**Standard Features:**
- Rugged and durable
- Automatic expansion “fail-safe”
- Change sizes with no tools
- Universal - fits all MH equipment
- Easy to change wear parts
- Aluminum or alloy steel construction
- Anodized or nickel plated finish
- Made in U.S.A.

**Specifications:**
- Maximum load capacity: Up to 2,200 lbs (1000kg) depending on handling equipment type
- Core diameters 2” (50 mm) to 16” (406 mm)

**Options & Accessories:**
- Custom Length
- Core Stop
- Bumper Nose
- Pneumatic and Manual Retract Kit
- Spare Mandrel Holder
- Powered Remote Retract
- Rollers
- Stainless Steel Hardware
- Rotating
- Mandrel Insertion Depth Graduations
- High Use Upgrade Package

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Our Universal Mandrels are at the heart of all handling systems, enabling our devices to lift and turn rolled materials by securely gripping the inside of the roll's paper, plastic or metal core, without slipping, and without substantial damage to the core.

Universal Mandrels fit all types of handling equipment and can be changed in seconds without tools.

Universal Mandrels are **fail-safe**. Grippers expand automatically by spring force. Simply insert the mandrel into the core and lift the roll. The grippers remain expanded until the load is fully supported. Only then can the grippers be retracted by the operator.

Grippers can be retracted manually with toggle or "T" handles attached directly to the mandrel, or remotely for increased operator convenience with pneumatic, manual or electric retractors.

Universal Mandrels are available with a number of gripper surface profiles to ensure the safest grip with the least possible damage to the core.

Important Note! We cannot guarantee the performance of its grippers in all applications. Some applications may require experimenting with different gripper surface profiles to find the best fit with your cores. Consult for recommendations of which gripper type is best for your application.

"Back Injuries - Nations Number One Workplace Safety Problem." The U.S. Department of Labor reports that more than one million workers suffer back injuries in the U.S. each year, costing industry billions of dollars on top of the pain and suffering borne by employees. Ergonomic Handling Systems will minimise or eliminate the risk of operator injury and maximise productivity and profits.
REMOTE RETRACT OPTIONS

"Electric Remote Retract"

"Manual Remote Retract"

"Pneumatic Remote Retract"

ACCESSORIES OFFERED

Spare Mandrel Holder

3” & 6” Core Stop

Bumper Nose & Coupling End

GRIPPER MODIFICATIONS OFFERED

"Transfer Rollers" (replaces one gripper)

"Leaf Segments" (Urethane)

"Increased Expansion Range" and "Indicator Marks"

SAMPLE CUSTOM MANDRELS

"LT Standoff Mandrel" (large core diameters) (light weight design)

"Custom Couplings and Spindle Alignment Features Available"

"Rotating Mandrel" (mandrel rotates to allow material winding)
Fail-safe, spring force expanded grippers
Aluminum body, clear hardcoat anodized
Lightweight design, approx. (8 lb, 3.6 Kg)
Dimensions subject to change
* Custom configurations available

RETRACTION METHODS

**Pull**

![Diagram of a pull mechanism]

**T-Handle**
Most common machines: (MRT, HRL, VRL)

![Diagram of a T-handle]

**Pneumatic**
Most common machines: (MRT, HRL, VRL, ERT)
Continuous air supply present (50 psi min.)
Pneumatic Retract Kit Sold Separately

![Diagram of a pneumatic mechanism]

**Remote**
Most common machines: (ERT, ERT)
Electric Remote Retract (24VDC, 110VAC)
or
Manual Remote Retract (Cable & Hand Lever)
Remote Retract Kits Sold Separately

![Diagram of a remote mechanism]

**Toggle**
Most common machines: (ERT, ERT, VRL)

![Diagram of a toggle mechanism]

**Push**

**Gripper Profiles**

**Standard**
Cardboard cores
Most common applications

![Diagram of a standard cardboard core]

**Urethane**
Steel, Aluminum Cores
Non-marking 60-70 shore A

![Diagram of an urethane core]

**Shark Tooth**
PVC, Hard Cardboard Cores
Double Edge Contact

![Diagram of a shark tooth core]

**Piranha Tooth**
PVC, Hard Cardboard Cores
Single Edge Contact - High Wear

![Diagram of a piranha tooth core]
Fail-safe, spring force expanded grippers
Aluminum body, clear hardcoat anodized
Lightweight design, approx. (20 lb. (9 Kg))
Dimensions subject to change
* Custom configurations available

**RETRACTION METHODS**

**PULL**

**“T-Handle”**
Most common machines:
(MRT, HRL, VRL)

**“Remote”**
Most common machines:
(ERH, ERT)
Electric Remote Retract (24VDC, 110VAC)
Manual Remote Retract (Cable & Hand Lever)
Remote Retract Kits Sold Separately

**“Toggle”**
Most common machines:
(ERH, ERT, VRL)

**GRIPPER PROFILES**

**“Standard”**
Cardboard cores
Most common applications

**“Urethane”**
Steel, Aluminum Cores
Non-marking 60-70 shore A

**“Shark Tooth”**
PVC, Hard Cardboard Cores
Double Edge Contact

**“Piranha Tooth”**
PVC, Hard Cardboard Cores
Single Edge Contact - High Wear

**PUSH**

**LOCKING HEAD**
[104.90]
4.1

**OAL**
[405.97]
15.9

**“Core Insertion”**
[197.61]
7.8

**“BODY”**
[149.86]
5.9

**GRIPPER**
[107.95]
4.3

**OAL**
[348.76]
13.7

**OAL**
[391.16]
15.4