

Heavy-Duty Roll Support for F Series



**User Manual
Rev 003**

1 General

1.1 Safety



The heavy-duty roll support is made for loading large and heavy rolls on the F series table cutters. Do not attempt to lift heavy rolls alone. We recommend loading heavy rolls with two people or preferably by using special lifting gear.



Be careful while removing and installing the pneumatic expansion shaft. Labels on the heavy-duty roll support show the danger areas.

1.2 General info

The Heavy-Duty Roll Support (HDRS) is designed for loading rolls onto the F Series flatbed cutters. The HDRS is supplied with an air gun and the necessary connections, as compressed air is required to secure the media roll on the pneumatic expansion shaft. The media must be wound on a 3-inch (72 mm) core.

The HDRS can be used for lighter rolls (up to 25 kg) in combination with the standard flanges. Rolls weighing more than 25 kg must be loaded onto the pneumatic expansion shaft. The maximum permissible roll weight is 200 kg.

The HDRS is intended for handling heavy roll stock of non-stretchable materials such as vinyl, banner, and paper, as well as light stretchable materials (up to 0.3% stretch) such as SEG textiles and technical fabrics.

The HDRS can also be used for the protection mat for the router option when it is placed on the two lower support rolls.

1.3 HDRS in detail



FIG 1-1
HEAVY DUTY ROLL SUPPORT

1. **Pneumatic expansion shaft (PES):** This shaft is used for loading heavy media. It contains an integrated system with rubber pads that expand when compressed air is applied, keeping the roll securely in place.
2. **Supply rolls:** These two rolls serve the same function as the standard roll support. They can be used in combination with the flanges when the roll has a 3-inch core holder, a diameter smaller than 17 cm, and a weight below 25 kg. If the media does not have such a core holder, or if the roll diameter exceeds 17 cm, the roll can be placed directly on the two support rolls. The maximum weight in this case remains 25 kg.

Both rolls have a parking position closer to the table, where they can be placed when the PES is used for heavy media.

3. **Roll media guide bushings:** These two flange guides serve to keep the media roll correctly positioned and prevent side movement.
4. **Upper guiding rolls:** Two rolls that align and stabilize the media path to ensure straight feeding.
5. **Safety pin:** Safety pins on the left and right sides hold the PES in place during operation. They can be pulled outward to load or unload the PES with the media mounted.
6. **Air gun:** The air gun is used to fill the PES with compressed air so that the media is firmly clamped in place.

2 Media loading

2.1 Rolls lighter than 25 kg

Depending on the type of roll used, the loading procedure differs. If the roll has a 3-inch core holder and a diameter smaller than 17 cm, use the flanges. If the roll does not have a 3-inch core holder or the diameter exceeds 17 cm, remove the flanges before loading. Follow the corresponding option below.

2.1.1 Option 1: Loading the Roll with Flanges

1. Place the roll (weighing less than 25 kg and with a 3-inch core holder) on the two support rolls.
2. Position the roll so that the flanges fit into the roll media guide bushings (1). This prevents the media from sliding left or right during operation.
3. Guide the media behind the lower guiding roll (2) and above the top guiding roll (3).
4. Follow the media load procedure described in the user manual to ensure the first segment of the job is correctly loaded.

2.1.2 Option 2: Loading the Roll without Flanges

1. If the roll does not have a 3-inch core holder or if the roll diameter exceeds 17 cm, remove the flanges before loading.
2. Place the roll (weighing less than 25 kg) directly on the two support rolls.
3. Position the roll media guide bushings (1) firmly against both sides of the roll to prevent lateral movement.
4. Guide the media behind the lower guiding roll (2) and above the top guiding roll (3).
5. Follow the media load procedure described in the user manual to ensure the first segment of the job is correctly loaded.



FIG 2-1
LOADING MEDIA < 25KG ON LOWER SUPPORT ROLLS



Note: If the protection mat for routing is used, the roll can be loaded in the same way.

2.2 Rolls heavier than 25 kg

2.2.1 Pneumatic expansion shaft (PES)

All along and all around this shaft, there are rubber pads that can be expanded by compressed air so that the media loaded on the shaft stays securely in place. There are air shaft valves on both the left and right sides to fill the shaft with compressed air using the air gun supplied with the HDRS.

Using the air gun, press the side of the valve to release the compressed air from the shaft. To fill the shaft with compressed air, place the nozzle opening of the air gun directly onto the valve and press to inject air and expand the rubber pads.



FIG 2-2
DETAILS BLUE PNEUMATIC EXPANSION SHAFT



FIG 2-3
DETAILS BLACK PNEUMATIC EXPANSION SHAFT

2.2.2 Load the roll

1. The PES can be removed from and installed on the HDRS by pulling the safety pin (2) outwards. The standard rolls are put in their 'parking position' (1).



FIG 2-4
POSITION ROLLS AND SHAFT FOR HEAVY MEDIA ROLLS

2. Put the shaft in the media roll and fix it with compressed air (see section 2.2.1).
3. Guide the media on the HDRS as in figure.
4. Make sure the blue rubber pads have been expanded (1) to prevent the media from sliding left – right. Guide the media behind the lower guiding roll (2) and above the top guiding roll (3).
5. Follow the media load procedure described in the user manual to ensure the first segment of the job is correctly loaded.



FIG 2-5
LOADING HEAVY MEDIA WITH THE PES