

## BEDDING HANDLING SOLUTIONS



# BEDDING HANDLING SOLUTIONS





A COMBINATION OF VARIOUS TECHNOLOGIES PROVIDES THE MOST FLEXIBLE, RELIABLE AND CONSISTENT SYSTEMS EVER SEEN. THE VACUUM TRANSFER OF MATERIAL IS SUPPORTED BY SHREDDERS, AUGERS, CONVEYOR BELTS, LAMINAR FLOW HOODS AND INVERTERS TO ENSURE THE BEST OUTCOME FOR YOUR FACILITY.

IWT IS THE IDEAL PARTNER FOR THE CARE OF YOUR FACILITY AND FOR THE OPTIMIZATION OF YOUR DAILY WORKLOAD.

OUR CONSTANT INVESTMENT IN TOOLING, TECHNOLOGIES, AUTOMATION, PRODUCTION CAPABILITY, STOCK AVAILABILITY, STAFF RECRUITMENT AND TRAINING, TOGETHER WITH THE ISO CERTIFIED QUALITY AND ENVIRONMENT MANAGEMENT SYSTEMS, ARE THE KEY-FACTORS OF IWT SUCCESS.

SINCE 2004 IWT HAS BEEN DESIGNING, DEVELOPING AND ENGINEERING BEDDING HANDLING SOLUTIONS FOR THE LABORATORY ANIMAL INDUSTRY.

TODAY, THANKS TO OVER A DECADE OF EXPERIENCE AND MORE THAN 300 BEDDING HANDLING SOLUTIONS INSTALLED IN THE MOST PRESTIGIOUS VIVARIA WORLDWIDE, IWT IS PROUD TO PROVIDE YOU WITH THE MOST COMPREHENSIVE PORTFOLIO OF BEDDING HANDLING SOLUTIONS IN THE MARKET. IWT SELECTION OF SYSTEMS PERFECTLY BALANCES APPLICATIONS WITH PERFORMANCE AND BUDGET.





# COMPACT SOLUTIONS



#### SCREW CONVEYOR

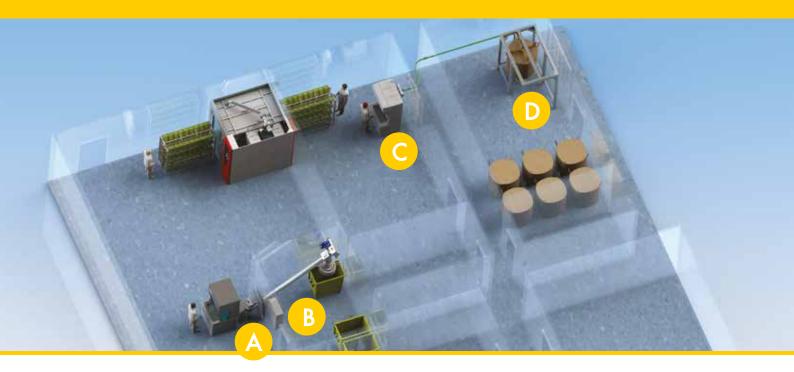


BDS+

IWT SCREW CONVEYOR WASTE DISPOSAL SYSTEM AND BDS+ WITH REMOTE LOADING ARE THE PERFECT SOLUTION FOR SMALL-MEDIUM SIZE FACILITIES

> NUMBER AND SPECIES:
> UP TO 7000 CAGES/WEEK (MAINLY RODENT)
> DISTANCES INVOLVED:
> MAX 5M (16FT) FOR BOTH CLEAN AND DIRTY SIDES
> TECHNOLOGIES:
> MECHANICAL (DIRTY SIDE) VACUUM (CLEAN SIDE)

# COMPACT SOLUTIONS





### SCREW CONVEYOR AND BDS+ WITH REMOTE LOADING

UP TO 7,000 RODENT CAGES/WEEK • UP TO 5M (16FT)

- Proven solution for material disposal and dispensing
- Specifically designed for small-medium size lab animal facilities with the aim to increase operational efficiency
- Very small footprint, ideal for renovations
- Enhanced working condition achieved through better efficiency and labour reduction
- Operator protection from dust and allergens: when bedding materials are dispensed or disposed, the integrated back draft hoods draw allergens and particles away from operators



BDS+ is also available in stand-alone version for free flowing and non-free flowing Materials





## SCREW CONVEYOR

**DIRTY SIDE SYSTEM** 

- Ideal for all standard types of bedding (corn, wood or cellulose based) and the most common enrichment and nesting materials (wooden blocks, cardboard tubes etc)
- A combined action of conveyor belt and S/S auger delivers the macerated waste to the collection point
- The waste is automatically bagged or discharged in a dumpster preventing operators from repetitive heavy lifting

## BDS+ WITH REMOTE LOADING

#### CLEAN SIDE SYSTEM

- Pure vacuum technology to convey the bedding from a remote loading hopper located in a storage room nearby
- No storage of bags next to the unit resulting in space and flow optimization in busy washing areas
- Combined with large bulk bedding bags, offers outstanding efficiency and significant savings, due to reduced bedding and labour costs



# STANDARD SOLUTIONS



#### EASY BHS DIRTY SIDE

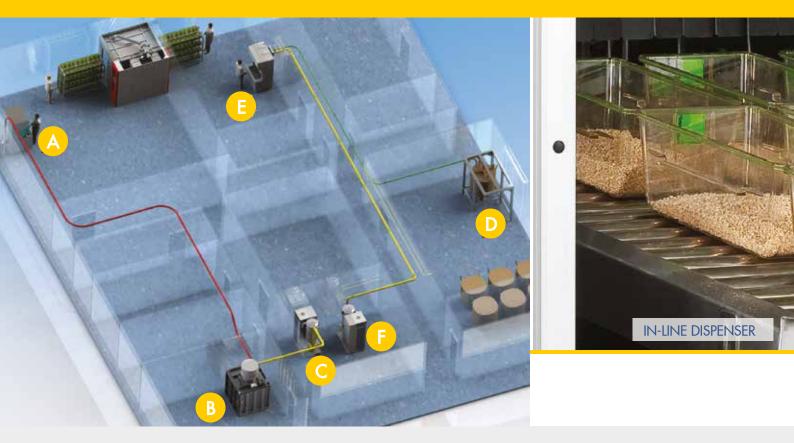




THE EASY BHS SYSTEMS ARE SPECIFICALLY DESIGNED FOR MEDIUM SIZE FACILITIES AND ARE PARTICULARLY USEFUL FOR CHALLENGING RENOVATION APPLICATIONS

> NUMBER AND SPECIES: FROM 7000 UP TO 10000
> CAGES/WEEK (ONLY RODENT)
> DISTANCES INVOLVED: 38M - 125FT (DIRTY SIDE)
> 48M - 157FT (CLEAN SIDE)
> TECHNOLOGY: VACUUM

# STANDARD SOLUTIONS



## EASY BHS DIRTY AND CLEAN SIDES

#### FROM 7,000 TO 10,000 CAGES/WEEK • DIRTY SIDE UP TO 38M (125FT), CLEAN SIDE UP TO 48M (157FT)

- Vacuum pumps are managed via inverters, thus allowing pumps speed to vary and meet specific requirements of a given project in terms of air speed/air flow.
- Low electrical consumptions and great efficiency
- Very compact all-in-one technical area with reduced space requirements and simplified installation activities
- Integrated back draft hoods with a double layer of filters (G4+F7) and HEPA filtration (H14) draw air, allergens and dust particles away from operators, granting their protection

# Choose your animals' favourite enrichment: BHS will handle it!







### EASY BHS

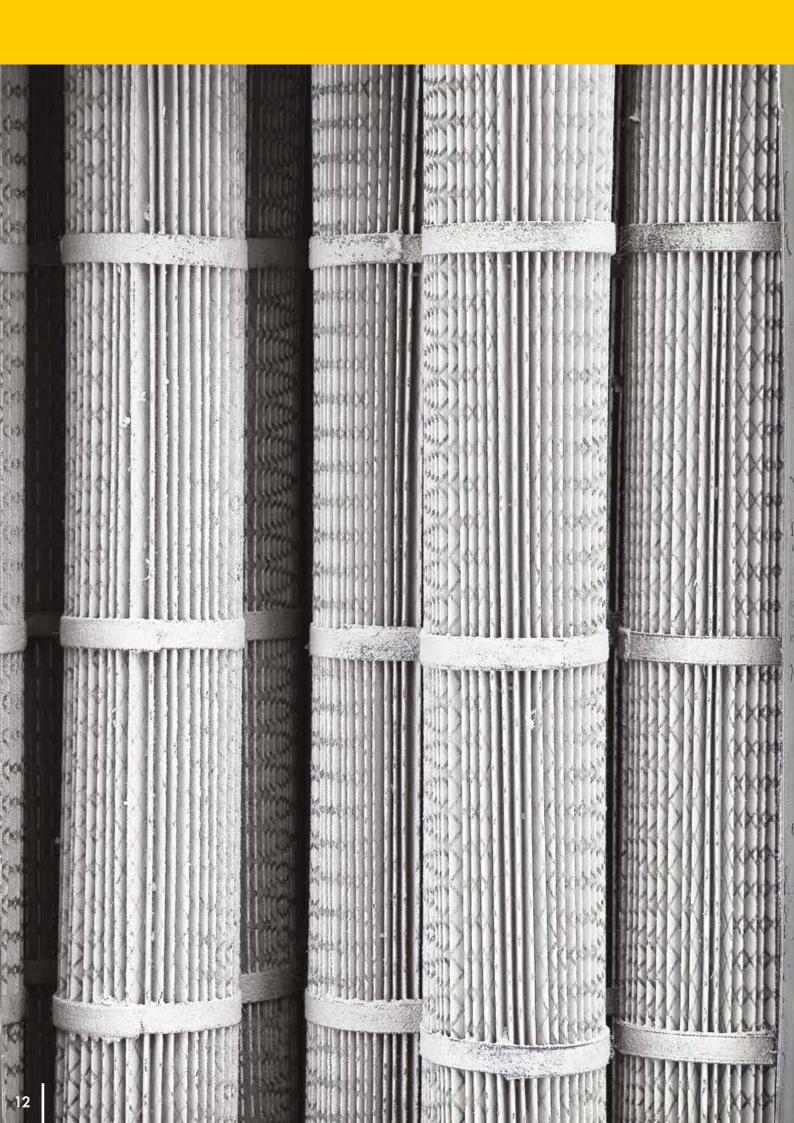
#### DIRTY SIDE SYSTEM

- Ideal to process all standard types of bedding (corn, wood or cellulose-based), as well as all the common enrichment and nesting materials (wooden blocks, cardboard tubes, Enviro-dri, Isopads, etc...)
- Pre-filtration available to enhance filter life-span in the case of fibrous material applications
- Suitable for different waste collection methods, from bins to dumpsters, from containers to compactors

#### EASY BHS

#### CLEAN SIDE SYSTEM

- Multiple dispensing solutions available: offline dispensers; in-line dispensers for tunnel washer applications (see "IN-LINE DISPENSERS" section)
- Different dispensing technology: gravity for freeflowing materials; mixer/augers for light bedding
- Modular loading hopper (suitable for both small bedding bags or tote bags) and optional intermediate silo for outstanding buffer capabilities



# CENTRALIZED SOLUTIONS



BHS DIRTY SIDE

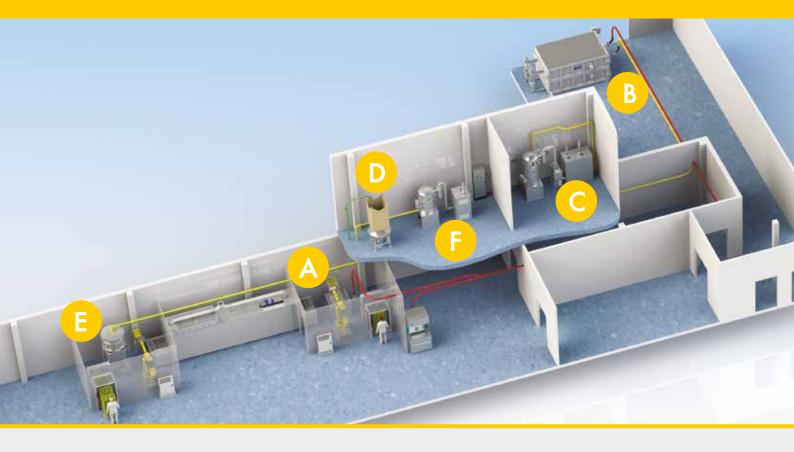


THE IWT CENTRALIZED BEDDING HANDLING SYSTEM, SPECIFICALLY DESIGNED FOR VIVARIUM APPLICATIONS, IS A HIGHLY RELIABLE AUTOMATED SYSTEM ABLE TO FIT EVERY REQUIREMENT

#### NUMBER AND SPECIES:

ALL CAGE COUNTS VARIOUS ANIMAL MODELS DISTANCES INVOLVED: ALL DISTANCES TECHNOLOGY: VACUUM

## **CENTRALIZED SOLUTIONS**





#### CENTRALIZED BEDDING HANDLING SYSTEMS

EVERY CAGE COUNT AND ANIMAL MODEL • EVERY DISTANCE ADMITTED

- Highly reliable automated system using a combination of proven technologies (shredder, laminar flow, mechanical mixing, vacuum generators and augers), cutting operators' exposure and effort to a minimum
- Easily dimensioned to fit every specific requirement, regardless of the distances involved (horizontal or vertical), the animal model and cage count
- Entirely made in S/S 304 and purposely configured so as to be compatible with different local waste management systems, to comply with local regulations and with various approaches to the storage and handling of clean bedding
- Vacuum pumps are managed via inverter resulting in low electrical consumption and great efficiency







#### BHS

#### DIRTY SIDE SYSTEM

- The conveyor belt controls the flow of material dumped and guarantees operators' safety without compromizing enrichment processability
- The heat generated by the shredder blades helps to reduce the humidity of wet bedding
- Ideal for all standard types of bedding and all common enrichment and nesting materials

#### BHS

#### CLEAN SIDE SYSTEM

- Multiple dispensing solutions available: from one to four dispensing points with gravity technology for freeflowing material or mixer/auger for light bedding
- Augers can achieve dispensing accuracy up to 5%
- Different storage solutions available in terms of loading hoppers and intermediate silos to reach daily/weekly buffer capacities



# IN-LINE DISPENSERS



#### GRAVITY FLIPPING





IWT GRAVITY FLIPPING AND CAGE INVERTER IN-LINE DISPENSERS ARE DESIGNED TO COPE WITH HIGH THROUGHPUT DEMANDS OF BUSY WASHING AREAS

## **IN-LINE DISPENSERS**

The systems can be integrated with any tunnel washer

> TAKE A LOOK AT IWT WASHING BROCHURE TO FIND OUT MORE



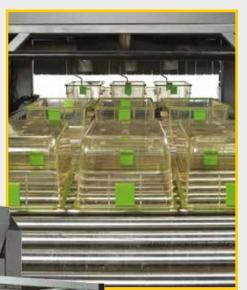
### IN-LINE DISPENSERS

- The dispensers can be refilled from remote areas by means of vacuum system (see "Standard Solutions" and "Centralized Solutions" sections) or they can behave as Stand Alone units
- Stand Alone units feature an on-board vacuum pump and filtration system to draw material from up to 5m (16ft)
  - Through the correct selection of dosing technologies it is possible to achieve consistency and accuracy of material in any cage
  - Can be provided with an allergen control kit inclusive of suction ring technology to contain dust particles at dosage point level
  - Entirely made in S/S 304

## GRAVITY FLIPPING

- Cages are automatically inverted by means of gravity flipping at the end of the washer
- Cages are gradually moved towards the dispensing points by a S/S roller conveyor
- The fresh bedding is dispensed in each individual cages via dedicated dosage mouths maximizing accuracy and minimizing material waste
- Up to 4 mice cages are dispensed in a single shot and all standard free-flowing materials can be processed





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## CAGE INVERTER

- Designed to achieve the best efficiency for inverting cages exiting the tunnel washers
- Unprecedented consistency and reliability thanks to an automatic patented gripper
- Ideal to process different types of bedding ranging from free-flowing materials to non-free flowing ones
- The cage inverter, working at tunnel washer height, allows the operator to collect cages in the best ergonomic position



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