

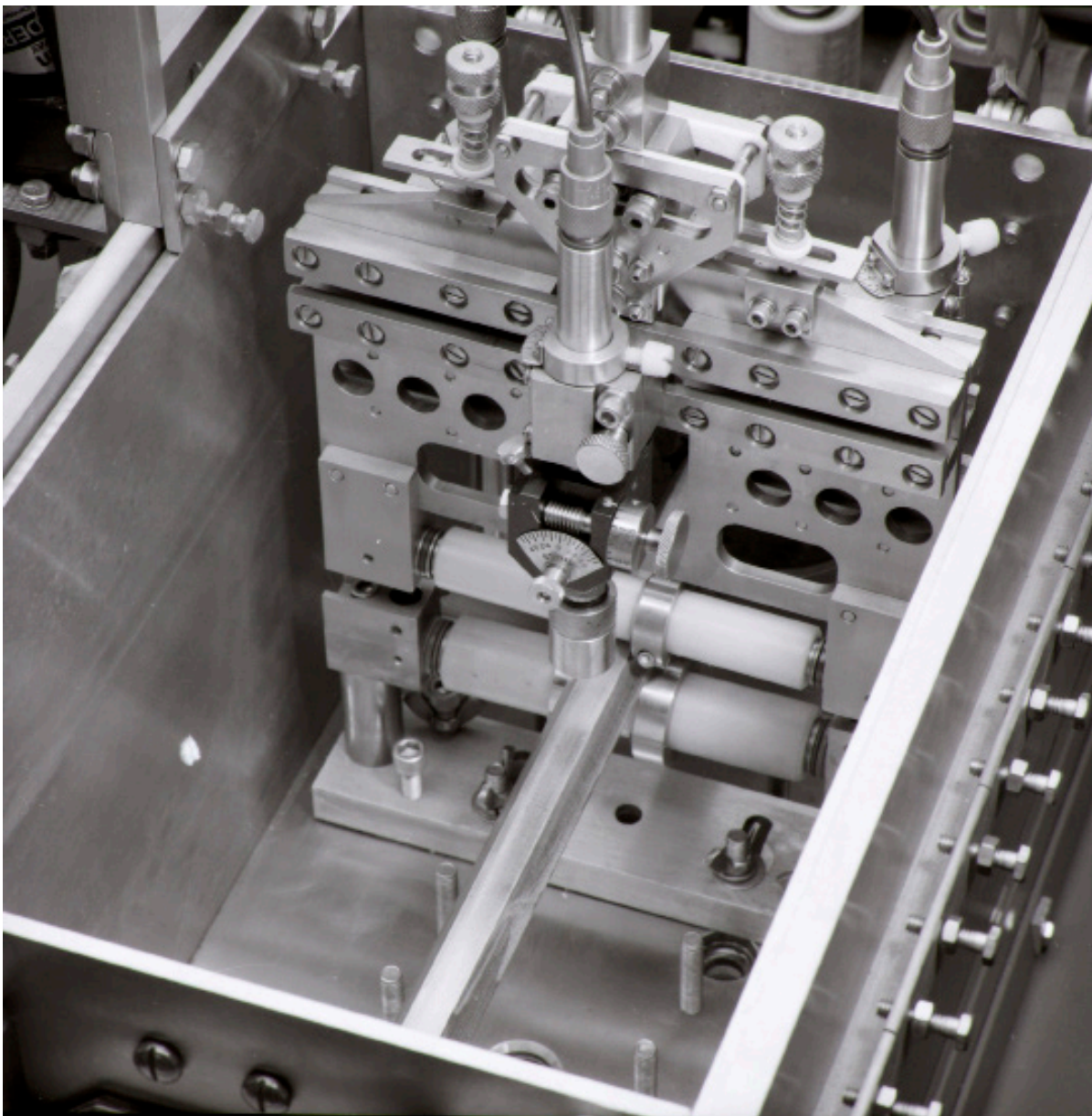


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MAGNETIC ANALYSIS CORP.

# Ultrasonic Inspection Systems for Flat-Sided Material Squares, Rectangles, Hexagonals, Strip

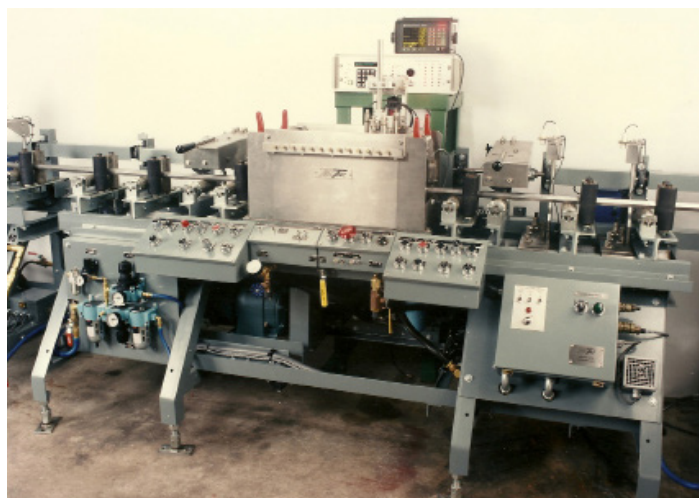


## Ultrasonic Inspection Systems for Flat-Sided Material - Rectangles, Squares, Hexes & Strip

TACTIC has had several decades of experience with our Model 78 "Combination Testers" and corresponding input and output conveyors ("Idler Sections") for handling and inspecting either round or flat-sided bars and tubes. These testers are intended primarily for laboratory environments rather than for high production use. One reason is the time required to install and remove roller assemblies when converting from rounds to flats and vice versa.

Now TACTIC Model 77 Testers, Model 700 series Idler Sections and accessories (such as loaders, sorters, followers, etc.) are available. This equipment is designed exclusively for flat-sided material. These items provide a "no compromise" approach to high production inspection of rods, bars, tubes and strip. Examples of some of the standard models are described in these pages. Models for other size and weight ranges may be obtained on special order.

## Model 77EX-18 "Standard-Duty" Tester



*Model 77EX-18 Tester with Model 1088 controller for automatic loading, unloading, and sorting*

**THROUGHPUT SPEED** ..... variable up to 60 ft./min. (18m/min.)

### MATERIAL SIZE RANGE

#### Rectangles

Maximum Height of piece .....3-1/2 in. (90 mm)

Maximum Width to 3" (75 mm) ht. .... 4 in. (100 mm)

Maximum Width at 3-1/2" (90 mm) ht. .... 3 in. (75 mm)

#### Hexagonals

Maximum Width (across flats) .....3-1/2 in. (90 mm)

**Maximum Piece Weight** ..... 30 lbs./ft. (45 kg/m)

**MOTOR**.....3 HP, 3 phase, 50/60 Hz (specify)

## Model 219B Belt-Driven Loader

The loader consists of a series of arms. Each arm has a motor-driven belt to feed material toward adjustable end stops, a pivoted lifting arm that is raised by an oil over air cylinder and an air-actuated pusher to position each loaded piece on the input conveyor. One hand wheel positions stops on all arms to accommodate various piece widths. Operation can be by push-button actuation or fully automatic with the optional Model 86 Automatic Loader Controller.



### APPROXIMATE SPECIFICATIONS

Maximum Weight/Arm	1000 lbs. (450 kg)
Maximum Weight/Piece	30 lbs./ft. (45 kg/m)
Maximum Piece Width	3-3/4 in. (95 mm)
Maximum Load Width	60 in. (1525 mm)

## Model 191B Belt-Fed Sorter

The Sorter consists of a group of “stations” each with an “accept bin” and a “reject bin”. “Gates” over the reject bins contain motor-driven belts to convey pieces from output conveyor to accept bin. If an unloaded piece has a defect indication the gates are raised by air cylinders, as shown in the picture, to allow the piece to fall into the padded reject bin. This action may be push-button activated or, with the optional Model 1088 Marker/Sorter Controller, be fully automatic.



### APPROXIMATE SPECIFICATIONS

Maximum Weight/Arm	1000 lbs. (450 kg)
Maximum Weight/Piece	30 lbs./ft. (45 kg/m)
Maximum Piece Width	27-3/4 in. (705 mm)
Maximum Load Width	24-3/4 in. (630 mm)

Contact us to learn more about our Ultrasonic Inspection Systems for flat-sided materials.

## SYSTEM COMPONENTS AND ACCESSORIES

### Model 473R/476R Followers

The Model 473R Follower is installed in the immersion tank on a TACTIC Tester. As its roller rides on material passing through the tank, the follower supports and positions up to three transducers with respect to the material surface. The Model 476R does the same for up to six transducers.

Each transducer is angulated by means of a Model 140 Precision Miniature Manipulator (Bulletin 1400). The follower is forced against the material, and raised when desired, by an air cylinder arrangement similar to that in TACTIC Model 411 Followers (Bulletin 4110).

With appropriate choice of Tester and tank, the maximum material size range for Model 473R/476R is 4-3/4" x 4-3/4" (120 x 120 mm). Models for other size ranges may be obtained on special order.

### Model 280, 281 & 282 In-Tank Roller Supports

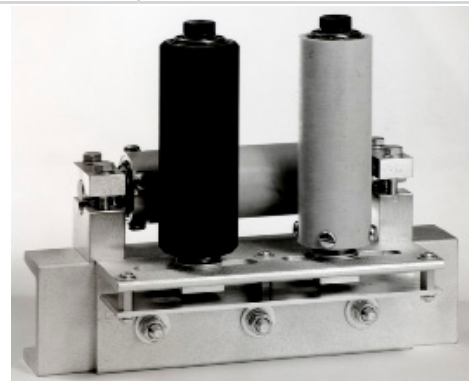
These in-tank roller supports for flat-sided material consist of a horizontal nylon roller and several options for an overhead pressure roller. These are described in the following table.

MODEL	DESCRIPTION	USE
280	Single bottom roller only.	Under followers. For material in widths to 4-3/4" (120 mm).
281	Model 280 + spring-loaded top wheel.	Between transducer positioners (e.g., Model 45-9, Bull. 453) for small material.
282	Model 280 + spring-loaded top roller.	Between fixed positioners or followers - for strip to 4-3/4" (120 mm) wide.

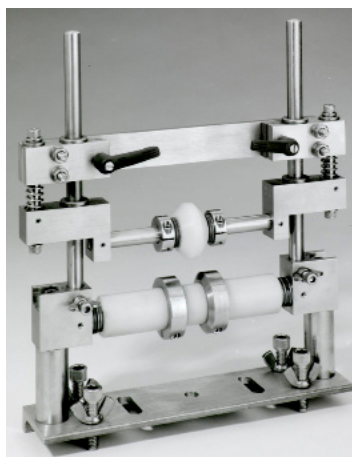
### Model 285/285G & 286 Roller Assemblies

These ball bearing roller assemblies are used to support and position material on Tester and Idler Sections. Hard fiber covers are easily replaceable on horizontal and back vertical rollers. The following models are available.

MODEL	DESCRIPTION	USE
286	Horizontal with hard fiber cover.	Under all drive wheels and along Idler Sections.
285	Model 286 + 2 vertical rollers (1 hard & 1 soft rubber).	On Tester & near ends of Idlers to center material.
285G	Model 285 + motor-drive positioning of back rollers.	To reduce change-over time for new material sizes.



Model 285 Horizontal & Vertical Roller Assembly



Model 281 In-tank Roller Support