

## Inflatable Gasket

Our rubber inflatable seals are the perfect product for a variety of applications where it is important to seal two surfaces that move in relation to each other. Air-inflated gaskets, i.e. pneumatic gaskets and seals, are the most efficient sealing method for moving surfaces since they shrink and stretch at the specified degree.



## **APPLICATIONS:-**

- Food industry (autoclaves, chambers, cutters)
- Paper industry (suction rollers, scraper bars, cutters)
- Transport (door seals on high-speed trains, transport containers)
- Pharmacy (mixers, robotics, autoclaves, ovens, clean and sterile rooms)
- Textile industry (clamping, door seals of pressure chambers)
- Chemical industry (processing equipment, mixers, hoppers, chutes, valves)
- Metalworking industry (door seals, scraper bars, continuous steel casting, furnace sealing)
- Shipbuilding (portholes, lift platforms, loading hatches, drive shaft maintenance)

## **Key Features:-**

- FDA approved gasket, non-toxic and inert, food safe
- High Strength, Soft flexible
- Food grade, Medical grade, commercial grade available
- Wide functioning temperature range
- Very flexible and low friction coefficient
- Extremely durable and resistant to tearing

## Technical Data:-

Physical Properties	Test Method	Units	Typical Valus
Specific Gravity	DIN EN ISO 1183-1 A	g/cm3	1.16
Hardness, Shore A	D2240	SHORE A	60±5
Tensile strength psi(Mpa)	D412	MPA	10
Elongation (%)	D412	%	450
Tear Resistance, Die B lbf./in. (KN/m)	D624	KN/M	25
Tensile Modulus @100%psi(Mpa)	-	-	-
Temperature Rating	-	°C	-40 TO 220
Compression set 22h@175°C	ASTM D395 method B	%	35

Properties	Values	Acid Resistance	Values	Resistance To	Values
ASTM Designation (ASTM D14/18)	VMQ	Mild Dilute	A	Swelling In Lubricating Oil	E
Tensile Strength	>1200	Strong Concentrate	D	Oil And Gasoline	D
Hardness (Shore A)	60°	Solvent Resistance	-	Animal Oils	C
Tear Resistance	D	Aliphatic Hydrocarbons	E	Water Absorption	A
Abrasion Resistance	E	Aromatic Hydrocarbons	E	Oxidation	A
Compression Set	B	Oxygenated (Keytones, etc)	E	Ozone	A
Cold Resilience	A	-		Sunlight Aging	A
Heat Resilience	A	-		Heat Aging	O
Radiation Resistance	C	-		Low Temperature	O
Impermeability To Gases	D	-		Flame	D
				Vegetable Oils	E
				Chlorinated Hydrocarbons	E to D
A = Exceptional, B = Very Good, C = Good, D = Fair,E = Poor					

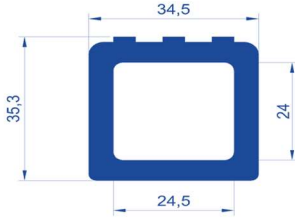
## INFLATABLE SEAL TYPE:-

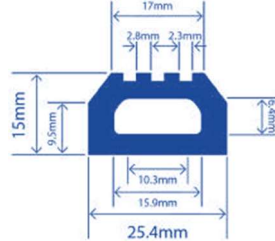
- Castellated Seal Profiles
- Unique Seal Profiles
- Frog Leg Seal Profiles
- Footed Snap Profiles
- Stem/Foot Location Profiles
- Channel Fit Profiles

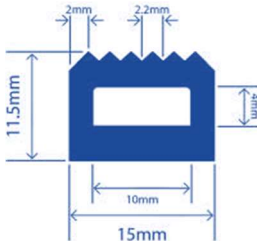
# CASTELLATED SILICONE INFLATABLE SEAL PROFILES

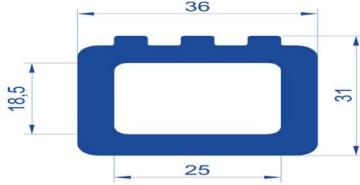
## Key Features

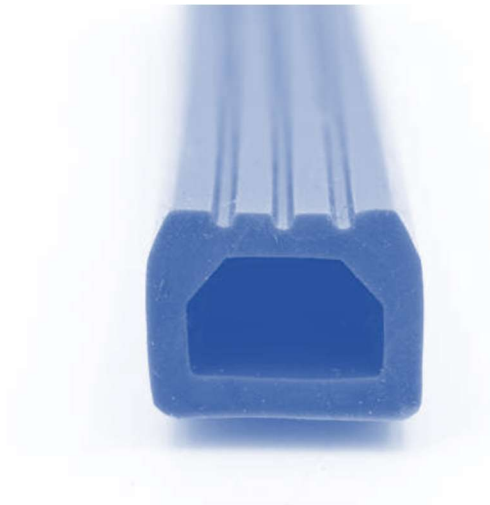
- Intended for use in heavy duty applications
- can seal against high differential Pressures
- Commonly used in radial, axial and straight configurations
- For applications with comparatively small Sealing gaps
- Quick to inflate and deflate
- Form a watertight seal on uneven surfaces
- can be manufactured to your required length
- FDA approved Compounds available excellent durability
- Wide functioning temperature range

SET-IG1		
Width	Height	Inflated Height
34.5mm	35.3mm	40mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	30 PSI	35 PSI

SET-IG2		
Width	Height	Inflated Height
25.4mm	15mm	19mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

SET-IG3		
Width	Height	Inflated Height
15mm	11.5mm	13.5mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

SET-IG4		
Width	Height	Inflated Height
36mm	31mm	36mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	30 PSI	35 PSI



SET-IG5		
Width	Height	Inflated Height
16mm	12mm	14mm
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	18 PSI

SET-IG6		
Width	Height	Inflated Height
34.5mm	32mm	36.5mm
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	30 PSI	35 PSI

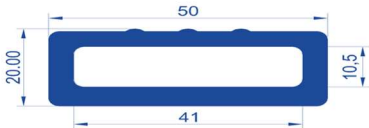
SET-IG7		
Width	Height	Inflated Height
16.2mm	12.3mm	14mm
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

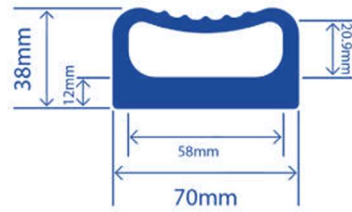
SET-IG8		
Width	Height	Inflated Height
28.5mm	22.5mm	25.5mm
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	12 PSI

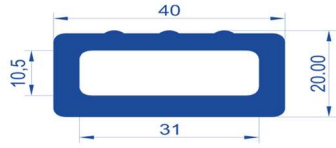
# UNIQUE SILICONE INFLATABLE SEAL PROFILES

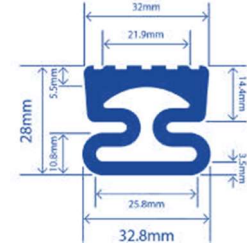
## Key Features

- Good rates of inflation
- Can be manufactured to customers specification
- Quick to inflate and deflate
- Form a watertight seal on uneven surfaces
- Can be manufactured to your required length
- FDA approved compounds available Excellent durability
- Wide functioning temperature range

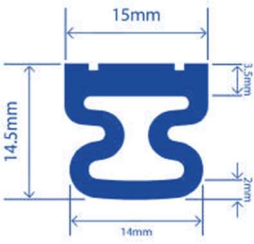
SET-IG9		
Width	Height	Inflated Height
50mm	20mm	35mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	13 PSI

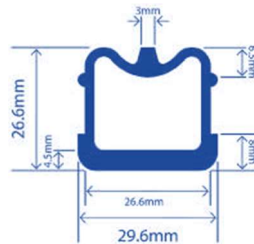
SET-IG10		
Width	Height	Inflated Height
70mm	38mm	50mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	25 PSI	30 PSI

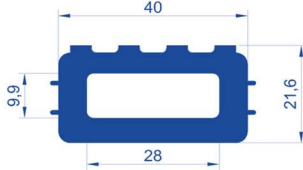
SET-IG11		
Width	Height	Inflated Height
40mm	20mm	30mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	25 PSI	35 PSI

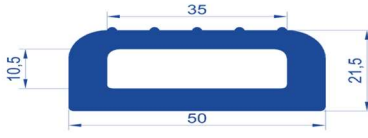
SET-IG12		
Width	Height	Inflated Height
32.8mm	28mm	37mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI



SET-IG13		
Width	Height	Inflated Height
15mm	14.5mm	17mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

SET-IG14		
Width	Height	Inflated Height
29.6mm	26.6mm	34mm
		
Min Pressure	Recommended Pressure	Max Pressure
4 PSI	5 PSI	8 PSI

SET-IG15		
Width	Height	Inflated Height
40mm	21.6mm	26mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	30 PSI	40 PSI

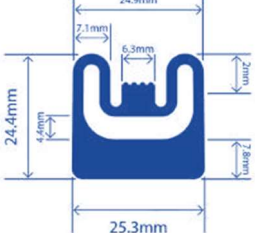
SET-IG16		
Width	Height	Inflated Height
56mm	21.5mm	28mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

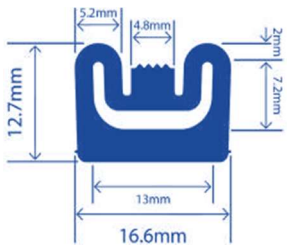


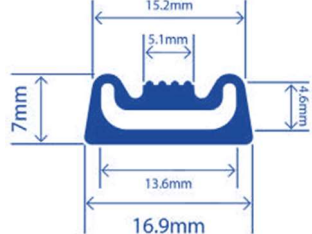
## FROG LEG SILICONE INFLATABLE SEALPROFILES

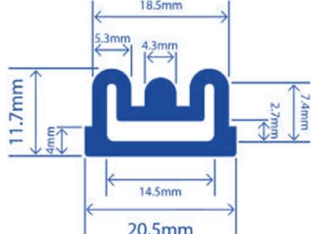
### Key Features

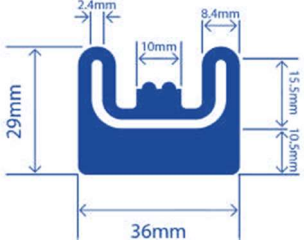
- Specifically designed to fit square channels
- Design allows for good rates of inflation
- Quick to inflate and deflate
- Form a watertight seal on uneven surfaces
- Can be manufactured to your required length
- FDA approved compounds available excellent durability
- Wide functioning temperature range

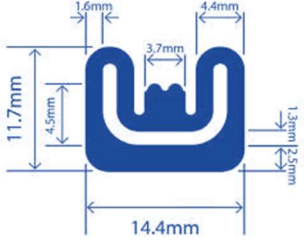
SET-IG17		
Width	Height	Inflated Height
25.3mm	24.4mm	37mm
		
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

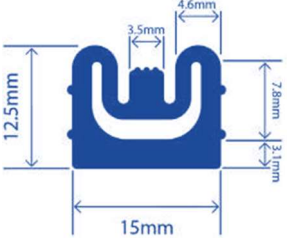
SET-IG18		
Width	Height	Inflated Height
16.6mm	12.7mm	24mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

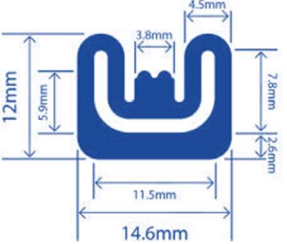
SET-IG19		
Width	Height	Inflated Height
16.9mm	7mm	11mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	12 PSI	16 PSI

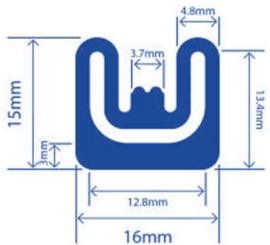
SET-IG20		
Width	Height	Inflated Height
20.5mm	11.7mm	18mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

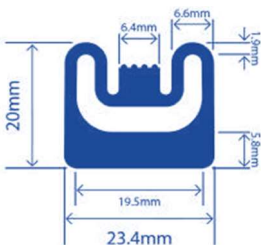
SET-IG21		
Width	Height	Inflated Height
36mm	29mm	53mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	18 PSI

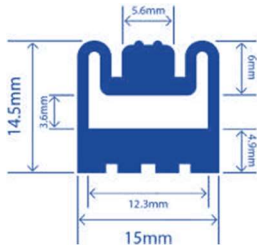
SET-IG22		
Width	Height	Inflated Height
14.4mm	11.7mm	19.5mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	18 PSI

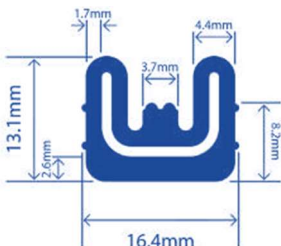
SET-IG23		
Width	Height	Inflated Height
15mm	12.5mm	19mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

SET-IG24		
Width	Height	Inflated Height
14.6mm	12mm	20.5mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	18 PSI

SET-IG25		
Width	Height	Inflated Height
16mm	15mm	26mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

SET-IG26		
Width	Height	Inflated Height
23.4mm	20mm	35mm
		
Min Pressure	Recommended Pressure	Max Pressure
18 PSI	20 PSI	25 PSI

SET-IG27		
Width	Height	Inflated Height
15mm	14.5mm	20mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

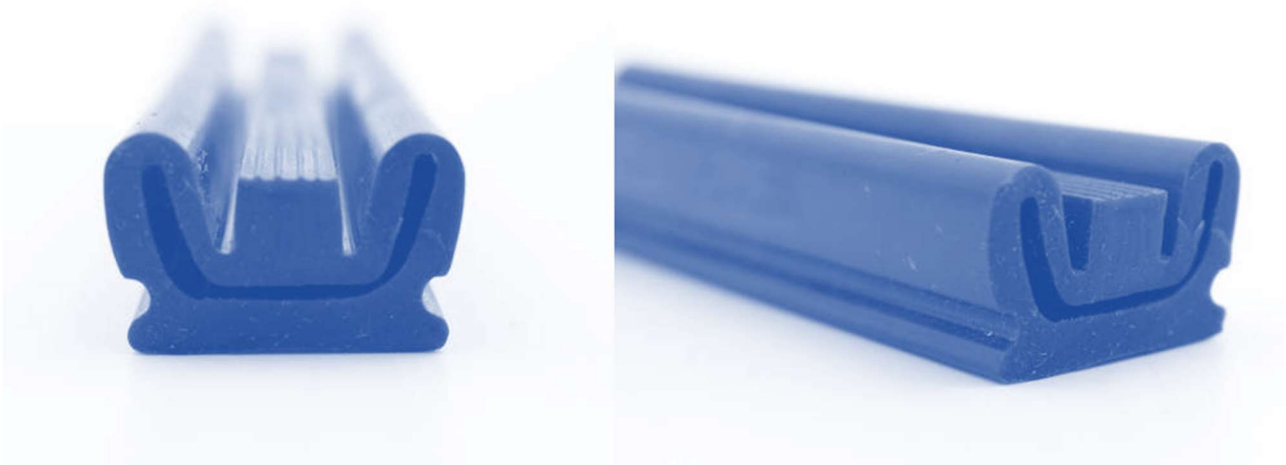
SET-IG28		
Width	Height	Inflated Height
16.4mm	13.1mm	21mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI



## FOOTED SNAP SILICONE INFLATABLE SEAL PROFILES

### Key Features

- Good rates of inflation relative to size
- Dovetail base enables “snap fit” to mechanical retainers
- Quick to inflate and deflate
- Form a watertight seal on uneven surfaces
- Can be manufactured to your required length
- FDA approved compounds available Excellent durability
- Wide functioning temperature range



SET-IG29		
Width	Height	Inflated Height
24.8mm	15mm	32mm
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

SET-IG30		
Width	Height	Inflated Height
19.8mm	13mm	17mm
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	14 PSI

# STEM/FOOT LOCATION SILICONEINFLATABLE SEAL PROFILES

## Key Features

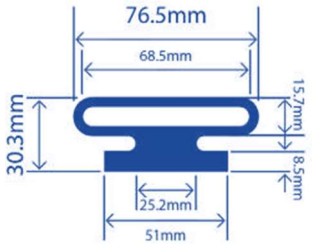
- Highly versatile seals
- Easily fitted to a variety of mechanical retainers
- Fully round when inflated creating a large expansion range
- Suitable for use in radial, axial or straight applications
- Can be manufactured to your required length
- FDA approved compounds available excellent durability
- Wide functioning temperature range

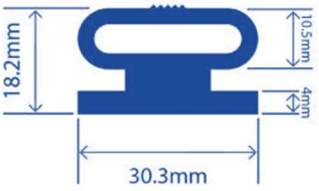
SET-IG31		
Width	Height	Inflated Height
30mm	17.5mm	29.5mm
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

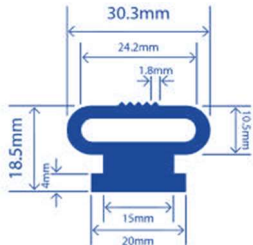
SET-IG32		
Width	Height	Inflated Height
14.5mm	10.1mm	15mm
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

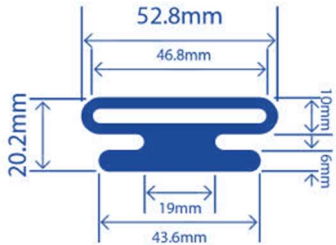
SET-IG33		
Width	Height	Inflated Height
49.2mm	20.9mm	49mm
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

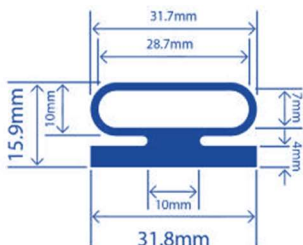
SET-IG34		
Width	Height	Inflated Height
51.4mm	23mm	42mm
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

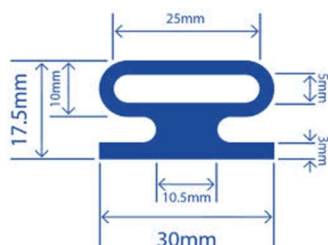
SET-IG35		
Width	Height	Inflated Height
76.5mm	30.3mm	63mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

SET-IG36		
Width	Height	Inflated Height
30.3mm	18.2mm	28mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

SET-IG37		
Width	Height	Inflated Height
30.3mm	19.3mm	27mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

SET-IG38		
Width	Height	Inflated Height
52.8mm	20.2mm	42mm
		
Min Pressure	Recommended Pressure	Max Pressure
20 PSI	25 PSI	30 PSI

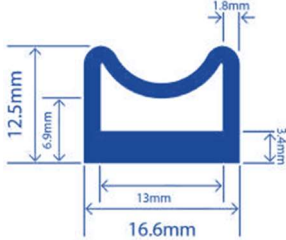
SET-IG39		
Width	Height	Inflated Height
31.8mm	15.9mm	26mm
		
Min Pressure	Recommended Pressure	Max Pressure
5 PSI	8 PSI	12 PSI

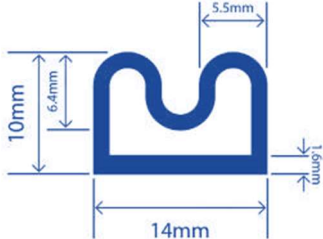
SET-IG40		
Width	Height	Inflated Height
30mm	17.5mm	29mm
		
Min Pressure	Recommended Pressure	Max Pressure
8 PSI	10 PSI	15 PSI

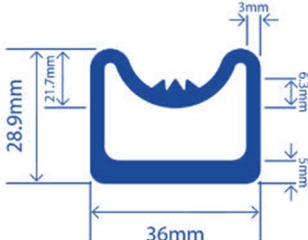
# CHANNEL FIT SILICONE INFLATABLE SEAL PROFILES

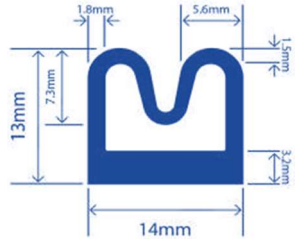
## Key Features

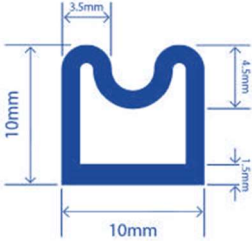
- Large expansion coverage relative to width
- Can be easily retained in a square channel
- Suitable for outward and axial expansion
- Quick to inflate and deflate
- Can be manufactured to your required length
- FDA approved compounds available excellent durability
- Wide functioning temperature range

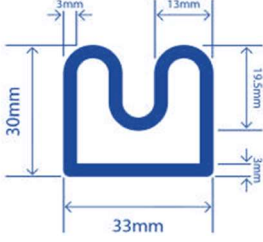
SET-IG41		
Width	Height	Inflated Height
16.6mm	12.5mm	18.5mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

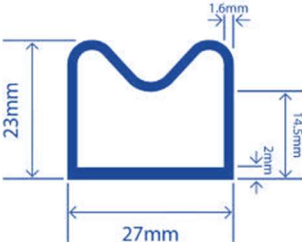
SET-IG42		
Width	Height	Inflated Height
14mm	10mm	14.5mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	20 PSI

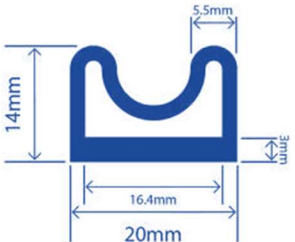
SET-IG43		
Width	Height	Inflated Height
36mm	28.9mm	52mm
		
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

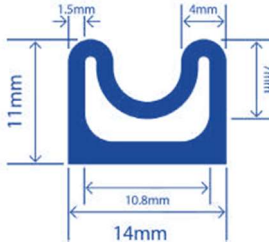
SET-IG44		
Width	Height	Inflated Height
14mm	13mm	23mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	20 PSI	25 PSI

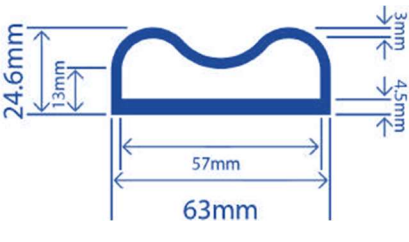
SET-IG45		
Width	Height	Inflated Height
10mm	10mm	13mm
		
Min Pressure	Recommended Pressure	Max Pressure
5 PSI	8 PSI	10 PSI

SET-IG46		
Width	Height	Inflated Height
33mm	30mm	42mm
		
Min Pressure	Recommended Pressure	Max Pressure
15 PSI	20 PSI	25 PSI

SET-IG47		
Width	Height	Inflated Height
27mm	23mm	30mm
		
Min Pressure	Recommended Pressure	Max Pressure
5 PSI	8 PSI	15 PSI

SET-IG48		
Width	Height	Inflated Height
20mm	14mm	19mm
		
Min Pressure	Recommended Pressure	Max Pressure
5 PSI	5 PSI	10 PSI

SET-IG49		
Width	Height	Inflated Height
14mm	11mm	17mm
		
Min Pressure	Recommended Pressure	Max Pressure
10 PSI	15 PSI	18 PSI

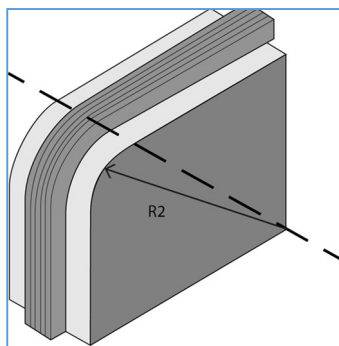
SET-IG50		
Width	Height	Inflated Height
63mm	24.6mm	34mm
		
Min Pressure	Recommended Pressure	Max Pressure
5 PSI	5 PSI	10 PSI



# COMMON INFLATABLE SEAL CONFIGURATIONS

Our inflatable seals can be manufactured in a wide variety of shapes and sizes to suit your specific application. We can supply them in continuous loops, which expand radially inwards and outwards as well as axially depending on usage. Inflator seals can also be manufactured into axial expanding rectangles, "U" shapes or other similar shapes using pre-molded corners. The diagrams below demonstrate the different common seal configurations. The tables below show the minimum bend radii for radial inward, outward and axial expansion.

## Radial Outward

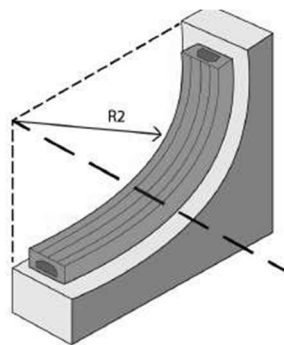


In this configuration the profile inflates away from the Base of the seal. These profiles can be installed in a Number of different objects using clamps, inserted into A machined groove or stretch fitted. Common uses for This configuration includes: airlock door seals and drum Or bag filler seals.

### Suitable Profile Types:

Castellated, Frog-leg, Fotted sanp, Stem/foot location, Channel fit

## Radial Inward



This particular profile configuration is ideal for use in Clamping applications as well as shaft maintenance Seals and valve seals. These profiles typically

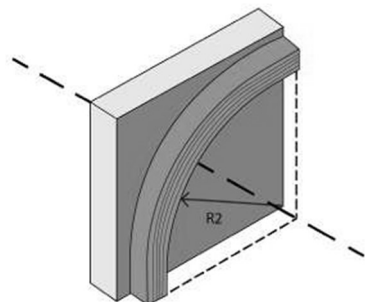
Provide large inflating distances relative to their size.

s are generally not well suited for this

### Suitable Profile Types:

Castellated, Stem/foot location

## Axial



Axially configured inflator seals are able to Inflat in the Direction perpendicular to the Radius of the seal. This Particular Configuration is particularly popular for use In door and hatch seal

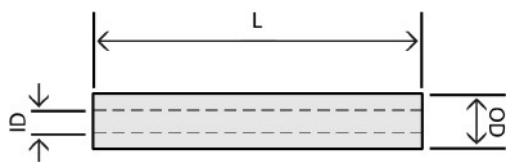
### Suitable Profile Types:

Castellated, Frog-leg, Fotted sanp, Stem/foot location, Channel fit

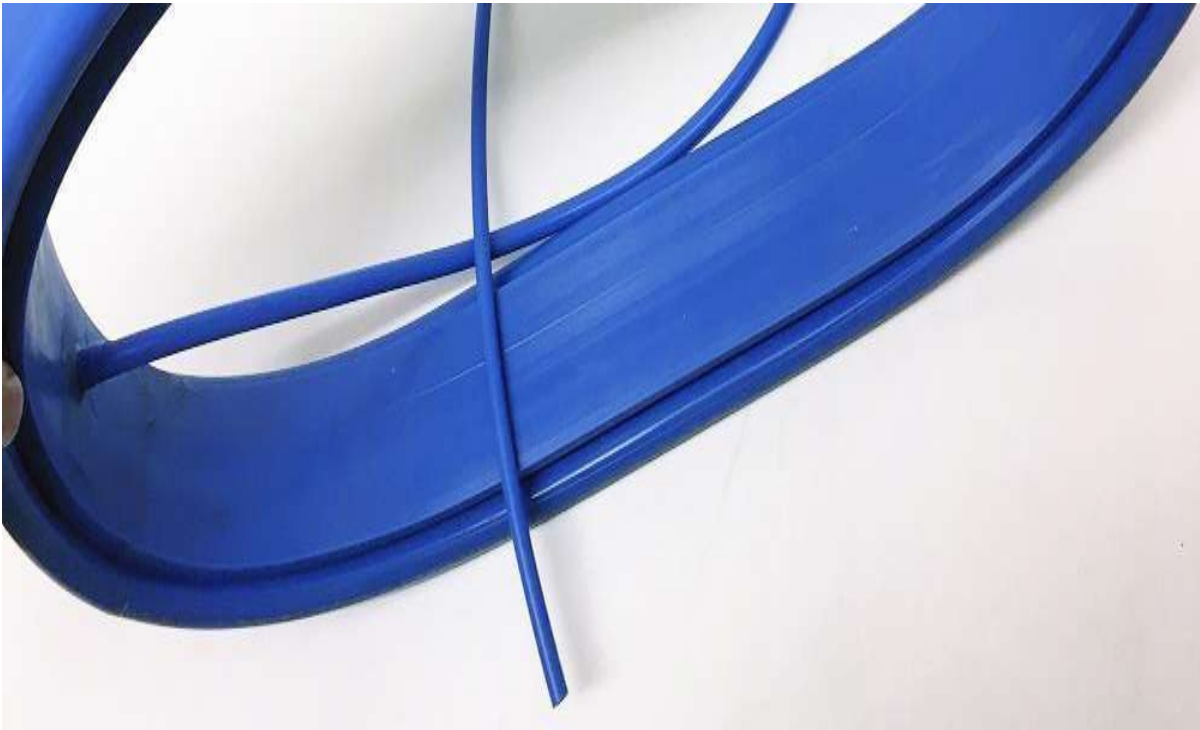
# AIR CONNECTOR OPTIONS FOR INFLATOR SEAL PROFILES

For seals joined into rings the air connector is most commonly joined to the base of the seal. For some castellated, channel fit and foot/stem location inflators, the air connectors may be placed in a side wall. However, this may have an adverse effect on the inflatable seal's durability and overall life span. For straight length inflator seals, air connectors may be placed in either one end or both ends depending on the customer's application or requirement.

## Silicone Hose

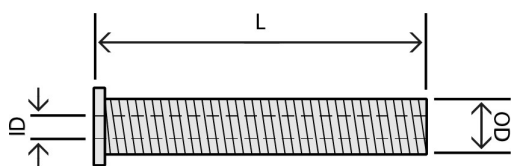


I/D	O/D	L
5mm	8mm	400mm
3mm	6mm	400mm
4mm	6mm	400mm
3.5mm	6.5mm	400mm
6mm	14mm	400mm



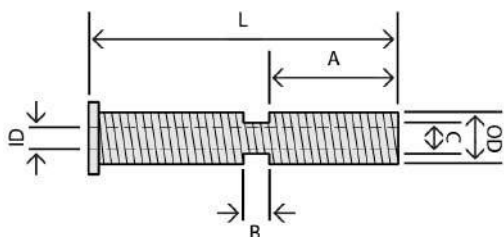


## Threaded Valve (Brass)



I/D	Thread	L
3mm	1/8 bsp	40/100mm
2mm	6mm	30/50mm
3mm	8mm	40/65/100mm

## Threaded Valve with Wrench Flat (Brass)



I/D	Thread	L	A	B	C
3mm	1/8mm	50.5mm	7.2mm	7.9mm	7.4mm

