

Suspension Hopper Scales

Proven Torque Lever Construction

Cardinal Suspension Hopper Scales are used in all types of industry where weighing of bulk, weighing of batching, proportioning, compounding, charging, filling and processing is desired. These scales can be used in fixed positions or can be installed on lorry cars or on a monorail system, whichever is best for your application. They are built with such flexibility they can be installed on virtually any special equipment application required. These scales can be adapted for square, round or rectangular hoppers.

The Cardinal Suspension Hopper Lever System is of well-known, proven torque lever construction. The torque levers are made of seamless steel tubing and hopper lugs, while the lever arms are made of steel. All systems are designed for 25% dead load capacity over the rated weighing capacity. All pivots and bearings are manufactured from high grade tool steel for greater accuracy, and are completely and easily replaceable if necessary.



**For Batching • Charging • Proportioning
• Filling • Compounding and Processing
in Any Operation**

Standard scale equipment furnished in addition to the lever system are the four suspension rods for the hanging the scale from overhead supports, and four suspension rods for supporting the hopper or tank. These are supplied in any length specified by the user. A sliding balance weight is furnished on overhead arm to compensate for variable dead loads, residue, etc., and a steelyard rod is furnished from the lever system to the weight indication unit.

Complete your suspension hopper scale with one of Cardinal's digital weight indicators to further customize your operation (please see Cardinal's indicator product section beginning on page 4 for more information). Cardinal also offers longer extension levers in various sizes, if necessary.

Scales for Square, Round, or Rectangle Suspension Hoppers

| Maximum 2,000 divisions | | | Base | |
|-------------------------|------------------------|-----------|------------------|-------------|
| Model | Capacity | Divisions | Splice Arm Total | Pipe Length |
| SH-1* | 0 lb - 1,000 lb | 1 lb | 4' | 4' |
| SH-2 | 1,001 lb - 5,000 lb | 5 lb | 6' | 6' |
| SH-3 | 5,001 lb - 9,000 lb | 10 lb | 7' | 7' |
| SH-3.5 | 9,001 lb - 14,000 lb | 10 lb | 7' | 7' |
| SH-4 | 14,001 lb - 23,000 lb | 20 lb | 7' | 6' |
| SH-5 | 23,001 lb - 30,000 lb | 20 lb | 7' | 6' |
| SH-6 | 30,001 lb - 40,000 lb | 20 lb | 8' | 6' |
| SH-7 | 40,001 lb - 60,000 lb | 50 lb | 8' | 6' |
| SH-8 | 60,001 lb - 100,000 lb | 100 lb | 8' | 8' |

*All scales of this model require graduations of less than 1/2 lb require a "HI-ACC" system, which is not "Legal for Trade"

DESCRIPTION

Weighing Capacity: Models listed to the left show net weighing capacity. A dead load not to exceed 25% has been allowed for the hopper weight. If the dead load exceeds 25%, a larger capacity lever must be used.

Splice and Pipe Length: To determine the correct length of the splice, pipe and arms, the following rules will apply:

- 1.) The total splice arm length will be the same as the dimension of the hopper side it parallels. The pipe length will be the same as the hopper side it parallels.
- 2.) The total splice arm length and the pipe length will be equal to the diameter of the hopper.

When giving the hopper dimension, the splice arm length should be given first, then followed by the length of the pipe lever.

Extension Levers: Scales are furnished with extension levers up to 6' in length. Cardinal can provide additional distance, if needed.

Suspension Rods: Four suspension rods for supporting the levers and four rods for supporting the hopper are standard.

The chart to the right specifies the maximum threads which are furnished. If necessary, longer threads may be furnished.

| Bolt Length | Threads Length |
|-------------|----------------|
| 0" - 12" | 6" |
| 13" - 18" | 9" |
| 19" - 24" | 12" |
| 25" - | 18" |



Certificate of Conformance Number 88-016