



TOBACCO ENGINEERING



BENEFITS

- Gentle product handling
- Eliminates tobacco fluidisation
- No small particle or blend separation
- Simple operation
- Continuous all round visibility of product feed and discharge

ROTARY FEEDER RTF-6 & RTF-8

THE SOLUTION FOR CUT TOBACCO FEED TO CIGARETTE MAKERS

The LTL Group are designers and manufacturers of bespoke process equipment for the world tobacco industries.

The Rotary Feeder provides a means to feed cut tobacco to several cigarette making machines whilst minimising starvation, degradation, blockage or separation. The machine is field proven and has established itself as the preferred machine for major cigarette manufacturers throughout the world. In independent trials the LTL Rotary Feeder beat off stiff competition from four of the major tobacco machinery manufacturers giving the highest scores in areas such as tobacco yield, design and operation and overall performance.

The Rotary Feeder is available in two versions, the 1.2 metre 4/6 outlet model and the 1.6 metre 8 outlet model, providing the capability to feed up to eight high speed (or four super high speed) cigarette makers consecutively.

With the addition of the optional intelligent PLC control system the machines are supremely easy to install and commission requiring no electrical link to the cigarette maker for demand signals. A simple stop-back signal from the supplied high level photocell controls tobacco delivery to the machine which can be via a suitable existing band conveyor or purpose designed equipment which can also be supplied by LTL.

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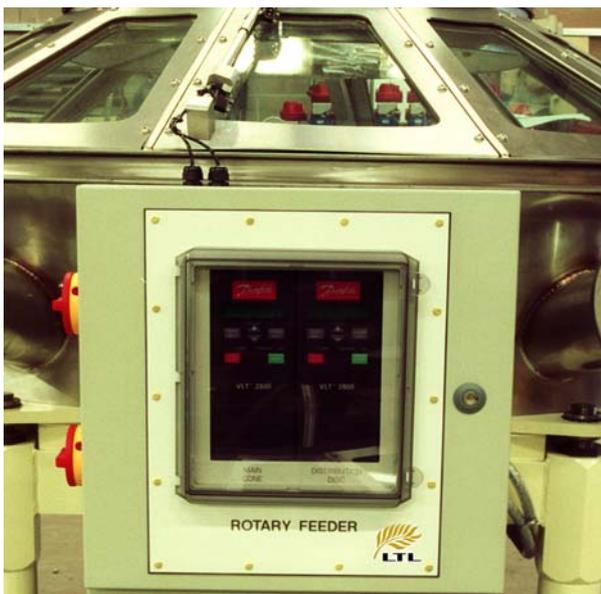
OPERATIONAL DESCRIPTION

The Rotary Feeder receives cut tobacco via band or vibratory conveyor either direct from storage silos or from storage bins via a bin tipping unit. The tobacco enters the machine through an opening in the top cover and falls onto a rotating top plate which gently cascades the tobacco evenly around the main distribution cone, the outer circumference of which rotates in close proximity with the feed outlets mounted round the outer fixed bowl.

The level of tobacco within the feeder is controlled via photocells mounted outside the top cover looking through the glass panels. The rotational speed of both the top plate and the distribution cone is controlled via frequency inverters mounted within the control enclosure (see below picture).

The configuration of the distribution cone and its angular relationship with the fixed outer bowl has been designed to prevent the tobacco from compressing into the sidewalls whilst being carried on the distribution cone, this prevents rolling and degradation of the product.

A unique seal arrangement located between the fixed outer bowl and the rotating distribution cone prevents the leakage of tobacco and dust.



Conical flights mounted on the inner surface of the fixed bowl gently move the product away from the wall prior to the outlet ports to promote air entrainment and smooth transition into the conveying air flow. This configuration provides a very even and reliable flow of tobacco to the cigarette making machine without starvation or blockage which are commonplace with other feed systems.

The near horizontal outlet ports also enable lower pick-up air velocities to be employed which translate into lower conveying velocities within the pneumatic transport system. This has a huge effect in reducing product degradation and greatly increases strand length retention at the cigarette maker hopper.

The standard Rotary Feeder incorporates simple control features which include high and low level photocells and frequency inverters for the top plate and the distribution cone drives, this only requires a mains power connection and a demand signal from the maker (a profi-bus connection for the inverters is available if required). In multi feeder installations and where total flexibility of Feeder to Maker connection is required we have developed the intelligent Feeder control system which is an add-on package comprising of pressure sensitive transducers at each outlet and a small onboard PLC. This system automatically monitors the time taken for product to move between the high and low level photocells and adjusts the product infeed rate to match the demand from the makers. This system also removes the necessity to hard wire between the maker and feeder for the demand signal.