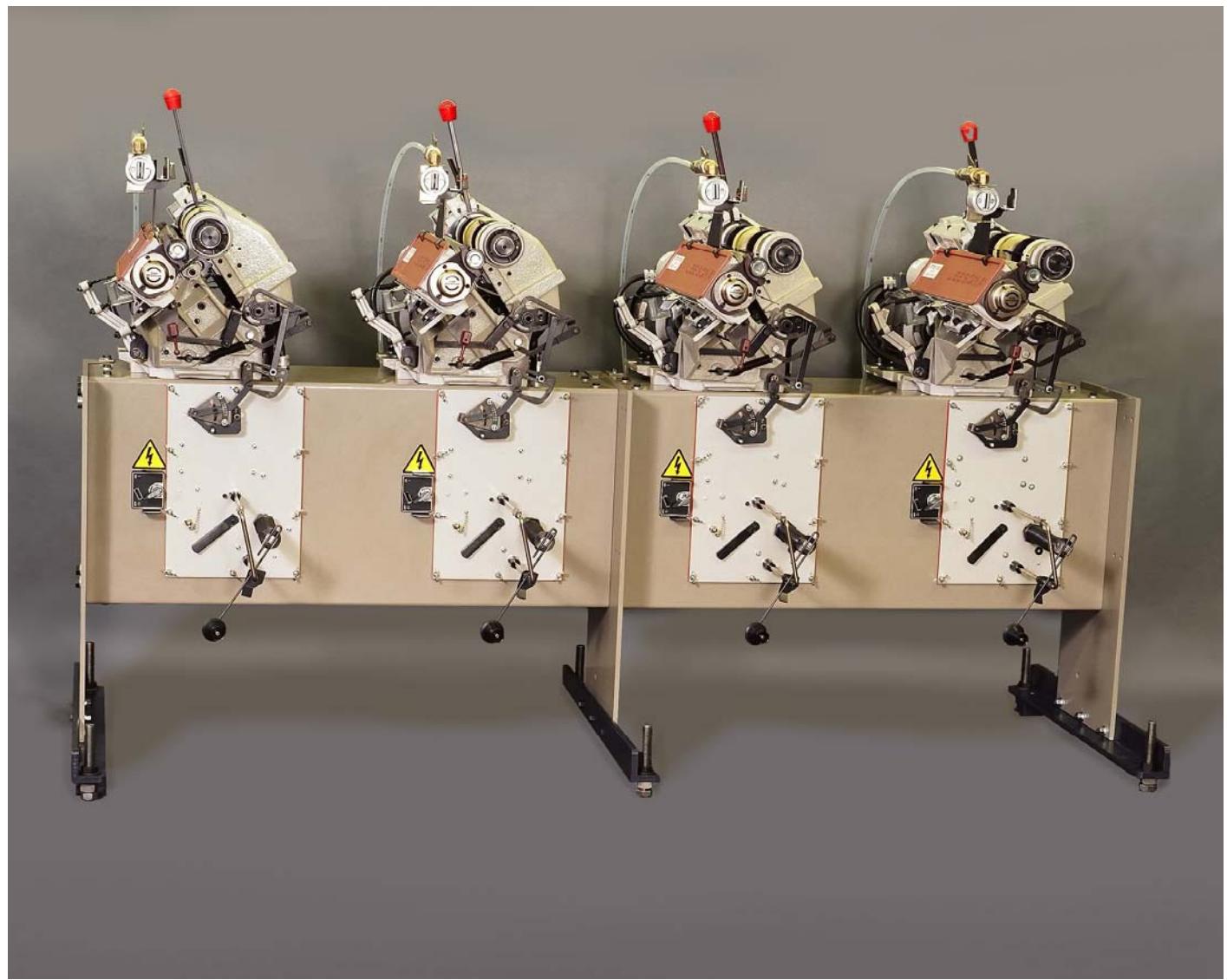




## **THE MODEL 966**

**MULTI-PURPOSE, PRECISION WIND  
TAKE-UP MACHINE.**



## Model 966 Take-Up Machine features

### Ideal for most man-made materials

The 966 take-up machines are compatible with nearly all man-made fiber processes over wide speed and tension ranges:

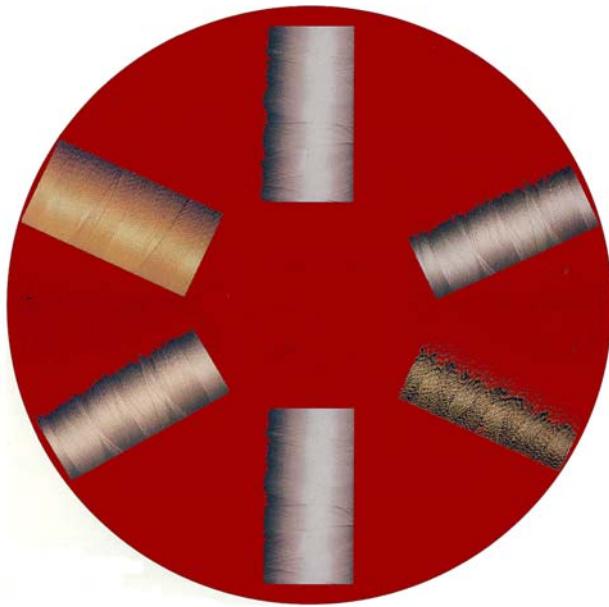
Speed Range: Up to 1400 mpm  
Spring Tension Range: 5g to 1600 grams  
Pneumatic Tension Range: 5g to 10kg grams

The can package monofilament and multifilament materials, including most cellulosic, and noncellulosic, glass, and metallic fibers. Typical 966 Series process applications are spinning, draw winding, combination spin/draw, texturing, coating and impregnating.

### Exceptional package quality

By every standard Leesona 966 machines produce packages of measurable superiority:

- Exclusive use of "precision-wind" insures maximum uniformity in both yarn and packages.
- Winding capacities for 1, 2 or 4 cops per spindle, produced in sizes up to 13.5" outside diameter (343 mm).
- Yarn quality is consistently high, with uniform denier and a noticeable absence of yarn flaws.
- Yarn delivery in subsequent operations is smooth and free, and with even tension.
- Symmetrically formed packages, with precise yarn spacing, are exceptionally attractive.
- Packages are securely structured and resistant to disruption in handling, shipping and storage.



LEESONA PACKAGES

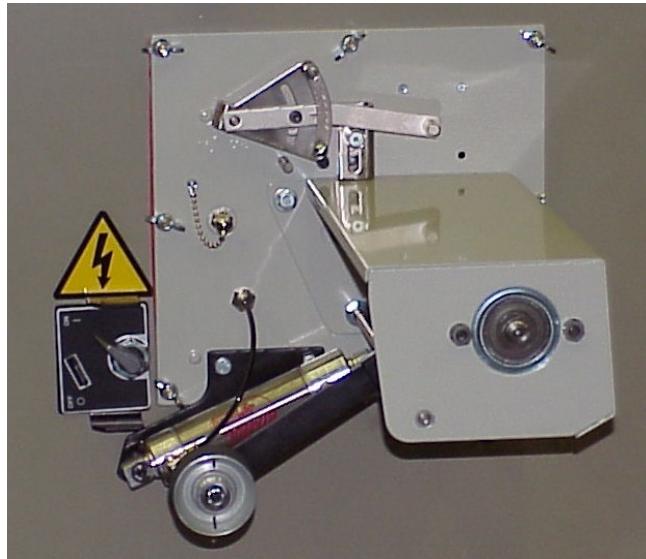
## Model 966 Take-Up Machine features

### Two systems for fast, efficient yarn To spindle threading

1. Pre-set speed system (1/2 HP motors only) provides effective thread-up at higher speeds. It incorporates a separate "pre-set" speed control, which governs the spindle speed prior to winding and provides for easy transfer action. First the control is set to the speed required for efficient threading; then the operator simply presents the yarn to the threading flange, instantly the yarn is automatically threaded to the spindle and traverse guide, and winding begins. This operation will also form a suitable transfer tail.
2. Automatic threading yarn hook was designed for low to moderate speed applications. When the spindle reaches the correct transfer speed the yarn hook on the spindle flange automatically ejects, traps the yarn and winding begins.

### Accurate Tension Control

The compensator arm mechanism provides the precise control of yarn tension that is essential in producing properly formed packages of uniform density. This mechanism accurately maintains any specified tension between 5 and 10 kilograms throughout winding. The compensator is spring or pneumatically loaded so that the required tension is presented to the yarn as it loops around the compensator wheel. The minimal movement of the arm actuates the solid-state transducer device, which governs the spindle drive motor torque. This matches the winding speed with yarn delivery speed.



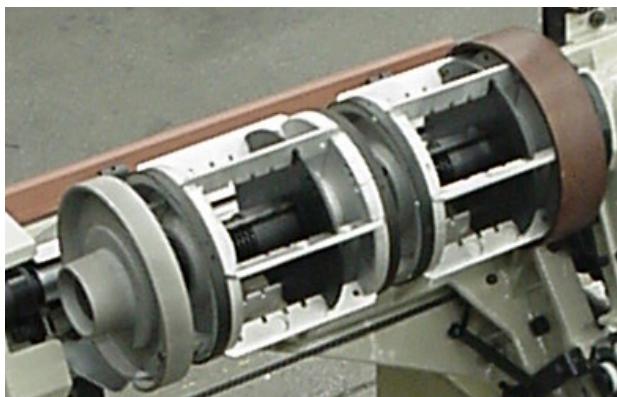
A heavy duty pneumatic controlled Compensator Panel Suitable for tensions up to 10 kgs.

### Package Pressure Control

A high-precision roller bail in combination with a tension spring or pneumatic system applies carefully regulated pressure on the package surface during winding, another means of securing proper package density. The bail is attached to the traverse housing and extends the length of the package parallel to its surface. Pressure is fully adjustable for any requirement.

### Tube Holder

The tubeholders are designed to improve spindle balance. This insures smooth, vibration free operation, better packages and lower maintenance.



### Manual or Power Operation of brake and doff

Leesona's simplified, fast acting brake operates against the outer edge of the rear spindle flange. This arrangement puts no stress on drive components and reduces maintenance. For manual operation the brake is applied with a short forward pull on the doffing lever. A backwards push on the lever releases the tube

holder for doffing a package or installing a new tube. In the pneumatic system, an air cylinder actuates both of these operations. A push button applies the brake and a toggle-type lever controls the tube holder release.

### Extreme Versatility

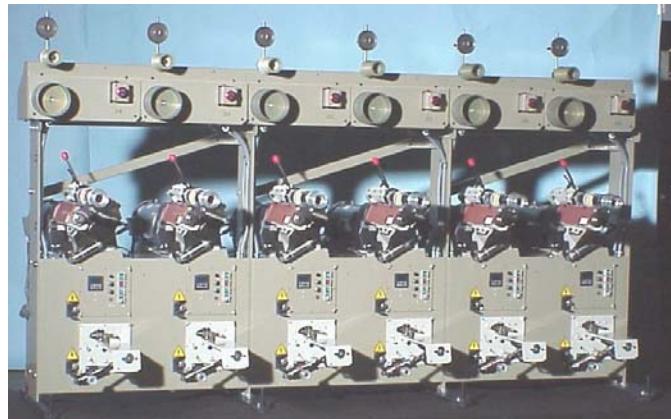
The 966 Take-Up machine is designed to offer great flexibility in meeting the requirements of many different processes and materials, and in facilitating change over for future requirements.

- Basic machines are available with 1/12 HP and 1/2 HP options.
- Many standard components are made in different sizes and styles for various needs – hundreds of combinations of components are available. These include thread guides, traverse cams, tube holders, compensator arms and wheels, tension and pressure parts and “wind” gears.
- A number of options also exist to suit certain process requirements or customer preferences. Such options include tailing devices, compound drives, dual wind attachments and powerful disc brakes.
- 966 machines can be assembled in different structural styles according to plant layout and in almost unlimited size combinations to obtain the desired number of spindles.

### Choice of Machine Structures

#### Standard Single-Deck Structures

These structures provide one spindle per position. They are built in standard units of two, four or six machines per structure. These units can be assembled end to end in any combination to obtain the desired number of spindles per row.



A Model 994 single-deck structure.

Applications for this model include rewinding, coating, prepregnation and heat treatments of filament fibers.

#### Standard Double-Deck Structures

These structures arrange the take-ups in two tiers, so that there are two spindles at each position. They are made in standard units to provide four, eight or twelve machines per structure. These units can also be assembled in any combination.

#### Pedestal Mounted Machine

Ideal for test rooms and experimental laboratories, this arrangement mounts a single machine on a pedestal equipped with casters for easy portability.

#### 990 Series Structures

The Model 966 is offered in special structures with overhead feed rolls as part of the Leesona 990 series of machinery. Typical applications for this type of equipment include rewinding, coating, prepregnation and heat treatments of filament fibers.

**DIMENSIONS \*****966 Standard Structures****Single Deck Structures**

	Inches	mm
Height	50	1270
Width **	36-7/16	927
Gauge	20	508
Length		
2 spindle structure	40	1016
4 spindle structure	80	2032
6 spindle structure	120	3048

**SPECIFICATIONS****966 Take-Up****Package Size****Single package machines traverse length per package**

	Inches	mm
	10	254
	12	305
	16	406

**Dual package machines traverse length per package**

	Inches	mm
	5-1/2	139
	7-1/2	190

	Inches	Mm	
Height	71-1/2	1816	<b>Four package machines traverse length per package</b>
Width **	38-7/16	976	
Gauge	20	508	
Length			
4 spindle structure	40	1016	
8 spindle structure	80	2032	
12 spindle structure	120	3048	<b>Tubeholders (I.D.)</b>

	Pedestal Machine		Inches	mm
			2-7/8	73
			3	76
Height	47-1/4	1206	3-1/4	83
Width **	17-5/8	448	3-11/16	94
Depth	26	660	5-5/8	143

\* Figures other than gauges are approximate overall dimensions

\*\* Based on machine having a 16-inch (406mm) traverse

**Speed Range**  
Up to 1,400 ppm

**Tension**  
5 to 1,600

**Power Requirements**  
Drive Motor 1/12 HP 230 VAC, 50/60 Hz, 3 phase  
Or 1/2 HP, RDC 115 or 208 Y, 50/60 Hz, 1 phase

**Options****Auxiliary Tensions**

Random Wind

Power Brake

Spooling

High Wind

Aspirators

Two Ends per package

Dual Tensions

Heavy Tension

Spring or pneumatic tension control

Spring or pneumatic head pressure control

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