

# RADIUS TAPPING TEES ARE NO LONGER FOREIGN

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**R**adius electrofusion fittings – couplings ranging to 400 mm, elbows and tees up to 180 mm, and transition pieces up to 250 mm – were introduced into the Russian market in autumn 2013. Two years later POLYPLASTIC Group started production of small diameter Radius fittings in Russia (see “Russian fittings with English origin” on page 46).

This form of import substitution quickly helps to reduce product prices which makes a positive difference during an economic crisis.

The next step in this direction for POLYPLASTIC Group is the deployment of tapping tees (saddles) and electrofusion fittings used for gas pipelines. A saddle is an analogue of a tee joint, but with a higher price tag, however, it is important to understand that these products are used in completely different situations. For example, the use of a tee joint for the construction of a new gas pipeline is economically justified. But the situation is completely different with live insertion into an operating pipeline. Using a cheap tee means stopping the gas supply. As well as inconveniencing customers, this also requires additional expenditure for special mechanical and hydraulic equipment, repair (sleeve) fittings for reinforcement of the squeezed area and saddle connection which acts as a purge gas line – plus other related works. When the saddle connections are used, there is no need for all of this as the installation is done without a pressure decrease or the associated disruption for customers. In most cases the business case goes in favour of saddles as the new customer connection does not cause any problems with supply to their neighbours: when customers are not disconnected from the gas supply, they don't mind the construction works.

Gas distribution companies are the main consumers of the saddles.

The Gazprom programme for gas distribution network development in Russian regions involves construction of inter-settlement gas pipelines. The pipes range from 63 mm to 225 mm. Consumers connect to these main pipes with tapping diameters of 63 mm and 32 mm. The most popular saddles used are for pipe diameters of 63–160 mm and tapping diameters of 32 mm and/or 63 mm.

Standard Radius tapping tees with incorporated cutters are top quality products popular in the UK. Like other Radius fittings,



these products are certified by British Gas and meet the toughest requirements of the UK gas industry. The main reason why this product hasn't been previously offered in the Russian market is the absence of a mounting clamp. This is not obligatory, but highly desirable if used in Russia as it eliminates the need for special clamping devices and ensures a grip and saddle close fit with the pipes during welding.

POLYPLASTIC Group took the decision to naturalise the three most popular saddle sizes in Russia – 63 mm, 110 mm, 160 mm of the main pipeline with tapping diameter of 63 mm. With these three sizes, it is easy to expand the range of the saddles with similar products with a tapping diameter of 32 mm supplementing the saddle with a 63 x 32 electrofusion transition piece.

Radius Systems developed a special design of polyethylene mounting clamp with metal fixtures to help standardise saddles for the Russian market.

The set of mounting clamp consists of:

- a plastic strap produced by pressure moulding
- a specially designed steel frame
- a U-shaped bolt
- two nuts

Manufacturing of the various elements used in Radius saddle mounting clamps, as well as assembly of the components, is done at the Kokhanovsky Pipe Plant, the Belarus production facility of POLYPLASTIC Group. The final product meets all the requirements of GOST R 52779-2007 Polyethylene Fittings for Gas Pipelines: General Specifications.

The Radius saddles with mounting clamp made in Belarus offer the highest quality at a reasonable price and are currently the only alternative on offer as an import substitution in the Customs Union zone.

Trade divisions of POLYPLASTIC Group traditionally offered clients tapping tees produced by Georg Fischer (Switzerland). Following the launch of Radius saddles in Russia, Swiss premium-class products will still be available, however the range of economy goods in Russia made by POLYPLASTIC Group will continue to expand.