

## Switzerland case study

### Hymax coupling – connecting an old cast iron pipe with a new flange pipe

#### The customer

A sanitary equipment manufacturer operating in the Solothurn area, offering repair services and pipe construction for the surrounding towns and villages. The company has completed this order on request by the township administration.

#### The situation

A DN 400 cross structure with two outlets to DN 200, each provided with two flap valves is integrated in an existing transport pipe of DN 400 ductile cast iron. This transport pipe and the existing cross structure with the flap valves is several decades old. The pipe has already been leaking at several points and the flap valves at the cross structure don't function correctly any more either.

This is why the municipal administration decided to reorganize part of the old transport pipe and to replace the complete cross structure by new DN 400 flap valves and the two outlets by DN 200 flap valves.

The old existing cast iron pipe has an outside diameter of approx. 423 mm. The outside diameter of the new flange pipe is approx. 429 mm.

#### The Challenge

The problem was that the pipe downtime had to be limited to an absolute minimum, the pipe outside diameters were different and only restricted space was available at the point in which the two pipes had to be joined together.

Initially, the sanitary equipment company which had received the order from the township administration intended to connect the existing pipe and the new flange pipe with wide range couplings from a competitor. However, they had to realize quickly that it wasn't possible due to reduced space conditions.

#### The solution

Eventually, the company integrated a DN 400 Hymax coupling with a mounting range of 420 mm – 474 mm, which covered the ranges of both pipes. The installers were able to mount the coupling comfortably and easily by tightening the four top bolts. This saved them considerable time and labor as compared with competitor couplings, which have up to 16 screws.

- The company selected the Hymax coupling, because it requires only four bolts, compared to competitor products with up to 16 bolts.
- Moreover, the bolts of the Hymax coupling are all accessible comfortably from top, which permits easy and quick mounting from top, even under restricted space conditions. In this situation, the competitor products couldn't have been tightened considering the narrow space conditions.
- Another reason for selecting the Hymax coupling was its robust construction and large lip seal, which is supported hydraulically by the water pressure. This produces a long and tight connection, even on poor an old pipe surfaces.
- Another important advantage of the Hymax coupling is a large mounting range.

## Hymax coupling – the advantages

- Quick and easy mounting with only few screws – all accessible from top. This is an advantage where space conditions are restricted and saves time.
- Due to the big mounting range of the Hymax coupling, a large variety of different pipes with various outside diameters can be connected. Under these circumstances, stockkeeping can be reduced and cost savings are possible.
- Robust construction and a large lip seal, which is also supported hydraulically ensures tightness over long periods even on poor pipe surfaces.



