



IPA NEWS

Spare Parts, Maintenance, & When to Consider

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IPA roll compactors and mills are durable machines built for long lasting run time. However, all machines require maintenance and often replacing of parts to continue producing optimum product quality and throughputs. Production rates can unknowingly decline over time from a process issue or deteriorating parts. Whether you are running a compactor 24/7 or producing batches of material, it is important to keep your equipment at peak performance. Below you will find guidelines of commonly occurring problems and suggested resolutions.

These process conditions also apply for competitor machines, such as the Fitzpatrick Chilsonator & Fitzmill. Should you have a maintenance question that is not list below or require PLC software/hardware upgrades, please reach out to IPA and we can problem solve with you.

<i>Maintenance/Process Issues Encountered</i>	<i>Spare Part(s) Required/ Suggested Solutions</i>
Uneven Roll Gap	<ul style="list-style-type: none">• Top and sides seals are worn or require adjustment.• Hydraulic cylinder problem.• Hydraulic accumulator problem.• No level in horizontal feed hopper, with feed to only one screw.• Hydraulic pressure difference between front and rear cylinder is less than 50 or greater than 200 PSIG.• Floating roll assembly is binding.
Cannot Achieve Roll Gap Set Point	<ul style="list-style-type: none">• Top and sides seals are worn or require adjustment.• Horizontal feed hopper is empty.• Horizontal feed screws are running to slow.• Roll gap control is disabled.• Roll gap control set point is low.• Roll pressure is too high.

Maintenance/Process Issues Encountered	Spare Part(s) Required/ Suggested Solutions
Final Product Contains Excessive Fines	<ul style="list-style-type: none"> • Check mill blades for wear. • Inspect mill screen for plugging or damage. • Analyze compact yield from compactor to determine compaction yield and efficiency. • Check for excessive wear on top and side seals that can allow powder bypass. • Reduce roll speed to increase dwell time. • If a screener is utilized, make certain unit is effectively screening out the fines. Check for screen blinding. Adjustment may be required to the vertical or horizontal movement if a circular screener is being used.
Final Product Contains Excessive Coarse	<ul style="list-style-type: none"> • Determine if mill screen is worn or damaged. • Check top screen in screener as it may be damaged.
Roll Pressure Fluctuation (minor) - typical fluctuation is normally in the range of 50 PSIG	<ul style="list-style-type: none"> • Check and adjust hydraulic accumulation (N2) pressure to be set at 75-80% of operating oil pressure range.
Roll Pressure Fluctuation (major)	<ul style="list-style-type: none"> • Hydraulic system problem, which would include the following: hydraulic cylinder not retracting (stuck in position). Faulty accumulator if provided (cannot maintain a gas charge). • Floating roll cannot move away from the fixed roll due to the bearing housing being held in place by the top cap, or excessive material located between the bearing block and the machine frame. • Floating roll cannot move because there is no lubrication below the floating bearing block and top frame support.
Overloading of Roll Motor or Excessive compact or granulation temperature	<ul style="list-style-type: none"> • Faulty hydraulic system (see separate section) • Roll surface not appropriate for the powder to be compacted.

Common Spare Parts for 24/7 Operation

When running a machine 24/7 it is common to have the following replacement parts on hand in order to minimize downtime. IPA can work with you to set up an individual preventative maintenance plan to keep certain parts on hand for immediate shipment.

Top Seals Hydraulic Cylinders
Side Seals Gaskets/Packing
Roll Seals

For abrasive materials, also consider the following:

Horizontal Feed Screws Vertical Feed Screws
Drop in Roll Assembly Roll Bearings
Mill blades