

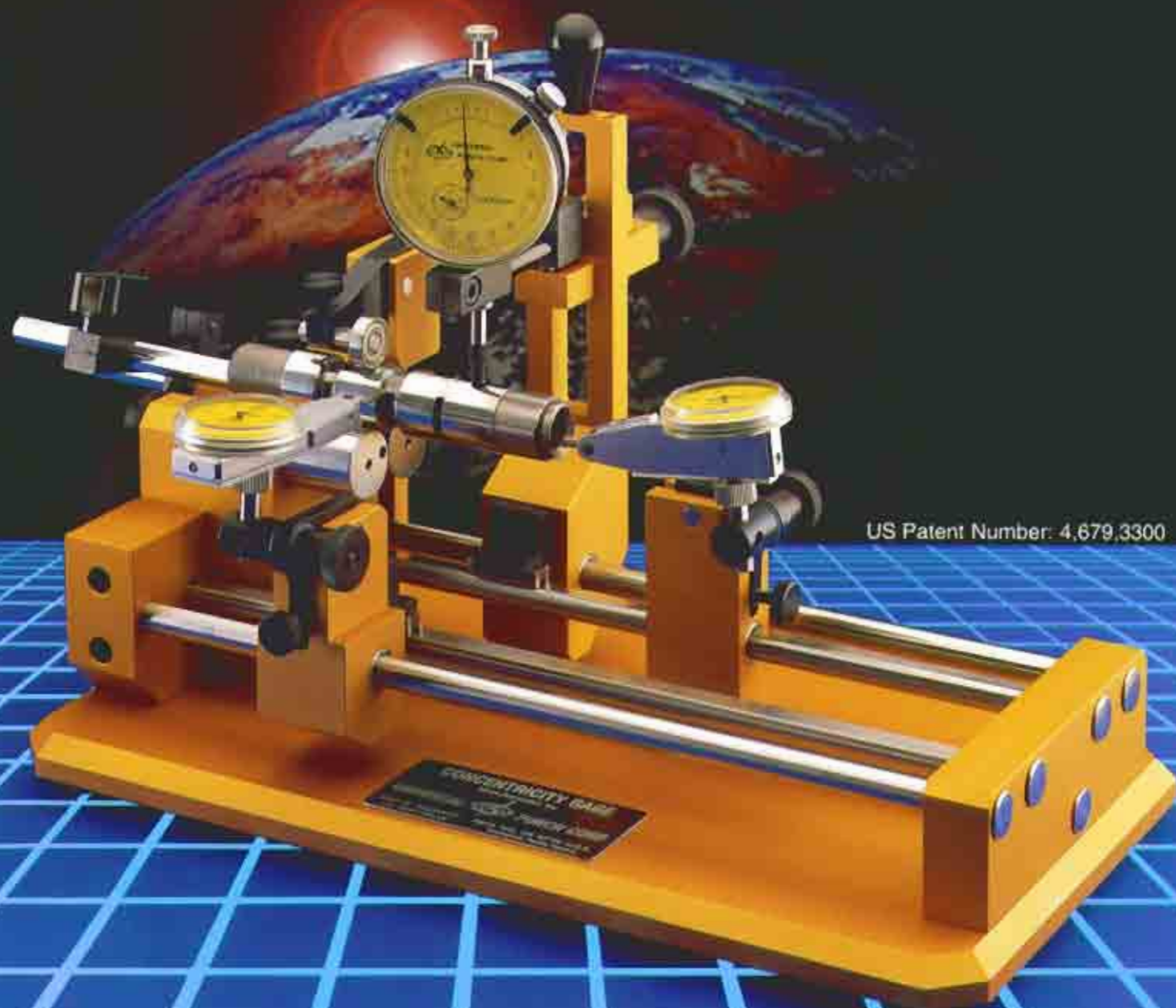
AUTOMATION and METROLOGY INC.

Sales • Service • Consulting
130 Liberty Street Painesville, Ohio 44077
(440) 354-6436 Fax (440) 639-9983

- Digital Readouts
- Linear & Rotary Encoders
- SPC Software
- Machine Inspection & Upgrade
- CNC Controls
- Gaging
- Transfer Line Automation
- Specializing in High Accuracy Measurement

“Improving Industry Through Technology”

UNIVERSAL CONCENTRICITY GAGING SYSTEM



US Patent Number: 4,679,330

THE MODERN WAY TO INCREASE GAGING EFFICIENCY

Standard Gaging Features

Accurate and reliable measurements are a key factor in today's competitive manufacturing environment. Universal's patented Concentricity Gaging Systems offer less than 2 microns accuracy that has proven results in a variety of industrial applications. Continuous improvements to its modular design adapts to customer requirements and provides the flexibility necessary for maintaining quality.

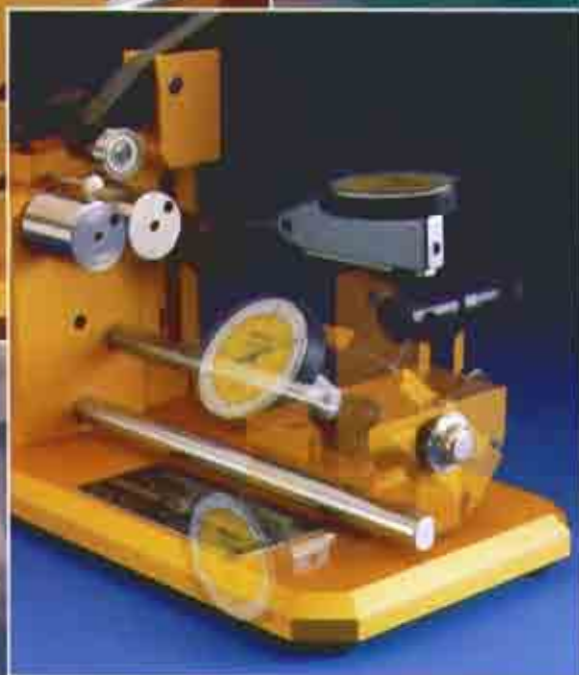
This gage system utilizes four simple features:

1) Adjustable multi-position top arm yoke assembly offers a variety of clamping pressures and positions to accommodate a range of part diameter sizes.

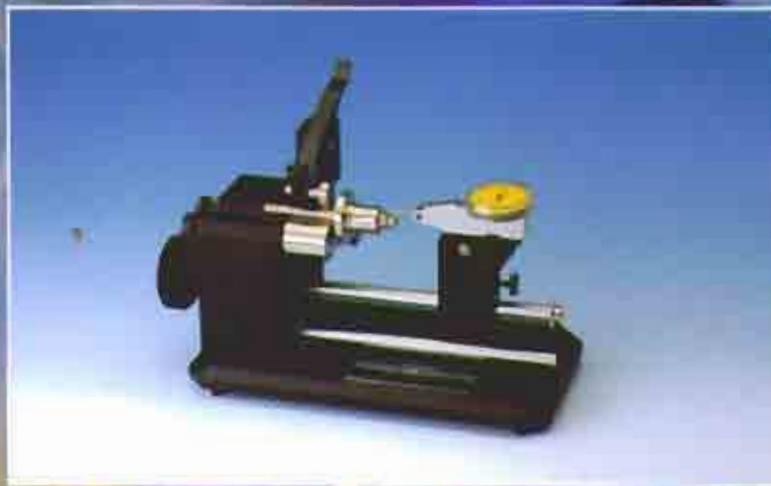
2) All Standard Indicator Carriers have fine adjustment screws that provide accurate indicator probe positioning, zeroing and provide smooth indicator movement to increase measuring performance and accuracy.

3) All gages come standard with a manual Drive Timing Belt Pulleys System that provides a constant smooth part rotation when inspecting. (Optional) 110/220 volts AC/DC fixed speed or variable speed motorized drive systems are available.

4) All carriers offer a variety of positions that move along the Z-axis of the carrier rod assembly. The carrier tilts 90 degrees to facilitate easy loading and unloading of parts.

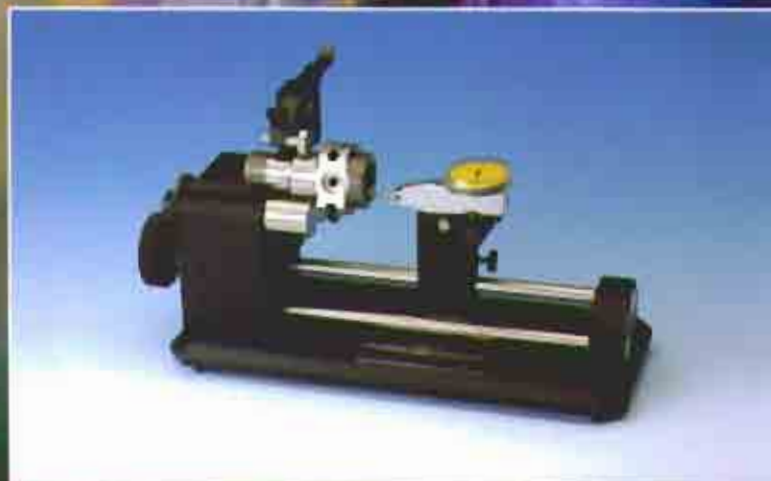


A-10 Model
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 3" (76mm)
Gage Length: 8.5" (216mm)
Gage Width: 4.5" (114mm)
Shipping Weight: 4.5lb. (2.0kg.)



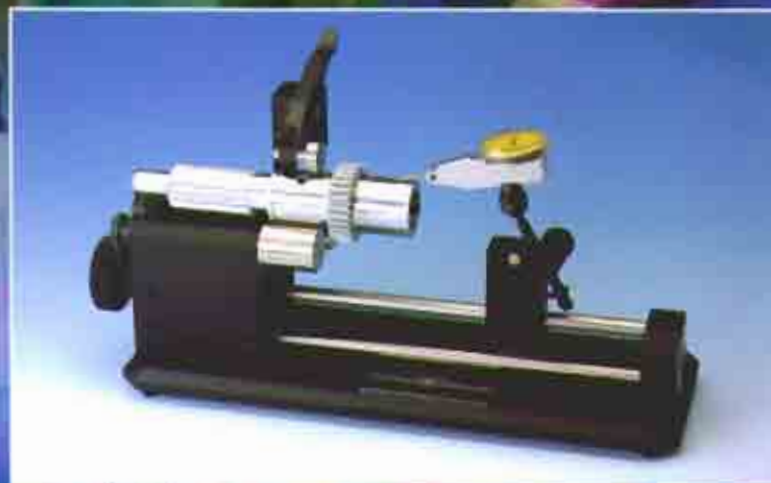
Model A-10

B-10 Model
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 4" (102mm)
Gage Length: 10.5" (267mm)
Gage Width: 4.5" (114mm)
Shipping Weight: 4.9lb. (2.2kg.)



Model B-10

B-20 Model
Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 6" (152mm)
Gage Length: 12.5" (318mm)
Gage Width: 4.5" (114mm)
Shipping Weight: 6.4lb. (2.9kg.)



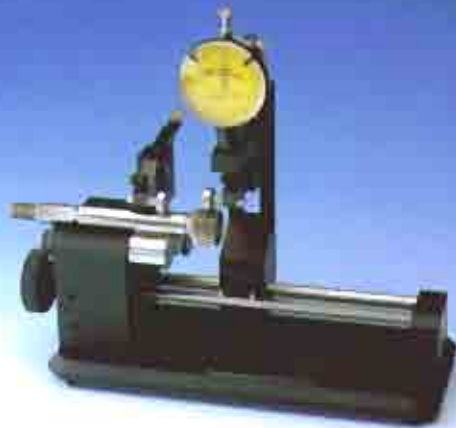
Model B-20

B-40 Model
Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to 8" (203mm)
Gage Length: 14.5" (368mm)
Gage Width: 6" (152mm)
Shipping Weight: 11.2lb. (5.1kg.)



Model B-40

Model E



E-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

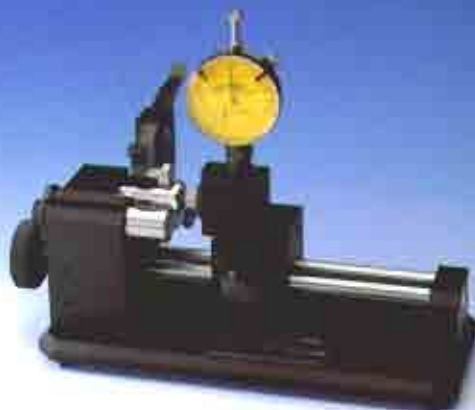
E-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 6.4lb. (2.9kg.)

E-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 8" (203mm)
Shipping Weight: 11.2lb. (5.1kg.)

Model F



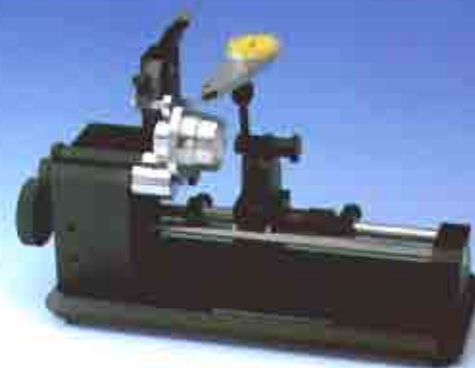
F-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

F-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 6.4lb. (2.9kg.)

Model G¹



G1-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

G1-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 6.4lb. (2.9kg.)

G1-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 8" (203mm)
Shipping Weight: 11.2lb. (5.1kg.)

Model G²



G2-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

G2-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 6.4lb. (2.9kg.)

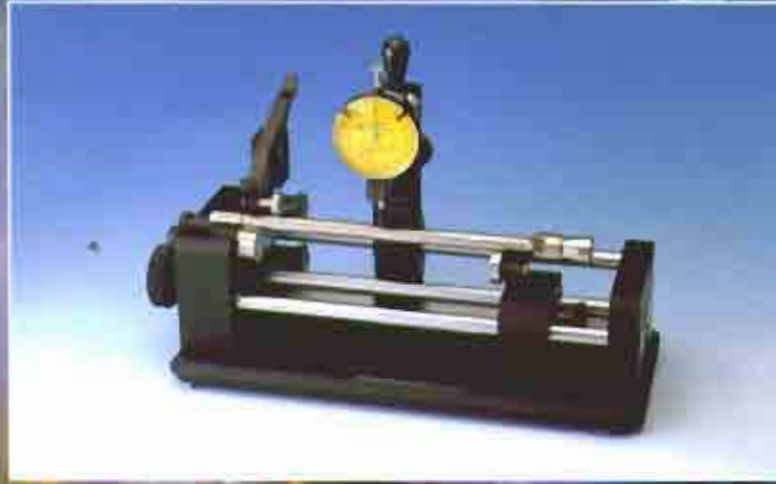
G2-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 8" (203mm)
Shipping Weight: 11.2lb. (5.1kg.)

H-10 Model
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 12" (305mm)
Shipping Weight: 7.5 lb. (3.4kg.)

H-20 Model
Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 12" (305mm)
Shipping Weight: 8.5lb. (3.9kg.)

H-40 Model
Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 12" (305mm)
Shipping Weight: 11.2lb. (5.1kg.)



Model H

HL-10 Model
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 24" (610mm)
Shipping Weight: 24.5lb. (11.1kg.)

HL-20 Model
Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 24" (610mm)
Shipping Weight: 26.5lb. (12kg.)

HL-40 Model
Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 24" (610mm)
Shipping Weight: 18.5lb. (8.4kg.)



Model HL

JLS-10, JLP-10, J-10 Models
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 4.5lb. (2.2kg.)

J-20 Model
Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 4.4lb. (2.0kg.)

J-40 Model
Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 8" (203mm)
Shipping Weight: 9.2lb. (4.2kg.)



Model J

K1-10 Model
Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to a 4" (102mm)
Shipping Weight: 11.5lb. (5.2kg.)

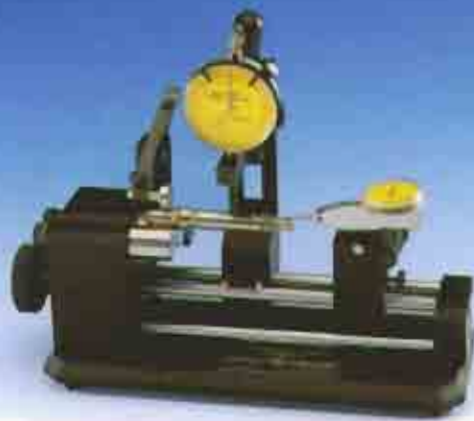
K1-20 Model
Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to a 6" (152mm)
Shipping Weight: 14.8lb. (6.8kg.)

K1-40 Model
Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to a 8" (203mm)
Shipping Weight: 11.5lb. (5.2kg.)



Model K1

Model K²



K2-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

K2-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 6" (152mm)
Shipping Weight: 14.8lb. (6.8kg.)

K2-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to 8" (203mm)
Shipping Weight: 11.2lb. (5.1kg.)

Model KK¹



KK1-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

KK1-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 6" (152mm)
Shipping Weight: 14.8lb. (6.8kg.)

KK1-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to 8" (203mm)
Shipping Weight: 18.5lb. (8.4kg.)

Model KK²



KK2-10 Model

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 4" (102mm)
Shipping Weight: 4.9lb. (2.2kg.)

KK2-20 Model

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 6" (152mm)
Shipping Weight: 14.8lb. (6.8kg.)

KK2-40 Model

Part Diameters: 3/4" to 4" (20mm to 102mm)
Part Lengths: Up to 8" (203mm)
Shipping Weight: 18.5lb. (8.4kg.)

(Optional Motorized Drive Unit Shown)

Model LG



LG-10, LGM-10 Models

Part Diameters: 1/8" to 1" (3mm to 25mm)
Part Lengths: Up to 6" (152mm)
Shipping Weight: 3.5lb. (1.6kg.)

LG-20, LGM-20 Models

Part Diameters: 3/8" to 2" (10mm to 50mm)
Part Lengths: Up to 6" (152mm)
Shipping Weight: 4.4lb. (2.0kg.)

(Optional Stepping Motorized Drive Unit Available)

Main Rollers Selection

<p>Full Plain 110FP, 120FP, 140FP</p> 	<p>Half Plain 110HP, 120HP, 140HP</p> 	<p>Quarter Plain 110QP, 120QP, 140QP</p> 
<p>Full Zero Rollers 110FZ</p> 	<p>Half Zero Rollers 110HZ</p> 	<p>Quarter Zero Rollers 110QZ</p> 
<p>Model H & HL Rollers</p> 	<p>Extra Thin Zero Rollers</p> 	<p>Special Rollers</p> 

Top Rollers Selection

<p>3/8" x 1/8" (9,5 x 3,2)</p> 	<p>1/2" x 3/16" (12,7 x 4,8)</p> 	<p>5/8" x 3/16" (15,8 x 4,8)</p>  <p>(Standard With -10 Gauge)</p>	<p>3/4" x 9/32" (19 x 7,1)</p>  <p>(Standard With -20 Gauge)</p>	<p>Zero Style Roller</p> 
<p>3/4" x 1/2" (19 x 13)</p>  <p>(Standard With -40 Gauge)</p>	<p>1" x 5/8" (25 x 16)</p> 	<p>1" x 5/16" (25 x 8)</p> 	<p>Top "V" Roller</p> 	<p>Floating Pitch Roller</p> 