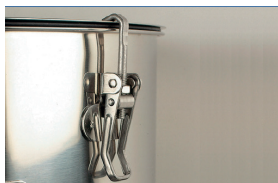




## Optional Modifications

Your key to our range of optional fitted modifications for product ranges in the preceding pages, where red symbols identify the modifications available. If you require modifications that are not listed below, please contact us to discuss them.



**T**

### Toggle clamps.

Available to secure lids. When used with O-ring seals can provide a spill proof and airtight seal.



**▶10**

### Graduations.

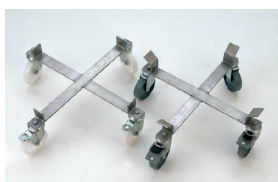
Can be added to items not graduated as standard. Stamped from the outside to maintain crevice- and pit-free interior. (Note: these graduations are normally accurate to  $\pm 3\%$ ).



**E**

### Special etching.

Any combination of letters and numbers can be etched into the surface of any item to show serial number, contents, location, etc. Logos or other graphics can also be etched.



**⚙**

### Mobile frames.

Ideal for moving vessels smoothly and safely without lifting and carrying. Supplied with four castors, two of which are braked. Available with straight or angled flanges.



**✂**

### Butterfly valves (fitted).

316L grade. Available in a variety of sizes detailed on page 20.



**⚙**

### Ball valves (fitted).

316L grade. Available in a variety of sizes, as detailed on page 20.



**⚙**

### Taps (fitted).

316L grade. Available in a variety of sizes, as detailed on page 20..



**⚙**

### Bibs (fitted).

316L grade. Available to add to ball valves, in a variety of sizes, as detailed on page 20.



## OPTIONAL MODIFICATIONS FOR CONTAINERS



### Hose connectors (fitted).

316L grade. Available to add to ball valves, in a variety of sizes, as detailed on page 20.



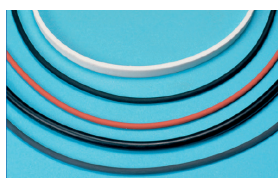
### Pouring spout.

To aid pouring, spouts can be added to our standard vessels and cans. If a lid is required, this can be extended to cover the spout. With the addition of a pouring spout, a bottom steadying handle is recommended.



### Handles.

Swing and side handles can be added or removed from standard items to suit.



### O-ring seals.

Can be used in conjunction with our toggle clamps to create an airtight seal to our vessels, cans and pails. All seals are FDA approved and available in Nitrile, Viton® and Silicone.



### Hole in lid.

To provide access for tubes, probes, mixer shafts etc. A 25mm hole with swing-aside cover is available as standard. Other sizes available on request.



### Skirt band removal.

The skirt band can be removed from items that usually have one, to ensure contact between the base of the container and a hot-plate, for example.

## Fitted valves, taps, bibs and hose connectors

We can fit a variety of outlets to our containers in a range of sizes. Please refer to the table below for part references. All contact parts are made from 316L grade stainless steel. Other sizes and types of outlet are available on request.

Size	0.25"	0.375"	0.5"	0.75"	1"	1.5"	2"	2.5"	3"	4"
Butterfly Valve	-	-	-	-	BVA6001P	BVA61.5P	BVA6002P	BVA62.5P	BVA6003P	BVA6004P
Ball Valve	-	-	BVA600.5P	BVA600.75P	-	-	-	-	-	-
Tap unit	TAP6.25P	TAP6.38P	TAP6.50P	TAP6.75P	TAP6001P	TAP61.5P	TAP6002P	-	-	-
Bib	BIB6.25P	BIB6.38P	BIB6.50P	BIB6.75P	BIB6001P	BIB61.5P	BIB6002P	-	-	-
Hose Connector	HTC6.25P	HTC6.38P	HTC6.50P	HTC6.75P	HTC6001P	HTC61.5P	HTC6002P	-	-	-

### Notes:

- 1 For pharmaceutical applications the fitting of a ball valve or butterfly valve is recommended. These hygienic outlets include Tri-Clamp fittings for easy removal and cleaning.
- 2 Butterfly valves and ball valves include the valve, clamp, ferrule welded to the container, and seal (PTFE as standard on the Ball Valve, EPDM as standard on the Butterfly Valve). Alternative seals are available on request.
- 3 With tap units, 'Size' refers to the BSP size. With Ball and Butterfly Valves, 'Size' refers to the pipe size.
- 4 For valves supplied individually (unfitted), please refer to pages 22–23.



## Seals

Our seals are designed to work in conjunction with our toggle clamps to create a spillproof and airtight seal to our containers, lidded cans and pails. We offer the listed O-ring seals as standard. Other profiles and materials are available to special order. All seals are FDA approved.

	Nitrile (NBR)	Viton®	Silicone
Colour	Black	Black	White or red
Temperature range	-40°C to +110°C	-25°C to +204°C	-55°C to +204°C
Recommended product uses	Greases & oils Water Fuels Alcohols Ethylene glycol fluids	Vacuum Most acids and chemicals Lube oils and greases	Dry heat Odourless and non-toxic products
Not recommended for	Ketones Halogenated hydrocarbons Brake fluids Acetone	Ketones Brake fluids	Ketones Acids Brake fluids
Common industry applications	Oil and gas Automotive fuels and oils	Chemical processing Automotive fuels and oils	Pharma and life science projects Food and beverage applications
Mechanical Properties	Good wear resistance Good compression set resistance Good permeation resistance Good chemical and acid resistance	Good wear resistance Excellent compression set resistance Excellent permeation resistance Excellent resistance to weathering	Poor wear resistance Good compression set resistance Good permeation resistance Excellent permeation resistance

**Note:** To order seals please specify the seal type, container type and container capacity in litres. For 'Mixing and storage containers' use V. For 'Cans with lids' use C. For 'Pails' use P. For example:

**Nitrile V50** = Nitrile seal for 50 litre container.

**Silicone C6** = Silicone seal for 6 litre can with lid.

**Viton P10** = Viton® seal for 10 litre pail.

## 304 or 316L stainless steel

Stainless steel is a durable, versatile and hygienic material that is resistant to corrosion and looks good.

There are over 200 different types of stainless steel, each with a different range of properties. However, five types account for the bulk of usage, and Pharma Hygiene Products supply product ranges in two types, known as 304 and 316L grade.

304 is an excellent general grade of stainless steel, suited to a range of uses. 316L is, however, recommended for pharmaceutical, cosmetic, food and dairy applications, as it has an even better corrosion resistance than 304 grade. All 316L grade items supplied by Pharma Hygiene Products are tested in-house using an X-ray analyser (see image), which confirms the grade of stainless steel, providing reassurance of the highest quality. Certificates confirming the grade and composition of stainless steel can be supplied on request at an additional cost.

Stainless steel has outstanding resistance to corrosion and attack from a wide range of chemical-based products. It is also more environmentally friendly than plastic disposable equipment, which has been favoured by the industry in recent times. In the face of growing pressure to integrate more sustainable, durable equipment into their processes, manufacturers are looking to stainless steel for a longer lasting solution.

X-ray analyser

