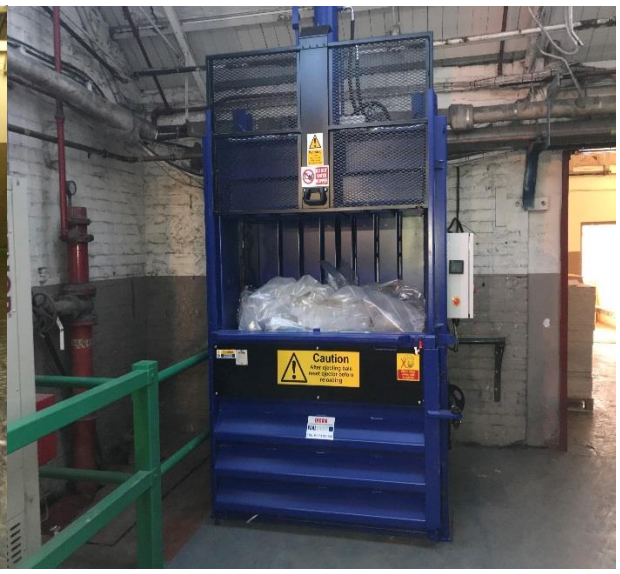
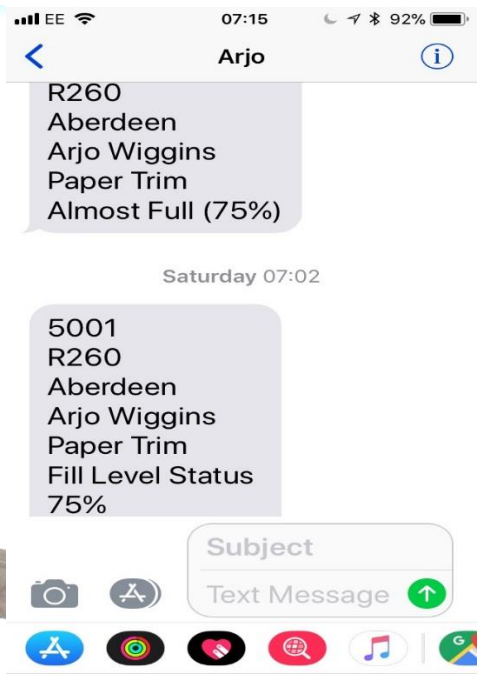
Highlander and Arjo Wiggins – Partnership renewal & recycling improvements mark 3: The entire paper contract of Arjo Wiggins was re-tendered again in 2018 and Highlander agreed another long-term contract with this unique paper maker based on 2 main aspects – service and even more innovation! As well as being able to handle the wide range of waste paper grades generated at the paper mill AND provide a secure destruction service for large volumes of branded and security based papers, Highlander was committed to reduce general waste volumes and provide new waste compaction machinery at the site to help improve recycling levels and housekeeping, while also reducing general waste disposal options and locations as a means of "forcing" the operatives at the mill to recycle as much waste materials as is possible.

Our solutions derived from a careful analysis of the waste streams at the operations by way of regular "visual bin inspections" and number crunching of the monthly waste data figures to identify which materials and disposal points required attention. With cost savings and landfill diversion in mind, we suggested provision and installation of 1 x new "Auto-alert" compactor system, new polythene baling machine, new compactor housing for an existing compactor unit. These improvements are now firmly in place and have already allowed an increase in the volumes of polythene being recycled, reduced the amount of collections required and improved the Health and safety standards of the recycling operations at the mill,

Before and after images:

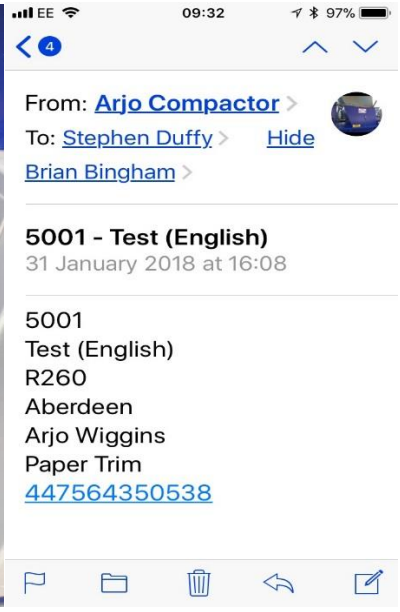


Before and after images:



New “Auto-alert” compactor system:
Traditional compactor systems operate by a pressure switch activating, when the “back pressure” on the compactor ram reaches a certain level, which happens when the material starts to build up in the adjoining compactor container. All compactor machines have an illuminating ¾ (three quarter) light which comes on when the container is needing swapped over at ¾ full. The limitations of this system are that if the machine is in a remote area and no-one actually sees the ¾ light come on, no-one will in turn alert the waste contractor to come and change the container over – this in turn, will lead to the container being over-full and the compactor system coming to a complete stop. When attached to an air fed system which is also in sync with factory production – for example at a paper mill or corrugate factory, the material will start to back-up into the ducting pipes and bring factory production to a halt. Even an employee at the factory who perhaps does notice the ¾ light is on but “forgets” to call the waste contractor in time, can inadvertently lead to the production problems described above – as well as lost production in the factory, the ducting pipes need to then be cleared of waste which can be a very time consuming and dangerous undertaking. While older compactor systems definitely have improved waste handling since their introduction several decades ago, they clearly do have their limitations……until now!

Highlander compactor system improvements:



As well as incorporating the old illuminating light systems, we now have an “auto-alert” system in place for the Arjo trim waste compactor, which transmits an e-mail and / or text message to nominated operators (up to 7 is possible) who can then take appropriate action. Whether the action is to simply exchange the container over at ¾ full, or a fault has developed with the machine meaning a repair or maintenance is required, this alert system allows an interactive experience with the compactor machine meaning improved operation efficiency all-round! We have already seen efficiency improvements – the average payload has increased by 2 tons per container and now sits at 7.5 tons – an increase of 33%! To compliment this new compactor and to entirely eliminate any chance of material ever “backing up” into the air system ducting, Highlander have also supplied and fitted an additional, higher positioned “magic eye” within the compactor hopper, which is attached to a warning klaxon – this means that if the lower, cycle-activating magic eye ever fails, the 2nd higher warning sensor will kick in allowing Arjo staff to intervene, before the trim waste material builds up to dangerous levels. To prevent “false alarms” we have programmed a 5 second delay into the 2nd sensor - that means it needs to "see" an object or blockage for 5 seconds continuously, before its contacts close and bring on the warning klaxon and when as the sensor is cleared, the switch will “drop out” and the siren will go off! All round, a fantastic system improvement for Arjo operations!