



# Big Dutchman®



## **CL 600**

The exhaust air chimney  
for really efficient ventilation

# CL 600 – exhaust air chimney with a high extraction rate at minimum energy c

The CL 600 exhaust air chimney available from Big Dutchman has an ideal aerodynamic shape and thus allows for optimum ventilation conditions. The chimney (Ø 650 mm) is made of polypropylene, has a smooth, dirt-repelling surface and is insensitive to sunlight and frost. The chimney can easily be cleaned with a high-pressure cleaning system.

The labyrinth seal between the roof duct and the roof sheet ensure that the construction remains water-tight. Additional sealing material is not required.

The self-supporting construction renders supplementary suspension or bracing unnecessary. Roof sheets and external extension ducts are made of GRP and

can be adapted on-site. The roof sheet is available customised to the roof slope, roof profile, side or ridge installation, height above roof and colour.

In addition to different standard roof sheet profiles we can also deliver customised profiles if a sample (1.2 x 1.2 m) is provided. The ridge-installed chimney is available as smooth version only.

The corresponding fans were specially developed for the CL 600, thus an ideal ratio between pressure stability and power consumption can be ensured. The fans are either on/off controlled or speed-controlled and can easily be assembled and disassembled.

exhaust air cone increases the exhaust air rate (Venturi effect) and keeps away most of the rain

rain run-off

roof duct for the connection between cone and roof sheet

labyrinth seal between roof duct and roof sheet prevents water from entering into the roof area

built-in fan ensures an optimum ratio between pressure stability and power consumption

roof sheet available with different profiles

exhaust air duct can be extended by an extension duct as required

damper is used as a chimney shutter and to reduce the air rate in the speed-controlled system

specially-shaped suction head for increased exhaust air performance



Because of the flexible combination of the individual components of the chimney, the following requirements are fulfilled:

- colour selection: black, light-grey, red-brown;
- light-proof if light baffle plate or light bowl is installed;
- exhaust air extension duct 0.5 m;

- instead of the exhaust air cone, a rain cowl can be installed which is mounted to the roof duct;
- duct extension sections of 1.0 m for the roof sheet (above roof);
- pipes in the loft space can easily be heat insulated by means of the CL 600 insulating mat.

The entire CL 600 series is patented.

## MultiStep® – combination of stepless control and group control

By means of the MultiStep® exhaust air concept it is possible to increase the air rate and cut down energy consumption. Compared to traditional negative pressure systems MultiStep® permits annual power costs to be reduced by up to 60 %. Odours are significantly reduced because of the consistent, maximum ejection speed. In addition, the entire ventilation system is more pressure-stable and less draught-sensitive. The climate computer regulates the system by con-

trolling one chimney on an infinitely variable, 0-100 % basis (stepless control) and switching additional chimneys on or off at full power as required. When an additional exhaust air fan is switched on, the infinitely variable fan re-starts at 0 %.

Additional energy savings can be reached by installing an ETAVENT fan in the infinitely variable controlled exhaust air chimney.

## Individual control of the CL 600

By means of the CL 74 servomotor which is mounted directly to the shaft of the damper, the latter can be opened or closed. If several chimneys are to be infinitely variably-controlled, the CL 74 is also available with an analogue switching signal 0-10 V. For infinitely variable control of one exhaust air chimney, a CL 74 V servomotor is required.

The damper is mounted into the suction head and closes off the chimney. If the CL 74 V is used, the damper also reduces the air extraction rate.



## Guide vane – for a significantly increased working range of the CL 600

Big Dutchman's newly developed **guide vane** is simply screwed to the CL 600 chimney immediately above the FC 063-6ET/DT fan. Retrofitting at any time is no problem.

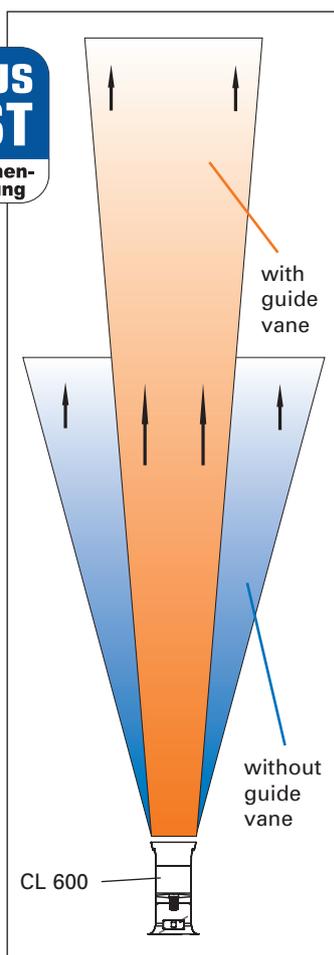


Diagram of the plume



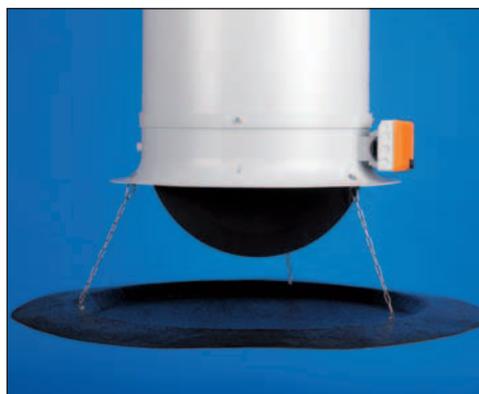
### The advantages at a glance:

- by altering the radial and circular flow components, the exhaust air jet is concentrated, which leads to a significantly increased working range (by up to 80 %);
- there is only a minimal decrease in exhaust-air performance of the chimney (approx. 3 %);
- the chimneys do not have to be elongated, that means that storm bracings are not necessary and there is no unsightly look to the outward appearance of the house;
- cost-effective alternative compared to chimney elongation;
- quick and easy assembly.

# Accessories for the CL 600



**Drip plate plastic (grey),**  
Code No. 60-40-4060  
Ø 1.1 m; rain cover



**Light plate, black,**  
Code No. 60-40-4261  
Ø 1.4 m; rain cover with additional  
light protection



**Light pan, black,**  
Code No. 60-40-4262  
Ø 1.35 m; to shut out any light

## Air performance of the built-in fans FC 063-6ET (FC 063-6DT)

negative pressure (Pa)	standard chimney		with drip plate		with light plate		with light pan	
	performance (m <sup>3</sup> /h)	specific power perform. (W/1000 m <sup>3</sup> /h)	performance (m <sup>3</sup> /h)	specific power perform. (W/1000 m <sup>3</sup> /h)	performance (m <sup>3</sup> /h)	specific power perform. (W/1000 m <sup>3</sup> /h)	performance (m <sup>3</sup> /h)	specific power perform. (W/1000 m <sup>3</sup> /h)
0	14130 (13700)	39.2 (33.9)	13854 (13432)	39.8 (34.4)	13803 (13383)	40.1 (34.6)	10733 (10406)	55.1 (47.6)
-10	13810 (13250)	40.8 (36.5)	13540 (12991)	41.4 (37.0)	13490 (12943)	41.7 (37.3)	10490 (10065)	57.3 (51.3)
-20	13220 (12720)	43.4 (39.6)	12990 (12499)	44.8 (40.9)	12920 (12431)	44.7 (40.8)	9950 ( 9574)	61.0 (55.7)
-30	12660 (12200)	46.7 (43.0)	12315 (11868)	49.1 (45.2)	12230 (11786)	48.8 (44.9)	9205 ( 8871)	65.8 (60.6)
-40	12110 (11400)	50.2 (47.8)	11640 (10958)	53.3 (50.8)	11540 (10863)	52.9 (50.4)	8460 ( 7964)	70.6 (67.2)

This information was taken from the SJF test report No. 911 - 1997.

### Specification of type designation

**FC 063-6ET** FC = standard fan

**FC 063-6DT** 063 = impeller diameter 63cm

E = single-phase (1~ 230 V)

D = three-phase (3~ 400 V)

T = tube installation

## Code numbers

CL 600 ...	grey	black	reddish brown	CL 600 ...	Code No.
suction funnel	60-44-4035	60-44-4235		swivel shutter for suction funnel	60-44-4212
pipe, 0.5 m	60-44-4033	60-44-4233		insulation, 900 mm	60-40-3032
extension tube (ET)				fan FC 063-6ET, 230 V	60-47-7863
for roof sheet, 1 m	60-45-4041	60-45-4241	60-45-4341	fan FC 063-6DT, 400 V	60-47-7763
roof pipe	60-44-4032	60-44-4232	60-44-4332	fan ETAVENT	60-47-9463
diffuser	60-44-4031	60-44-4231	60-44-4331	winch motor CL 74, on/off	60-43-2085
roof sheet for slope	60-40-4040	60-40-4240	60-40-4340	winch motor CL 74, 0-10 V	60-43-2077
roof sheet for slope with ET	60-45-4040	60-45-4240	60-45-4340	winch motor CL 74 V, infinitely variable	60-43-2075
roof sheet for ridge	60-40-4045	60-40-4245	60-40-4345		
roof sheet for ridge with ET	60-40-4044	60-40-4244	60-40-4344		
chimney cowl	60-40-4063				



**Big Dutchman.**

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