

The HVS Drum Unloading System is designed to transfer high viscosity food, cosmetic, pharmaceutical and industrial ingredients out of straight and conical shaped drums.

### Working principle

While the pump is operating, the actuators move the piston down, pushing the product into the pump chambers, for easier transfer into the discharge line.

### Typical applications

Sector	Example of application
Food & Beverage	tamato paste, fruit and vegetable pulp, mayonnaise, seed oils
Cosmetics & Pharma	thickening agents, glycerine, paraffin, oils
Industrial	greases and resins



EN 10204



Certificates may vary depending on material execution of particular product.

### Fast facts

<b>Max. capacity:</b>	460 l/min*
<b>Volume per stroke:</b>	2 300 ml
<b>Max discharge pressure:</b>	8 bar (higher pressure on request)

\* Product viscosity affects pump capacity, max capacity is given for water.



### Benefits

- Remove up to 99% of the product
- Eliminate product airborne contamination by creating a sealed region between the piston and the drum.
- Improve worker ergonomics by eliminating manual handling.
- Advanced cleanability thanks to seal-less design diaphragm pump.
- The inflatable seal system fits multiple drum shapes and sizes.
- Multiple piston, control and frame options makes the HVS configurable enough to fulfill most application requirements.
- High capacity achieved with lower viscosity products.

# Features & Benefits



## Clean frame design

Pneumatic system routed inside the frame



## Surface finish

Electropolished or sandblasted execution for various process needs



## Tri-clamp connections

Convenient cleaning and maintenance



## 2 types of drum sealing (replaceable):

- » Lip seal suitable for straight drums
- » Inflatable seal suitable for conical drums



## 2 types of stands (replaceable):

- » Base plate
- » Wheeled stand





#### Functional control box

Easy to comprehend layout



#### Air Operated Double Diaphragm (AODD) hygienic pump

- Smooth design and cleanability
- Easy flow control
- Gentle product handling
- Dry suction and dry run capabilities



#### Pneumatic lock

In case of lack of air supply piston stops automatically.



#### Excellent tightness

Inflatable seal shape adopts to conical drum variable geometry



# Technical data

## Materials, data and limits

<b>Max capacity (l/min) / (US gpm)</b>	460 / 122
<b>Volume per stroke (ml) / (cu in)</b>	2300 / 140
<b>Max discharge pressure (bar) / (psi)</b>	8 / 116
<b>Max air pressure (bar) / (psi)</b>	8 / 116
<b>Max size of solids (ø in mm) / (in)</b>	15 / 0.59
<b>Max temperature with EPDM (°C) / (°F)</b>	90 / 194
<b>Max temperature with NBR (°C) / (°F)</b>	70 / 158
<b>Max temperature with PTFE (°C) / (°F)</b>	110 / 230
<b>Weight (kg) / (lb)</b>	160 / 353

<b>Pump body (W)</b>	AISI 316L; electro polished   sandblasted
<b>Wetted metal surfaces roughness</b>	Ra < 1.6 (standard)   Ra < 0.8   Ra < 0.5
<b>Sealings (W)</b>	PTFE   EPDM   Silicon
<b>Centre block (NW)</b>	PP
<b>Diaphragms (W)</b>	PTFE   EPDM   white EPDM   NBR*   white NBR
<b>Valve balls (W)</b>	PTFE   AISI 316   Ceramic*   EPDM*   NBR*   PU*
<b>Air valve (NW)</b>	Body: Brass (std.)   AISI 316L   PET O-rings: NBR (std.)   EPDM   FKM
<b>Fasteners (NW)</b>	A4-80
<b>Standard connection</b>	Tri-clamp DN65 ISO 2037

\* not intended for food contact

N – wetted; NW – not wetted



## HVS code

I. **HVS**      II. **H**      III. **I**      IV. **425**      V. **S**      VI. **T**      VII. **T** - **7PV**

**I. HVS** = Tapflo HVS unit

**II. Basic executions:**

H = Hygienic

I = Industrial

**III. Basic options:**

I = Inflatable seal

L = Lip seal

**IV. Pump type and size:**

**V. Material of wetted metal parts:**

S = stainless steel AISI 316L

**VI. Material of diaphragms:**

B = PTFE TFM 1705b

E = EPDM

N = NBR

T = PTFE

W = White EPDM

Z = PTFE with white EPDM backing

**VII. Material of valve balls:**

blank = flap valve version

B = PTFE TFM 1705b

E = EPDM

K = Ceramic

N = NBR

S = AISI 316 Stainless Steel

P = PU

T = PTFE

**VIII. Special executions:**

1 = Optional in/outlet

3 = Optional connection type

5 = Other special execution

6 = Optional material of centre body

7 = Optional material of air valve

8 = Optional material of pos. 18 seals

9 = Optional material of housing stud bolts

15 = Flap valve execution

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