

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

Max. capacity:	460 l/min*
Volume per stroke:	2 300 ml
Max discharge pressure:	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

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

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