



**GMP & HAPI
CONTAINMENT**

SYSTEMS
2016

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- 84 IHP® CLEAN ROOM & GLOVE BOXES STERILIZATION

SOLUTIONS TAILORED TO YOUR NEEDS

CSV CONTAINMENT DESIGN

- TAYLOR MADE
- CO DESIGNED WITH THE USER
- IMPROVED OPERATOR ERGONOMICS
- QUICK IMPLEMENTATION
- EASY TO MODIFY AND TO IMPROVE
- SUITABLE FOR HIGH CONTAINMENT
- SUITABLE FOR NEW OR EXISTING EQUIPMENT

CSV CONTAINMENT MATERIALS

- EU & US GMP COMPLIANCE
- ANTISTATIC/CONDUCTIVE
- SOLVENTS COMPATIBLE
- USDMF AVAILABLE

CSV CONTAINMENT PROJECT

- REDUCED INVESTMENT COSTS
- FAST TRACK DELIVERY
- NOT INVASIVE INSTALLATION
- SMEPAC TESTED AND VALIDATED

CSV CONTAINMENT SERVICES

- FEASIBILITY STUDIES
- TRAINING
- FAT & MOCK-UP
- SMEPAC MONITORING
- VALIDATION



DISPENSING FLEXIBLE ISOLATOR



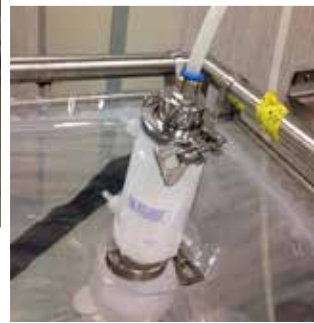
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- COLLAPSIBLE FRAME FOR STORAGE
- DESIGNED FOR ANY DISCHARGING INTERFACES/CONTAINERS
- OPTION WITH VENTILATION AVAILABLE
- NO SW AUTOMATION REQUIRED FOR PRESSURE CONTROL
- SUITABLE FOR HIGH CONTAINMENT

DISPENSING ISOLATOR (N₂ INJECTION)



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- TIGHT GAS ZIPPERED DOORS
- HUMIDITY CONTROL
- NITROGEN INJECTION

DISPENSING AT CONTROLLED HUMIDITY



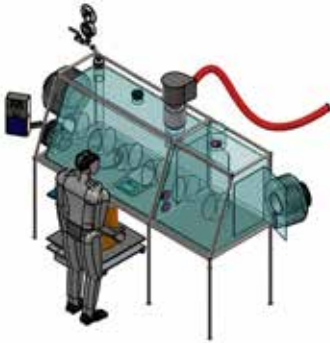
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- TIGHT GAS ZIP
- HUMIDITY CONTROL
- COMPRESSED AIR INJECTION

LIQUID DISPENSING & SAMPLING



- COMPACT AND MOVABLE
- NITROGEN INJECTION
- ZIPPERED DOORS
- PRODUCT CHARGE VIA CAMLOC/VALVE
- ISO 8 (GRADE D) INNER CHAMBER

VENTILATED DOUBLE CHAMBER DISPENSING



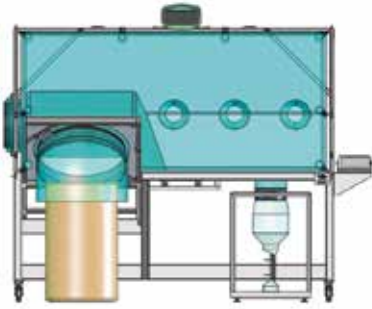
- NO CLEANING REQUIRED
- PLUG AND PLAY UTILITIES
- PASS BOX (PRE) AND MAIN CHAMBER VIA ZIPPERED DOORS
- INNER CHAMBER IN ISO 7
- SCALE POSITIONED OUTSIDE - NO PRODUCT CONTACT WITH THE SCALE
- API BAG IN VIA DRUM SLEEVE
- DISPENSED PRODUCT DISCHARGE BY CONTINUOUS LINER

DOUBLE CHAMBER DISPENSING



- COMPACT AND MOVABLE
- BAG IN VIA FLEX PASS BOX
- ZIPPERED DOORS
- WASTE BAG OUT VIA CONTINUOUS LINER
- PRODUCT BAG OUT/DISCHARGING VIA SPLIT VALVE

EZ BIOPAC DISPENSING/PREP TRANSFER



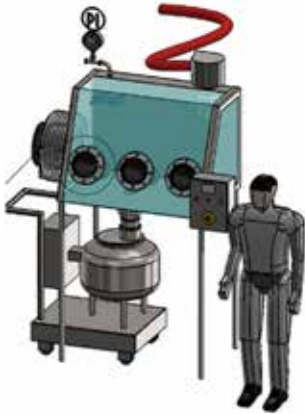
- CONTAINED DISPENSED POWDER CHARGING INTO EXTERNAL BAG
- CONTAINED TRANSFER AND PREPARATION TANK CHARGING

STEEL MADE DISPENSING ISOLATOR



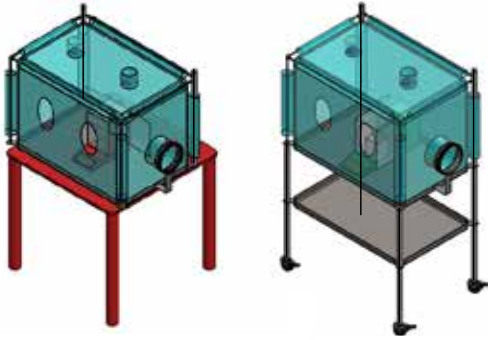
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- NEGATIVE PRESSURE
- BAG IN VIA PASS BOX OR CONTINUOUS LINER
- PRODUCT DISCHARGE VIA SPLIT

GLASS DISPENSING ISOLATOR



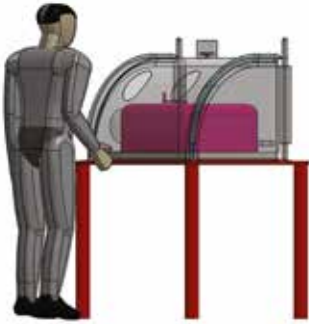
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- NEGATIVE PRESSURE
- BAG IN VIA PASS BOX OR CONTINUOUS LINER
- PRODUCT DISCHARGE VIA SPLIT VALVE

QC LAB WEIGHT SCALE ISOLATOR



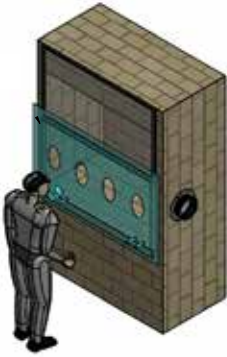
- COMPACT AND MOVABLE
- BAG IN BAG OUT VIA CONTINUOUS LINER

QC IR INSTRUMENT ISOLATOR



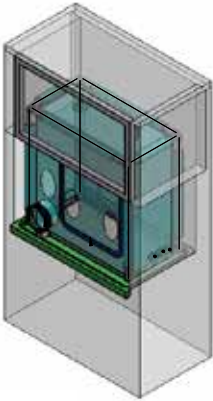
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- BAG IN BAG OUT VIA CONTINUOUS LINER

FLOW HOOD FLEXIBLE BARRIER



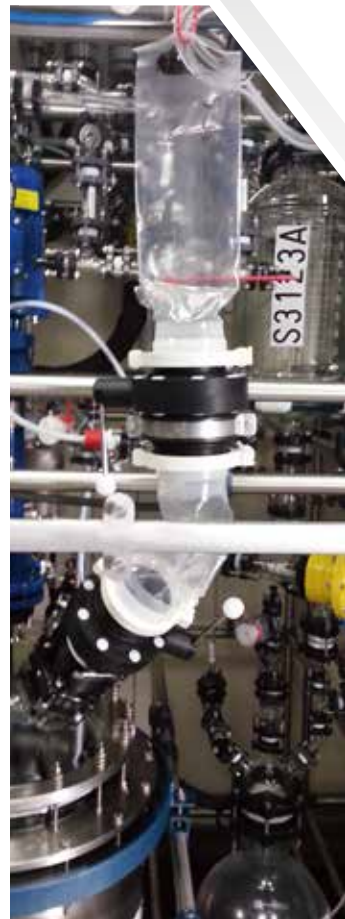
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- BAG IN BAG OUT VIA CONTINUOUS LINER

UNDER FLOW HOOD FLEX ISOLATOR



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- BAG IN BAG OUT VIA CONTINUOUS LINER
- GLASSWARE BAG IN /OUT VIA ZIPPERED INTERFACE

GLASS REACTOR CHARGING



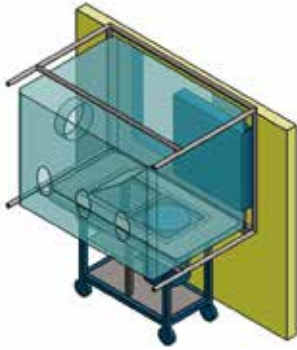
- MAN-WAY CHARGING CONTAINMENT
- CONDUCTIVE MATERIALS (ATEX)
- PLUG AND PLAY INSTALLATION
- SOLVENT FREE OPERATIONS
- VACUUM AND PRESSURE TESTED VALVES (LIQUID AND GASES)

PILOT GLASS PLANT



- FULLY CONTAINED CHARGING & SAMPLING
- N₂ INERTIZATION DECONTAMINATION
- CLEANING/DECONAMINATION SPRAY GUN AVAILABLE

BUCKNER & TRAY DRIER CONTAINMENT



- COMBINATION BETWEEN
- RIGID ISOLATOR ON THE BUCKNER SKID
- FLEXIBLE ISOLATOR AROUND THE TRAY DRIER

LAB TRAY DRIER CONTAINMENT



- BAG IN/OUT VIA SLEEVE
- U GRIP TO SECURE THE BAG AROUND THE DRIER DOOR PROFILE

BENCH ISOLATOR



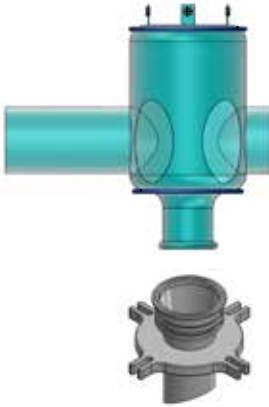
- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- DESIGNED FOR ANY INTERFACES/CONTAINERS
- OPTION WITH VENTILATION AVAILABLE
- NO SW AUTOMATION REQUIRED FOR PRESSURE CONTROL
- SUITABLE FOR HIGH CONTAINMENT

SMALL SCALE CHARGING



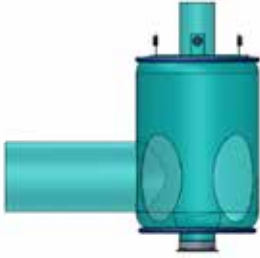
- POWDER RESIDUAL RECOVERY BY SOLVENT FLUSHING
- N₂ COMPRESSED AIR OR SOLVENT INJECTION
- FLUIDS QUICK CONNECTION
- SUITABLE FOR ANY INTERFACE (SPLIT VALVES...)
- SUITABLE FOR ASEPTIC CHARGING

REACTOR CHARGING (MANWAY ADAPTOR)



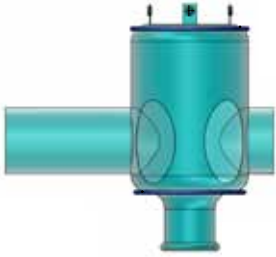
- PTFE MAN WAY ADAPTOR
- BAG OUT VIA CRIMPED SLEEVE
- BAG IN VIA ZIPPERED SLEEVE & WELOC

REACTOR CHARGING (DEDICATED FLANGE)



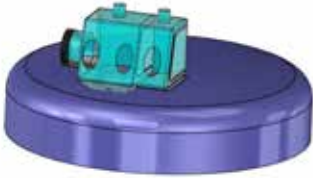
- 4" TC CONNECTION FLANGE
- BAG IN/OUT VIA ZIPPERED SLEEVE WITH WELOC PASS BOX

REACTOR CHARGING (ZIPPERED MANWAY NECK)



- BAG IN VIA ZIPPERED SLEEVE WITH WELOC PASS BOX
- INSTALLATION AROUND THE MAN-WAY NECK
- BAG OUT VIA CRIMPED SLEEVE

DOUBLE CHAMBER (ZIPPERED MANWAY NECK)



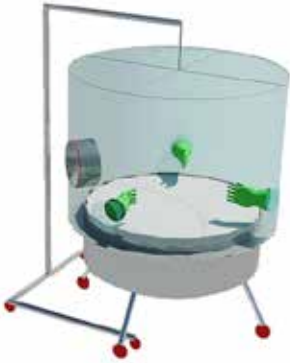
- PRE CHAMBER AND MAIN CHAMBER ZIPPERED DOORS
- BAG OUT CANISTER USED AS WORKING BENCH
- U GRIP OR ZIPPER TO SECURE THE BAG AROUND THE MANWAY OUTER NECK
- CLEAN CHARGING VIA INNER LINER NECK

PILOT BUCKNER FILTER



- COMPACT AND MOVABLE
- VALVE AND CAMLOC ON CHARGING LINE
- PRODUCT BAG OUT VIA LDPE SLEEVE

LENS FILTER



- COMPACT AND MOVABLE
- VALVE AND CAMLOC ON CHARGING LINE
- PRODUCT BAG OUT VIA LDPE SLEEVE

LIQUID CHARGING & SAMPLING



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- BAG IN VIA WELOC SLEEVE
- BAG OUT VIA CRIMPED SLEEVE

SPRAY DRYER ISOLATOR



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES
- BAG IN BAG OUT VIA CONTINUOUS LINER

DOUBLE CHAMBER MILL CONTAINMENT



- CONTAINED LOADING AND OFFLOADING OPERATION
- SAMPLING & WEIGHING ON LINE OPTION AVAILABLE
- MAIN & PRE CHAMBERS (PASS BOX)
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- IMPROVED OPERATOR ERGONOMICS

DRUMS/BAGS CHARGING STATION



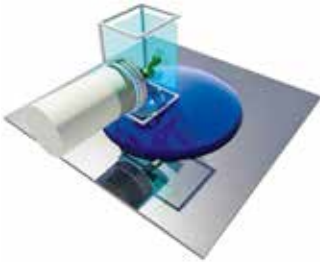
- APPLICABLE TO:
 - MANWAY
 - DEDICATED FLANGE
- DESIGNED FOR CONTAINED CHARGING OF:
 - DRUMS
 - BAGS
 - TINS
- MOVABLE CONFIGURATION AVAILABLE
- TELESCOPIC CONFIGURATION AVAILABLE
- NO UTILITIES REQUIRED
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE

MANWAY REACTOR CHARGING SLEEVE



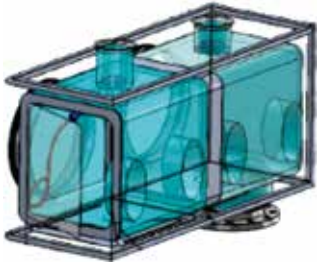
- JUST SOFTGOODS
- NO UTILITIES REQUIRED
- N₂ INERTIZATION AVAILABLE
- NO GLOVES

SINGLE CHAMBER REACTOR CHARGING



- APPLICABLE TO:
 - MANWAY
 - DEDICATED FLANGE
- DESIGNED FOR CONTAINED CHARGING OF:
 - DRUMS
 - BAGS
 - TINS
- MOVABLE CONFIGURATION AVAILABLE
- TELESCOPIC CONFIGURATION AVAILABLE
- NO UTILITIES REQUIRED
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE

DOUBLE CHAMBER REACTOR CHARGING



- APPLICABLE TO:
 - MANWAY
 - DEDICATED FLANGE
- DESIGNED FOR CONTAINED CHARGING OF:
 - DRUMS
 - BAGS
 - TINS
- MOVABLE CONFIGURATION AVAILABLE
- MAIN & PRE CHAMBERS (PASS BOX)
- NO UTILITIES REQUIRED
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE

CONTINUOUS LINER & ON LINE SAMPLING



- CONTAINED OFFLOADING & SAMPLING INTO CONTINUOUS LINERS
- N₂ INERTIZATION AVAILABLE
- ON LINE WEIGHING & DOSING OPTIONS AVAILABLE
- DRUM LINER CONTAINED SEPARATION BY CRIMPING
- CIP & SIP OPTION AVAILABLE

ROTATING RETRACTILE SPRAY BALL



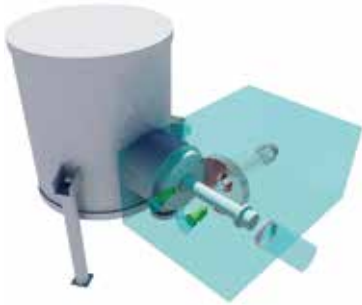
- FLASH MOUNTED DESIGN
- ROTATING FLOW
- RETRACTILE SPRAYBALL

CONTINUOUS LINER CLEANING BOX



- CONTINUOUS LINER
- MOVABLE GLOVE BOX TO CONTAIN SKID DECONTAMINATION
- NITROGEN PURGING & VENTING CIRCUIT

FILTER DRYER CAKE RECOVERY



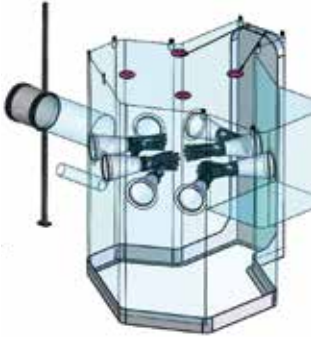
- CONTAINED AND SAFE BODY VALVE OPENING
- CONTAINED RESIDUAL PRODUCT RECOVERY
- CONTAINED GASKET & SEALS CLEANING
- PLUG AND PLAY INSTALLATION
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- SOLVENT FREE OPERATIONS

MOBILE DISCHARGING CLEAN ROOM



- COMPACT AND MOVABLE
- FLEXIBLE CLEAN ROOM
- FAST RECOVERY TIME
- COMPRESSED AIR OR N₂ QUICK CONNECTION AVAILABLE
- HEPA FILTERS ON BOARD
- DESIGNED FOR ANY DISCHARGING INTERFACES/CONTAINERS
- EASY TO INSTALL AND REMOVE

CENTRIFUGE SCOOPING OUT



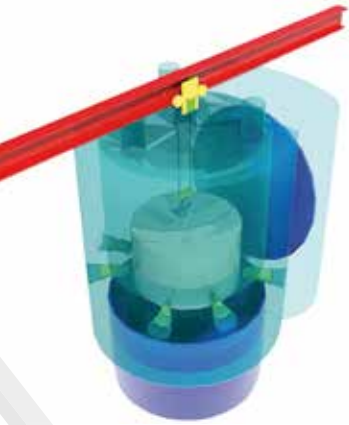
- FLEXIBLE CLEAN ROOM ENVIRONMENT
- FAST RECOVERY TIME
- COMPRESSED AIR OR N₂ QUICK CONNECTION AVAILABLE
- HEPA FILTERS ON BOARD

LID OPENING ENCLOSURE



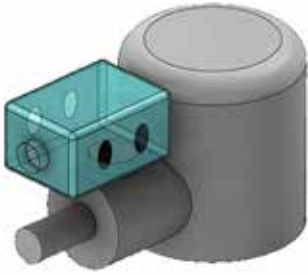
- GMP & SAFE ENCLOSED EXPOSED OPERATION
- CONTAINED AND SAFE PRODUCT RECOVERY
- PLUG AND PLAY INSTALLATION
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- SOLVENT FREE OPERATIONS
- INTERNAL GAS MONITORING

BASKET CENTRIFUGE OFFLOADING



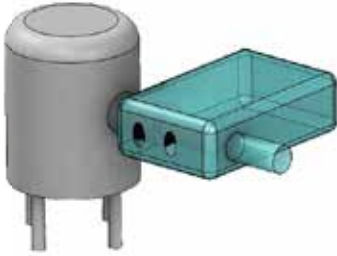
- GMP & SAFE CENTRIFUGE OFFLOADING
- FLEXIBLE CLEAN ROOM ENVIRONMENT
- FAST RECOVERY TIME
- COMPRESSED AIR OR N₂ QUICK CONNECTION AVAILABLE
- HEPA FILTERS ON BOARD
- EASY TO INSTALL

FILTER DRYER VALVE CLEANING



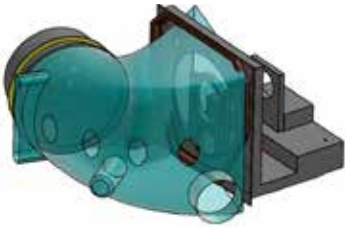
- EASY TO INSTALL AROUND THE INSPECTION FLANGE
- NO HARDWARE REQUIRED
- NITROGEN INJECTION AND VENT EXTRACTION

FILTER DRYER CAKE REMOVAL



- EASY TO INSTALL AROUND THE DISCHARGE BODY
- NO HARDWARE REQUIRED
- NITROGEN INJECTION AND VENT EXTRACTION AVAILABLE

X-AXIS CENTRIFUGE CONTAINMENT



- NO HARDWARE REQUIRED
- NITROGEN INJECTION AND VENT EXTRACTION AVAILABLE
- BAG IN BAG OUT VIA INTERFACE CANISTER AND SLEEVE

IN LINE POWDER SAMPLER



- MANUAL OR AUTOMATED SAMPLING
- CLEAN DESIGN (FLASH MOUNTED)
- EASY DISMANTLING (NO TOOLS NEEDED)
- SAMPLES INTO 4" DIAMETER LINER OR ANY OTHER CONTAINER

VACUUM TRANSFER CONTAINMENT



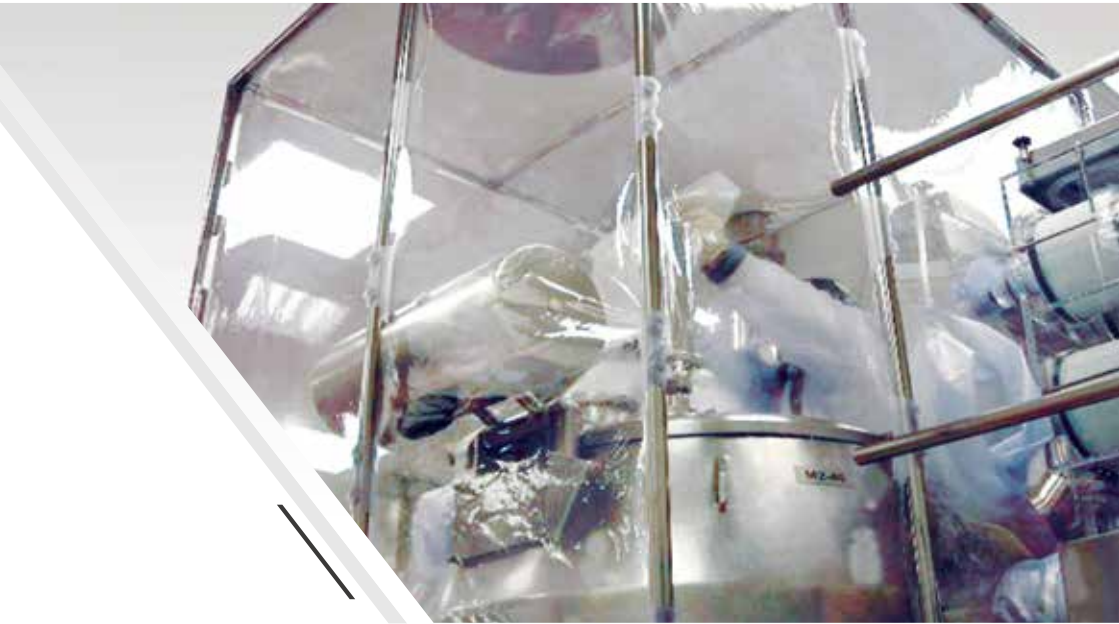
- GMP & CONTAINED DRUM TRANSFER BY VACUUM
- LIGHT & EASY TO USE
- COMPACT AND MOVABLE
- IMPROVED OPERATOR ERGONOMICS
- NO UTILITIES REQUIRED
- AVAILABLE OPTION WITH VENTILATION
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- SUITABLE FOR DIFFERENT PNEUMATIC CONVEYORS

FLUID BED DRIER



- CONTAINED LOADING AND OFFLOADING OPERATION
- CONTAINED RESIDUAL PRODUCT RECOVERY
- SAFE & CONTAINED FILTERS CHANGE
- IMPROVED OPERATOR ERGONOMICS

WET GRANULATOR



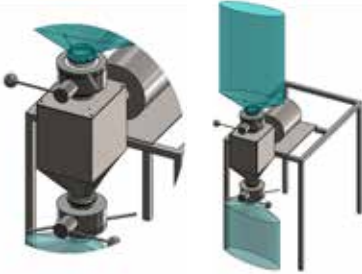
- SAFE OFFLOADING
- CONTAINED RESIDUAL PRODUCT RECOVERY
- CONTAINED GASKET & SEALS CLEANING
- PLUG AND PLAY INSTALLATION
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- SOLVENT FREE OPERATIONS
- IMPROVED OPERATOR ERGONOMICS

MILL CONTAINMENT



- DOUBLE CHAMBER WITH ZIPPERED PASS BOX
- ON LINE MILL LOADING
- ON LINE MILL OFFLOADING VIA SPLIT AND DOVERPAC SF

SIEVER CHARGING/DISCHARGING



- ON LINE SIEVER CHARGING AND OFFLOADING VIA SPLIT AND DOVERPAC SF

BLENDER CHARGING / DISCHARGING



- BLENDER CHARGING, SAMPLING AND OFFLOADING VIA SPLIT VALVE AND DOVERPAC SF

TABLETTING / CAPSULE FILLING CHARGING



- TABLET PRESS MACHINE CHARGING VIA SPLIT VALVE AND DOVERPAC SF

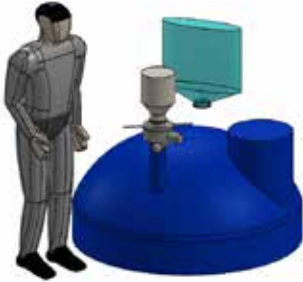
ASEPTIC TRANSFER & PREP CHARGING



ASEPTIC PREPARATION TRANSFER

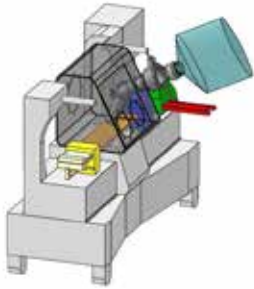


ASEPTIC PREPARATION TANK CHARGING



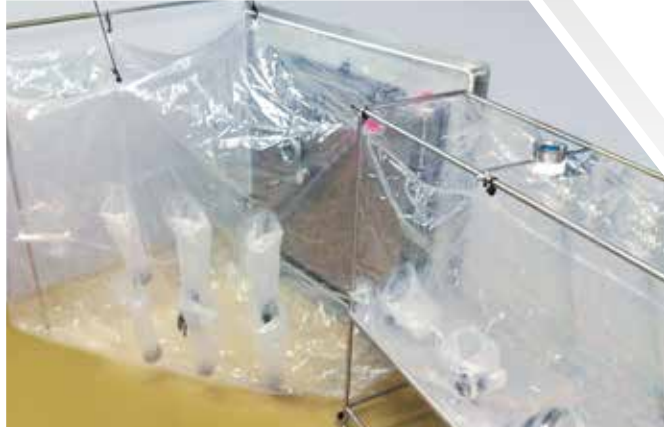
- ON/OFF LINE STEAM (OR H₂O₂/VHP)
SPLIT VALVE STERILIZATION

ASEPTIC FILLING CHARGING



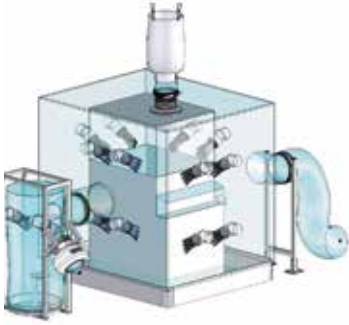
- CONTAINED CHARGING VIA BAG, HDPE OR STEEL BOTTLE

TRAY/FREEZE DRYER CONTAINMENT



- CONTAINED LOADING AND OFFLOADING OPERATIONS
- IN LINE DISPENSING
- IN LINE SAMPLING
- IN LINE MILLING
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE

TABLET PRESS MACHINE / CAPSULE FILLING



- CONTAINED LOADING AND OFFLOADING
- CONTAINED SAMPLING AND REJECTION
- IMPROVED OPERATOR ERGONOMICS

COATING MACHINE CONTAINMENT



- CONTAINED LOADING AND OFFLOADING
- CONTAINED SAMPLING
- IMPROVED OPERATOR ERGONOMICS

ON LINE MILLING (WEIGHING & SAMPLING)



- CONTAINED LOADING AND OFFLOADING
- SAMPLING ON LINE OPTION AVAILABLE
- IN LINE WEIGHING AND WEIGHT CORRECTION
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- IMPROVED OPERATOR ERGONOMICS

CLEAN MOBILE INTERFACE



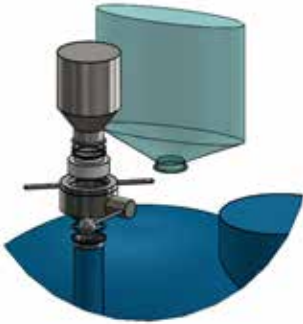
- CLEAN ROOM INTERFACE FOR LOCAL GMP GRADE & HUMIDITY CONTROL
- N₂ OR FILTERED AIR INJECTION AVAILABLE
- DOSING BY IRIS VALVE
- COLLAPSIBLE STRUCTURE

IBC SAMPLING



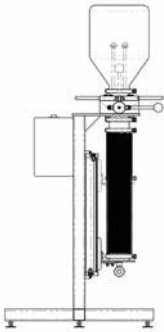
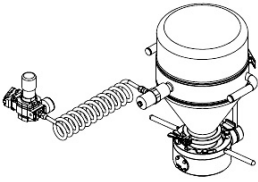
- APPLICABLE TO REACTOR MANWAY, VALVE & FLANGE
- FOR CONTAINED, GMP & HUMIDITY CONTROLLED APPLICATIONS
- REMOVABLE TO BE USED AS TEMPORARY BUBBLE BARRIER
- EASY TO INSTALL AND REMOVE
- COLLAPSIBLE
- N₂ INERTIZATION OF THE SYSTEM AVAILABLE
- DOES NOT REQUIRE SAMPLING DEVICES

CHARGE BOTTLE/BAG



- CONTAINED CHARGING VIA BAG, HDPE OR STEEL BOTTLE

CHARGE BOTTLE ACCESSORIES



- BOTTLE HANDLE
- VIBRATOR DEVICE
- CLEANING STATION

IN LINE POWDER SAMPLER



- CUT OFF MANUAL VALVE
- SAMPLES INTO 4" DIAMETER LINER OR ANY OTHER CONTAINER
- EASY TO DISMOUNT (NO TOOLS NEEDED)

GLOVE BOX DISCHARGE & SAMPLING



- CONTAINED OFFLOADING & SAMPLING INTO CONTINUOUS LINERS
- N₂ INERTIZATION AVAILABLE
- ON LINE WEIGHING & DOSING OPTIONS AVAILABLE
- DRUM LINER CONTAINED SEPARATION BY CRIMPING

BAG / BIN TO BIN DISPENSING



- MOVABLE DOSING STATION INTEGRATED ON BOARD OF A SPECIAL IBC
- INTEGRATED IBC TO IBC DISPENSING FOR DIRECT MIXING, EXCIPIENT ADDING
- NO NEEDS OF DISPENSING ROOM
- MINIMIZE THE MATERIAL AND PERSONNEL FLOWS

IN LINE CHARGING & DISSOLUTION SKID



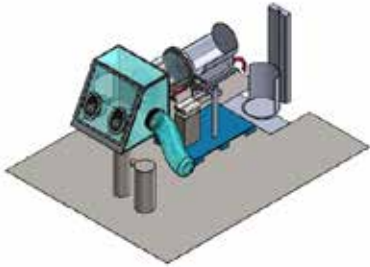
- PREPARATION TANK, REACTOR AND EQUIPMENT CHARGING
- REAL TIME DISSOLUTION
- LIGHT & MOVABLE
- NO PROCESS MECHANICAL HEATING
- DEDUSTING INTEGRATED IN THE SKID HOPPER
- SUITABLE FOR VISCOUS FLUIDS

LUMP BREAKER FOR DRUM/BIG BAG CHARGING



- MOVABLE INTEGRATED BIG BAGS AND BAGS CHARGING STATION
- DELUMPER
- SUITABLE TO BE CONNECTED TO ANY POWDER TRANSFER SYSTEM (GRAVITY & PNEUMATIC)
- CONTAINED DRUMS CHARGING CONFIGURATION AVAILABLE

DRUM CHARGING SKID



- SAFE HANDLING OF HEAVY DRUMS
- AVAILABLE IN MOBILE OR FIXED DESIGN
- POWERED WITH AIR PRESSURE
- AVAILABLE IN ATEX EXECUTION
- LIFTING A DRUM OR A BOX FOR A CONNECTION TO A FLEXIBLE OR RIGID ENCLOSURE
- EMPTYING A DRUM OR A BOX IN A HOPPER

MANUAL BAG LIFTER



- COMPACT AND MOVABLE
- DOUBLE DIRECTION
- SS 316 L
- 50 KG MAX LOAD

MANUAL DRUM LIFTER



- COMPACT AND MOVABLE
- DUAL USE
- STEEL MADE
- ROUNDED CORNER
- 125 KG CAPACITY

ON PALLET FILTER



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES

MOVABLE FILTER SKID



- COMPACT AND MOVABLE
- PLUG AND PLAY UTILITIES

HIGH CONTAINMENT EXHAUST SKID



ChargePoint PharmaSafe® pro

Unique Partial undocking position creates extraction void between disc and seat faces

- ✓ A simple low volume 650 L/min extraction to achieve microgramme level containment.
- ✓ Simple hose connection for Compact ChargePoint Pro Extract System
- ✓ Vacuum source can be client HVAC or HEPA contained vacuum system

Extract Port - for extract connection by hose or pipe to Pro Extract Skid or vacuum source

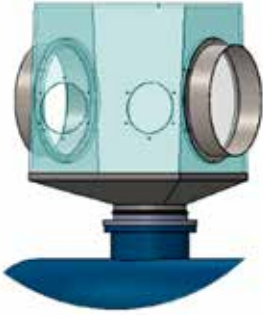
ChargePoint PharmaSafe® pro

PharmaSafe® pro Extract System

- ✓ Compact Mobile skid, Floor Mounted or Wall Mounted
- ✓ Stainless Steel frame
- ✓ ATEX Certified
- ✓ Double Safe Charge H14 Push Pull HEPA filter
- ✓ Filter DP and Extract Volume Gauge
- ✓ Start / stop and Emergency Stop Buttons

- LOCAL DEDUSTER FOR HIGH CONTAINMENT PERFORMANCES

PLASTIC ISOLATOR



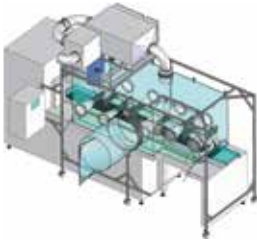
- COMPACT AND MOVABLE
- BAG IN BAG OUT VIA CONTINUOUS LINER OR SLEEVE
- AVAILABLE IN TWO CHAMBER OPTIONS WITH PASS BOX

BLISTERING CONTAINMENT



- GLASS WALLS EQUIPPED WITH GLOVES ON A STEEL PROFILE
- PASS BOX REALIZED BY A DOUBLE IRIS VALVE

FLEXIBLE BLISTERING CONTAINMENT



- CONTAINED LOADING
- CONTAINED PACKAGING
- SAMPLING ON LINE OPTION AVAILABLE
- IMPROVED OPERATOR ERGONOMICS

PAPR SENTINEL CLEAR HOOD



I/LC DOVER
creating what's next™

Sentinel XL™ Clear Hood PAPR

Features

- NIOSH Approved
- Greater than 8 SCFM (230 LPM) airflow
- Integrated blower and battery with audible and visible alarms
- APF of 1000
- Panoramic visor
- No uncomfortable suspension or neckdam
- Secure hood tabs on outer bib
- HE Particulate or OV/CD/CL/HC/HF/SD/HE filters approved
- Allows use of personal safety equipment
- Easily deconable Quick-Loc™ belt

MOCK UP & SMEPAC MONITORING



- EACH SYSTEM IS TESTED
- MOCK-UP FOR OWNER TESTING AND DESIGN IMPROVEMENTS
- CONTAINMENT LEVEL MONITORING AND CERTIFICATION

IHP® CLEAN ROOM & GLOVE BOXES STERILIZATION



Features	iHP®	VHP®	Formaldehyde	Chlorine Dioxide
Works independently of temperature & humidity	✓	✗	✗	✗
Has short cycle & aeration times	✓	✗	✗	✗
Excellent materials compatibility	✓	✓	✗	✗
Outstanding distribution properties	✓	✗	✓	✓
Easy to contain & control	✓	✓	✗	✗
Superior biological efficacy	✓	✓	✓	✓
Non-carcinogenic	✓	✓	✗	✓
Easy cleanup with no precipitate	✓	✓	✗	✓
Considered environmentally friendly	✓	✓	✗	✓

- No needs of humidity control
- No needs HVAC
- No surface wetting
- Minimize corrosion & degradation
- Short sterilization cycle
- Integration with EMS available

This revolutionary film, ArmorFlex® 114, delivers permanent static dissipative properties while meeting FDA and 2002/72/EC requirements for food contact and EP 3.1.3 test conditions.

ARMORFLEX® 114 FILM

- Complies with FDA 21 CFR
- Fully compliant to 2002/72/EC and amendments
- Meets test parameters of EP 3.1.3
- Passes USP <661> Physicochemical Tests for Plastics
- Passes USP <88> Class VI (7 day implant)
- Passes <87> biological reactivity, in vitro
- No animal derived components
- 5-year shelf life
- Permanent antistat replaces migrating additives
- Passes Chilworth incendivity tests
- Tested for solvent resistance
- DMF filed with FDA

ArmorFlex® 114 Solvent Resistance *Solvent Contact Recommendations*

Chemical	Resistance
Acetone	Excellent
Acetonitrile	Excellent
Anisole	Good
Butyl Acetate	Good
Cyclohexane	Excellent
Cyclohexane –	
Ethyl Acetate (50/50)	Excellent
Dichloromethane	Excellent
Diethylether	Excellent
Dimethylacetamide	Excellent
Dimethylformamide	Excellent
Ethanol	Excellent
Ethyl Acetate	Excellent
HCL (37.4%)	Very Good
n-Heptane	Very Good
HMDS	Excellent
Isopropanol	Excellent
KOH (50%)	Very Good
Methanol	Excellent
2-Methoxyethano	Excellent
Methylethyketone	Excellent
n-Methylpiperazine	Excellent
n-Methylpyrrolidone	Excellent
Methyl-tert-butylether	Excellent
Mineral Oil	Very Good
Reagent (3A) Alcohol	Excellent
NaOH (50%)	Excellent
Tetrahydrofuran	Very Good
Toluene	Fair
Water, Distilled	Excellent

Criteria % Change in	
Physical Properties	Resistance
0 - 10	Excellent
10 - 20	Very Good
20 - 30	Good
> 30	Fair



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BUILD DIFFERENT

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