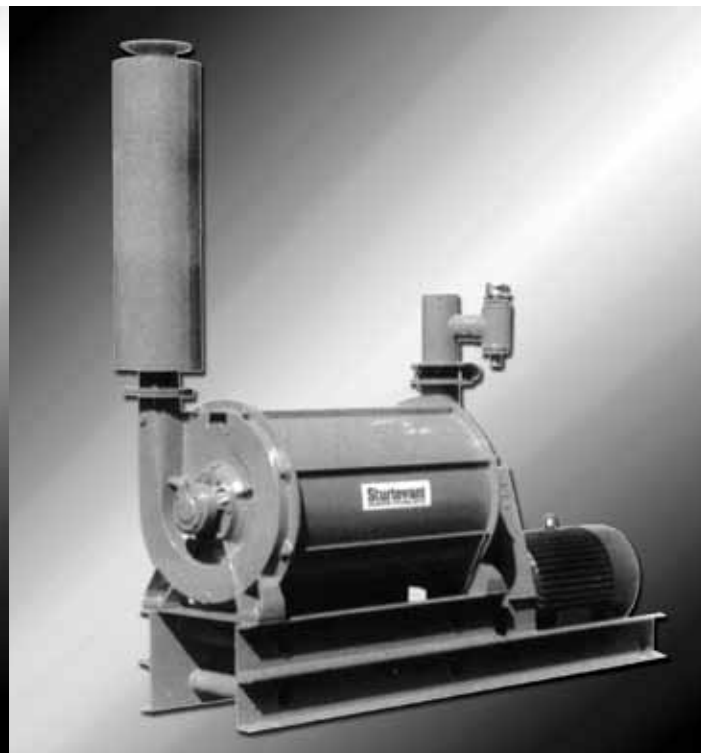
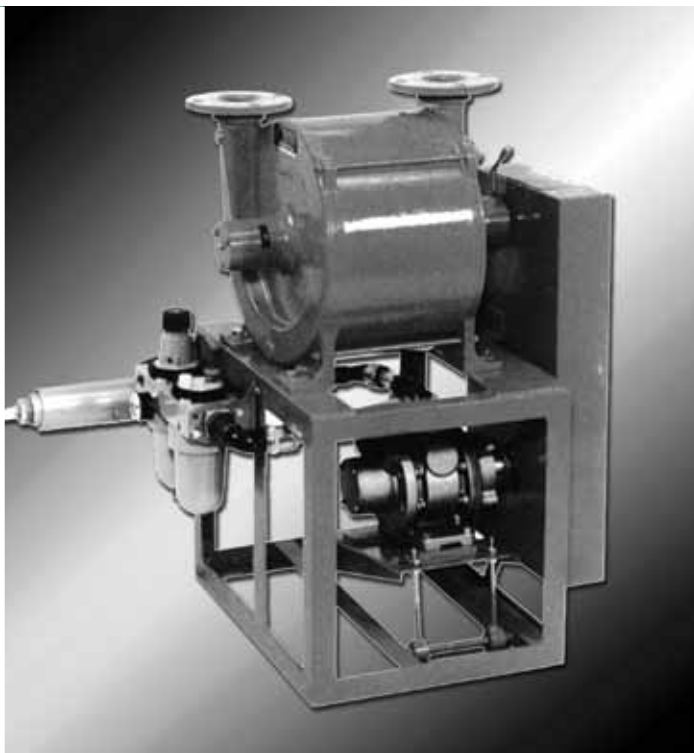


## Turbo Exhausters and Blowers



Clyde Process Sturtevant Turbo Exhausters and Blowers for continuous duty

## X-Type Turbo Exhausters and Blowers

Turbine Type Air Exhausters and Blowers Designed and engineered to produce suction from 50mm to 250mm (2-10ins) mercury or air pressure from 0.068 BAR(G) to 0.54 BAR(G) (1-8psig).

Clyde Process Sturtevant Turbo Exhausters and Blowers are constructed for continuous duty, every day, year after year without adjustment or replacement, minimising the need for maintenance.

### Advantages

- Straightforward design, with no fine internal clearances or wearing parts requiring lubrication.
- Air delivered is free from oil vapour, moisture or other contamination.
- Air is also completely uniform and free from pulsation.
- Power consumption varies with the volume of air delivered.
- No need for relief valves or other safety devices, because Clyde Process Sturtevant Turbo Exhausters and Blowers incorporate self-unloading.

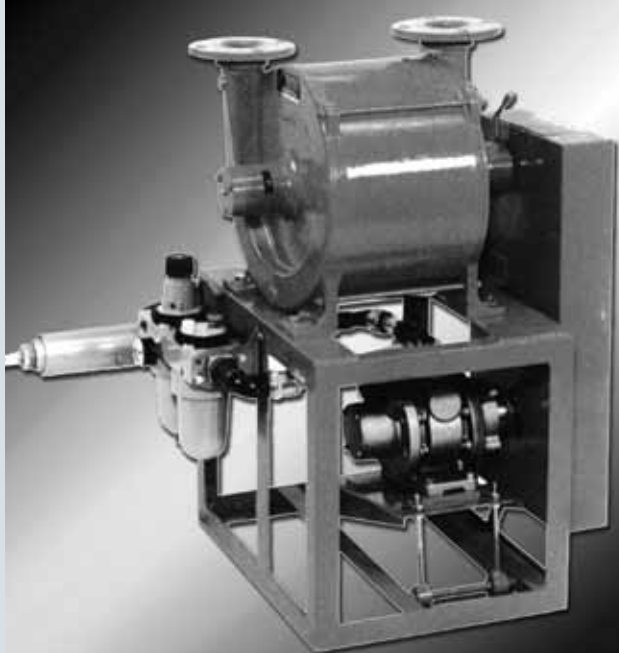
### Applications

The extensive list of applications Clyde Process Sturtevant Turbo Exhausters and Blowers include the following:

- Vacuum Cleaning
- Pneumatic Conveying
- Garment Pressing
- Steam and Condense Extraction
- Gas Blowing and Boosting
- Aeration of Powders
- Furnace Blowing
- Agitation of Liquids
- Paper Coating
- Pneumatic Despatch

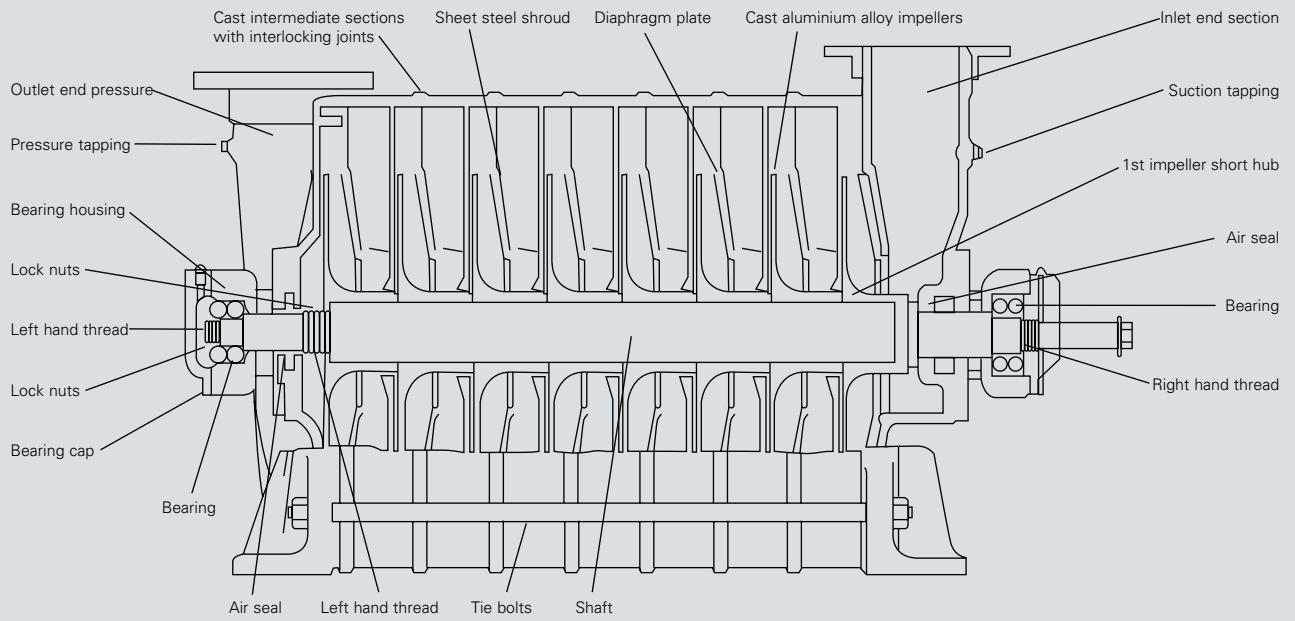
Other applications requiring air under suction or pressure can be considered.

6X5 Turbo Blower driven by an air powered motor.



Motorised 12X10 Turbo Exhauster complete with auxiliaries.





X-Type Turbo Exhausters and Blowers

### Construction

An exhauster or blower consists of a rotating system of shaft and impellers operating in specially designed inlet, outlet and intermediate sections, the whole assembly being mounted either on a combined in line or box frame mild steel fabricated assembly set down on felt underbase or anti-vibration mountings.

### Shaft & Impellers

The shaft is of a high-grade carbon steel, machined and ground to accommodate the impellers and bearings. The impellers are a composite construction of castings in high-tensile aluminium with steel shrouds riveted on, all accurately balanced and held securely on the Shaft by heavy, endwise locknuts.

### Inlet, Outlet & Intermediate Sections

Castings are either in iron or aluminium to form the machine castings, precision-machined with spigot and socket faces, and after assembly, held together by tie-bolts. The intermediate sections are provided with fixed-guide vanes for the efficient conversion of air velocity into pressure.

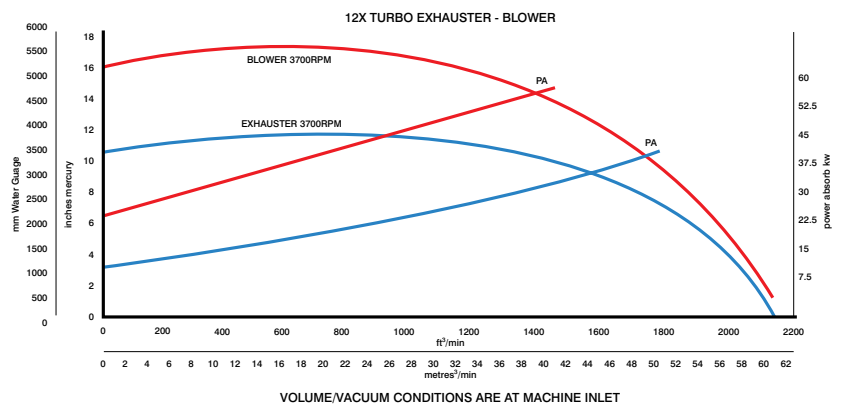
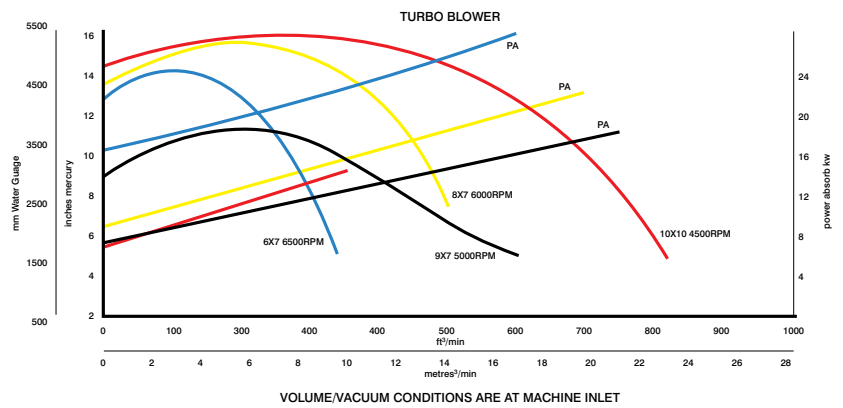
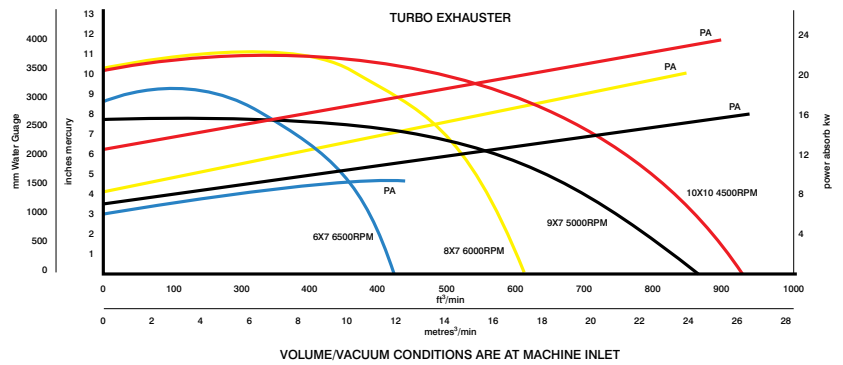
### Bearings

Heavy-duty ball and roller bearings, fitted in the easily accessible external grease packed housing bolted to the inlet and outlet section, are used in all machines.

### Drives

Clyde Process Sturtevant Turbo Exhausters and Blowers are usually vee-belt driven from electric motors. In the larger sizes the machines can be direct coupled to electric motors.

### EXHAUSTER/BLOWER PERFORMANCE



The graphs show the performance ranges available from each size, each of which is available with differing numbers of stages and speeds. Performance ratings are based on normal temperature and pressure at sea level.

## X-Type Turbo Exhausters and Blowers

Guidance dimensions of standard units from 6X5 to 12X10 are given for space allocation only and should not be used for setting out detail. Normally, no holding down bolts are required.

Additional units are available from the size 6X3 to 14X8 and our range of smaller 'D' Type exhauster units. Machine size, number of stages and speed are selected to suit the customer's exact requirements. Clients are therefore invited to state their application.



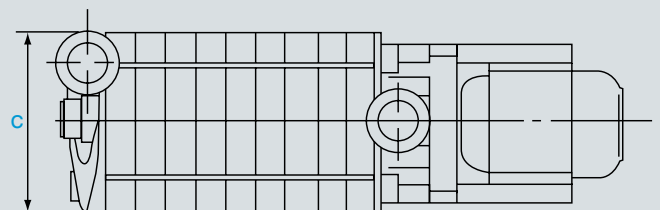
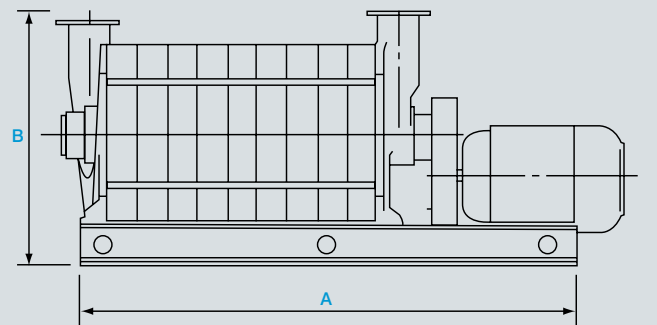
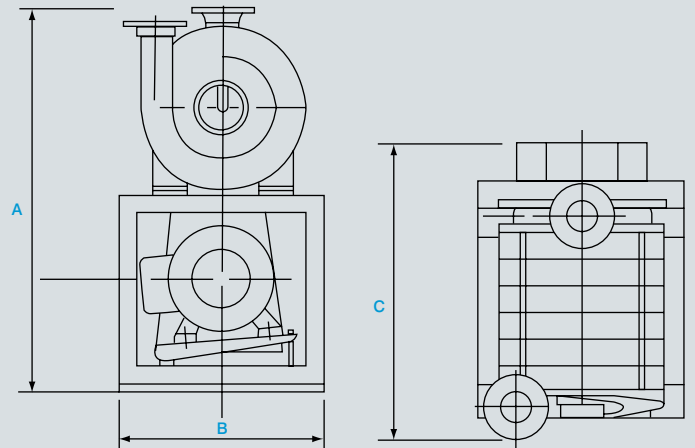
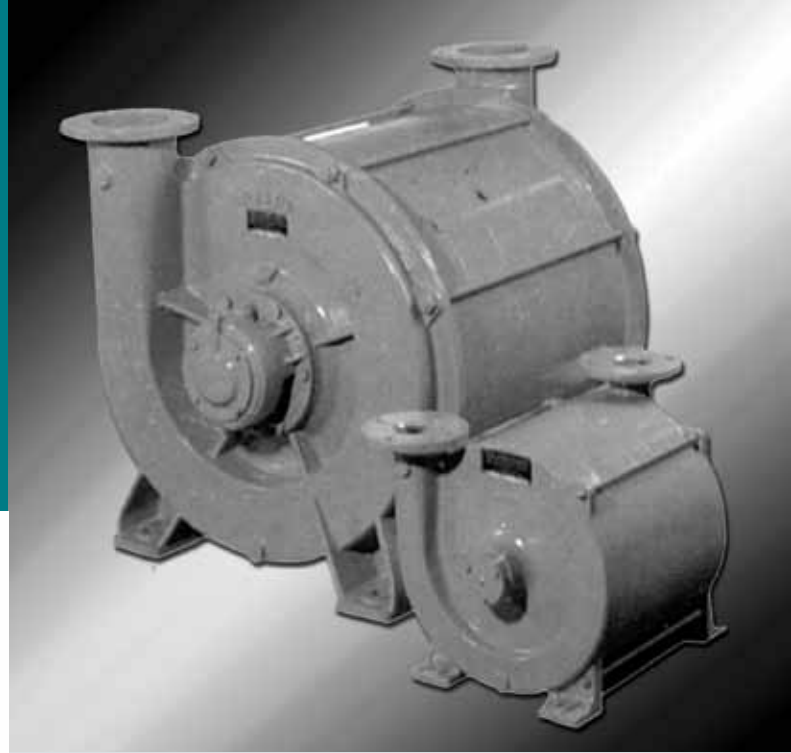
Typical vacuum cleaning system with 6X7 Turbo exhauster driven by 11Kw motor, providing the suction power.

### Box Frame Mounting

Size (examples)	A	B	C
6X5	943mm	572mm	562mm
6X7	1013mm	572mm	610mm
8X6	1041mm	610mm	800mm
8X7	1047mm	610mm	870mm

### In Line Exhauster / Blower

Size (examples)	A	B	C
9X7	1308mm	838mm	508mm
10X8	1800mm	934mm	559mm
10X10	2000mm	924mm	559mm
12X6	1981mm	1275mm	700mm
12X8	2337mm	1275mm	700mm
12X10	2590mm	1275mm	700mm



# D-Type Turbo Exhausters and Blowers

## Applications

Designed for long life with the original equipment manufacturer in mind, DB/DD turbo exhausters provide high performance to suit a wide range of industrial applications including:

- Materials handling
- Dust and fume extraction
- Vacuum cleaning installations
- Pressure systems
- Suction for clothing industry cutting tables

## Construction

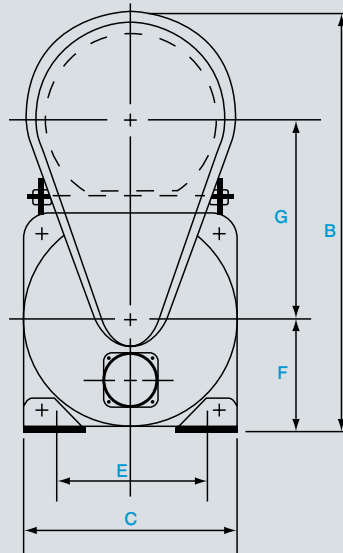
Die cast aluminium end plates and intermediate sections, a mild steel shaft, cadmium plated steel impellers and baffles, the impeller blades being tagged and spot-welded for extra strength, with bearings sealed for life. In-line inlet and exhaust ports of 50mm NB diameter to facilitate line connections and provide versatility of mounting.



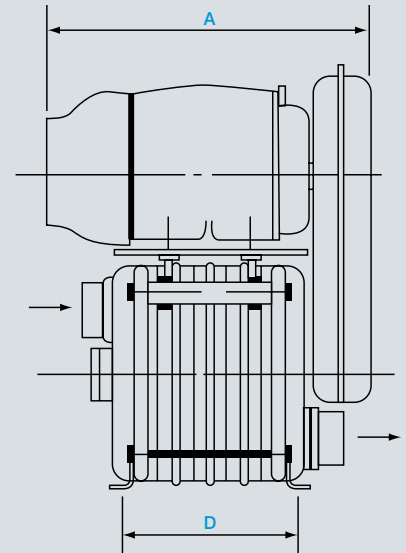
DB4 Exhauster/Blower supplied in bare shaft form.



DB4/12 3 HP (2.2kw) Motorised Exhauster Set.



End Elevation.



Side Elevation.

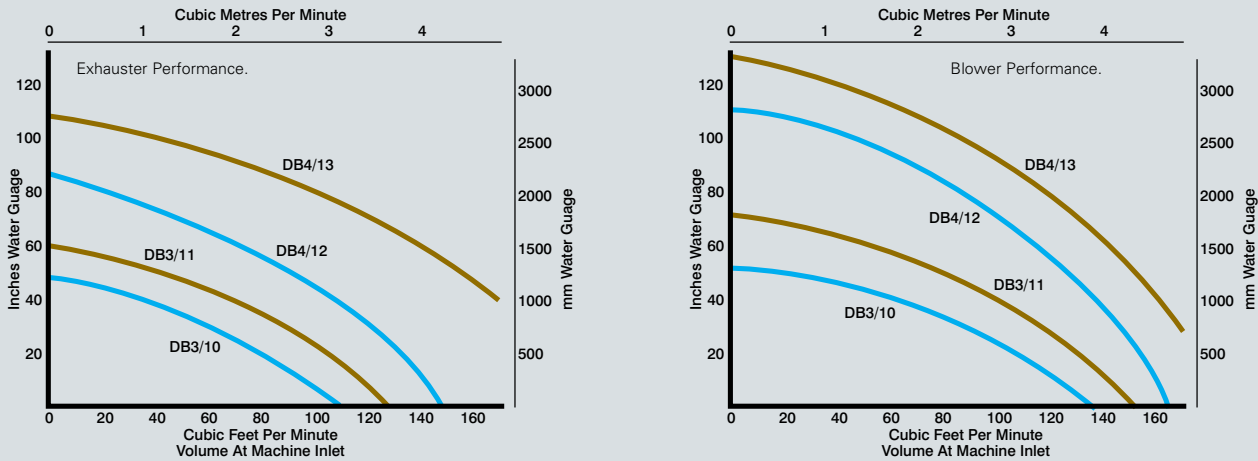
## Drive

The DB3 exhauster runs at 9,300 rpm when driven by 1 h.p. (.75 kw) single phase 240V motor, or 10,600 rpm powered by 2 h.p. (1.5 kw) three phase, 415V motor. The 3 h.p. (2.2 kw) DB4/12 and 5.5 h.p. (4 kw) DD4/13 runs at 12,000 rpm and 13,200 rpm respectively. Vertically mounted units are supplied with vacuum formed ABS drive guards, excepting the DD4 which has a mild steel drive guard, fully enclosing the flat drive (DB3/10) and polyvee belt drive (DB3/11, DB4/12, DD4/13) and pulleys. All units are fitted with continuously rated totally enclosed fan ventilated induction motor to IP54.

## Options

A number of options are available including direct on-line starters, flameproof induction motors to BS.5501 with EExd type of protection. Alternative power sources such as petrol, diesel, propane and compressed air are available. HEPA pre and after filters being 99.997% efficient to 0.6 microns to BS.3928 are available to meet clients individual requirements.

# D-Type Turbo Exhausters and Blowers



Exhauster/Blower Type	DB3/10	DB3/11	DB4/12	DD4/13
H.P./kw	1/.75	2/1.5	3/2.2	5.5/4
Voltage	240V/1/50hz	415V/3/50hz	415V/3/50hz	415V/3/50hz
Exhauster Type	3 stage turbo	3 stage turbo	4 stage turbo	4 stage turbo
Nominal Exhauster Speed rpm	9,300	10,600	12,000	13,200
<b>Exhauster Maximum Air Volume</b>				
cfm	110	125	144	191
Litres per Second	51	59	68	90
<b>Exhauster Closed Suction</b>				
ins. Wg	48	61	92	112
mm. Wg	1219	1549	2337	2845
<b>Blower Maximum Air Volume</b>				
cfm	135	152	164	190
Litres per Second	63	72	77	90
<b>Blower Maximum Pressure</b>				
ins. Wg	52	72	110	130
mm. Wg	1321	1829	2794	3302
<b>Dimensions</b>				
Overall Length <b>A</b>	317mm	343mm	356mm	420mm
Overall Height <b>B</b>	489mm	489mm	489mm	530mm
Overall Width <b>C</b>	228mm	228mm	228mm	228mm
Centres <b>D</b>	176mm	176mm	208mm	208mm
Centres <b>E</b>	165mm	165mm	165mm	165mm
Base to Exhauster Pulley Centre <b>F</b>	125mm	125mm	125mm	125mm
Pulley Centres <b>F</b>	235mm	235mm	235mm	235mm
Nett Weight Vertically Mounted <b>G</b>	24kg	30kg	33kg	52kg

In keeping with Clyde Process Limited policy of continuous improvements and development, specifications should be taken as a guide only, and the Company reserves the right to vary them without prior notice.

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