SHUT OFF DAMPERS

TYPE SOR_1 & SOC_1

BALANCING DAMPERS

TYPE VCR_1 & VCC_1

ACOUSTICS AS Bankveien 7, 1383 Asker, Norway
Office:: +47 66 77 73 70, E-mail: acoustics@acoustics.no

Application
SOR_1 and SOC_1 are manually operated shut off dampers designed to shut down airflow in ventilation systems. SOR_1 is a rectangular type, and SOC_1 is a circular type damper. VCR_1 and VCC_1 are manually operated balancing dampers designed to control airflow through ventilation systems. VCR_1 is a rectangular type and VCC_1 is a circular type damper. The dampers meet the rigid requirements of the offshore industry. The solid construction is capable to withstand high air velocities and pressure variations. Air leakage through damper blades in closed position are kept to the minimum on shut off dampers and leakage through casing is negligible. The dampers are an opposed blade type, manually operated through linkage arms by a handle and positioned by a solid locking device. A grade scale indicates blade positions of volume control dampers an open/closed indication on the shut off dampers. Limitswitches for remote indications for open/closed damper is a possible option.

Materials and dimensions
The damper casing is fabricated from stainless steel AISI 316L. Plate thickness is 3.0 mm. The damper blades have plate thickness of 1.5 mm with cell rubber sealant (shut off dampers only). Both axles and bearings are made in stainless steel.

Test data
Test data are based on standards NS-EN 1751 for both closed blade air leakage and leakage through casing.

SPECIFICATIONS

SOR_1 Shut off Damper
VCR_1 Volum Control Damper

Nom width mm	Nom heigth mm	Overall length mm	Connection	Material
To be specified				
	To be specified			
		300		
			F=Flange	
				AISI 316L/3mm

Example: SOR_1 - 750W x 750H x 300L - F - AISI 316L/3mm

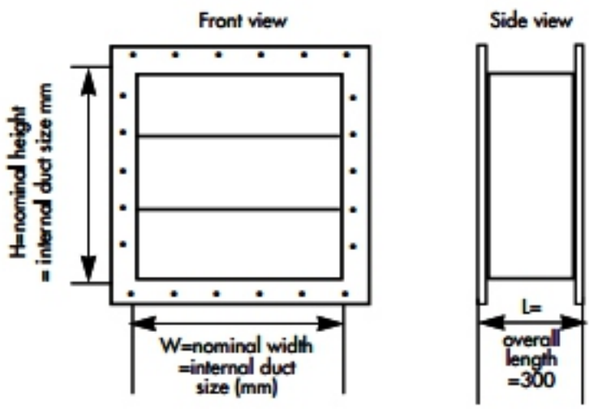
SOC_1 Shut off Damper
VCC_1 Volum Control Damper

Nom diameter mm	Overall width mm	Overall height mm	Overall length mm	Material
To be specified				
	See table 3			
		See table 3		
			S=Spigot=300 FL=loose flange=400 FS=welded flange=400	
				AISI 316L/3mm

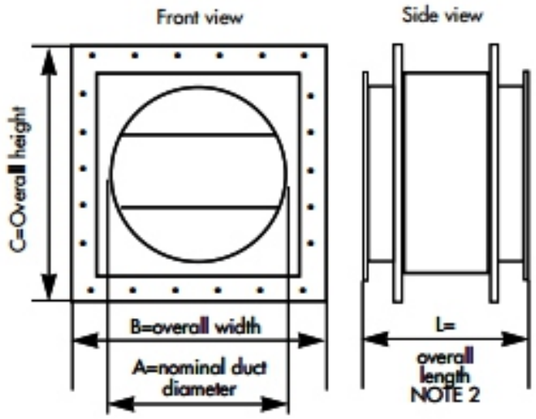
Example: SOC_1 - Ø500 - 700W x 700H x 400L - FS - AISI 316L/3mm

DIMENSIONS

Rectangular type - SOR_1 or VCR_1



Circular type - SOC_1 or VCC_1



NOTE 2: Overall length
Type SOC_1 or VCC_1 -S: 300 mm Spigot connection
Type SOC_1 or VCC_1 -FL: 400 mm loose flange connection
Type SOC_1 or VCC_1 -FS: 400 mm welded flange connection

Table 3

SOC_1 VCC_1	A mm	B mm	C mm
	200	400	400
	250	450	450
	315	550	550
	400	600	600
	500	700	700
	630	850	850
	800	1000	1000
	1000	1200	1200

PRESSURE LOSSES

Pressure losses over dampers when the blades are fully open.

Rectangular dampers:

Nominal height H (mm)	Pressure loss coefficient
100	1,0
200	1,0
300	0,5
400	0,5
500	0,5
600	0,5
700	0,25
800	0,25
900	0,25
1000	0,25

Circular dampers:

Nominal dia A (mm)	Pressure loss coefficient
200	1,0
250	1,0
315	0,5
400	0,8
500	0,8
630	0,5
800	0,4
1000	0,4