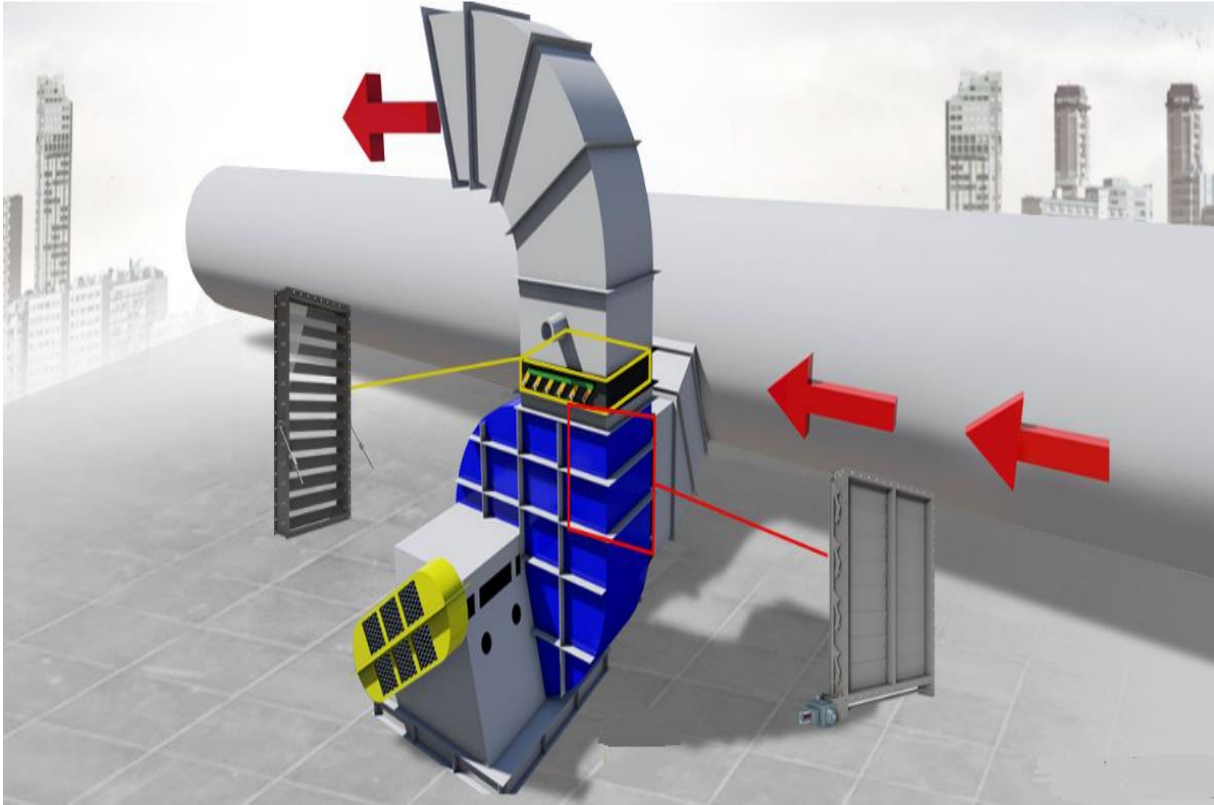




MANUAL MULTI-LEAF VOLUME CONTROL DAMPER



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Multi-Leaf Damper VCD



DESCRIPTION:

These Volume Control Dampers are suitable for regulating or shutting off the air flow in air ducts with rectangular or square cross sections. The blades are manufactured from aluminum profiles and the frame is produced from aluminum. The blade action is realized with the help of gears by a linkage mechanism. All of the dampers are produced either with damper actuators or with actuator bases or with a manual locking quadrant

MATERIAL:

Frame and Blade made of Aluminum

FUNCTION:

- Multi-leaf dampers of Type VCD are used as an acting element in the volume flow and pressure control in air conditioning systems
- For low-leakage shut-off of ducts and openings in walls and ceiling slabs
- Powder-coated construction
- Aero foil blades
- Low-maintenance, robust construction
- No parts with silicone
- Available in standard sizes and many intermediate sizes

INSTALLATION:

- Screw

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CLASSIFICATION:

- Closed blade air leakage to EN 1751
- Test pressure up to 2000 Pa
- Class 2

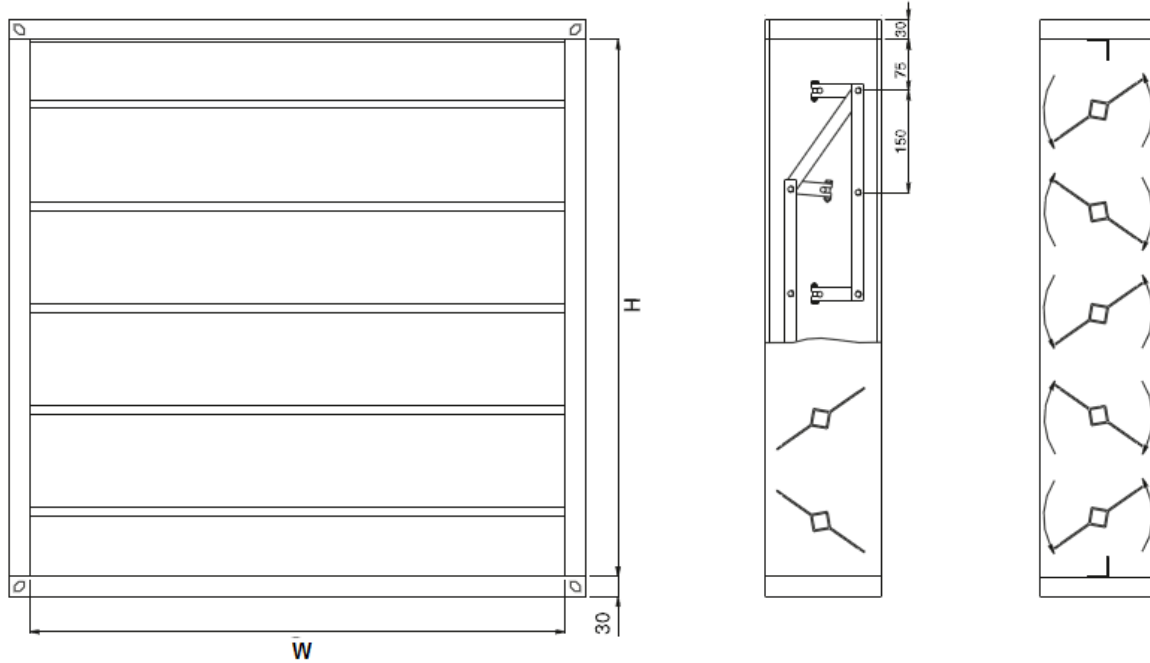
STANDARD SIZES (mm):

AVAILABLE SIZES (mm) - Always width x height												
	WIDHT											
HEIGHT	200	300	400	500	600	800	1000	1200	1400	1600	1800	2000
105	X	X	X	X	X	X	X	X	X	X	X	X
205	X	X	X	X	X	X	X	X	X	X	X	X
305	X	X	X	X	X	X	X	X	X	X	X	X
405	X	X	X	X	X	X	X	X	X	X	X	X
505	X	X	X	X	X	X	X	X	X	X	X	X
605	X	X	X	X	X	X	X	X	X	X	X	X
705	X	X	X	X	X	X	X	X	X	X	X	X
805	X	X	X	X	X	X	X	X	X	X	X	X
905	X	X	X	X	X	X	X	X	X	X	X	X
1005	X	X	X	X	X	X	X	X	X	X	X	X
1105	X	X	X	X	X	X	X	X	X	X	X	X
1205	X	X	X	X	X	X	X	X	X	X	X	X
1305	X	X	X	X	X	X	X	X	X	X	X	X
1405	X	X	X	X	X	X	X	X	X	X	X	X
1505	X	X	X	X	X	X	X	X	X	X	X	X
1605	X	X	X	X	X	X	X	X	X	X	X	X
1705	X	X	X	X	X	X	X	X	X	X	X	X

DRAWING

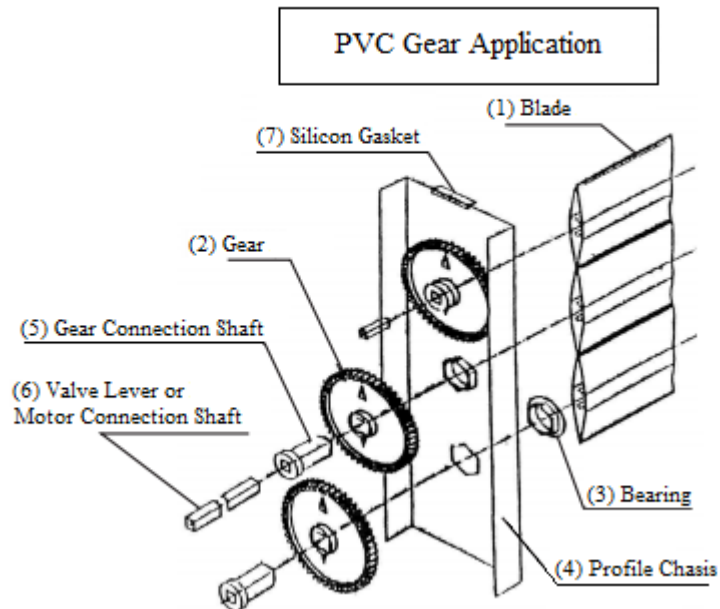
Volume Control Damper With Latch Command

MANUAL MULTI-LEAF VOLUME CONTROL DAMPER

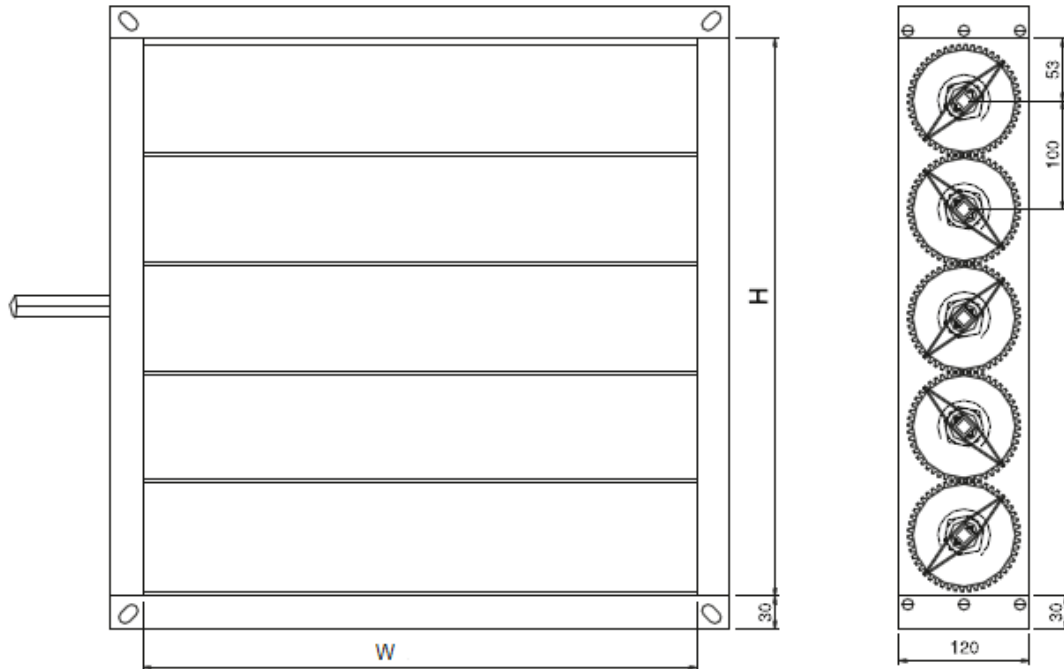


Volume Control Damper with External Pvc Gear

DAMPER PARTS



MANUAL MULTI-LEAF VOLUME CONTROL DAMPER



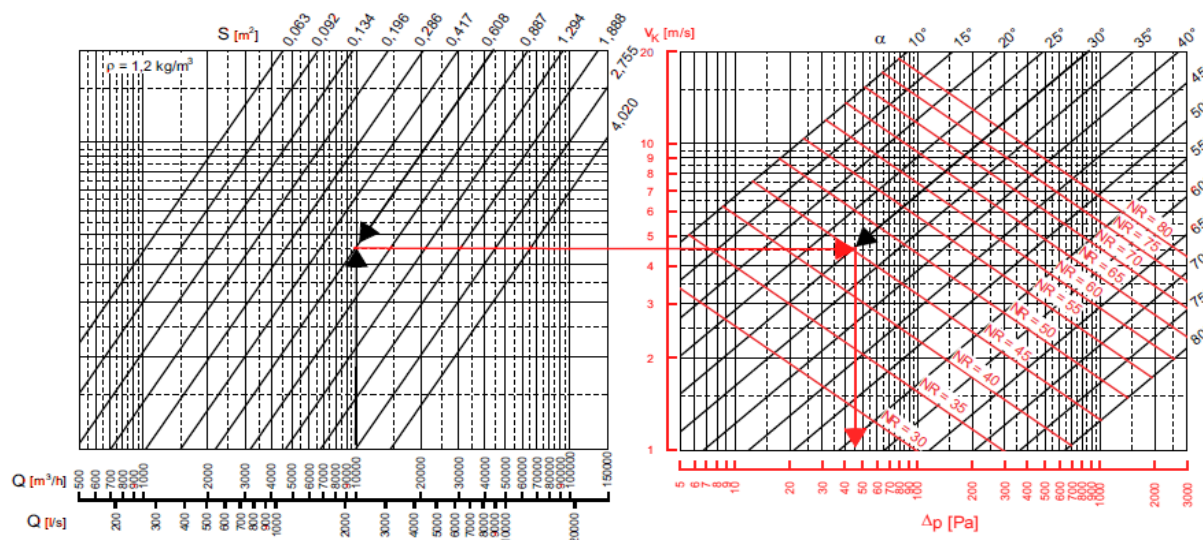
SELECTION TABLES

VCD - EFFECTIVE AREA TABLE (m²)

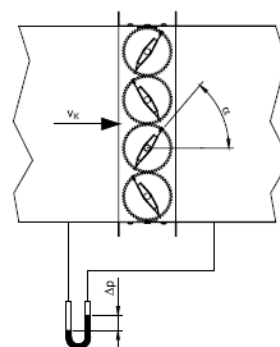
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S [m ²]		B [mm]																	
		300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
H [mm]	210	0,063	0,084	0,105	0,126	0,147	0,168	0,189	0,210	0,231	0,252	0,273	0,294	0,315	0,336	0,357	0,378	0,399	0,420
	310	0,093	0,124	0,155	0,186	0,217	0,248	0,279	0,310	0,341	0,372	0,403	0,434	0,465	0,496	0,527	0,558	0,589	0,620
	410	0,123	0,164	0,205	0,246	0,287	0,328	0,369	0,410	0,451	0,492	0,533	0,574	0,615	0,656	0,697	0,738	0,779	0,820
	510	0,153	0,204	0,255	0,306	0,357	0,408	0,459	0,510	0,561	0,612	0,663	0,714	0,765	0,816	0,867	0,918	0,969	1,020
	610	0,183	0,244	0,305	0,366	0,427	0,488	0,549	0,610	0,671	0,732	0,793	0,854	0,915	0,976	1,037	1,098	1,159	1,220
	710	0,213	0,284	0,355	0,426	0,497	0,568	0,639	0,710	0,781	0,852	0,923	0,994	1,065	1,136	1,207	1,278	1,349	1,420
	810	0,243	0,324	0,405	0,486	0,567	0,648	0,729	0,810	0,891	0,972	1,053	1,134	1,215	1,296	1,377	1,458	1,539	1,620
	910	0,273	0,364	0,455	0,546	0,637	0,728	0,819	0,910	1,001	1,092	1,183	1,274	1,365	1,456	1,547	1,638	1,729	1,820
	1010	0,303	0,404	0,505	0,606	0,707	0,808	0,909	1,010	1,111	1,212	1,313	1,414	1,515	1,616	1,717	1,818	1,919	2,020
	1110	0,333	0,444	0,555	0,666	0,777	0,888	0,999	1,110	1,221	1,332	1,443	1,554	1,665	1,776	1,887	1,998	2,109	2,220
	1210	0,363	0,484	0,605	0,726	0,847	0,968	1,089	1,210	1,331	1,452	1,573	1,694	1,815	1,936	2,057	2,178	2,299	2,420
	1310	0,393	0,524	0,655	0,786	0,917	1,048	1,179	1,310	1,441	1,572	1,703	1,834	1,965	2,096	2,227	2,358	2,489	2,620
	1410	0,423	0,564	0,705	0,846	0,987	1,128	1,269	1,410	1,551	1,692	1,833	1,974	2,115	2,256	2,397	2,538	2,679	2,820
	1510	0,453	0,604	0,755	0,906	1,057	1,208	1,359	1,510	1,661	1,812	1,963	2,114	2,265	2,416	2,567	2,718	2,869	3,020
	1610	0,483	0,644	0,805	0,966	1,127	1,288	1,449	1,610	1,771	1,932	2,093	2,254	2,415	2,576	2,737	2,898	3,059	3,220
	1710	0,513	0,684	0,855	1,026	1,197	1,368	1,539	1,710	1,881	2,052	2,223	2,394	2,565	2,736	2,907	3,078	3,249	3,420
	1810	0,543	0,724	0,905	1,086	1,267	1,448	1,629	1,810	1,991	2,172	2,353	2,534	2,715	2,896	3,077	3,258	3,439	3,620
	1910	0,573	0,764	0,955	1,146	1,337	1,528	1,719	1,910	2,101	2,292	2,483	2,674	2,865	3,056	3,247	3,438	3,629	3,820
	2010	0,603	0,804	1,005	1,206	1,407	1,608	1,809	2,010	2,211	2,412	2,613	2,814	3,015	3,216	3,417	3,618	3,819	4,020

VCD - PRESSURE DROP AND NOISE LEVELS



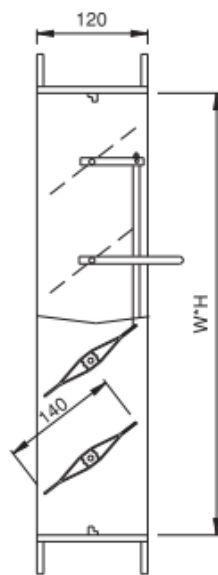
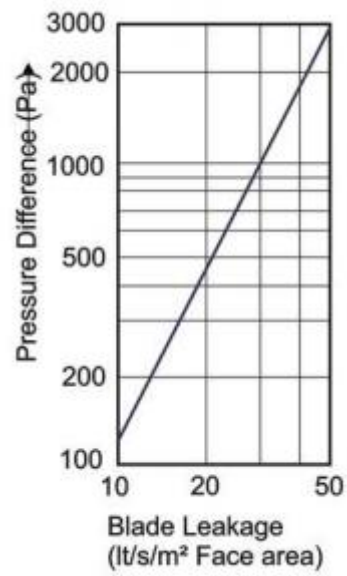
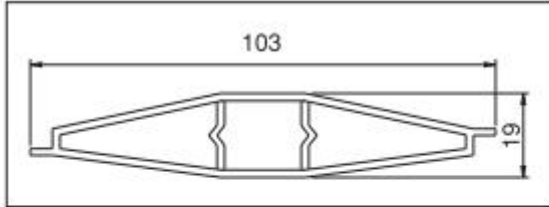
- Q [m³/h] [l/s] through air flow rate
- S [m²] Damper surface area
- v_k [m/s] velocity relating to the effective outlet area S
- Δp [Pa] total pressure loss
- α angle of inclination of the blade
- NR noise rating (ISO standard, in relation to 10^{-12} W) taking no account of the attenuation of the room



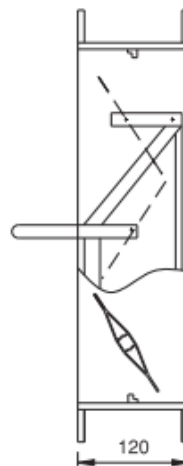
BLADE TYPE



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Parallel Bladed



Opposite Bladed



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Damper Blade Position



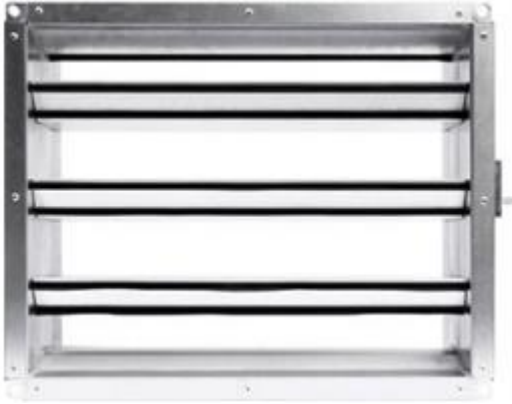
Closed Position



%50 Open



MANUAL MULTI-LEAF VOLUME CONTROL DAMPER

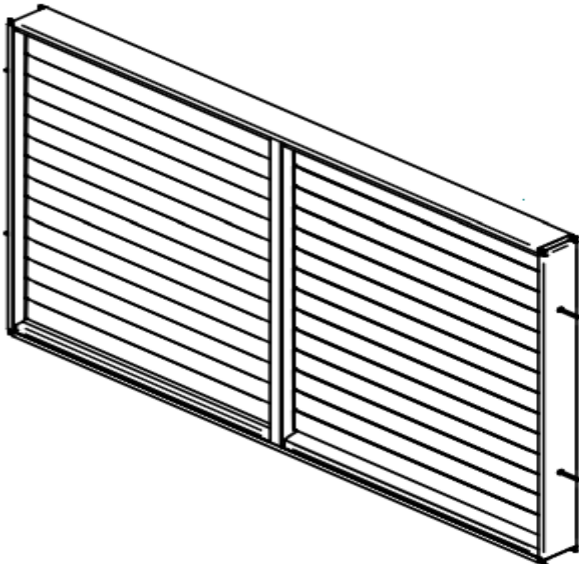


%100 Open

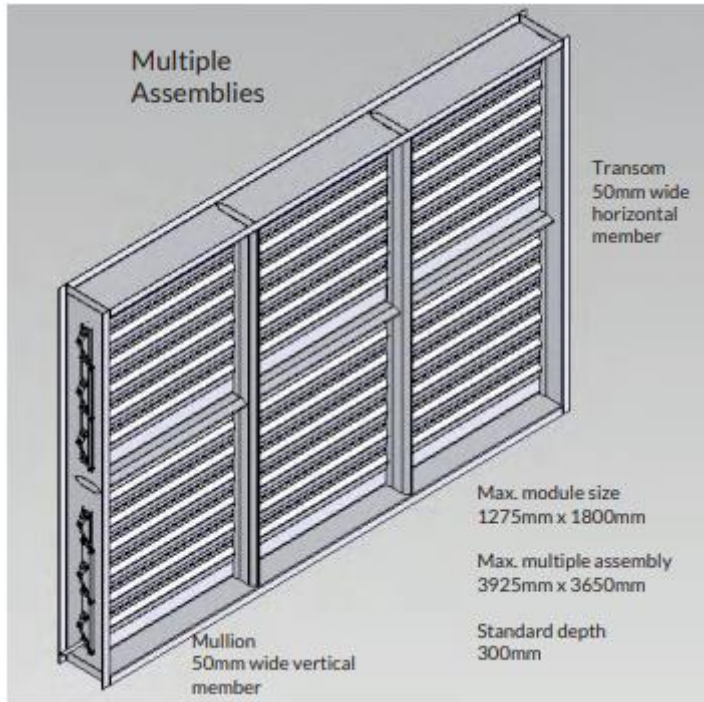
Installation & Assembly

Larger dampers can be constructed by joining multiple assemblies together. An approved fire-resistant sealant should be inserted between the damper and duct to ensure a good seal.

Each section shall have a drive spindle which can be linked together externally or driven independently



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ORDER CODE

VCD -	S	00	00	N 505x500
				N: Neck Size F: Frame Size
				00: No Mounting SM: Screw Mounting
A: Aluminum (Standard) G: Galvanized Metal Sheet (Optional)				00: No coating RAL----: Powder Coating