

GroyneTech (GT) Negative Pressure Control Isolator for Dispensing/Sampling & Packing process of operation, (Air Cleanness level – ISO Class – 8 @ rest in normal operation) with Recovery Cycle / Night Mode Cycle Programmed provides personnel, environmental and product protection.

Air flow is “Once through System”, with a set of filter (PRE, 10Micron + HEPA, 0.3Micron) at inlet & a set of filter (PRE, 10Micron + HEPA, 0.3Micron) at outlet.

“GT-NPCI” are placed in dedicated area, for dispensing / Sampling & Packing of product & its charging as per user SOP, without effecting the balancing of respective zone, Containment free product transfer.

Sr. No. Title Catalogues Test/ Conformity Certificate Calibration certificate M.O.C

- 1 Gloves (Hypalon) ✓
- 2 Food Grade Gasket ✓
- 3 Differential Pressure transmitter ✓
- 4 Temp. & RH Sensor ✓
- 5 Centrifugal Blower System ✓
- 6 Magnehlic Gauges ✓
- 7 Supply HEPA Filter ✓
- 8 Exhaust HEPA Filter ✓
- 9 Fine Pre - Filter ✓✓
- 10 PLC Control System
- 11 FLP / NFLPLight for ISOLATOR ✓
- 12 Containment Valve “Split Butterfly Valve” ✓
- 13 FLP / NFLP Panel for respective ISOLATOR ✓
- 14 FLP / NFLP Motor for ISOLATOR ✓
- 15 Material of construction ✓✓

MECHANICAL DESGIN CRITERIA

Sr No Design Criteria Specification

- 1 Material of Construction – Contact Part: SS316L.
Non-Contact Part: SS304.
- 2 Surface finish Inside – Mirror Finish & Outside – Matt Finish
Base & side wall surface roughness will be similar with rounded corners
- 3 Coved Corners of chamber Rounded to radius of 12.5mm
- 4 Base Stand SS 304 Square Pipe.
- 5 Doors Made of toughened safety glass & 10mm thickness, comply with IS-2553; Seals will be of inflatable gasket type.
- 6 Gloves Hypalon, Gloves, 15mil.thick, 32”long Comply to ISO 11933-2
- 7 Glove Port GroyneTech Make, MOC: PP, Comply to ISO 11933-1
- 8 HEPA Filters @ Inlet & Exhaust with DOP Port Confirms to H14 class, 0.3 micron
- 9 Fine – Pre Filter @ Exhaust Fine Filter of 10 micron
- 10 Manual Butterfly Valve 4” Manual Butterfly Valve @ Inlet & Exhaust Point.
- 11 Catch Pot 20 Liters Catch Pot for waste water collection after cleaning of chamber
- 12 Spray Gun with Silicone Tube Inside Working Chamber of respective ISOLATOR & GLOVE BOX
- 13 Leak Rate of Containment System Class IV – category as per ISO – 10648 – Part – II
Subjected: to equipment base plate leak proof.
- 14 Negative Working Pressure -30 to – 60 Pascal (As per Application Require).
- 15 Containment Valve Port Connection Stainless Steel – 316 for contact part & Stainless Steel – 304 for non-contact part
- 16 Utility points Each chamber will have two numbers ½” TC line with manual leak tight valve for integration of respective utilities (N2 or Air & PW or WFI). To be freeze the points in respective G.A. Drawings & one number electrical leak tight connector

ELECTRICAL & INSTRUMENTATION DESGIN CRITERIA

Sr No Design Criteria Specification

- 1 Light Fixture Box type, FLP lamp
- 2 Feedthroughs Leak tight Feed Thru’ with blind flanges rings & clamps.
- 3 Differential Pressure Transmitter) (-500pa 0 +500pa), - Sensocon make
- 4 Temperature & RH Sensor @ Return Duct Temperature: 0 to 50 Deg C
RH – 0 to 100%
Make: Rotronic Make
- 5 Variable Frequency Drive Make: Schneider
- 6 PLC Control System GroyneTech Design with Schneider Make PLC & HMI
- 7 Switches, Emergency Stop & Buzzer Make: Tecknic & Mimic
- 8 FLP / NFLPBOX integrated with control circuit FLP certified BOX / NFLP
- 9 Potential Free contacts For integrating with respective process equipment with containment system, in order to operate the respective equipment once the containment system is in healthy condition.
- 10 Door Interlock EML system (Electromagnetic Lock)
- 11 Centrifugal Motor Blower System With design Static of require CFM, controlled with Variable Frequency Drive, system integrated with “Containment System”

