

## Noise Attenuation

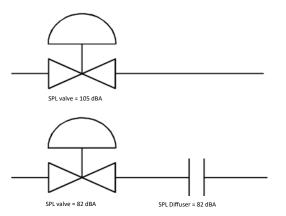
### **Engineered solutions for Noise Attenuation**

#### Simple solutions for demanding positions

High pressure drops and high flow rates give rise to noise and vibration in pipe systems. This not only impairs the working environment but can in extreme cases also damage equipment. Therefore, it is important to prevent the cause of noise and not only prevent the noise generated from reaching the environment. If the entire pressure reduction takes place in the control valve, large valve sizes are often required with special noise trims. A more cost-effective way is to divide the pressure drop in several steps. This is done with a simple diffuser disc clamped between flanges or with a tubular diffuser integrated in an expander. Askalon makes calculations of the required capacity, what sound pressure levels one can expect an manufactures the components according to these requirements.



Noise is generated either in the valve's trim at high pressure drops or in the outlet if the flow area is too small. A diffuser solves both problems by reducing the pressure drop and the need for the outlet area. The diffusers are usually dimensioned for critical pressure drop and for similar noise levels in each pressure stage. Since the sum of the two lower noise sources becomes lower than one high noise source, the result will be a lower overall sound level.

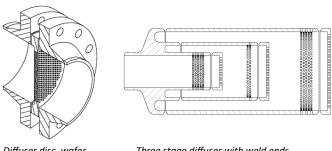


Divided pressure drop results in lower noise. 82 dBA + 82 dBA adds up to 85 dBA.



#### **Complete solutions**

Askalon is not only a supplier of components. We can take care of the entire chain from calculation and construction to PED approval and installation. We also supply the necessary accessories such as strainers, temperature sensors and protective pockets and of course control, shutoff and safety relief valves. After installation, thanks to our service organization, we can offer cooperation regarding valve service and maintenance of valves.



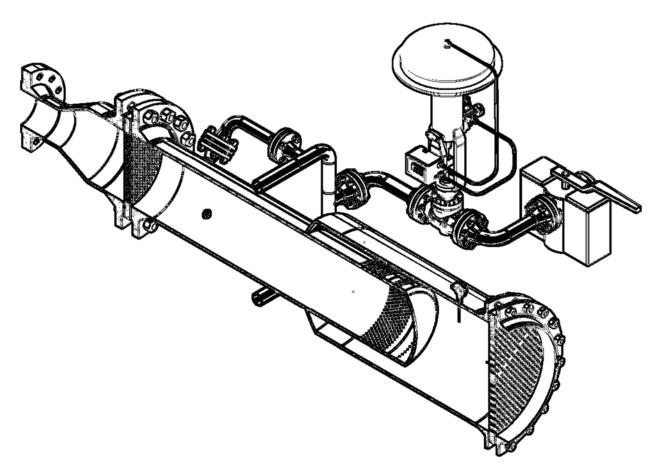
Diffuser disc, wafer

Three stage diffuser with weld ends

On the next page you will find the details required to obtain a quote.



# Noise Attenuation



Tag No	
Design Pressure downstream, bar(g)	
Design temperature, °C	

Pipe dimensions	DN	PN
Upstream		
Downstream		

	Case 1	Case 2	Case 3
Steam flow [kg/s]			
P1 Valve [bar(g)]			
T1 [°C]			
P1 Diffuser*[bar(g)]			
P2 System [bar(g)]			

<sup>\*</sup>If there is an existing diffuser

	Replacement of existing equipment
	Isometrics available

Noise Requirements		
	85 dBA at 1 m	
	Other:	

#### Contact us for engineered solutions

 Gert Andrée
 Per Nordquist
 Sören Kindlund

 054-57 92 19
 054-57 92 38
 054-57 92 18

Gert.Andree@askalon.se Per.Nordquist@askalon.se Soren.Kindlund@askalon.se