

TO GRIP, TO LIFT, TO MOVE AND TO EMPTY A METAL OR PLASTIC DRUM

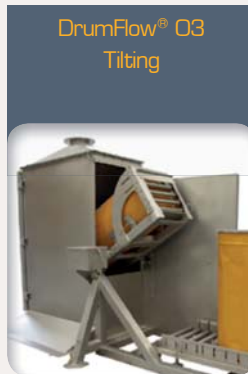
Our handling tools allow easy handling, lifting, turning and emptying of drums and barrels. Thanks to our many options available, the operator can completely or partially empty the contents of drums into hoppers, reactors or mixers manholes. PALAMATIC PROCESS design office offers multiple solutions to manually or automatically empty drums (tipping or turning system) according to your site constraints...



DrumFlow® O1
Suction pipe



DrumFlow® O2
Discharge by sack
extraction



DrumFlow® O3
Tilting



DrumFlow® O4
Tilting and
containment

- Emptying directly on the pallet, without drum manipulation
- Suction by VFlow® pneumatic conveying range

[+] Advantages

- No drum manipulation
- All sizes
- Ease of use

- Confined dump station
- Drum connection on dump enclosure
- Removal of the inner sack layer for emptying

[+] Advantages

- Confinement
- Possibility to empty sacks
- Raw material dosing

- Emptying by tilting directly on a collecting hopper
- Options: suction booth, handling conveyor, facilitated product flowing

[+] Advantages

- All sizes
- No drum manipulation

- Completely confined emptying by means of containment and sealed connection

[+] Advantages

- Total containment
- No manipulations
- CMR toxic products applications

01

SUCTION PIPE



Drum discharging for mixer feeding

The suction pipe allows the vacuum of the material with a manual operation. This suction pipe is ideal for emptying drums. This system is intended to be coupled with our powder pumps from our VFlow® range to discover in our "Pneumatic Conveying" booklet. Vacuum is directly conducted into the drum from the cyclone. The flow rate varies from 100kg/h. to 2t./h. depending on the model of cyclone chosen. Optionally, the drum or cyclone can be implemented on a weighing system allowing the weighing and the dosing.

[+] Advantage

The DrumFlow® O1 solution prevents the operator from handling the drums that can be left on the pallet

[+] Advantage

Integration of a weighing device, weight gain or loss-in-weight



Discharge of end products stored in drums to feed a packing system

02

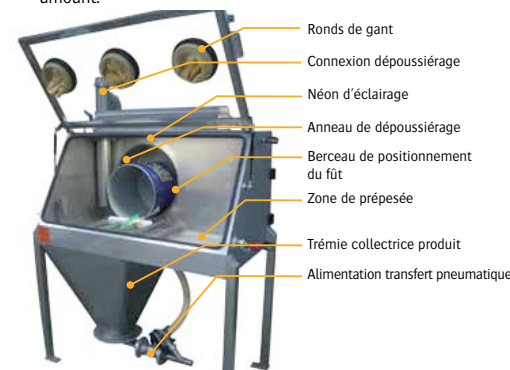
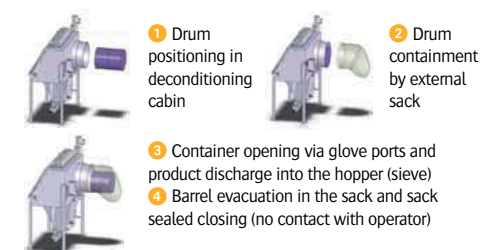
DISCHARGE BY SACK EXTRACTION

DISCHARGING AND DOSING BOOTH FOR RAW MATERIAL PACKAGED IN DRUMS

The discharge operation of the drums is carried out by the operator. Once the drum is positioned at the level of the enclosure, the operator extracts the sack to ensure its de-conditioning and/or the dosing of the desired amount.



Operating mode for an optimized containment



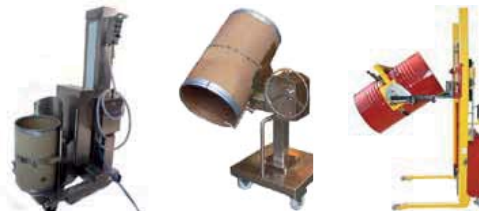
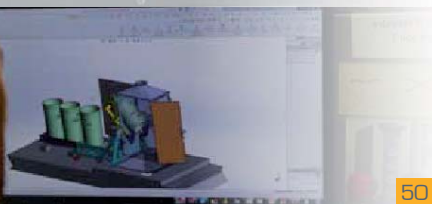
Alternative possible



Lifting and positioning of the drum in the booth is performed by the elevator integrated on the booth

DrumFlow CUSTOM MADE

Our engineering office offers you turnkey customized solutions according to your product constraints, applications and drum dimensions.



03 TIPPING

04 TIPPING AND TIGHT CAPPING

Advantages



▶ Compatible with drums fitted with internal sack



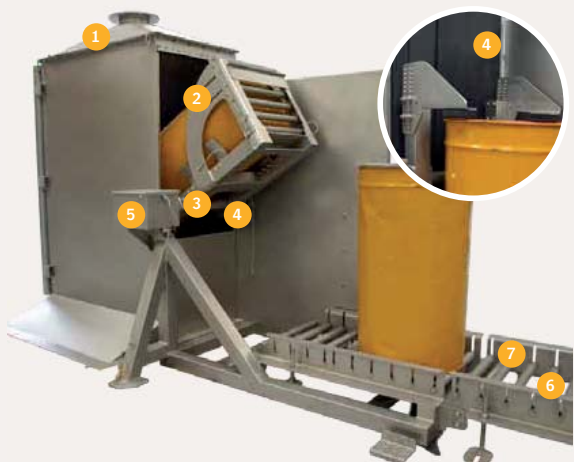
▶ Toxic products applications



▶ Adjustable to all drum-types



▶ Maximal containment enclosure for a healthy workplace



[+] Security

- ▶ **Protective screen**
It is positioned near the tilting engine and guarantees the operator's security
- ▶ **Lock system**
The cycle start is forbidden when the door is open
- ▶ **Control system**
The control is conducted by "maintained" push buttons. The cycle is interrupted if the operator looses one of the buttons
- ▶ **Security area**
Between the conveyor and the tipping device, it avoids all risks of collision and ensures the installation reliability

1. Hotte de capotage - 2. Tipping cradle with adjustable dimensions - 3. Arbre de basculement directly connected to engine - 4. Damper to maintain drum upper position during tipping (adjustable in height by monitoring system) - 5. Pivoting system with angular sensor - 6. Motorized roller conveyor - 7. Lifted frame for drum maintenance

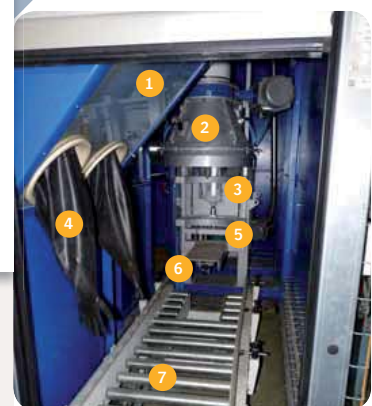
▶ TECHNICAL SPECIFICATIONS

- Rate** : 1 barrel/2 min.
- Manufacturing**: framework in painted steel / stainless steel
- Loading capacity**: 180 kg
- Angle** : up to 180°
- Drum tipping**: electrical engine of 5,5 kW

▶ OPERATING MODE

AVERAGE TIME OF A COMPLETE CYCLE: 2 MIN.

1. The drum positioning on the inlet conveyor.
2. The drums are led by gravity to the emptying area.
3. The first drum is put at the positioning stop; rubber pads ensure drum accomodation without any impact.
4. When the drum is positioned, the operator can start the tipping cycle. The control of the cycle is conducted by means of two push buttons for lifting and two buttons for descending of the drum. The tipping is ensured by a gearmotor. The moving assembly arrives to abutment against the rubber pads.
5. When emptied, drums return to their initial position under the operator's control.
6. The operator can then manually move the drums to the soiled drums station.



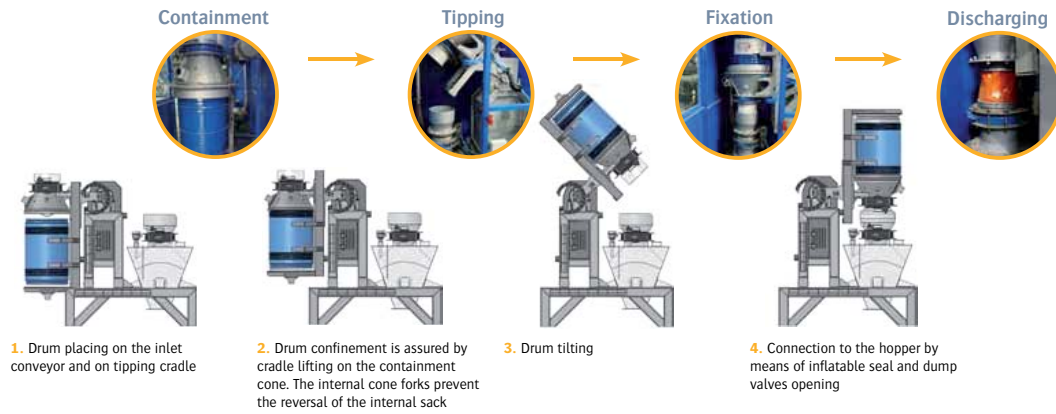
1. Containment enclosure - 2. Flow aid vibrator - 3. Containment cylinder - 4. Gloves for drum opening - 5. Tipping cradle - 6. Bottom drum vibrator - 7. Motorized drum preparation conveyor - 8. Dump valve - 9. Connection inflatable seal - 10. Motorized switching group - 11. Isolation valve of the collecting hopper - 12. Collecting hopper - 13. Control pannel - 14. Cabin with sectional door

▶ TECHNICAL SPECIFICATION

- Rate**: 1 drum/4-5 min.
- Manufacturing**: framework in painted steel/stainless steel
- Loading capacity**: 250 kg
- Angle**: up to 180°
- Drum tipping**: electrical engine of 7,5 kW
- Drum containment**: pneumatic cylinder with sealing control by overpressure

- Connection**: by low-pressure inflatable seal
- Draining butterfly valve**: DN150
- Product flow assistance**: fluidiser on the discharge cone, vibrator on the cone or drum bottom

▶ OPERATING MODE



1. Drum placing on the inlet conveyor and on tipping cradle
2. Drum confinement is assured by cradle lifting on the containment cone. The internal cone forks prevent the reversal of the internal sack
3. Drum tilting
4. Connection to the hopper by means of inflatable seal and dump valves opening