



# Case Study

<b>PROJECT NAME:</b>	Rabbies 1 + 2	
<b>Community/Country:</b>	Val Rabbies, Brenta mountains, Trentino, Italy;	
<b>Amiantit entity</b>	Amitech Spain	
<b>Description:</b> <i>project</i> <i>(short abstract)</i>	Two Hydro power plants, 6,5 km, DN 1200, PN 6-25;	
<i>Application:</i>	Hydropower	
<i>Transported medium</i>	Water	
<i>Working pressure</i>	PN 6 – PN 25	
<i>Type:</i>	<input checked="" type="checkbox"/> new installation <input type="checkbox"/> relining <input type="checkbox"/> replacement <input type="checkbox"/> other type.	
<i>Demanded standards / specifications / approvals:</i>	Italian standards	

<i>Special requirement on pipe-system:</i>		
<i>Order value in Euro (€):</i>	20 Mio. €	
	<i>Opted pipe system:</i>	<input checked="" type="checkbox"/> GRP round filament <input type="checkbox"/> Ductile <input type="checkbox"/> GRE <input type="checkbox"/> GRP centrifugally cast <input type="checkbox"/> GRP cross winded <input type="checkbox"/> GRP oval shaped <input type="checkbox"/> Meyer Polycrrete <input type="checkbox"/> PVC <input type="checkbox"/> PE/PP <input type="checkbox"/> other pipe systems.
	<i>Other materials in this project?</i>	No
	<i>Why our product?</i>	<input checked="" type="checkbox"/> light weight <input checked="" type="checkbox"/> corrosion resistance <input checked="" type="checkbox"/> flow characteristics <input type="checkbox"/> chem. properties <input type="checkbox"/> mech. properties <input checked="" type="checkbox"/> speed of pipe laying
<i>Owner (name, town):</i>	PVB S.p.A. Trento,	
<i>Consultant / Engineer: (name, town)</i>	STA Engineering, Dr. Ing. Zanetti, Trento;	
<i>Contractor: (name, town)</i>	Gadotti s.r.l., Trento;	
<b>Pipe Details – material 1:</b>		
<i>Total length supplied (m)</i>	6500 m	
<i>Pipe lengths supplied (m)</i>	3-6-12 m pipes	
<i>Diameter DN min/max (mm):</i>	DN 1200	

<i>Pressure PN min/max (bar):</i>	25 bar
<i>Stiffness SN min/max (N/m<sup>2</sup>):</i>	SN 5' and SN 10'
<i>Joint types:</i>	Reka
<i>Fittings used:</i>	Bends
<b>Pipe Details – material 2 (if different material was additionally used)</b>	
<i>Total length supplied (m)</i>	
<i>Pipe lengths supplied (m)</i>	
<i>Diameter DN min/max (mm):</i>	
<i>Pressure PN min/max (bar):</i>	
<i>Stiffness SN min/max (N/m<sup>2</sup>):</i>	
<i>Joint types:</i>	What joints have been used in that project?
<i>Fittings used:</i>	What fittings have been used? sort/number?
	
<b>Installation Details:</b>	
<i>Type:</i>	<input checked="" type="checkbox"/> open trench/below <input type="checkbox"/> micro tunneling <input type="checkbox"/> subaqueous <input type="checkbox"/> sliplining <input type="checkbox"/> jacking <input type="checkbox"/> aboveground <input type="checkbox"/> suspended <input type="checkbox"/> other.
	

<i>Trench dimensions (m)</i>	2 m	
<i>Laying depth (m)</i>	From 2,5 to 3,5 m	
<i>Native soil type</i>	SC 1	
<i>Backfill soil type / compaction</i>	8/16mm, 0/30 mm	
<i>Thrust blocks/ lockjoints</i>	45	
<i>Angular deflection min/max in degrees</i>	0,8 °	
<i>Quality measures during installation</i>	Edge tightness, deflection, bedding materials, compaction;	
<i>Duration-months</i>	4 month	
<i>Year start</i>	2013	
<i>Year end</i>	2013	
<i>Number of shafts (jacking)</i>		
<i>Shaft distance (jacking)</i>	how has been the distance between the shafts?	
<i>Tunnelling equipment (jacking)</i>	what equipment was in use?	
<b>Summary:</b>	<p>At the beginning it was totally planed in steel, competitors has been tubi S.p.A. Italy and Hobas, Austria;</p> <p>The Amitech hydro power project close to Rabbies, at “Temù” was the turning point to go for flowtite pipes and bends.</p>	
<b>Owner/Consultant/ Contractor comments:</b>	<p>Heinz Enzo Weigert, D-93053 Regensburg;</p> <p>Shankar Galiana, Amitech Spain,</p> <p>Josep Aubeso, Amitech Spain;</p> <p>Mr. Gadotti, contractor, is now convinced about the advantages of the flowtite technology;</p>	