Semi-automatic Inspection Machine

DI-100 LT/XL

Innovative Designs
The DI-100 LT/XL Inspection System was designed to perform visual inspection of Vials, Ampoules & Syringes and Cartridges minimizing product handling.

This machine can handle a wide range of container types and sizes. Its max operating speed is 150 pieces per minute. Using one DI-100 LT/XL machine one operator can reach the same productivity of 4-5 operators in a typical manual-inspection process.

Main Technical Features

PRODUCT CAPABILITIES:

- Liquid, Lyophilized, Powder and Empty Containers

Inspection Criteria

**AMPOULES**
- Particles
- Fill level
- Ampoules lip (static and dynamic)
- Cracks and scratches on ampoules body

**CARTRIDGES**
- Cake surface (for Freeze dried products)
- Filling level (air bubble presence)
- Alu-cap (crimping, dents, etc.)
- Stopper presence/absence
- Plug crowning
- Plunger (presence, position, orientation, liquid between ribs, etc.)

**SYRINGES**
- Cake surface (for Freeze dried products)
- Finger grip (flange) and plunger presence
- Cracks and scratches on the whole syringe barrel
- Needle cover (damaged, bent)
- Plunger (presence position, orientation, liquid between ribs, etc.)

AVAILABLE OPTIONS

- • Automatic reject: break beam curtain or push button type
- • Reject classification: 4-6 categories
- • Validation master plan package
- • Modular infeeds/outfeeds for multiple containers
- • Quick container size changeover
- • Repeatability options for inspection aids

**VIALS**
- Fill level
- Cake surface (for Freeze dried products)
- Alu-cap (crimping, dents, etc.)
- Stopper presence/absence
- Cracks and scratches on vials body

**TECHNICAL SPECIFICATIONS**

- Inspected Containers: Vials, Cartridges, Syringes,
  and Ampoules
- Vials: 1ml (.300"/7.62mm dia) - 1000ml (5"/127mm dia)
- Cartridges: 1ml (.270"/6.86mm dia) - 100ml (1.7"/43.18mm dia)
- Ampoules: 1ml (.250"/6.35mm dia) - 50ml (1.1"/27.94mm dia)
- *Other container sizes available upon request

- Machine Speeds: Up to 150 parts per minute (container specific)
- Pre-spinning: 2500 rpm max adjustable
- Low Spin: 2-3 revolutions per container adjustable
- Lighting (LED):
  - Top Tyndall: over 700 foot-candles
  - Bottom Tyndall: over 700 foot-candles
  - Back Lighting: over 500 foot-candles

- Infeed:
  - Vials: Turning block or starwheel
  - Cartridges: Worm screw or starwheel (needle down or up)
  - Ampoules: Starwheel

- Outfeed:
  - Vials: Turning block, worm screw or starwheel
  - Cartridges: Cosmic-stripper, cap and climp
  - Ampoules: Starwheel

- Auto infed reject:
  - Cosmetic-stopper, cap and climp

- Output reject: 4-6 reject categories
- Loading Height: 815 mm - 915 mm (32" - 36")
- Loading:
  - Vials/Cartridges: Accumulator, turntables & conveyors
  - Syringes: Inline belt conveyor
  - Ampoules: Flat belt conveyor for trays/tray loading
- Services Required: 120V 60Hz
- Noise: < 75 dB(A)
- Dimensions: LxWxH: 3.04 m x 1.57 m x 1.65 m (10 ft x 5 ft x 5 ft)

Specification subject to change without notice.
All rights reserved. The copying of technical data and images is forbidden. © Copyright Dabrico, Inc.

The information given on this data sheet is accurate as for the date of issue. Nothing herein shall be deemed to constitute a warranty, explicitly or implicitly, it is the user’s responsibility to determine the applicability and suitabilty of such material to any particular purpose.