



MAINTENANCE GUIDE

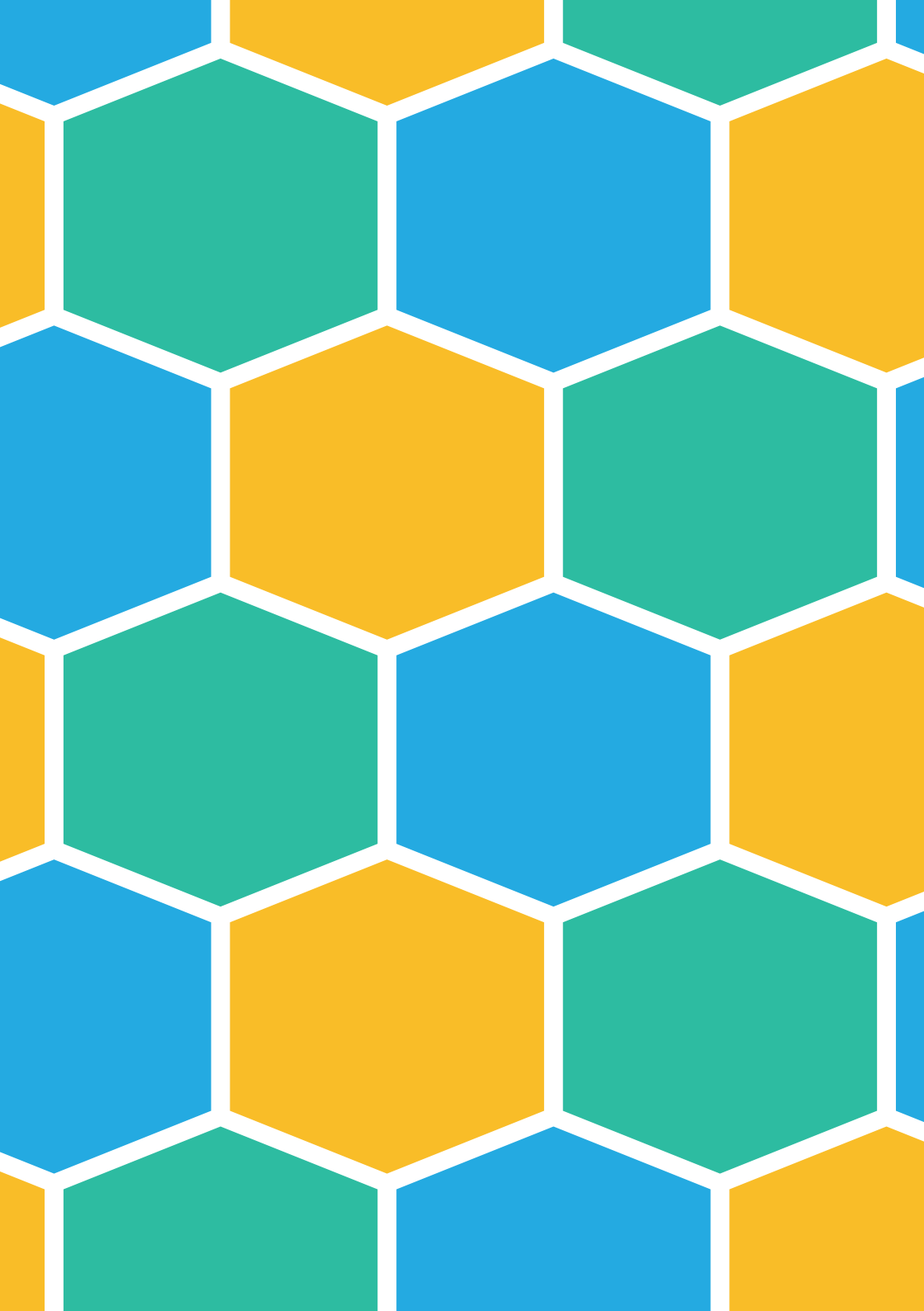
Getting the best from your
Big Brute Vacuum Cleaner

**BIG
BRUTE**
INDUSTRIAL VACUUM CLEANERS



Michael Williams
Engineering







Welcome

Remember what your Big Brute was like when it was new?

Like thousands of satisfied Big Brute users around the world, you probably found it a dream using your brand new Big Brute for the first time. Cleaning up was much faster, easier and far more pleasant.

Your Big Brute's been designed to give you years of faithful service and to put up with the knocks and abuse it's going to get in your line of work.

But over the years, tools get lost, hoses get damaged, cleaning up just takes longer and is more hassle for you.

Give your Big Brute a little bit of attention now and then. You can prolong its life and keep it working, just like when it was new, for years to come.

We've put together this guide to give you some tips on keeping your Big Brute in top condition and getting the best from it once more.

Have a look through our easy-to-follow guides that'll help you work out if your Big Brute could benefit from a bit of maintenance. It'll get your Big Brute working like new quickly and easily.

If you need any help or assistance at any time with your Big Brute, give us a ring on:

01223 88 22 22

We'll be more than happy to help.



**Michael Williams
Engineering**

Delivering quality industrial solutions



MICHAEL WILLIAMS ENGINEERING IS CELEBRATING **50 YEARS** OF EXCELLENCE!

Michael Williams Engineering Ltd is a family-owned and family-run business, established in 1974 and we are proud to be celebrating 50 years of serving agriculture and industries.

During those 50 years Mike Williams, who founded the company, designed and built the Big Brute Industrial Vacuum Cleaners and the Bangalore Bird Scarers. His passion was seeing a solution to a problem and then designing and manufacturing his vision, and this was extremely important to him. He has passed this legacy and passion on to both his sons who now run the company.

Michael Williams Engineering Ltd has always prided itself in developing solutions for its customers. Manufacturing here in the UK, our engineering expertise allows us to be extremely flexible and to be able to adapt and try new ways to improve and develop Big Brutes and Bird Scarers..

Michael Williams Engineering Ltd now has a large range of Big Brute models to tackle the many different types of clean-up projects around the globe in all industries. We would love to show how good these machines are, so we offer free*, no obligation demonstrations within your environment, so you can experience the 'Brute Power' of these machines.



**Michael Williams
Engineering**

Delivering quality industrial solutions



01223 88 22 22



info@mikewill.co.uk



mikewill.co.uk

**subject to location*

50TH

ANNIVERSARY

1974-2024



01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk



Contents

- 6** Quick Big Brute Health Check
- 8** Filters
- 9** Motors
- 10** Motor Brushes, Thermal Cut-Outs and Switches
- 12** Power Units
- 13** Suction Hose
- 14** Floor, Wall and Ceiling Toolkit
- 15** Drums and Trolleys
- 15** Static Electricity
- 16** Upgrade to a Warehouseman
- 17** Upgrade to a Suck & Dump
- 18** BigBrute.co.uk



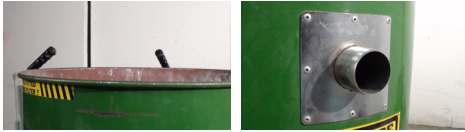
**Michael Williams
Engineering**
Delivering quality industrial solutions

Quick Big Brute Health Check

Is your Big Brute still working as it should? If it's been a while since you gave it any attention, its performance might not be quite as good as it was, and you may not have noticed. Go through our quick checks to make sure your Big Brute's working as it should do.

1. What state is your drum in?

Remove the power unit from the top of the drum. Disconnect the suction hose and remove the filters, waste bags - everything - including any dust, muck or rubbish from the drum. Have a good look inside, particularly round the bottom of the drum.



Are there any holes in your drum?

If there are, your suction won't be as good as it could be.

Next, look closely at the rim of the drum where the power unit sits.

Is the rim of your drum dented or mis-shapen?

If so, this can affect the air-tight seal that your power unit makes when you place it on top of the drum, affecting its performance.

Finally, have a good look at your spigot, where you connect up the suction hose.

Has the spigot been bashed or dented?

Again, this can affect the air-tight seal your hose cuff makes when you connect up your suction hose, making cleaning up more difficult.

If your drum's been dented, has holes or your spigot's in need of attention, have a look at Page 12 for more information on new drums and spigots.

2. Are all your motors working?

With the drum still empty, place the power unit on top (without any filters or hose attached at this stage). Switch on the power and check the suction at the inlet spigot.

Note that it's never a good idea to run your Big Brute without the Primary Filter in place - this can damage your motors. However, we're only going to be running the Big Brute for a few moments and we're not going to be cleaning up with it, so we should be OK.

The best way to test the suction is to dangle an old, thin strip of rag in front of the spigot.

If your suction's good, the Big Brute should be able to whip it out of your hand from about 12 inches away.

The worse your suction, the closer you'll have to bring your bit of rag to the spigot before it whips it away.



Is the suction good?

If not, one or more of your motors might not be working.

See pages 9 and 10 for more information on replacement motors and motor brushes.

Alternatively, your V40 Secondary Filter on the bottom of the power unit might be blocked.

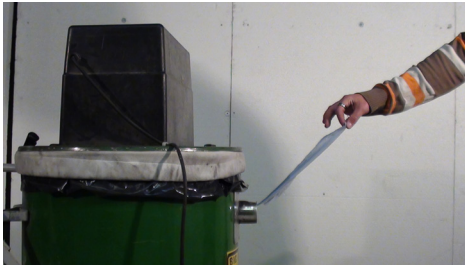
Page 8 has more information on caring for your filters.

BIG BRUTE

INDUSTRIAL VACUUM CLEANERS

3. Are all your filters OK?

Remove the power unit and fit your V39 Primary Filter (the round filter). Check the suction again as in step 2 with a new strip of rag.



Is the suction worse than in Step 2?

If so, your V39 Primary Filter might be blocked. If you use a V39A Extra Large filter, try this test again with your Extra Large Filter fitted.

See page 8 for more advice on how to clean and replace your filters.

Hopefully, your Big Brute is in perfect working order but if you've identified any problems, give us a ring and we'll be happy to talk you through the best solution.

01223 88 22 22



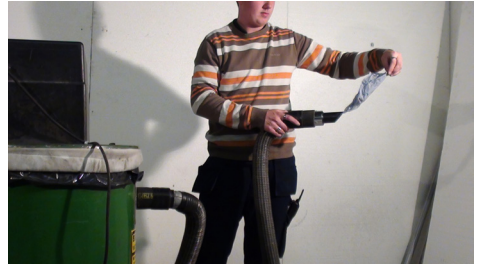
**Michael Williams
Engineering**

Delivering quality industrial solutions

4. How's your hose?

Finally, let's check if there are any holes or blockages in your hose that could be affecting your suction.

Connect up the suction hose to the drum spigot and check the suction at the business end of the hose, like you did at the spigot.



Is the suction worse than in Step 3?

If so, check your hose for holes or blockages.

Page 13 has more information on how to quickly check your hose for small holes, along with details on new lengths of hose.

Warning!

When doing these tests, never stick your hand, or any other part of your body, over the inlet spigot or hose end when the Big Brute's running.

Filters

Care for your Big Brute Filters properly and they should last you a long time. Regularly inspect your V39 Primary Filter (the round one that sits inside the top of the drum) and the V40 Secondary Filter (the square one attached to the bottom of the power unit). Any holes or tears can allow dust through that can damage your motors. If you see any damage, replace your filters straight away.

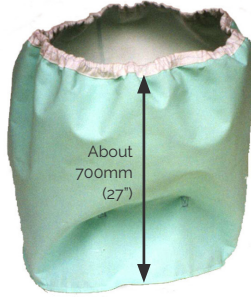
Your filters should also be cleaned regularly. You can get them back to about 90% efficiency just by giving them a good shake. Take the power unit off the drum and, leaving the filter in place, give it a good shake - the dust will be contained in the drum. Don't ever wash your filters though - it'll severely reduce their performance.

Which Filters Do I Have?



Standard Primary Filter (V39)

Supplied with every Big Brute Popular, Warehouseman and Wet & Dry. It's the first stage of filtration. Its smaller depth maximises the usable capacity of your drum so you can fill it up more.



Extra Large Primary Filter (V39A)

This is an optional extra that's usually recommended for where your Big Brute is picking up fine dusts with long periods between emptying. It's usually recommended as an optional extra for the Big Brute Warehouseman.



Secondary Filter (V40)

This is the square, permanent filter that's attached to the bottom of the power unit of all dry Big Brute models. It's the second stage of filtration, after the Standard Primary Filter. If your Standard Primary Filter is kept in good condition, this filter shouldn't get dirty or blocked.

Part No	Description	Price
V39	Primary Filter (Round) Standard Material	£108
V39A	Extra Large Filter (Round)	£205
V40	Secondary Filter (Square) Attached to the base of power unit	£219
V74	Motor Gasket (3 needed when changing a V40)	£8.00

All prices are Ex Works and exclude VAT. Prices valid from 1st January 2024



01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk

Motors

The Big Brutes have 3 independently switched motors which should give years of use. However, your motors can be damaged if you use your Big Brute with holes or tears in your filters.

Sometimes just one motor can fail and you might not notice the decreased suction straight away. If you find one or more of your motors is no longer working, you can replace them individually.

Over the years, there have been several versions of Big Brute motor operating at several different voltages. Have a look at the motors in your power unit and look for the motor's model number.

Your motor's model number should be listed in the table below, showing you the part number, price and the type of motor brushes your motor needs.



Model No	Description	Our Part No	Motor Brushes Part No	Price
BL21104RP	230V Bypass	V438	VB3	£197
BL21101RP	115V Bypass	V311	VB4	£197
DL21104T	230V DAF	V1004	VB2 or VB5 - See Below	£135
DL21101T	115V DAF	V1005	VB1 or VB5 - See Below	£159
D2-1001N	115V DAF	V79 Conversion Kit	VB110-11x7	£164
D2-1002N	220V DAF	V8 Conversion Kit	VB240-8x6	£144
D2-1004N	230V DAF	V8 Conversion Kit	VB240-8x6	£144
UD11054	230V Ace	V8 Conversion Kit	VB110-11x7	£144
UD11051N	115V Ace	V79 Conversion Kit	VB110-11x7	£164
B2-1001N	115V Bypass	Phone for advice	VB110-11x7	PoA
B2-1002N	220V Bypass	Phone for advice	VB240-8x6	PoA
B2-1004N	230V Bypass	Phone for advice	VB240-8x6	PoA

All prices are Ex Works and exclude VAT. Prices valid from 1st January 2024

You can find out how to check your motor model numbers at the Big Brute website:

bigbrute.co.uk

If the label's missing, or your model number isn't listed above, give us a ring on **01223 88 22 22**.

VB1 (red) & VB2 (white) are held in place with 2 screws and a metal bracket.

VB5 (brown) has 2 screws that fit through molded on wings to the main brush assembly.

Have a look at the pictures on page 11 to make sure you get the correct items,

If you are unsure as to which of these is required, please give us a call.



Michael Williams Engineering

Delivering quality industrial solutions

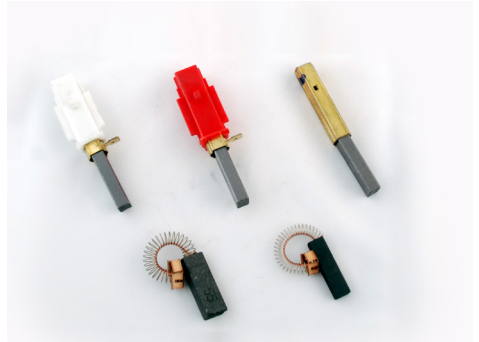
Motor Brushes, Thermal Cut-Outs & Switches

Motor Brushes

Motor brushes wear out over time. If you've got a motor that's stopped working, it could well be that the brushes need replacing. Replacing your brushes just before they wear out could also save you a lot of Big Brute downtime - it's a good idea to keep some brushes in stock. Motor brushes are sold in pairs - each motor needs 2 brushes.

To work out which brushes you need, first you need to find out the model number of your motors. Use the table on page 7 to look up the part number of the motor brushes for your motor.

Motor Brushes Part No	Price (per pair)
VB240-8x6	<i>No longer available - please phone for advice</i>
VB110-11x7 (Black with spring)	£34
VB1 (White plastic)	£34
VB2 (Red plastic)	£34
VB3 (Brass - no wings)	£34
VB4 (Brass with wings)	£34
VB5 (Brown plastic)	£34



Thermal Cut-Outs

Thermal cut-outs are fitted to each motor and cut the power to the Big Brute in the case of it over-heating. They're little glass bulbs with a pair of heat-sensitive contacts inside mounted on the top of each Big Brute motor with the small, metal clip. Occasionally, they can break and short-out leading to fuses blowing or circuit breakers tripping out.

Part No	Description	Price (each)
v212	110V Thermal Cut-Out	£49
V211	230V Thermal Cut-Out	£49

Switches

Older Big Brutes have 3 toggle-switches - newer ones have a 4-stage rotary switch. We can't get the old toggle-switches any more but the rotary-switch upgrade kit fits any Big Brute.

Part No	Description	Price (each)
v1500	230V Rotary Switch 4-Stage (0, 1, 2, 3)	£78
V185	230V Switch Kit - Upgrade from 3 toggle switches	£114

All prices are Ex Works and exclude VAT. Prices valid from 1st January 2024



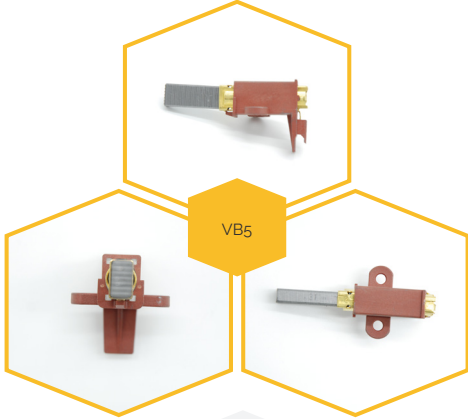
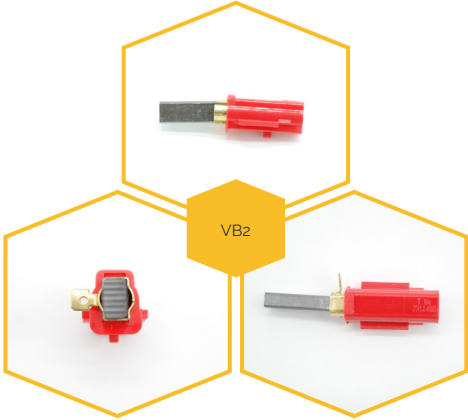
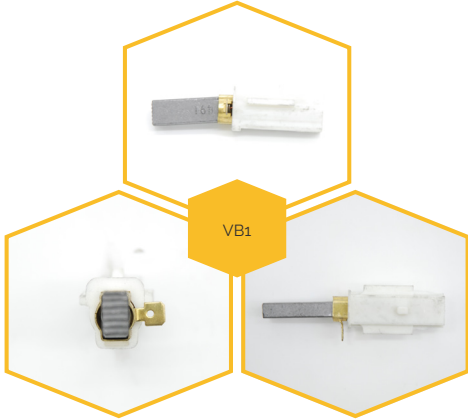
01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk



Power Units

The Power Unit is the most important piece of the Big Brute. Over the years, with all the constant use they get, it's inevitable that some loss of performance will occur. In most cases, the problem's easily solved with new motor brushes or the odd motor - see pages 7 and 8 for more details. However, we also offer repair service for your power unit and, if it's beyond economical repair, we can supply a brand new power unit.

All new Big Brute power units still have 3 motors. Over the last few years, their power has been uprated from 1kW to 1.2kW.

If you require 110V, Wet & Dry power units, or even a compressed air power unit, please give us a ring on 01223 88 22 22.

Standard Power Unit

This light-weight unit is our most popular power unit.

Suck & Blow Power Unit

The Suck & Blow is a heavy-duty power unit constructed from stainless steel. It discharges its spent exhaust air through 63mm diameter outlet port to which you can connect all your existing suction pipe and tools. Direct a powerful air blast to assist in your cleaning.

A powerful blast of air will shift inaccessible dust and debris that no amount of suction can shift. Use your Suck & Blow power unit to blast dirt off machinery and buildings - then change over the connection port and use the same Big Brute to clean up.



Part No	Description	Price
V148	230V Standard Power Unit	£1141
V838	230V Steel Suck & Blow Power Unit	£1507

All replacement power units are supplied with cable, switches and V40 Secondary Filter. All prices are ex-works and exclusive of VAT. Prices valid from 1st January 2024.



01223 88 22 22



info@bigbrute.co.uk



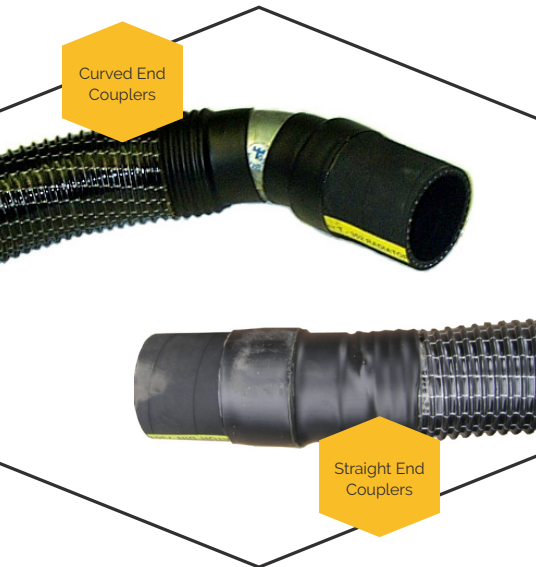
bigbrute.co.uk

Suction Hose

Big Brute hose can get very beaten up over the years. We see many hoses that have been run over, eaten by mice or that are more Duct tape than hose. Even a few small holes in your hose can dramatically affect your Big Brute's performance, taking you longer to clean up.

An easy way to check your hose is to disconnect it from the Big Brute and lay it out flat. Pop a hosepipe in one end and let it fill up for a bit. Any holes will be easily visible as water will be leaking out. Remember to empty all the water out of your hose before connecting it back up to your Big Brute.

Replacement hose is supplied either with or without end-couplers pre-fitted. Check the end-couplers on your old hose first and see if they need replacing and what type they are - either curved or straight. If your end-couplers are fine and you only want a replacement length of hose, just cut them off. Order some plain hose (V10, sold by the metre) plus 2 pieces of heatshrink sleeve (V721) to attach the new hose to your existing couplers.



Hose-Ends and Couplers

Part No	Description	Price
V35	Steel Bend Couplers DIY Kit (Per Pair)	£112
V35A	Straight Couplers DIY Kit (Per Pair)	£86
V36	Pipe-to-Pipe Push-Pull Straight Couplers	£44

All prices are Ex Works and exclude VAT.
Prices valid from 1st January 2024

Standard Flexible Hose

As supplied with the Big Brute Popular and Big Brute Warehouseman

Part No	Description	Price
V32	15m long hose with steel bend end couplers pre-fitted	£412
V32B	10m long hose with steel bend end couplers pre-fitted	£312
V32D	5m long hose with steel bend end couplers pre-fitted	£212
V33	3m long hose with steel bend end couplers pre-fitted	£172
V32A	15m long hose with straight end couplers pre-fitted	£386
V32C	10m long hose with steel bend end couplers pre-fitted	£286
V32E	5m long hose with steel bend end couplers pre-fitted	£186
V33A	3m long hose with steel bend end couplers pre-fitted	£146
V10	63mm diameter standard hose only (per metre)	£30
V721	Heatshrink sleeve (each)	£7.50



**Michael Williams
Engineering**

Delivering quality industrial solutions

Floor, Wall & Ceiling Toolkit

Most of our customers buy the optional Floor, Wall and Ceiling Toolkit with their Big Brute. It's a kit that contains different hand and floor cleaning tools to let you clean up your buildings from top to bottom, quickly and easily.

Quite often, the tools and parts get lost and scattered about your grain store or farm, making it a pain to clean up when you need to.

Have a look at the complete kit for any parts you're missing. We can supply any part individually or the whole kit is available at a discounted price.

What do you get in the Dry Floor, Wall and Ceiling Kit?

- A 38mm to 63mm Adaptor
- A Stainless Steel Crank
- 2 Stainless Steel Tubes
- A High-Reach Aluminium Extension Tube
- An Adjustable Floor Brush on wheels
- A Round Brush
- A Stainless Steel Crevice Tool
- A tool bag



Individual Hand Tools for Floor, Wall and Ceiling Kits

Part No	Description	Price
V25	38mm to 63mm Adaptor	£42
V26	Stainless Steel Crank	£33
V27	470mm Stainless Steel Tube	£26
V28	1220mm Aluminium High-Reach Tube	£43
V29	355mm-Wide Adjustable Floor Brush on wheels	£82
V29A	355mm-Wide Adjustable Floor Squeegee on wheels	£97
V30	152mm Round Brush	£48
V31	305mm Stainless Steel Crevice Tool (fits only to a V25 Adaptor)	£41
V41	Tool Bag (fits onto Big Brute trolley handles)	£45
V80	Rafter Blaster Blow Tool	£147
V80A	Rafter Blaster Suction Tool	£99

Complete Floor, Wall and Ceiling Kits

Part No	Description	Price
FWC-DRY	Floor, Wall and Ceiling Kit (Dry)	£270
FWC-WD	Floor, Wall and Ceiling Kit (Wet & Dry)	£338
FWC-WET	Floor, Wall and Ceiling Kit (Wet)	£281

All prices are Ex Works and exclude VAT.
Prices valid from 1st January 2024



01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk

Drums & Trolleys

Big Brute Drums are tough and designed to take a battering. But we've seen all sorts of mis-haps over the years, usually involving reversing trailers or forklifts. Minor mis-haps to the drum can usually be sorted out and the drum made round with a little patience and a big hammer.

Pay close attention to the rim of the drum where the power unit lid sits to make sure it's still a good fit. Also, make sure your drum entry spigot isn't mis-shapen and still has a good, firm connection to your hose. If either of these aren't good, your Big Brute performance will suffer and cleaning up will take longer.

Trolleys can also come in for a battering, so if your Big Brute is getting a little hard to push, we can also supply replacement wheels and castors.

Replacement Drums

Part No	Description	Price
V97	Drum with Spigot for Big Brute Popular and Warehouseman models	£497
V58	Drum Entry Spigot	£76

Replacement Wheels

Part No	Description	Price
V181	200mm (8") Rear Wheel for Big Brute Trolley	£14
V83	Blue front castor for Big Brute Trolley	£21

Static Electricity

Occasionally, we come across a job where the material being sucked up generates static electricity. To reduce the possibility of static shock, we've a range of earthed hoses and tools:

Static Electricity Earthing System

Part No	Description	Price
V527	Earthing Post for Power Unit	£28
V628	15 metre Earthed Primary Hose with Lead and Clamp	£582
V62B	10 metre Earthed Primary Hose with Lead and Clamp	£482
V62D	5 metre Earthed Primary Hose with Lead and Clamp	£382
V62A	15 metre Earthed Extension Hose with ends	£513
V623	10 metre Earthed Extension Hose with ends	£413
V62C	5 metre Earthed Extension Hose with ends	£313
V25C	Earther Adaptor	£85

All prices are Ex Works and exclude VAT. Prices valid from 1st January 2024



**Michael Williams
Engineering**

Delivering quality industrial solutions

Upgrade to a Warehouseman

The Big Brute Warehouseman is ideal for quickly cleaning up fine dust from large warehouse floors, without stirring up dust into the air.

You can convert your existing Big Brute into a Big Brute Warehouseman with our DIY installation conversion kit.

The Warehouseman Conversion Kit features our new and improved 28" (710mm) front-mounted floor brush. Its new heavy-duty design gives better cleaning performance which means faster cleaning.

You'll be amazed at the speed at which the Warehouseman cleans your floors of fine dust, in just one dust-free pass.

There are 2 different Warehouseman Conversion Kits available depending on whether your Big Brute trolley has 4 wheels or 2 wheels.

If you're upgrading to a Warehouseman, we also recommend getting a V39A Extra Large Primary Filter. The Warehouseman is often used for picking up very fine dusts from floors that have been ground up by your forklifts. By using an Extra Large Primary Filter, you get much greater filtration so you don't have to stop so often to clean your filters - you can clean up far quicker. You can also fit a Filter Shaker System to shake your filters clean more quickly and easily.



Replacement Wheels

Part No	Description	Price
FMFT-KIT	Warehouseman conversion kit for 2-wheel trolleys. <i>Converts your existing 2-wheel Big Brute trolley to a Big Brute Warehouseman with our NEW Big Brute Warehouseman 28" (710mm) wide front floor brush. Includes 28" brush assembly, 830mm connection hose and weld-on trolley conversion with castors.</i>	£448
FMFT-DRY-01	Warehouseman conversion kit for 4-wheel trolleys. <i>Converts your existing 4-wheel Big Brute trolley to a Big Brute Warehouseman with our NEW Big Brute Warehouseman 28" (710mm) wide front floor brush. Includes 28" brush assembly and 830mm connection hose.</i>	£389
V39A	Extra Large Primary Filter	£205
V39B	Filter Shaker System (To Fit Your Existing Drum)	£244

All prices are Ex Works and exclude VAT.
Prices valid from 1st January 2024

Warehouseman Conversion Kit for 2-Wheel Trolleys



Warehouseman Conversion Kit for 4-Wheel Trolleys



01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk

Upgrade to a Suck & Dump

The Big Brute Suck & Dump makes it easy and safe to empty heavy loads into bins and pits using your forklift or telehandler.

- No more heavy lifting
- Empty faster
- Clean up faster.



How do I upgrade?

It's easy to convert your existing Big Brute to a flat-bottomed Suck & Dump. All the parts and fixings you need are supplied in the kit, ready to fit.

The Suck & Dump Conversion Kit consists of:

- A new Forkliftable 4-Wheel Trolley
- Discharge Flap Assembly (ready to fit to your existing drum)
- Operating Handle for emptying
- Nuts, bolts and washers
- Full set of instructions

The flap is supplied fully assembled. Simply cut a 200mm hole in the base of your drum and bolt the flap assembly into place with the supplied bolts. Your drum, with its new flap assembly, can then be fitted onto your new trolley.

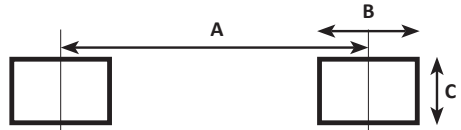
Sizes and Prices

There are many different types of fork fitted to forklift trucks. The chart below shows the sizes of the forklift sockets on our Suck & Dump trolleys that we offer. Make the following measurements of your forklift tines:

- Distance between the centres of the tines (Measurement A)
- Width of your tines (Measurement B)
- Height of your tines (Measurement C)

Check the table below for the part you need.

All Suck & Dump Conversion Kit sizes are the same price.



Part No	Description	A (mm)	B (mm)	C (mm)	Price
SAD-KIT-1	Suck & Dump Flat Base Conversion Kit - Standard Tines	454	125	75	£837
SAD-KIT-2	Suck & Dump Flat Base Conversion Kit - Medium Tines	479	150	75	£846
SAD-KIT-3	Suck & Dump Flat Base Conversion Kit - Large Tines	554	225	125	£897

All prices are Ex Works and exclude VAT. Prices valid from 1st January 2024



Michael Williams Engineering

Delivering quality industrial solutions

BigBrute.co.uk

BigBrute.co.uk has many Big Brute spare parts and accessories in stock for quick dispatch.



Suction Hose

Standard flexible suction hose, complete with curved end couplers, ready to connect straight onto your Big Brute and tools.



Hose Couplers and Ends

Curved and straight pipe ends to fit onto your suction hose plus couplers for joining shorter lengths of hose together.



Filters

Replacement filters and filter kits, including Primary Round Filters, Secondary Square Filters and replacement HEPA cartridges.



Tools

The most popular cleaning tools; replace the odd lost one, or buy complete toolkits to clean your building from top to bottom. Dry and Wet & Dry tools available.



Motor Brushes

Pairs of motor brushes for your Big Brute Motors.
Keep a pair in stock for quick change-overs.



Disposable Waste Bags

Our extra heavy-duty plastic disposable waste bags. Place in your Big Brute drum for easy, dust-free disposal.



01223 88 22 22



info@bigbrute.co.uk



bigbrute.co.uk

Clean Up Big

Do you need a big vacuum cleaner? One with big power? And long hoses that get into every corner of your building?

The Big Brutes have been helping industrial and agriculture businesses clean up for decades.

You'll find Big Brutes cleaning grain stores, animal feed plants, steel mills and power stations the world over, from the UK to Australia.

- Clean up large floor areas quickly, without stirring up dust
- Safely empty with your forklift, telehandler or overhead crane
- Slash your cleaning costs and downtime

Watch an online demo right now - real Big Brutes sucking up real muck in real businesses.

Hop onto our website at

bigbrute.co.uk





**Michael Williams
Engineering**

Delivering quality industrial solutions