PROCESS IMPROVERS: STORAGE

Improving Bins, Chutes & Hoppers

Raw materials are often difficult to handle and it’s typical for hoppers, chutes, bins and bunkers to become a source of regular downtime and process inefficiency. Many aggregates are abrasive and cause wear, larger aggregates or materials traveling at high velocities also create impact damage. Finer aggregates cause flow challenges, with blockages and inconsistent feed rates being a common problem. Using the right combination of products to solve these problems will ensure that your storage vessels don’t become a bottleneck.

COMBATTING ABRASION - WEAR LINERS

Wear liners protect vessels from damage, but if the liners themselves fail prematurely this area of the plant can become a maintenance hotspot. Hawiflex® polyurethane is highly resistant to abrasion, impact and tearing, providing excellent service life. The easy to handle and fit PU is available in a wide variety of forms, including sheets and tiles.

ERADICATING BLOCKAGES - FLOW LINERS

If your plant suffers from blockages or slow feed rates, the problem can be tackled with low friction liners. Matrox premium is a next generation polyethylene designed to solve flow problems. Matrox combines exceptionally low surface friction, excellent wear resistance & UV stabilisation to ensure that raw materials keep flowing for longer.

KEEP MATERIALS MOVING - VIBRATORS

Vibrators assist with material flow at many points around the plant, yet achieving optimal operation is often viewed as a “dark art”. Combining our expertise in concrete applications and Vibtec’s quality electric & pneumatic vibrators helps ensure correct model selection, positioning and mounting to deliver maximum performance.
Improving Silos & Vessels

Silos and other similar vessels are often troublesome to maintain due to difficulties associated with working at height. The poor flow of material discharged from silos is also a major bottleneck which limits how efficiently the entire plant can operate. We offer a comprehensive range of high performance components to improve both the silo filling and discharging operations. Used in combination, these components can help make this key piece of plant as reliable, and safe, as possible.

SILO SAFETY - SAFEPOINT

A key component of our silo safety package is level indication, a vital tool to guard against silo overfilling and keeping on top of raw material inventory levels. The Monitor SafePoint rotary paddle switch features a unique “failsafe” design, which helps to protect site personnel, silos, venting filters and the environment.

FAST, PREDICTABLE FLOW - SOLIMAR

Bridging, ratholing and compacting cause slow discharge of powders from silos which disrupts production. Aeration is a key tool to move powders efficiently and quickly with minimal maintenance commitment. Solimar aeration fluidisers use a powerful combination of aeration, directional airflow and gentle vibration to keep materials flowing.

REDUCE WORKING AT HEIGHT - ALPHAPIPE

The silo filling process causes high levels of abrasion to pipework and pipe bends are seen as a weak link. Regular repairs are often required and made all the more difficult due to working at height. AlphaPipe hardweld armoured pipe is highly abrasion resistant and provides excellent service life, reducing costly maintenance and work at height.
Improving Belt Conveyors

Belt conveyors are the arteries through which material flows. Disruption or poor performance at these points of the process create significant bottlenecks, both upstream and downstream, restricting plant productivity and efficiency. Conveyors are often considered one of the biggest problem areas on a plant, with high risk maintenance and time-consuming cleaning a constant requirement. A co-ordinated approach to solving belt cleaning, tracking and loading problems will significantly help to keep downtime, waste and risk to a minimum.

BELT CLEANING - STARCLEAN

Carryback on conveyor belts results in a host of problems, not least the loss of material, time wasted cleaning up and airborne dust. It is also a significant contributor to belt and component damage. With industry leading cleaning performance and the quickest, simplest of maintenance, Starclean really is a step forward.

BELT TRACKING - CENTRAX

A mistracked belt may seem like a minor issue but it can contribute significantly to poor conveyor performance, material spillage and belt damage. CenTrax belt trackers are purpose built, all mechanical units that automatically change their own alignment to correct belt mistracking in real time.

LOADING - SPILL-EX & FRIFLO

As material is transferred onto belts the loading forces and weight of material cause spillage, leading to constant site cleaning. Spill-Ex skirting forms a superior seal to the belt to minimise spillage and dust emission. FRIFLO impact beds support the belt along impact points to provide a stable surface for skirting to seal to.
Maintaining Conveyor Performance

Keeping belts clean, tracked and spillage free over the long term is a challenge. Even the best equipment needs to be cleaned and maintained regularly if it is to perform effectively in this hostile environment. We don’t just want to sell scrapers, we want to create long term partnerships with our clients to deliver reliable, low whole-life-cost conveyor performance. To achieve this we have created a team of conveyor belt experts who deliver a range of conveyor services.

EXPERT INSTALLATIONS - ON-SITE SERVICES

Our highly experienced on-site service engineers are experts in both conveyor systems and our range of components. This combination ensures that Starclean, CenTrax, Spill-Ex & FRIFLO are installed in the best configuration to suit each unique application and provide maximum effectiveness. From survey to install, we handle the whole project safely.

PROTECTING YOUR INVESTMENT - BELT PLANS

Regular maintenance is essential, but many conveyors don’t get the attention required as site staff are too busy or don’t have the experience. Our belt plans help fill this void. Our engineers carry out regular conveyor audits with an overall visual health check and maintenance of our equipment for peace of mind.
Measuring Hidden Moisture In Aggregates

Moisture in sand & aggregates is the hidden variable in the process, and failure to identify this water content has a significant effect on product quality and the cost of production. Hydronix measures moisture in each batch, transforming mix design accuracy and reliability.

- Improve yield and productivity
- Accurately control aggregate / cement ratio
- Reduce reject batches
- Reduce cement wastage
- Excellent Return On Investment

ACCURACY - HYDRO-PROBE SENSORS

Digital microwave moisture measurement is highly accurate. Hydronix Hydro-Probes are installed in bins, silos and on conveyors to accurately measure the moisture content of material as it flows over the ceramic faceplate. Hydro-Probes combine precise measurement with user friendly simple set-up and long-term calibration.

USER FRIENDLY - HYDRO-VIEW DISPLAY

Ensuring sensors stay calibrated is key in maintaining batch accuracy over the long term. Hydronix Hydro-View is an intuitive moisture display unit that displays real time on-line process measurements, including both moisture and temperature. Its simple interface provides a quick and easy method to calibrate and configure Hydronix sensors.
Controlling Moisture In The Mixer

Accurately measuring moisture in the mixer optimises the entire mixing and production process. The system automatically calculates exactly how much water is required for each batch and identifies when the mix reaches homogeneity, saving both raw materials and production time.

• Consistent concrete workability
• Automatically control cement / water ratio
• Maximise concrete product quality
• Minimise wastage and reject batches
• Excellent Return On Investment

ACCURACY - HYDRO-MIX SENSORS

Digital microwave moisture measurement is highly accurate. Hydronix Hydro-Mix is a floor mounted sensor designed to accurately detect moisture levels in the mix. The unit provides long lasting performance and is perfect for static pan, planetary, single shaft and twinshaft mixers. For rotating pan mixers we also offer the Hydro-Probe Orbiter.

SIMPLICITY - HYDRO-CONTROL SYSTEM

Used with Hydro-Mix sensors, the Hydronix Hydro-Control unit calculates and automatically adds the required amount of water to achieve the desired mix recipe, ensuring consistency in every batch. Designed for simplicity of use, the colour display clearly indicates mix cycle status with a continuous graphical display of moisture content.
Optimise Your Mixer

Mixers have a far-reaching impact on concrete batch plant operation. They are at the heart of the process and it’s hard to understate the effect they have on all aspects of plant performance, including product quality, process efficiency, safety and ultimately the bottom line. That’s why Make it better starts with the mixer. Optimising mixer performance is a great way to start improving the whole process. We have the know-how and unique high-quality components to do just that.

KEEP MIXERS RUNNING - ALPHAPLATE

Replacing mixer wear plates is a costly business. It’s time consuming, high risk and stops production. Investing in plates that last longer and reduce the need for change should be a priority. AlphaPlate hardweld wear plates offer exceptional wear life and the automated manufacturing process ensures an accurate fit every time.

PROTECT MIXING EFFICIENCY - ULTRA

As mixing tools and scraper blades wear out, mixer performance is seriously compromised. Low cost parts wear quickly and can be a false economy. Ultra tungsten carbide wear parts last many times longer, helping to prevent product quality issues, extended batch cycle times, and excessive downtime for maintenance and cleaning.

SIMPLIFY MAINTENANCE - HAWIFLEX®

Raw materials and mix designs vary, so to keep a mixer operating efficiently often means a combination of wear parts will work best. Hawiflex® premium polyurethane wear parts are abrasion resistant and exceptionally elastic, so they absorb impact and last longer. They are quick and easy to clean, light for safer handling and reduce noise.
Upgrade The Mixing Process

Every stage of the batching process plays its part, but the mixer is undeniably the heart of the plant. As demands on mixing equipment grow and mix designs become ever more complex, mixer performance plays a big part in the success of the whole operation. Even small efficiency gains in this essential part of the process pay dividends many times over, which is why it makes sense to invest in the latest mixing technology and ensure it keeps operating at optimum levels over the long term, batch after batch.

HIGH QUALITY MIXING - TEKA MIXERS

Investing in a new mixer is a key decision. Teka mixers have an intensive, high-efficiency mixing action which ensures maximum mix quality can be achieved in minimum time. Market leader for a reason, Teka mixers reliably keep producing high volumes of top quality concrete and won’t become the bottleneck in your plant.

KEEPING MIXERS CLEAN - WALTER

Keeping mixers clean is essential if they are to perform at their best. Build-up prevents efficient mixing, increases running costs and is dangerous to remove. Walter cleaning systems keep mixers exceptionally clean using a quick, safe, automatic cleaning cycle, so your mixer keeps making high quality concrete with less downtime.

MINIMISE DUST ON PLATFORM - CDX

Poorly sealed and vented mixers release large quantities of dust during loading. CDX mixer venting filters keep platforms cleaner, safer and protect site staff. During the batching cycle the filter creates negative pressure within the mixer, effectively controlling airborne dust and returning material directly into the mixer so waste is reduced.
Optimise Transfer To Trucks Or The Production Line

Once concrete leaves the mixer or dry leg it’s easy to assume that the job is done, but we feel that the discharging stage of the process is as important as any other. Blockages throttle how quickly Truckmixers can be loaded or concrete product machinery can be fed. Maintenance impacts on productivity and is challenging due to inaccessible locations. Improving the flow of concrete and longevity of components offers significant benefits, particularly in terms of overall plant efficiency and production volumes.

**BLOCKAGE FREE WET CHUTES - CONEFLEX**

If concrete doesn’t flow freely from the mixer discharge chute it affects the throughput of the plant and increases downtime to clear blockages and remove build-up. ConeFlex is a low friction, ‘non-stick’ conical chute constructed from Hawiflex® polyurethane. The durable chute is easy to clean and minimises build-up for many years.

**LONG LASTING CHARGE CHUTES - TRUCKFLEX**

Replacing failed truckmixer charge chutes is a costly problem. The maintenance involved stops the plant and requires risky work at height. TruckFlex offers long-life performance with a clever dual-layer Hawiflex® polyurethane design. The wear resistant inner combats abrasion from concrete whilst the outer reduces risk of tearing from trucks.
PROCESS IMPROVERS: BLOCK MACHINES

Reduce Stoppages & Safeguard Quality

Block production is a finely tuned process. Product quality, cycle times and production volumes are all affected by the performance of the block machine and condition of production boards. Optimising these key pieces of kit is a challenge, requiring regular adjustment, component replacement and servicing. This is where we come in. Fitting high quality, long lasting block machine wear parts minimises frequency of stoppages and allows the line to run at higher capacity. Keeping production boards cleaner ensures they flow through the system freely and maintain product quality.

MINIMISE ADJUSTMENT - VIBRATION TABLE LINERS

Table liners endure immense vibratory forces and as a result steel liners wear quickly. Regular, time consuming adjustment is then required to maintain consistent block quality. ConSpareUltra tungsten coated liners are extremely abrasion resistant and highly polished, maximising the service life of the components and greatly reducing the frequency of adjustment. We’ve had sets in operation for over 13 years!

MINIMISE DOWNTIME - FEEDBOX TABLE PLATES

Table plates are subject to high levels of abrasion, impact and erosion, all of which are exacerbated by pressure. Premature failure requires replacement which is highly disruptive and causes safety issues. ExtraChrome~Snake hardweld coated plates are exceptionally abrasion and impact resistant, maximising service life. Meticulously manufactured, they ensure optimal performance and installation.

KEEP BOARDS CLEAN - CRUSTCRACKER

During production, cementitious materials build up on production boards. This detrimentally effects the board surface and the quality of blocks. The ground-breaking CrustCracker is an autonomous 5 brush system which deep cleans the full surface of boards without stopping production. As the board surface is significantly cleaner, the likelihood of suffering rejects is reduced and boards last longer.