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### **Product Codes**

Below is the list of ARGOS FRP Product codes for 50mm Handrail Tubes & Fittings.

| S.No. | ARGOS FRP |   | Description  |
|-------|-----------|---|--|
|       | Code      |   |  |
| 1.    | A50HTB    | : | 50mm FRP Handrail (HR) Tube                                  |
| 2.    | AHTP      | : | FRP Handrail Toe Plate                                       |
| 3.    | A50H903W  | : | 50mm FRP HR 90 degree 3 way connection (Tee)                 |
| 4.    | A50H904W  | : | 50mm FRP HR 90 degree 4 way connection (Cross)               |
| 5.    | A50H90E   | : | 50mm FRP HR 90 degree Elbow                                  |
| 6.    | A50HRAB   | : | 50mm FRP HR Right angle bend                                 |
| 7.    | A50HUEC   | : | 50mm FRP HR Variable Angle Elbow/ Universal Elbow Connection |
| 8.    | A50HU3W   | : | 50mm FRP HR Universal 3 way connection (Tee)                 |
| 9.    | A50HU4W   | : | 50mm FRP HR Universal 4 way connection (Cross)               |
| 10.   | A50HBF    | : | 50mm FRP HR Base Foot  |
| 11.   | A50HSF    | : | 50mm FRP HR Side Fit Base                                    |
| 12.   | A50H3WC   | : | 50mm FRP HR 3 way corner                                     |
| 13.   | A50H4WC   | : | 50mm FRP HR 4 way corner                                     |
| 14.   | A50H603W  | : | 50mm FRP HR 60 degree 3 way connection (Tee)                 |
| 15.   | A50H604W  | : | 50mm FRP HR 60 degree 4 way connection (Cross)               |
| 16.   | A50H120E  | : | 50mm FRP HR 120 degree Elbow                                 |
| 17.   | A50HBLS   | : | 50mm FRP HR SS316 Connector Bolt Set                         |



## A50HTB 50mm FRP Handrail (HR) Tube



Figure 1: A50HTB

Standard Length: 5.8m approx.

### **AHTP** FRP Handrail Toe Plate



Figure 2: AHTP

Standard Length: 5.8m approx.

The bottom edge of the toe plate rests on the edge of the stanchion base foot. This gives the required gap for water drainage and complies with the requirements of BSEN14122-3 where the gap between the edge or the toe plate and the floor should be no more than 10mm. The toe plate is bolted to the stanchion post base foot and to the stanchion post.



### A50H903W

## 50mm FRP HR 90 degree 3 way connection (Tee)

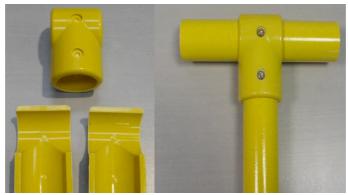
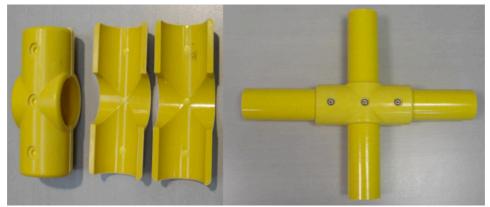


Figure 3: A50H903W

Used to make a 90deg connection (Tee) of the handrail tube to the stanchion post. Can also be used to join the stanchion post at the end of a run to the knee rail tube.

Two bolts are required for this fitting. It is not recommended to use this fitting to join lengths of handrail tube – please talk to us for such requirements.

## A50H904W 50mm FRP HR 90 degree 4 way connection (Cross)



**Figure 4: A50H904W** 

Used to make a 90deg connection (Cross) of the knee rail tube to the stanchion post.

The stanchion post must be a continuous length from base to handrail. Knee rail tubes cut to length to fit between successive stanchion posts. Three bolts are required for this fitting.



## A50H90E 50mm FRP HR 90 degree Elbow



Figure 5: A50H90E

Used to make a 90deg end to a handrail run joining the handrail to the stanchion post. Also used to make a 90deg turn to a run of handrail. Two bolts are required for this fitting.

### A50HRAB 50mm FRP HR Right angle bend



Figure 6: A50HRAB

Used to make a sharp 90deg end to a handrail run joining the handrail to the stanchion post. Also used to make a sharp 90deg turn to a run of handrail. Two bolts are required for this fitting. This fitting is also used as the top half of the 3 way corner fitting



## A50HUEC 50mm FRP HR Variable Angle Elbow/ Universal Elbow Connection



Figure 7: A50HUEC

Used to allow a change in angle of handrail and knee rail in any plain and any angle. The universal joint fits over the tube. The tube can be adhesive bonded in place or bolted. A bolt is required for the swivel connection.

### A50HU3W 50mm FRP HR Universal 3 way connection (Tee)



Figure 8: A50HU3W

A very versatile fitting that is used as a variable angle connection between handrail and stanchion post for ramps and stairs at the full range of slopes. It is an alternative to the 3 way Tee when an angle other than 90deg is needed. It can also provide a variable angle for the handrail and knee rail to a termination post to a run of handrail. The fitting is 3 parts. A universal sleeve connector and matching universal connector plus the universal connector that fits over the tube – this is half of a universal joint.

Two bolts are required to join the sleeve and universal joint connector. The universal connector can either be adhesive bonded to the tube or bolted.



### A50HU4W 50mm FRP HR Universal 4 way connection (Cross)



Figure 9: A50HU4W

A very versatile fitting that is used as a variable angle connection between knee rail and stanchion post for ramps and stairs at the full range of slopes. It can also be use with the handrail where a change in angle is required example: stair to landing. The fitting has 4 parts-A pair of universal connectors plus the universal joint pair.

A bolt is required to join universal joint connector to the tube. The universal connector can either be adhesive bonded to the tubes or bolted.

### A50HBF 50mm FRP HR Base Foot

Figure 10: A50HBF

Used as the structural base foot for stanchion posts. Maximum recommended stanchion post spacing is 1.25m

The stanchion post is fits into the base foot and should be secured by an M10 bolt. The holes in the base foot are 13mm diameter to take M12 bolts. The type of bolt to be used depends on the substrate to which is to be fixed.



### A50HSF 50mm FRP HR Side Fit Base

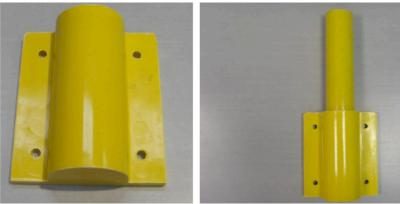


Figure 11: A50HSF

Used as structural base for the stanchion post when fitted to side of stairs, ramp or walkway. The base of the fitting is closed so the tube does not pass through. The side fit base is a pinch fit to the tube so that when clamped tight to the side it holds the tube in place. Care is needed not to over tighten the bolts, which could cause the fitting to crack. Spacer washers should be used to prevent the deformation of the fitting.

The holes in the side fit base are 10mm dia. The type of bolt to be used depends on the substrate to which is to be fixed.

## A50H3WC 50mm FRP HR 3 way corner



Figure 12: A50H3WC

Used to make a 3 way 90deg joint between handrail and stanchion post. Three bolts are required for this fitting. The fitting is in two parts. The upper part is also used for the right angle bend (code A50HRAB) and the lower part is also used in the 4 way corner joint (code A50H4WC)



### A50H4WC 50mm FRP HR 4 way corner



Figure 13: A50H4WC

Used to make a 4 way 90 degree joint between handrail and stanchion post. The stanchion post must be a continuous length from base to handrail. Knee rail tubes cut to length to fit between adjacent stanchion posts. Four bolts are required for this fitting

The fitting is in two parts either of which is also used for the lower part of the 3 way corner (code A50H3WC)

### A50H603W

## 50mm FRP HR 60 degree 3 way connection (Tee)

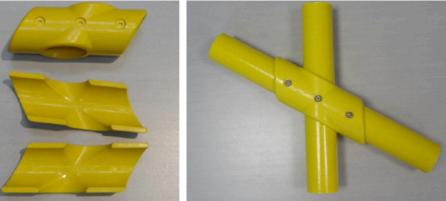


Figure 14: A50H603W

Used to make a connection (Tee) of the handrail tube to the stanchion post at 30 degree – standard angle (slope) for stairs. Can also be used to join the stanchion post at the end of stairs to the knee rail tube. Two bolts are required for this fitting. It is not recommended to use this fitting to join lengths of handrail tube – use the tubular spigot joint.



## A50H604W 50mm FRP HR 60 degree 4 way connection (Cross)



**Figure 15: A50H604W** 

Used to make a Cross connection of the knee rail tube to the stanchion post at 30 degree standard angle (slope) for stairs. The stanchion post must be a continuous length from base to handrail. Knee rail tubes cut to length to fit between successive stanchion posts. Three bolts are required for this fitting

### A50H120E 50mm FRP HR 120 degree Elbow



Figure 16: A50H120E

Used to make an end to a stairs handrail joining the handrail to the stanchion post at 30 degree standard angle (slope) for stairs. Two bolts are required for this fitting



### A50HBLS 50mm FRP HR SS316 Connector Bolt Set



Figure 17: A50HBLS

The bolt set utilises an M6  $\times$ 60/65 stainless steel bolt with a button head together with a recessed nut. The bolt set fits all the moulded fittings.

The side of the fitting taking the bolt is drilled to take the M6 bolts and the bolt head fits within the pre-moulded recess in the fitting.

The side of the fitting taking the nut requires a 10mm diameter hole passing though both the fitting and the tube so that the recessed nut fits within the pre-moulded recess in the fitting. In this way both the bolt head and the nut recess into the fitting so there are no exposed edges to catch the hand of the user and nothing to snag on clothing.



NOTE:

THIS CATALOGUE COVERS ONLY THE BASIC ROUND FRP HANDRAIL TUBES & FITTINGS THAT ARE GENERALLY USED. ARGOS FRP CAN ALSO SUPPLY FITTINGS TO SPECIAL REQUIREMENTS. (INSERT FITTINGS, CAPS ETC. ARE SOME OF THE OTHER FITTINGS WHICH WE COULD SUPPLY)

PLEASE TALK TO US ABOUT YOUR REQUIREMENTS.

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