**MECHANICAL SEAM TRACKER AND HEIGHT SENSOR SYSTEM**

Gullco Mechanical Seam Trackers and Height Sensors are designed for use with the Gullco Kat Travel Carriage to accurately maintain the required, pre-set distance between the gun or torch and the workpiece in automated welding and cutting operations.

Three models are available to effectively meet various application needs. All are constant velocity, spring-type sensors utilizing hardened and ground slide bars with recirculator ball bushings to provide 1-3/4" (44mm) of torch float.*

Model GK-190-600 Height Sensor has an adjustable swivel copper guide wheel to contact the work surface.

Model GK-190-602 Height Sensor has a stainless steel ball transfer that is particularly useful to maintain contact on curved surfaces or vertical applications.

Model GK-190-603 Seam Tracker is specifically designed for fillet welding applications.

*Other float distances available on request.

**MODEL GK-190-600**

Mechanical Height Sensor with constant velocity spring, hardened ground rods and recirculator ball bushings to provide 1-3/4" (44mm) of torch float.

Supplied complete with adjustable, swivel copper guide wheel, 1-1/8" (28mm) sq. rack box, 12" (304mm) rack arm and swivel mounting clamp for attachment to Kat Travel Carriage arm.

**MODEL GK-190-602**

Mechanical Height Sensor with constant velocity spring, hardened ground rods and recirculator ball bushings to provide 1-3/4" (44mm) of torch float.

Supplied complete with hardendainless steel ball assembly, 1-1/8" (29mm) sq. rack box, 12" (304mm) rack arm and swivel mounting clamp for attachment to Kat Travel Carriage arm.

**MODEL GK-190-603**

Mechanical Seam Tracker with constant velocity spring, hardened ground rods and recirculator ball bushings to provide 1-3/4" (44mm) of 45º torch float and 1-1/4" (31.75mm) of weld seam misalignment in both the horizontal and vertical plane. The assembly includes a Micro Cross-slide with gun holder to provide 3/4" (19mm) of XY adjustment. Supplied as standard with single copper guide wheel, 1-1/8" (29mm) sq. rack box, 12" (304mm) rack arm and 1-1/8" (29mm) swivel mounting clamp for attachment to Kat Carriage rack arm.

**MODEL GK-190-604**

Dual in-line guide wheels react independently when tack welds encountered on thin edge material, one always in contact with the weld seam.

**MODEL GK-190-605**

Dual, side-by-side guide wheels straddle tack weld line in general range of Fillet Weld applications.

**SPECIAL SENSOR GUIDE WHEEL ASSEMBLIES**

For Fillet Welding applications involving tack welds.

Model GK-190-604 Dual in-line guide wheels react independently when tack welds encountered on thin edge material, one always in contact with the weld seam. 

Model GK-190-605 Dual, side-by-side guide wheels straddle tack weld line in general range of Fillet Weld applications.

**KAT TRACKER**

**ELECTRONIC SEAM TRACKING SYSTEM**

...high precision tracking system that maintain the torch in optimum operating position regardless of variations in the weld seam...providing improved quality and efficiency in a wide variety of welding operations.
GULLCO KAT TRACKERS

Gullco Kat Trackers are available in standard or heavy duty models to meet virtually all welding operations. The systems are effectively employed to cut costs and increase productivity in a wide range of applications such as tank, pressure vessel, pipe and structural component fabrication and deep groove welding operations.

Gullco Kat Trackers are available in standard or heavy duty models to meet virtually all welding requirements. A brief description of each is provided below.

**GULLCO KAT TRACKERS**

These Trackers provide precise right/left and vertical/horizontal tracking plus...

- ELECTRONIC “END OF PLATE DETECTION” - cuts the tracking system on “hold”.
- Preventing the torch from driving into the plate and allowing welding to continue to the plate edge.

- ELECTRONIC “TACK DETECTION” - interrupts the automatic tracking action when a tack weld is encountered preventing the torch from rising prematurely and returns the system to normal action when it reaches the end of the tack weld.

**Specifications:**

- **GULLCO MODEL WSG-1200 KAT TRACKER SYSTEM**
  - **SYSTEM COMPONENTS**
    - Main Control Box, Pendant Remote Control Box, Probe, Probe Micro Cross-Slide, Motorized Cross-Slide Assembly, Probe-To-Torch Mounting Bracket, Control Cables from Probe and Cross-Slide to Main Control Box, Torch Holder
    - With vertical/horizontal adjustment, Brackets for mounting Cross-Slide and Main Control Box on Kat Travel Carriage.

**MAIN CONTROL BOX**

Incorporates main power switch, On/off pilot light, signal lights indicating sensing function and fuse. Electronic circuit components incorporated in modular system with Circuit boards for easy maintenance.

- **SINGLE DIRECTION SENSING**
  - Size: (H) 5-1/2” (W) 2” (D) 1-1/2”
  - (140 x 50 x 38mm.)
  - Weight: 2 lbs. (900 grams)

**PENDANT REMOTE CONTROL BOX**

Incorporates manual/automatic changeover switch and inching switch -vertical, up/down and horizontal left/right.

- **SINGLE DIRECTION SENSING**
  - Size: (H) 5-1/2” (W) 2” (D) 1-1/2”
  - (140 x 50 x 38mm.)
  - Weight: 2 lbs. (900 grams)

**PROBE**

Supplied complete with replaceable 1/8” dia. Probe tip. Assembly incorporates a Shock Protector that protects the system’s electronics by breaking when heavy shock is encountered.

**PROBE MICRO-CROSS-SLIDE**

Provides precise manual pre-positioning of probe relative to torch prior to automatic operations. Stroke plus or minus 3/4” (20mm).

- **SINGLE DIRECTION SENSING**
  - Weight: 1-3/4 lbs. (900 grams)

**MOTORIZED CROSS-SLIDE ASSEMBLY**

- **WSG-1200**
  - Vertical Load Capacity: up to 55 lbs. (25kg)
  - Standard Stroke Length: 4” (100mm)
  - Standard Stroke Speed: 10.16 in/min (258 mm/min)
  - Weight: 91 lbs. (41.5kg)

- **WSG-2200**
  - Vertical Load Capacity: up to 100 lbs. (45kg)
  - Standard Stroke Length: 6” (150mm)
  - Standard Stroke Speed: 9.8 in/min. (250 mm/min)
  - Weight: 235 lbs. (107kg)

**Power Requirements:**

- 110/115 Volt AC-Single phase 50/60 Hz
- Longer slides, other speeds and higher capacity units available on request

**GULLCO MODEL WSG**

- **Model WSG-1200**
  - Standard stroke is 6” x 6” (150x150mm).
  - Weight: 2 lbs. (900 grams)

- **Model WSG-2200**
  - Standard stroke is 4” x 4” (100x100mm).
  - Weight: 2 lbs. (900 grams)

**KAT TRACKER ELECTRONIC SEAM TRACKING SYSTEMS**

Kat Trackers are precise, dependable and highly versatile. They can be used with a wide range of Gullco accessories/systems such as oscillators, bridge units, multiple torch assemblies etc. Contact Gullco with your requirement.

The quality and efficiency achieved with today’s automated welding systems can be impaired by material warpage, misalignment, irregular edge fit-up, different material thickness and other conditions that cause variations in the weld seam.

Gullco Kat Tracker restore optimum performance when these conditions are encountered. They continually sense the slightest variation across the weld seam and automatically correct the position of the weld torch.

The trackers are designed for incorporation and use with the Gullco Kat travel carriage system but can readily be used with other travelling and rotating devices employed in automated welding operations.

The systems are effectively employed to cut costs and increase productivity in a wide range of applications such as tank, pressure vessel, pipe and structural component fabrication and deep groove welding operations.

Gullco Kat Trackers are available in standard or heavy duty models to meet virtually all requirements. A brief description of each is provided below.

**GULLCO MODEL WSG**

- **Model WSG-1200**
  - This model has up to 55 lb. (25kg) vertical load capacity at 4” (100mm) extension from the face plate. The standard stroke is 4” x 4” (100x100mm).

- **Model WSG-2200**
  - The heavy duty version of model WSG-2200 with a vertical load capacity up to 100lbs. (45kg) at 6” (150mm) extension from the face plate. The standard stroke is 6’ x 6’ (150x150mm).

**Note:** The above data applies to standard side assemblies. Other side lengths, speed and higher capacities are available.