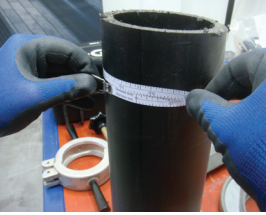
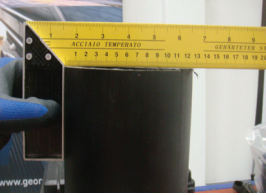





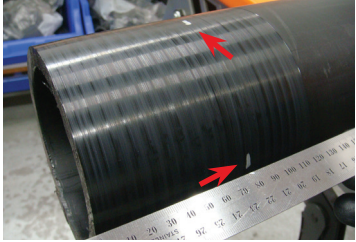

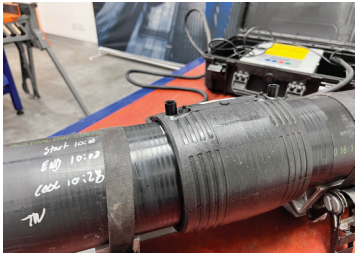


PE Electrofusion Welding Process Checklist (step-by-step)

Project Name		Installation Date	
Welder's Name		Welder's ID	
Company Name		Pipe Brand	
Welding Machine Model		Pipe Date	
Welding Machine S/N		Fitting Brand	
Is the machine calibrated?	Yes / No (please circle)	Fitting Batch No.	

Process	Action 1	Action 2	Action 3	Action 4
1. Clean pipe surface	Weather Concerns: - Rainy? (Yes / No) - Windy? (Yes / No)	Environmental Concerns: Clay, dirt, bentonite etc. present? (Yes / No)	Wash pipe with clean water and clean rag.	
2. Pipe inspection 	2.1 Dimensions Tooling: use Diameter / Pi tape to measure. • Pipe OD: _____mm • Pipe SDR: _____ Min OD: _____mm Max OD: _____mm Reject under-size pipe.	2.2 Pipe Surface • Check for flat spots, using an ovality gauge: (Yes / No) If Yes, reject all pipes with flat spots. • Pipe gouges or damaged: reject or cut pipe	2.3 Pipe Ovality Must use re-rounding tools , if ovality exceeds: • 3mm or 1.5%xDN for pipe ≤ 315mm OD • 5mm or 1%× DN for pipe ≥ 355 -800mm OD	2.4 Pipe Reversion Check pipe end reversion using a steel ruler or spirit level (straight edge). Pipe ends with toe-in (tapered edge) must be cut off.
3. Square pipe end 	3.1 Cut pipe square at 90° angle, checked using a builders square.	3.2 Use deburring tool to remove swarf and sharp edges from the pipe end.		
4. PE Fitting inspection	Fitting's SDR: _____	Check SDR Range / Pipe Compatibility: (Yes / No)	Fitting Resistance (Ohms): _____	
5. Pipe peeling length 	Measure half the length of the fitting, plus an additional 20 mm and mark on the pipe.	$\text{_____ mm} + 20\text{mm} = \text{_____ mm}$ <p style="text-align: center;"> ↑ ↑ (half length of the fitting) (pipe peeling length) </p>		
6. Peel pipe: minimum 2 peels CRITICAL FACTOR 	6.1 Check: The peeling tool blade is sharp. Replace the blade if necessary. 	6.2 Measure peel strip thickness with Micrometre or Vernier Callipers (+0.01 mm tolerance) • d63-d315 Pipe: 0.3 - 0.5mm • >d315 Pipe: 0.4-0.6mm 	6.3 Never peel more than the minimum peeled pipe OD , as measured using Diameter tape.	6.4 Peeling records: • 1st peel: _____mm • 2nd peel: _____mm • 3rd peel: _____mm (if necessary) • 4th peel: _____mm (if necessary)
<i>Use GF Rotary Peeler to ensure the peeling quality.</i>	<i>Measure 1st peel thickness.</i>	<i>Measure 2nd peel thickness.</i>		

Process	Action 1	Action 2	Action 3
<p>7. Clean peeled area only, using manufacturer approved > 90% Alcohol wipes</p> 	<p>7.1 Only wipe inside the peeled zone to prevent introducing contamination, outside the unpeeled area.</p> <p>CRITICAL FACTOR</p>	<p>7.2 Wipe away from the pipe end in one direction - not back and forth.</p>	<p>7.3 Alcohol solution must fully evaporate / flash off prior to joint assembly.</p>
<p>8. Mark pipe insertion depth</p> 	<p>8.1 Using a marking pen, measure half the length of the fitting.</p>	<p>8.2 Measure and mark the pipe end, at 4 points around the pipe circumference.</p>	<p>If necessary, pipe rerounding clamps can be installed at the pipe insertion depth mark.</p>
<p>9. Insert pipe into fitting and check annular gap, with alignment clamps fitted</p> 	<p>9.1 Note gaps? (Yes / No) If Yes, how big is the gap? _____mm</p>	<p>9.2 Check: annular gap should be evenly distributed around the socket mouth.</p>	<p>Straightening clamps can be used when pipe curvature (i.e. coiled pipe) prevents smooth insertion into the fitting, including prevention of pipe misalignment.</p>
<p>10. Electrofusion Welding</p>	<ul style="list-style-type: none"> • Is manufacturer's welding time completed? (Yes / No) • Are there any Welding Machine Error Message? (Yes / No) If Yes, what are the error messages? _____ _____ 	<p>DO NOT remove alignment clamps until cooling time elapses: (Yes / No)</p>	<p>Is manufacturer's cooling time completed? (Yes / No)</p>
<p>11. Post Weld Inspection</p> 	<p>11.1 Inspect the fitting to ensure molten polymer has not extruded from the socket mouth, or visible heating wires displaced between the joint annular gap.</p>	<p>11.2 Check that the melt fusion indicator pins have fully risen.</p>	<p>11.3 Check the pipe has not moved during welding by ensuring the insertion depth mark is in the same position as marked on the pipe surface during joint assembly.</p>