

# Halfen cast-in channels

## Introduction

Halfen channels are a range of rolled steel profiles designed to provide secure fixings into concrete. The channels are rectangular in section and bonded to the concrete by anchors. Each channel is complemented by matching T-head bolts.

This guide contains technical information on the full range of Halfen channels and T-head bolts, and shows how they can be used in a wide variety of structural, civil, architectural and services applications.

## Use

The channels are fixed to the formwork prior to the casting of the concrete. When the formwork is struck, each channel provides a slot, into which Halfen T-head bolts can be fixed in any position along the length.

## Size range

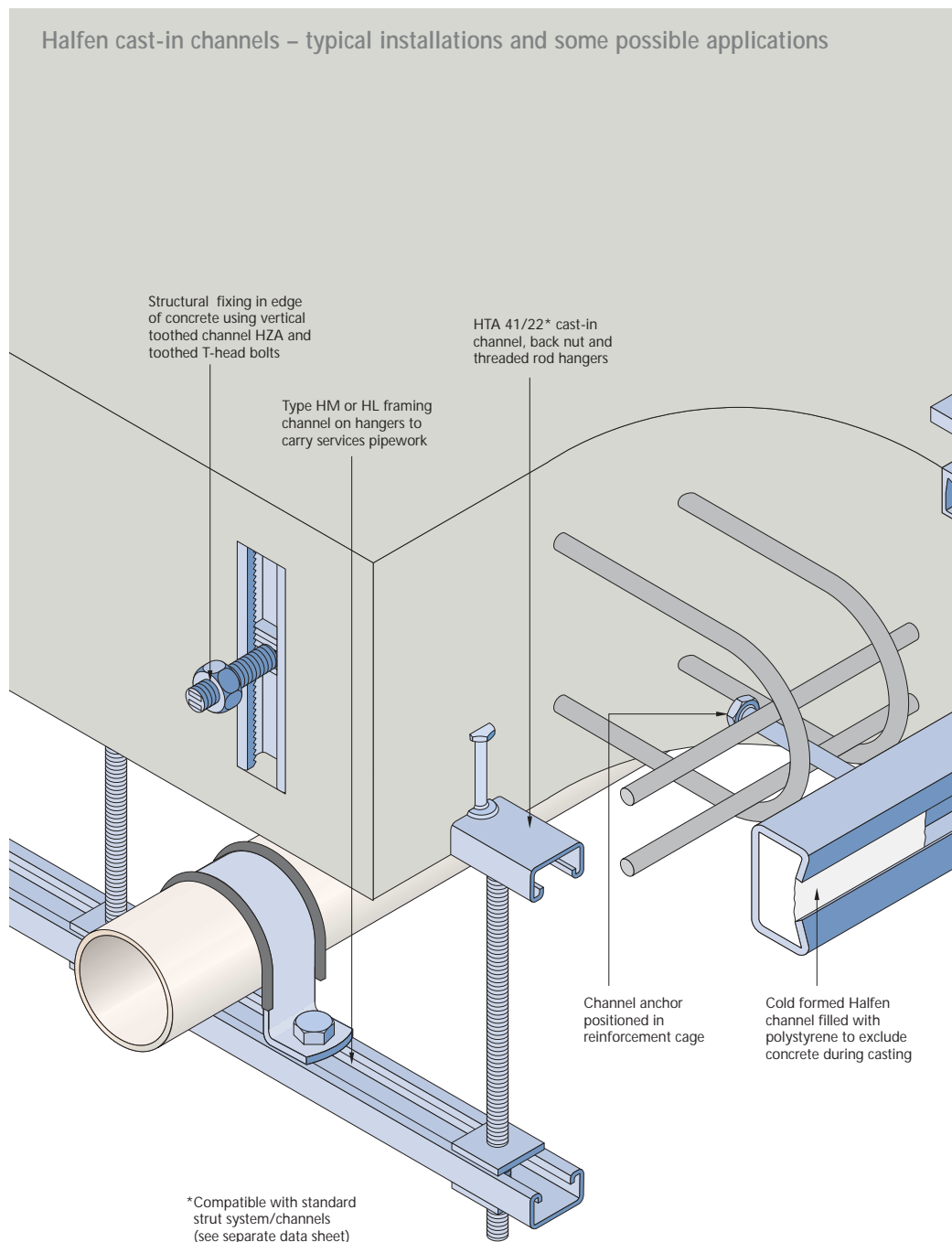
This guide includes the full selection of Halfen channel sizes, shown in load ranges on separate page spreads. T-head bolts are available in a choice of diameters and lengths for each channel size.

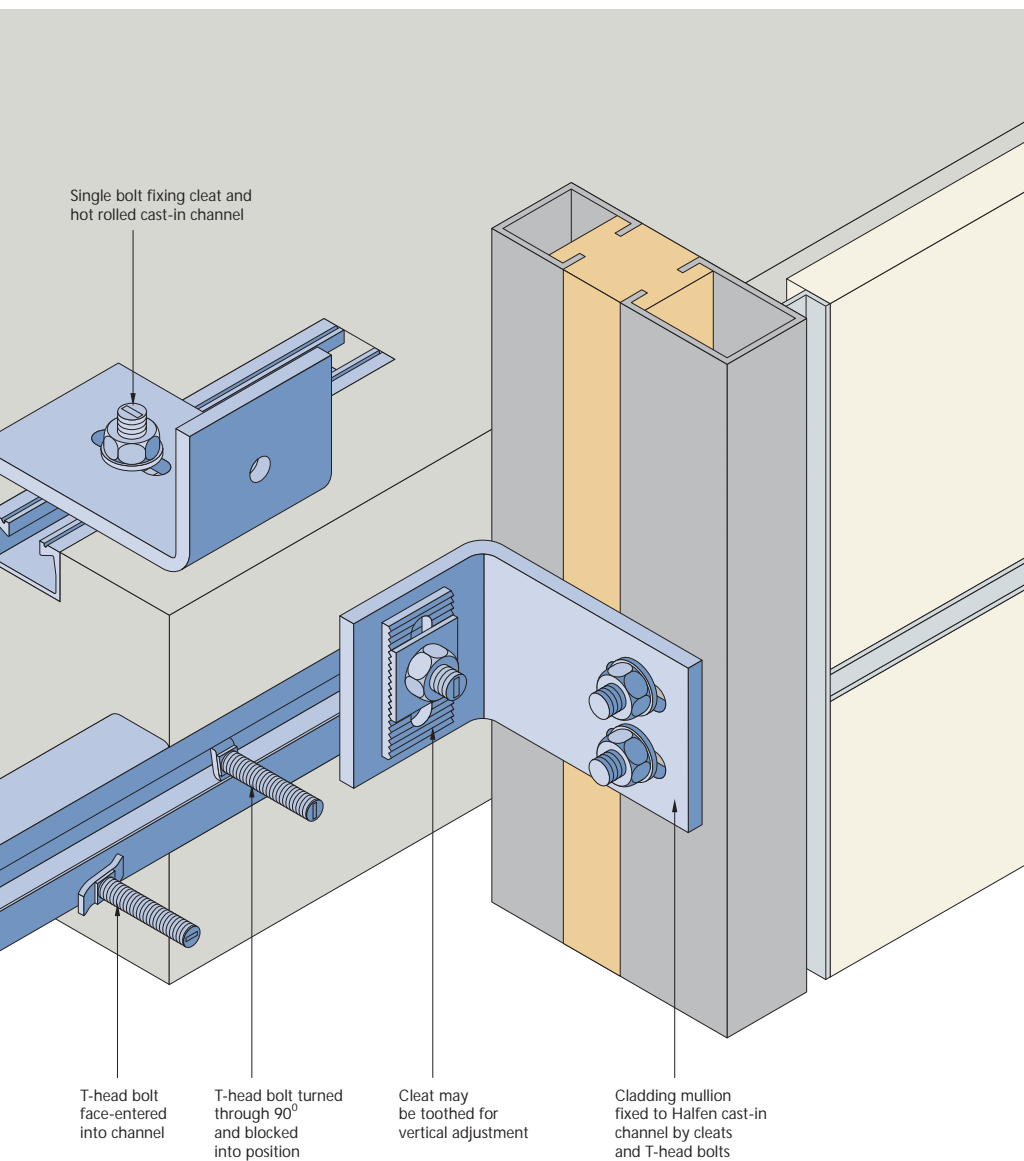
## Range of types/sizes

A wide choice of channel sizes is available in both hot rolled and cold formed material to suit a variety of load conditions, for example: single point loads from 3.5 kN (using M10 bolts) to 32 kN (using M30 T-head bolts).

Channels are also manufactured with toothed lips for M16 and M12 T-head bolts and longitudinal loads of up to 12 kN.

## Halfen cast-in channels – typical installations and some possible applications





### Channel lengths

Halfen channel is rolled in standard 6070 mm and 3050 mm lengths. Stock cut lengths are available in two options: standard stock and standard specials, see page 7. However, any length can be made to order, and suitable anchor spacing agreed with Halfen to suit the application.

### Applications

Halfen channels are suitable for all types of construction fixing applications, such as the flexible positioning of mechanical services, lift guides or structural fixings for major components such as pre-cast panels and curtain walling.

### Metal deck

Halfen channels are also ideal for use in conjunction with metal decks, where slabs are thin and perimeter fixings are required.

### Hand Arm Vibration

Cast-in channels provide safe, secure fixings into concrete without the need for drilling, helping specifiers and contractors meet their responsibilities under the new Control of Vibration at Work Regulations (effective July 2005). See page 39 for more information.

### Advantages of Halfen cast-in channels

- free of noise and vibration of power tools
- easy to use – simple nailing to formwork makes errors unlikely
- safe near edges of concrete and close together
- suitable for bolt pairs on a single channel
- adjustable to take up building tolerances
- T-head bolts installed quickly
- shank of bolt clearly visible through nut
- free of expansion forces when torquing, therefore no damage to concrete edge
- correct engagement of T-head bolt indicated by cross mark on end of shank