

Sonoco commercial printing cartridges

# Flow-Rite® Original Ink Dispensing Cartridge



First introduced in 1999, Sonoco's Flow-Rite® ink dispensing cartridge has revolutionized the printing industry, creating a new standard for the storage and dispensing of ink. The first larger sized cartridge designed specifically for the ink market, this lightweight but durable cartridge has been key in allowing printers to convert to automated ink dispensing systems and realize tremendous benefits in the form of more usable ink, less waste, greater efficiency on press and lower overall costs.

The Flow-Rite ink dispensing cartridge's patented design provides superior ink storage of both full and partially used cartridges, significantly improving shelf life and eliminating quality concerns. Inks stay fresher and free flowing, from the thinnest to the thickest, regular to fast drying. The innovative nozzle design ensures precision distribution of ink while on press. The Flow-Rite ink dispensing cartridge is also easy to fill using automatic or manual ink filling systems.



## Specifications

**Outside diameter:** 5.10 in/130 mm

**Height:** 5 lbs:  
9.08 in/230 mm  
8 lbs:  
13.75 in/349 mm

**Capacity:** 5 lbs:  
76 oz/2250 ml  
8 lbs:  
122 oz/3600 ml

**Ink capacity:** 5 lbs:  
5 lbs/2.27 kg\*  
8 lbs:  
8 lbs/3.63 kg\*

**Purge residual:** < 2%

**Compatible with:** Automatic ink systems (Sentinel®), Sonoco ReadyFlow® dispensers and other hand-held devices

**Designed for use with Sentinel® automated ink systems† and hand-held dispensers.**

\* Depending on ink density

† Sentinel is a registered trademark of Pamarco Global Graphics

**SONOCO**  
**READYFLOW**  
DISPENSER

Ask about Sonoco ReadyFlow hand-held dispensers.



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By combining Sonoco's composite body technology with patented plastic spout and plunger designs and a patented sealing process, the Flow-Rite ink dispensing cartridge is truly airtight, providing long-term shelf life and superior on-press performance for even the most aggressive inks.

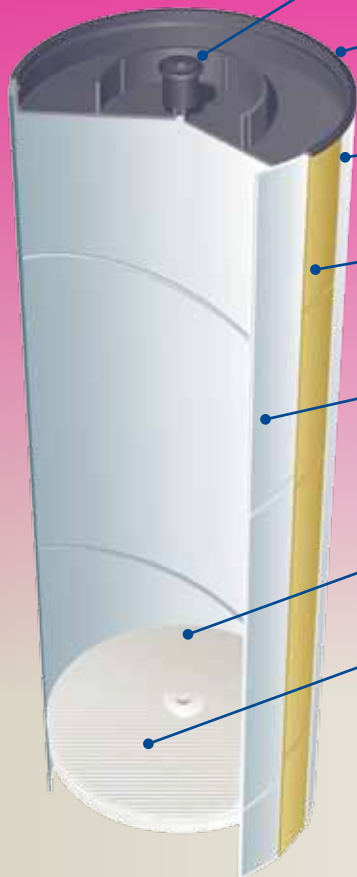


## Spout



- The add-on spout extender keeps the ink dispensing system clean and ensures ink is dispensed with pinpoint accuracy.
- The simple push-pull spout is easy to open and close. It automatically closes when set down on a shelf, avoiding spillage if manual closing is overlooked.

## Cartridge



- Flat end allows for easy automated and manual filling and storage in the nozzle-down position.
- The multiple layer composite construction increases performance:
  - **Label** - Provides clean appearance with an ink-resistant coating that can be wiped clean. For large orders, label can be printed for identification or branding purposes.
  - **Body** - Made of 100% recycled paperboard, the cartridge's body is both strong and durable, ensuring the cartridge retains its shape and optimizes performance during dispensing, shipping and storage.
  - **Liner** - The double-layer liner includes a polymer-based layer that allows the plunger to slide easily inside the cartridge. A foil layer protects the ink from moisture and oxidation, thus increasing the shelf life of the ink, whether the cartridge is full or partially empty.
- The unique patent-pending shape and textured design of the plunger displaces unwanted air. Stackable design for automatic systems.
- The plunger is transparent to allow user to see if all air has been removed after filling. Plunger is also available in a solid color to protect UV inks.

For more information contact Ben Gore: [benny.gore@sonoco.com](mailto:benny.gore@sonoco.com).

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# Sonoco Plunger Inserter for Flow-Rite® Cartridges



**First introduced in 1999, Sonoco's Flow-Rite® ink dispensing cartridge has revolutionized the printing industry, creating a new standard for the storage and dispensing of ink. The Sonoco Plunger Inserter is the ideal product to use plungers and to purge air from your Flow-Rite cartridges.**

The plunger inserter works with all Sonoco ink cartridges including the larger 5- and 8-pound Flow-Rite original and Crown cartridges as well as smaller 4.4-pound Flow-Rite Exact cartridges. Changing from large to small cartridge size is as simple as screwing on a plunger holder and flipping in two spacer bars. An adjustable timer allows you to continue filling the next cartridge while the plunger is being inserted. The machine is also equipped with a two-handed activation feature and a convenient stop button on the front for added operator safety.

**For more information contact Ben Gore: [benny.gore@sonoco.com](mailto:benny.gore@sonoco.com).**



## Specifications/Features

**Part Number:** MS00000265

**Compatible with:** 5 and 8 lb original cartridges  
5 and 8 lb Crown cartridges  
4.4 lb Exact cartridges

- All-metal construction for durability and easy cleanup
- All pneumatic—all you need is compressed air



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## Technical Tips

# Filling, Storing and Using Flow-Rite® Cartridges



## Cartridge arrival

Flow-Rite® ink cartridges are packed with the dispensing end facing the top of the box. Be sure to open the box with the Sonoco address in the upright position in order to keep debris created by vibration during shipment from entering the cartridges.

Store cartridges in a dry environment. Once cartridges are wet, performance is decreased.

## Filling cartridges

For optimum shelf life, it is important that the plunger be installed below the flanged area at the end of the cartridge and the inside top of the cartridge walls be kept free from ink. When filling cartridges from a rolling mill, cut off the flow from the delivery tray prior to removing the cartridge. Flow-Rite original and Crown cartridges can be filled up to 2 inches from the top of the cartridge.

The Exact cartridge can be filled with ink up to 2-1/2 inches from the top. This will allow a space of at least 1/4-inch from the top of the plunger to the top flanged area of the cartridge.

## Original and Crown Flow-Rite cartridges

**For the original and Crown Flow-Rite cartridges only**, an air vent strip can be used to assist with the removal of air between the plunger and ink when sealing the plunger at the top of the cartridge. Use a smooth, soft plastic insert strip that is less than 3/64-inch (1.15-mm) thick, 3/16-inch (4.67-mm) wide or less and around 3.75 inches (95-mm) long. A good air vent strip is the Ty-Rap made by Thomas & Betts (catalog number TY523MX). These are smooth, European style cable ties. Also, string trimmer plastic cord with a diameter of 0.065-inch or smaller is acceptable. Remember, it does not take much to let air out during plunger insertion, but you must use something soft and plastic that will not damage or deform the plunger and/or cartridge.



**For more information contact Ben Gore: [benny.gore@sonoco.com](mailto:benny.gore@sonoco.com).**

\* Ty-Rap is a registered trademark of Thomas & Betts Corporation.

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# Flow-Rite® Cartridge Plunger Insertion Instructions



## Ink cartridge storage tips

- Store filled Sonoco ink cartridges on their dispensing end
- Rotate stock, using the oldest cartridges first
- Protect the flanged/plunger end of the cartridge during storage and transportation

## Exact cartridge plunger insertion

Inserting the plunger into the Exact cartridge requires a different technique than the original and Crown cartridges. **Using a vent strip is not recommended!** The ink cartridges have a built-in self-venting feature. Please keep ink off cartridge sides for maximum performance. For the Exact cartridge, it is important to remove all air uniformly under the plunger. This requires 125 pounds of force and takes about 25 seconds. Using the

Sonoco pneumatic plunger inserter, this is achieved with a 2-inch air cylinder and 40 psi.

If another style pneumatic plunger inserter is used, measure the diameter of the air cylinder to determine the pressure needed to get 125 pounds of force.

Cylinder diameter (in)	Air pressure (PSI)
1	159
1.5	71 - Sentinel® unit
2	40 - Sonoco unit
2.5	26

## Using the Sonoco pneumatic plunger inserter

1. Place the plunger on the plunger holder.
2. Place the filled ink cartridge against the vertical supports.
3. Using two hands, simultaneously press the green buttons on either side of the unit. The plunger will go down into the cartridge. The plunger plate will retract after the timer has timed out (15 - 30 second).



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