

Clamshell Bellows

by Belman Production A/S



Belman designs and manufactures clamshell bellows.

Properties

Clamshell bellows is the optimum solution when a quick and unexpected replacement of the bellow is necessary. Clamshell bellows is a two-piece bellow which is welded around the current bellow. Clamshell bellows can be designed as a non-permanent solution or as a permanent solution. Clamshell bellows is chosen when the objective is; an efficient implantation of remedial actions, minimum down time on the system and enormous cost-savings. It is very important that clamshell bellows is installed as soon as possible after the failure, eventually a leakage, is discovered. As the eventual crack in the bellow quickly increases.

Construction

- Size: DN 400mm – DN 6000 mm.
- Are designed and manufactured in many different materials.
- Both round and rectangular clamshell bellows are designed and manufactured.



Application

Among others in brick lined pipes, in pipelines on steel plants and in heat exchangers.

OVER-SIZE-CLAMSHELL BELLOWS Properties

Over-size-clamshell bellows is installed on top of the current bellow while the system operates.

Advantages

- Over-size-clamshell bellows is usually installed while the pipeline operates. Down time is not necessary, which results enormous cost-savings. A term is that there are no leakages as these prevent welding.
- Opening the pipeline is unnecessary, as entrance to the inside of the pipe is not necessary.
- Already installed inner sleeves and insulation material is not touched during installation of clamshell bellows.

Information needed to design and manufacture the optimum solution is among others:

- Specifications on the current bellow.
- The internal pipe diameter.
- The cause for the replacement of the bellow, for instance leakage.
- Medium.
- Material.
- Pressure.
- Is there room for installation of clamshell bellows on the location?
- Movements.
- Temperature.

Please note: Before installation check if the reactive force and the spring rate is kept or if a recalculation is necessary.

SAME-SIZE-CLAMSHELL BELLOWS Properties

When installing same-size-clamshell bellows the current bellow is removed and the pipe system is down during that.

Advantages

- Installation/assembly is possible on-site.
- The down time on the pipeline/the heat exchanger is minimized which results enormous cost-savings.
- Reactive force and spring rate can stay as originally and for this reason re-dimensioning is unnecessary.
- On heat exchangers internal pipes do not need to be dismantled. Pipe stubs etc. are of no importance.

Information needed to design and manufacture the optimum solution is among others:

- Specifications on the current bellow.
- The size of the crack in the current bellow.
- Does the surrounding area of the leakage allow welding?
- Pressure.

Experienced installation-team from Belman
Belman has experience with installation of clamshell bellows. The team will be pleased to help you with the installation.

- Contact us for a quotation on installation!

