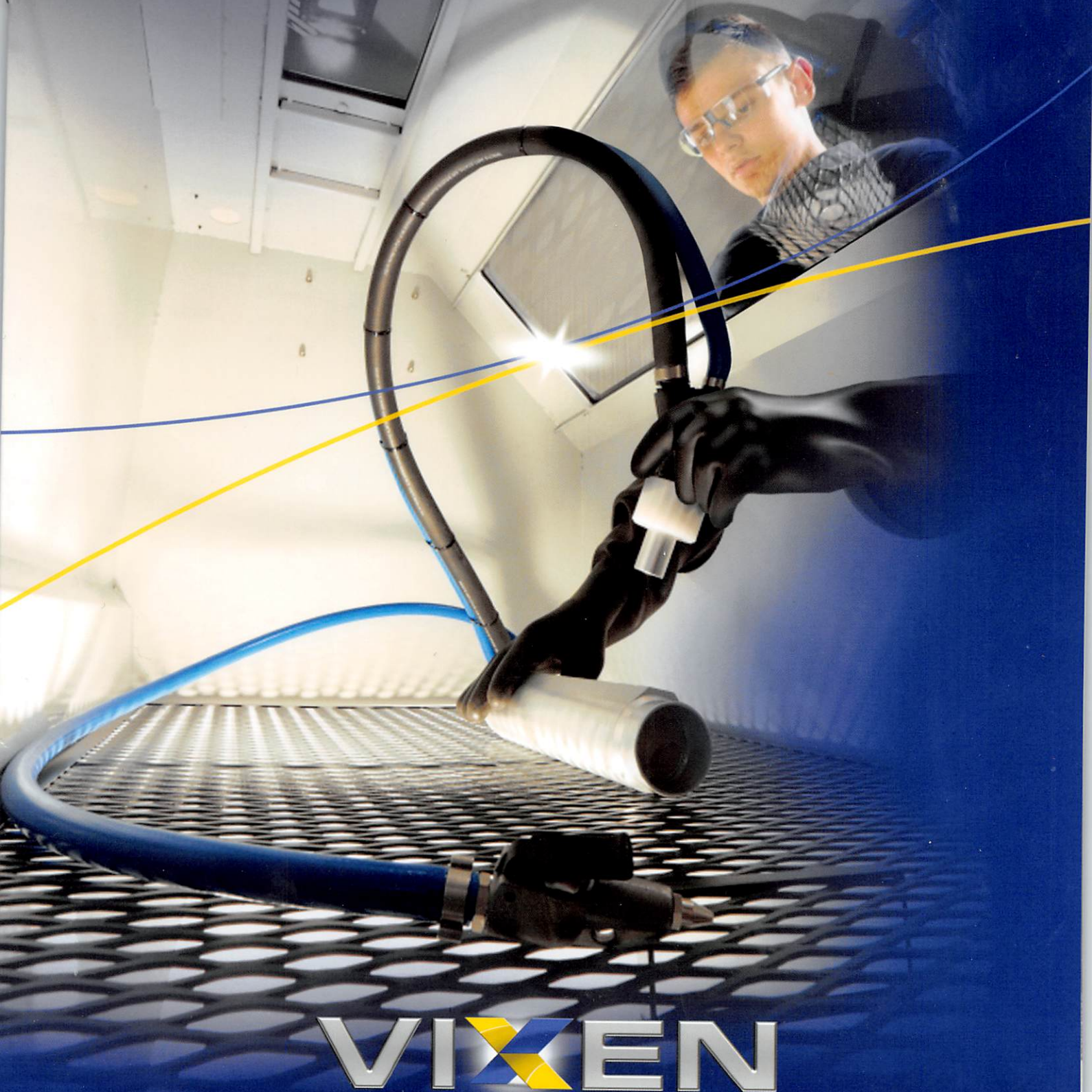


# JETAIR

Blast Cleaning Equipment

*It's time you came clean with us!*



VIXEN





Founded in 1990, Vixen Surface Treatments has enjoyed continual growth and is now accepted as a leading force in the production of machines for degreasing and blast cleaning.

*"Our success can be attributed to our ability to manufacture a growing range of standard and custom built machines which will provide cost effective blast cleaning solutions for a wide range of applications"*

Vixen's customers include well known market leaders who are operating in the manufacturing, aviation and engineering industries, whose decisions to buy our equipment have been influenced by the quality of our machines, their reputation for reliability and the value for money that Vixen's products represent.

Vixen's experience, knowledge and versatility together with a continuing need to reduce costs, means that machines from our diverse range of equipment are consistently chosen as the right solution to blast cleaning and blast treatment problems.

The Jetair is top of the range of Vixen's industrial sandblasting cabinets. The bright LED lighting and high performance dust collection system fitted to these models ensures maximum internal visibility, which is the key to obtaining first class results.

This brochure provides details of the standard Jetair range models with the popular options available. In addition, there are automatic machines for blast cleaning and our special build option which consists of a CAD drawing design at the quotation stage. With this in mind there is no need to purchase a blast cabinet that isn't ideally suited to your application.

**Onsite Showroom for  
Demonstrations and Training**





# JETAIR

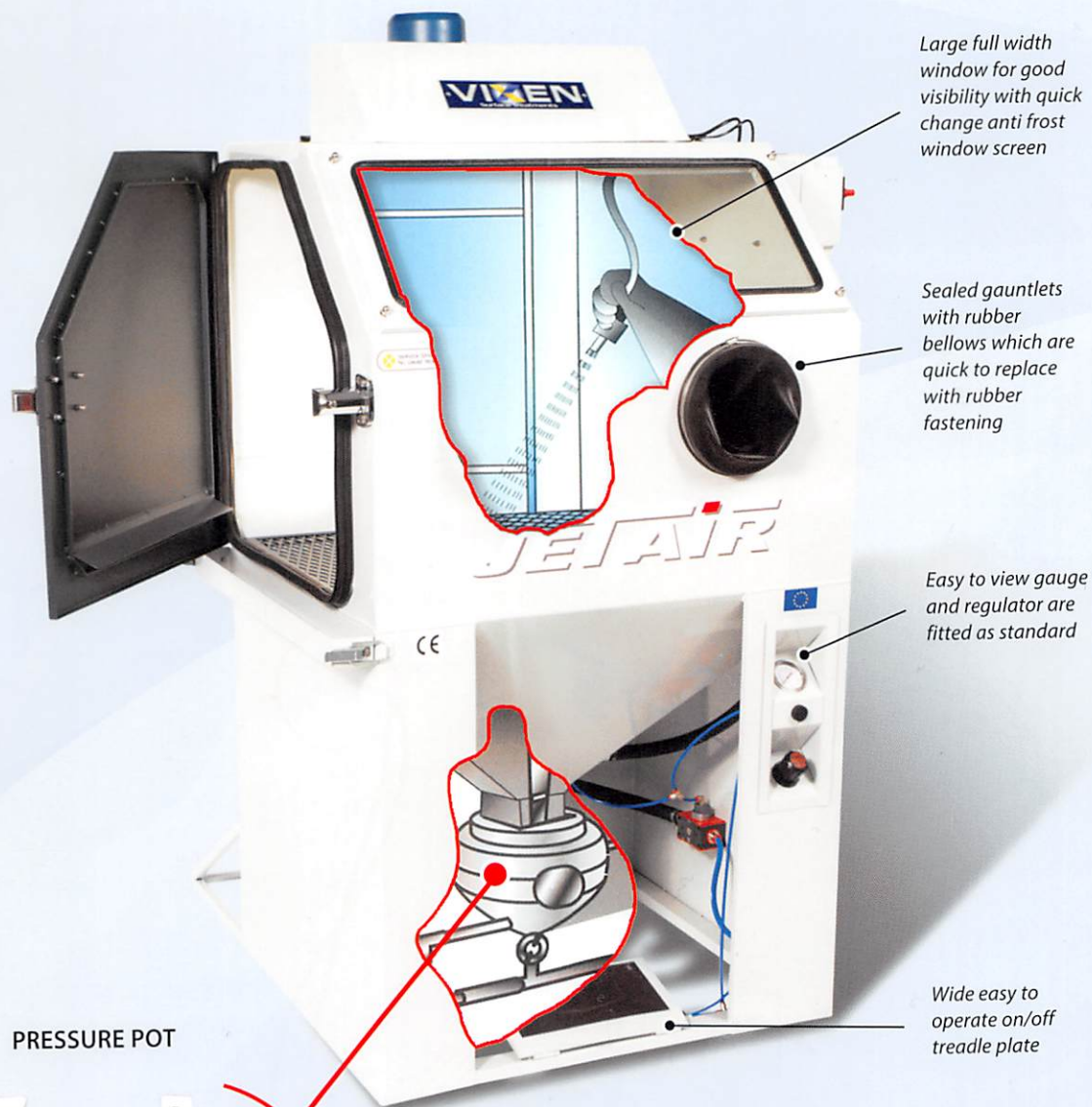
**BLAST GUNS & MEDIA:** All Vixen machines can be supplied with various types and sizes of blast guns. Silicone carbide nozzles are fitted as standard. Heavy duty boron carbide nozzles are also available.

**DOORS:** Machines with side doors are fitted with slam-shut door handles for ease of use (lockable). Fitted as standard to all Jetair machines are continuous rubber bulb seals.

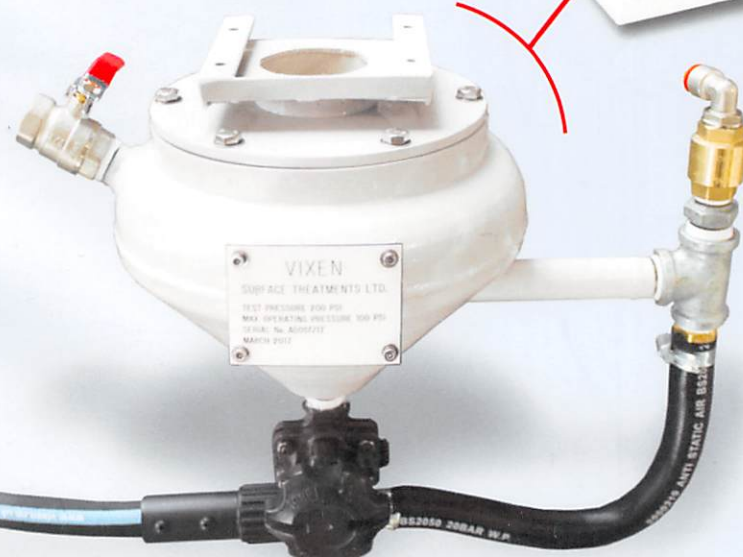
**EXTRACTION:** Reverse pulse cartridge extraction is available as standard. This is explained in detail on page 4.

**TURNTABLE OPTIONS:** There are numerous turntable options; fixed, swing out and turntables mounted to bogies for external loading.

The Jetair range has been designed to provide quick, clean and efficient results across a wide range of blast cleaning and blast treatment applications. So whether you are removing paints, surface coatings, preparing surfaces, surface finishing, deburring or peening, there is a machine in the Vixen range that will satisfy your requirements.



## PRESSURE POT



## Mini Pressure Pot

All Vixen blast cabinets are manufactured so that they can be easily converted to a pressure operated blast system at any time, without any modification to the machine, stand or pit. It can be fitted to the machine in less than 10 minutes. Pressure blasting can increase speed by up to 4 times that of a standard suction system and a wide range of blast media can be used. Larger capacity pressure pots are also available. See page 5 for more detail.



# JETAIR STANDARD SUCTION BLAST CABINET

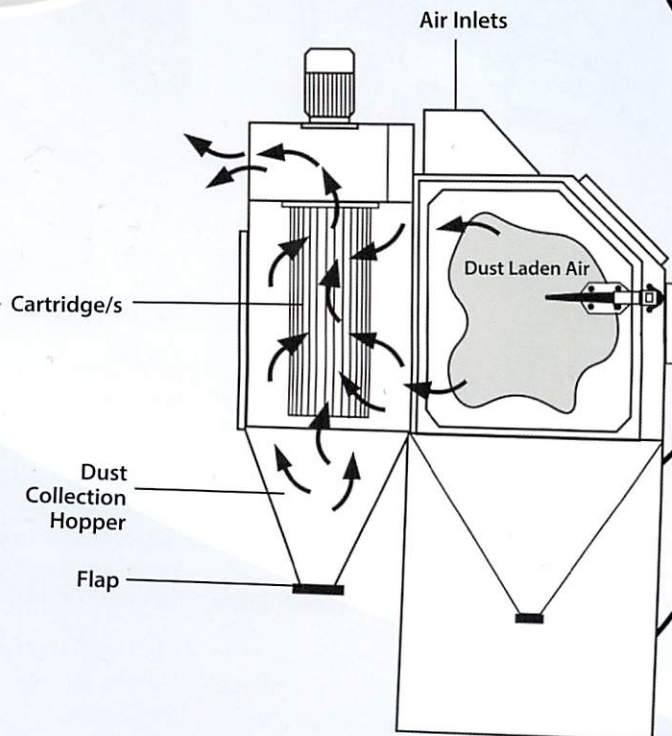
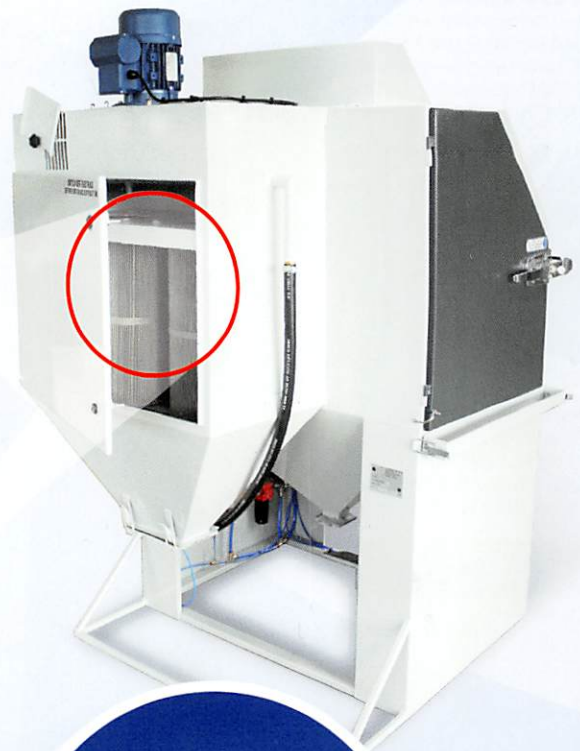
The suction operated blast system works with popular abrasives such as glass bead/aluminium oxide, where a desired finish on the component is required.

A suction feed will prepare metal components prior to any coatings such as paint and rubber. By simply changing the abrasive it can achieve a uniform satin finish, to aluminium, brass etc.

Visibility is paramount with any blast cabinet, fine airborne particles and debris being removed require a good dust extraction system. The Vixen Jetair range are fitted as standard with an integral dust cartridge extraction system. Our cartridges are manufactured to maximise the filtration area in order to maintain good visibility.

Poor dust extraction systems would result in the operator unable to see the component he is blasting and in some cases his own hand holding the blast gun. It is therefore pointless to create a blast cabinet unless the operator can see the component being processed.

The Jetair range has a manual cartridge clean button with the option of an auto clean facility if required.



**THE SUCTION FEED METHOD:** Compressed air is used to create a 'venturi' effect which is used to suck blast media from the hopper of the cabinet, up to the blast gun where it is propelled onto the surface of the components which are to be treated. The media then falls back to the hopper and is recycled.

**METALS:** The removal of paint, scale, carbon and other similar deposits, preparing surfaces prior to bonding and repainting, producing cosmetic finishes.

**PLASTICS:** Deflashing, cleaning and retexturing moulds.

**GLASS:** Etching, decorating and engraving.



# JETAIR<sup>®</sup> PRESSURE BLAST CABINETS

The Jetair range of pressure operated hand blast cabinets are high performance machines which have been designed specifically for blasting applications which require speed, force, control and good consistency of finishing.

On the correct application a pressure machine will typically clean 4 or 5 times faster than a suction machine. In certain conditions the pressure machine has little benefit over a suction machine. Vixen's pressure blast cabinets are widely used for the removal of paints and surface coatings, surface preparation, surface finishing and peening. They are suitable for use with a range of blasting media including glass bead, alumina, chilled iron and steel shot.

**THE PRESSURE FEED METHOD:** Blast media is stored in a pressure vessel rather than the hopper. When the foot pedal is depressed, the vessel is pressurised and the media is forced up to the blast gun via a media mixture control valve and a heavy duty blast hose.

As a pressure machine does not rely on the venturi principle, the nozzle pressure is much higher and the velocity of the abrasive propelled in the air stream is greater and therefore faster cleaning occurs.

It is typical with pressure machines that a greater volume of dust and broken down media occurs compared to a suction machine. With many pressure machines where fine abrasives are used we would recommend a larger separate four cartridge extractor, rather than the integral twin cartridge extractor.

In between the extractor we would also look at the cyclone option which is described on page 6 in more detail.

Large Pot with Operator Stand

## PRESSURE POT:

We offer two sizes of pressure systems; the compact mini pot which will sit under the hopper of a VM36 and VM42, and the larger pot, which requires mounting either under a cyclone (shown on page 6) or on an operator stand shown on the photo opposite.



Compact Mini Pot Sited Directly Under Machine





# JETAIR CYCLONE

The availability of an equipment package designed specifically around the use of a cyclone media separator has provided very effective solutions.

The Jetair Cyclone is ideal for applications where it is important to exercise a high degree of control over the separation of dust and fine particles from good re-usable media during the blasting process. There are also considerable savings to be made due to a reduction in the transfer of good media to dust extractors operating without a cyclone.

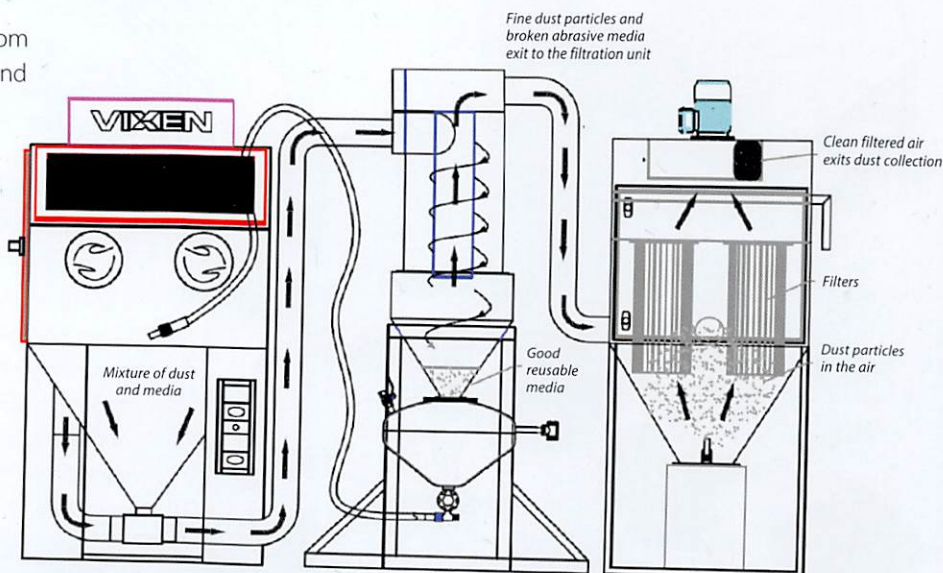
Media, dust and fine particles are drawn from the blast cabinet or machine and enter the top of the cyclone. The heavier re-usable media is forced to the outer walls by the vortex created whilst dust and fine particles are drawn to the dust extractor from the centre of the cyclone. A cyclone media separator is available for suction or pressure machines whether it's a manual or automatic blasting machine.



The efficient separation of dust and debris from the abrasive maintains the abrasive quality, and therefore the blasting process remains consistent. Lack of dust and debris during blasting ensures the operator has good visibility within the blast chamber.

## BENEFITS OF THE CYCLONE SYSTEM:

- Maintaining the integrity of the blast media
- Greater visibility with dust and contaminants removed
- Reduced abrasive consumption
- Better surface finish with blasting





# JETAIR<sup>®</sup> AUTOMATIC INDEXER

The Jetair Indexer is the ideal machine for blast cleaning or treating components which are too fragile or too awkward to tumble. Parts are processed in such a way that they do not come into contact with any other parts or moving machinery.

*Multi Jet Setup or Custom Setup*



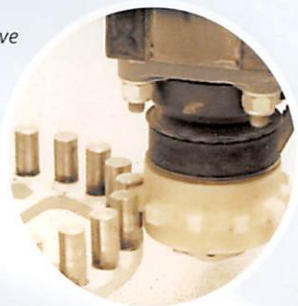
*Load Area Pneumatic Entry and Exit Doors*



*Automatic Conveyor System*



*Mechanical Gear Drive for the Individual Satellite at the Process Station*



Components are loaded and unloaded to and from the machine either manually or automatically by using a robot for example. The load is situated at the front of the machine in easy reach of the entry and exit openings. The Indexer comprises of a circular web carrying independently rotating satellite heads to which a jig or tool holder attaches.

As each station indexes around the machine it rotates continually through 360 degrees in front of a series of adjustable blast guns. Following the blasting sequence the satellites enter a blow off compartment where again they rotate continually and the components are air washed to remove any residual, abrasive and dust.

The satellites are individually designed to hold the components in exactly the right positions whilst they are being blasted to ensure that the correct coverage is achieved each time. The Jetair Indexer can be operated with a wide range of blast media.

*Before and after samples of the surface finish using the Vixen Jetair machines*





# JETAIR TUMBLER MACHINE

The Jetair Tumbler blast range is designed to automatically blast clean or treat batches of small to medium sized components.



*A superior surface finish using Vixen media*



The Tumbler machine also eliminates the difficult handling element associated with small part processing using a hand blast cabinet. The components are loaded into the drum where they are slowly tumbled under a stream/jet of blasting media which is delivered by adjustable blast guns angled towards the drum.

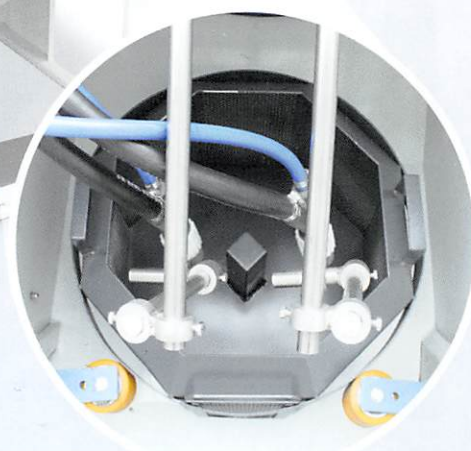
The Tumbler range can be operated with a wide variety of blast media including plastics, vegetable matter, glass bead and aluminium oxide. Chilled iron grit steel shot may also be used in pressure fed systems. At the end of each timed cycle, the drum continues to rotate to remove media from the components and the drum. At the same time air wash guns are brought into operation to help remove any last traces of dust or media. Parts may be removed either manually from the drum or via a reverse driven discharge system which is available as an optional extra.

## THE JETAIR TUMBLER BLAST PRINCIPLE:

Components to be blasted are gently tumbled whilst the blast guns constantly fire abrasive to give them a uniform surface finish.

## OPTIONAL EXTRAS:

- Variable drum speed control
- Urethane lined drum
- Reverse driven discharge system
- Quick release unloading chute
- Separate self-cleaning dust collection cartridges
- Flashing beacon – finished cycle
- Cyclone media separator
- Pressure operated blast system





# JETAIR<sup>®</sup> CUSTOM BUILT MACHINES

After almost 30 years in specialising in the manufacture of blasting machines Vixen have an extensive library of specially modified machines.

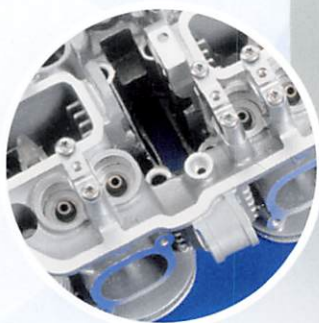


Today's manufacturing processes demand faster times and consistency. As a result Vixen have adapted many machines using automatic rotation of parts, automatic manipulation of the blast guns and PLC controls for monitoring the processes or operating pick and placing of components in and out of the blast machine.

***Whether your application requires small alterations to a standard machine or a full turnkey CAD drawing proposal, Vixen have a solution to your problem at a price you can afford.***

## SPECIAL BUILD MACHINES:

- Front or extra door openings
- Swing in swing out turntable
- Roll in roll out trolley
- Cyclone media separator
- Self-cleaning dust collection cartridges
- Rubber lined blast chamber





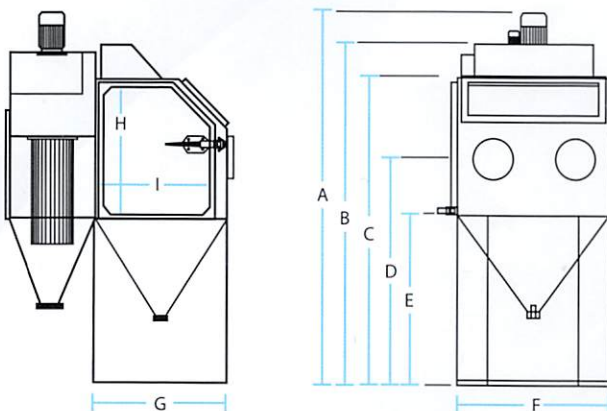


## BLAST CABINET SIZES

Vixen's top of the range blast cabinets come in 4 standard sizes, VM30, VM36, VM42 and the VM55. Each machine uses the same technology with the only difference being the VM55 (the largest in the range) features a gas assisted full front opening door to allow easier access for larger parts and bellow sealed gauntlets.

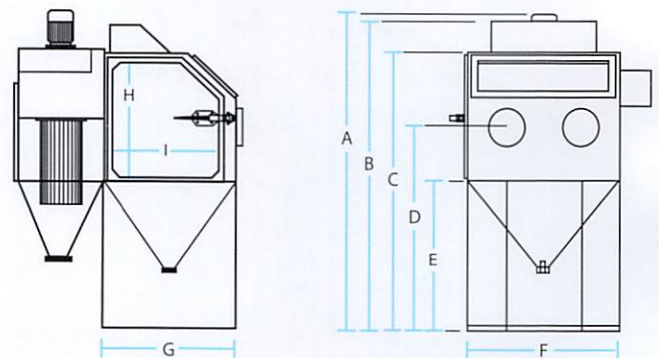
### MACHINE DIMENSIONS:

Below are the dimensions for each machine and a small drawing. At the quotation stage you will be presented with a full CAD drawing of your machine so you can plan your floorspace accordingly.



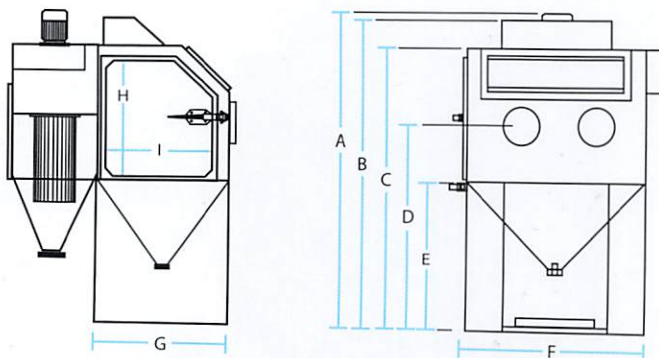
MODEL JETAIR VM30

MODEL DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I
Model VM30	1920	1770	1590	1200	890	760	670	630	520



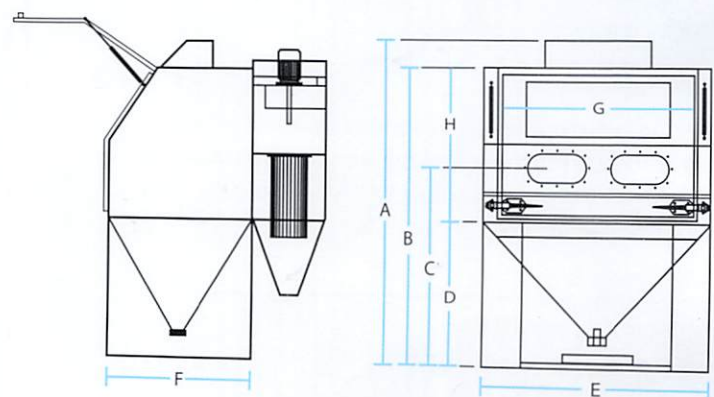
MODEL JETAIR VM36

MODEL DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I
Model VM36	1870	1790	1610	1170	840	920	770	700	630



MODEL JETAIR VM42

MODEL DIMENSIONS (mm)	A	B	C	D	E	F	G	H	I
Model VM42	1820	1780	1620	1160	840	1070	770	710	640



MODEL JETAIR VM55

MODEL DIMENSIONS (mm)	A	B	C	D	E	F	G	H
Model VM55	1920	1760	1160	840	1400	920	1170	830

### COMPRESSED AIR REQUIREMENTS:

The air consumption of a Jetair machine can vary depending on the nozzle and jet size between 10 and 50cfm for example. Please contact us to discuss your application in further detail so we can recommend your best air consumption requirements.

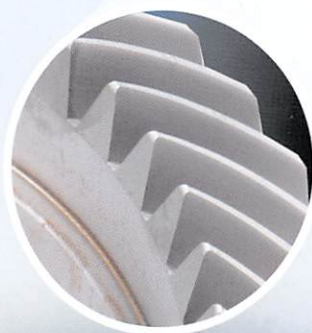
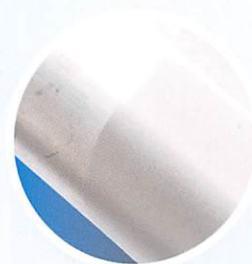


## THE FINAL QUESTION – WHAT FINISH ARE YOU LOOKING TO ACHIEVE?

The secret with surface blasting is choosing the correct media as the finish largely depends on the media you have selected.

Vixen carry an extensive range of blast media. You need to consider the media hardness, shape, size and importantly the media breakdown required to get the desired result for your application. So whether you are looking to remove paint or rust, polish aluminium or prepare surface coating or bonding, the media you choose is paramount to achieve the correct results.

*Contact the sales team today to find out which abrasive is best for your process, or visit our demonstration centre to test some out for yourself!*





VIXEN SURFACE TREATMENTS IS A  
MARKET LEADING SPECIALIST IN THE  
DEVELOPMENT AND PRODUCTION OF  
MACHINERY USED IN SURFACE  
TREATMENTS WORLDWIDE.

---

ATLAS COPCO  
BAE SYSTEMS  
BLACK & DECKER  
BMW  
BP  
CUMMINS ENGINES  
DUNLOP AVIATION  
EBARA  
EDWARDS  
FEDERAL MOGUL  
FORD MOTOR COMPANY  
FISKARS  
GE  
HAMPSHIRE TOBACCO  
HENKEL  
HOTPOINT  
IMI GROUP  
JAGUAR LAND ROVER  
KAWASAKI  
LONDON UNDERGROUND  
MATTHEW ALGIE  
METRON TECHNOLOGY  
MITRAS AUTOMOTIVE  
NESTLÉ  
PEPSI  
QIOPTIC  
REDBULL F1  
ROYAL ORDNANCE  
SEBASTIEN VETTEL  
SHARP ELECTRONICS  
SYTNER BMW  
TATA STEEL  
TRIUMPH MOTORCYCLES  
TRW AUTOMOTIVE SYSTEMS LTD  
WALKERS CRISPS  
WEETABIX LTD

---

**VIXEN**  
Surface Treatments

73 JAY AVENUE  
TEESSIDE INDUSTRIAL ESTATE  
THORNABY, STOCKTON ON TEES, TS17 9LZ

TEL: + 44 (0) 1642 769333  
FAX: + 44 (0) 1642 769441

E-mail: [info@vixen.co.uk](mailto:info@vixen.co.uk)  
Website: [www.vixen.co.uk](http://www.vixen.co.uk)

