



Highlander and Caps Cases – New “Auto alert” compactor and service improvements:

The entire waste paper contract of Caps Cases has been managed by Highlander since 2010 and by members of Highlander management for almost 25 years, so it is fair to say we know the job quite well!

In line with many other Highlander customer innovations and improvements, the idea of a brand-new alert compactor was floated to the site management and despite COVID, Brexit and all the other challenges we have all faced, the machine was installed and commissioned towards the middle of 2021.

Highlander was committed to enhance the rebate levels and provide new waste compaction machinery at their Glasgow site to help improve collection efficiencies and housekeeping and provide modern, safe and innovative paper handling solutions that will last for years to come.

With cost savings also firmly in mind, we suggested provision and installation of 1 x new “Auto-alert” compactor system, which alerts Highlander & Caps Cases staff whenever the compactor is $\frac{1}{2}$ full and $\frac{3}{4}$ 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.

The installation provided some challenges, as there was an existing baler in place which had to be removed AND an existing tipper system that allowed 1100 litre wheeled bins to be filled within the factory and taken out to the baler when full and needing emptied. There was also the issue of the machine being attached to an air system unit and support frame, so care was needed to ensure the existing structures were not compromised in any way.

Before:





After:

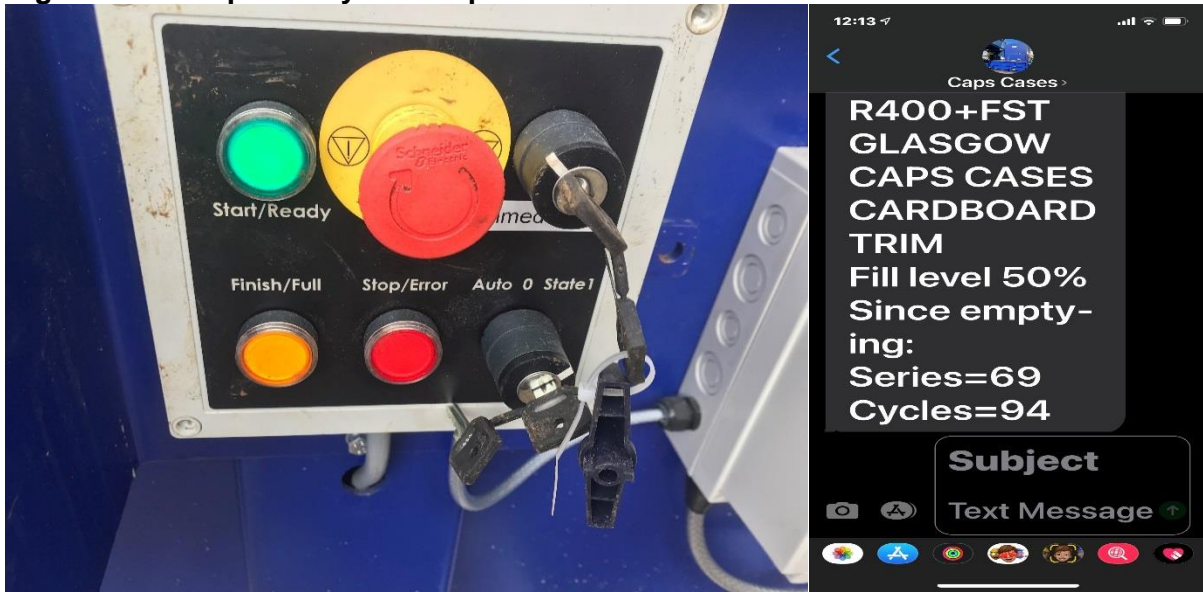


New “Auto-alert” compactor system:

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 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, 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 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 Caps Cases trim waste compactor, which transmits an e-mail and / or text message to nominated operators (up to 14 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 25%!

Real time interaction with the machine is also possible – you can get a status report from any alert machine, 24 hours a day by simply texting the machine from your phone and a machine status report will duly follow! This will display the fill level and the number of cycles made since the previous container exchange and when incorporated with a sensor activation system, allows you to accurately calculate the weight per cycle (usually in kgs) and then the approximate weight of material in the container at anytime can be calculated, which can help transport managers plan collection runs well in advance, if required.

