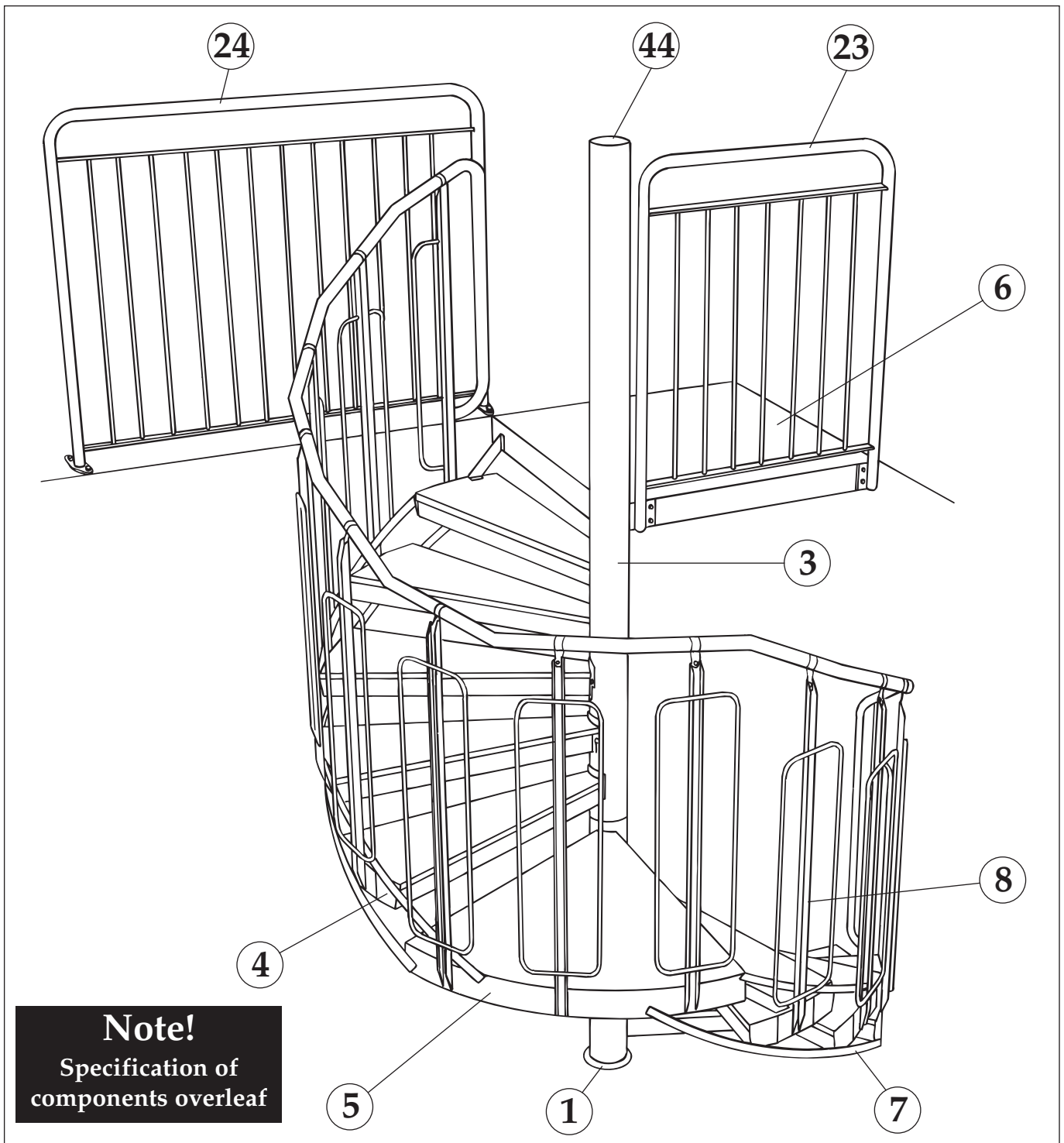


Erection Instructions

SPIRAL STAIRCASES

Balustrade with channel-bar balusters and bent handrail



WELAND

1. Tools required:

- Spanner for hex head screws M8, M10 und M12
- Allen key for 4 and 5 mm cap screws
- Power drill with 3,5 and 9 mm steel bits and a 12 mm concrete bit
- Tape measure and level

Tightening Torque for Screws:

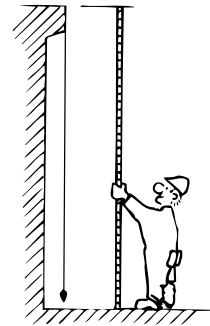
M8: 24 Nm

M10: 47 Nm

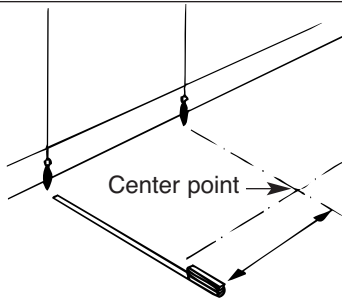
M12: 81 Nm



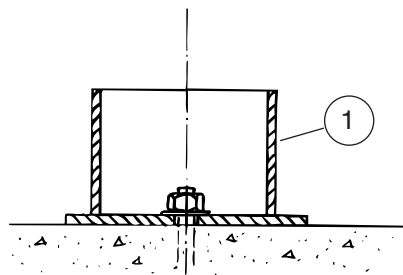
2. Check the contents of the crate against the component list (marking out scheme)



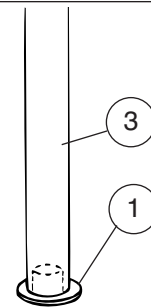
3. Check height and other measures against the drawing.



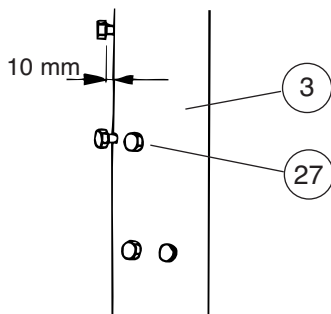
4. Mark the center of the staircase. Use the step-off platform dimensions to determine the coordinates of the center point.



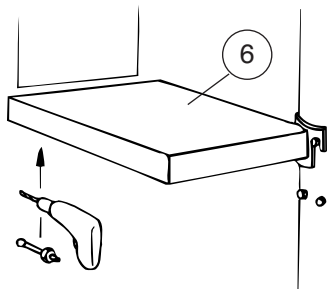
5. Mount the base plate on the foundation.



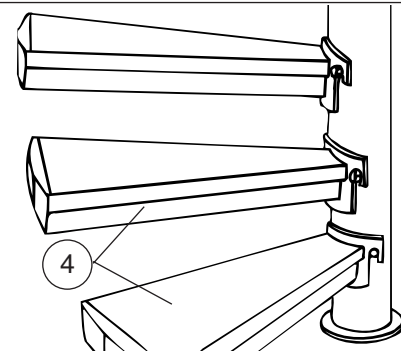
6. Erect the newel post. Assemble the sections in numerical order beginning with no. 1 at the very bottom.



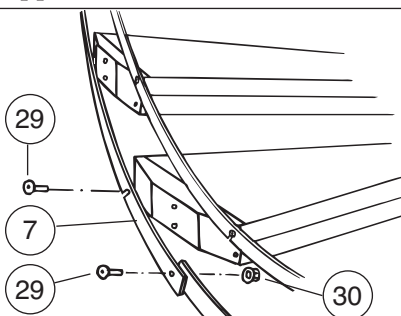
7. Thread the bolts into the newel post, allowing them to protrude approx. 10 mm.



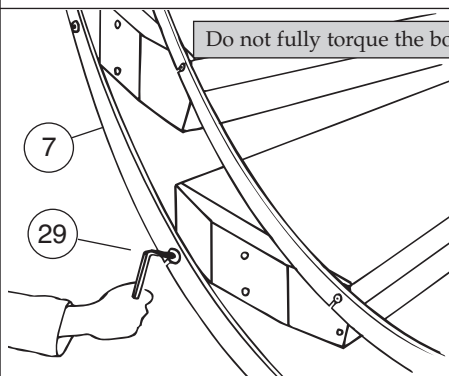
8. Mount the step-off platform. Choose adequate fixing bolts.



9. Suspend the stair treads on the bolts previously threaded into the newel post.

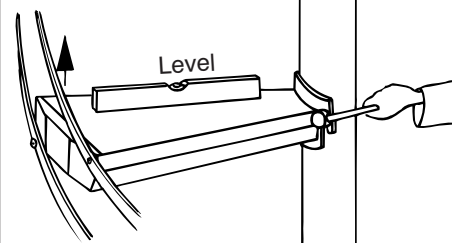


10. Attach the stringer strips in numerical order, beginning with no. 1 at the very bottom, onto the outside faces of the treads

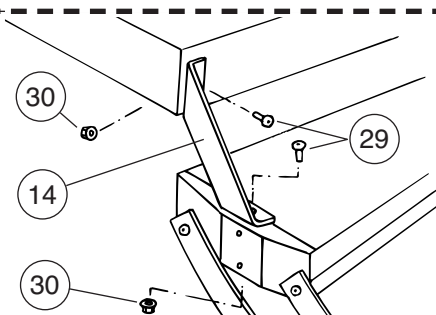


11. Tighten the screws.

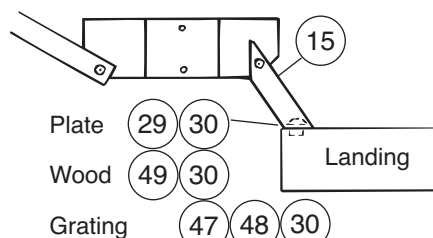
Do not fully torque the bolts/screws until the whole flight is assembled



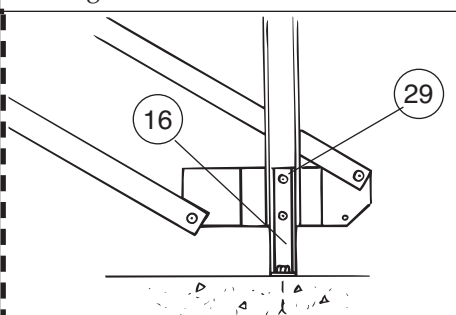
12. Lift the tread to horizontal position and tighten the tread bolts.



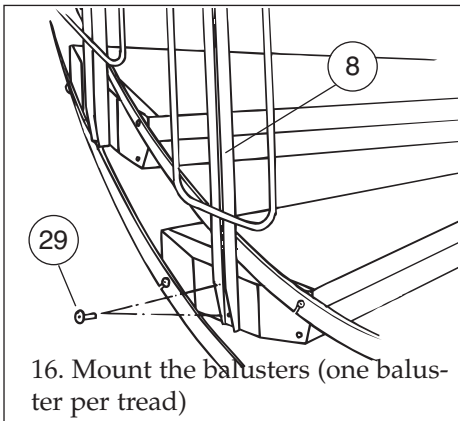
13. Attach the bracket which braces the last tread to the landing. Check that the rise and the run match the other treads.



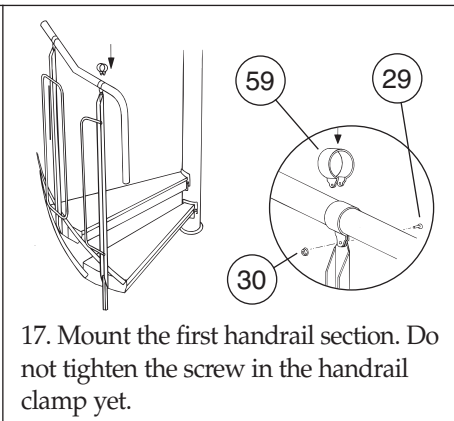
14. Attach the bracket between the landing and the tread.



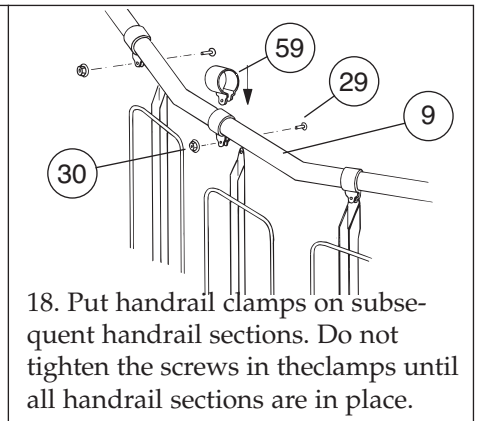
15. Attach the support leg at the first tread. The support leg is to be mounted into the baluster.



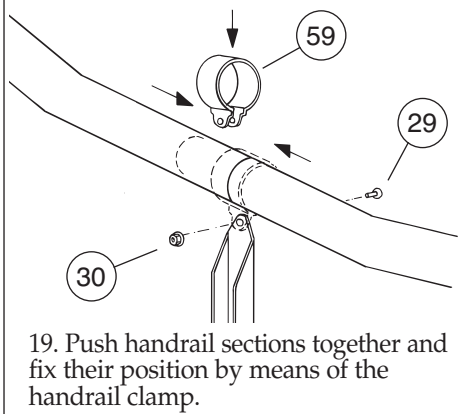
16. Mount the balusters (one baluster per tread)



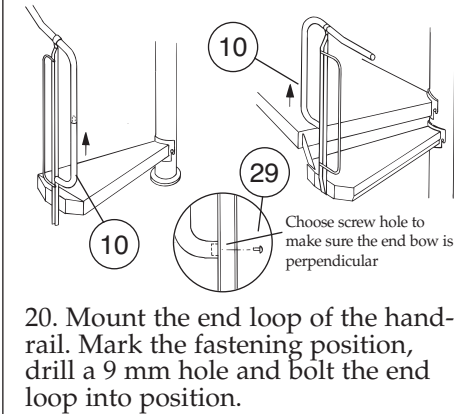
17. Mount the first handrail section. Do not tighten the screw in the handrail clamp yet.



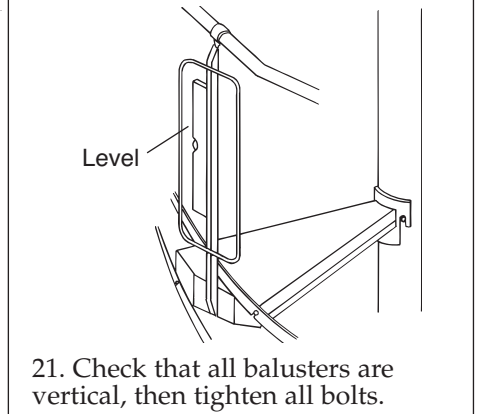
18. Put handrail clamps on subsequent handrail sections. Do not tighten the screws in the clamps until all handrail sections are in place.



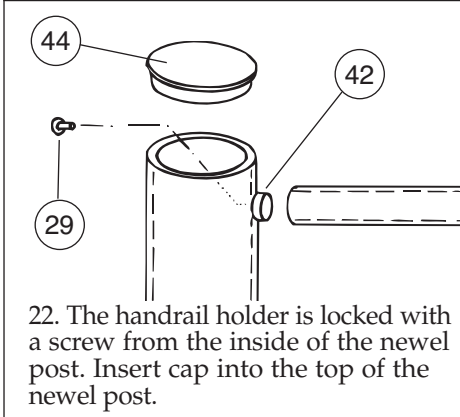
19. Push handrail sections together and fix their position by means of the handrail clamp.



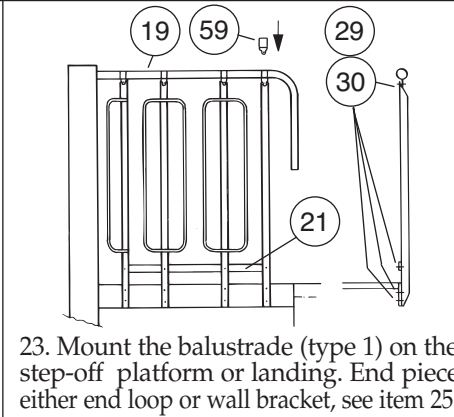
20. Mount the end loop of the handrail. Mark the fastening position, drill a 9 mm hole and bolt the end loop into position.



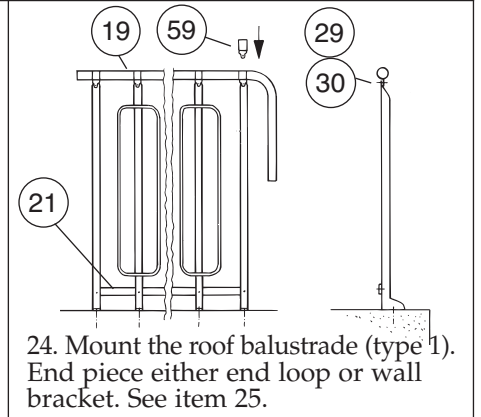
21. Check that all balusters are vertical, then tighten all bolts.



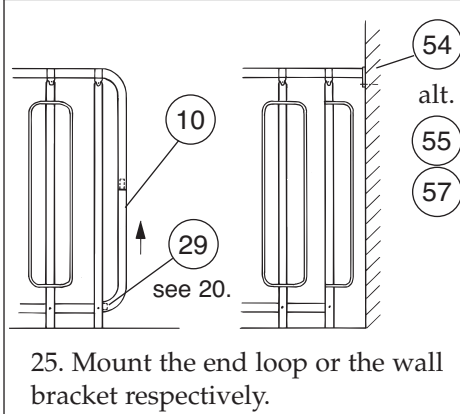
22. The handrail holder is locked with a screw from the inside of the newel post. Insert cap into the top of the newel post.



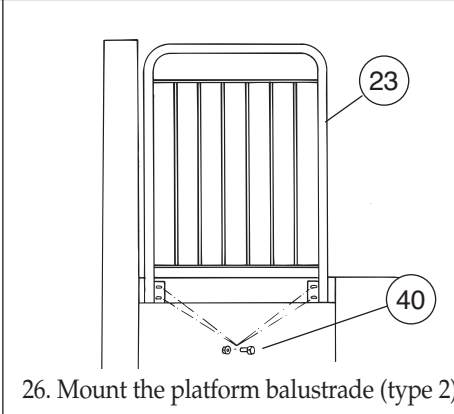
23. Mount the balustrade (type 1) on the step-off platform or landing. End piece either end loop or wall bracket, see item 25.



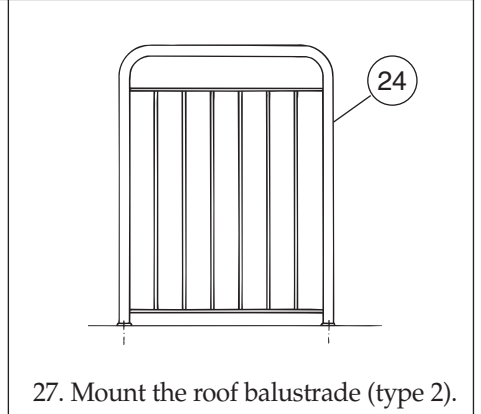
24. Mount the roof balustrade (type 1). End piece either end loop or wall bracket. See item 25.



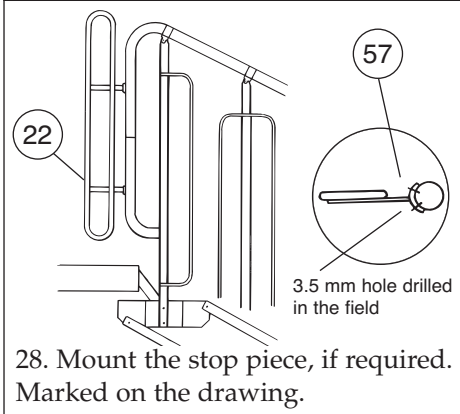
25. Mount the end loop or the wall bracket respectively.



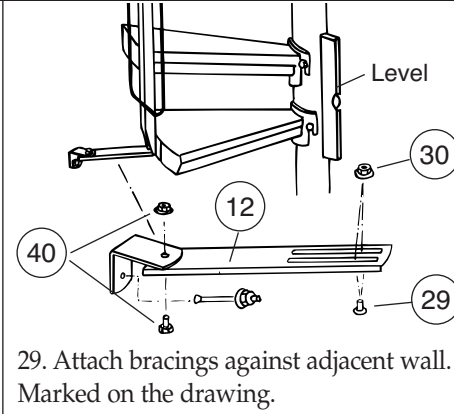
26. Mount the platform balustrade (type 2)



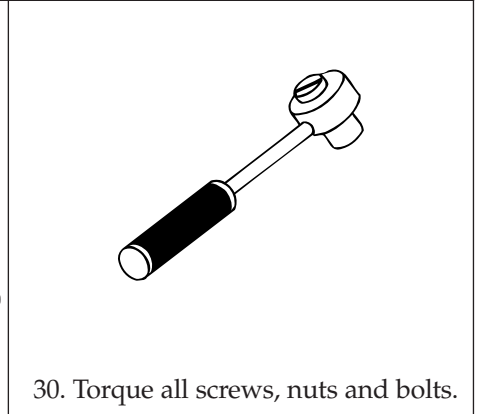
27. Mount the roof balustrade (type 2).



28. Mount the stop piece, if required. Marked on the drawing.

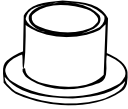
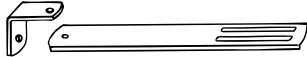
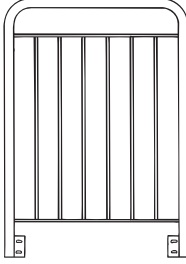
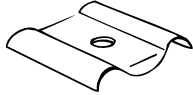

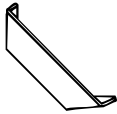
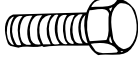
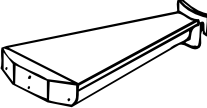
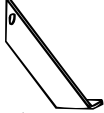
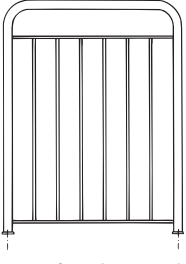

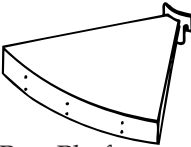
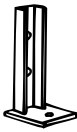
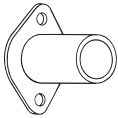
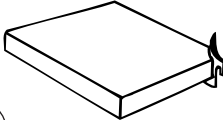


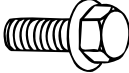

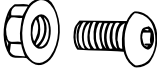
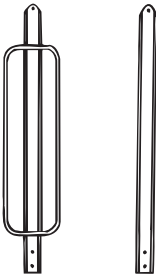
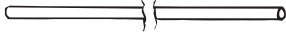
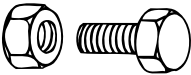

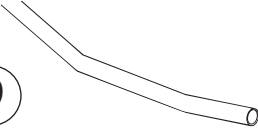


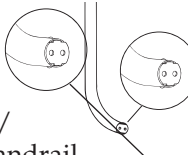





29. Attach bracings against adjacent wall. Marked on the drawing.



30. Torque all screws, nuts and bolts.

SPECIFICATION OF COMPONENTS

 1 Base Plate	 12 Adjustable wall bracing	 23 Platform Balustrade type 2	 47 Top Piece 33x20
 3 Newel Post	 14 Bracket Platform - Stairtread		 48 Screw M8x35
 4 Stair tread	 15 Bracket Platform - stairtread	 24 Roof Balustrade type 2	 49 Screw K6S M8x50
 5 Rest Platform	 16 Support Leg		 54 Wall bracket, handrail
 6 Stepping-off Platform	 17 Baluster - Platform	 18 Baluster - Roof	 27 Screw M6SF M10 x 25
 7 Stringer Strip - staircase flight			 29 Screw K6S M8x16
 8 Baluster staircase flight	 19 Handrail Balustrade Platform-Roof Balustrade	 40 Screw M12x25 with nut	 59 Clamp
	 9 Handrail staircase flight	 22 Stop Piece	 41 End Plug
 10 Initial loop/end loop handrail	 21 Stringer Strip balustrade platform/roof balustrade	 42 Handrail Holding Plug	
		 44 Cap for newel post	

WELAND