



**ROTARY DIE SLITTER**  
**MODEL RDS-100**  
**OPERATING INSTRUCTIONS**

**CHEMINSTRUMENTS**  
**510 COMMERCIAL DRIVE**  
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## PRODUCT DESCRIPTION

Congratulations on the purchase of your new ChemInstruments Rotary Die Slitter. This versatile, user-friendly, carefully designed instrument allows you to produce consistent, accurate samples. The Rotary Die Slitter's rugged construction, safety, repeatability, small footprint, and ease of operation have made it an integral part of sample preparation for plants and laboratories worldwide.

The unit has the following features:

- Ground Steel Bottom Roll
- Hardened rotary Die for accuracy and long life
- Enclosed Die for safety
- Forward and reverse direction control
- Suitable for slitting paper and film



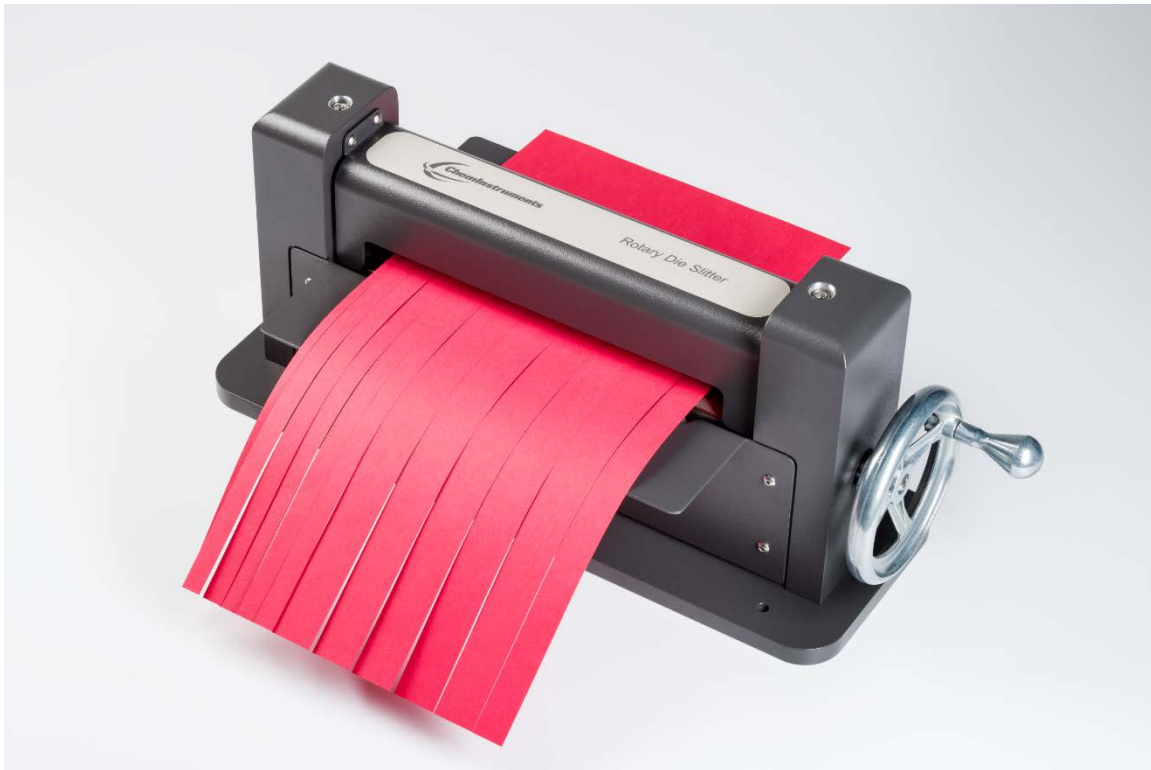
**WARNING:** This equipment can cause injury if not used properly. It is the operator's responsibility to observe all safety rules and warnings.

## SPECIFICATIONS

|                                   |  |
|-----------------------------------|--|
| <b>Maximum Material Thickness</b> | 0.06 inches (1.5 millimeters)  |
| <b>Maximum Slit Width</b>         | 9 inches (22.8 centimeters)  |
| <b>Maximum Length of Material</b> | Unlimited  |
| <b>Physical Dimensions</b>        | Width: 20 inches (51 centimeters)<br>Depth: 9 inches (23 centimeters)<br>Height: 8 inches (20 centimeters)<br>Weight: 35 pounds (16 kilograms) |

## UNPACKING

ChemInstruments has made every effort to ensure that the RDS-100 arrives at your location without damage. Carefully unpack the instrument and check for any damage that may have occurred during shipment. If any damage did occur during transit, notify the **carrier** immediately.



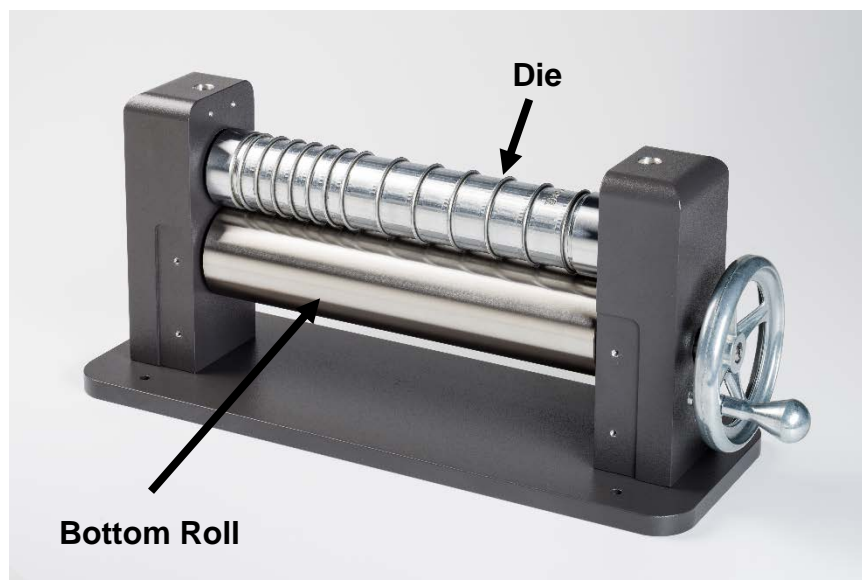
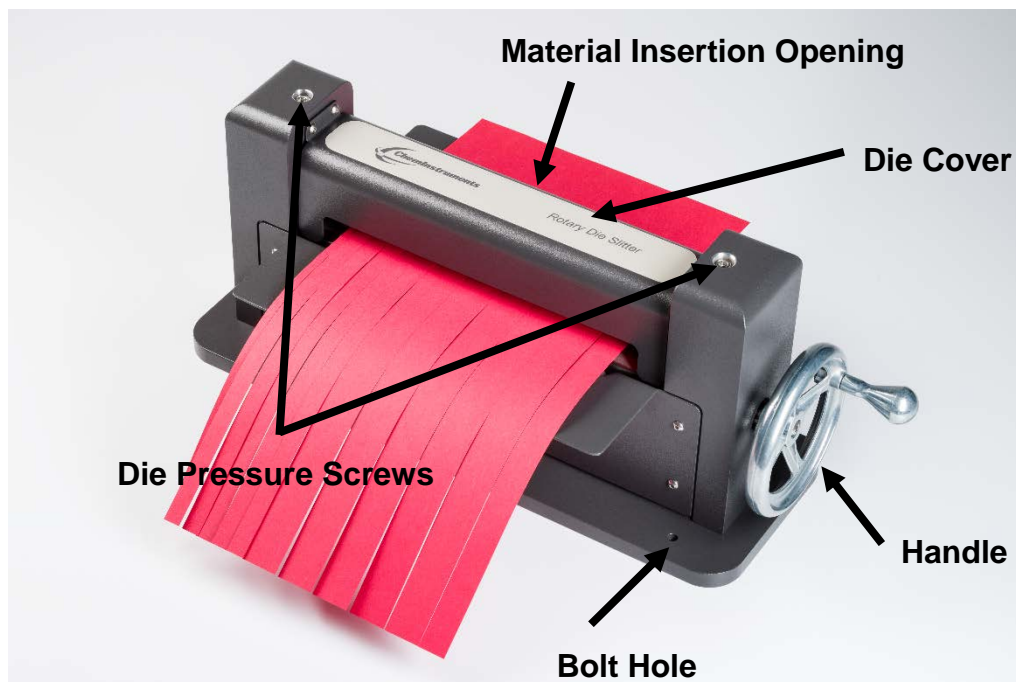
## ASSEMBLY

Carefully remove the Rotary Die Slitter from the packaging and set it on a sturdy bench top. Check the physical dimensions listed previously for the space required for the instrument. The machine should be positioned with ample space to insert sample material and freely turn the handle. The Rotary Die Slitter should be bolted to the work surface. The machine has four pre-drilled holes (see section KEY COMPONENTS). Hardware is not provided to bolt the machine to a surface.



**WARNING: Before proceeding with using the Rotary Die Slitter, it is advisable to become familiar with the Key Components. These Key Components and a brief description of their function follow in the next section.**

## KEY COMPONENTS



## THEORY OF OPERATION



**WARNING:** This equipment can cause injury if not used properly. It is the operator's responsibility to observe all safety rules and warnings.



**WARNING:** Be careful not to apply too much pressure to the Die. Too much pressure will result in the Die bowing, which may prevent the Die from cutting evenly.

The Rotary Die Slitter is a hand operated machine. The Die rotates by turning the Handle. The Handle and Die may turn in either direction. Die pressure can be changed by turning the Die Pressure Screws (see **KEY COMPONENTS**). Different materials will require different Die pressures for optimal slitting. The Die Pressure Screws require a 3/16 inch Allen wrench (see **CUTTING DIE ADJUSTMENT**).

Material to be slit should be placed in the Material Insertion Opening while turning the Handle in the appropriate direction (see **KEY COMPONENTS**). **Be sure to keep hands free from Material Insertion Opening.** Once the machine begins to slit the material, it will automatically feed through the remainder of the material as long as the handle is being turned. Once slit, the material will exit the opposite side of the machine.

## CUTTING DIE ADJUSTMENT

The cutting Die of the Rotary Die Slitter is adjusted at the factory for cutting normal 20 pound paper. Cutting of different materials, and long term use, may cause the Die of the Rotary Die Slitter to need Die pressure adjustments. The following directions describe adjusting Die pressure for optimal operation.

1. Using a 3/16 inch Allen wrench, loosen the Die Pressure Screws (see **KEY COMPONENTS**) so there is no pressure on the Die.
2. Turn each Die Pressure Screw clockwise 1/4 rotation at a time, bringing each Die Pressure Screw into contact with the Die. Be careful not to tighten the Die Pressure Screws unevenly.

3. Visibly check to see that the Die is resting on the Bottom Roll (see **KEY COMPONENTS**).
4. Insert a sample of the material to be cut.
5. Turn the handle to rotate the Die and cut the sample material (see **OPERATION**).
6. Inspect the material for even cutting across the entire width.
7. If the material is not cut properly, adjust the depth of cut by turning both Die Pressure Screws 1/8 rotation clockwise. Take care to do this evenly in order to maintain equal pressure across the full width of the Die.
8. If the center of the material is not being cut, but the outside edges are being cut, the Die has too much pressure. Repeat the procedure starting at step 1.
9. Repeat steps 4 – 8 until optimal cutting has been achieved.



**WARNING: Be careful not to apply too much pressure to the Die. Too much pressure will result in the Die bowing, which may prevent the Die from cutting evenly.**



## MAINTENANCE

Over time, the die may require cleaning. To access the Die, remove the Die Cover. The Die Cover is held in place by 4 screws. Once the Die Cover has been removed, the Die may be cleaned using Chemsultants' Adhesive Remover.



**WARNING:** Be extremely careful with the Die Cover is removed and while cleaning the unit. The Die is extremely sharp and will cut you.

