

## Description:

**The insert system is designed to offer an alternative method for fixing steps into dry and wet cast concrete. The insert is a plug which is cast into the concrete forming an accurate hole for the step to be fitted to once the concrete has hardened. Caswick offer a variety of inserts depending on the method of manufacturing of the concrete component. As detailed below;**

### **Closed insert**

Closed inserts are located on a pin mounted on the core of the mould. The pin supports the insert during casting and is removed as the part is demoulded. The end of the insert is closed to prevent concrete filling the insert from the rear. The open end of the insert can be supplied with a flat face or angled face to suit the radius of the core for an improved finish.

### **Closed insert - specials**

**Hole** - The insert is manufactured with a hole to prevent suction occurring whilst the pin is being retracted which may cause the insert to be dislodged in a dry cast manufacturing process.

**Stud** - The insert is manufactured with a stem, this prevents the insert being dislodged from the supporting pin during the vibration stage of manufacture if the insert is a loose fit on the pin.

### **Break off insert**

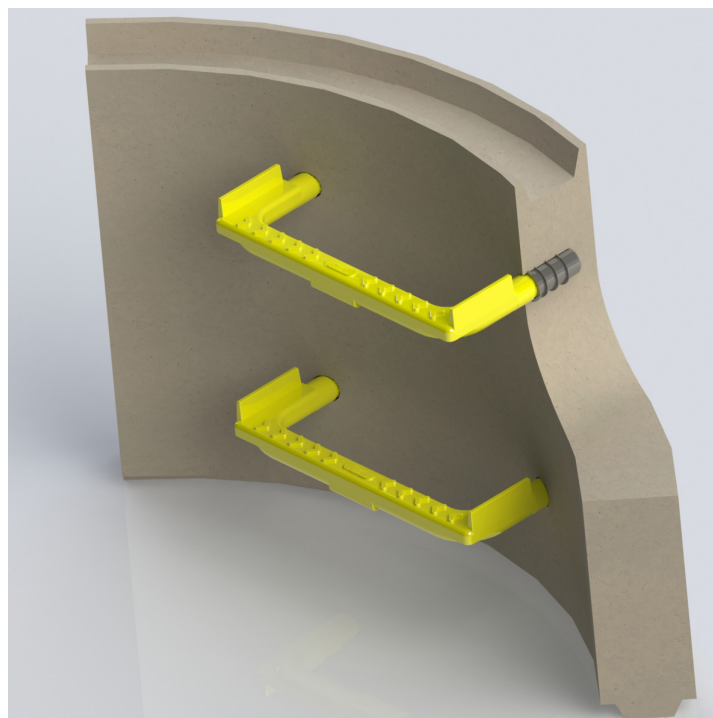
The break off insert is a closed insert with an additional tube fitted to the open end of the insert. This tube can be pushed into a formed hole in the mould or formwork to support the insert during the casting stage. As the part is demoulded the additional tube on the open end of the insert breaks away from the main insert body leaving the insert cast into the concrete ready for use and the additional tube in the formwork which can be disposed of. This negates the need for a retractable pin in the mould.

### **External insert**

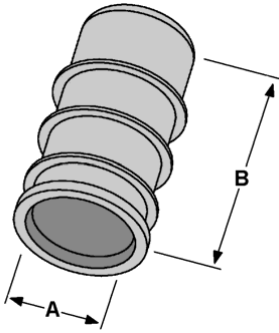
External inserts are closed inserts with an additional feature on the rear allowing them to be supported by a pin from the outside of the mould rather than the inside as with regular closed inserts.

### **Open insert**

Open inserts are located on a pin from the outside of the mould. These inserts have an opening all the way through allowing for greater security in the mould and excellent vibration to compact the concrete around the insert. A cap is available to blank the open end of the insert to prevent water ingress.



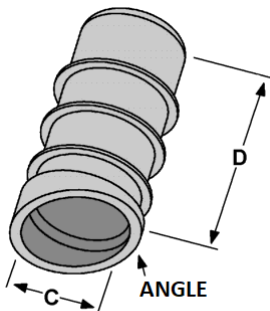
## Closed inserts



Code	A (internal diameter)	B (external length)
SP153	25.4 mm	91 mm
SP135	27 mm	51 mm
SP139	27 mm	62.5 mm
SP159*	27 mm	62.5mm
SP171	27 mm	75 mm

\* with a hole to prevent a vacuum which may pull the insert out if the pin is retracted when the concrete is still wet

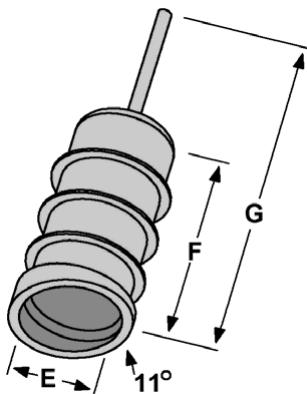
## Closed inserts with angled mouth



Code	C (internal diameter)	D (external length)	Angle
SP154	25.4 mm	81.0 mm	15°
SP150*	27 mm	62.5 mm	15°
SP156	27 mm	62.5 mm	15°
SP189	27 mm	62.5mm	11°

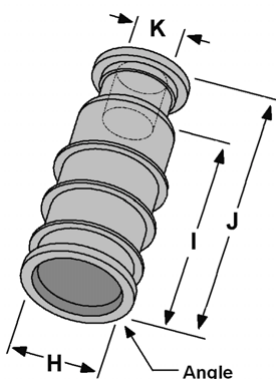
\* with a hole to prevent a vacuum which may pull the insert out if the pin is retracted when the concrete is still wet

## Closed inserts with angled mouth and locating stem



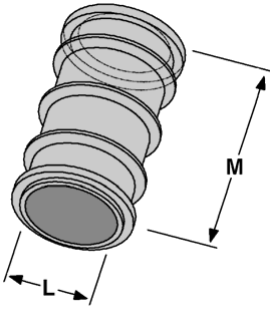
Code	E (internal diameter)	F (external length)	G (overall length)
SP170	27 mm	62.5 mm	115

## External inserts, flat or angled mouth

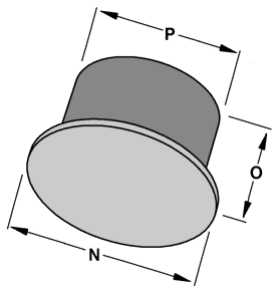


Code	H (internal diameter)	I (internal length)	J (overall length)	k (internal diameter rear)	Angle
SP191	27 mm	51.0 mm	66 mm	16 mm	0°
SP176	27 mm	54.5 mm	71 mm	16 mm	0°
SP172	27 mm	62.5 mm	82 mm	16 mm	0°
SP173	27 mm	62.5 mm	94 mm	16 mm	0°
SP137	27 mm	62.5 mm	102 mm	16 mm	0°
SP136	27 mm	62.5 mm	112 mm	16 mm	15°

## Open inserts



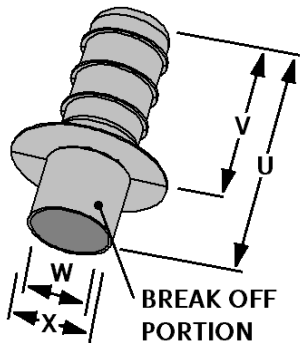
Code	L (internal diameter)	M (length)
SP158	27 mm	53 mm
SP152	27 mm	63 mm
SP165	27 mm	67 mm
SP166	27 mm	77 mm
SP167	27 mm	87 mm
SP168	27 mm	97 mm



## Insert hope plug

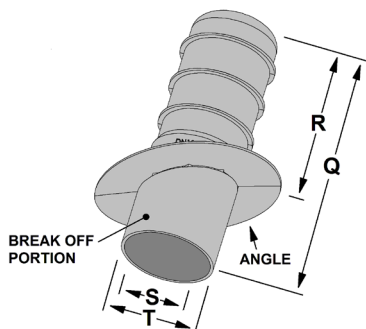
Code	N (overall diameter)	O (length)	P (plug diameter)
SP160	27 mm	54.5 mm	71 mm

## Break off insert flat



Code	U (overall length)	V (body length)	W (internal diameter)	X (fixing hole diameter)	Angle
SP194	100 mm	70 mm	27 mm	35 mm (1 3/8")	0°

## Break off insert angled



Code	Q (overall length)	R (body length)	S (internal diameter)	T (fixing hole diameter)	Angle
SP195	100 mm	70 mm	27 mm	35 mm (1 3/8")	18°