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Best Practices for Drag Chain Conveyors

Are you experiencing problems with your material handling systems? While some problems are related directly to the machine itself (e.g. dust piles up under your cheap chain conveyor because ... well, it's a cheap chain conveyor), others occur from choices that occur after or during installation. In other words, the problems arise because personnel do not abide by best practices.

So what are best practices for operating a drag chain conveyor? Read below to find out.

Best Practices for Drag Chain Conveyors

- **Abide by the manufacturer's maintenance schedule.** If you wait until something goes wrong to attend your conveyor ... something will inevitably go wrong.
- **Do not set crossing conveyors too tight on each other.** Leave enough room in the chute to install a plug detector.
- **Construct chutes as big as reasonably possible and with a relieving design** (i.e. wider on the bottom than the top). Material gets packed as it moves down the conveyors and releases (fluffs up) in the chutes.
- **Do not flood bottom drag conveyors.** When bottom drag conveyors are flooded, the return paddles must pull through the material against the material flow. This will damage the system. Be mindful of surges and either adjust the system to prevent them or ensure the conveyor can accept them without flooding.
- **Adjust the speed so the conveyor is full.** The conveyor should run only as fast as needed to do the job. Use VFD's to program the conveyor to vary the speed according to the load. A full paddle is, by default, evenly loaded from side to side. A conveyor that is 20 percent full will likely have the material on one side of the floor, which will load the chains unevenly and lead to uneven wear.
- **Run the conveyor as slow as possible.** Slowing down the conveyor will ensure the chains last longer, as chains primarily wear at the pins and bushings as they rotate. *Biomass Engineering & Equipment has sized and calculated the speed of your conveyor so it will run full without overloading the chain.*
- **Get the chute's splash plate to dump in the middle of the conveyor floor.** Uneven loads will cause uneven wear in the conveyor. Use AR400 for splash plates.
- **Always extend chutes to the end of the head.** If chutes do not extend to the end, a shelf will form where material can build up.

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If you're experiencing problems that best practices won't resolve—if your conveyors are inefficient, if they leak, if the bottom pans wear out quickly, etc.—**reach out to us**. We can supply you with conveyors that address these issues and more. Our SMART Conveyors™ are highly efficient and designed to lower operational costs.

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