

The **VARIABLE LENGTH REPAIR SLEEVE** is a modular system of electrofusion shells that can be installed contiguously and welded on pipes that have notches, scrapes or damage along the axis.

The standard assembly has 2 modules (identified as EIVLRS **I** and EIVLRS **T**): between them it's possible to add the necessary number of additional middle modules (identified as EIVLRS **M** - also separately available).

⚠ If you need to repair a damage smaller than 2.76" (70 mm), you can use 'Butt Fusion Repair Sleeve - EIBFRS' (check Elofit catalogue for reference).

The maximum network pressure allowed to weld the fitting on the pipe depends of the polyethylene grade and SDR of the pipe.

POLYETHYLENE GRADE	PRESSURE*
PE4710 PE100-SDR11	124 psi
PE4710 PE100-SDR9.0/9.33	124 psi
PE3408 PE80-SDR11	60 psi
PE2708/2406 PE80-SDR13.5	60 psi
PE2708/2406 PE80-SDR15.5	14.5 psi
PE2708/2406 PE80-SDR17/21	7.5 psi
PE80 (ALDYL)	60 psi

* maximum pressure operating during the welding



1 Measure and mark the length of the damage of the pipe and calculate the appropriate number of sleeve modules to completely cover it.

⚠ IN CASE OF THREE OR MORE MODULES NEEDED, PLEASE FOLLOW INSTRUCTIONS RACC MOD36B INCLUDED WITH EIVLRS M ADDITIONAL MODULES .



2 Measure the total length of the sleeve modules and mark it on the pipe, near the damage. **Minimum distance required for the fitting to extend beyond the damaged area: 2.36" (60mm).**



3 Scrape the part of the pipe where the variable length repair sleeve will be welded, over and all along the damage to be repaired.

Use a hand scraper: scrape the pipe at 180° across the damage. Scrape 0.4" beyond the marked line.

Mechanical scrapers can be used provided there is no risk to extend the damage further.

⚠ TAKE CARE NOT TO DAMAGE THE PIPE FURTHER.



4 Clean the scraped part of the pipe and the welding areas of the sleeve modules with isopropanol and a soft wiping cotton cloth with no printing; wait until the clean parts are completely dry.

⚠ DO NOT USE ALCOHOL OR ACETONE.

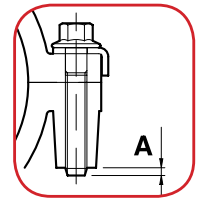


5 Mark on the scraped pipe a distance equal to the whole length of the assembled sleeves, so that the damage is well centered and surrounded. Take care not to contaminate the previously cleaned surfaces.



6 Install each single module separately on the pipe, starting from one end of the scraped area: place the EIVLRS I module first on the pipe and align it to the marked line.

Place the first underclamp on the very end of the assembly: hook the square holes of the underclamp to the teeth on the side of the module; align the two screws to the corresponding holes, line up the metal spacer and use a wrench to tighten the two screws until they are in position **A** in the lower part (feel the screws sticking out of the bottom - see figure in the circle below). Repeat the operation with the second underclamp in the consecutive position.



7 Place the terminal module EIVLRS T on the scraped pipe, adjacent to the previous one just installed: the lip at the end of the module must overlap the protruding edge of the previous one. Install the first underclamp across the two adjacent modules (follow the instruction on Step 6). Then install the second and third underclamps in the consecutive positions (follow the instruction on Step 6). The terminal module EIVLRS T must always be the final module installed.



Before proceeding to Step 11 verify that all the under-clamps are properly tightened (feel the screws sticking out of the bottom); eventually use a wrench to tighten the screws if necessary.



✓ BEFORE BEGINNING THE WELDING SEQUENCE, ALWAYS CHECK THE RELIABILITY OF THE POWER SUPPLY SYSTEM, TO MAKE SURE THERE ARE NO INTERRUPTIONS DUE TO LACK OF POWER.

✓ THE FITTINGS REQUIRE 4.0 mm CONNECTORS.

⚠ DON'T WELD IN CASE OF GAS OR WATER LEAKAGE

⚠ KEEP AT A SAFE DISTANCE DURING WELDING.

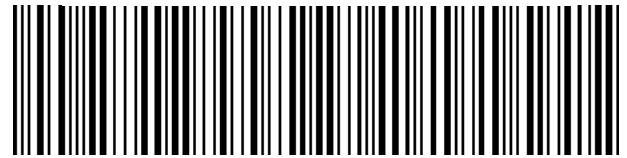
⚠ PERFORM WELDING ONLY IN AUTOMATIC MODE THROUGH BARCODE SCAN: DO NOT PERFORM WELDING IN MANUAL MODE.

⚠ ALWAYS CHECK THE WELDING PARAMETERS ON THE DISPLAY.

⚠ IF TEMPERATURE IS LOWER THAN 60°F (15°C), FIRST PERFORM PRE-HEATING BY SCANNING THE SPECIAL BARCODE REPORTED BELOW.

AT THE END OF PRE-HEATING CYCLE, IMMEDIATELY PERFORM WELDING BY SCANNING THE WELDING BARCODE ON THE FITTING (FOLLOW POINT 12).

950705308603300006050226



PRE-HEATING BARCODE 30V – 50 s.

TOOLS (not included):

RED TRIPLE CABLE



BLACK TRIPLE CABLE



8 Connect one cable of the electrofusion machine to the connector slot of the black triple cable.



9 Connect 2 connectors of the black triple cable to the first pin marked "A" of each module. The third connector doesn't need to be used.



10 Connect the other cable of the electrofusion machine to the connector slot of the red triple cable.



11 Connect 2 connectors of the red triple cable to the second pin marked "B" of each module. The third connector doesn't need to be used.



12 Perform welding: scan with the optical pen the barcode on EIVLRS I module and proceed with welding.



13 After the welding cycle is positively completed, mark the actual time on the modules and disconnect all the cables.

⚠ IN CASE OF WELDING INTERRUPTION DUE TO LACK OF POWER, WAIT FOR THE FITTINGS TO COOL DOWN FOR NOT LESS THAN 1 HOUR, THEN RE-START THE WELDING CYCLE FROM THE BEGINNING.

14 Wait for the completion of the cooling time indicated on the barcode; then it's possible to move and bury the pipeline.

⚠ DON'T STRESS OR BURY THE PIPELINE BEFORE THE COMPLETION OF THE COOLING TIME INDICATED ON THE BARCODE.