

Shell Pilot the New Gemini Fittings

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Project Profile:

Shell's Gemini trail site with 3 Gemini 90° elbows.

Shell recently purchased the Cottingham Road petrol station, in Corby, UK and are re-piping and re-pumping in order to bring the location up to date. They are also re-fitting the shop and office building and re-branding the site to Shell specs.

Shell asked Franklin Fueling Systems to pilot Gemini and Franklin collaborated with AJ Bayliss to choose this site, with the backing of Shell Global Engineering and Artelia Europe and UK.

Location	Cottingham Road, Corby, UK
Application	Suction site petrol station
Client	Shell
Project Management Company	Artelia
Main contractor	Toureen Mangan
Installation contractor	AJ Bayliss Ltd (part of the Adler and Allen group)
Installation Year	2012

The specification for the pipework involved 110mm fill pipe with 125mm pipe over the top, all in 5.8 meter sticks and all EN14125 UPP pipe with EVOH liner. A range of UPP products were used including the latest Gemini 110/125mm 90 degree elbow fittings.

The Fill line upon which the Gemini fittings were installed was a 125/110 Double Wall Fill line, about 8m long in total and comprised of the following:

- 8m x 001-006-110-FILL-E pipe.
- 8m x 000-125-006 SC pipe.
- 3 x G3-125-110 Gemini 90 degree elbows.
- 3 x 03-110-EIF primary elbows.
- 1 x 49-125-110-TP to close down the 125mm SC pipe inside the tank chamber.
- 1 x 49-125-110 to close down the 125mm SC pipe underneath the fill point.



Unique design allows inner elbow to be accessed prior to closing the Secondary.



An installed 90 elbow.



Preparing the elbow assembly.



Welding the primary elbow.



Welding the Gemini Fitting in one process with jumper leads.



Completed Gemini Elbow.



The final fill line in place.

Starting from the fill point end the primary system was welded, with the Gemini system left loose over the top of the primary system for inspection. One of the great benefits of Gemini system is the ability to pressure test the entire primary system before being required to close the secondary.

The installation was concluded from the tank end and finally all of the Gemini fittings went together well, taking approx 8 mins per assembly. At the tank end a UPP flanged transition fitting was bolted to the Risbridger Overfill Prevention Device.

"I found the system easy to install and much quicker than the usual 110mm / 160 mm system. The main reason for this was time saved prepping the secondary fittings, as these did not need scraping as previous fittings did. Installation was straight forward and the Gemini fittings went together fairly easily. In my opinion the Gemini system is an improvement on previous dual contained systems."

- Scott Southwick, A.J.Bayliss



UPP 63mm suction and VR2 lines were also installed on site. Here two 63mm electrofusion tees are used to create VR2 branch lines.

Pipe lengths supplied:

16 x 63mm Suction lines	282 metres
1 x 63mm VR2 line	42 metres
4 x 110mm Fill Lines	90 metres
1 x 125/110mm Fill Line	90 metres
5 x 63mm Vent lines	90 metres