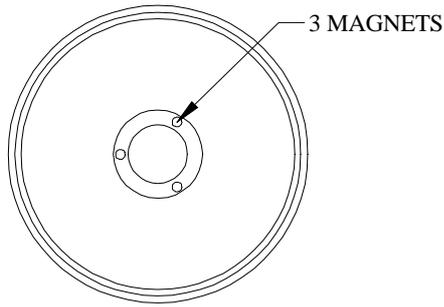
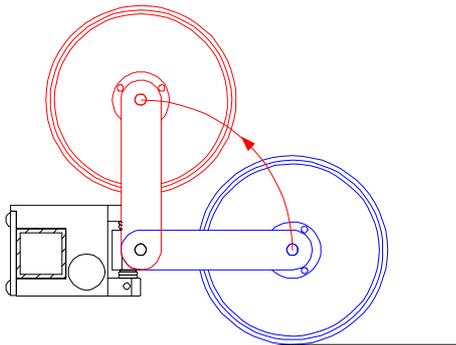


Metrecount MC1: How it works:

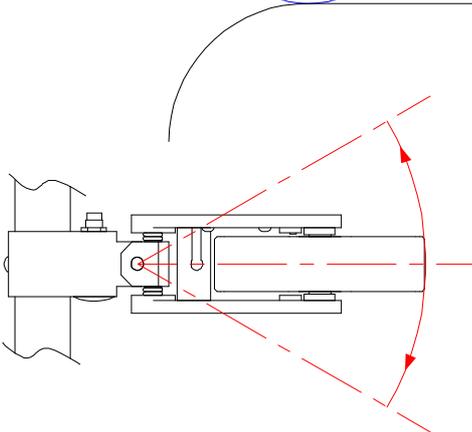


wheel.

The wheel is fitted with 3 magnets that trigger pulses in a magnetic sensor, mounted on the side arm, as the wheel rotates. The outer diameter of the coating of the wheel is ground to give 10 pulses from the sensor for each linear metre. It is not possible to grind the coating of the wheel to much better than 0.1% accuracy. When the Metrecount unit is fully assembled it is run for 24 hours to allow the bearings to settle and then a run over 64,000 Kilometres on a calibrated test rig (to 3 places of decimal). The offset calibration number is computed and marked clearly on the



The swinging arm that supports the wheel can be moved vertically around the horizontal pivot to stand the wheel off the web material if need be for maintenance. There is another sensor which detects that the swinging arm is in the lifted condition and issues an ON signal called “not engaged”, which can be used as an alarm to alert the operator that the Metrecount is not recording material usage.



The swinging arm can also move some +/- 30 degrees around the vertical pivot to allow the wheel to track any lateral oscillatory movement of the web to minimise any inaccuracies and reduce wear to the wheel coating. The wheel itself is held vertical and is not permitted any “play” to eliminate any vertical oscillations – sometimes called “walking”. Walking would cause undue wear on the wheel and a rounding of the flat surface of the coating. The wheel is ground flat, parallel to its bearing pivot, so that it maximises the contact area of coating to material friction and thus prevents the possibility of slip which would reduce the accuracy of the Metrecount.

The whole Metrecount unit is clamped to a 1 inch square bar. The bar should be grounded (earthed) to dissipate any static build-up.

The signals are conducted from the sensors by four screened wires to a standard M8 push and screw connector. The M8 connector is small but rugged and is used for most small standard sensors. Two NPN (sink) signal wires are available, one is the metres count pulse and the other is the “not engaged” signal. The other two wires are for power. (See the manual for details).