

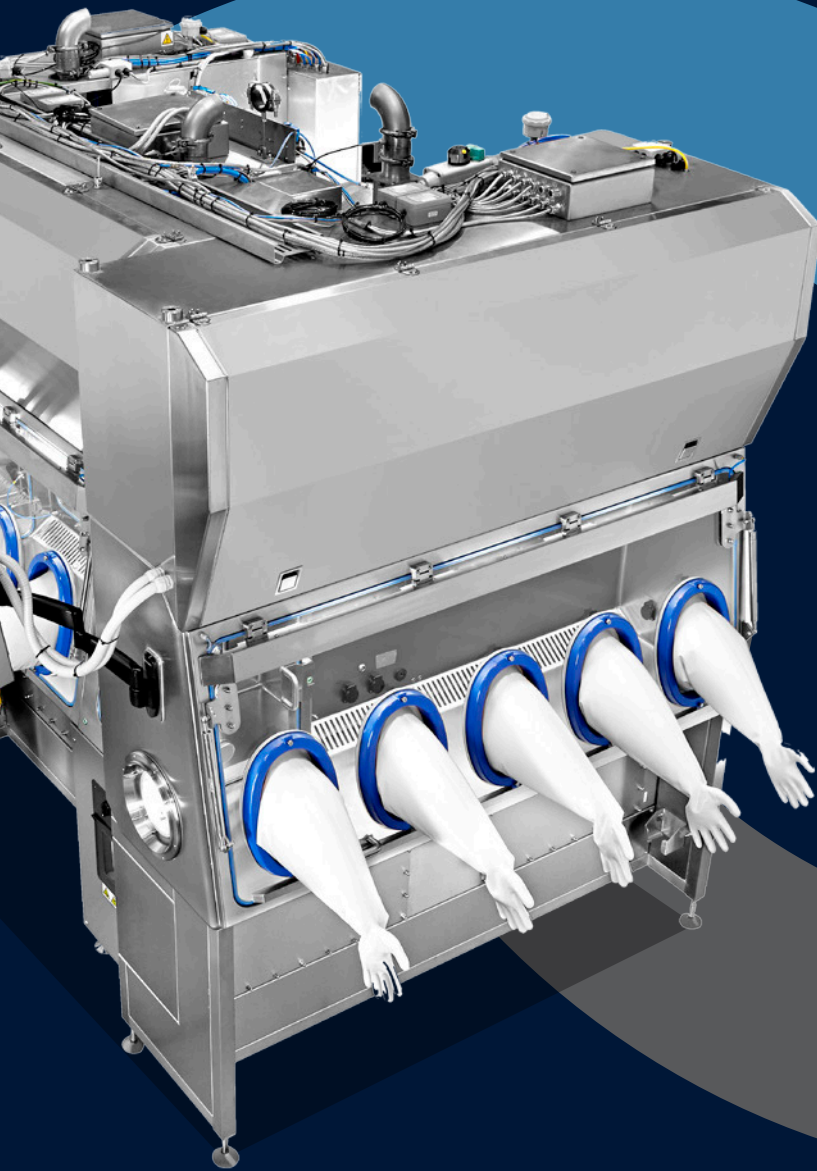


Specialised Engineering Products



Iso-Flate®

High performance
seal solutions



Inflatable Seals



Door Seal Systems



Flexible Connections



Rubber Mouldings



Inflatable Seals



Inflatable seals



Inflatable seals

Door Seal Systems

“Contact us to talk to our sales engineers or to arrange a site visit to discuss your application or requirement in detail.”



Door seal system



Containment doors

The Iso-Flate® range of Inflatable Seals has been developed for (and in conjunction with) some of the most prestigious OEM's in Pharmaceutical containment/process equipment. Manufactured in the UK, the seals are subject to strict testing, quality control and traceability functions, in order to satisfy the industries need for a clean, safe and functional solution to hermetic sealing.

Features and Benefits

- Precision Spark Eroded Vulcanisation tooling, and strict extrusion tolerance ensures highest quality of vulcanisation
- Over 100 profiles available in FDA silicone, Anti-Microbial Silicone, FDA EPDM, FKM and many other materials
- Precision moulded rubber valves, and machined steel valves to suit vast range of housings adhering to stringent leak rates
- Unique seal identification number providing detailed traceability for each individual seal supplied
- Rapid cycle fatigue testing available providing accurate, application specific cycle life estimates

Guarantees / Accreditations

- ✓ AS9100 accreditation
- ✓ Specific material certification (FDA compliance for eg)
- ✓ Individual seal pressure test certification



Inflatable seals

To complement our inflatable seal expertise, we can also assist in the design and supply of the correct seal retention systems, providing the client with a tested and packaged system. Please feel free to include our design team at conceptual stage for our professional input.

Features and Benefits

- **Machined Acrylic Doors**
Utilising CNC Routing technology we can machine the seal retention groove in the face for axial sealing or in the Side, allowing for radial outwards Inflation. The Acrylic can be supplied with a optically clear peeraguard coating to assist in chemical and wear resistance.
- **Glass laminated Doors**
If the chemical attack is too severe for Acrylic, then the options of a laminated glass door maybe a choice to consider.

Using laminates of toughened safety glass with an optically clear bonding resin, we can produce a groove to allow for a radially outwards arrangement inflatable seal arrangement.

- **Stainless Steel machined Doors**
In extreme conditions, there may be no other option than Stainless steel machined doors. These can also be produced in exotic metals such as hastelloy and Duplex.

Guarantees / Accreditations

- ✓ Machined acrylic doors
- ✓ Assembled glass doors
- ✓ Machined steel doors



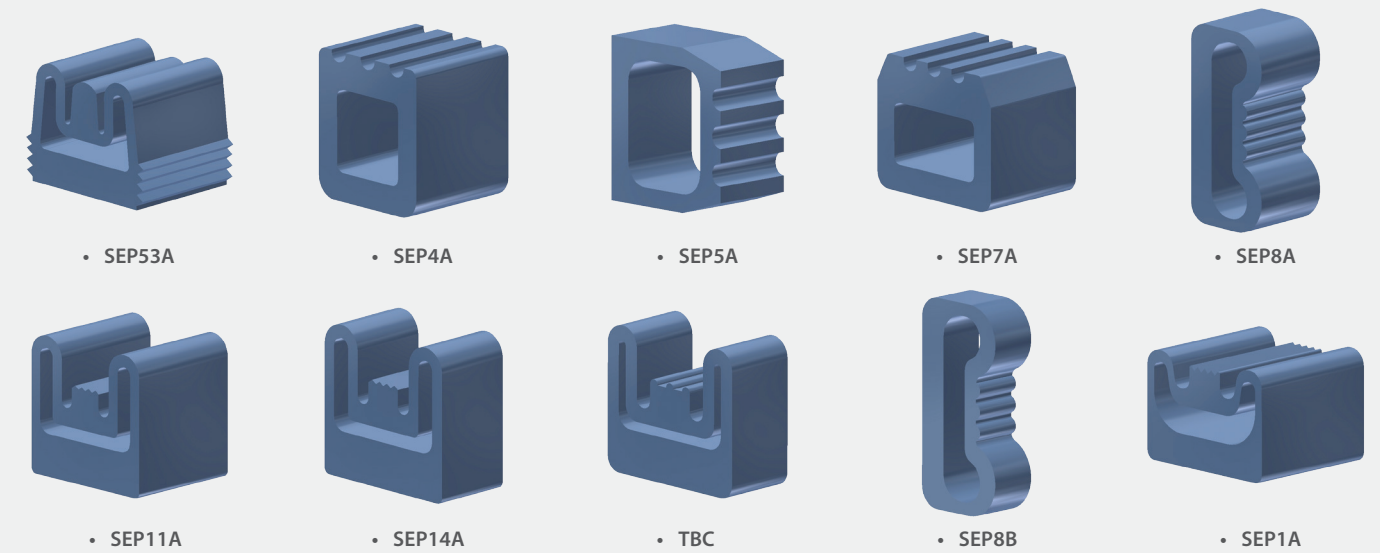
Stainless steel machined door



Inflatable Seal Profiles

Below is a small selection of available Iso-Flate® profiles. Here at SEP we actively encourage technical interaction between our team and your engineers in order to choose the correct profile, however should you require more detailed information on one of the below profiles specifically, please feel free to request a data sheet.

Profiles



Specifications

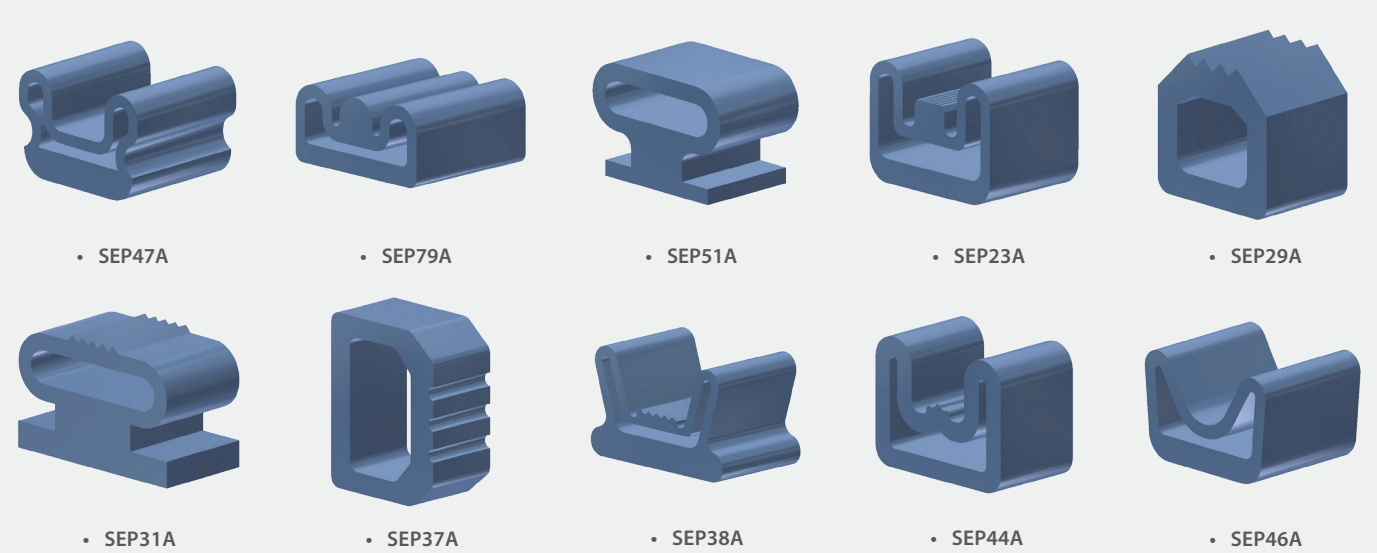
Profile Reference	Width (mm)	Relaxed Height (mm)	Inflated Movement (mm)
SEP53A	17	14	8
SEP4A	16	18	3
SEP5A	35	32	6
SEP7A	20	17.5	4
SEP8A	50	24	18
SEP11A	24	23	12
SEP14A	35	28	20
TBC	TBC	TBC	9
SEP8B	TBC	TBC	28
SEP1A	17	12	6



*All of the above information is given as a guideline only, for more detailed technical guidance please contact the iso-flate® technical team.

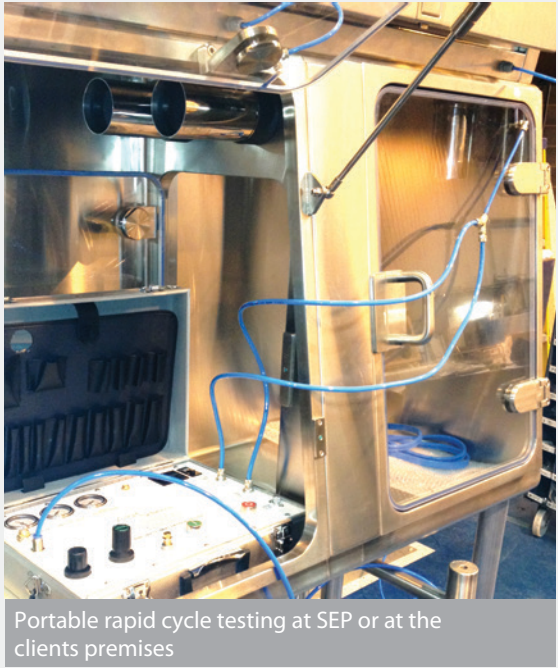


Profiles



Specifications

Profile Reference	Width (mm)	Relaxed Height (mm)	Inflated Movement (mm)
SEP47A	18	12	9
SEP79A	17	8	7
SEP51A	25	19	10
SEP23A	20	15	12
SEP29A	20	20	4
SEP31A	30	21	13
SEP37A	34	27	5
SEP38A	24	16	11
SEP44A	26	20	13
SEP46A	20	13	7



Portable rapid cycle testing at SEP or at the clients premises

*All of the above information is given as a guideline only, for more detailed technical guidance please contact the iso-flate® technical team.



Flexible Connections



Tri-clamp silicone flexible connection compressed



Rubber fabricated flexible connection

Rubber Mouldings

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Rubber moulding loading tool



Rubber moulding extracting part

The Iso-Flate® team can provide flexible connections made via a wide range of manufacturing disciplines, with functionality, chemical compatibility, FDA compliance and ease of cleaning at the core of their design....

Features and Benefits

- Atex Approved Flexibles Available for powder transfer environments where avoidance of static build up is driving design factor
- Fully moulded elastomeric flexibles for precision fittings such as tri clamps, available in a wide range of FDA compliant compounds
- Fabricated Elastomer Sleeves and connectors enabling wide range of face to face length/diameter combinations at relatively low tool cost
- High Frequency Welded Polyurethane convoluted/straight sleeves available in clear and blue FDA compliant grades
- Machined PTFE bellows up to 300mm diameter in virgin and filled grades from custom made billets
- Associated components such as backing rings and clamps available for all styles

Guarantees / Accreditations

- ✓ UK based ISO accredited manufacture
- ✓ FDA and ATEX compliant grades



Polyurathane welded flexible

Precision Rubber moulded components , designed with expertise and produced with the highest standards of cleanliness, traceability and quality control that the Pharmaceutical Production environment demands.

Features and Benefits

- Clean room manufacture available, ensuring clean, contaminant free products benefiting function and aesthetics
- Controlled climate storage of rubber compounds ensuring consistent performance from sample to full batch production and beyond
- Over 1000 compounds available formulated with varying shore hardness and colour inc Silicone, Natural, FKM (Fluoroelastomer) , FFKM (perfluoroelastomer), EPDM, and many more in FDA compliant grades
- Rapid breakdown service available for production critical parts , with no sacrifice to quality control procedures
- Extensive chemical compatibility data on stocked compounds, ensuring process and cleaning chemicals are accounted for in material selection

Guarantees / Accreditations

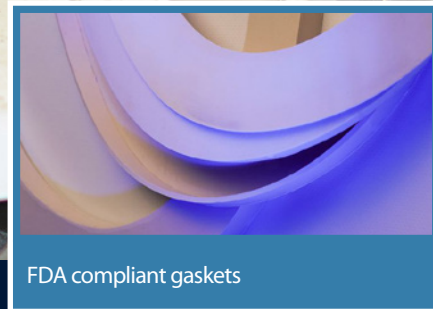
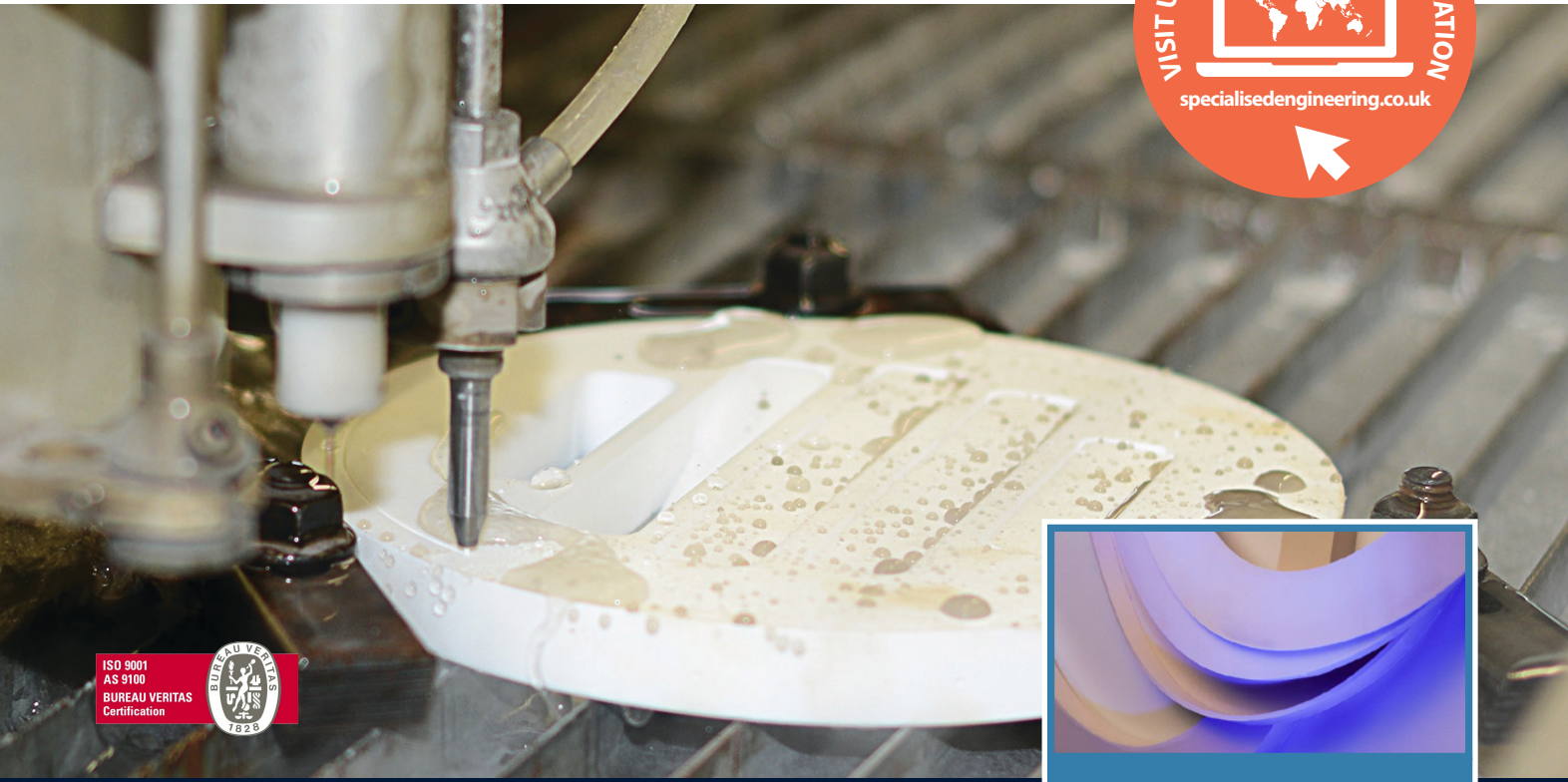
- ✓ UK based ISO accredited manufacture
- ✓ M1 tolerance where applicable
- ✓ Wide range of certification including FDA compliance



Silicone moulded butterfly valve seats



Gaskets / Compression Seals



FDA compliant gaskets



Water jet

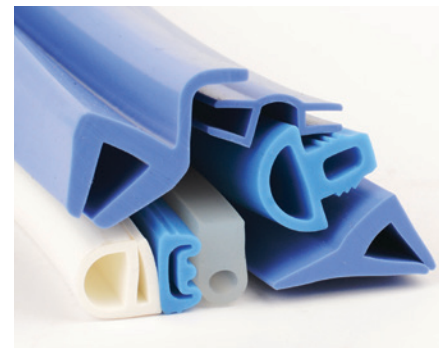
From standard FDA sheet materials to custom extruded profiles for low load applications, the Iso-Flate® team can assist you in specifying the correct static seal for any given scenario. Both elastomeric and PTFE based materials are available, enabling us to cater for a vast range of chemical compatibility, temperature range and available seating stress...

Features and Benefits

- Vast range of sheeting available from stock including FDA silicone, white natural rubbers, and PTFE ranging from 1mm to 10mm
- Heat Vulcanised gaskets for economical usage of high value materials, and large gaskets too wide to be cut in one piece
- Extruded compression profiles for larger gaps and lower seating stresses, vulcanised to almost any lengths
- Wide range of colours available for high visibility and aesthetic considerations regardless of product or equipment colour
- Custom moulded gasket sheeting to fulfil specific requirements such as surface resistivity/ant static and ultra low shore hardness
- CAD cutting of gaskets enables rapid delivery without the wait for tooling production

Guarantees / Accreditations

- ✓ UK based ISO accredited manufacture



Compression profiles

CNC Machined Plastic



Machined PTFE bellows and chevron rings



Sintered PTFE billets virgin and filled grades

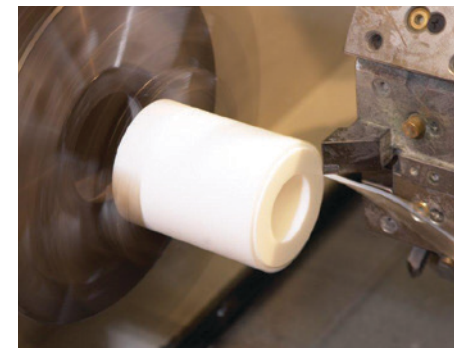
SEP have the ability to provide a wide range of precision engineered PTFE parts and components, manufactured in the UK in accordance with AS 9100 / ISO 9001:2015

Features and Benefits

- CNC machining up to 300mm diameters, with bar feed capability for high volume components up to 78mm
- Moulding of filled and virgin PTFE billets up to 725mm diameter, and manual lathe turning for large components
- Vast experience of producing a wide variety of components such as bushes, diaphragms, valve seats and PTFE envelopes
- Wide variety of available materials including glass and bronze filled PTFE, PEEK and HDPE
- Tight tolerance achievable for critical components, and stringent inspection procedures
- Special application requirements catered for such as FDA compliance and Anti Static

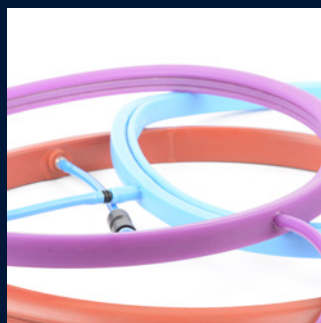
Guarantees / Accreditations

- ✓ UK based ISO accredited manufacture
- ✓ FDA compliance and surface resistivity certification



CNC turned PTFE parts

Over 40 years of experience in designing and
producing seals for the most demanding applications



More Information

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