

Channels



Wincro channels provide positive anchorages for fixing components and allow generous tolerances for setting-out. There are 2 main types of channel; surface fixing, in plain back with slots or holes, or cast in profiles for casting into concrete, either self-anchoring or welded anchor profile.

CAST IN CHANNELS

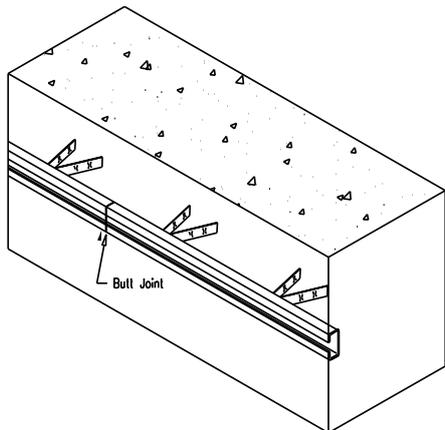
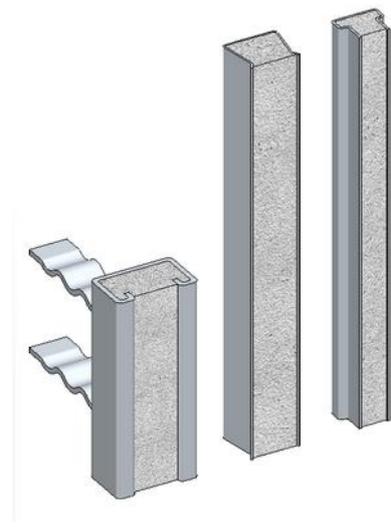
Cast-in channels provide useful tolerances when fixing to concrete. It is important they are installed correctly as incorrect installation can result in expensive remedial work by the way of post fixed bolts.

Wincro cast-in channels are generally supplied in 3m lengths with welded wavy tail anchors and nail holes. They are also filled with expanded polystyrene to prevent the ingress of concrete during casting.

To prevent the channel from pulling away from the shuttering and to avoid the ingress of concrete, all nail holes should be used.

To assist with the removal of the shuttering and to ensure the stability of the channel, Wincro recommend that all nails have a plain shaft and be installed at right angles to the channel.

Wincro standard T Head Bolts can also be used when fixing to steel shuttering through pre-drilled holes.



Care should be taken to ensure that when the concrete is poured, it is completely compressed around the rear of the channel, particularly local to the wavy tail anchors.

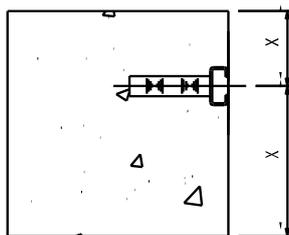
When the concrete has cured, the shuttering can be removed. Nails should either be cut or turned away from obstructing any tie or T Head bolt.

Care should be taken to ensure channels are lined and leveled correctly.

In continuous runs, channels should be installed as a tight butt joint and care should be taken to ensure a good fit is obtained between the face of the channel and the formwork.

MINIMUM EDGE DISTANCE

Dimensions from the centre of the channel to the edges of the concrete should not be less than the minimum edge distance stated in the table below.



Channel Profile	Minimum Edge Distance 'X'
WC23	50mm
WC28	50 mm
WC38	75 mm
WC40	100 mm
WC41	100 mm
WC49	150 mm

WC23 SELF ANCHORING CHANNEL INSTALLATION

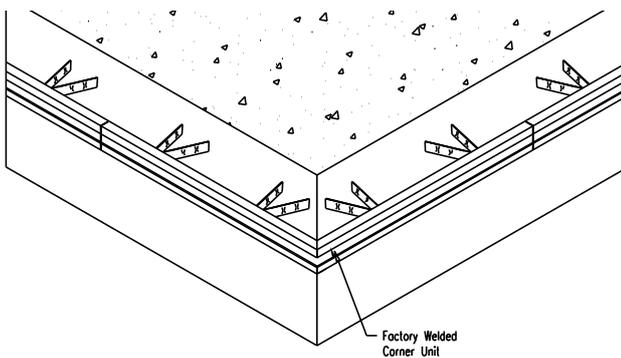
Wincro WC23 is a shallow self-anchoring channel and is supplied in either 3m lengths or 100mm long inserts with nail holes. The channel is also filled with expanded polystyrene to help prevent the ingress of concrete.

As with other cast in channels, it is important that all nail holes are used when fixing to timber formwork. We recommend that all nails have a plain shaft and should be installed at right angles to the channel to aid removal after curing.

Care should be taken to ensure that when the concrete is poured, it is completely compressed around the rear of the channel to eliminate any voids. It is also important that the concrete is allowed to cure fully before striking the formwork.

WELDED FABRICATIONS

Wincro recommend that if channels with wavy tail anchors are required to be cut on site, there must be a complete anchor retained within 50mm of the end of the channel.

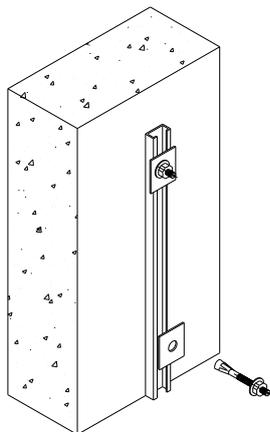


Where horizontal cast-in channels are used with the Wincro masonry support systems, a factory made, welded corner unit should always be used on all external corners. Adjacent channels should be cut to suit (as above) and carefully butted together.

Care should be taken to ensure that when the concrete is poured, it is completely compressed around the rear of the channel, particularly local to the wavy tail anchors.

When the concrete has cured, the shuttering can be removed. Nails should either be cut or turned away from obstructing any tie or T Head bolt.

SURFACE FIXED CHANNELS (FACE FIXING)



Plain back channels can be surface fixed to either concrete or steelwork using appropriate fixings and square plate washers.

It is important that all fixing holes / slots are used together with suitably sized square washers - see table below.

Channel Profile	Bolt Diameter	Square Washer Size
WC38P	M10	30 x 30 x 3
WC28P	M8	25 x 25 x 3

GENERAL

All Wincro products are produced from Type 1.4301 (304) Stainless Steel u.n.o. and are generally produced from sheared plate. As with all similar industrial fabrications, these may present sharp edges and suitable personnel protective equipment should be worn at all times during handling and installation. In all cases, installation should be entrusted to appropriately qualified/experienced persons.

All contact between dissimilar metals must be isolated using isolation patches/washers.

All bolts specified must be installed and torqued to Manufacturers Recommendations / Guidelines.

The Construction applications and details provided in this guide are indicative only.