



### **1. Suitability of corrugated metal hose assemblies**

Corrugated metal hose assemblies are basically suitable for the transport of critical fluids under pressure and temperature.

The required flexibility of the corrugated hose generally results in a wall thickness considerably smaller than that of all other parts of the system in which they are installed. Therefore, increasing the wall thickness of the hose to prevent damages caused by corrosion is not reasonable and it becomes essential to select a suitable material for the flexible element which is sufficiently resistant against all corrosive media that may occur during the entire lifetime. In many cases, the hose has to be manufactured out of a material with even higher corrosion resistance than those of the system parts it is connected to.

In addition, possible corrosive environmental effects must be considered.

The material selection must take into account all possible kinds of corrosion, especially pitting corrosion, intergranular corrosion, crevice corrosion and stress corrosion cracking (SCC).

### **2. Selection of a suitable material**

The material for the corrugated hose is to be selected according to the specific aggressiveness of the operating fluid or of the surrounding atmosphere.

Recommendations for the selection of materials are given under [www.euroqualiflex.com](http://www.euroqualiflex.com).

### **3. Prevention of corrosive effects during operation of the plant**

Any uncertainties concerning the exact composition of the working fluid, differing operating states, and other peripheral service conditions may additionally increase the danger of corrosion and have to be taken into account.

### **4. Responsibility of the hose manufacturer**

The responsibility of the hose manufacturer covers the functional design of the hose assembly according to the given information, as pressures, temperatures, movements, kind of application and additional loadings, and also the material concerning its formability and weldability.

In addition, the Euro-Qualiflex members contribute their wide scope of experience when assisting the user in selecting a suitable material for the special application.

But, with regard to the influences of the actual operating situation given (see point 3) only the user can take full responsibility for the selected material. The advice of the hose manufacturer can only be given without obligation, i.e. without any liability for the material to be properly selected.