

# The Slagger®

The Slagger® cutting table is a complete package. Components necessary to complete a cutting system are supplied.

## Standard Table Components

**Table Frame and Support Surface:** Maximum work piece thickness for the standard table is 4 inches (100mm). Tables for thicker material are available. The table can be any size and corresponds to the cutting capacity of the cutting machine. The table arrives at the end user assembled in modules for final assembly on-site.



**Slag Pusher Blade Assembly:** Each table is divided into lengthwise bays by the side wall and duct modules. A Slagger unit runs within each lengthwise bay. Each Slagger unit travels the entire length of the table and pushes slag and small parts out of the table into a collection area or an optional slag bucket.

## Optional Equipment

The equipment described below enhances table operation and can be supplied by MG.

**Slat Retainers:** Bolt-in retainers prevent slats from lifting when using a magnet for material handling.

**Removable Slat Tray Assembly:** Fabricated structure that includes slats and built-in shields for damper doors; allows slats to be replaced quickly in modules, rather than individually; information is provided so users can make replacements.



Slag Scoop

**Slag Scoop:** The slag scoop rests on the floor at the front of the table and is hooked to the table. Slag is pushed into the scoop at the end of the cleaning cycle. When the scoop is full, integral lifting eyes can be used to remove and empty the scoop.

**Slag Bucket:** The slag bucket fits into a pit located in the floor at the front of the table. Slag is deposited into this bucket at the end of the cleaning cycle. There is one bucket for each Slagger Blade. When the bucket is full, integral lifting eyes can be used to remove and empty the bucket. When not in use, the slag bucket and pit is covered by a pneumatically operated door. *(See inside for photo)*

**Cartridge Type Dust Collector:** The fan, dust cartridges, and electrical and pneumatic controls to automatically clean the cartridges are included in one unit.

**Spark Trap:** This device is placed in the ductwork between the table and the collector and captures hot heavy particles that are in the smoke. The particles settle out and do not have an opportunity to travel the collector where they may interfere with operation.

## Connecting Ductwork (by end user)

This ductwork connects the table, spark trap, and collector. It is required but not supplied by MG since configurations may vary widely to suit individual applications.

## MG Systems

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# The Slagger®

*Advanced Cutting Support Table with Automated Slag and Smoke Removal*

- *Automatic table cleaning*
- *Small parts retrieval*
- *Zoned and ducted smoke removal*



U.S. Patents #6165410 and #6039915

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Welding, Inc.**

CUTTING MACHINES

TABLES

CONTROLS

OPTIONS



# The Slagger® Self Cleaning System

The patented Slagger® cutting table, developed at MG Systems and Welding in conjunction with a leading metal fabrication company, is unlike any other cutting table. The Slagger automates the removal of slag produced from plasma and oxyfuel cutting, as well as small parts that may have fallen into the table, using a pusher blade mechanism. This is achieved in under five minutes for most table configurations. The need to remove slats to retrieve small parts or clean the table is also eliminated.

The pusher blade is propelled with a positive rack and pinion drive. To clean the table, the operator simply runs the cutting machine into its park position, which sets the safety circuit. The Slagger drive is then turned on, moving the pusher blade unit forward, pushing the slag ahead of it. Utilizing a unique design, the Slagger pusher blade opens and passes under each of the downdraft zone swinging dividers automatically as it passes along. Once the Slagger has passed, the swinging divider returns to its vertical position to restore the smoke removal airflow capability during cutting. When the unit reaches the end of the table, the slag is pushed outside of the table for disposal.



*Slagger Pusher Blade Mechanism*

## Unique Zoned and Ducted Table

The Slagger includes a proven zoned downdraft table. Each zone uses a mechanically operated damper door actuated by a cam on the end truck of the machine. The damper door automatically opens as the machine passes over and is cutting in that section. This mechanical operation eliminates the possibility of the zone failing to open.

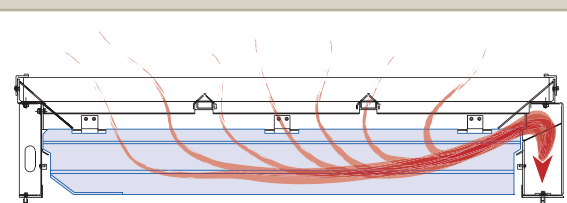
## Increased Efficiency

- Zones are automatically activated.
- Only 50% of any one zone needs to be covered for effective smoke removal and reduced material handling. Covered area must be biased toward the duct side of the table for best smoke removal.
- “Pass-through” zone dividers allows automatic cleaning of the slag.
- Engineered dust collection system provides effective smoke removal for a cleaner operation.

*Damper Doors are actuated by mechanical cams using a cam on the cutting machine*



## Cross Section of Table

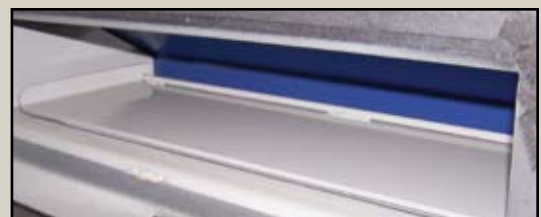


*Illustration of smoke exiting table through side duct*

## View Inside Table



*Damper Door Open - Cam active*



*Damper Door Closed - Cam inactive*

# Smoke Removal Cutting Table



*Slagger Blade during the cleaning cycle  
(Shown moving under a swinging  
zone divider)*



*Slagger Blade pushes the slag  
into the Slag Bucket (optional)*



*Slag Bucket (optional) can be removed  
for emptying at a convenient time*

## Automatic Table Cleaning and Small Parts Retrieval

- Table cleaning time reduced up to 95%.
- Eliminates need to shut down the cutting process for long periods and dig the slag out of the table.
- Small parts that fall through are generally retrieved during cleaning cycle without having to reach through the table. Retrieval efficiency is dependent upon part configuration.
- Slagger cleaning time for an average size 12' x 50' (3.7m x 15.25m) cutting table is 5 minutes, compared to 1 or 2 shifts with a conventional cutting table of the same size.
- Production is increased and costs are decreased with the Slagger's greatly reduced cleaning time and low labor requirements.

## Efficient Slag Removal

- Slagger cleaning procedure takes only minutes and should be done once per day or once per shift for best results.
- No extra equipment or removal of ANY part of the table is required.

## Smoke and Dust Removal

*(purchased separately)*

MG offers dust collectors for use with the Slagger. The smoke is drawn from the table and through a cartridge type smoke collector by a fan. The size of the collector is selected by MG based on the size of the table and the number and type of cutting torches. All functions of the table are controlled from the electrical cabinet, including switches to turn on the collector. The smoke collector provides a cleaner and safer working environment.

*Cartridge filters are easily removed  
and changed utilizing side access  
panel of dust collector*

*(MG dust collector optional)*

