

## Assembly Instructions – Galvanised Spiral Staircase



## About your external spiral staircase kit

This spiral staircase is for outdoor use with a circular footprint. The support structure is composed of a modular central steel pole with aluminium spacers interposed between the steps. The railing is made up of steel uprights (balusters) with an aluminium coil handrail attached via roll pins and a PVC cap finish. Weather resistance is achieved through:

- hot dip galvanising steel parts (treads, core pole, balustrade panels and balusters)
- the use of zinc plated bolts and hardware.

The use of a non slip pattern on the tread and landing also gives greater resistance to wear from footfall.

Staircase terms—what we mean:

Rise: the vertical space between one step and the next.

Boss: the tubular section, attached to either the tread or landing, that slides over the core pole to keep them in place.

Balusters: the uprights that hold the handrail in place.

Going: the horizontal distance from front to back of the step.

## WARNINGS

**WE RECOMMEND CARRYING OUT A RISK ASSESSMENT PRIOR TO INSTALL.**

**THIS INSTALLATION INVOLVES HEAVY COMPONENTS AND WORKING AT HEIGHTS. YOU WILL NEED TO TAKE STEPS TO MANAGE AND HEALTH AND SAFETY IMPLICATIONS PRIOR TO INSTALL.**

**DO NOT USE THE STAIRS WHILST IN CONSTRUCTION.**

**A MINIMUM OF 2 PEOPLE REQUIRED TO DO THE INSTALL.**

**WE ONLY PROVIDE THE FIXINGS FOR BOLTING THE LANDING TO MASONARY AND BOLTING THE COREPOLE TO CONCRETE, PLEASE CONTACT A PROFESSIONAL WHO WILL ADVISE YOU ON THE CORRECT FIXINGS IF YOU ARE NOT FIXING TO THE SAME SURFACES.**

### Recommended Tool key:



Tape measure



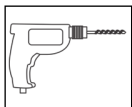
Hammer



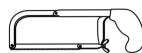
Spirit level



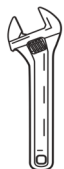
Scaffold tower



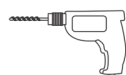
SDS drill with 12mm SDS bit



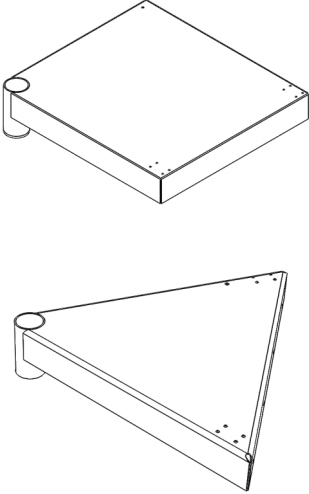
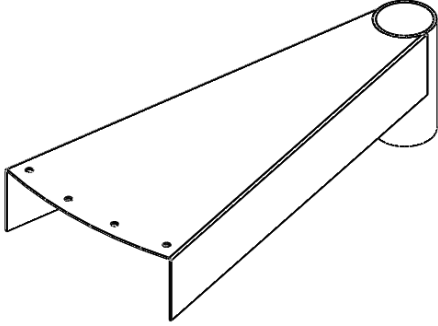
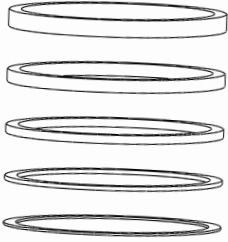
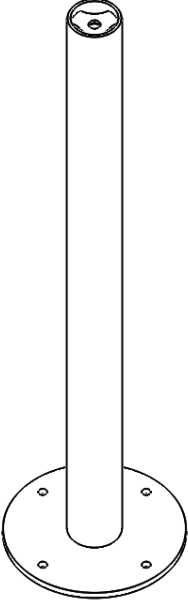


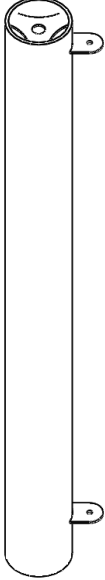



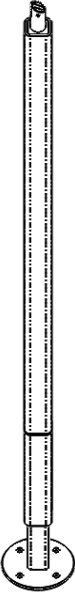

Hacksaw



Adjustable spanner with range  
6-20mm bit



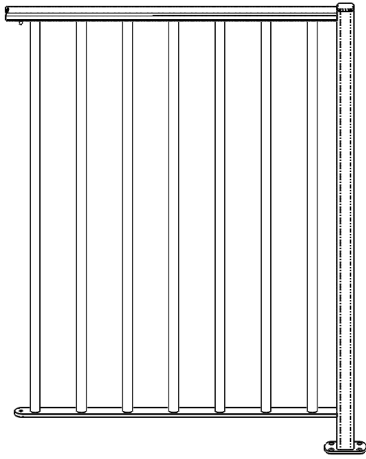
Drill with 4mm metalworking drill bit

<p>Landing (Either Square or Triangle) <span style="float: right;">1</span></p> 	<p>Tread <span style="float: right;">2</span></p> 		<p>Spacer rings <span style="float: right;">3</span></p>  <p>Please refer to table 2 on page 7 for quantity and size per rise.</p>	
<p>Core pole with base plate <span style="float: right;">4</span></p> 	<p>Extension 1: 1200mm <span style="float: right;">5</span></p> 	<p>Extension 2: 600mm <span style="float: right;">6</span></p> 	<p>Top newel <span style="float: right;">7</span></p> 	
<p>No. 1 Baluster <span style="float: right;">8</span></p> 	<p>No. 2 Baluster <span style="float: right;">9</span></p> 	<p>No.3 Baluster <span style="float: right;">10</span></p> 	<p>Bottom newel post <span style="float: right;">11</span></p> 	<p>M10 x 240 Bolt <span style="float: right;">12</span></p> 

Not to scale

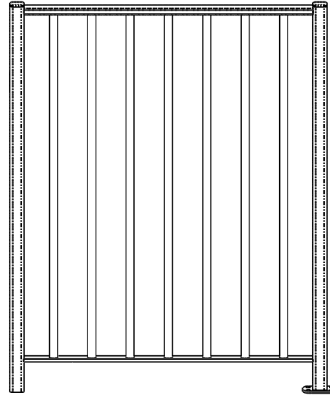
Balustrade Panel  
(square and triangle)

13



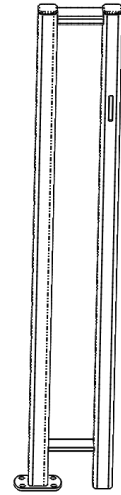
Balustrade Panel (for square landing)

14



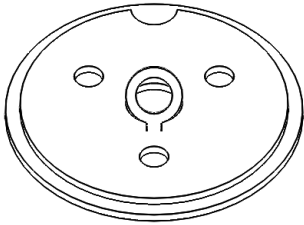
Balustrade panel  
(for triangle landing)

15



Newel Cap

16



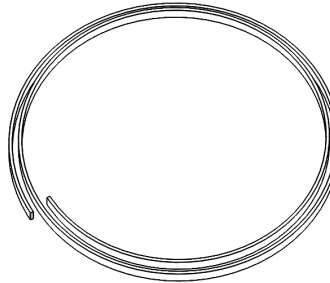
Threaded Tie down bar

17



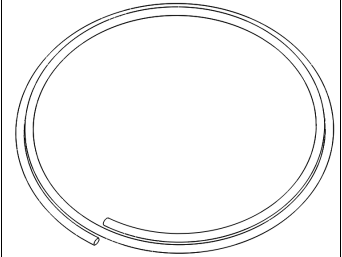
Aluminium handrail coil

18



34mm diameter PVC  
Handrail cap

19



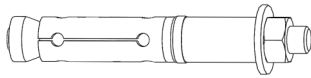
Spacer tube

20



M12 x 100 sleeve  
anchor

21



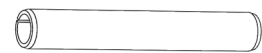
20 Long roll pin

22



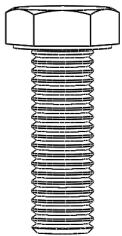
40 Long roll pin

23



M10 x 30 bolt

24



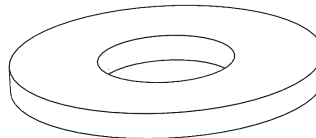
M8 Nut

25



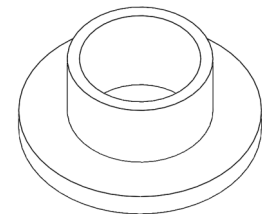
M10 x 30 washers

26



M10 x 24 nylon washers

27



M8 x 30 bolt

28



M8 washers

29



M6 x 25 bolt

30



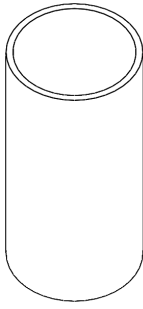
M6 washers

31



Starter pot

32



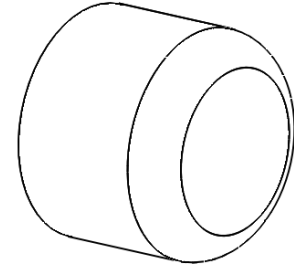
M6 Nut

33



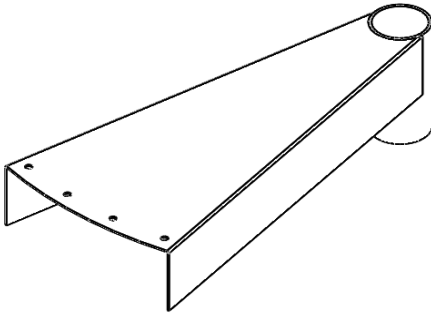
PVC End Cap

34



First tread (190mm boss)

35



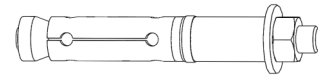
Baluster template

36



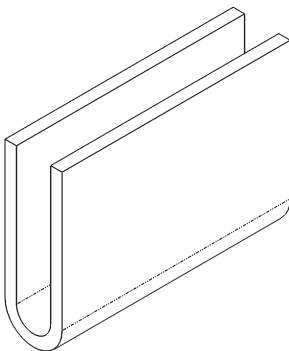
M8 x 75 sleeve anchor

37



Aluminium handrail joint

38



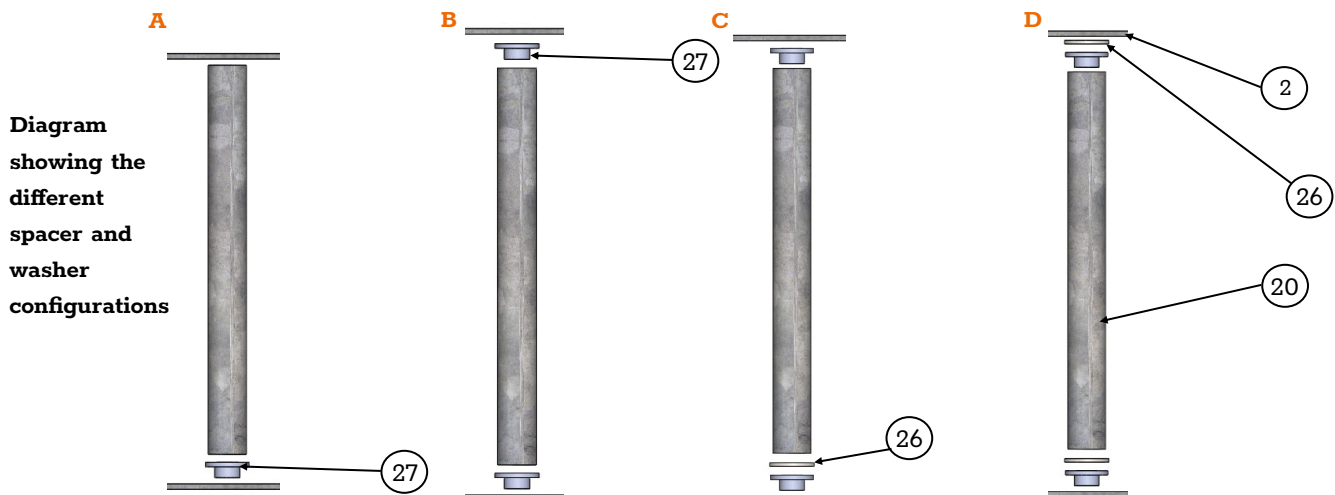
## Spacer rings on core pole between treads (table 1)

	Rise	Packing Thickness	1st Spacer Ring	2nd Spacer Ring
Boss size	200	0	0	0
	201	1mm	1 x 1mm	0
	202	2mm	1 x 2mm	0
	203	3mm	1 x 2mm	1 x 1mm
	204	4mm	1 x 4mm	0
	205	5mm	1 x 4mm	1 x 1mm
	206	6mm	1 x 6mm	0
	207	7mm	1 x 6mm	1 x 1mm
	208	8mm	1 x 8mm	0
	209	9mm	1 x 8mm	1 x 1mm
Boss size	210	0	0	0
	211	1mm	1 x 1mm	0
	212	2mm	1 x 2mm	0
	213	3mm	1 x 2mm	1 x 1mm
	214	4mm	1 x 4mm	0
	215	5mm	1 x 4mm	1 x 1mm
	216	6mm	1 x 6mm	0
	217	7mm	1 x 6mm	1 x 1mm
	218	8mm	1 x 8mm	0
	219	9mm	1 x 8mm	1 x 1mm

Spacer rings must be placed onto the core pole beneath each tread and beneath the landing. Every section should have the same number of spacers beneath them.

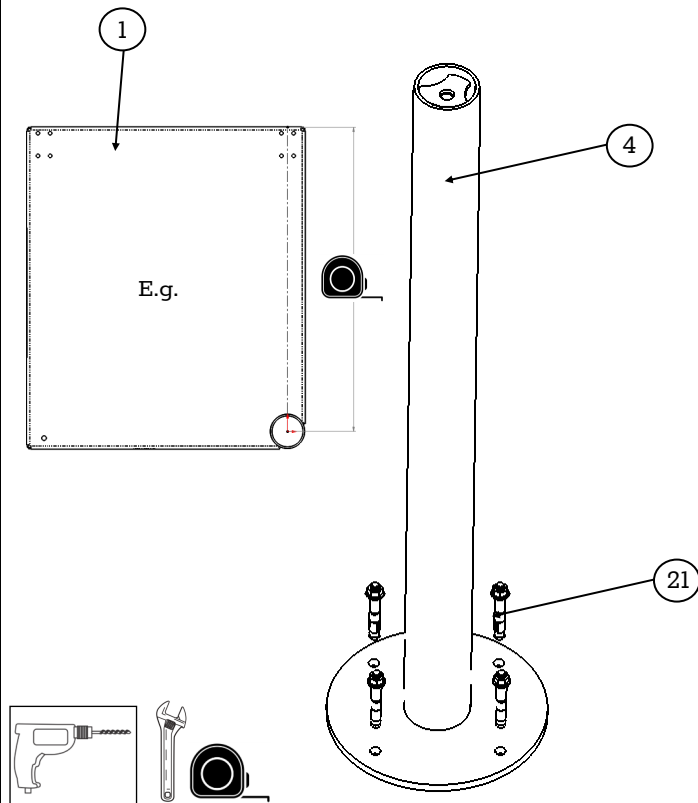
## Packing between tread spacers

Rise	Spacer Tube Length (mm)	Packing (washers)	Configuration
200	193.5	1 Nylon	A
201	193.5	1 Nylon	A
202	193.5	2 Nylon	B
203	193.5	2 Nylon	B
204	193.5	2 Nylon , 1 Steel	C
205	193.5	2 Nylon ,1 Steel	C
206	193.5	2 Nylon, 2 Steel	D
207	193.5	2 Nylon, 2 Steel	D
208	201	1 Nylon	A
209	201	2 Nylon	B
210	201	2 Nylon	B
211	201	2 Nylon, 1 Steel	C
212	201	2 Nylon, 1 Steel	C
213	201	2 Nylon, 2 Steel	D
214	201	2 Nylon, 2 Steel	D
215	208.5	1 Nylon	A
216	208.5	1 Nylon	A
217	208.5	2 Nylon	B
218	208.5	2 Nylon	B
219	208.5	2 Nylon, 1 Steel	C



### Step 1

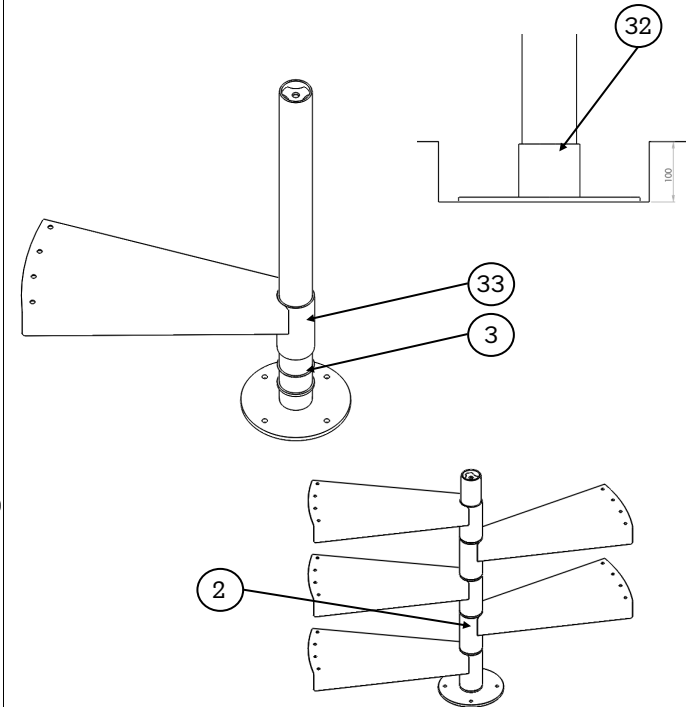
Mark baseplate, Measure from the edge of landing to centre of the boss depending on landing size. drill 12mm holes to 100mm depth, clearing out any dust before fastening down.



### Step 2

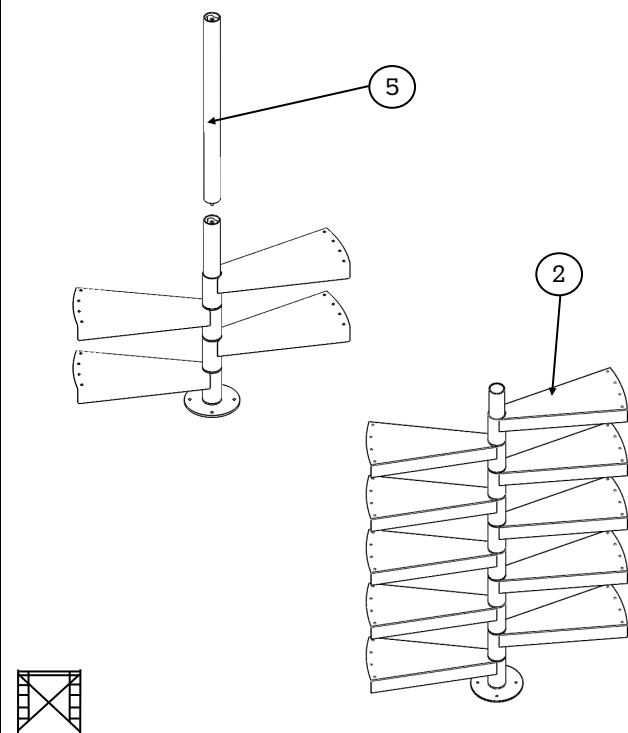
Place the treads (and spacers) until first section is reached on core pole (4), making sure the same number of spacers are placed beneath each tread (Table 1)

For sub surface mounting: starter pot (32) placed on before first spacers or tread. 100mm depth below floor. Put first tread (33) (which has a shorter boss than other treads)



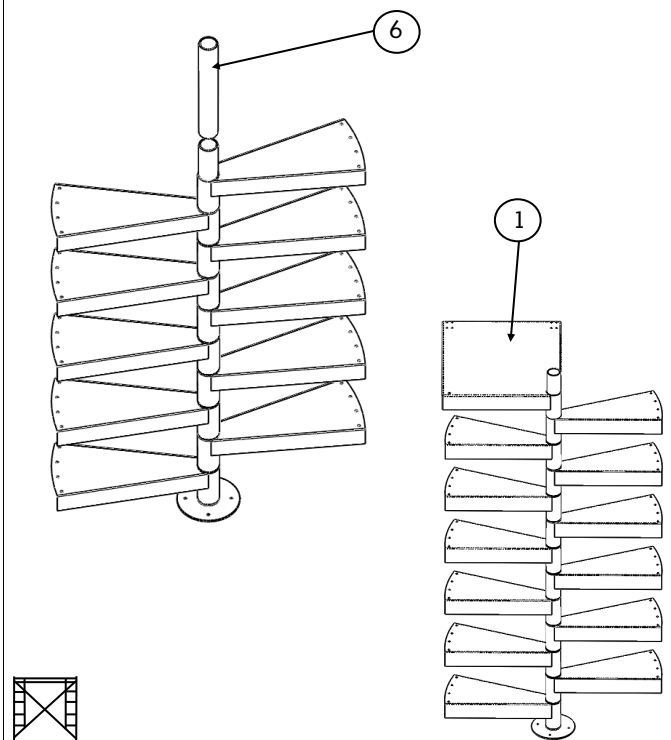
### Step 3

Screw the next core pole section on then repeat previous step until the top of the next core pole section is reached. Repeat this stage for each 1200mm (5) core pole extension. (LEAVE 600mm EXTENSION UNTIL LAST IF PROVIDED)



### Step 4

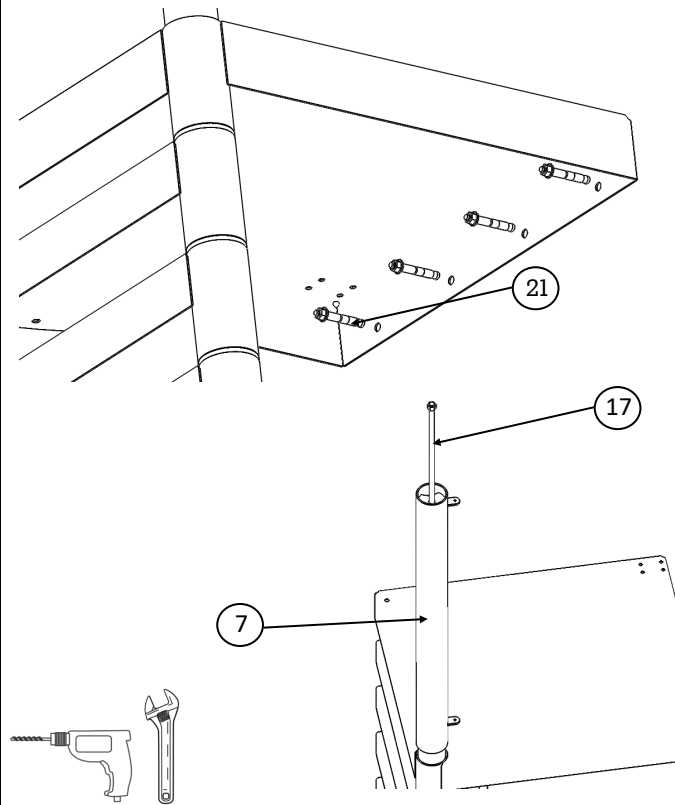
Screw the final core pole section on and place remaining treads on, Carry out risk assessment and take necessary precautions when handling heavy parts.





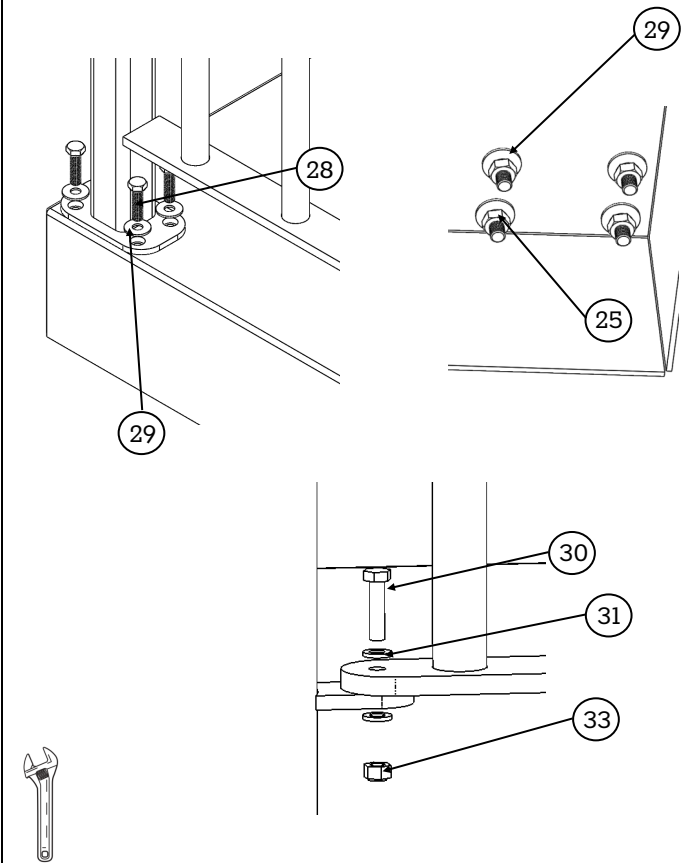
### Step 5

Attach landing to wall (using the provided fixings if applicable) and attach top newel with tie down bar. Don't tighten the threaded bar fully, this is to allow for further adjustments in step 11.



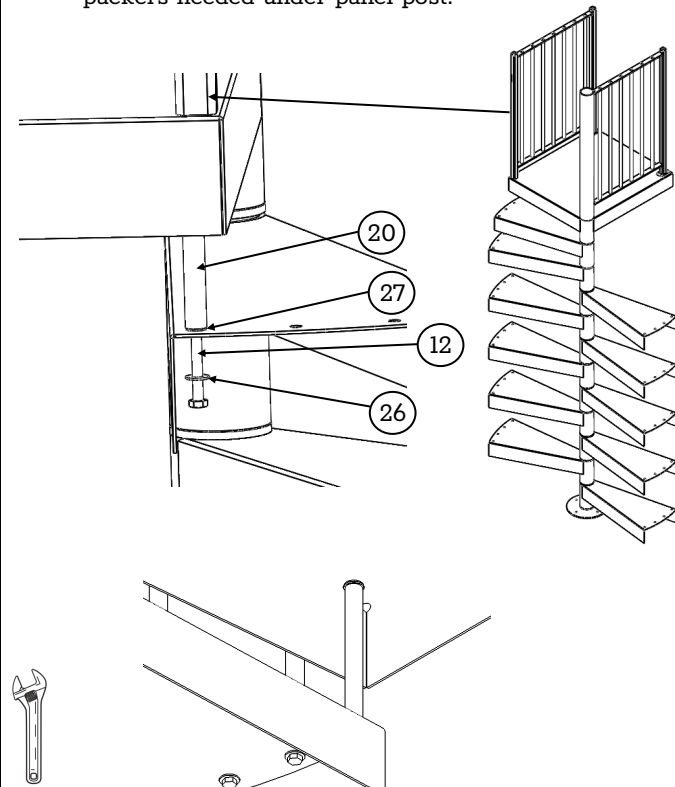
### Step 6

Bolt both balustrade panels onto the landing with washers on both sides, bolt panel 13 to top newel post with washers on both sides.



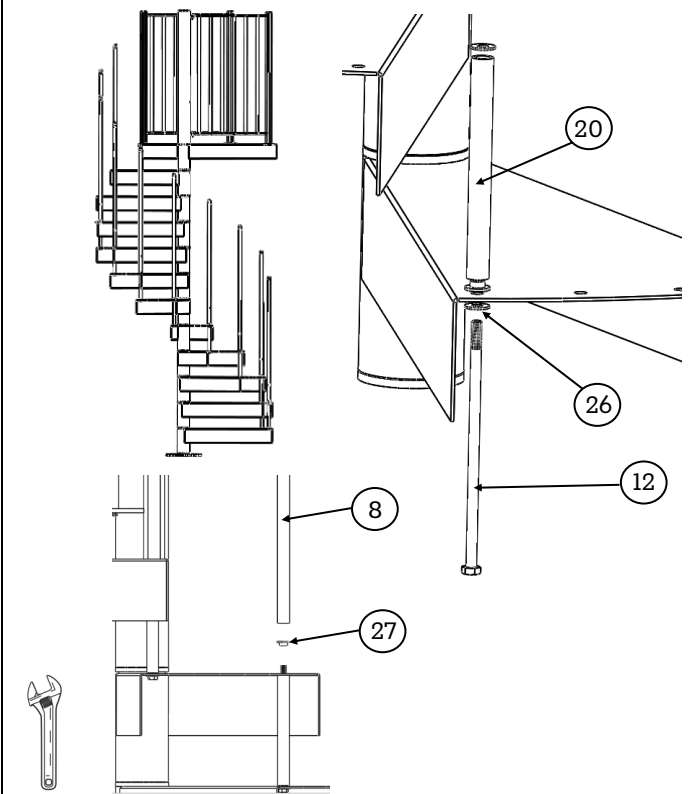
### Step 7

Bolt balustrade panel 14 or 15 (depending on landing type) through the tread below into the threaded insert in the panel upright, refer to table 2 for correct packing between the tread and landing. No packers needed under panel post.



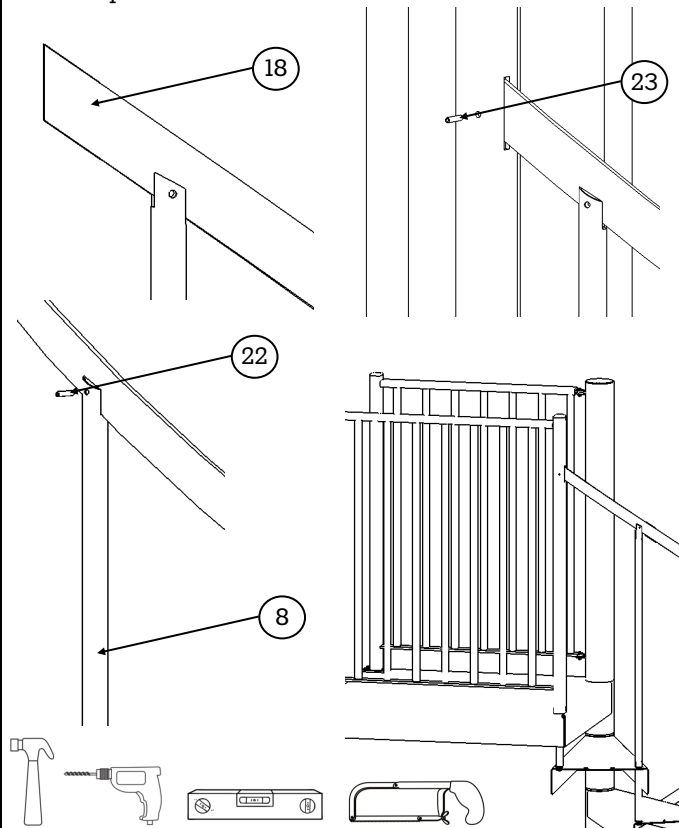
### Step 8

Attach all No. 1 balusters, apart from between the bottom tread and next one up, (8), making sure to bolt through both the bottom tread and the tread above into the bottom of the baluster (refer to table 2 for correct packing).



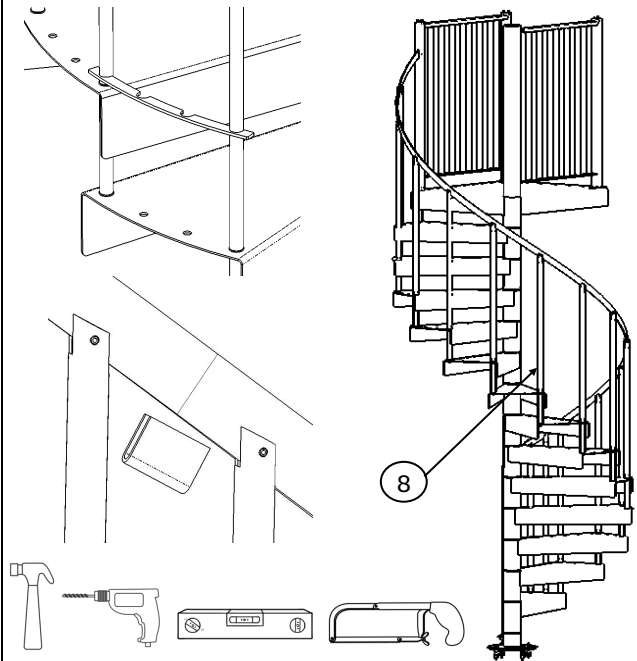
### Step 9

Cut handrail to allow for handrail coil to push into slot in the top balustrade post fully, make sure the No. 1 baluster nearest the landing is level vertically, using a 4mm drill bit, drill and pin handrail into the slot.



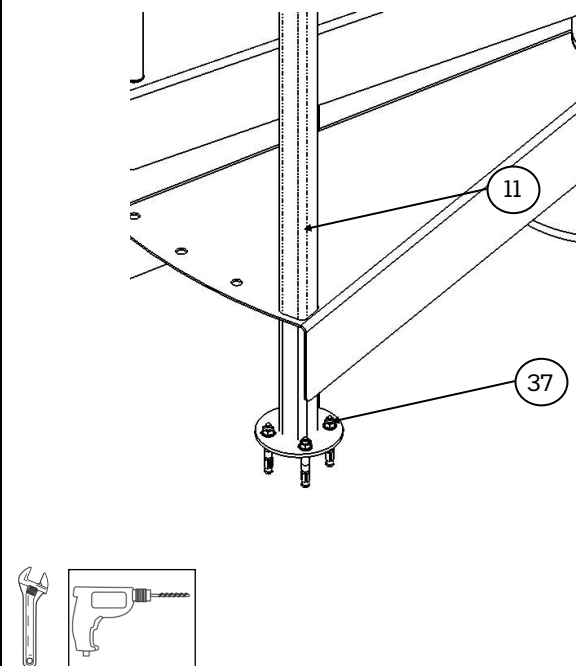
### Step 10

Starting from the top, drill and pin every other No. 1 baluster in place, checking they're level as you go., then go back and pin the remaining No. 1 balusters checking they're level. Use template (36) to ensure the space between the treads is correct. For stairs with aluminium coils longer than the stair, a coil joiner (38) is pushed on to join the extension. Coil may need to be trimmed to join between balusters.



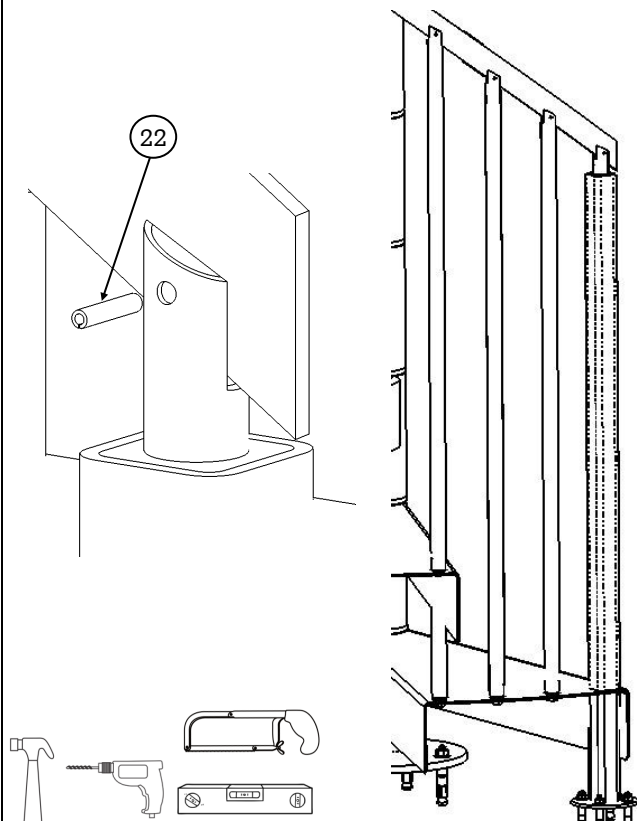
### Step 11

Bolt the base newel through the tread then mark bottom newel holes on the ground, swing the first tread away then drill 10mm holes 100mm deep. Adjust the height of the newel by loosening the grub screws then tightening them at required height. Bolt newel into ground.



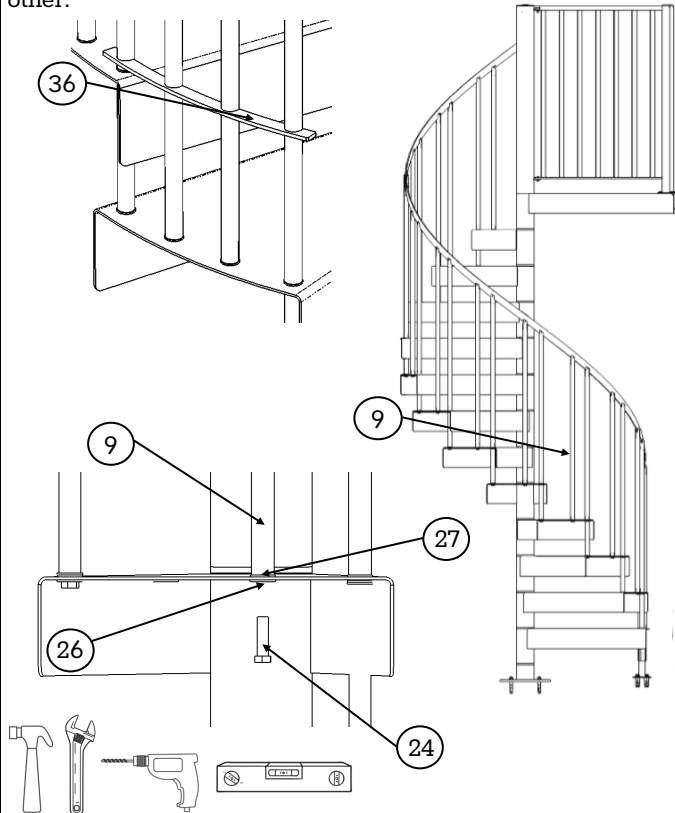
### Step 12

Attach the No.1 Baluster between the first and second tread. Check bottom newel is level then pin handrail, making sure previous baluster is level. Trim any excess handrail.



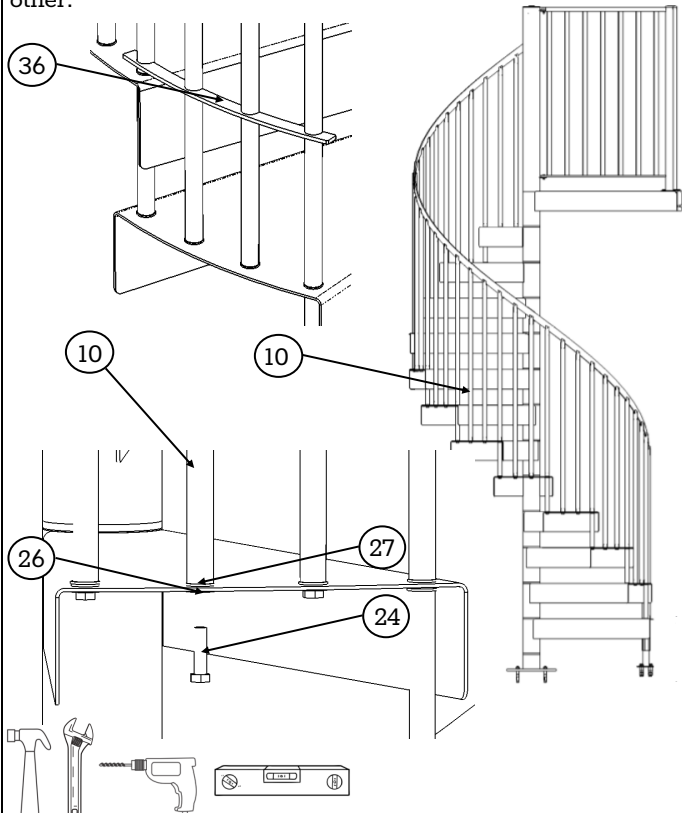
### Step 13

Bolt on all No. 2 balusters (9). Working from the top down, drill and pin in place, checking they're level as you go, use the provided template to ensure they are all parallel to each other.



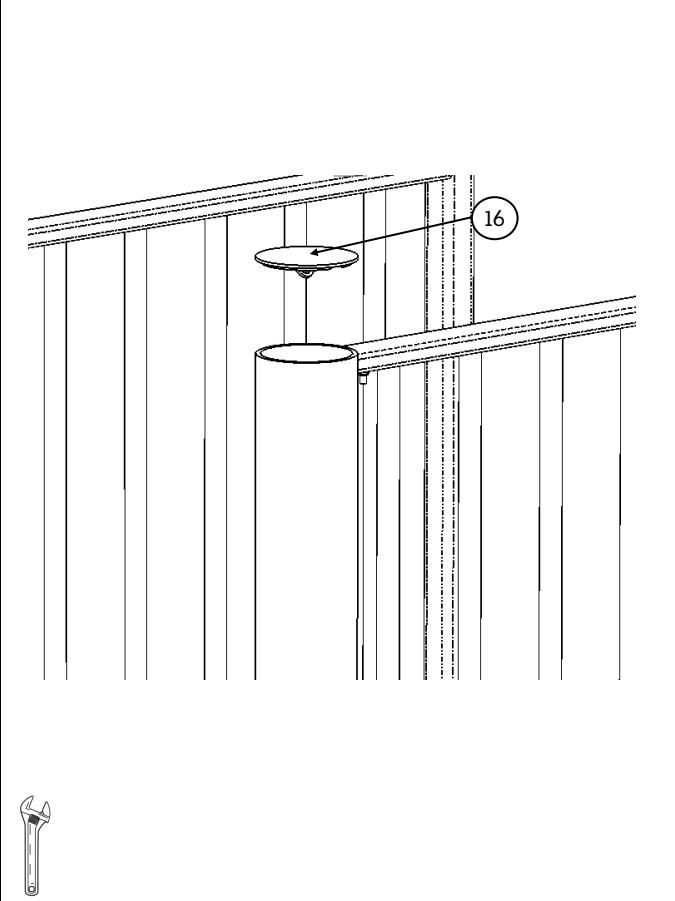
### Step 14

Bolt on all No. 3 balusters (10). Working from the top down, drill and pin in place, checking they're level as you go, use the provided template to ensure they are all parallel to each other.



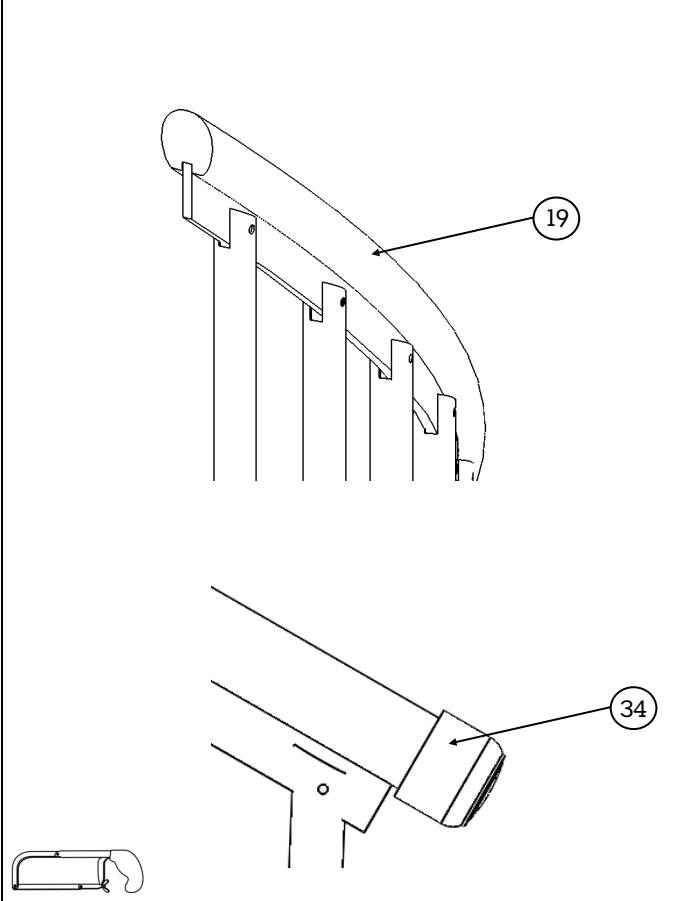
### Step 15

Tighten top newel then attach newel cap using provided glue.



### Step 16

Push pvc handrail onto the aluminium coil and trim excess, allowing for enough extra to fit the bottom end cap.



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