AMNIFLEX

GUIDE TO THE USE OF AMNITEC STAINLESS STEEL CORRUGATED HOSE INTRODUCTION

STAINLESS STEEL CORRUGATED HOSE

There are two basic types of stainless steel corrugated hose. They differ by the geometry of the corrugations. There is the annular or parallel corrugated hose and the helical or spiral corrugated hose, both braided as well as unbraided.

From a thin walled stainless steel strip, a tube is formed and longitudinally welded. Hereafter this thin walled tube is mechanically and/or hydraulically formed into a flexible corrugated hose. Sometimes even seamless tube is used for the same.

With this method, parallel and spiral corrugated hose can be manufactured. Usually both parallel and spiral corrugated hose have a constant pitch that runs along the whole length of the hose. Parallel corrugated hose consist of a large number of equally spaced (pitch) parallel corrugations whose main plane is perpendicular to the axis of the hose.

It is an all metal hose, pressure tight from itself, without the use of any kind of packing or sealing. The hose is absolutely leak tight and suitable for high pressures (braided) and vacuum as well as low (cryogenic) and high temperatures, together with a high corrosion resistance.

There is a wide variety of types of corrugated hose because of the usage of thin, medium or heavy walled strip plus the variety in the production of very close, closed or open or wide open pitch hose. Selecting the right hose strongly depends on its use and application.

In order to increase the pressure resistance, the corrugated hose is covered with several kinds of stainless steel wire braiding. The hose can be covered with one layer, or two layers and even 3 layers of stainless steel wire braiding. Within the braiding there are different kind of braids and thickness of the wires. We know parallel as well as interwoven braiding for higher demands.

SELECTING A CORRUGATED STAINLESS STEEL HOSE

Selecting the right hose strongly depends on its use and application. This is very important to get a right hose on the right spot which fulfils the expectations of the user. Many parameters play their own roll in the selecting procedure. The main parameters needed for the selection are mentioned in our questionnaire, but, the more information one good give, will help to create the best flexible solution.

Determine:

1 Nominal diameter, size of connections.
2 Length of the hose
3 Medium in relation to corrosion of hose material.
4 Temperature of operation.
5 Pressures, operating, test and burst needed for the application.
6 Motion and amount of motion affecting type of hose.
7 Fittings needed to connect.
8 Flow velocity
9 Flow direction
10 Design pressure
11 Test pressure
12 Maximum and minimum temperatures
13 Pipe specification and material
14 Flange specification and material