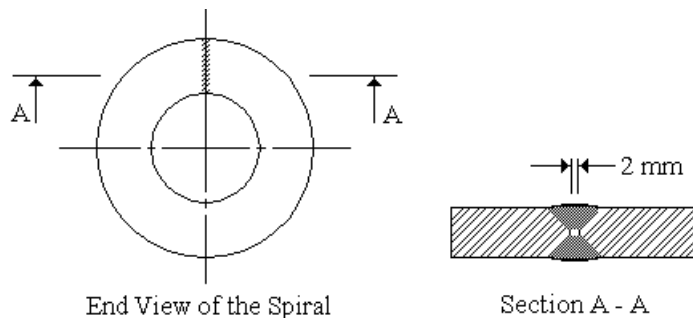


1.0 Joining Spiral Sections

Check before starting work that the spirals are axially straight and free from damage, remove any straight sections at the end of the spiral flights and proceed as follows:

- a. Place spiral sections in a U-beam or on similar straight surface, or directly into the conveyor trough. Align the spiral section to ensure the spiral flights are straight after they are welding together.
- b. Check joint surfaces are cut at a 90° angle to the screw tangent line, i.e. are radial.
- c. Prepare the joint surfaces for an X or K type weld and place them facing each other with a 2 mm clearance. Check the straightness and alignment of the spiral sections carefully before welding.
- d. Provide a backing plate and clamp between the sections of spiral flight before welding.
- e. Place temporary spacers on each side of the trough between the spirals and the trough wall too centralize the spiral flight before welding.
- f. Weld the spiral sections together as follows; taking special care to ensure the spiral screw remains straight.
 - Tack-weld the spiral joint on alternate sides over the full width.
 - Weld one side with one pass, followed by an identical pass on the other side.
 - Continue alternating sides until the entire joint is filled.
 - Three passes on each side are recommended for full strength weld. Maximum misalignment for a finished welded spiral screw is 5 mm/m.



NOTE

Conveyors which have UHMW or polyethylene wear liners in the conveyor troughs must be protected by the using wet blankets or acceptable other alternate means during the welding operation.

Weld the spiral flights with E70 Electro (E480 metric) welding rod.



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SPIRAL FIELD ASSEMBLY

Remove the temporary spacers and blankets before the conveyor is operated.

Remember to maintain straightness. Use the same gauge of weld cover sheet for both ends of each section!

Conveyors axial support bearings have a screw, which is somewhat shorter than the U-trough. When joining such screws, they have to be dismantled from the bearing before welding.

2.0 Connecting Spiral to Half Coupling

- a. Place spiral sections in a U-beam or on similar straight surface, or directly into the conveyor trough.
- b. Check joint surfaces are cut at a 90° angle to the screw tangent line, i.e. are radial.
- c. Prepare the joint surfaces for an X or K type weld and place end of spiral against the half coupling plate – mounted perpendicular to spiral length. -facing each other with a 2 mm clearance. Check the straightness and alignment of the spiral and the half coupling carefully before welding.
- d. Insert triangular fillet piece between spiral and half coupling. – see attached diagram.
- e. Weld the spiral sections and coupling end plate together as follows; taking special care to ensure the spiral screw remains straight.
 - Tack-weld the spiral joint on alternate sides over the full width.
 - Weld one side with one pass, followed by an identical pass on the other side.
 - Continue alternating sides until the entire join is filled.
- f. Three passes on each side are recommended for full strength weld.

Weld the spiral flights with E70 Electro (E480 metric) welding rod.

Remove the temporary spacers and blankets before the conveyor is operated.

Remember to maintain straightness. Use the same gauge of weld cover sheet for both ends of each section!