

Instructions for the BASIC BCBC Mixing section, Sizes 004–055

1. General

The BCBC mixing section has three interconnected dampers at two levels for outdoor air, recirculated air and exhaust air. This mixing section can be used if the exhaust air functions and the supply air functions of an air handling unit are stacked on one another, and if the BCVA Turbo rotary heat exchanger or the BCVF plate heat exchanger is included and recirculated air is required.

The mixing section has flow-perpendicular dampers with counter-rotating damper blades made of aluminium-zinc coated, double skin sheet steel, to environment class M3. The mixing section offers excellent air mixture with a linear flow characteristic.

On the size 004-027 units, the damper actuator can be installed on the right-hand or left-hand side; on the size 035–055 units, it can be installed between the dampers at the centre of the mixing section.

The damper blades are journaled in nylon bearings.

The outdoor air damper and the exhaust air damper are coupled in parallel. The recirculated air damper pivots in the opposite direction. The 3 damper assemblies are individually adjustable for obtaining the appropriate mixing ratio.

The BCBC is available for the size 004–055 units for a max. flow of 10.5 m³/s (38 000 m³/h).

1.1 Specification

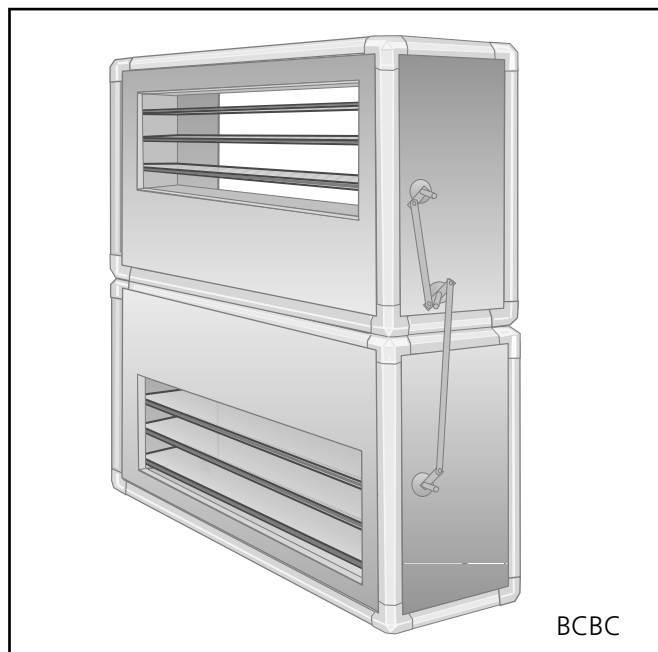
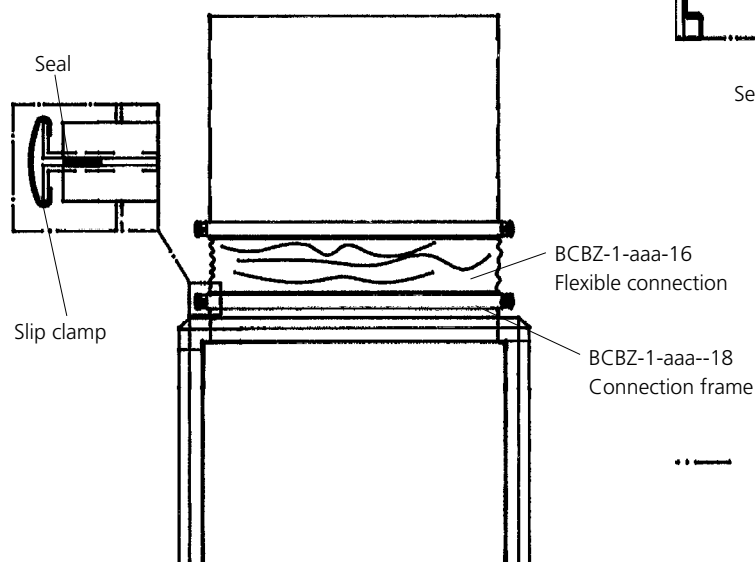
The version, size, etc. are specified in the delivery documents.

2. Installation

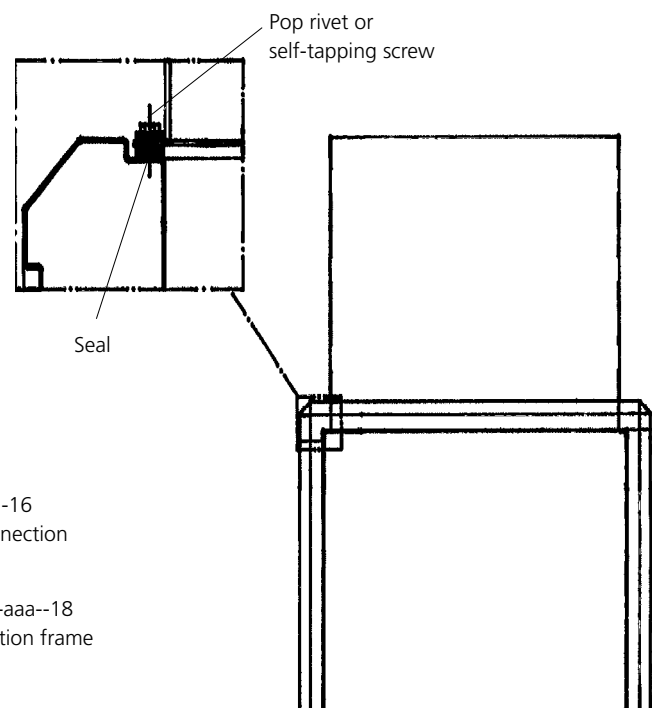
2.1 Mounting

Fit the mixing section with the damper shafts horizontal. The BCBB should be connected to the ducting as follows:

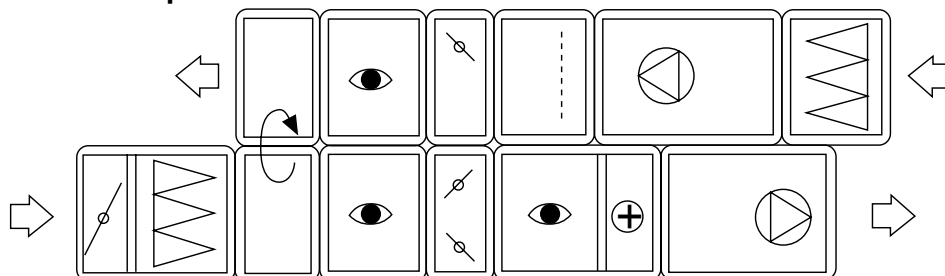
a) With BCBZ-1-aaa-18 connection frame



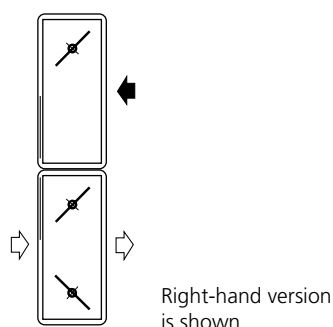
b) With flanged duct



2.2 Installation example

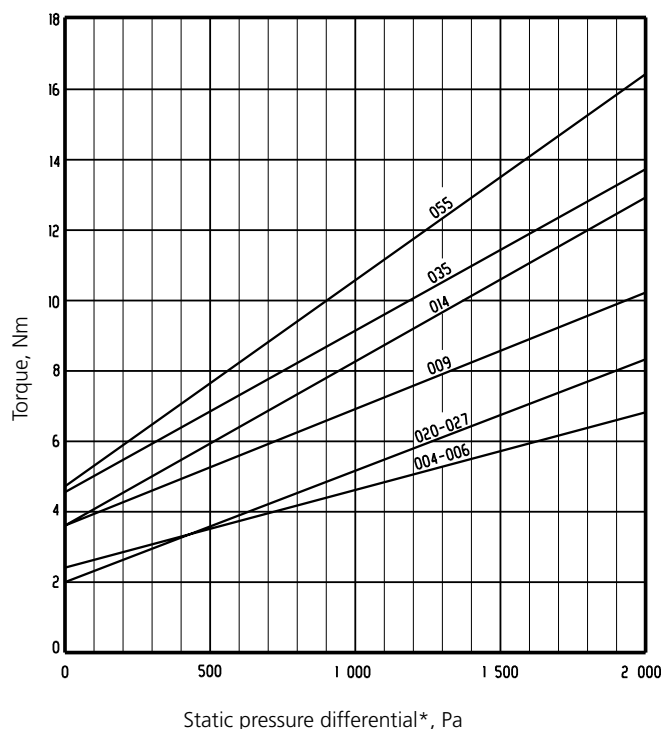


2.3 Inspection side



3. Technical data

3.1 Torque



The size 004–014 mixing sections are equipped with three dampers. These three dampers are interconnected, which means that only one actuator is required. The torque has been calculated for all three dampers.

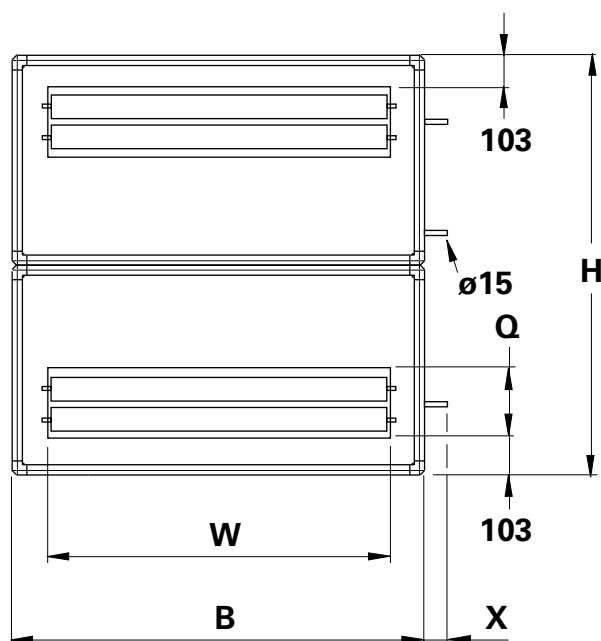
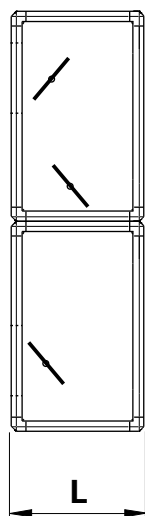
The size 020–027 mixing sections are equipped with three dampers. Two of the dampers are interconnected, while the third damper operates independently. This means that a total of two actuators are required, one actuator operates two dampers and the other operates one damper. The torque has been calculated for one damper.

The size 035–055 mixing sections are equipped with two dampers per opening, i.e. a total of six dampers. The two dampers that are located in the same opening are interconnected. This means that three actuators are required (one for each opening) . The torque has been calculated for two interconnected dampers.

*Pressure differential across closed damper(s).

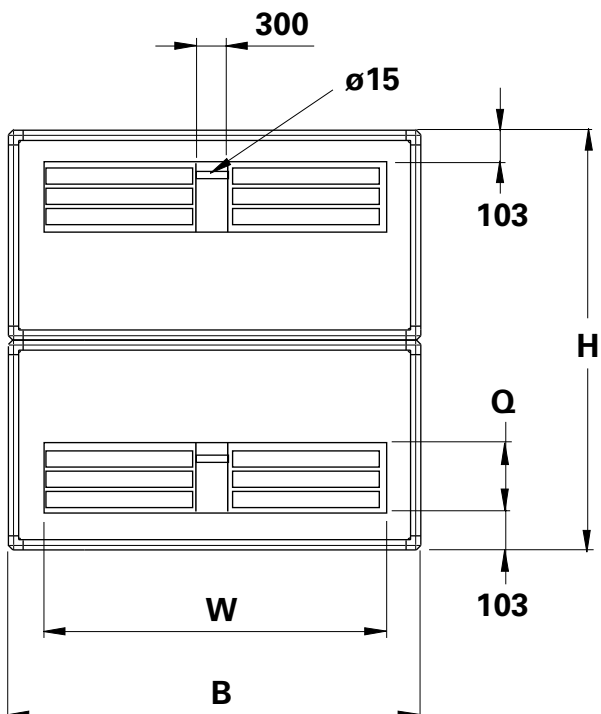
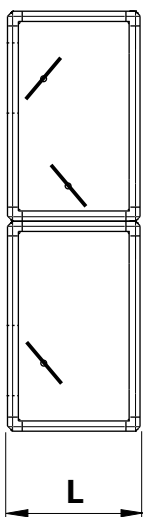
3.2 Dimensions

Sizes 004–027



BCBC	B	H	L	Q	W	X	Weight	
							Std.	El 30
004	1039	1092	406	200	800	65	111	134
006	1259	1312	406	200	1000	55	135	163
009	1459	1512	506	300	1000	70	186	226
014	1759	1812	506	300	1400	60	234	277
020	1946	2052	706	500	1400	60	303	369
027	2306	2412	706	500	1700	77	381	467

Sizes 035–055



BCBC	B	H	L	Q	W	Weight	
						Std.	El 30
035	2706	2812	806	600	2300	512	622
055	3206	3312	806	600	2900	609	751