



FORCE TEST™ FTK 100
SPRING TEST™ STK 100

OPERATION MANUAL

**MADE IN
USA**

FORCE TEST™

FTK 100

- TENSION & COMPRESSION
- CAPACITY: 100 lbf/50 kgf/500 N
- 12" VERTICAL TRAVEL
- LARGE 10" X 10" PLATFORM
- HANDWHEEL OR LEVER
- DIGITAL OR DIAL FORCE GAGE
- DIAL OR DIGITAL TRAVEL GAGE



Force Test™ FTK 100L Test Stand

SPRING TEST™

STK 100

- TENSION & COMPRESSION
- CAPACITY: 100 lbf/50 kgf/500 N
- 12" VERTICAL TRAVEL
- LARGE 10" X 10" PLATFORM
- HANDWHEEL OR LEVER
- DIGITAL FORCE GAGE
- DIAL OR DIGITAL TRAVEL GAGE



Spring Test™ STK 100W Spring Tester



WAGNER INSTRUMENTS
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www.wagnerinstruments.com
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SPRING TEST™ - MODEL STK 100W COMPACT SPRING TESTER

- TENSION & COMPRESSION
- CAPACITIES TO: 100 lbf/50 kgf/500 N
- 12" VERTICAL TRAVEL
- 3" HORIZONTAL CLEARANCE
- DIGITAL FORCE DISPLAY
- DIAL OR DIGITAL TRAVEL DISPLAY



FORCE ONE™ - MODEL FDX PLUG'N PLAY FORCE GAGE

- PLUG 'N PLAY FORCE CELL MODULES
- CAPACITIES TO: 100 lbf/50 kgf/500 N
- PEAK SAMPLING AT 100 OR 1000/SEC
- USB & BI-DIRECTIONAL RS232
- ACCURACY: $\pm 0.2\%$ OF FULL SCALE



FORCE TEST™ - MODEL FTK 100 COMPACT FORCE TEST STAND

- TENSION & COMPRESSION
- CAPACITIES TO: 100 lbf/50 kgf/500 N
- LARGE 10" X 10" PLATFORM
- 12" VERTICAL TRAVEL
- 3" HORIZONTAL CLEARANCE
- DIGITAL OR DIAL FORCE GAGE



FORCE DIAL™ - MODEL FDK/FDN PUSH-PULL FORCE GAGE

- TENSION & COMPRESSION
- CAPACITIES TO: 60 lbf/30 kgf/300 N
- DUAL GRADUATIONS
- PEAK FORCE HOLD
- COMPACT ECONOMY

Tension & Compression Testing to 100 lbf / 50 kgf / 500 N



Dial or Digital
Force Gage

Force Gage
Mounting Kit
Included

Spacious
6" x 10"
Test Area

9 Hole
Mounting Pattern

Generous 12"
Vertical Travel

Lever or
Handwheel
Elevating
Mechanism

Generous 3"
Horizontal
Clearance

Compact
& Portable

Basic FTK 100L Force Test Stand with FDIX Digital Force Gage

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1. INTRODUCTION

The Wagner Model FTK 100 Force Test Stand is designed specifically for tension and compression force testing, in the following configurations:

- **FTK 100 Force Test** with FDIX Digital or FDK/FDN Dial Force Gage.
- **STK 100 Spring Test** with FDIX Digital Force Gage and Travel Indicator.

Refer to www.wagnerinstruments.com for detailed information.

2. DESCRIPTION

The FTK 100 Force Test Stand provides precise movement with a lever or handwheel elevating mechanism traveling on two guide-posts. The large platform provides a generous 3" horizontal clearance over a 6" x 10" test area.

- **Lever operation** providing rapid application of load.
- **Handwheel operation** providing greater control of load application.

The FTK 100 elevating mechanism holds position with a friction screw. Right or left-hand operation is available by moving the lever or handwheel to either side of the load beam. Nine mounting holes are provided on the work area and tension hooks and compression plates are provided.

The FDIX Force Gage is attached with a 2 screw mounting plate. A unique plug-and-lock gage mounting plate facilitates use of the FDK/FDN Dial Force Gage for compression and tension by easy rotation of the gage.

3. OPERATION

- The FTK 100 is designed for testing to 100 lbf / 50 kgf / 500 N. Repetitive overloads cause deterioration of the rack and pinion elevating mechanism.
- Force must be applied to the force gage in an axial manner. Applying a load at an angle will cause reading errors and possible damage to the force gage.
- Lubricate the FTK 100 vertical posts and gear rack with light oil.

4. LIST OF INCLUDED ITEMS

- The following are included with the basic FTK 100 Test Stand:
 - 1 FTK 100 Force Test Stand
 - 1 Gage Mounting Plate Kit - For FDK/FDN or FDIX Force Gage
 - 1 Hook with #10-32 Male Thread For Base Plate

4. LIST OF INCLUDED ITEMS (continued)

- The following are included with the STK 100 Spring Tester:
 - 1 FTK 100 Force Test Stand
 - 1 FDIX Digital Force Gage - includes 5/8" Compression Platen and Hook
 - 1 Digital Travel Indicator with Mounting Kit
 - 1 Gage Mounting Plate Kit - for FDIX Force Gage
 - 1 Hook with #10-32 Male Thread for Base Plate
 - 1 2" Diameter Compression Platen
 - 1 Travel Stop Collar

5. UNPACKING AND ASSEMBLY

- Unpacking - Carefully unpack the FTK 100 or STK 100 and inspect for any damage or missing parts. Report damage promptly to the transportation company and call Wagner Instruments.
- To ensure accurate readings place the stand on a firm, flat surface free from vibration. If preferred, the test stand can be secured to the work bench with two screws or bolts through the two clearance holes on the base plate.
- Attach the force gage to the gage mounting plate with the included screws prior to mounting on the load beam.
- Mount the force gage/mounting plate assembly on the load beam by inserting the two pilot pins into the load beam holes. Secure by tightening the two locking screws.
- The STK 100 Travel Indicator kit includes:
 - 1 Digital Indicator Gage - packed separately
 - 1 Indicator Gage Mounting Bracket - attaches to front column
 - 1 Indicator Gage Plunger Rest - attaches to load beam
- Insert the Indicator Gage into the gage mounting bracket and secure it with the locking screw.
- Attach the Travel Stop Collar included with the STK 100 Spring Tester to the rear column above the load beam for tension stop or below the load beam for compression stop.

6. RELATED OPERATION MANUALS

The following operation manuals are included with the selected force gage and also available at www.wagnerinstruments.com:

- Wagner Force Dial™ FDK/FDN Force Gage.
- Wagner Force One™ FDIX Force Gage.



Wagner Force One™ FDIX Force Gage on FTK 100L Test Stand



Wagner Force Dial™ FDK/FDN Force Gage on FTK 100L Test Stand

TABLE 1 - WAGNER FORCE ONE™ FDIX DIGITAL FORCE GAGES

FDIX Digital Force Gages are listed below with capacities and graduations.

Refer to www.wagnerinstruments.com, for detailed information.

Accuracy: $\pm 0.2\%$ of full scale - All Models.

MODEL	CAPACITY / GRADUATION			
FDIX 2	2 x 0.002 lbf	32 x 0.04 ozf	1 x 0.001 kgf	10 x 0.01 N
FDIX 5	5 x 0.005 lbf	80 x 0.1 ozf	2.5 x 0.002 kgf	25 x 0.02 N
FDIX 10	10 x 0.01 lbf	160 x 0.2 ozf	5 x 0.005 kgf	50 x 0.05 N
FDIX 25	25 x 0.02 lbf	400 x 0.5 ozf	10 x 0.01 kgf	100 x 0.1 N
FDIX 50	50 x 0.05 lbf	800 x 1 ozf	25 x 0.02 kgf	250 x 0.2 N
FDIX 100	100 x 0.1 lbf	1600 x 2 ozf	50 x 0.05 kgf	500 x 0.5 N

TABLE 2 - WAGNER FORCE DIAL™ FDK/FDN SERIES FORCE GAGES

FDK/FDN Force Gages are listed below with capacities and graduations.

Refer to www.wagnerinstruments.com for detailed information.

MODEL	CAPACITY / GRADUATION		ACCURACY
FDK 2	2 lbf x .02 lbf	1000 gf x 10 gf	± 2 Graduations
FDK 5	5 lbf x .05 lbf	2500 gf x 25 gf	± 2 Graduations
FDK 10	10 lbf x .10 lbf	5 kgf x 50 gf	± 1 Graduation
FDK 20	20 lbf x .25 lbf	10 kgf x 100 gf	± 1 Graduation
FDK 30	30 lbf x .25 lbf	14 kgf x 100 gf	± 1 Graduation
FDK 40	40 lbf x .50 lbf	20 kgf x 200 gf	± 1 Graduation
FDK 60	60 lbf x .50 lbf	30 kgf x 250 gf	± 1 Graduation
FDK 32	32 oz x 1/4 ozf	1000 gf x 10 gf	± 2 Graduations
FDK 80	5 lbf x 1 ozf	2500 gf x 25 gf	± 2 Graduations
FDK 160	10 lbf x 2 ozf	5 kgf x 50 gf	± 1 Graduation
FDN 10	10 N x .1 N	1000 gf x 10 gf	± 2 Graduations
FDN 20	20 N x .25 N	2500 gf x 25 gf	± 2 Graduations
FDN 50	50 N x .5 N	5 kgf x 50 gf	± 1 Graduation
FDN 100	100 N x 1 N	10 kgf x 100 gf	± 1 Graduation
FDN 200	200 N x 2 N	20 kgf x 200 gf	± 1 Graduation
FDN 300	300 N x 2.5 N	30 kgf x 250 gf	± 1 Graduation



FORCE TEST™ FTK 100
SPRING TEST™ STK 100

WARRANTY

**MADE IN
USA**



Force Test™ FTK 100L Test Stand



Spring Test™ STK 100W Spring Tester

WARRANTY AND LIMITATION OF LIABILITY

Wagner Instruments expressly warrants for one year from the date of purchase that the goods sold shall be free from defects in workmanship and materials under normal conditions. Wagner Instruments will, at its option, replace, repair, or refund, in full, the purchase price of the instrument or any part thereof which in our opinion is defective, provided the instrument has not been subjected to tampering, abuse, or exposed to highly corrosive conditions. An instrument that has been improperly used cannot be considered under this warranty. We make no warranties, expressed or implied, including, without limitation, any warranties of fitness or merchantability, except as expressly set forth above, we shall not be liable for any anticipated lost profits, incidental damages, consequential damages, costs, time charges, or other losses in connection with the instrument or any replacement parts thereof. If a manufacturing defect is found, we will replace or repair the instrument or replace any defective part thereof without charge; however, our obligation hereunder does not include the cost of transportation which must be borne by the customer. We assume no responsibility for damage in transit, and any claims for such damage should be presented to the carrier by the purchaser. In addition, instead of replacing or repairing the instruments as aforesaid, we may, at our option, take back the defective instrument and refund, in full settlement, the purchase price thereof.



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