

EZ SCOOP PATENTED SCOOP-IN-NECK SYSTEM

An ergonomic, economic, no-mess solution for powdered products.



We all know how much consumers hate to dig their hand into the powder to retrieve the scoop – not only does this compromise hygiene but it leaves a mess! The EZ Scoop eliminates this problem and helps to create brand loyalty. From an operational standpoint, we wondered – how does it compare to the traditional drop scoop at the filler in terms of efficiency?

Today, scoops of all sizes are dropped into bottles containing all types of powdered products one at a time by the assembly line worker. This repetitive motion is known to result in neck and wrist strain due to container placement and posture. It can also cause potential contamination due to verification of scoop insertion. The EZ Scoop can be inserted into the neck ring of a bottle at any radius within 360 degrees and when tested, assembly line speeds were not compromised.

A recent ergonomic study was conducted to benchmark dropping the scoop into the bottle against the “light lip pinch” technique with an error rate measured at zero. With reasonable work station setup, minimal training and practice, the EZ Scoop can be manually placed with limited stressors to workers and no impact on operational efficiency.

	HAL (0-10)*	Normalized Peak Force (0-10)	TLV Score	RULA (1-7)**
Dropping scoop into the bottle	4.66	1	0.21	1
Light lip pinch and directed placement	4.60	0.75	0.16	0.75

*Hand Activity Level (HAL) is an observational visual analogue metric which an observer subjectively assesses on a scale from 0 to 10, with 0 representing a mostly idle hand with no regular exertion, and 10 representing rapid, steady motion/exertion, with difficulty keeping up. The HAL scale is part of the American Conference for Government Industrial Hygienists (ACGIH) threshold limit value (TLV™) for evaluating the risk of work-related distal upper extremity musculoskeletal disorders. The ACGIH prescribed cut points, TLVs for HAL scores were classified into one of the three categories: below the action limit (AL) (score < 0.56), between the AL and TLV (0.56 < score < 0.78), and above the TLV (score > 0.78).

**A RULA (Rapid Upper Limb Assessment) score of 1 or 2 indicates that posture is acceptable if not maintained or repeated for long periods, a score of 3 or 4 indicates that further investigation is needed and changes may be required, 5 or 6 indicates investigation and changes are required soon, and 7 indicates investigation and changes are required immediately.

*Ergonomic and Operational Evaluation of EZ Scoop
prepared by Blankenheim Services*

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EZ SCOOP RECOMMENDED PLACEMENT

BEST PRACTICES: SCOOP PLACEMENT

Positioning the worker. It is imperative that the scoops and line both be as close to the worker as possible. The workers should be able to retrieve a scoop and place it in the bottle without their elbow ever leaving their waist. Bottles should be moving towards the front of the worker, not their back, and workers should be standing so that their dominant hand is closest to the line. The container that the worker retrieves the scoops from should be gravity fed so they can reach to the same place each time, and should have smooth edges, not sharp, to reduce risk of injury.



Flat container with sharp edge



Gravity fed container

Holding the scoop. The worker should hold onto the front cup of the scoop by putting their index, middle, and ring fingers inside of the scoop with the thumb on the outside pinching the scoop. The pinky should be outside of the cup either out of the way, or to be used as a secondary guide for the scoop. This should be a light grip.



Side view lip pinch



Top view lip pinch

Placing the scoop. To place the scoop the worker should roll the cup over the edge of the scoop until it is just inside of the lip but not yet sitting on the ledge, then tilt the scoop so that before the cup is settled the tail of the scoop has cleared the lip of the neck. Once the tail is clear, the worker may either fully place the tail first and then place the cup, or bring them down together placing them simultaneously.



Line scoop up



Placing tail first



Final placement

For more information, please contact
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