

PRECISION LEVELING SOLUTIONS



A MEMBER OF THE

FORMTEK G R O U P

## A Legacy of Precision Leveling Technology

P&K has built a legacy of superior leveling solutions for more than a quarter-century. Virtually hundreds of production-proven installations are evidence of our successful track-record. Over the years, drive and leveler control technology have evolved, but B&K levelers are still built to last. Today, under the leadership of Formtek-Maine, the B&K brand continues to be synonymous with heavy-duty steel mill equipment.



Many customers have been operating rugged, heavy-gauge, B&K levelers for over 30 years.

#### Formtek-Maine Leads B&K into the 21st Century

Formtek-Maine has totally redesigned and re-engineered the already outstanding B&K line with the latest technology in electrics, electronics and mechanical design. New, intuitive, touch screen controls dramatically simplify set-up and adjustments. We've equipped B&K precision roller levelers with relatively small, closely spaced leveler rolls that incorporate backups to prevent deflection. No design or performance feature has been ignored. The result is a line of B&K Levelers that are even more productive, reliable and easy to operate than ever before.



B&K 3.5" diameter, heavy-gauge precision leveler is designed to live off .312" thick stock

#### B&K Precision Levelers... Now Better Than Ever

B&K Precision Levelers offer greater value and performance by including standard features that are cost-added 'options' on many competitive models. Standard features include:

- High rise head
- Loop control
- Main drive motor
- Inspection cascade assemblies
- Oil drain system
- Built to meet customers' passline height requirement



This B&K, highly productive, heavy-duty precision leveler has provided decades of reliable production for thousands of heavy-gauge leveled blanks

It's no wonder that more job shops, service centers and manufacturers are specifying B&K levelers for the toughest applications including sheet leveling, parts leveling, cut-to-length lines, and other process lines. For more information contact one of our trained, precision leveling, engineering specialists at **800-247-2645**.

## Superior Flatness, No Matter What Shape Your Coils Are In



&K backed-up roller levelers are designed for precision coil strip flatness and shape correction. Advanced engineering makes every B&K leveler a "one-operator" piece of equipment. They are the ideal solution to problems posed by coil set, cross bow, wavy edge and center buckled material.

Available with standard 4-high and optional 5- or 6-high roll arrangements to compensate for "draw" in roll forming applications and eliminate "dished" stampings common in stamping processes. Greater leveling control means dead-flat panel or strip for increased productivity and part quality.

#### **Features:**

- High lift head
- Stress relieved, steel fabricated upper and lower roll housings
- Work rolls manufactured from Peterson 52100 material, cryogenically processed and heat treated to 62-64 Rockwell C scale
- Wedge-type adjustable back-ups
- Motorized lower back-up adjustment
- Manually adjustable upper back-ups
- Crowned back-up rolls
- Floating full-width back-ups on 5- and 6-high models
- Motorized upper bank adjustments
- Anti-backlash jacks for full tilt

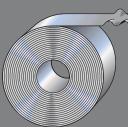
- Heavy-duty powered entry pinch rolls
- Gearbox with "Dual Herringbone" gears and self-contained, dual gear-driven lubrication system
- Automatic lubrication system
- A/C closed loop Vector drive
- User-friendly, touchscreen control
- Exit mounted inspection station
- Material widths from 18" to 96"
- Two-Year Warranty

#### **Optional Features:**

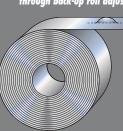
- Grooved intermediate rolls
- Spanish/French controls

### INCOMPARABLE COIL STRIP CORRECTION

B&K Levelers provide unmatched strip shape control over problems such as edgewave, center buckling, crossbow and coil set.



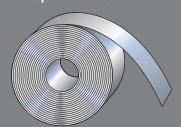
EDGE WAVE
Can be either eliminated or induced through back-up roll adjustment.



## CENTER BUCKLES Stubborn center buckles can be removed through back-up roll adjustment



## CROSS BOW Any inherent widthwise coil curvature can be removed with simple bank adjustment of leveler head.



COIL SET
Any inherent lengthwise coil curvature can be removed with simple bank

www.bklevelers.com<





### **FULLY ADJUSTABLE BACK-UP ROLLS**

Top and bottom back-up rolls facilitate greater leveling control. Lower back-up rolls have motorized adjustment in order to control deflection of the work rolls to determine how and where the material is worked. Rugged roll housings are stress relieved and all steel fabricated.

### **Precision Corrective Levelers**

This high production cut-to-length line features a 1.156" diameter precision B&K corrective leveler that provides refrigerator wrapper blanks for a leading appliance manufacturer. Critical finish materials as thin as .010" and as thick as .062" can be effectively processed.

A material edge trimmer is integrated with the B&K Precision Leveler to provide refrigerator wrapper blanks to a precise width.





B&K 84" 1.5 Precision Leveler with seven adjustable back-ups. A 5-high leveler design and user-friendly touch screen make this precision leveler ideal for carbon steel, stainless steel and aluminum.

### DUAL HERRINGBONE GEAR BOX

Rolls are driven through a rugged, dependable herringbone gear box with a self-contained gear driven lubrication system. Dual herringbone gear drive system allows smooth performance and eliminates end thrust for longer service life.



### in Cut-to-Length Lines



B&K 72" 1.156 Precision Shape Correction Leveler designed to handle material from .010" to .062" thick. Leveler features nine adjustable back-up flights, which provide superior shape correction. Massive gear box with dual herringbone gear train prevents lateral end thrust for smooth performance and longer service life.

#### B&K 72" 1.156 Precision Corrective Leveler, 5-High, handles material from .010" to .062" thick. Features nine adjustable back-up flights to provide superior shape correction. Comes with a powered high rise head as standard to allow for easy

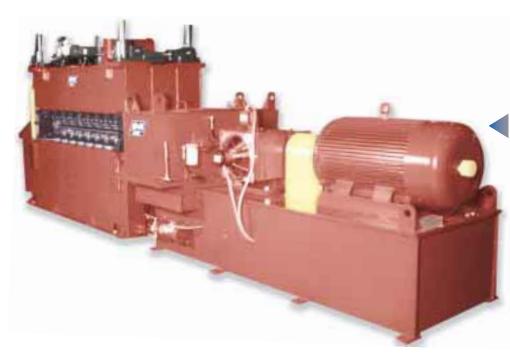
roll cleaning and maintenance.





### INTUITIVE, TOUCHSCREEN CONTROL

Pictorial touchscreen control provides ease of set-up and operation — even for operators with marginal training. Provides entry & exit position graphs, adjustable back-up roll position graphs and digital readout of back-up roll position for precise work roll adjustment. Automatically recalls job settings to improve productivity. Complete with on-screen diagnostics, machine specifications and maintenance screens.



**B&K 84" 1.750 Precision 5-High Leveler** features a
150 HP AC Vector
Drive System for
processing materials
72" wide x .140"
thick at 200 FPM.

R&K 10-Gauge Corrective Leveler handles materials from .021" to .140" thickness. A 300 HP AC Vector Drive System is provided which allows this precision corrective leveler to produce 72" wide sheets at 350 FPM. Features nine back-up flights, seven of which are adjustable for maximum shape correction effect.







Precision Corrective Levelers in Press Feed Lines





**B&K 84" 1.75 Roll Diameter Leveler** integrated with press feed line for tier one automotive manufacturer. Features custom hold down peeler-threader and consolidated control package including push-button controlled thread-up.



B&K 60" 1.156 Precision Corrective Leveler integrated with press feed line to produce first operation leveled blanks directly from coil. Leveled parts that can be produced on this type of system include refrigerator

doors, washer and dryer panels, and commercial or residential doors.

# Roller Levelers for High Strength



B&K 36" 2.25 HSLA Roller Leveler integrated with press feed line. Features a 4-high design with three back-up flights with a single adjustable back-up flight to provide optimum shape correction. A 30 HP AC Vector Drive with encoder feedback is supplied to precisely regulate line speed.



# Materials in Press Feed Systems



B&K°42" 2.25 HSLA, 4-High, Roller Leveler is designed to process material from .021" to .110" thickness with a yield strength of 115,000 PSI. This B&K° Precision HSLA Roller Leveler was integrated with an existing uncoiler. The 4-high Roller Leveler features a 50 HP AC Vector Drive, five back-up flights with three adjustable back-up flights, to provide shape correction on HSLA material used to stamp automotive transmission parts.

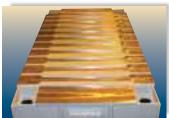






### Better Built By Design

**B**&K levelers are built to withstand the rigors of the shop floor. From rugged, all-steel upper and lower housings to high quality alloy steel back-up and work rolls, you won't find a better built leveler on the market, backed by a 2-Year Warranty on all components. Whether you require a stand alone model, or custom integration of a leveler in virtually any type coil processing or cut-to-length line, the B&K engineering staff can provide you with a precision leveling solution. B&K...the best built, best backed levelers you can buy.



Stress-relieved, all-steel fabricated upper housing



Stress-relieved, all-steel fabricated leveler base



High rise head for easy access to clean work rolls



Leveler journals and lubrication distribution. Easy access to work rolls



Fixed upper back-ups for greater leveling control



Lower wedge adjustment



Dual herringbone gear train



Leveler upper work rolls, heat treated to 62-64 Rockwell C scale



Lower power adjustable back-ups



Gear driven oil lubrication system



Floating full-width intermediate rolls



Leveler motorized back-up adjustment



Pictorial touchscreen control provides ease of set-up and operation

### **Equipment Specifications**

| Model 1.156L B&K Precision Leveler     |      |      |                |    |    |  |  |  |
|--|------|------|----------------|----|----|--|--|--|
| Roll Diameter: 1.156" No. of Rolls: 19 |      |      |                |    |    |  |  |  |
| Material Width:                        | 24   | 36   | 48             | 60 | 72 |  |  |  |
| Back-ups:                              | 5    | 7    | 9 11 13        |    |    |  |  |  |
| Adjustable:                            | 3    | 5    | 7 9 11         |    |    |  |  |  |
| Max. Thickness:                        | .078 | .070 | .062 .062 .054 |    |    |  |  |  |
| Min. Thickness:                        | .010 | .010 | .010 .010 .015 |    |    |  |  |  |

| Model 1.250L B&K Precision Leveler      |      |      |                |      |      |  |  |  |
|---|------|------|----------------|------|------|--|--|--|
| Roll Diameter: 1.250L" No. of Rolls: 19 |      |      |                |      |      |  |  |  |
| Material Width:                         | 24   | 36   | 48 60 72       |      |      |  |  |  |
| Back-ups:                               | 5    | 7    | 9              | 11   | 13   |  |  |  |
| Adjustable:                             | 3    | 5    | 7              | 9    | 11   |  |  |  |
| Max. Thickness:                         | .086 | .078 | .070           | .070 | .062 |  |  |  |
| Min. Thickness:                         | .012 | .012 | .012 .012 .012 |      |      |  |  |  |

| Model 1.500L B&K Precision Leveler     |      |      |                |      |      |  |  |
|--|------|------|----------------|------|------|--|--|
| Roll Diameter: 1.500" No. of Rolls: 19 |      |      |                |      |      |  |  |
| Material Width:                        | 24   | 36   | 48 60 72       |      |      |  |  |
| Back-ups:                              | 3    | 5    | 5 7 9          |      |      |  |  |
| Adjustable:                            | 1    | 3    | 3 5 7          |      |      |  |  |
| Max. Thickness:                        | .093 | .086 | .078 .078 .078 |      |      |  |  |
| Min. Thickness:                        | .015 | .015 | .015           | .015 | .015 |  |  |

| Model 1.750L B&K Precision Leveler     |      |      |                     |      |      |      |  |  |
|--|------|------|---------------------|------|------|------|--|--|
| Roll Diameter: 1.750" No. of Rolls: 19 |      |      |                     |      |      |      |  |  |
| Material Width:                        | 24   | 36   | 48 60 72 84         |      |      |      |  |  |
| Back-ups:                              | 3    | 5    | 5                   | 7    | 9    | 11   |  |  |
| Adjustable:                            | 1    | 3    | 3                   | 5    | 7    | 7    |  |  |
| Max. Thickness:                        | .164 | .156 | .148                | .140 | .132 | .125 |  |  |
| Min. Thickness:                        | .021 | .021 | .021 .021 .021 .021 |      |      |      |  |  |

| Model 2.250L B&K Precision Leveler |      |                  |      |      |      |      |  |
|------------------------------------|------|------------------|------|------|------|------|--|
| Roll Diameter: 2.25                |      | No. of Rolls: 17 |      |      |      |      |  |
| Material Width:                    | 24   | 36               | 48   | 60   | 72   | 84   |  |
| Back-ups:                          | 3    | 5                | 5    | 7    | 9    | 11   |  |
| Adjustable:                        | 1    | 3                | 3    | 5    | 7    | 9    |  |
| Max. Thickness:                    | .194 | .187             | .180 | .164 | .156 | .140 |  |
| Min. Thickness:                    | .036 | .036             | .036 | .036 | .036 | .036 |  |

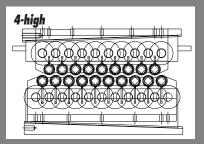
| Model 3.000L B&K Precision Leveler |                  |      |      |             |      |      |  |
|------------------------------------|------------------|------|------|-------------|------|------|--|
| Roll Diameter: 3.0                 | No. of Rolls: 17 |      |      |             |      |      |  |
| Material Width:                    | 36               | 48   | 60   | 60 72 84 96 |      |      |  |
| Back-ups:                          | 5                | 5    | 7    | 9           | 11   | 13   |  |
| Adjustable:                        | 3                | 3    | 5    | 7           | 9    | 11   |  |
| Max. Thickness:                    | .281             | .265 | .250 | .234        | .210 | .187 |  |
| Min. Thickness:                    | .048             | .048 | .048 | .048        | .048 | .048 |  |

| Model 3.500L B&K Precision Leveler     |      |      |                |      |      |  |  |  |
|--|------|------|----------------|------|------|--|--|--|
| Roll Diameter: 3.500" No. of Rolls: 17 |      |      |                |      |      |  |  |  |
| Material Width:                        | 48   | 60   | 72 84 96       |      |      |  |  |  |
| Back-ups:                              | 5    | 5    | 7              | 9    | 11   |  |  |  |
| Adjustable:                            | 3    | 3    | 5              | 7    | 9    |  |  |  |
| Max. Thickness:                        | .328 | .320 | .312           | .296 | .281 |  |  |  |
| Min. Thickness:                        | .062 | .062 | .062 .062 .062 |      |      |  |  |  |

NOTE: All thickness capacities in mild steel

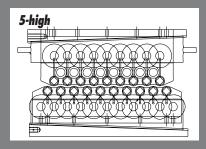


## High Performance TECHNOLOGY



#### **4-HIGH ROLL DESIGN**

Standard roll set-up for B&K leveler. Consists of a set each of upper and lower work rolls and a set each of upper and lower back-up rollers.



### 5- OR 6-HIGH ROLL DESIGNS

This set-up is used when surface-critical materials, such as soft aluminum, polished stainless and pre-painted surfaces. The 5-high roll design is utilized for materials with a surface-critical top side. The 6-high roll design is best suited when both sides of the material have a surface-critical finish.

