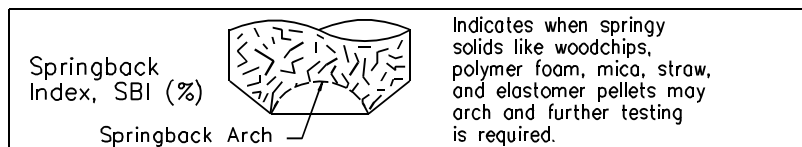
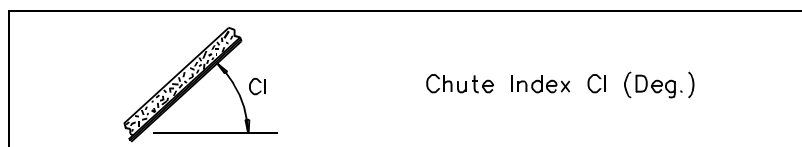
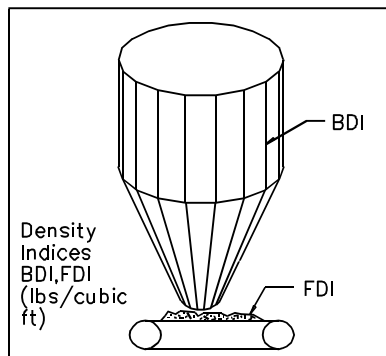
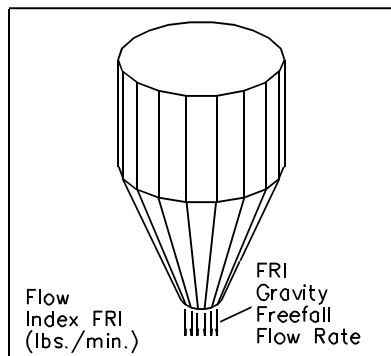
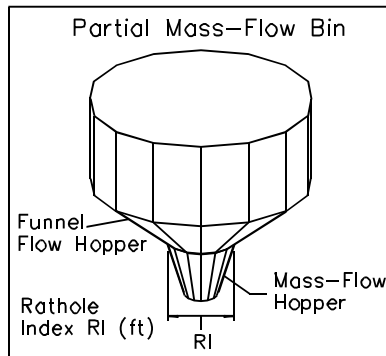
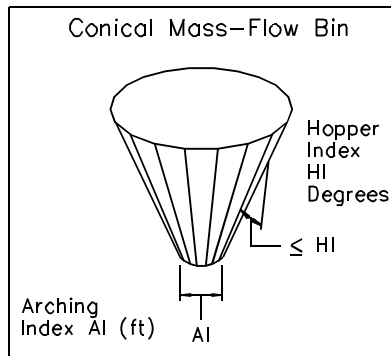


The Johanson Indices

The Knowledgeable Way to Select Bins and Feeders



ARCHING INDEX (AI) is the recommended outlet diameter to ensure arch collapse in a conical bin.

RATHOLING INDEX (RI) is the recommended circular flow channel diameter to ensure rathole failure and cleanout in a funnel-flow bin.

HOPPER INDEX (HI) is the recommended conical hopper half-angle to ensure flow at the walls.

FLOW RATE INDEX (FRI) is the maximum solids flow rate expected after deaeration of a powder in the bin.

DENSITY INDICES (FDI and BDI) are the densities in the feeder and bin respectively.

CHUTE INDEX (CI) is the recommended chute slope angle at impact points.

SPRINGBACK INDEX (SBI) is the percentage springback after consolidation.

Indices Sample and Test Condition Selection

- For larger, more conservative values of AI, RI and CI, bias sample with finer particles and higher moisture.
- For smaller, more conservative values of FRI, use lowest moisture, fine size sample.
- If sample cold-flows, such as with pitch, tar or wax, use highest temperature expected.
- If sample contains a water soluble component and slight moisture, run Indices with temperature cycling.
- If SBI > 3 (likely with particle aspect ratio >3), run special SBI, AI and RI tests.