Upgrade & Retrofit Solutions
TITAN Slitter Rewinders
Atlas Converting Equipment Ltd. has been manufacturing slitter rewinders since 1976 and Titan slitter rewinders were first introduced in 1964.

Consequently, in almost 50 years more than 1,000 Atlas and 2,500 Titan slitter rewinders have been installed in over 70 countries worldwide.

Many are still in operation but slitting & rewinding technology has advanced dramatically over the years, leaving the older machines to be much less productive. Not to mention how much more sophisticated the range of materials has become for slitting, especially for flexible packaging.

“We are really pleased with the improved performance of the Titan SR6 slitter* since the upgrade of the rewind shafts. There is much less maintenance to perform on the machine which means less time lost with the slitter ‘offline’ - and less shaft cleaning which makes the slitting process more hygienic for materials for the food industry.

Set-up of the rewind reels is also much easier and quicker now than it was before the upgrade. ”

Norman Baldwin, Maintenance Manager
Interflex Group, Dalkeith, Scotland
*installed 1995 / upgraded 2012
Control Desk Upgrades

The control desk upgrade for the Titan SR Series slitter rewinders replaces obsolete units with the latest technology.

As an option, the complete desk is replaced with the latest digital PLC hardware and software for much improved web control.

AC drive technology is available as an option, replacing web drive motors which help to reduce maintenance.

The desk has a user-friendly touch screen for all machine control parameters with hard wired stop/start controls.

Product dependent settings can be stored in PDF files, allowing quick change-over times between different jobs.

The system gives precise control of tension and contact pressure, providing better and more repeatable rewind quality.

The control desk includes several options including AC or DC drives and data export for production systems via Ethernet.

Other options are also available including an additional control panel for the unwind, for enhanced operator control.

**The effective solution for resolving:**

- Obsolescence
- Reel quality problems
- High maintenance costs
- Low production from manual operation

**Associated upgrades**

- Complete pneumatic SR6 panel replacement
- Digital pneumatic layon control
- Digital pneumatic rewind control
- Unloader

**Features**

- Prolongs operating life of machine
- Replaces obsolete control system
- Easy maintenance
- Simple operation

**Benefits**

- Recipe & product data file system
- Improved winding control
- Consistent winding
- Reduced maintenance
- Improved diagnostics

For the Titan SR6 slitter, the existing control desk can be re-used

Control screen

For the Titan SR5 control desk - before

Titan SR5 control desk - after

Titan SR5 control desk - before
### Differential Quick Shafts

**The effective solution for resolving:**
- Slow set-up times
- Reel quality problems
- High maintenance costs

**Associated upgrades**
- Laser core alignment
- Unloading systems
- Digital air pressure controller (E/P) upgrade

**Features**
- Fast product removal and core loading
- Only 15 mins per week maintenance
- Reduced core distortion

**Benefits**
- Even tension control across shaft
- Quicker & easier job set-ups
- Increased productivity
- Reduced core dust

**Quick Shafts** can be fitted to almost all Titan and some Atlas slitter rewinders.

Quick Shafts work on the principle of differential winding. The torque to obtain tension is transferred using radial pressure, which ensures consistent tension across the web.

The standard diameters are 76 or 152mm (3ins & 6ins) and can be available in 70, 100 & 170mm as an option.

Roll-out systems can be fitted as an option to enable quick changeover to air shafts for lock core winding, enabling full width rewinding.

Differential Quick Shafts require no set-up time for varying slit widths, which provides a huge benefit in productivity.

**Laser Core Alignment**

**The effective solution for resolving:**
- Inconsistent core positioning
- Machine downtime for core re-positioning
- Waste due to re-starts

**Associated upgrades**
- Differential Quick Shafts (essential)
- Semi-automatic rewind unloading system
- Unloader

**Features**
- Laser line of less than 1mm
- Minimum slit width 40mm
- Simple push button operation
- Laser on for pre-set time
- Safe Class 2 laser to EN 60825-1

**Benefits**
- Reduced downtime
- Improved roll alignment
- Lower maintenance
- Consistently higher quality rewind reels

**Laser core positioning is a manual system which is set only once by the operator for a specific production run.**

The lasers are mounted above the rewind shaft.

The laser projects a line on to the rewind shaft at the point where the cores should be placed.

The laser pointer helps the operator to place the cores on the rewind shafts quickly, accurately and consistently.

The accuracy of the positioned cores eliminates the need to adjust the cores during the run.
The complete range of Titan slitter rewinders can be adapted to run with razor slitting, rotary razor, shear slitting and center trim systems.

The correct type of knife for the material is very important to maintain the slitting quality. Knives are available in various widths which enables narrow width slitting.

Rotary razor slitting

Rotary razor blades are circular razor blades which rotate in grooves with the substrate being processed. The blade is mounted on a free running bearing. This allows the blade to cool during the slitting operation and reduces the damage to the material, particularly to thinner, more delicate materials.

Shear slitting

The shear slitting system uses male and female knives, making a scissor action for high quality slitting. The male knives are available in various formats to fit on to older machines. Third party knives are also available, such as Dienes or Tidland. Male knife bars can also be fitted as the simplest and lowest cost option.

Female knives are also available in several formats. Eg. Single or multi-width knives in various widths. Multi-knives enable quicker set-up times which helps to improve productivity.

Centre trim

Centre trim knives are an option which can trim out the control lane on printed material. These knives are normally shear knives and are used in auto-positioning systems. There are also options available for manual knives which use a fixed width system.

Associated upgrades

- Quick Shafts
- Laser core alignment

Features

- Correct blade for application
- Narrow slit patterns
- Adaptable holders

Benefits

- Improved slitting quality
- Improved knife life

The effective solution for resolving:

- Raised edges
- Poor quality slitting
- Knife damage

Various width female shear knives provide flexibility for variable width slitting

Grooved spacers enable quick set-up times with razor blades

Versatile knife holders can carry razor, rotary razor or shear blades
Reel Handling Systems

With today’s increasing legislation on health and safety, the Titan SR range of slit reel handling systems has been designed to reduce physical strain on machine operators.

The unloading boom can be installed and commissioned in one day (depending on options) and includes alignment to the slitter, interlocks and full operator and maintenance training.

The maximum weight per shaft is 500 kg for standard units. However, other options are available.

Titan has developed a semi-automatic reel handling system which integrates the unloading of the slit reels to various types of conveyors.

The unloading boom is fully integrated into the recipient machine to ensure a safe working environment for the operator.

The controls for the unloading booms are mounted in a position to enable ease of operation with an ergonomic design.

This system dramatically reduces the intervention of the machine operator.

**The effective solution for resolving:**

- **Manual unloading of slit reels**
- **Low productivity**
- **Repetitive strain injury (RSI)**
- **Handling heavy reels**

**Associated upgrades**

- Unloading systems
- Differential winding

**Features**

- Unloading to boom
- Unloading to conveyor (option)
- Electric or pneumatic (options)
- Semi-automated (option)

**Benefits**

- Increased productivity
- Reduced operator fatigue
- Improved roll quality
- Reduced package handling
- Decreased stop time

The design is particularly suited to food packaging applications where machines are working in a clean and hygienic environment.

Reels can be unloaded while the machine is running, increasing productivity.
The rewind shaft unloading system is a retrofit product for the Titan SR range. The system pushes finished rewind packages off the rewind shafts to a trolley or unloading booms.

Operation is easy with a user-friendly two-handed control system for safety. The control systems are integral to the rewind shaft unloading system for ease of installation and maintenance.

The system is used in conjunction with an unloading trolley or a semi-automated unloading boom.

Laser core alignment can be incorporated to allow easy re-coring of rewind shafts, reducing damage to cores and friction elements due to ‘core knocking’ during set-up.

This reduces the risk of repetitive strain injuries. It also reduces damage to the finished rolls due to improved handling, delivering better quality rewind reels.

The rewind shaft unloading system has a low maintenance AC drive using state-of-the-art inverters to control the AC motor.

For the Titan SR5, SR6 and SR7 the rewind unloader is mounted above the rewind section with a single paddle to strip the reels from the shafts. For the Titan SR8, the unloader is mounted below the rewind shafts.

All rewind shaft unloading systems are integrated into the machine controls to reduce the wear on the differential winding system.
## Upgrades and Retrofits - Titan

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### SR1: 1964

### SR2: 1965

### SR3: 1972

### SR4: 1978

### SR5: 1980

### SR6: 1990

### SR7: 2000

### SR8: 2004

### SR9: 2011

### ER610: 2008

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