



Highlander and Bell & Bain – New “Auto alert” compactor and service improvements:

The entire waste paper contract of Bell & Bain was tendered in 2018 and Highlander agreed a long-term contract with one of Scotland’s oldest printers based on 2 main aspects – service and innovation! As well as being able to provide twice daily service to Bell & Bain’s largest Glasgow depot and an ad hoc service to their 2nd Glasgow depot, Highlander was committed to increase the rebate levels **at both operations** and provide new waste compaction machinery at their smaller site to help improve collection efficiencies and housekeeping and provide a modern, safe and innovative paper handling solution that will last for years to come.

With cost savings firmly in mind, we suggested provision and installation of 1 x new “Auto-alert” compactor system, which alerts Highlander & Bell and Bain staff whenever the compactor is ½ full and ¾ full and requires emptying. This means that we only empty the compactor unit when we need to thus improving the over cost-per-ton of each collection. The unit also provides electronic self-diagnosis meaning if any fault develops with the machine, the manufacturer can inform engineers in advance as to what the problem is meaning the parts required can be taken with them in advance which results in quicker repair times here.

Before:





After:



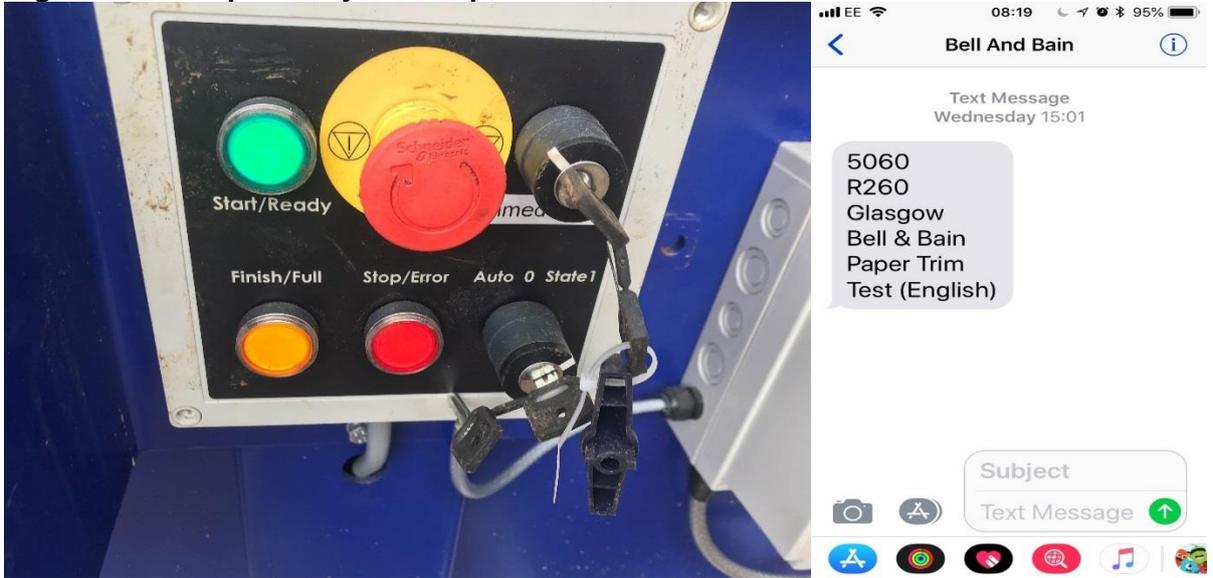
New “Auto-alert” compactor system:

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 $\frac{3}{4}$ (three quarter) light which comes on when the container is needing swapped over at $\frac{3}{4}$ full. The limitations of this system are that if the machine is in a remote area and no-one actually sees the $\frac{3}{4}$ 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, printer 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 $\frac{3}{4}$ 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 Bell & Bain 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 $\frac{3}{4}$ 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 efficiency of our collections versus the previous system has improved 15%! 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 Bell & Bain staff to intervene, before the trim waste material builds up. 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 then as the sensor is cleared, the switch will “drop out” and the siren will go off!

