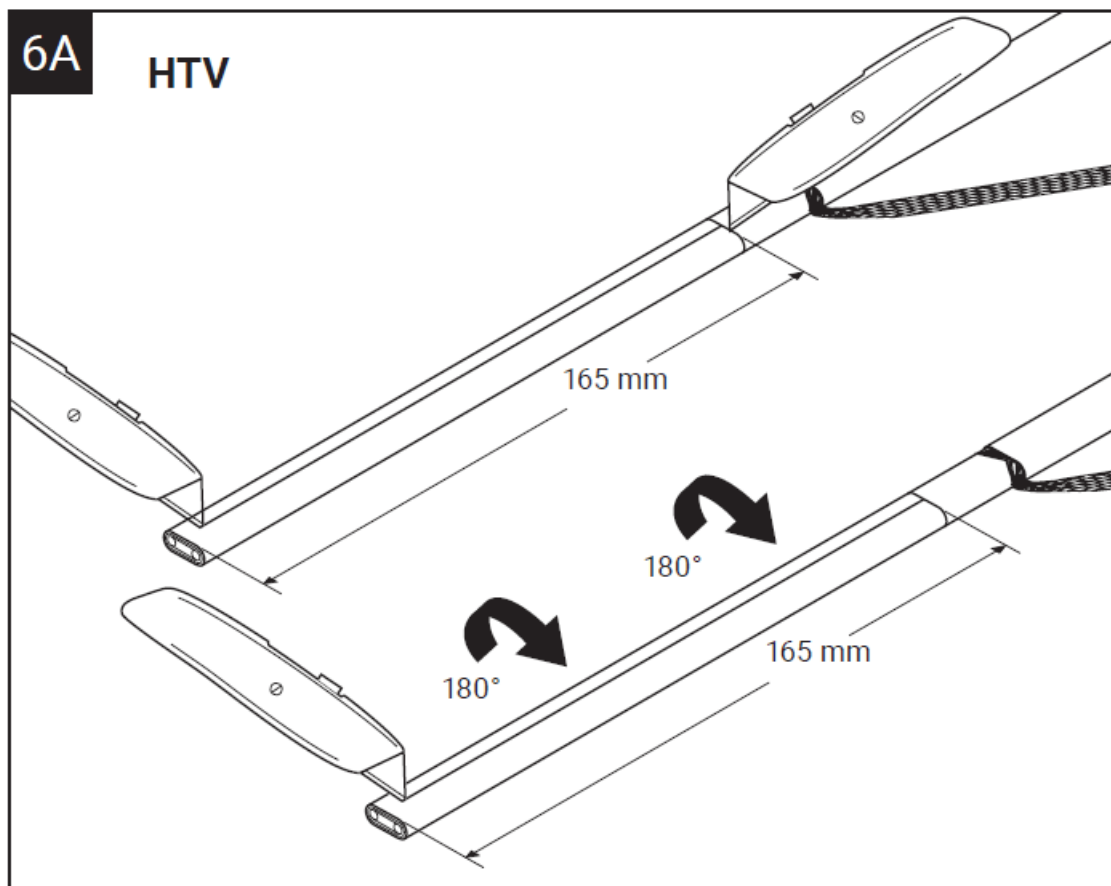
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BTV, QTVR, XTV(R), KTV



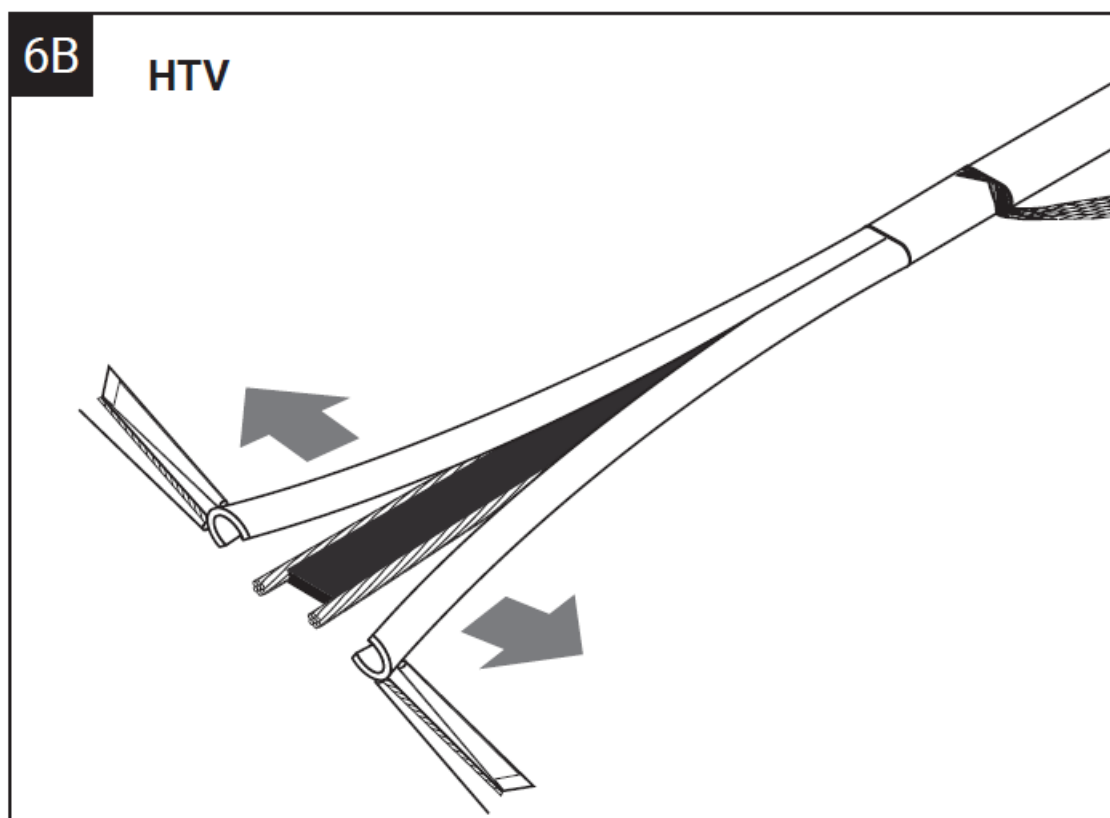
6A

HTV



6B

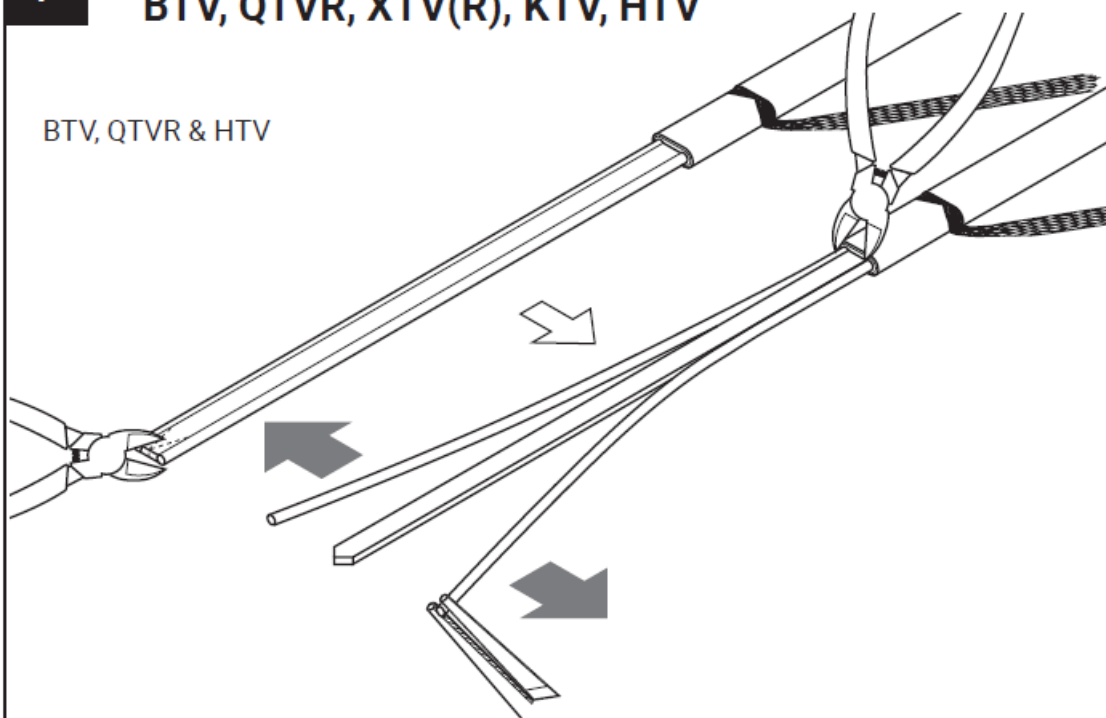
HTV



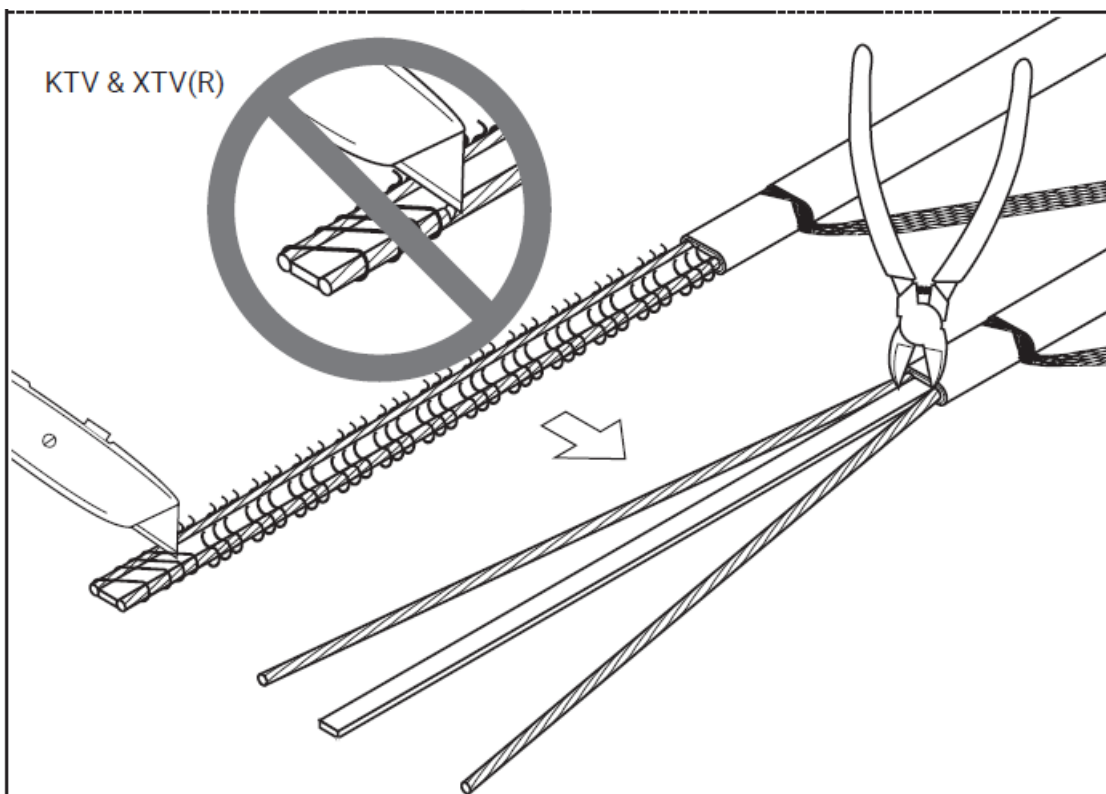
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BTV, QTVR, XTV(R), KTV, HTV

BTV, QTVR & HTV



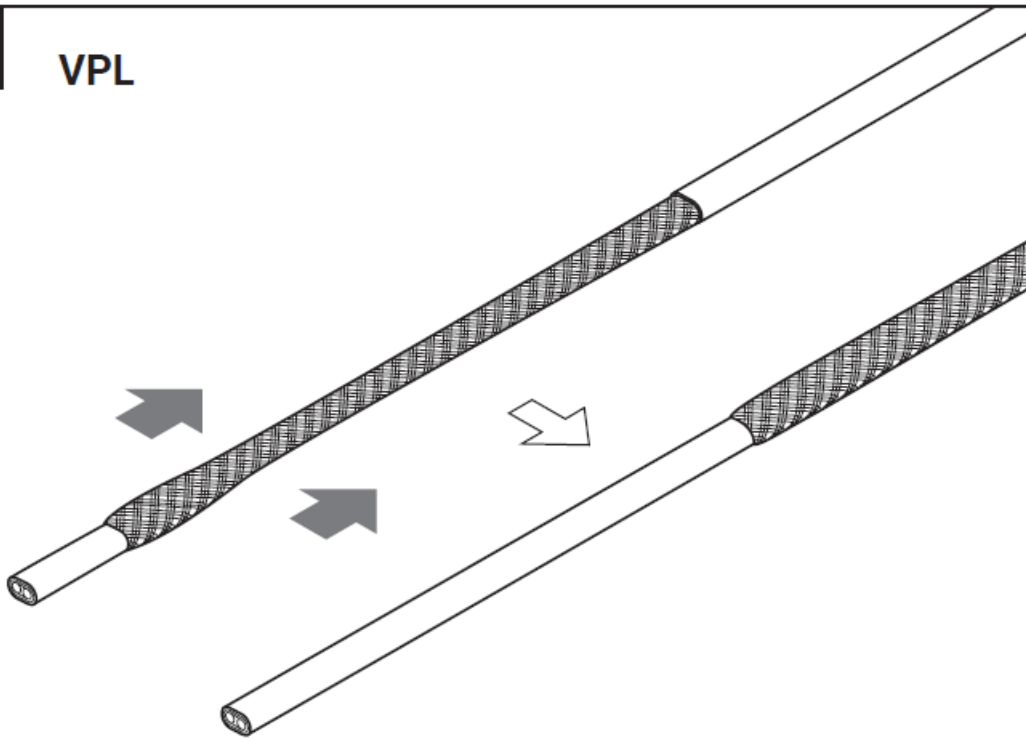
KTV & XTV(R)



BTV, QTVR, XTV(R), KTV, HTV → 14

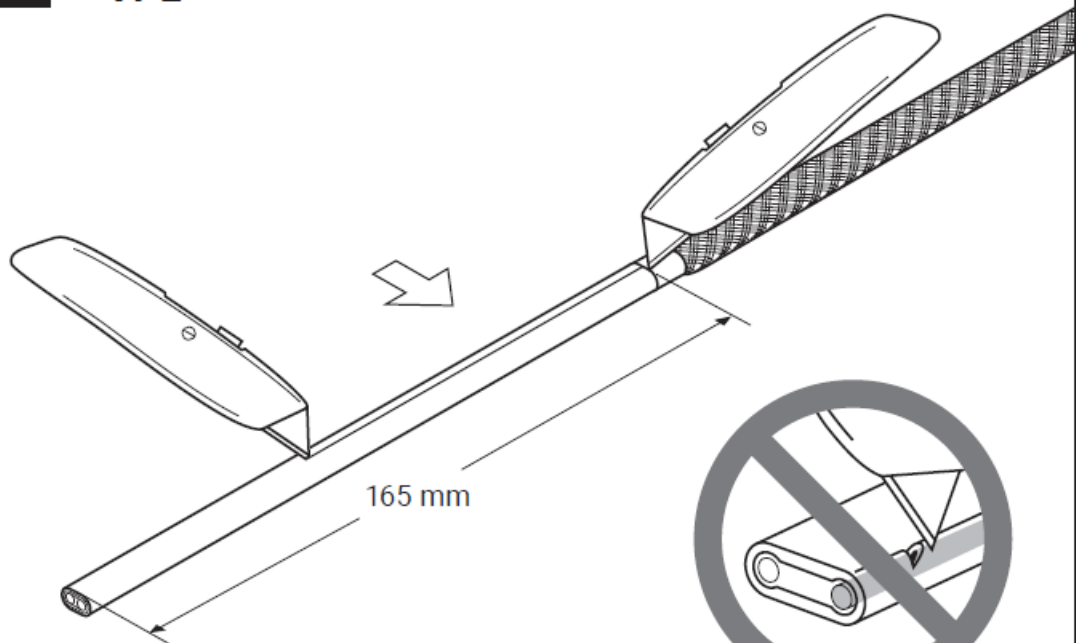
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VPL



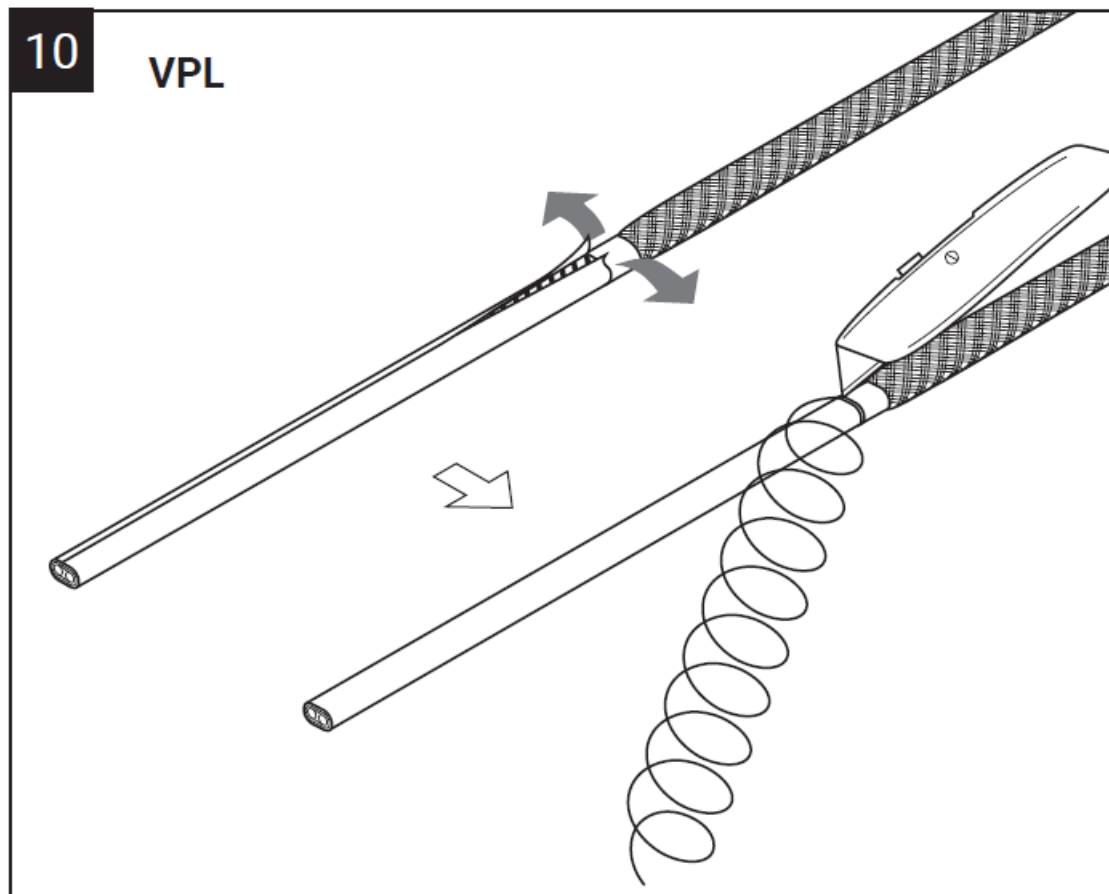
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VPL



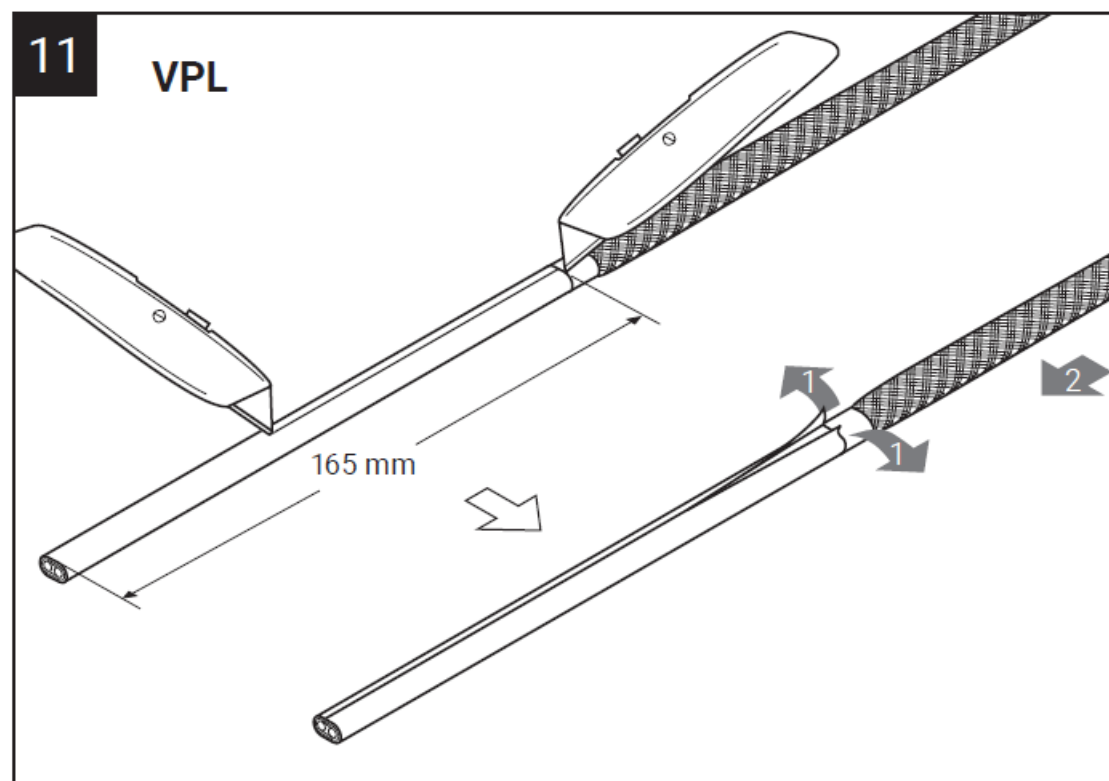
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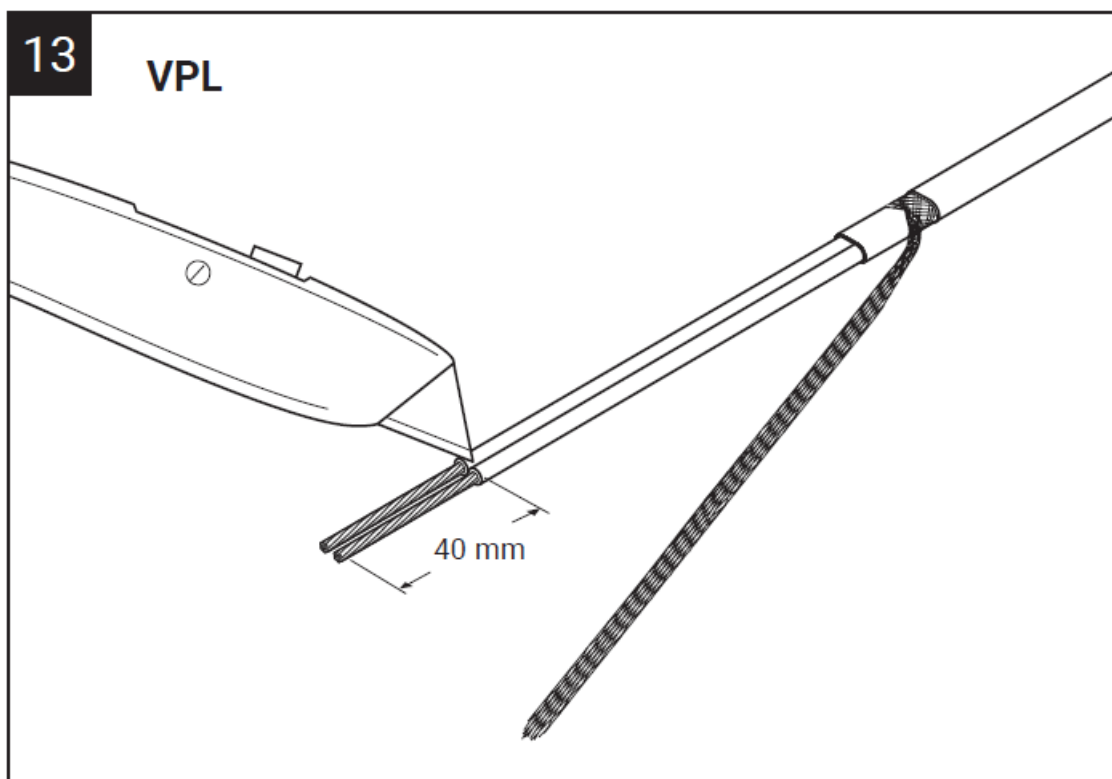
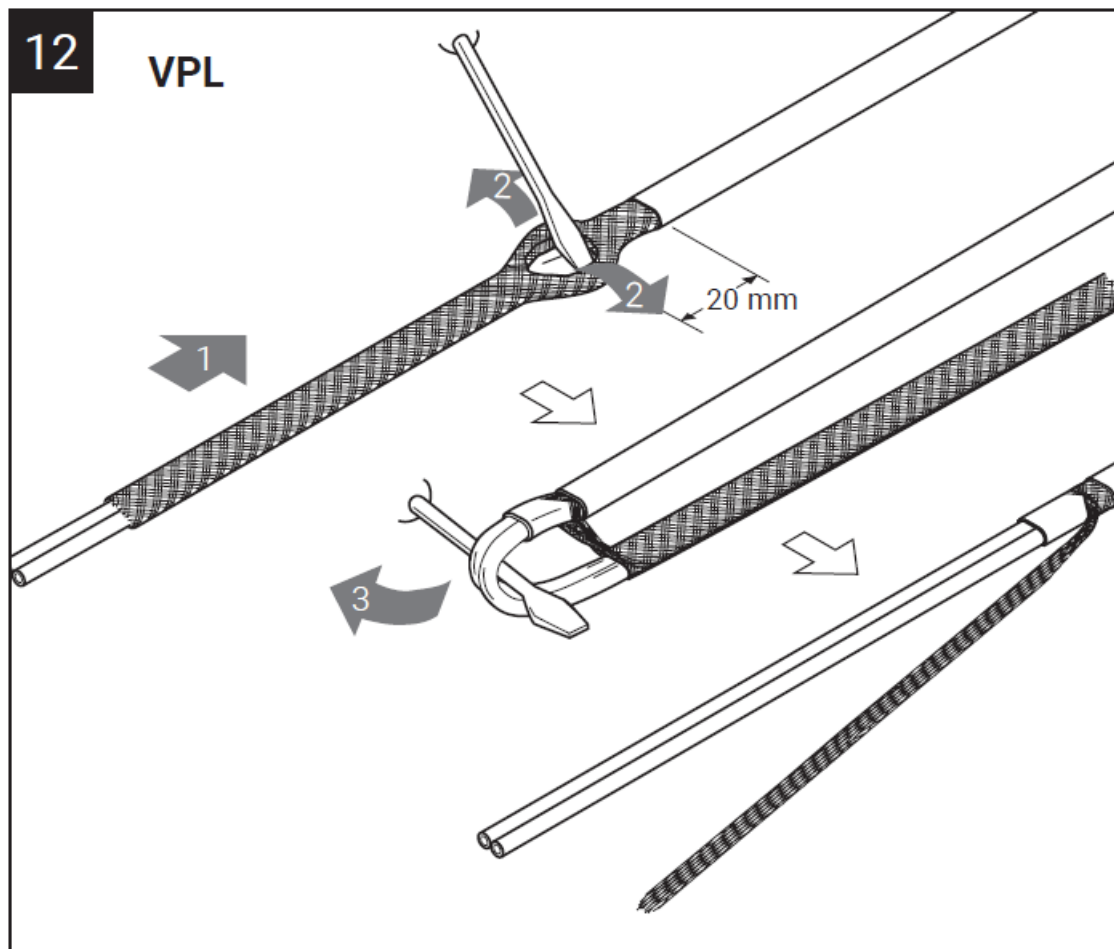
VPL



11

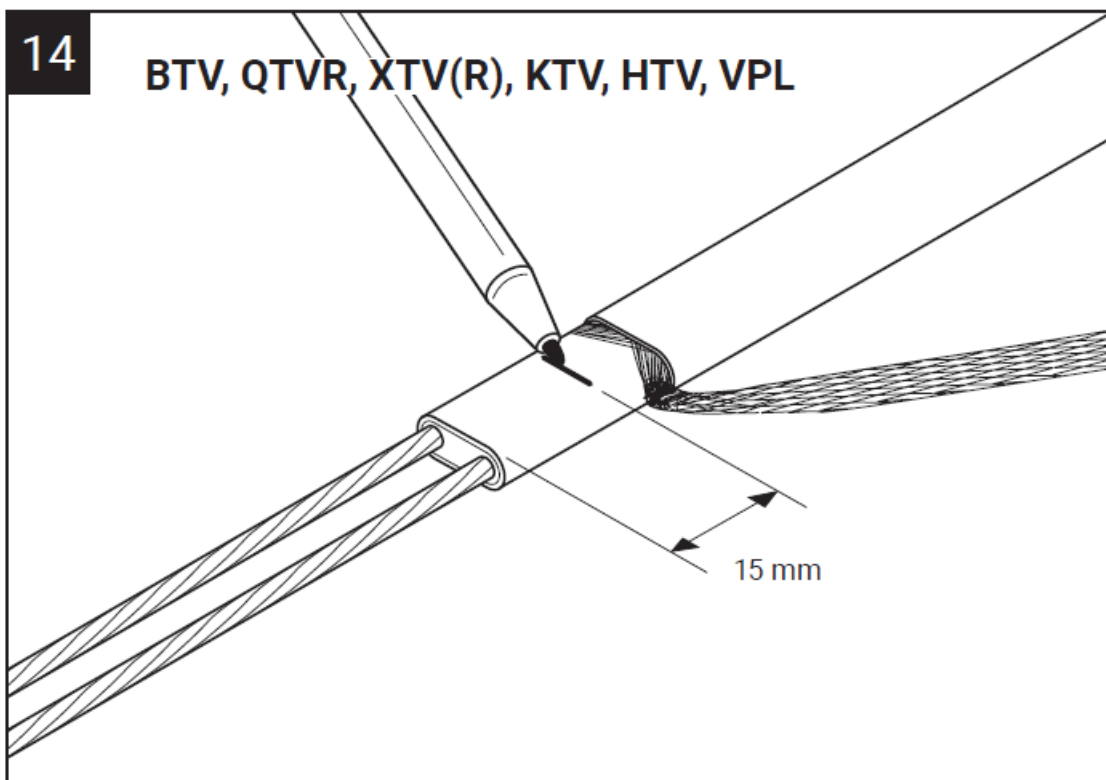
VPL





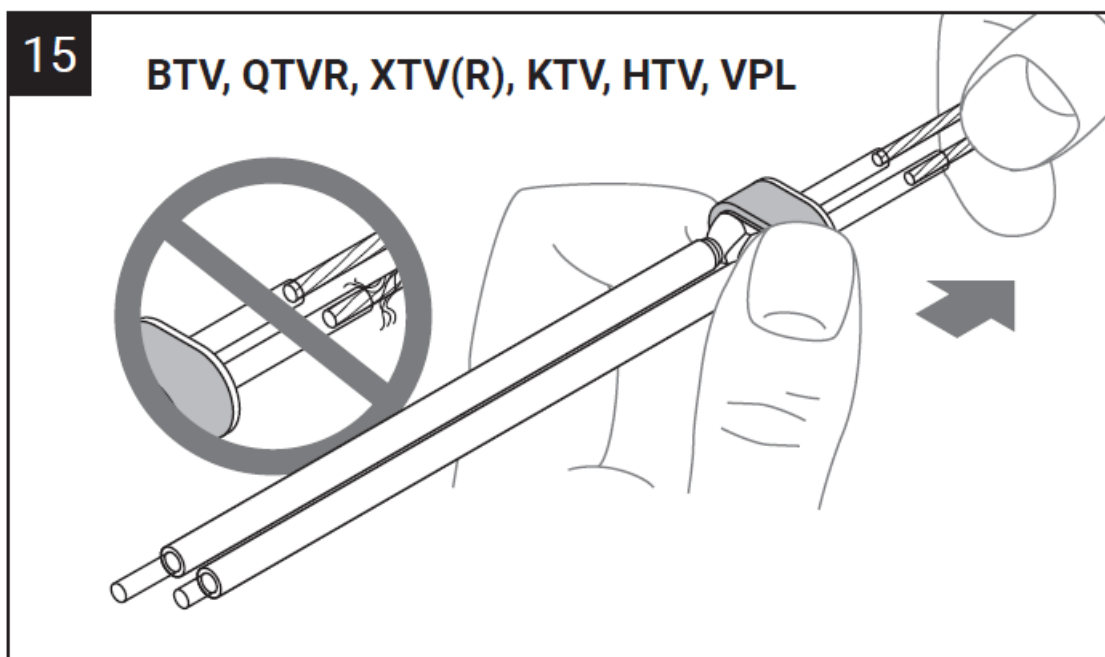
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BTV, QTVR, XTV(R), KTV, HTV, VPL



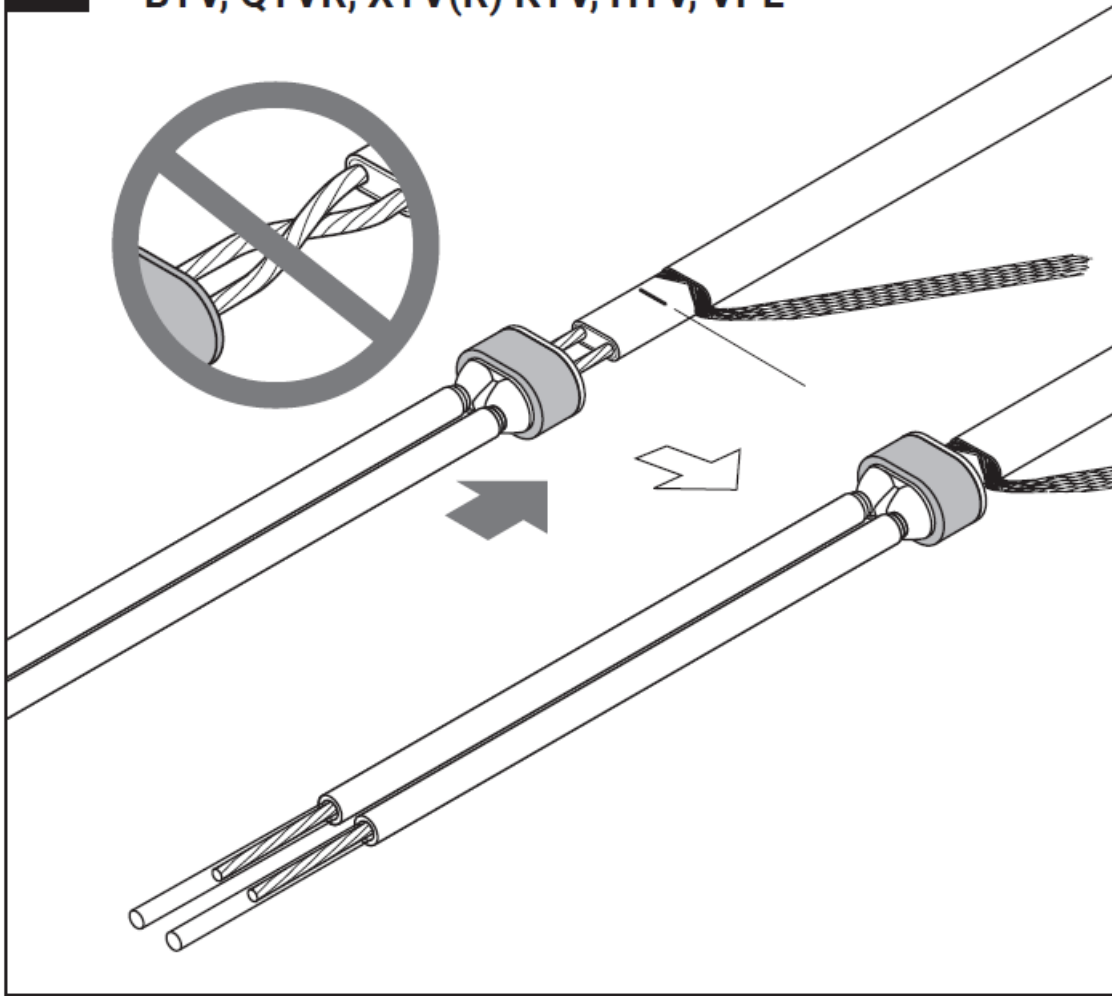
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BTV, QTVR, XTV(R), KTV, HTV, VPL

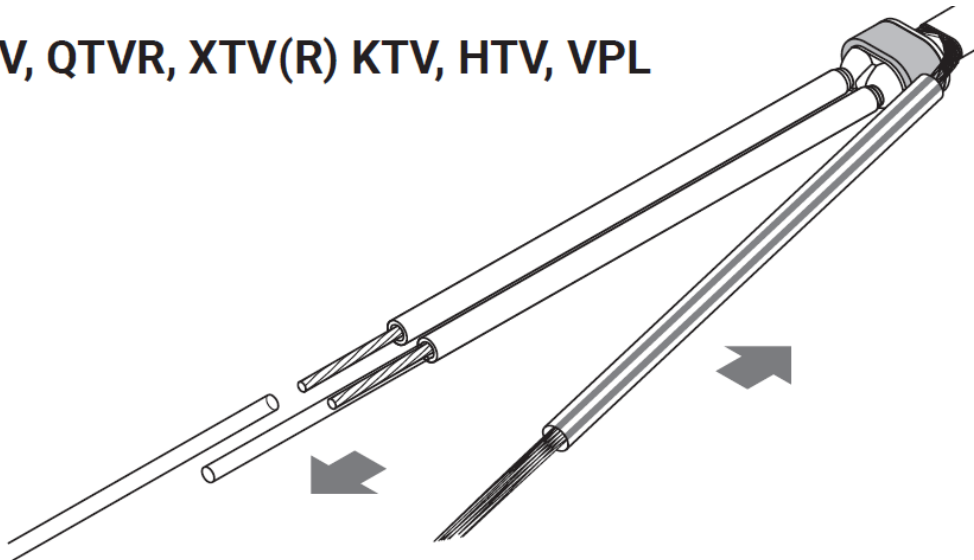


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BTv, QTVR, XTV(R) KTV, HTV, VPL



BTv, QTVR, XTV(R) KTV, HTV, VPL



Remove the tubes and dispose of them in the core sealer plastic bag.

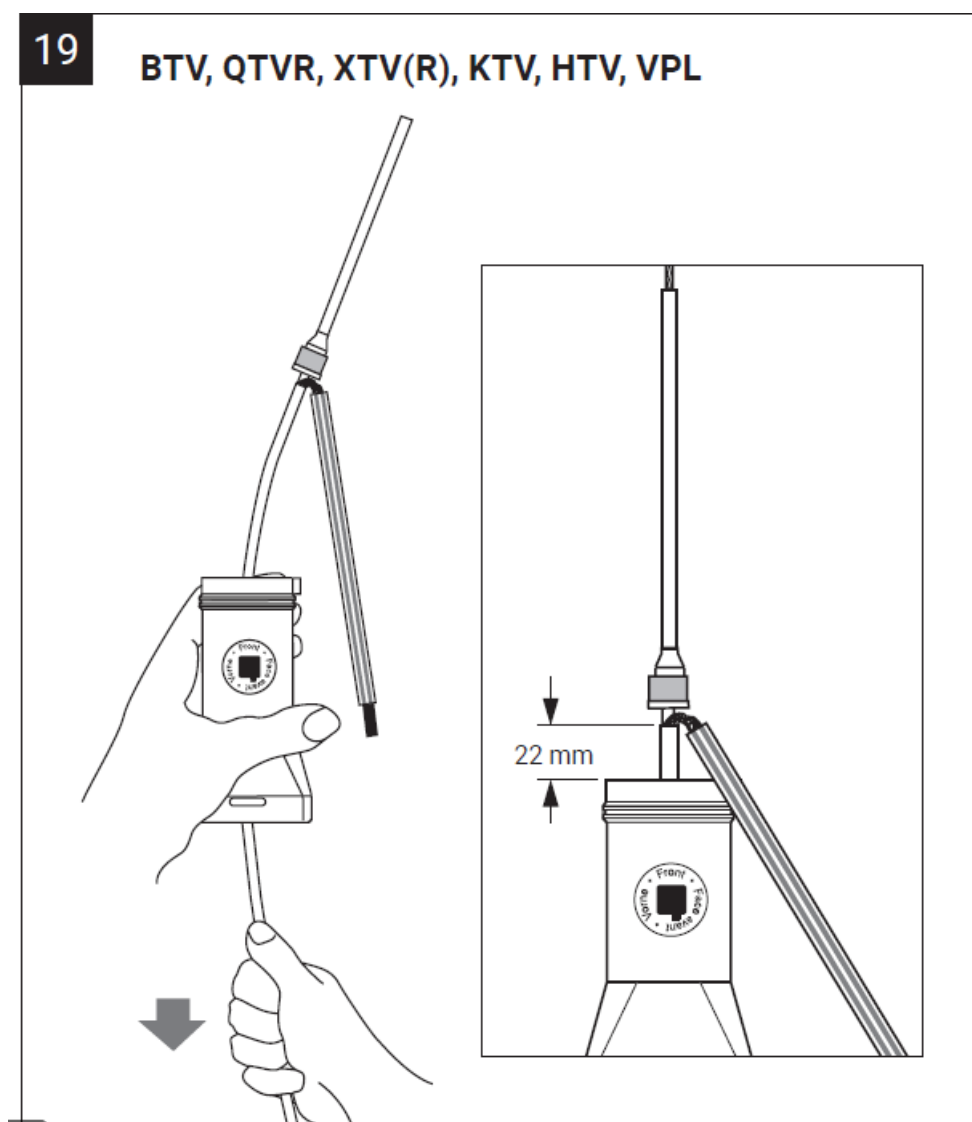
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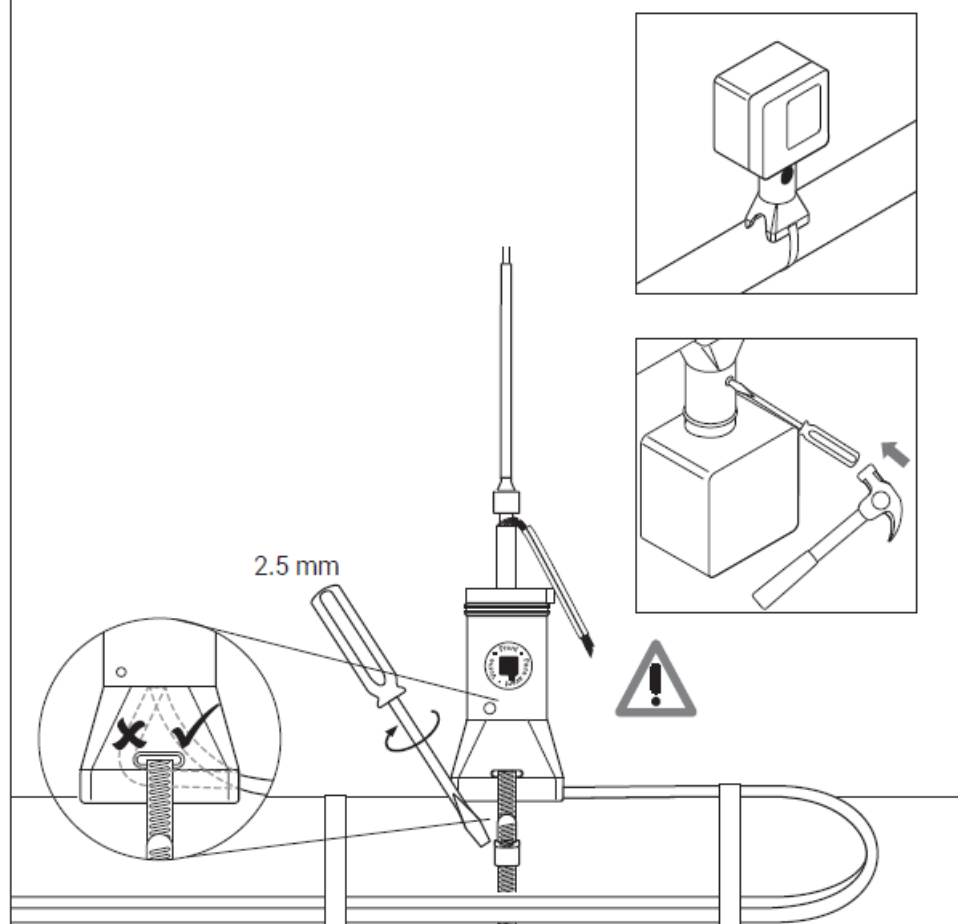
BTV, QTVR, XTV(R) KTV, HTV, VPL

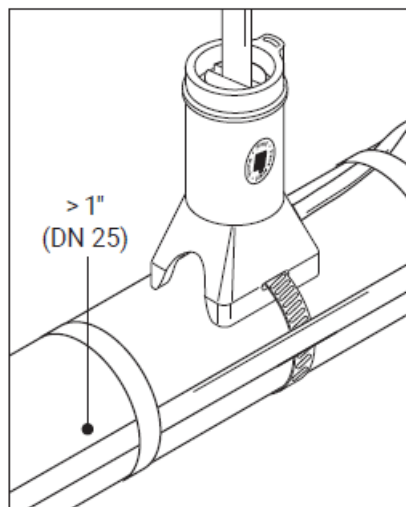
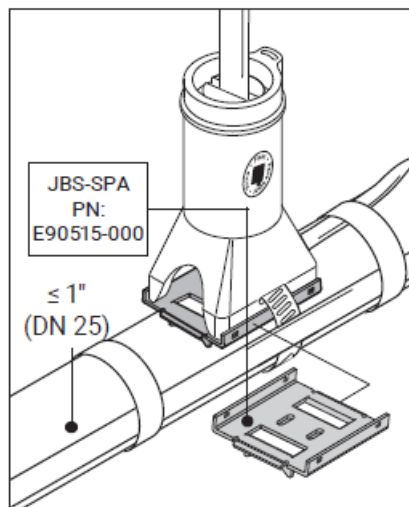
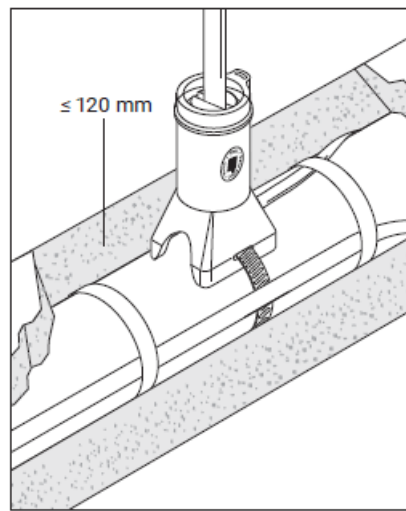
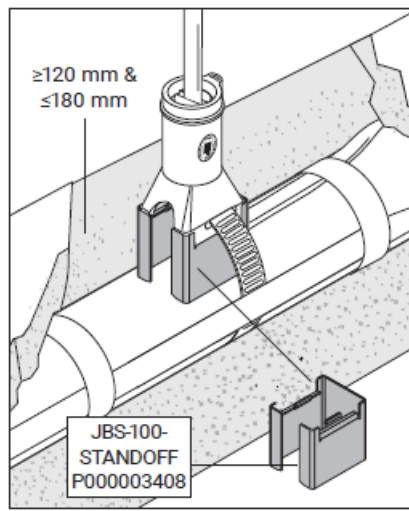


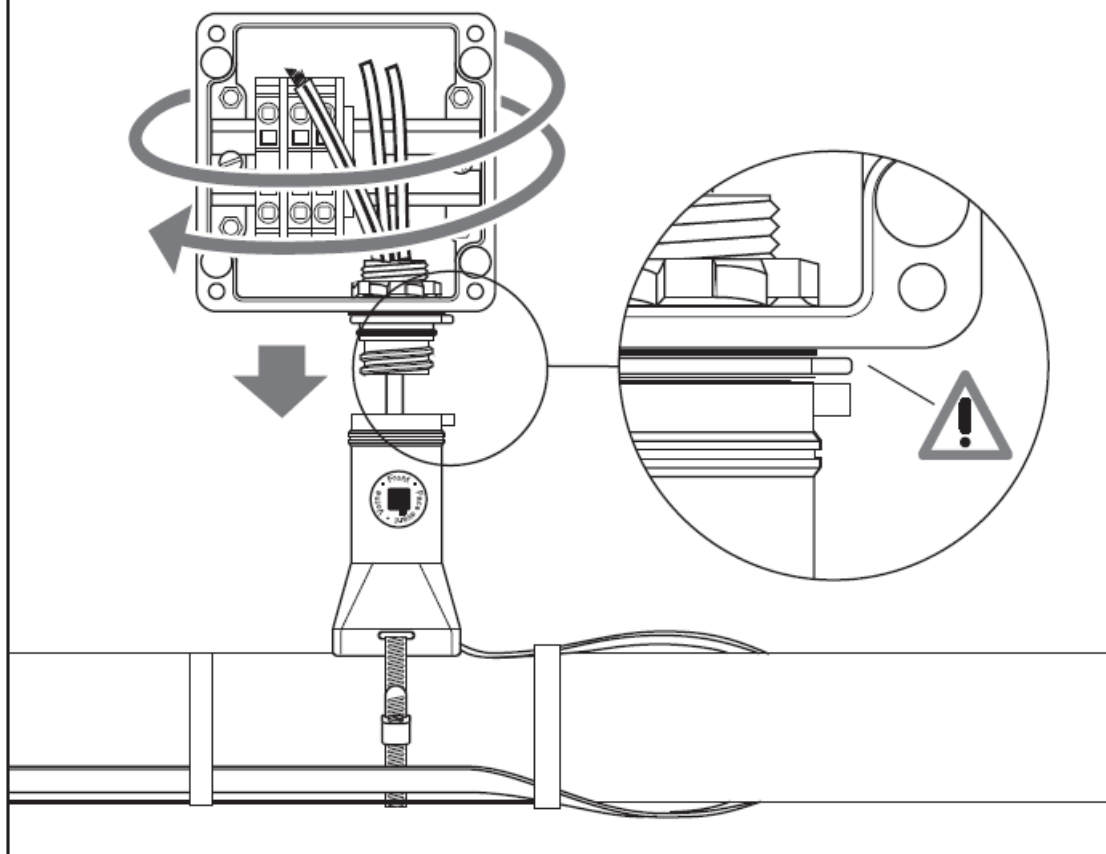
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BTV, QTVR, XTV(R), KTV, HTV, VPL

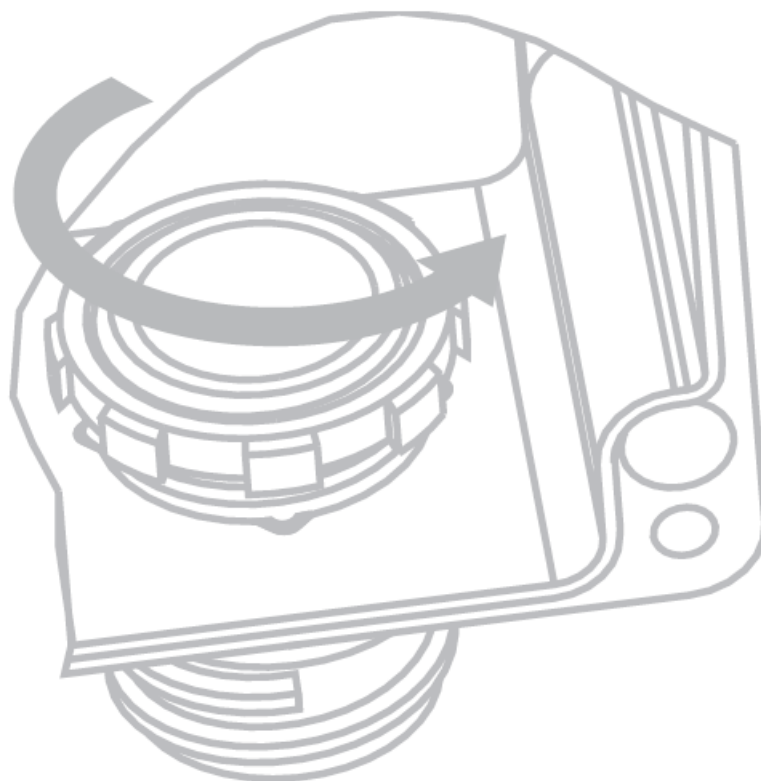






BTV, QTVR, XTV(R), KTV, HTV, VPL

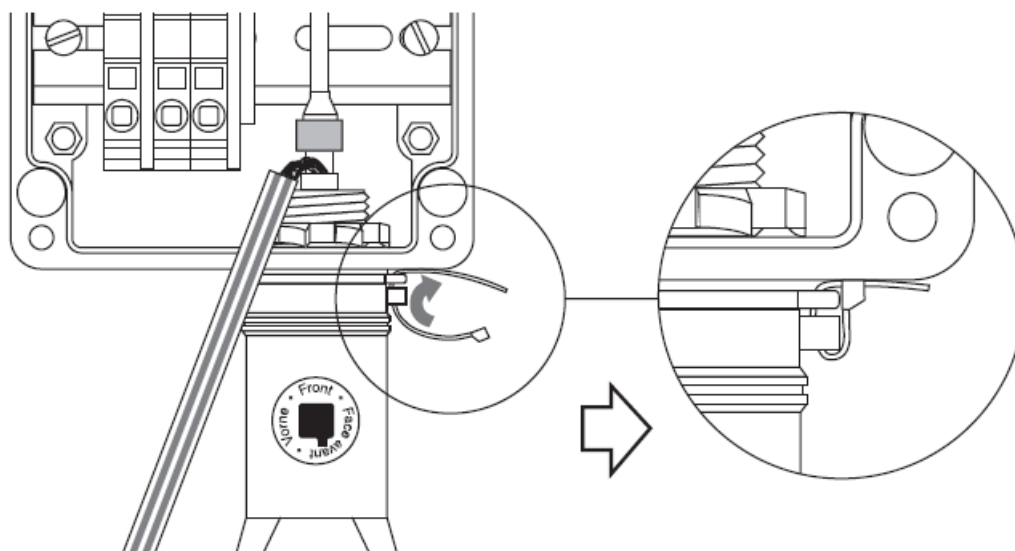
BTV, QTVR, XTV(R), KTV, HTV, VPL



OPTION: To change direction of box opening: Loosen locknut. Lift box and rotate.

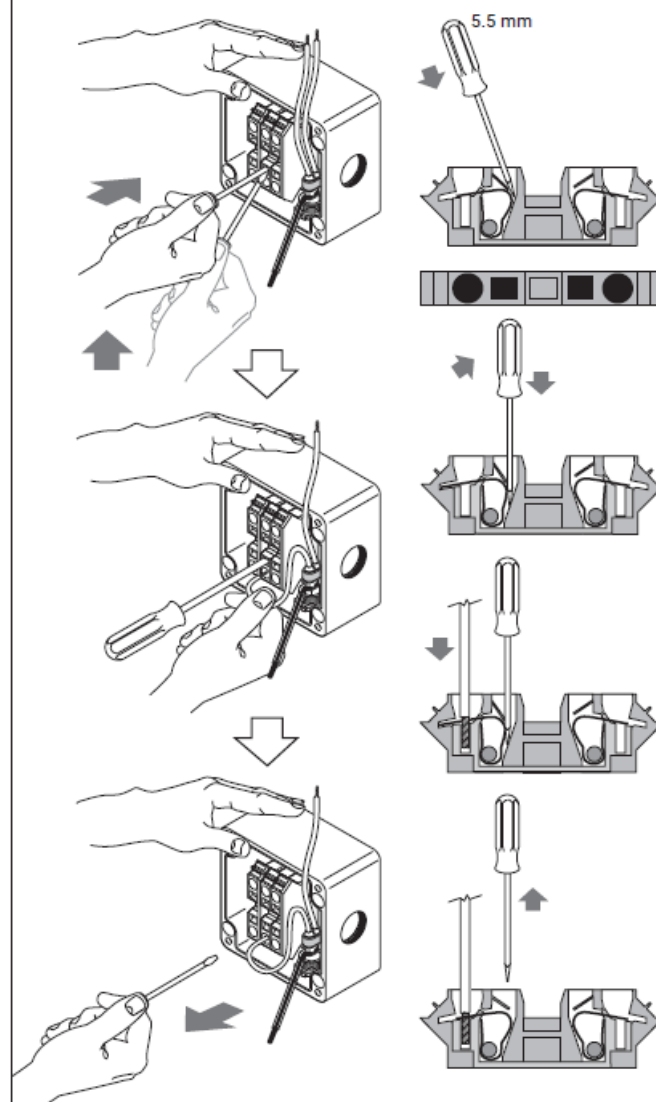
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BTV, QTVR, XTV(R), KTV, HTV, VPL



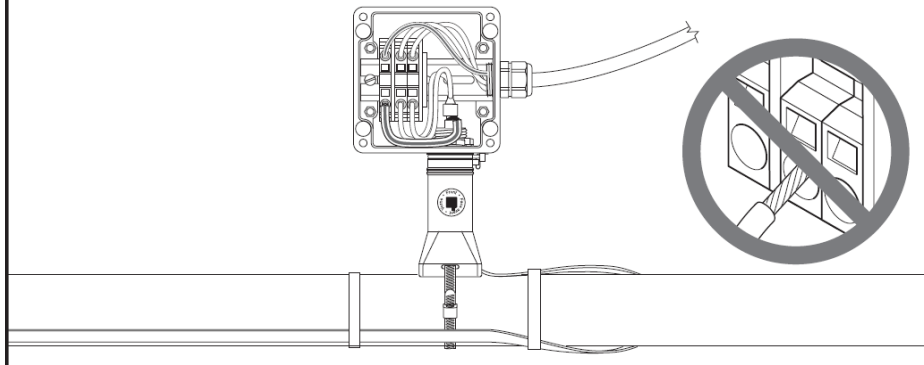
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BTV, QTVR, XTV(R), KTV, HTV, VPL



25

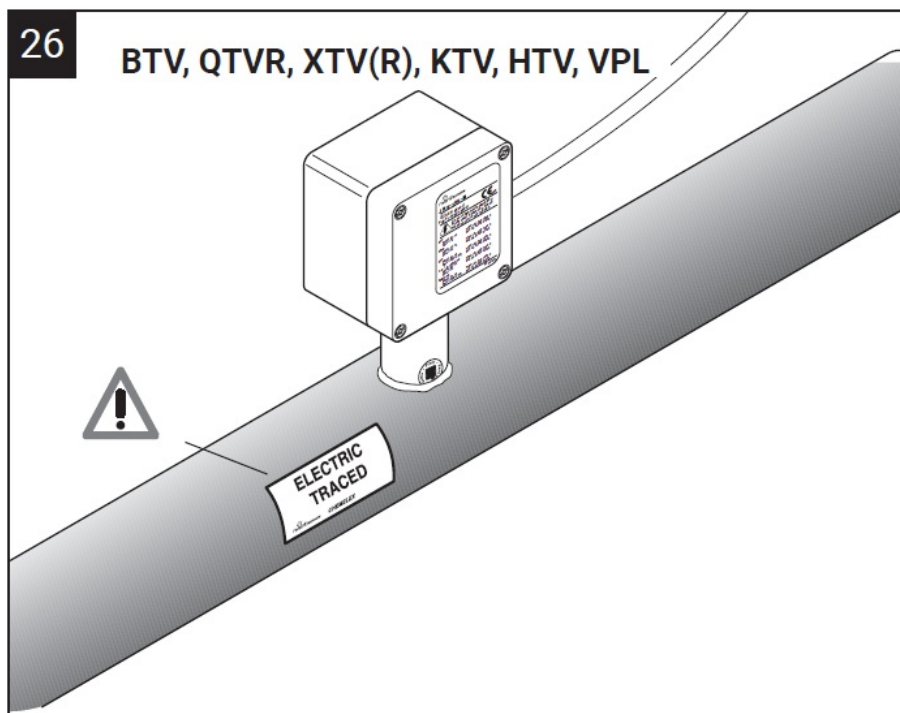
BTV, QTVR, XTV(R), KTV, HTV, VPL



Install power cable and gland. Pull in power and ground wires, strip off 13 mm of insulation and terminate. (For - EP version only: connect earth plate to ground according to local requirements).

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BTV, QTVR, XTV(R), KTV, HTV, VPL



Install lid.

$\tau = 1.02$ to 1.47 Nm

Apply insulation and cladding.

Weather seal the stand entry. Leave these instructions with the end user for future reference.

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