

# BSL Gas Technologies Ltd

Your partner for the supply of Gas Solutions. *Experienced, innovative, responsive and resourceful.* 

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Enter our site

Mixing Knowledge and resource, delivering thought provoking Industrial gas equipment solutions to the community of gas users, gas suppliers and equipment manufacturers.

Who are BSL	Talk to us	Your Applications	Your Products	Other Services	Useful People	BSLpedia
• History	• Details	<ul> <li>Food Processing and packing</li> </ul>	<ul><li>Gas Mixer Valves</li><li>Gas Flow Control</li></ul>	<ul> <li>Bespoke product designs</li> </ul>	<ul><li>Industry experts</li><li>Agents and</li></ul>	<ul><li>Useful data</li><li>Data sheets</li></ul>
Track record	• Contacts	<ul><li>Beer Presentatior</li><li>Manufacturing</li></ul>	<ul><li>Valves</li><li>Gas-Mix Mini</li></ul>	<ul> <li>Refurbishing projects</li> </ul>	representatives • Installers	<ul><li>Applications</li><li>Qualifications</li></ul>
• References	<ul><li>Location</li><li>Submit form</li></ul>	and welding quality	<ul><li>Gas-Mix GMB</li><li>Adjust-a-Mix</li></ul>	<ul><li>Site servicing</li><li>Equipment</li></ul>	Useful people	And more ?
• Qualification			<ul><li>Gas-Mix FW</li><li>Gas-Mix HF</li></ul>	Certification • Spare parts		_
			<ul><li>CO2 Gas Analysers</li><li>Gas Analysers</li></ul>		_	

Gas Filters Leak detectors Gas Manager









Certificate number FM 46063

### Who are BSL Gas Technologies Ltd and what can we help you with ?

- \* We were established in 1990, 2015 is our 25<sup>th</sup> year of business, which we are very grateful for.
- \* We have made more than 250,000 Gas Mixing Systems, we are continually growing our range and ability, providing useful beneficial equipment solutions, services and facilities to our friends and customers in the Global Industrial Gases community.
- \* our community includes....those using Industrial gases in their applications, those delivering industrial gases in various modes of supply to their customers, those generating industrial gases, those interested to know how the gases are used, why they are used and maybe where they are lost or wasted in the processes.
- \* Some of our equipment solutions include Gas Mixer Valves, Gas Flow Control Valves, Gas Mixing Panels and Systems, Gas Analysers, Gas Filters, Gas Safety equipment and Gas Management systems generally.
- \* we are increasingly asked for customer specific branded designs, equipment refurbishment programmes, the supply of components from stock and for some we are a source of quality cost effective machined parts. We also refurbish and re-calibrate and certify our own equipment as required by the Quality Control people in various processes.
- \* We supply our equipment globally and our sister Company McDantim manufacture equipment for the American market. One key aim is to produce extremely robust, hard wearing, easy to use equipment that requires very little looking after. And which has a very beneficial total cost of ownership for our customers.
- \* We operate an ISO 9001;2008 design and manufacturing system. We are members of the BCGA, British Compressed Gases Association and the Brewing Food and Beverage Industry Suppliers Association.

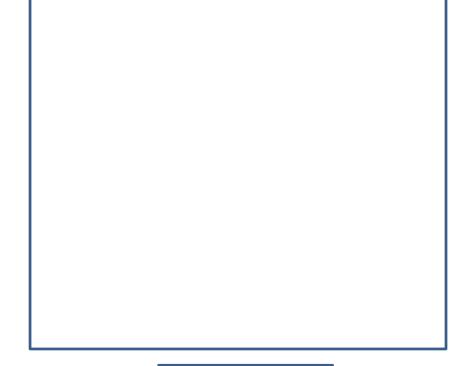


#### Talk to us

BSL Gas Technologies Ltd, 101 Laker Road, Rochester Airport Industrial Estate, Rochester, Kent UK....Tel + 44(0)1634 661100...Fax +44(0)1634 671111....email solutions@bslgastech.com

Your Name
Your Company
Your telephone
Your email
What is your application
Which products are you interested in
A brief description of your particular process requirements, your gases, pressures
flows and what you are trying to do









Suhmit

Milk powder processing, high flow gas mixer and distribution system



BSL 3 gas Adjust-a-Mix Gas Mixer,

#### Applications - Food and Beverage Processing and Packing

- \* Mixed gases are invaluable to these industries, the correct gas combinations greatly improving the shelf life and final presentation of Food and Beverage products
- \* Mixed gas is involved in a number of stages of the production process, including production, bulk distribution, retail and final packaging for consumers.
- \* BSL have been supplying Food and Beverage specialists with Gas Mixers and Gas Analysers and Gas Management solutions for more than twenty years.
- \* All sorts of Food products will benefit from a controlled or modified atmosphere and there are different mixes required at different times too, there is a difference between bulk packs for example and retail packs of the same food product.
- \* This practice is now very common of course and Food producers now know exactly which mix best suits their situation and there are some very standard mix combinations that are common.
- \* Most common is the 30% CO2 in Nitrogen gas mix. This is used for lots of products especially at the retail pack stage. And gases perform different functions too, and sometimes for different products. Typically Nitrogen is used to exclude Oxygen, reduce oxidation and inhibit growth. CO2 will also kill many things, inhibit mould growth, but for some products like cheese for example is helpful in keeping it fresh.
- \* Another common mix is a high Oxygen in combination with CO2, maybe 80% O2 and 20% CO2. Most commonly for red meat and uncooked meat. The high oxygen content in this case helps to keep the meat fresh and live looking for longer. Consumers prefer the look.
- \* In our useful information section of the website is a more expanded list of mixes used for various Food Products. It is not exhaustive, but is a decent quide, somewhere to start when considering your mixes.



Red meat typically 70% or 80% O2 in CO2 mix ratios



Salad typically 30% CO2 in N2 mix ratios



Typical retail food packs



BSL's popular Mini-Panel for Beer Dispense



BSI Cellar-Mix Panel with 4 outlets

#### Applications – Beer perfection, Beer dispense Industry

- \* For the Brewer and the seller. Dispensing beer using mixed gas has proven to be a valuable tool to those interested in presenting beer perfectly and consistently. For the Brewer and the seller, mixed gas helps to deliver the beer as expected and is an important part of the overall brand image.
- \* For the consumers. We receive the exact product that we are expecting and the exact drinking experience we have paid for. The brand image that is advertised is delivered, and mixed gas helps to provide that consistency from the moment the beer is first presented to the moment it is finished and we are contemplating another.
- \* For the sellers, pub landlords, managers. There are other advantages too. Using the correct mixed gas will reduce waste. Wasted gas and wasted beer in the form of excessive foaming of the beer when it is stored and then poured. By controlling the conditions around the storage and dispensing of the Beer; including the mixed gas that is used and the temperature it is stored at and selecting the correct dispense pressure. The dispense can be closely controlled, to give the presentation required and with optimum conditions for a perfect dispense with as little waste as possible. You will be surprised at how much money the waste elements amount to over time. More than enough to get a quick payback on a gas mixing system.
- \* Mixed gas is available in cylinder supplies of course. However, using 100% CO2 and 100% N2 and a gas mixer is much more economic than buying mixed gas in cylinders. A BSL Beer Dispense Gas Mixer delivers the quality and repeatability and it is also the cheapest way to get your mixed gas over even a very short time.
- \* You can have any mix you feel you need from one of our Cellar-Mix Panels, however common ones to give an idea are 30% CO2 in N2 for low CO2 content Stouts and maybe 60% CO2 in N2 for Lagers. It varies of course and BSL have available calculations and data to help you select your mix.
- \* In our useful information section of the website is a more expanded explanation of mixed gas and how to calculate the mixes against pressures and temperatures.

Too little Co2 and the beer will be flat and lifeless



Too much CO2 and the beer will be foamy and wasteful

#### **Applications – Manufacturing and Welding Quality and Consistency**

- \* Mixed gases are invaluable to these industries, the correct gas mixtures greatly improving the quality of manufacturing processes for the engineers involved with delivering quality.
- \* Manufacturing processes generally require higher flows of mixed gas, so in most cases the gases themselves are delivered in bulk as liquid supplies. It is common to have a bulk delivery of one gas and maybe a multi-cylinder pack of another, especially if it represents a small part of the final mix. But in either case, a Gas Mixer of some kind will provide the final mix the customer needs for their process.
- \* BSL have been supplying Gas Mixers and Gas Analysers to the specialists in Industrial Gas Mixing Applications for many years , our system offers some great benefits.
- \* With many of our solutions we attempt to help everyone in the process to install the most appropriate system possible. We try to take the mystery out of Gas Mixing and keep things simple. Keeping things simple, means not overcomplicating the solution and reducing the overall cost of ownership.
- \* In particular we try to remove any electrical content where possible and equally to remove the need for buffer tanks after the Gas Mixing part.
- \* By removing the need for electrics and the buffer, we deliver a simple solution, that is already set and waiting to go. The mix is certified at the point it leaves our factory. Installation becomes a very simple job indeed, the units themselves remain very easy to look after throughout their life cycle. With no electrics and no buffer tank, the cost to look after the equipment is extremely low. And of course there are no electrical parts, like solenoid valves to fail on you over time.
- \* We satisfy many of our customers requirements with pre-set Gas mixing units,, although adjustable units are available too. We have standard modules up to 250 to 300 nm3/hr for many applications, although our range includes systems up to 1000 nm3/hr.
- \* In our useful information section of the website is more detail about our equipment.



Typical Gas Installation showing the BSL Gas mixer after the liquid gas supply system



Typical Gas Installation showing two BSL Gas-Mix FW Panels in operation.



Typical Gas-Mix FW 1,2,3 style of wall mounted Gas Mixing Panel

#### **Products – Gas Mixing Valves**

- \* BSL Gas Technologies have at the core of our products a large range of Gas Mixing Valves. Since the first valve we patented in 1990, we have been able to tailor this clever design for different gases, different flows and we now have 2 gas and 3 gas versions, pre-set and adjustable.
- \* The Mixing Valves are simple, clever, very reliable and extremely hard wearing. They are a completely pressure mechanical device designed to apportion the volume of 2 or 3 gases to provide a consistent mixed gas percentage over a wide and process dependent varying flow range.
- \* Obviously they do not rely on electrical power to operate which is hugely beneficial and because they provide a flow range naturally, they do not require a buffer tank after them. They have a built in mechanical safety interlock, which means that they will only pass gas if both or all of the supply gases are present.
- \* By placing our Gas Mixing Valves together we provide you with higher flows for all sorts of applications.
- \* We have valves for all the common Industrial gases you use, CO2, Nitrogen, Argon, Helium, Oxygen, Hydrogen for example and one or two less common gases too. Much of the decision on which valve to choose for which particular gas comes down to materials that are compatible with the gas and the cleaning regime required.
- \* Let us select the correct Gas mixing Valve for you, please see our list of important factors required to make the right choice.



Typical Beer Dispense style of Gas Mixer, CO2 and N2 feeding the valves, two different gas mixes exiting the valve.



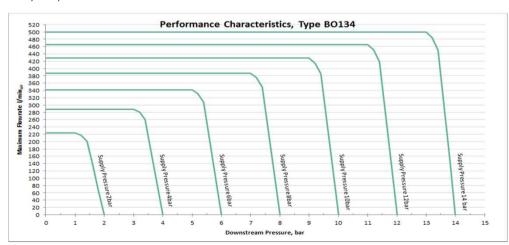
A selection of different Gas mixing Valves.

#### **Products – Gas Mixing Valves**

- \* Top find out which Gas Mixer Valve best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED!!

#### Products - Gas Flow Control Valves

- \* BSL Gas Technologies have at the core of our products a large range of Gas Flow Control Valves.
- \* The Gas Flow Control Valves are simple, clever, very reliable and extremely hard wearing. They are a completely pressure mechanical device designed to provide a constant flow of gas given that you have a constant upstream supply gas pressure and a constantly changing downstream system pressure.
- \* A good example of this is when you are filling a storage tank. As you fil it the pressure increases. Our Gas Flow control valves are used to keep the flow constant as the pressure builds up.
- \* The valve is often used to control the operation of processes like gas generation systems, where the gas separation elements need to operate at a constant pressure and flow. The BSL Gas Flow Control Valve is used to regulate the flow for the process given these conditions and our units are very good at doing this job.
- \* Obviously they do not rely on electrical power to operate which is hugely beneficial. We have four main sizes in the Gas Flow Control Valve family. At 14 bar g, we have the valves that will deliver flows of 30, 500, 1600, and 5000 litres per minute of your gas.
- \* The valves have a built in needle valve so that you can set the flow you need for your process.



Typical Flow Curves for our BO 134



A selection of BSL's Gas Flow Control Valves.

#### Products - Gas Flow Control Valves

- \* Top find out which Gas Flow Control Valve best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to control the flow of?
- What gas source and supply gas pressures do you have available?
- What gas pressures do you need for your process?
- What volume of gas do you need?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### Products - Gas Mixers Gas-Mix Mini

- \* BSL Gas Technologies have at the core of our products a large range of Gas Mixing Panels. The Gas-Mix Mini range of Gas mixing Panels, use the BSL Gas Mixers added to the simplest assembly to make a very user friendly Gas Mixing Package.
- \* These assemblies include a Gas Mixer, a stainless steel formed back-plate with mounting holes, inlet and outlet connections and low pressure outlet gas regulators.
- \* The Gas-Mix Mini Panels are supplied already pre-set and certified for their mixed gas settings.
- \* There are many variations on a theme for you to choose from. We have customers that take lots of different pre-set outlets each at low flows of 2 or 3 nm3/hr. We have others that like a couple of mixes to choose from but maybe at 80 to 100 l/min each mix.
- \* Generally you can have up to 4 different outlets from one of these Panels, and strangely we have some customers that place two or three of these panels together!!
- \* Let us select the correct Gas-Mix Mini for you, please see our list of important factors required to make the right choice.



Typical Gas-Mix Mini solution

### Tried and proven technology that has been used in our mixed gas applications since 1990

#### **Features**

- Pre-set and adjustable options
- •For all common Industrial gases
- •Rated 13 bar g
- All mechanical design
- Accuracy BS EN ISO14175;2008
- •Manufactured ISO 9001;2008
- •All mechanical design
- Safety interlock

#### **Benefits**

- Very robust design
- Accurate mixing of gases
- •Resilient to temperature fluctuations
- Gas pressure balancing
- No electrics required
- No buffer tank needed
- Simple installation
- Low ownership costs

#### Products – Gas Mixers Gas-Mix Mini

- \* Top find out which Gas Mix-Mini best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### Products – Gas Mixers Cellar Mix Panels for Beer Dispense

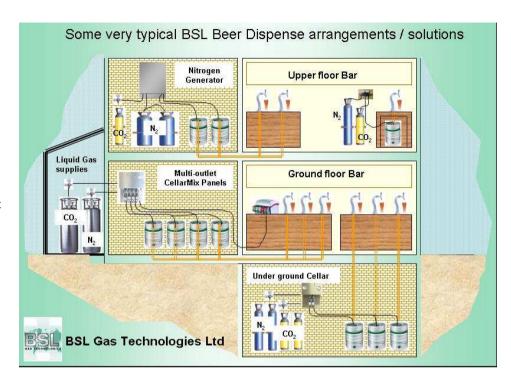
- \* BSL Gas Technologies have a large range of small Gas Mixing Assemblies we provide particularly for the Beer and Beverage Dispense Industry.
- \* The Cellar-Mix and the Mini-Panel are a variation on the Gas-Mix Mini, in fact the Beer Dispense Panels gave rise to the Gas-mix Mini design.
- \* The Cellar-Mix Panels are tailored specifically to the Beer Dispense Code of Practice a key part of that relates to the pressure safety relief systems.
- \* Each outlet of a Beer Dispense Panel includes 2 (two) safety relief valves set at 45 or 55 psi.
- \* These assemblies also include a Gas Mixer, a stainless steel or steel painted and formed back-plate with mounting holes, inlet and outlet connections and low pressure outlet gas regulators.
- \* Generally you can have up to 4 different outlets from one of the Cellar-Mix panels.
- \* Let us select the correct Gas-Mix Mini for you, please see our list of important factors required to make the right choice.



Typical BSL Mini-Panel for Beer Dispense, twin outlet pre-set assembly.



Typical BSL Cellar-Mix for Beer Dispense, four outlet pre-set assembly.



#### Products – Gas Mixers Cellar-Mix Panels for Beer Dispense

- \* Top find out which panel design best suits your requirements, please consider the following information.
- What gases are you starting with?
- What mix gas ratios do you need for your application?
- How many mixes do you need?
- Do you need other outlets too?
- What gas source and supply gas pressures do you have available?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### Products - Gas Mixers Gas-Mix GMB and GMT

- \* The Gas-Mix GMB and GMT range of Gas mixing Panels, use the BSL Gas Mixers added to a more compact but complete user friendly package.
- \* These assemblies include a Gas Mixer, a stainless steel formed back-plate with mounting holes, inlet and outlet connections and low pressure outlet gas regulators. The Panels are Industrial in nature with twin ferrule connections and copper pipework.
- \* The Gas-Mix GMB and GMT units are available to mix 2 gases from the typical Industrial gas range. Panels are supplied already pre-set and certified for their mixed gas settings and are also available as adjustable units
- \* The Gas-Mix GMB unit will typically give you a flow of around 10 nm3/hr maximum, the GMT unit will typically give you a flow of around 20 nm3/hr maximum.
- \* Let us select the correct Gas-Mix GMB / GMT for you, please see our list of important factors required to make the right choice.

Tried and proven technology that has been used in our mixed gas applications since 1990

#### **Features**

- Pre-set and adjustable options
- •For all common Industrial gases
- •Rated 15 bar g
- •All mechanical design
- Accuracy BS EN ISO14175;2008
- Manufactured ISO 9001:2008
- •All mechanical design
- Safety interlock

#### **Benefits**

- Very robust design
- Accurate mixing of gases
- Resilient to temperature fluctuations
- Gas pressure balancing
- No electrics required
- No buffer tank needed
- Simple installation
- Low ownership costs



Gas-Mix GMB and GMT solution, wall mounted or bench mounted.

#### Products - Gas Mixers Gas-Mix GMB and GMT

- \* Top find out which panel best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### Products – Gas Mixers Adjust-a-Mix

- \* The Adjust-a-mix range of Gas Mixing Panels, use the BSL Gas Mixers added to a more compact but complete user friendly package. This particular package provides you with the ability to readily adjust the gas mixture.
- \* These assemblies include a Gas Mixer, a stainless steel formed back-plate with mounting holes, inlet and outlet connections and low pressure outlet gas regulators. The Panels are Industrial in nature with twin ferrule connections and copper pipework.
- \* The Adjust-a-mix units are available to mix 2 or 3 gases from the typical Industrial gas range. Panels are supplied already certified for their mixed gas settings.
- \* The Adjust-a-Mix Panels will typically give you a flow of around 300 I/min of mixed gas given normal expected pressure conditions.
- \* Let us select the correct Adjust-a-mix panel for you, please see our list of important factors required to make the right choice.



#### **Features**

- Adjustable options
- •For all common Industrial gases
- •Rated 15 bar g
- •All mechanical design
- Accuracy BS EN ISO14175;2008
- Manufactured ISO 9001;2008
- •All mechanical design
- Safety interlock

#### **Benefits**

- Very robust design
- Accurate mixing of gases
- Resilient to temperature fluctuations
- Gas pressure balancing
- No electrics required
- No buffer tank needed
- Simple installation
- Low ownership costs



Adjust-a-mix solution, bench mounted.

#### Products – Gas Mixers Adjust-a-mix

- \* Top find out which panel best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### Products – Gas Mixers Gas-Mix FW 1, 2, 3 Panels

- \* The Gas-Mix FW range of Gas Mixing Panels are a very popular design and extremely versatile.
- \* The Gas-Mix FW1,2,3 are available for medium to high flows of mixed gas, typical 25, 50 and 100 nm3/hr at normal pressures.
- \* They are available in 2 and 3 gas designs and they are available as pre-set and adjustable solutions.
- \* The panels are normally wall mounted and are often located outside with the gas supply system.
- \* With twin ferrule connections and copper pipework, these panels are rated at 30 bar g, for pressure safety reasons, although they are typically working in applications with pressures around 10 to 12 bar g
- \* A feature of these units is they can be upgraded. That is, we can supply them to do a 25 nm3//hr flow, but with the addition of more blenders we can take them up to a 100 nm3/hr flow.
- \* Let us select the correct Gas-Mix FW panel for you, please see our list of important factors required to make the right choice.

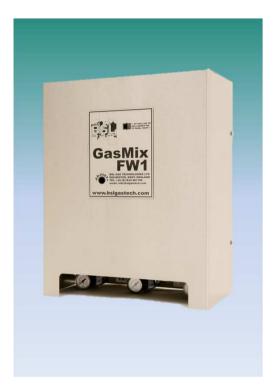
Tried and proven technology that has been used in our mixed gas applications since 1990

### **Features**

- Pre-set and adjustable options
- •For all common Industrial gases
- •Rated 30 bar g
- •All mechanical design
- •Accuracy BS EN ISO14175;2008
- •Manufactured ISO 9001;2008
- •All mechanical design
- Safety interlock

#### **Benefits**

- Very robust design
- Accurate mixing of gases
- Resilient to temperature fluctuations
- Gas pressure balancing
- No electrics required
- No buffer tank needed
- Simple installation
- Low ownership costs



Typical Gas-Mix FW 1,2,3 style of wall mounted Gas Mixing Panel

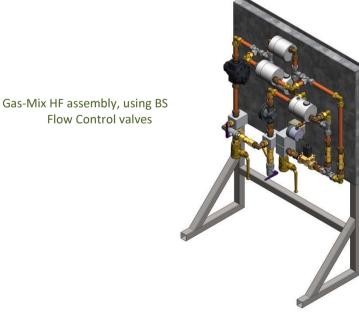
#### Products - Gas Mixers Gas-Mix FW Panels

- \* Top find out which panel best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED!!

#### Products - Gas Mixers Gas-Mix HF

Flow Control valves

- \* For very high flows of mixed gas producing equipment, flows greater than 500 nm3/hr, BSL have a number of options available.
- \* We have Gas Mixing Systems that use either our Gas Flow Control Valves or our High Flow Gas Mixing Orifice blocks to mix in to a mixed gas storage tank, which in itself feeds the process on demand.
- \* In this scenario a buffer tank and electrics are required, however for very large installations the additional costs associated with running these parts are a smaller part of the overall package and begin to become cost effective.
- \* To keep costs down further, the buffer tank and any other peripheral equipment may be supplied locally and it is always our suggestion for that to be looked at first. There is little point in shipping large and heavy tanks around the World, especially if they are being made to an acceptable standard locally.
- \* Let us select the correct Gas-Mix FW panel for you, please see our list of important factors required to make the right choice.





Gas-Mix HF assembly, 500 nm3/hr with associated buffer tank and filters.

#### Products – Gas Mixers Gas-Mix FW Panels

- \* Top find out which panel best suits your requirements, please consider the following information.
- What is your application?
- What gases are you trying to mix?
- What mix gas ratios do you need for your application?
- What gas source and supply gas pressures do you have available?
- What mixed gas pressures do you need for your process?
- What volume of mixed gas do you need, the maximum flow that your application is likely to see?
- Is there any other important factor we need to know about?
- TELL US WHAT YOU NEED !!

#### **Products – Gas Analysers**

\* BSL Gas Technologies make and have available a number of Gas Analysers to choose from. These are some of the units we have available..



#### Hand held CO2 Gas Analyser

The Beer-Check / Food Check units are used to measure the CO2 content in CO2 / Nitrogen gas mixtures used in the Brewing, Food and Beverage Industries. They are used to check mixes from gas cylinders with adaptors, from gas mixers and from gas generation systems too. The measurement range is 0 to 100% CO2 Gases

0 to 100% CO2 in Nitrogen



#### Portable CO2 Gas Analyser

A re-chargeable battery operated or mains operated, portable CO2 gas analyser.

These units are used to measure the CO2 content in CO2 / Nitrogen gas mixtures used in the Brewing, Food and Beverage Industries. They are used to check mixes from gas cylinders with adaptors, from gas mixers and from gas generation systems too.

#### Gases

0 to 100% CO2 in Nitrogen 0 to 30% CO2 in Nitrogen 0 to 25% CO2 in Argon



#### Wall mounted Gas Analysers

BSL have a range of Wall Mounted Mixed gas monitors and Analysers. We have simple display and alarm only systems and we have the View-Mix range which are designed to give you an output 4-20mA signal. Systems are available for the following mixtures of gases.

0 to 100% CO2 in Nitrogen 0 to 30% CO2 in Nitrogen 0 to 30% CO2 in Argon 0 to 25% O2 in Argon

Which gases and application do you have?

CONTACT US AT BSL IF YOU WOULD LIKE TO KNOW MORE ABOUT THESE PRODUCTS!!

#### **Products – Gas Filters**

\* BSL Gas Technologies have available a number of Gas Filters for common Industrial gases, many of which we hold on stock or part built to make them available quickly to our customers. Below are some of the units we have available..



## **Coalescing filters** for the common Industrial gases

- Pressures to 30 bar g
- 0.01 micron filter element size
- -10'C to + 50'C
- Spare elements available



### Adsorbing filters for the common Industrial gases

- Pressures to 30 bar g
- 0.01 micron filter element size
- -10'C to + 50'C
- Spare elements available





## Combination coalescing and adsorbing filters for the common Industrial gases

- Pressures to 30 bar g
- 0.01 micron filter element size
- -10'C to + 50'C
- Spare elements available



#### **Gas Filters**

For a quotation, price and delivery of an appropriate filter for your application, contact us with the following information.

- What gases are you filtering?
- What pressures do you have?
- What flow of gas do you want to achieve?
- Tell us about your application?

CONTACT US AT BSL WITH YOUR DETAILS!!



In Line Leak Indicator



In Line Leak Indicator on the outlet of a BSL Cellar-Mix Beer Dispense Panel.

#### **Products- Gas Leak detectors, monitors and Smart Gas Managers**

We have a number of simple and some not so simple systems available for detecting, quantifying and locating leaks.

In some applications this is easier than in others. In some applications it is critical. For example the Beer Dispense application. Where you have a Nitrogen generator generating Nitrogen gas to be used in mixed gas dispense. The Nitrogen is generated at sometimes only a few litres per minute. To lose more than 1 litre per minute of that gas will cause all sorts of problems. The publican will not have the gas he needs for dispensing beer and the generator will be working much harder than necessary. BSL have available a simple in-line leak detector for the purpose of highlighting a leak and giving all concerned an idea of the size of it.

For larger gas installations leaks will cause different problems. Especially for large gas users, even small leaks can cost a lot of money over time and the problem with very large installations is that the leak or combination of leaks may be difficult to find, given the complexity and route taken by the gas feed pipework. Some installations we have monitored are losing more than 20% of all the gases they purchase, through leaks and other reasons. BSL's range of Industrial In line leak detectors and monitors are a simple, visual, mechanical method to allow you to locate and fix leaks. And of course save you leaking money literally.

BSL produce custom built Smart Gas Management Systems to allow the largest users to quantify, locate and fix leaks in their systems. Often these units include the Gas Mixer element too, so mixing the liquid gas supplies, monitoring the mix ratios, checking for leaks, producing information about the gas use and communicating with you so you can see what is happening in the plant. It is like having your own permanent Gas Manager working around the clock in your factory. These systems will pay for themselves in no time at all.

CONTACT US AT BSL IF YOU WOULD LIKE TO KNOW MORE ABOUT THESE PRODUCTS!!



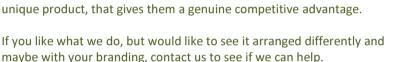
In Line Leak Indicator for an Industrial
Gas application



Smart Gas Mixing and Gas Management System

### Supporting Services – Integrating BSL equipment for bespoke customer designs

A lot of the work that BSL Gas Technologies Ltd undertake is in making purpose built and branded bespoke designs of equipment. We have a good range of products that go to make up core building blocks, which are well proven. And, BSL have a good number of customers that appreciate the benefits of our building blocks. So much so that they ask us to find a way to incorporate what we do into their own systems. It is a win-win situation, BSL and our customer gets the benefit of the technology or the particular design. Generally our equipment is arranged with other equipment and combined with branding to provide our customer with a unique product, that gives them a genuine competitive advantage.







#### **Supporting Services – Refurbishment Programmes**

A key aim for BSL is to make sure that our core equipment is designed really well and we never take our eye off of the reliability target. We have a lot of systems that have been in place for more than twenty years and surprisingly they have never been looked, maintained or refurbished in any way. However, this is an exceptional situation, generally speaking even the very best equipment has a life and will require refurbishment at some point, rubber materials decay in contact with certain gases.

BSL have a number of refurbishment programmes in operation for various products including Gas Mixers and Analysers we make ourselves, to compressors and gas generators that we did not make initially ourselves. The products are normally delivered to us in a less than ideal state. We test, strip, clean, re-assemble, re-test and certify and re-life the product, making it operationally as good as new. The exact specification for the repair is guided by our customers of course, and as an engineering company we always want to do more. However it is about striking an ideal economic balance between getting additional life from a product and the cost it takes to make it all worthwhile.

If you have products that you wish to consider for a re-life. Or if you are currently doing it but would prefer someone else to be doing it, contact us to see if we can help.



#### Supporting Services - Spare parts, Re-certifying of equipment and on site calibration and servicing

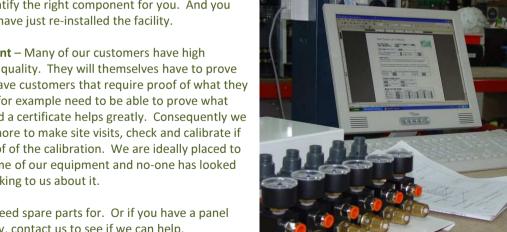
Much of the equipment we make at BSL is considered to be a fit it in place and leave it to work style. Our equipment does not normally require very much in the way of looking after and generally our customers do any of this work themselves. However we have made a lot of equipment since 1990, a huge number of installations have been made and are still working quite happily without having received a lot of attention.

There has been a consequent growing interest in a few activities that until now we have not had the need to undertake.

- **Supply of spare parts** Another aim of ours is to be genuinely responsive. That is, respond quickly when we are contacted and deliver goods in a timely fashion that makes sense to everyone and takes into account what our customers have to deal with. With standard products, we try to have goods made available within 4 weeks of receipt of an order or sooner. A consequence of that is we have a large stock holding of components and parts we use to build our systems. That makes us doubly quick at supplying spare components to you, so if you have some of our systems that may be need a little attention, one or two parts changed, feel free to contact. A serial number, panel type and or a photo through email is normally all we need to identify the right component for you. And you can now pay by Card as we have just re-installed the facility.
- **Re-certification of equipment** Many of our customers have high expectations with regard to quality. They will themselves have to prove certain standards and will have customers that require proof of what they are doing. Food producers for example need to be able to prove what their equipment is doing and a certificate helps greatly. Consequently we are being asked more and more to make site visits, check and calibrate if necessary and produce proof of the calibration. We are ideally placed to do just that. If you have some of our equipment and no-one has looked at it for a while, consider talking to us about it.

If you have products that you need spare parts for. Or if you have a panel you would like to have re-certify, contact us to see if we can help.







Dan Fallon McDantim Inc USA (BSL sister Company)

Spencer Cai A-Ges Suzhou (Representative China)

Ruth Evans **BFBi** 

(Industry Association)

Sandy Smith Express Pipework (Engineers / Installers UK)

> James Ayton Ayton Consulting (Gas Management UK)

#### **BSL Useful Contact Wall**

In 25 years BSL have had the pleasure to work with and for an amazing group of very helpful and knowledgeable people. Specialists from the various Industries that we have served, specialists from the Worlds Industrial gases community, specialists dealing with installation of equipment and specialist companies using our components in the systems they themselves build.

In 25 years we have seen lots of changes too, with some of those excellent working colleagues retiring and replaced by equally competent and amazing people.

We thought it a good idea to list a few of the most useful people we know for you. A quick reference if you like for some of the people that may be able to help you with your business.

The list mostly includes our immediate working colleagues, those that are involved with BSL in some way, plus a few Industry references that may be able to help you. Although this page would be a good opportunity to list some of our best customers. It would be the perfect way for BSL to demonstrate our competence levels, showing you the quality of individual customers we have. However, we cannot do that for confidentiality reasons.

Needless to say, we are always on the look out for competent companies to add to our list. People that represent us, use our equipment and install it or Industry specialist organisations that could be helpful.

If you would like to be added to our wall, or would like to be a representative of BSL and added to the wall, we would very much like to hear from you.

CONTACT US TO BE ADDED TO OUR WALL

Andy Daniels Daniel Pipework Ltd (Installers UK)

Gareth McClean Pipeline solutions (Engineer / installer Ireland)

#### **BSL** Information

In 25 years BSL has complied a lot of useful information, data and expertise and knowledge about various Industries and obviously about our products.

Attached are some useful pdf's. Please contact us with your details and we will arrange a code to be sent to you giving you access to the files.

We look forward to hearing from you.

#### **CONTACT US FOR YOUR ACCESS CODE**

#### Qualifications

- \* ISO 9001;2008
- Ecovadis Corporate Sustainability
- Health and Safety
- Company Insurance
- BSL Organisation chart
  - Etc...

#### **Application Sheets**

- Beer Dispense
- Food Packing
  - Welding
  - etc...

#### **Useful Technical Information**

- Calculator Beer Dispense Mixes
- Flow curves Flow Control Valves
- Typical Installation 2 gas
   Mixer
- Typical Installation 3 gas mixer
- Work Instruction Blender adjustment
- Schematic 2 gas blender
- How does the mixer work
  - etc...

#### **Product Data Sheets**

- Gas Mixer Valves
- · Gas Flow Control Valve
  - · Gas Mix Mini
- Gas Mix GMB / GMT
- Gas Mix FW 1,2,3,
  - Gas mix 4,5,6
  - Adjust-a-mix
  - Gas Mix HF
- Leak detector Dispense
  - · Leak monitor
- · Gas Analyser hand held
- Gas Analyser portable
- Gas Analyser wall mounted
  - etc....

#### **Product Instruction Manuals**

- Gas Mixer Valves
- · Gas Flow Control Valve
  - Gas Mix Mini
- · Gas Mix GMB / GMT
- Gas Mix FW 1,2,3,
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What information would you like to see on this information page?

**LET US KNOW** 



- 3 year warranty?
- Google map?
- Machined parts?