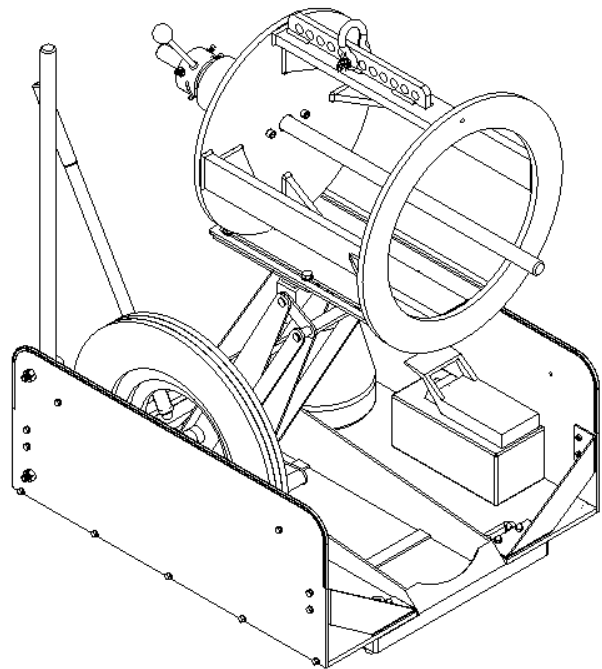
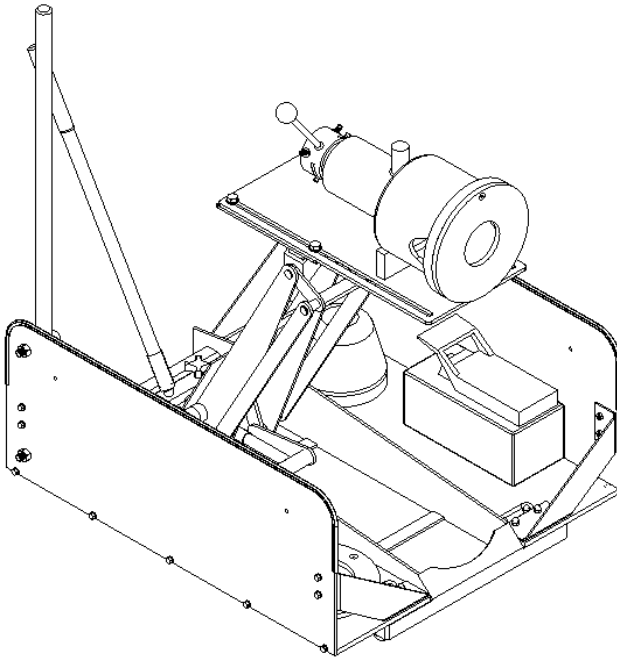




A **MAXCESS** BRAND

Roll Restorer

User Manual



EN

Standard Duty Model - 270048085

Heavy Duty Model - 270048086

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Safety



- Keep hands clear of pinch points!
- Follow safety procedures as outlined for use with hydraulic equipment.
- Do not use lubricants during maintenance of this product. Lubrication will cause contamination by accumulation of dust or debris in the moving parts.
- Unit repair procedures are not covered in this document. If this product cannot be made operational with the use of these instructions, contact Maxcess Customer Service

CONTACT US

1.800.426.1000
1.360.834.2345

www.maxcessintl.com

RECOMMENDED TOOLS

Standard and Heavy Duty Model

- Supply air 80 psi min / 100 psi max (5.51/6.89 bar)
- Adjustable Wrench
- Allen Wrench – M4
- Allen Wrench – 7/32

Introduction

The Roll Restorer is a device used to restore rolls containing crushed cardboard cores to round so that the roll may be used in production. The Roll Restorer may be used to restore fiberglass rolls, wrapper rolls, etc. with crushed cardboard cores. It will not work with metal or plastic cores, as they are not flexible and could break.

- The Standard Duty Roll Restorer is for use with shorter and lighter weight cores.
- The Heavy Duty Roll Restorer is for use with cores up to 8000 pounds or over 10 feet long.

Before operating the Roll Restorer or using this procedure, **we recommend that you watch the demonstration video on the Maxcess YouTube channel:**

<https://youtu.be/Bshr8mus0mAThere>

Specifications

	Standard Model		Heavy Duty Model	
Core ID	50.8 -152.4 mm	2.00-6.00 inches	50.8 - 304.8 mm	2.00-14.00 inches
Maximum Roll Diameter	1473 mm	58 inches	1676 mm	66 inches

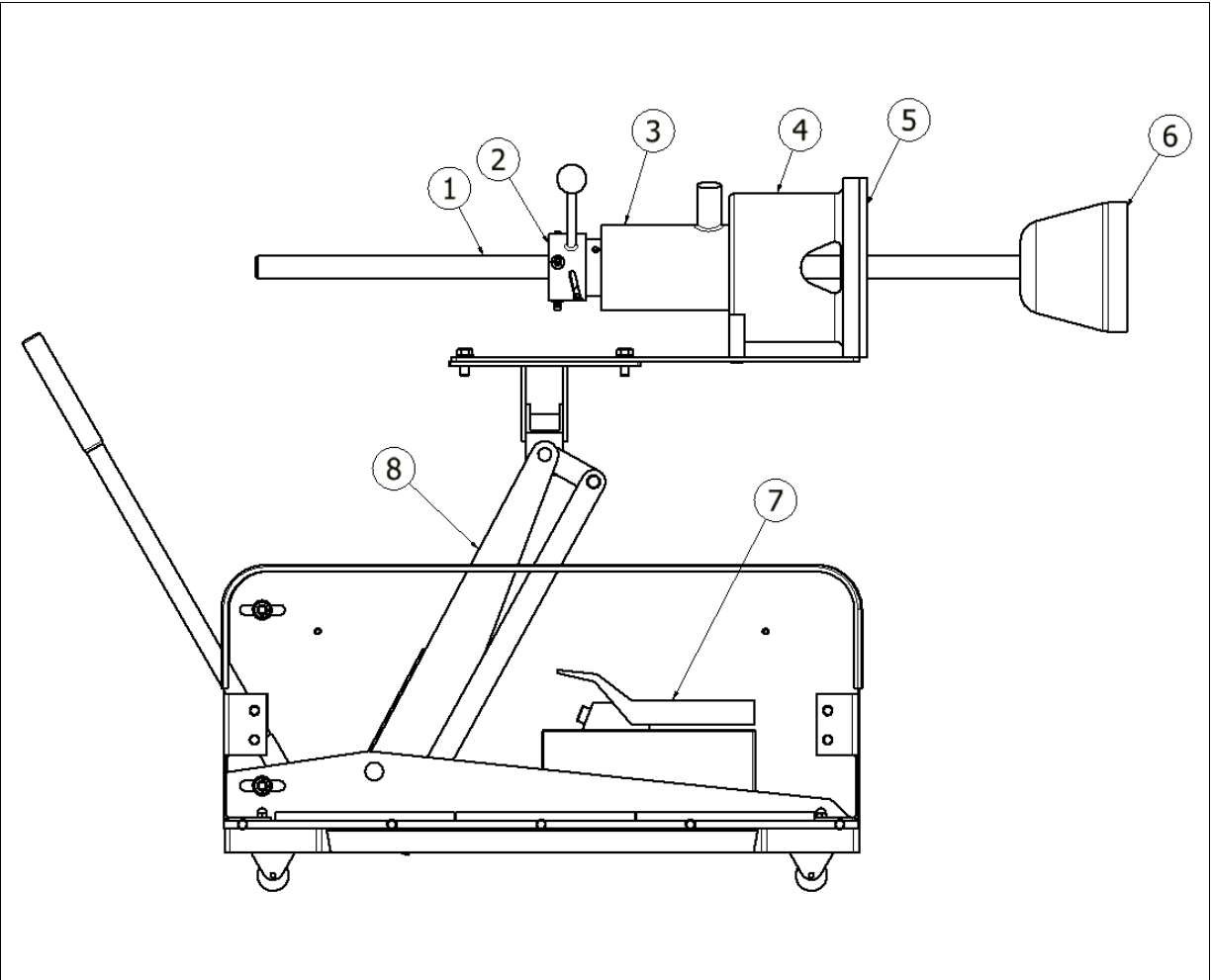
Adapter Options

	Standard Duty		
Core ID	Expander Head	Adapter Flange	
3 inch	27L860570	270048910	*27L860575
3.5 inch	27L860570	270038031	N/A
4 inch	27L860571	270048911	*27L860576
5 inch	27L794008	270048912	*27L860577
5.25 inch	270020700	270020701	N/A
6 inch	27L860572	N/A	N/A

*For Use with Legacy Roll Restorer Part #27L793138

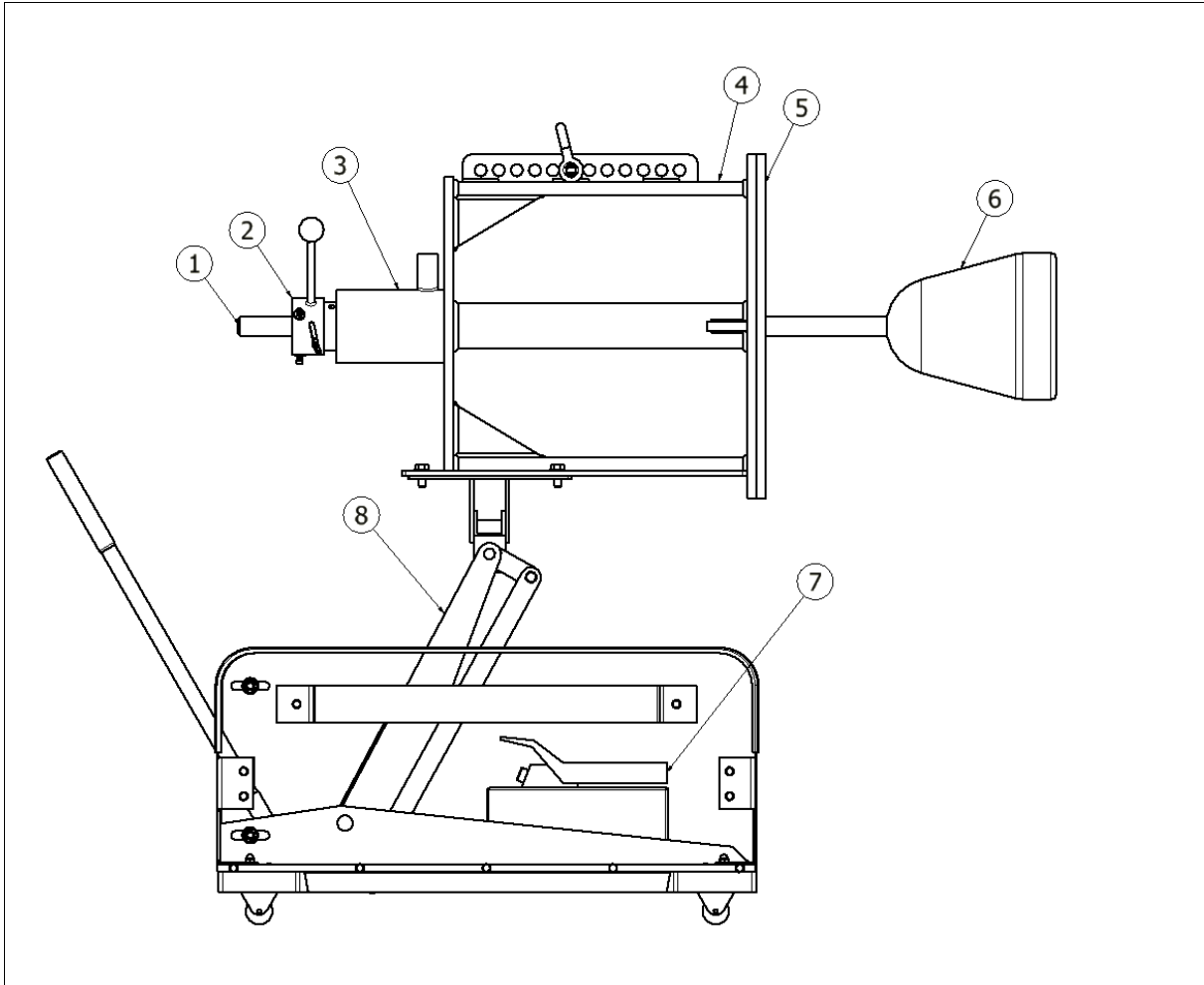
	Heavy Duty	
Core ID	Expander Head	Adapter Flange
6 inch	27L860572	270021104
6.75 inch	27L783567	27L860464HD
8 inch	27L891715	27L891716
10 inch	27L860573	270018836
12 inch	27L787786	270020878
14 inch	270049177	N/A

Standard Duty



1	Pull Rod	5	Adapter Flange (Sizes Vary)
2	Bar Lock Assembly	6	Expander Head (Sizes Vary)
3	Ram	7	Air Pump
4	Hydraulic Expander Housing	8	Jack

Heavy Duty

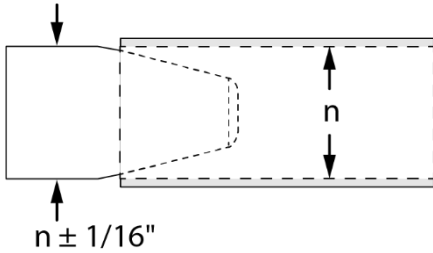


1	Pull Rod	5	Adapter Flange (Sizes Vary)
2	Bar Lock Assembly	6	Expander Head (Sizes Vary)
3	Ram	7	Air Pump
4	Hydraulic Expander Housing	8	Jack

Expander Head and Flange Adapter



Cores must be at least 1 5/8" open in order to insert the standard draw bar and start the smallest expander head diameter (2 inches).



The expander head can be plus or minus 1/16" in outer diameter from the internal diameter of the crushed core original diameter (n).

Determine the size of the expander head that you need, and whether you will need to install an adapter flange onto the expander housing.

Standard Duty:

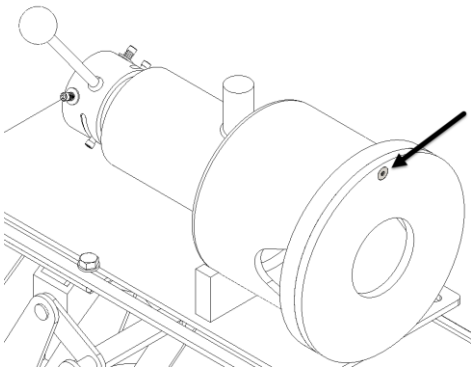
Flange ID to be 3/16 over the Core ID

Heavy Duty:

Flange ID to be 1/8 over the Core ID

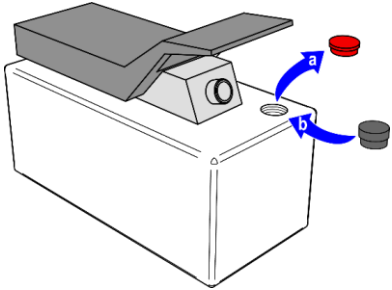
Install an adapter flange, if needed.

- Place the adapter flange on housing
- Insert screw and tighten



Air Pump

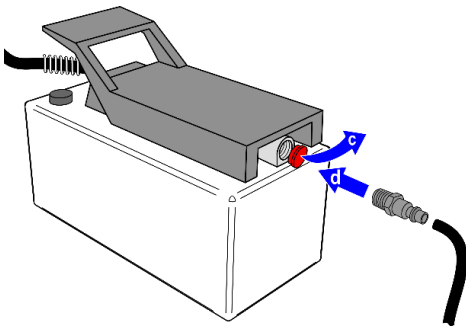
Vent the reservoir (hydraulic fluid)



To improve hydraulic fluid delivery and increase usable hydraulic fluid capacity:

1. Remove the red shipping plug
2. Replace it with the filler/vent cap before using the pump.

Air connection



Supply air: 80 psi minimum

- 10 to 12 inch cores may require 90 to 110 psi

1. Remove the red shipping plug.
2. Insert an air fitting – minimum 1/4" – for supply air, and connect supply air to the pump.

Hydraulic connection



Pressurized equipment is potentially hazardous.

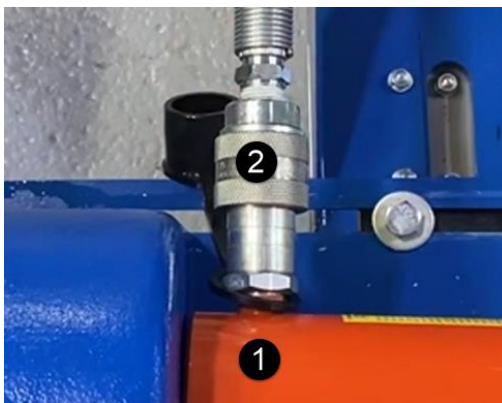
Hydraulic connections must be securely fastened before building pressure in the system.

Release all system pressure before loosening any hydraulic connection in the system.

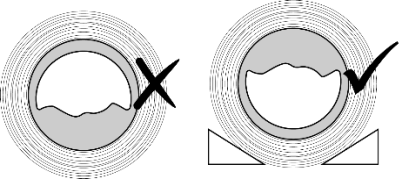
To prevent debris from entering the hydraulic system, always check that the self-sealing connector fitting is clean before making the connection.

If the hydraulic fitting connection is not tight, hydraulic pressure will not be able to equalize and the ram end will not retract back into the ram housing.

Attach the hydraulic line ① from the pump to the female fitting on the hydraulic ram ② assembly.



Positioning the Roll Restorer Assembly

	<p>The core expander housing is positioned in the center of the jack during shipping.</p> <p>Before operating:</p> <ul style="list-style-type: none"> • Loosen the bolts connecting the core expander housing to the jack. • Slide the core expander housing along the slots so the open end is positioned as far as possible away from the center of the jack. <p>Make sure the bolts connecting the core expander housing to the jack are securely tightened prior to operation.</p>
	<p>Roll must lie flat on its supporting surface.</p> <ol style="list-style-type: none"> 1. Position the roll with the crushed side UP as shown. 2. Chock the roll on both sides to prevent unexpected movement during operation.

Uncrushed End

1. Position the Roll Restorer assembly near end of the roll, with the adapter flange against the crushed end of the roll.
2. Insert the pull rod into the bar-lock
3. Push the pull rod through the core until it extends a few inches out of the other end of the core.
4. Align the pull rod with the perceived centerline of the crushed core so that the adapter flange and core centers are as close to concentric as possible.

Note: Use the jack to adjust the height of the core expander housing to align the pull rod with the centerline of the crushed core.

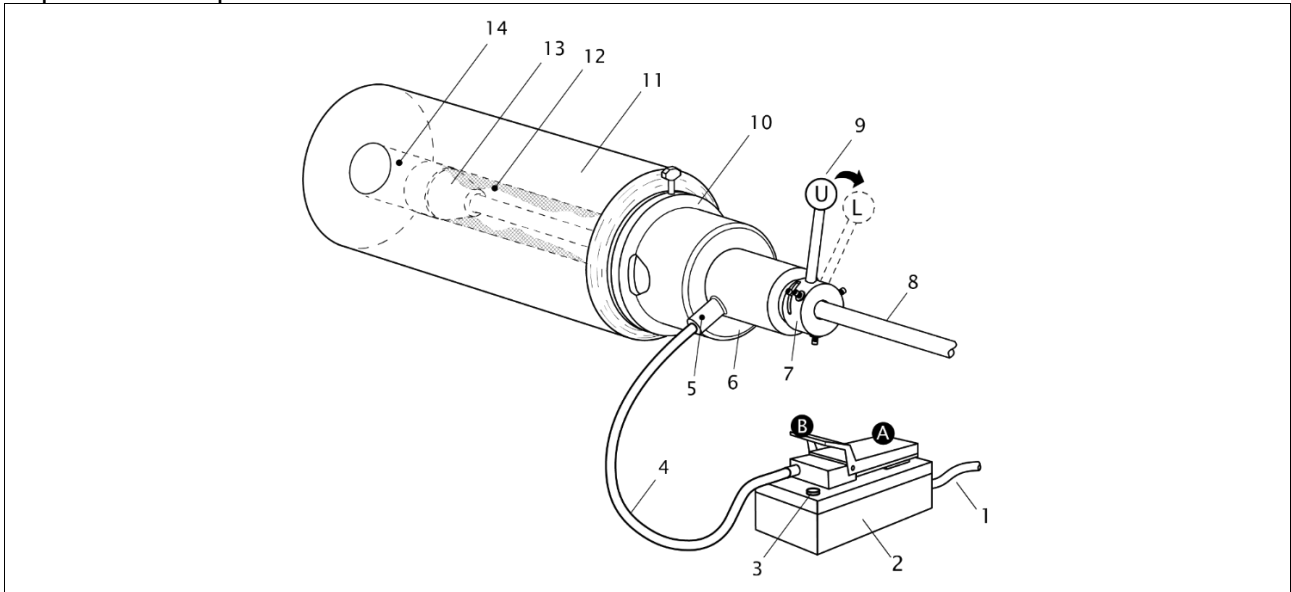
Crushed End

1. Thread the expander head all the way onto the pull rod
2. Push it by hand into the core a little to ensure that it is engaged.
3. Tap the expander head into the end of the core until it is snug.
4. Align the centerline of the core expander housing as close to the original centerline of the cardboard core as possible.

Note: If you cannot determine the original centerline, position the core expander housing centerline slightly below the centerline of the core you are about to restore. This will help prevent the roll from lifting off the floor, which could damage the pull rod.

Operation

Operation Components



1	Supply air	9	Lock/unlock lever for pull rod
2	Foot pump	10	Adapter flange with thumbscrew
3	Breather vent (replaces shipping plug)	11	Wound roll
4	Hydraulic line connected to ram housing	12	Core (crushed area)
5	Hydraulic line fitting	13	Expander head
6	Hydraulic ram housing	14	Core, restored area
7	Bar Lock assembly, pull rod	A	Actuate pump
8	Pull rod (XXXX diameter, custom length)	B	Release pump

How it Works

Expander head **(13)** is the tapered cone that is attached to a rod and pulled through the core.

Pull rod **(8)** – or draw rod – carries the expander head through the crushed core.

Adapter flanges **(10)** attach to the expander head housing.

Hydraulic ram with bar lock assembly **(6, 7)** grips the pull rod/expander head assembly and draws it through the crushed core.

In the unlocked position, the pull rod can pass freely in and out of the hydraulic ram bar lock.

As you move the lever **(9)** into the lock position, you will feel pressure as the internal teeth contact the rod. When you move the lever completely into the lock position, the rod is locked in place and only the hydraulic ram will move the rod in or out of the core.

When you step on the pump, the hydraulic ram assembly pushes against the bar lock, pulling the rod with expander head through the crushed core.



Cores must be at least 1 5/8" open in order to insert the pull rod and start the smallest expander head diameter (2 inches).

Operating the Ram Assembly

1. Move the bar-lock lever to the LOCK position to engage the pull rod with the ram assembly.
2. Step on the pump; the hydraulic ram assembly will push against the bar-lock and begin to pull the rod with expander head through the crushed core until the ram reaches full stroke (3 to 5 inches).
3. Step on the forward part of the pump to equalize the hydraulic pressure.
4. Move the bar-lock lever to the UNLOCK position; the bar-lock assembly automatically retracts into the ram housing. If the bar-lock assembly does not automatically retract check the hydraulic connection.
5. Repeat steps 1 through 4 until the expander head is drawn all the way through the roll.
6. Move the Roll Restorer unit away from the roll.
7. Remove the expander head from the pull rod; remove the pull rod and place it back in storage on the cart.

Care and maintenance of hydraulic equipment

- The hydraulic equipment supplied with your Roll Restorer has been completely tested and is of the highest quality. With a small amount of care, it will give you years of service.
- This equipment is shipped pre-filled with the proper amount of oil.
- Whenever oil needs to be added, remove the filler plug located on the corner of the pump and add a Gulf Paramount No. 45 hydraulic oil or equivalent.
- The pump has an 80 cubic inch capacity reservoir.
- Fill it to approximately 1/2" from being full.

- The ram and ram end of the hose are fitted with a quick disconnect coupling: These have built-in spring-loaded check valves that allow you to disconnect the two without loss of hydraulic oil.
- When connecting the hose half-coupler to the ram, make sure to wipe fittings clean. Any dirt introduced into the system can work its way into the pump and cause a malfunction.
- Occasionally, a few drops of oil should be introduced into the air fitting on the air pump to lubricate its internal mechanism, especially if your air system has a high moisture content.

Preserving the restored core

If you do not insert plugs into a crushed core behind the expander head, the core may return to its crushed state when you pull the expander head out of the core.

Insert a plastic or steel plug that has an OD slightly smaller than the ID of the crushed roll core behind the expander head and position it as close to the back of the expander head as possible.

Your partner will continue to position this plug behind the expander head as you work the hydraulic ram thereby pulling the expander head through the core.

As the expander head approaches the crushed end of the core, you need to continuously position the center of adapter flange so that it is as close to the center of the cardboard core as possible. If the core is severely crushed, the adapter flange and rod may need to be positioned slightly below the center of the crushed core.

Once the expander head is pulled completely out of the core, position the plug as close to the crushed end as possible. Be careful not to knock the plug over or you may need to start over with restoring the core to round again.

Add at least one more plug into the previously crushed core to help retain the round shape.

At the first opportunity, insert a standard unwind stand roll shaft, or an insert, into the restored core of the roll. As you insert the shaft, it will knock the plugs out of the previously crushed end of the core.

Note: Badger Plug, Greenville, WI offers Heavy Duty and standard duty flanged steel knock-in plugs. 920-757-7300 BadgerPlug.com

Spare Parts and Accessories

	Pull Rod	Lengths Vary Contact Maxcess for Part Number
	Adapter Flange (Sizes Vary)	See Page 3-1 for Part Numbers
	Expander Head (Sizes Vary)	See Page 3-1 for Part Numbers
	Ram	27L783012
	Air Pump	27L783013
	Air Pump Hose	27L783011
	Jack	270048098



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