WELDING AND CUTTING CARRIAGE - KAT® FOR RIGID TRACK

The Gullco Rigid KAT® is used throughout the world to automate a wide variety of welding and cutting operations. It is a durable, reliable precision travel carriage designed for use on rigid track which enables it to operate along any plane. The rigid track can be used in straight sections or can be formed for use on curved surfaces. Gullco manufactures several systems and accessories designed for use with the Rigid KAT® making it one of the most versatile pieces of welding and cutting automation equipment available in the industry.
The Gullco Rigid KAT® carriage is used throughout the world to automate and improve the quality and efficiency of single or multiple “head” welding and cutting operations. Welding guns or cutting torches mounted on the KAT® carriage move along Gullco standard or deep section track at precisely controlled speeds along the desired path in forward or reverse direction. Gullco’s Rigid KAT® carriage enables welding guns or cutting torches to operate with precise motion from start to finish regardless of the number of passes or the work pieces involved, improving the quality, efficiency and repeatability of the process. Poor or awkward accessibility, operator fatigue, or inconsistent workmanship are eliminated. This unit is designed for operation on flat or curved surfaces as the track can be used in straight sections or roll formed to follow the contour of the work piece. The self-aligning wheel system of the carriage grips the top and bottom of the track, enabling it to travel along any plane. The adjustable wheel assembly keeps the carriage snug to the track, while allowing it to be easily mounted and removed from the track at any point. The positive drive of the KAT® is obtained from a uniquely designed rack and pinion system, driven by a low voltage permanent magnet motor and gearhead power unit assembly.

Automated Welding System

KAT® Rigid Track

Auto-Weld Carriage System

The KAT® Auto-Weld Carriage option enables a wide variety of automated welding and cutting overlay cycles that can be repeatedly performed. The GSP control in this unit controls travel direction/speed and length of travel path and synchronizes them with precise weld start and weld stop settings. This travel carriage is pre-drilled for mounting Auto-Weld accessories (sold separately). It is ideal for stitch welding and seam welding applications where repeatability is desired. The reliability and precision of this automated welding and cutting system reduces cost, adds efficiency and improves quality.

Cladding / Overlay System

The Indexing option Rigid KAT® uses a GSP control that combines control of the carriage movement and start/stop parameters with precise indexing of the torch at the end of the path. This fully automates and increases the efficiency of overlay welding operations, flame spray work, hard facing etc. At the end of the path the travel carriage automatically stops and reverses direction while at the same time indexing the gun/torch. It can be programmed to weld or not weld during indexing. Carriage is pre-drilled or quick mounting of the indexing unit (sold separately).

Oscillation Welding System

The oscillator is available with a linear, pendulum, tangential or step (square pattern) motion to the welding gun with adjustable motorized stroke width, infinitely variable stroke speed adjustment, three independent position dwell times, motorized centre line positioning and automatic wire feed start and travel start/stop interface.
The Gulco Standard Platform range of controls have switching for forward / neutral / reverse, run / stop, Manual / Auto & program variable increment/decrement (where applicable) and a rotary encoder for speed control. This micro-processor based, 24 volt DC motor control can be supplied to provide a variety of “optional” functions such as indexing, weld oscillation and auto-weld. The selected “option” function and carriage travel speed/direction are directed by a single GSP control. This ensures high levels of accuracy, quality and reliability.

**SPEED RANGES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SPEED RANGE</th>
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<tbody>
<tr>
<td>RL</td>
<td>0.5 to 16.4 IMP (1.2 to 41.6 cm/min)</td>
</tr>
<tr>
<td>RM</td>
<td>1 to 32.7 IPM (2.5 to 83.1 cm/min)</td>
</tr>
<tr>
<td>RH</td>
<td>2.7 to 88.4 IPM (6.7 to 224 cm/min)</td>
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</tbody>
</table>

**VOLTAGES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>INPUT SUPPLY</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>42 VAC</td>
</tr>
<tr>
<td>B</td>
<td>115 VAC</td>
</tr>
<tr>
<td>C</td>
<td>230 VAC</td>
</tr>
</tbody>
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**SPECIFICATIONS**

Weight: 29 lbs (13 kg)
Vertical Load Capacity: 100 lbs (45 kgs)
Drive Motor: 24 VDC permanent magnet gear motor
Supply Voltage: 42, 115, 230 VAC, single phase
Complies With: CSA & CE Certification

Unique Drive System and Wheel Assemblies Enable Travel in All Positions Including Overhead

Positive drive rack and pinion system

Self-aligning wheel assemblies run on both top and bottom of track... enabling operation on any plane.
**RIGID KAT® TRACK SYSTEMS**

Gullco Rigid Track is made from precision extruded aluminum and a securely affixed steel rack. The interchangeable end design enables fast accurate joining of the track sections. Standard Track, used in most portable applications, is available in 48, 96 and 120 inch (1219, 2438 and 3048 mm) lengths and can be formed to suit the work contour. Deep Section Track is used in permanent, straight run applications. It is available in 60” and 120” (1524 and 3048mm) lengths. The track is securely mounted on ferrous materials using round or square magnet assemblies. Vacuum mount assemblies can be used on non-ferrous or ferrous materials.

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**Rigid KAT® Automation Carriage Accessories**

1 - Rack Arm
2 - Rack Box
3 - Clamps
4 - Semi-Automatic Gun Holder
5 - Bronze Cutting Torch Holder
6 - 4 Motion Semi-Automatic Gun Holder
7 - Remote Control Pendants
8 - Idler Carriages
9 - Cable Support Clamps
10 - Riser Bracket

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**TRACK MOUNTING DEVICES**

- Rare Earth On/Off Track Magnet
- Vacuum Track Mounting Device
- Formed Ring Quick Installation Device

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**SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL DIMENSIONS ARE NOMINAL**

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