

The brains of the operation, *ArchWeigh*® scale integrators give you greater control over weight information. *Up-to-the-minute weight information is available to you anywhere, anytime with the ArchWeigh 1000®, 2000® and 5000® integrators* giving you much more control of your inventory.

**Why weight?** *ArchWeigh*® scale systems provide accurate data fast, are extremely easy to install, set up, and use, and are built to withstand rugged conditions. With accuracies of up to .025% *ArchWeigh*® systems let you weigh with confidence. ArchWeigh® integrators offer a totalizer program that can weigh several conveyors simultaneously and *report the total and individual weights*. Shift tonnage can be recorded and reported each day. *Blend, buy, and sell with maximum profitability.*

•ARCHWEIGH INTEGRATORS•  
-ARCHWEIGH 1000/ARCHWEIGH 2000/ARCHWEIGH 5000-

ARCHWEIGH 1000® INTEGRATOR

Consistent performance and easy-to-use software characterizes the *ArchWeigh 1000*® scale integrator. This advanced integrator accurately measures your conveyed material for *process control and inventory applications*.



Equipped with a 4-20ma output, the *ArchWeigh 1000*® is *customized to suit your specific, and often unique, needs*. The *ArchWeigh 1000*® processes and clearly displays *total material weight, rate of flow, and belt speed* on a *6 inch touch screen display (left)*.



The *ArchWeigh 1000*® works where others can't, *in the extreme environments of rock quarries, coal blending facilities, and mines* with a rugged polycarbonate enclosure.

This single-scale integrator uses a PLC and ARCH's reliable A/D conversion circuit, giving you *consistent performance and easy-to-use software*. Providing up to 20 resettable totalizers, retrieved data can be relayed to your PC or PLC, *allowing you to monitor your production from anywhere in the world*. Auto-Tare automatically compensates for material buildup, *significantly reducing the need to re-calibrate after installation*. *24/7 technical services are always available to ARCH customers*.

- EZ Installation
- EZ set-up
- unlimited communications
- low maintenance
- single scale Integrator
- corrosion resistant
- printer option available

*Printer option available* for time and date stamped tickets on demand or at pre-programmed intervals. If you'd like to run multiple scale carriages on a single integrator, refer to the *ArchWeigh 2000*®.

For more information go to [www.archenv.com/bsi\\_1000.htm](http://www.archenv.com/bsi_1000.htm).

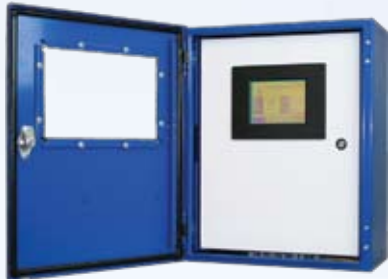


ARCHWEIGH 2000® INTEGRATOR

Built with the same rock-solid, time-tested software and analog-to-digital conversion as the *ArchWeigh 1000*®, the *ArchWeigh 2000*® is built for *multiple scales carriages (up to 6)*. A *6" touch screen display makes set-up and calibration easy to do anywhere*.

- EZ Installation
- EZ Set-Up
- unlimited communications
- low maintenance
- up to 6 scales
- corrosion resistant
- printer option available

A *steel enclosure* makes the *ArchWeigh 2000*® as tough as the environment it works in. *Any communication protocol you need we can provide*.



Auto-Tare automatically compensates for material buildup, significantly *reducing the need to re-calibrate after installation*. The *1000, 2000, and 5000* all continually maintain a true zero, compensating for material buildup. One of two *built-in totalizers is re-settable and customized to meet your specific needs*. *Printer option available* for time and date stamped tickets on demand or at pre-programmed intervals. *24/7 technical services are always available to ARCH customers*.

For more information go to [www.archenv.com/bsi\\_2000.htm](http://www.archenv.com/bsi_2000.htm).

ARCHWEIGH 5000® INTEGRATOR

- EZ Set-Up
- unlimited communications
- unlimited scales
- low maintenance

The *ArchWeigh 5000*® consists of *ARCH scale software running in your control hardware*. Using three inputs per scale the *ArchWeigh*® 5000 can handle as many scales as you need it to handle. Compatible with AB Control Logix or GE Fanuc Versa Max with only a small A/D converter in your i/o panel.

As with ALL ARCH integrators, the ArchWeigh 5000 can customized to suit your needs. *24/7 technical services are always available to ARCH customers*.

For more information go to [www.archenv.com/bsi\\_5000.htm](http://www.archenv.com/bsi_5000.htm).



(Conveying Confidence)

-ArchWeigh® Integrators-  
ArchWeigh 1000®  
ArchWeigh 2000®

-ArchWeigh® Belt Scales -  
ArchWeigh HP®  
ArchWeigh Dual HP®  
ArchWeigh SC®

2009 BELT SCALES & INTEGRATORS  
AGGREGATE/COAL/PULP & PAPER/WASTE HANDLING

	Standard Communications	Optional Communications	Converter	Input/Output	Port	Voltage	Amps	Protection	Display Type/Size	Indication	Measurements	Enclosure Size	Enclosure Contruction
ArchWeigh 1000®	RS 485	Ethernet Modbus	16-Bit Solid Stad A/D	4-20 MA Digital Output	RS422 Remote Host Interface	85 VAC- 265 VAC 24 VDC	2	Internal Fuse	6" Touch Screen	Static Weight Rate Speed	Tons Longtons Metric Tons Pounds	14"H x 12"W	NEMA 4X
ArchWeigh 2000®	Modbus	Ethernet DFI RS-485	16-Bit Solid Stad A/D	4-20 MA Digital Output	RS422 Remote Host Interface	85VAC- 265 VAC 24 VDC	2	Internal Fuse	6" Touch Screen	Static Weight Rate Speed	Tons Longtons Metric Tons Pounds	20"H x 16"W x 4" D	NEMA 12/4
ArchWeigh 5000®	4-20 ma output	n/a	16-Bit Solid Stad A/D	n/a	n/a	n/a	n/a	n/a	n/a	Static Weight Rate Speed	Tons Longtons Metric Tons Pounds	n/a	n/a

[www.archenv.com](http://www.archenv.com)

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P.O. Box 1760, Paducah, KY 42002 (800) 553-4567 [info@archenv.com](mailto:info@archenv.com)  
Primary Cleaners•Secondary Cleaners•Belt Support•Sealing Systems•Belt Scales•Scale Integrators  
Belt & Personnel Safety•Dust Suppression•Conveyor Management



## •ARCHWEIGH BELT SCALES•

-ARCHWEIGH HP/ARCHWEIGH DUAL HP/ARCHWEIGH SC-

When your business is judged by volume and that volume is based on weight, accuracy is paramount. Your inventory determines how much product you can buy and sell, how much Uncle Sam will tax you, and plays an important role in planning for the future. You need reliable information and you need it now. *ArchWeigh® scale systems provide accurate data in a timely fashion, are extremely easy to install, set up, and use. Built to withstand rugged conditions with accuracies of up to .025%, ArchWeigh® systems give you accurate information quickly.*

With every *ArchWeigh®* scale and integrator we guarantee **(1) easy installation, (2) easy set-up and calibration, (3) fast, reliable data, (4) rugged construction, and (5) 24/7 technical support.**

Breaking these down:

**1. Easy Installation:** *ArchWeigh®* scales are **pre-assembled** for your convenience. No kits to build and no parts to bolt together. **The carriage is built to match your idlers and is simply bolted in place.** The integrator is mounted and wired to the carriage and you are in operation.

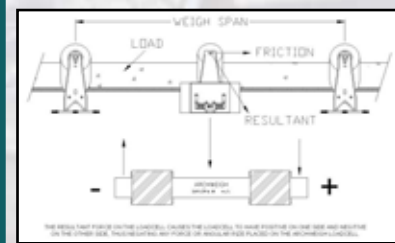


**2. Easy Set Up and Calibration:** *Touch-screen displays* make initial set-up and calibration a snap; you answer three conveyor questions to set up and in another three steps, calibrate. **Auto-Tare can be set with a material or functional test in minutes.**

**3. Reliable Data:** With **accuracies of up to .025%** *ArchWeigh®* scales are some of the most reliable on the market. Thanks to ARCH's **patented dual-ended load cell technology** all forces that impact a bulk conveyor, like temperature, load size, humidity, and belt tension **are accounted for at initial, and often only, calibration.**

**4. Rugged Construction:** Mechanically, *ArchWeigh®* equipment is built to withstand the rugged conditions of mines, quarries, paper mills...unfriendly places. **Condition-tested polycarbonate or steel protect the electronics from extreme temperatures, moisture, humidity, and heavy materials.**

**5. 24/7 Technical Support:** *ARCH engineers are always available to you, 24 hours a day, seven days a week.* Whether it's simply a question you need answered or you'd like an on-site visit from an ARCH technician you're concerns (and kind words) are always welcome.



### Why ArchWeigh®?

Three words: **DUAL LOAD CELLS**

*ArchWeigh®* belt scales are uniquely designed mechanically and electrically. ARCH's **patented load cell design eliminates problems associated with weighing material on a moving conveyor belt.**

With other scales, the force created by the movement of the belt over the scale carriage is factored as a component of the calibration weight or Belt-Tare. **The assumption that mechanical components will not vary over time results in a lack of long term accuracy and repeatability.**

To eliminate the effect of these forces we employ our patented **dual-ended load cells directly mounted to the idler.** **When belt motion forces the idler to move in the direction of belt travel those forces are neutralized.** One end of the load cell is pushed down (positive) while the other end is lifted up (negative). Because the load cell is a single unit, these forces are always equal, which results in a resultant force of zero. **Therefore, the output value of the load cell is always only the weight of the material on the belt, nothing more and nothing less.**

With our scales, there are **no parts to bolt together or kits to figure out.** Let us prove to you that we provide better service, installation, and belt scales. **ARCH installation services are available to any of our customers or we'll train your staff to properly install, set up, calibrate and maintain your equipment.**

For more information please visit the [Belts & Integrators](#) section at [www.archenvironmental.com](http://www.archenvironmental.com).

## ARCHWEIGH HP® SCALE

Forces that affect the scale and the conveyed material, like humidity, belt tension, and belt speed are not usually accounted for when weighing your inventory. Because they're not considered when calibrating the scale, inaccurate data results. Either that or the scale must be consistently re-calibrated.



Inaccurate data or constant re-calibration, these are the two choices you have with the vast majority of belt scales in use today.

- EZ installation
- low maintenance
- super heavy-duty
- pre-assembled
- +/- .05% accuracy
- 3-step calibration
- long-term repeatability w/o recalibration

The *ArchWeigh HP®* is the only belt scale that accounts for outside forces that affect every conveyor. ARCH's patented dual-ended load cells, which mount directly to the idler, are the reason that **you can now rely on accurate data (up to +/- 1/2%) every day without recalibration.** The dual load cells work opposite each other to neutralize the natural lateral and vertical movements of your conveyor belt. As one end is pushed down by a force, the other is naturally lifted by that same force; any movement is cancelled out.



**It is also the only belt scale that's calibrated with the conveyor stopped, giving you a true zero reading.** *ArchWeigh®* load cells are designed specifically for use on conveyor scales and are the only load cells to be patented since 1970. **The load cell's unique design allows it to use a positive/negative response to account for normal conveyor variances.**



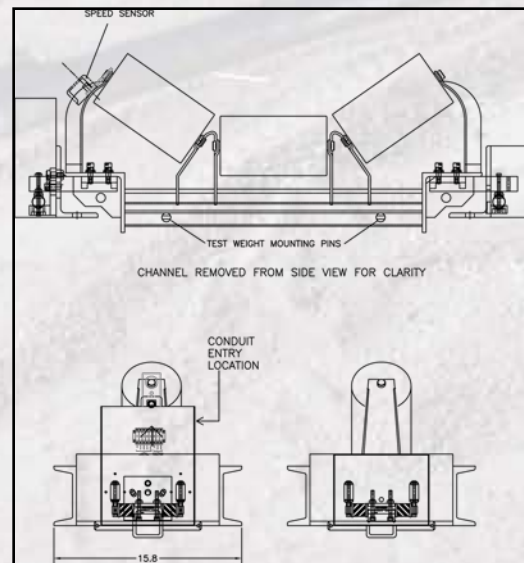
In its construction, the *ArchWeigh HP®* is framed by a 5"x 2"x .3" channel **designed for tough spots and harsh conditions.** Unitized bridge construction and internal speed sensor allow for one time **'Bolt-in-Place'** installation; the internal housing means **once the scale is installed, so is the speed unit.**

A reinforced, factory balanced and leveled frame eliminates the common problems associated with insufficient structure.

Installation of *ArchWeigh®* scales is easier and faster than other belt scales. There are **no parts to bolt** together and **no kits to figure out.** Simply pull off the idler and bolt the scale in place, run some wire and you're up and running.

**24/7 technical services are always available to ARCH customers.**

For more information go to [www.archenvironmental.com/bsi\\_hpscale.htm](http://www.archenvironmental.com/bsi_hpscale.htm)



## ARCHWEIGH DUAL HP® BELT SCALE

Utilizing two *ArchWeigh HP®* scale carriages, the *ArchWeigh Dual HP®* belt scale has **four patented dual load cells giving you accuracies of up to +/- .25%** by automatically zeroing out the effects of your idler's natural movement.

- EZ installation
- low maintenance
- super heavy-duty
- pre-assembled
- up to +/- .25% accuracy
- 3-step calibration
- CEMA duty idlers
- long-term repeatability w/o recalibration

Two internal speed sensors precisely measure belt speed and are internally housed. This means no extra installation; **once the scale carriages are installed, so are both speed units.**

Unitized construction allows for easy, one-time **'Bolt-in-Place'** installation.



The *ArchWeigh Dual HP®* is **delivered pre-assembled** for your convenience; **no piecing parts together or assembling a kit.**

**Long-term repeatability without recalibration** makes this heavy-duty scale virtually maintenance-free; **no constant recalibration is necessary.** While other scales must be recalibrated to compensate for varying loads, belt tension, and temperatures, the *ArchWeigh Dual HP®* self-adjusts. As the natural movement of the belt fluctuates due to outside forces the **patented dual load cells compensate with opposite responses; as one side of the belt is forced down the other is lifted.** This allows for static calibration for consistency. **24/7 technical services are always available to ARCH customers.**

For more information go to [www.archenvironmental.com/bsi\\_dualhpscale.htm](http://www.archenvironmental.com/bsi_dualhpscale.htm).

## ARCHWEIGH SC® BELT SCALE



- EZ installation
- low maintenance
- super heavy-duty
- pre-assembled
- +/- 1-2% accuracy
- 3-step calibration
- long-term repeatability w/o recalibration



Using the same modular construction and hardware as the *ArchWeigh HP®*, the *ArchWeigh SC®* offers weight accuracies of 1-2% as it self-adjusts to the movement of the belt, thanks to ARCH's **patented dual-ended load cells.** This unique engineering **compensates for outside forces on the belt by forcing converse reactions by the load cells;** one is forced up while the other pushes down. **Constant recalibration is never necessary.**

In its construction, the *ArchWeigh SC®* is framed by a 5"x 2"x .3" channel designed for tough spots and harsh conditions. Unitized bridge construction and internal speed sensor allow for **one time 'Bolt-in-Place' installation;** the internal housing for the speed sensor means that once the scale is installed, so is the speed unit. The speed unit precisely measures belt speed for consistent readings. **A reinforced, factory balanced and leveled frame eliminates the common problems associated with insufficient structure** and will give you years of reliable readings. **24/7 technical services are always available to ARCH customers.**

For more information go to [www.archenvironmental.com/bsi\\_scscale.htm](http://www.archenvironmental.com/bsi_scscale.htm).