## Helix<sup>®</sup> Central Mix Best Practice

Given central mix systems vary by design there is no one size fits all method for introducing Helix<sup>®</sup>. Use the flow chart below to find the best method of Helix<sup>®</sup> introduction for your operation.



Note: The dry batch and post loading / site addition procedures may be found at <u>www.Helix®</u> <u>steel.com</u>



Central Mix Helix<sup>®</sup> Addition onto Belt or Weigh Hopper

Note:

- While some aggregate belts and aggregate bins are at ground level, most are elevated as pictured above. A scaffold should be erected to allow safe access. The scaffold should be large enough for a supply of Helix<sup>®</sup> (e.g. a pallet of Helix<sup>®</sup>) to be staged.
- It is recommended that a sheet metal chute be fitted to allow the Helix<sup>®</sup> to be directed to the belt or weigh hopper safely. The chute should be large enough to allow all the Helix<sup>®</sup> needed for a batch to be staged on the chute and pushed into the bin/hopper when ready as to minimize time needed for this operation.
- Alternatively, a portable conveyor can be positioned such that it discharges the Helix<sup>®</sup> into the onto the aggregate conveyor.
- Any chute or conveyor may not touch to weigh hopper as it this could interfere with proper plant operations.
- If Helix<sup>®</sup> is added into the weigh hopper, the gate must be opened to allow the Helix<sup>®</sup> to go onto the aggregate belt without accumulating in the bin.

The procedure is as follows:

- 1. Begin batch sequence with 50-70% of the batch water being released into the drum.
- 2. Add entire boxes of Helix<sup>®</sup> (no need to break up clumps) to the direct to aggregate belt (or through the weigh hopper) and convey it into the mixer.
- 3. After the Helix<sup>®</sup> has been in the mixer for 30 seconds with only Helix<sup>®</sup> and Water
- 4. Continue the batch sequence weight/release aggregates, cement, etc and complete the mixing operation. No additional mixing time is required.

## Central Mix Helix<sup>®</sup> Addition into Discharge Chute



Note: When adding Helix<sup>®</sup> to the discharge chute it is extremely important to break up the Helix<sup>®</sup> and add it slowly. Training and periodic inspection to assure this is occurring is essential to success. Any solid clumps that go into the chute will result in balls in the mix!

This can be accomplished by using the Helix<sup>®</sup> Sifter (www.helixsteel.com)– a stand may be needed to prevent interference with sifter the concrete coming out of the mixer into the chute. Or it may be manually broken up and sprinkled in as the drum is being emptied into the truck through the discharge chute.

A blower may be used to add Helix<sup>®</sup> from ground level into the discharge chute. One example of a blowing system that is capable of conveying Helix<sup>®</sup> may be found at <u>www.pajco.com/</u> contact the manufacturer for more information about lease of purchase of these units. Be sure you indicate to them the height of the discharge chute off of the ground.

The truck should be running at full charging speed during this process and should continue to mix at full speed for 60 revolutions/5 minutes after being fulling loaded and dosed with Helix<sup>®</sup>.

## Again, any solid clumps that go into the chute will result in balls in the mix!

Note: We have not had reports of Helix<sup>®</sup> <sup>®</sup> damaging belts and/or central mix system liners.