WELDING AND CUTTING AUTOMATION



ELECTRONIC SEAM TRACKING SYSTEM - KAT®





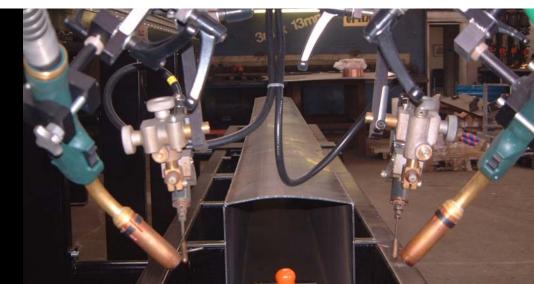
A high precision tracking system that maintains the torch in optimum operating position regardless of variations in the weld seam. This provides improved quality and efficiency in a wide variety of welding operations.

High Precision Weld Tracking System

MAINTAIN THE TORCH IN OPTIMUM OPERATING POSITION TO PRODUCE THE HIGHEST QUALITY WELDS



WELDING AND CUTTING



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® Trackers 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.



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.



GULLCO KAT® TRACKERS

These Trackers provide precise vertical and horizontal tracking plus...

ELECTRONIC "END OF PLATE DETECTION"

- puts 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 tackweld is encountered preventing the torch from rising prematurely...and returns the system to normal action when it reaches the end of the tack weld.

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 100 lbs. (45 kg) at 6" (150mm) extension from the face plate. The standard stroke is 6"x6" (150x150mm).

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

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. 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. Size: (H) 5-1/2" (W) 2" (D) 1-1/2" (140 x 50 x 38mm.) Weight: 2 lbs. (900 grams)

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Kat Tracker

PROBE

Supplied complete with replaceable 1/8" dia. Probe tip. The 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). Weight: 1-3/4 lbs. (900 grams)



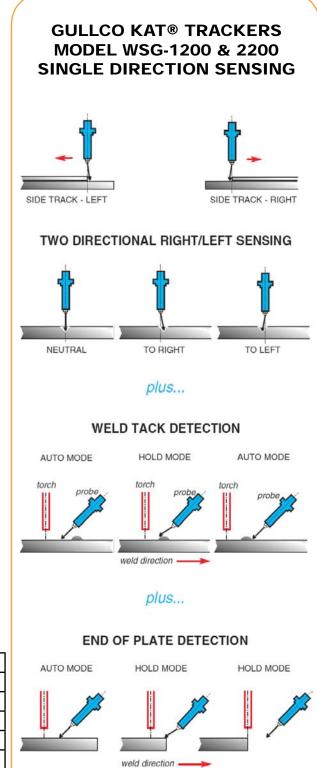


MOTORIZED CROSS-SLIDE ASSEMBLY

Model	WSG-1200	WSG-2200
Vertical Load Capacity:	up to 55 lbs. (25kg)	up to 100 lbs
Standard Stroke Length:	4" (100mm)	6" (150mm)
Standard Stroke Speed:	10.16 in/min	9.8 in/min
Height	14" (355mm)	18 1/2" (472mm)
Width	14" (355mm)	18 1/2" (472mm)
Depth	4 3/4" (120mm)	6 1/2" (170mm)
Weight	22 lbs. (10kg)	50.6 lbs. (23kg)

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

...incorporating sensing modes that cover virtual all tracking requirements



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.

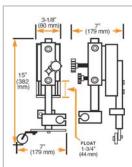
Three models are available to effectively meet various application needs. All are constant velocity, spring-type sensors utilizing hardened and ground slide bars with recirculator ball bushings to provide 1-3/4" (44mm) of torch float.*

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.



(179 mm



ground rods and circulator ball bushings to provide 1-3/4" (44mm) of torch float. Supplied complete with adjustable,

swivel copper guide wheel, 1-1/8" (29mm) sq. rack box, 12" (304mm) rack arm and swivel mounting clamp for attachment to KAT® Travel Carriage arm.

MODEL GK-190-602

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

Supplied complete with hardened stainless 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 45° 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.

(A) When the weld seam is below the Kat carriage level, the sensor rack arm clamp is located below the sensor rack box.

(B) When the weld seam is above carriage level the sensor rack arm clamp is positioned above the sensor rack box. Additional height adjustment may be required. We recommend the use of our Rack Box Riser Assembly (below) to increase the carriage rack arm height by 2", 4" or 6"



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.



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