



IN-MOTION SYSTEMS



SETTING THE
INDUSTRY STANDARD
SINCE 1830



- MANAGEMENT
- COST CONTROL
- SAFETY
- PEACE OF MIND

Fairbanks® Scales and International Road Dynamics Inc. are working together to produce America's #1 weigh-in-motion products. Fairbanks-IRD's innovative, customer-focused team is comprised of multi-discipline experts in advanced technologies, advanced weighing solutions and custom-designed systems.

SINGLE LOAD CELL

Premium High Performance WIM Scale

The Fairbanks®-IRD Single Load Cell (SLC) Scale is an extremely accurate* and durable weigh-in-motion (WIM) solution. Its reputation for reliability and performance is a result of more than 20 years of operational history with medium- and high-speed weighing and data collection.

The SLC scale can be used at all speeds — from slow speeds to highway speeds.

Its low maintenance, long service life and unequalled accuracy make it the top choice for long-term weighing.

* Highest documented accuracy of all WIM technologies. See reverse side for details.

DESCRIPTION

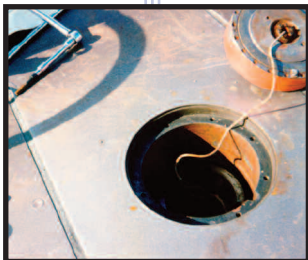
The weighing element in the SLC scale is a single load cell mounted centrally in each scale mechanism.

The mechanisms incorporate patented load transfer torque tubes, which transfer all loading on the weighing surface to the load cell. Each lane will typically contain two 6 ft. (1.8 m) scales, allowing each wheel set to be weighed individually, axle by axle. Each scale is mounted in a frame and installed in a vault that's flush with the road surface. The SLC scale is waterproof and functions in all weather and operating conditions. All cabling and drain access parts are included with scale purchase.

SINGLE LOAD CELL *Premium High Performance WIM Scale*



SLC scale installation



Easy scale access



Finished SLC scale



SLC scale in operation

ACCURACY

The efficiency of a weigh station is directly related to the accuracy of the WIM System. The high accuracy of the SLC Scale provides maximum efficiency in screening operations. Reducing the accuracy of the WIM, by as little as 3%, results in a 14% loss of sorting efficiency. This loss of efficiency can create traffic jams and cause station closures. The SLC provides a screening efficiency of greater than 90%.

The SLC Scale is the most accurate scale available today. It has the highest documented accuracy of all WIM technologies. It meets or exceeds the ASTM E1318 Type III specification up to highway speeds. The SLC Scale will typically provide the following accuracies:

Speed mph (km/h)	Function	Accuracy (% of applied)		ASTM @ 95% Confidence level <small>Type III Tolerance for 95% probability of conformity</small>
		1 σ	2 σ	
2-10 (3-16)	Wheel load	4	8	N/A
	Axle load	2	4	N/A
	Axle Group load	1.5	3	N/A
	GVW	1	2	N/A
11-25 (17-40)	Wheel load	6	12	± 20
	Axle load	4	8	± 15
	Axle Group load	3	6	± 10
	GVW	2	4	± 6
26-45 (41-73)	Wheel load	8	16	± 20
	Axle load	5	10	± 15
	Axle Group load	4	8	± 10
	GVW	3	6	± 6
46+ (74+)	Wheel load	8	16	± 20
	Axle load	6	12	± 15
	Axle Group load	5	10	± 10
	GVW	3	6	± 6

SERVICING

Closing a traffic lane in your facility can be costly and dangerous. Therefore, finding the most dependable and most easily maintainable WIM System is a critical decision. Servicing of the Single Load Cell Scale is incredibly fast and easy. The load cell can be removed or serviced from the road surface with hand tools, eliminating the need to remove the entire scale from the road.

LIFE CYCLE COST

The Single Load Cell Scale has a long service life, requiring little maintenance. For instance, a SLC scale installed in Minnesota in 1981, has weighed more than 5.3 million 5-axle trucks and more than 10.5 million trucks of other types, and continues to weigh vehicles today with minimal maintenance. The SLC Scale has a proven track record for providing long-term, reliable service to the CVO industry. (For reference, see the current USDOT FHWA "States Successful Practices, Weigh-In-Motion Handbook.")