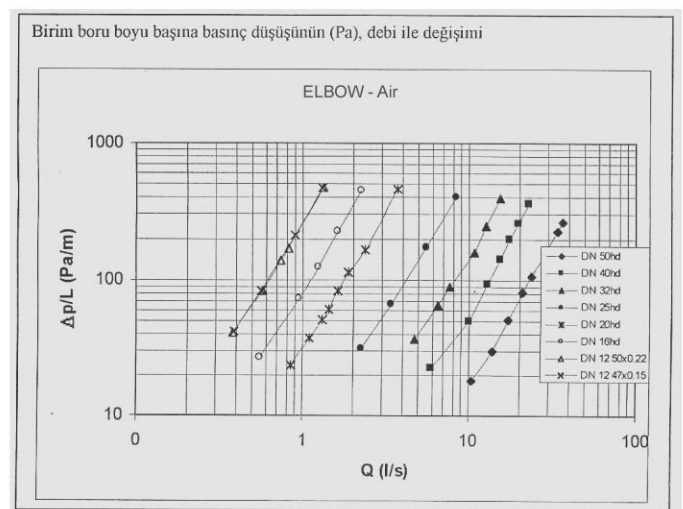
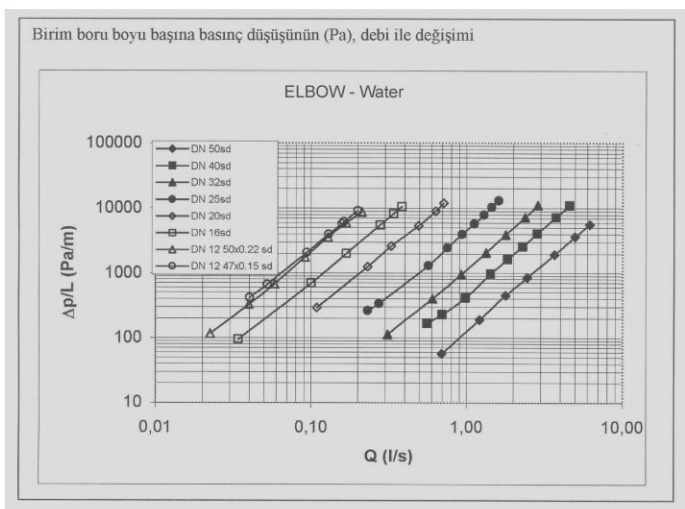


**Pressure Drops at the metal flexible hoses:**

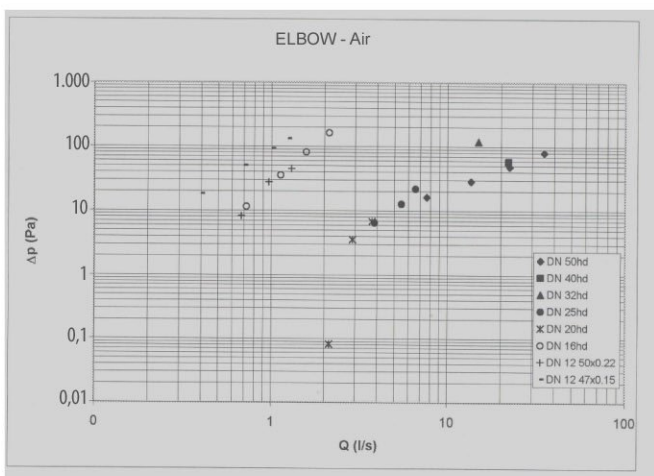
In the experiments with water/air, below in the graphics, pressure loss (Pa) per unit length of pipe is mentioned with the exchange of flow rate (lt/sc) of water/air inside the pipe.



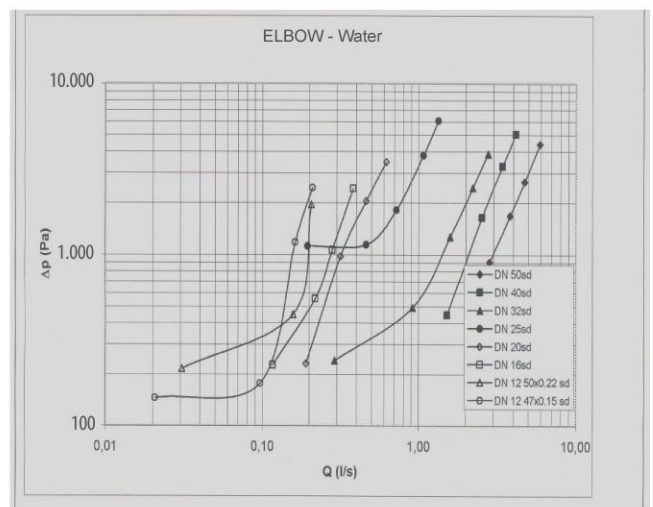
**Pressure Loss for Flexible Metal Hoses with minimum bending radius:**

Find below the medium pressure drop calculation for one pc 90° elbow; which has been found by deducting pressure decrease of the flexible curly hose while it is straight, from the pressure decrease of the hoses at 90° twist on the minimum twist diameter

**AIR**



**WATER**



**Exchange of Coefficients of continuous load loss to Number (Re)**

Continuous load loss coefficient (Hose friction coefficient) is defined as  $\lambda$ .

$$\lambda = \frac{\Delta P / (\rho g)}{v^2 / (2g)}$$

In this formula  $\Delta p$  defines the pressure drop b/w inlet and outlet of the flexible hose (Pa);  $\rho$  defines the volume of fluid ( $\text{kg/m}^3$ );  $v$  defines the velocity of fluid (m/sc);  $g$  acceleration gravity. ( $\text{m/sc}^2$ )  
 Reynold number is defined as  $Re$  in this formula.

$$Re = VD/v$$

$D$  is the nominal diameter of the hose;  $\nu$  is kinematical viscosity of fluid ( $\text{m}^2/\text{sn}$ ). Below on the charts;  $\lambda$ - $Re$  variation is shown for different flexible hose types by evaluating the data from the experiment done by water and air.

