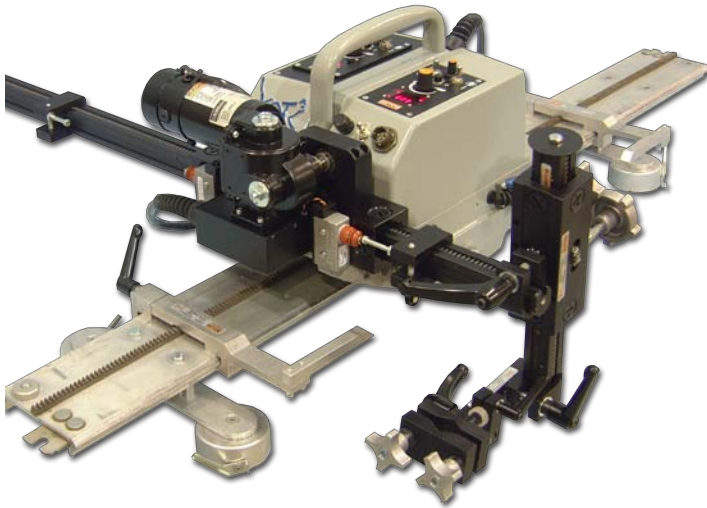




CLADDING AND OVERLAY SYSTEM - KAT® INDEXER



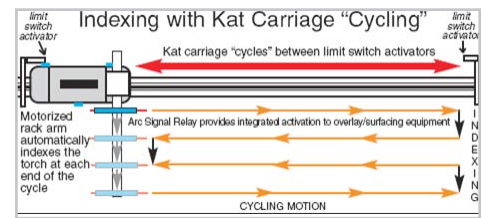
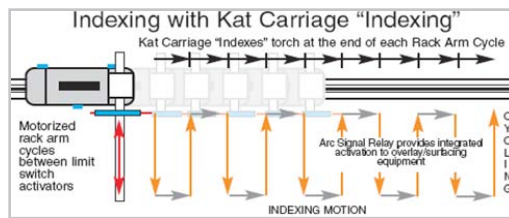
The Gullco KAT® Indexing System is typically used to automate single or multi-head overlay and cladding welding operations, hard surfacing, etc. The automatic routine drives a motorized device (either the KAT® carriage or the motorized rack arm), cycling back and forth between limit switches. When the device that is cycling reaches a limit switch, it pauses, and the other motorized device starts to index the gun/torch a preset distance in a preset direction allowing for consistent uniform weld patterns.

An Arc Signal Relay is supplied with the system to provide integrated arc activation signals to the overlay/surfacing equipment. Two Gullco Standard Platform (GSP) controls, each with dedicated microprocessor chips, are used to control the automatic, two axis indexing system. One GSP control is the Cycle Control and the other is the Index Control. Each control offers user programmable parameters and variables to allow fine tuning and functional control of the automatic cycle.

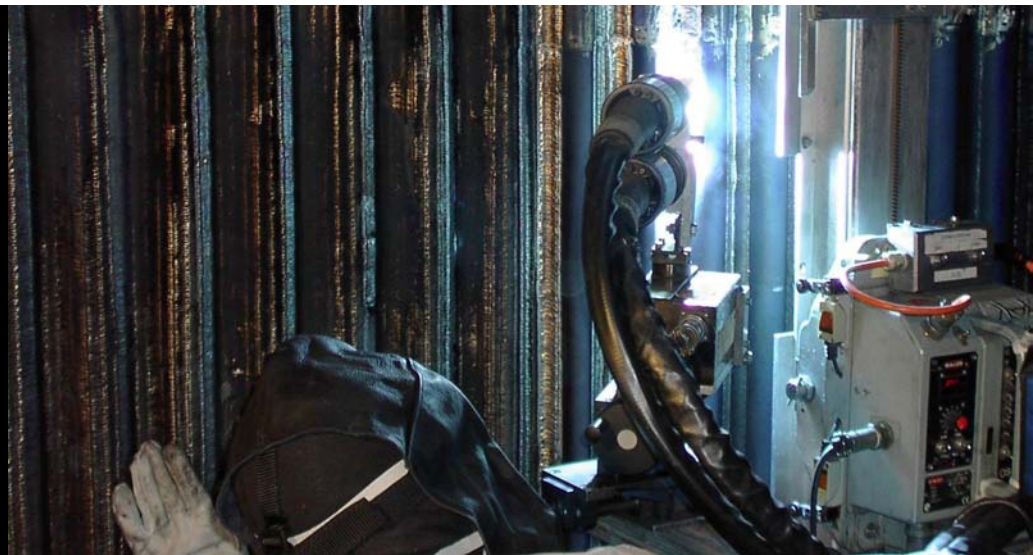
Gullco Indexing Systems, enable repetitive overlay- surfacing cycles to be preformed, with precise motion of the gun/torch from start to finish, regardless of the number of passes of the work pieces involved.



A Remote Control Pendants Is Available When Required



Automates Overlay and Cladding Welding Operations
 MODELS AVAILABLE FOR USE WITH RIGID AND FLEXIBLE TRACK SYSTEMS



SPECIFICATIONS

Main Components: KAT® Travel Carriage (Flex KAT® for use on flexible track or Rigid KAT® for use on rigid track), KAT® Carriage/Indexer controls, Motorized Indexer Rack Box, Heavy Duty Rack Arm, Control Cable, Limit Switch activators for Carriage and Rack Arm, Torch Holder for standard MIG gun.

Controls: Two GSP controls mounted in the KAT®, each with dedicated microprocessor chips, are used to control the automatic, two axis indexing system. One drives the KAT® carriage; and one drives the motorized rack arm. They provide: Auxiliary wire feeder on/off, 16 Position Switch giving selectable index increments, Maximum travel of 24" (609 mm) using 36" (914 mm) long rack arm, Two Digit Display indicating the time that rack arm will index, KAT® Carriage Forward/ Reverse Switch and Carriage speed potentiometer, rack arm Jog Switch and Left/Off/Right switch, Auto On/Off switch, LED display.

Indexing Motorized Rack Box: Complete with limit switches and activators to prevent rack arm overrun, high torque gear motor to provide precise repeatability of the rack arm indexing distance. Standard assembly combines heavy duty 8" (203 mm) long rack box with 1-1/8" (29 mm) sq. x 36 (914 mm) long rack arm. Other lengths available.

Flex or Rigid KAT® Travel Carriage: with microprocessor pulse width modulation motor controls offering operator interface of forward, stop, reverse and infinitely variable control of the speed, within the range of the models. Travel speeds of the KAT® and rack box are electronically controlled using an optical tachometer on the back of each gear-motor. Through the use of this closed loop, feedback circuitry, each motor control can obtain accurate and constant speed control of the equipment when running in any plane, regardless of the load (within the rating of the equipment). The length of the KAT® travel path is pre-set by positioning the Track Stops at each end of the desired path. They engage and activate limit switches on the KAT® Travel Carriage to: automatically stop the travel carriage and reverse its movement, activate the control that indexes the rack arm and signals the welding gun to weld or not weld during indexing.

Safety is greatly enhanced by the use of Gullco's low voltage (24V), highly advanced controls and power supply system. Three line voltage inputs, 42, 115 and 230 VAC, single phase, 50/60 Hz, are available (see chart below).

RIGID KAT® AUTO-WELD

| MODEL | SPEED RANGE |
|-------|--------------------------------------|
| L | 0.5 to 16.4 IPM (1.2 to 41.6 cm/min) |
| M | 1 to 32.7 IPM (2.5 to 83.1 cm/min) |
| H | 2.7 to 88.4 IPM (6.7 to 224 cm/min) |

Select a speed range and voltage to determine your Rigid KAT® Indexer Model Number.

| VOLTAGES | |
|----------|--------------|
| MODEL | INPUT SUPPLY |
| A | 42 VAC |
| B | 115 VAC |
| C | 230 VAC |

REMOTE PENDANT CONTROL KIT

For use with the Rigid and Flexible Track KAT® Indexer System. Comprising of Remote Pendant (no control) attached to 8 ft. (843.84 cm) control cable on one end and KAT® control blanking plate on the other end with internal connectors at each end. This remote pendant uses the GSP controls removed from the KAT® Carriage. This kit can be easily field installed (or factory installed at no charge)

FLEX KAT® AUTO-WELD

| MODEL | SPEED RANGE |
|-------|---------------------------------------|
| L | 0.8 to 25.8 IPM (2 to 65.4 cm/min) |
| M | 1.5 to 51.5 IPM (3.9 to 131 cm/min) |
| H | 4.2 to 139.1 IPM (10.6 to 353 cm/min) |

Select a speed range and voltage to determine your Flex KAT® Indexer Model Number.

| VOLTAGES | |
|----------|--------------|
| MODEL | INPUT SUPPLY |
| A | 42 VAC |
| B | 115 VAC |
| C | 230 VAC |

Remote Control Indexer for Miscellaneous Rotation Equipment

Comprising of one (1) control box with switches for rack arm jog, cycle start and speed potentiometer. Index distance setting in a range from 0.01 to 9.99 in increments of 0.01. A single limit switch on 15 ft. (4572 mm) cable to provide 1/8" (29 mm) rack arm 36" (914 mm) long providing 24" (609 mm) of variable speed arm travel 1 to 32.7" (25 to 83.1 cm) per minute with limit switches to prevent rack arm over-travel and to stop the wire feeder. Two (2) adjustable rack arm limit switch stops and one (1) four-motion welding gun holder.



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