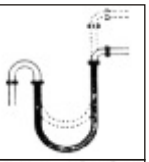
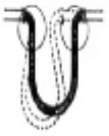
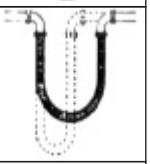
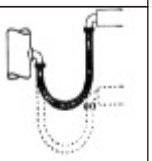
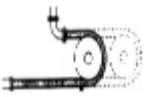
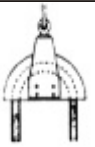
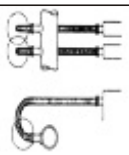
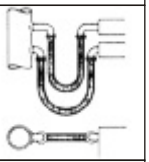
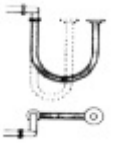
Installation and Sevice Instructions
Flexible Stainless Steel Hose

The service life expectation of a flexible metal hose mainly depend on the correct installation layout. In most cases when flexible metal hoses fail prematurely, the reaseon on failure may be found in an incorrect layout. A small layout change, for example by using a 90° pipe bend in combination with the hose may improve the service life of the installation substantially. As a rule, the metal hose is not to be bent over its limit of elasticitx. The choice of the right hose length is of crucial importance. The hose should not be subject to torsion. Torsion can usually be eliminated by changing the layout. Alternating movements (bending) and bending stresses adjacent to the hose fitting also have asverse effects. When circumstances allow, the oart of the hose next to the fiting should not be subject to any bending stress. Note that care should be taken during installation to prevent additional stress by forcing the hose to assume an unnatural position (Torsion through sealing threaded couplings or twisting flanges in position). This is the reason why we recommend a floation or a screw cap at least on one hose end.

caution: if there are temperatures above 100° C make use of the decreasing factors concerning "pressure" and "movement".

False: Bending stress just after the fittings to high Fig. 1 	**Correct:** By attaching a 180° U-bend on one side and a 90° elbow on other side, the bending stress is disturbed to the center part of the hose. 
False: Same as Fig. 1. Fig. 2 	**Correct:** Same as Fig. 1. 
False: Alternating bending stresses are very damaging: bend adjacent to the fittings too strong. Fig. 3 	**Correct:** No altenating bending and smaller stress adjacent to the fittings through the use of pipe elbows. 
False: Alternating bending stress and to much bending adjacent to the fitting. Fig. 4 	**Correct:** No alternating bending and acceptable bending by using pipe elbows. 
False: Damaging alternating bending stress and torsion on the hose. Fig. 5 	**Correct:** Guide the hose over a movable roll to eliminate alternating bending and torsion. 
False: Bending stress to high. Fig. 6 	**Correct:** Acceptable bending stress. 
False: Torsion on the hose and excessively narrow bends adjacent to the left fitting. Fig. 7 	**Correct:** No torsion and optimal bending characteristics by using 90° pipe elbows. 
False: Torsion on hose. Fig. 8 	**Correct:** Where torsion cannot be eliminated, the use of special turnable fittings is necessary. As aresult, the hose is only subject to bending stress. 
False: Because the two hose connections are not situated in one plane, the hose is subject to torsional stress Fig. 9 	**Correct:** Torsion can be eliminated by bringing the hose connection in one plane. 

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