



Let Us Have a Positive Impact on Your Uniloy Trimmer!

This month's web posting is a menu of improvement options currently available for Uniloy Impact Trimmers. The following chart presents the upgrades and conversions and shows which trimmer models they are designed for:

Retrofits Available	Impact Trimmer Models					
	10026	10029	10039	10040	10041	10042
Beam Conversion	x	x				
Plastic Trimmer Buckets	x	x	x	x	x	x
Upper Enclosure	x	x	x	x	x	x
Non-Contact Switches	x	x	x	X	x	x
Top Hat Guard	x	x	x	X	x	x
S-Bar Conversion	x					
Split Crank Retrofit	x		x	X	x	x
Geneva to Ferguson	x		x	X		x
Keyless Bushing			x	X	x	x
Controls Retrofit	x	x	x	x	x	x
ACVF Drive			x	X	x	x
Jack Shaft Upgrade			x	X	x	

Single Chain Beam Conversion

Old style dual chain trimmer beams can be replaced with the newer single chain design. Dual chain style beams were original equipment on 10026 and 10029 trimmers. Replacement beams are of the same design as those on 10039 thru 10042 trimmers. The single chain design provides smoother bucket travel because of the reduced friction between the bucket carriers and the UHMWPE rails. Smoother indexing means reduced wear and extended life.

This retrofit includes:

- Conveyor Frame
- UHMWPE Rails
- Unistrut
- Spacers
- Idler Block, Stud, and Clamp
- Take Up Frame and Bearings
- Bucket Chain Sprockets and Shafts
- Bucket Chain and Master link
- Single Chain Style Bucket Carriers and Roll pins
- Bottle Guides, Adjusting Blocks, and Posts
- Chain Shrouds
- Fittings and Fasteners

Plastic Trimmer Buckets

Increase the productivity and repeatability of your trimmer. Lighten its load! Replace heavy stainless steel buckets with lighter, tougher urethane plastic buckets. Plastic buckets are significantly lighter than those made from stainless steel. A weight savings of as much as 1 lb per bucket multiplied by 36 buckets on a typical trimmer translates to:

- Less trimmer wear
- Less chain stretch
- Approximately 40% less torque and horsepower required for index
- Energy savings

Upper Enclosure

New upper enclosures are available for all impact trimmer models. The new design provides durability and improved aesthetics while maintaining excellent functionality. The enclosures are built out of extruded aluminum and have the following features:

- Hinged Trim Station Doors
- Magnetic Noncontact Switches
- Sliding Leak Detector/Blow off Door
- Optional Exit End Door

Non-Contact Switches

The original upper guard design used on impact trimmers included a tubular upper frame with downward extending polycarbonate guards attached to pivot rods. The pivot rods allowed the guards to be opened by lifting them in an arcing fashion. This style upper guard is called a “gullwing” style guard. These guards are not ANSI compliant as originally designed because a simple limit switch was used to indicate when the doors were open. Non-Contact safety switches can be retrofitted to the old style doors making them ANSI compliant.

This upgrade includes:

- Non-Contact Safety Switches
- Safety Relays
- Key Backing Plate
- Wire and Mounting Hardware

Top Hat Guard

The top hat guard is mounted on top of the trimmer’s upper platen. This guard protects operators from pinch points created by the S-bar guide rods and stop adjustment. This guard and its mounting hardware are required for ANSI compliance.

S-Bar Conversion

10026 trimmers original design did not include an S-Bar. The mechanism originally used on a 10026 is referred to as a “flipper”. The S-Bar and the flipper are both intended to steady the container during the trimming process. The S-Bar is more reliable than the flipper.

Includes:

- S-Bar
- Threaded Adjustment Rods
- Guide Rods and Bushings
- Upper Stop Nut Assembly
- Top Hat Guard

Split Crank Retrofit

The split crank retrofit replaces the splined crank shaft, drive sprocket, and counter weighted cranks in the deflash station of the impact trimmer. The design of the new parts eliminates the splined connections and replaces them with double keys. The new design also features two piece cranks and sprocket hubs which bolt together eliminating clearance on the keys. Benefits include smoother operation, less jams, and longer platen drive component life.

The retrofit package includes:

- Keyed Crank Shaft
- Split Hub Keyed Sprocket
- Split Counter Weighted Cranks
- Drive Sprocket
- Double 50 Chain (Double 60 Chain Optional)
- Flange Bearings
- Pins and Needle Bearings
- Fasteners

Geneva to Ferguson Indexer Conversion

Geneva index boxes were standard equipment on 10026, 10029, 10039, and 10040 trimmers. These boxes utilize a star wheel design to achieve the desired rotation of the index shaft relative to the platen drive shaft. The Ferguson index box utilizes a cam to achieve the desired shaft rotations. The Ferguson index box is more efficient and durable than the star wheel design. Any of the trimmers listed above may be converted to use the Ferguson box. The Ferguson upgrade is also recommended whenever converting 10039 or 10040 trimmers to a 16” index. The conversion typically includes:

- Ferguson Indexer
- Index Sprockets
- Platen Drive Sprocket and Bushing
- Indexer Top Plate
- Index Chain
- Platen Drive Chain

Keyless Bushing

There are two output shafts on a trimmer's index box. These shafts are internally linked and timed together as described in the previous section. The index shaft is used to move the buckets between trim cycles and the platen drive shaft is used to drive the lower platen to perform the trimming action. The process of setting up (or phasing) the bucket index with the platen movement is done thru the use of a pair of slotted sprocket hubs on the index shaft. These hubs are a high wear item. The inner hub is keyed to the index shaft and the outer hub is bolted to the drive sprocket. The bolted connection between the two hubs is slotted allowing for the phase adjustment. Key and keyway failure can be eliminated by using a keyless bushing. This bushing simply fits on the output shaft and inside the bore of the drive sprocket. Once phase adjustments have been made, the bushing is tightened which eliminates clearance and holds the sprocket firmly in place.

Includes:

- New Index Drive Sprocket
- Keyless Bushing

Controls Retrofit

Trimmer control retrofits are available to replace the existing controls in your impact trimmer. Original relay controlled trimmers, or trimmers currently controlled by a Maco system, can be updated to an independent Allen Bradley Compact Logix system, or incorporated in the machine controls if a new Compact Logix system is being installed in the main machine.

ACVF Drive

Impact trimmers are traditionally equipped with standard motor starters and belt sheaves sized to provide a trimmer with one speed. This means the trimmer must run faster than the blow molder and then stop and wait as the next set of bottles is loaded.

With a VF Drive, the trimmer speed can be slowed down to more closely match the machine cycle time. In some cases the trimmer dwell time can be eliminated altogether making it possible to run without cycling the trimmer brake.

Benefits Include:

- Slower trimmer speeds required
- Matched machine and trimmer cycle times
- Reduced wear on brake
- Reduced wear on trimmer drive components
- Energy savings

Package Includes:

- Drive Controller
- Inverter Duty Brake Motor
- Mounting Materials
- Sheaves
- Timing Belt
- Miscellaneous Seal Tight, Connectors, Wire

Jack Shaft Upgrade

The jack shaft upgrade is recommended whenever a trimmer index is 12 inches or longer. Indexes of this length require higher pulling forces which translate to increased torque on the drive sprockets. What makes matters worse is the limitation on how big the drive sprocket on the index shaft can be. This means that to increase the index length the driven sprocket on the conveyor beam shaft must get smaller. Higher torque on a smaller diameter sprocket means a high failure rate for keys, keyways, sprocket teeth and chain. The jack shaft upgrade makes it possible to use four sprockets instead of two to get the required reduction and index. The jack shaft upgrade will provide a more robust index drive for increased reliability and productivity.

Includes:

- Bearing Housing
- Intermediate Shaft
- Index Sprockets
- Index Chain
- Chain Tensioner
- Driven Conveyor Shaft
- Keys and Fasteners
- Chain Guards



Trimmer with Aluminum Enclosure



Plastic Buckets



10041 with Top Hat Guard

Sales and Service

For more information on any of these trimmer upgrades contact your local Uniloy Parts Sales Representative. Trained Uniloy Service Representatives are available to assist in the installation of these packages at your facility. All Uniloy retrofit packages are engineered to suit your individual machine specifications. Complete engineering documentation including assembly drawings, parts lists, and schematics are always included.