



LAEUFER INTERNATIONAL AG

DMV Product Recovery System

LIAG DMV Product Recovery System for low-germ processes and highly viscous, fast hardening media

Hygienic – Modular – Efficient

Process systems, which can be cleaned with pushers, are becoming increasingly important for low-germ processes. Among other reasons, this is attributable to an increased environmental consciousness, costly wastewater treatment, prevention of costly product losses, and production streamlining measures.

- Minimum product loss
- Safe separation of product – no mixed phases
- Increase of product quality
- Reduction of time-consuming cleaning and wastewater
- Environmentally sound



Low-germ processes pose stringent demands on system components

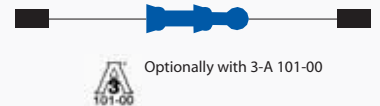
Sterile processes pose stringent hygienic demands on system components. For low-germ processes we offer DMV product recovery systems featuring EHEDG-certified and, optionally, 3-A 51-01 compliant CIP/SIP LIAG® arc valves and diverter valves and specifically designed pusher launching and receiving stations without dead pockets. By virtue of the modular component design, thread and clamp unions are virtually no longer needed. Typical hygienic risk areas are thus minimized from the very start. All valves, even when welded in place, can be taken apart and easily converted.

The product is pushed out with a dynamic 2-seal lip pusher designed for the DMV product recovery system.



One way

Manual return of pusher



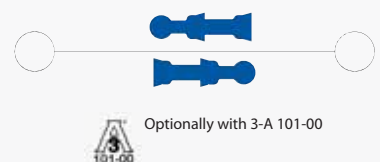
Single loop

Automatic return of pusher from receiving to launching station, then manual change of direction



Two way with turning station

Automatic return of pusher by use of LIAG® turning station (closed system)



Double loop

Automatic return of pusher by use of LIAG® diverter valves (closed system)



Ring system

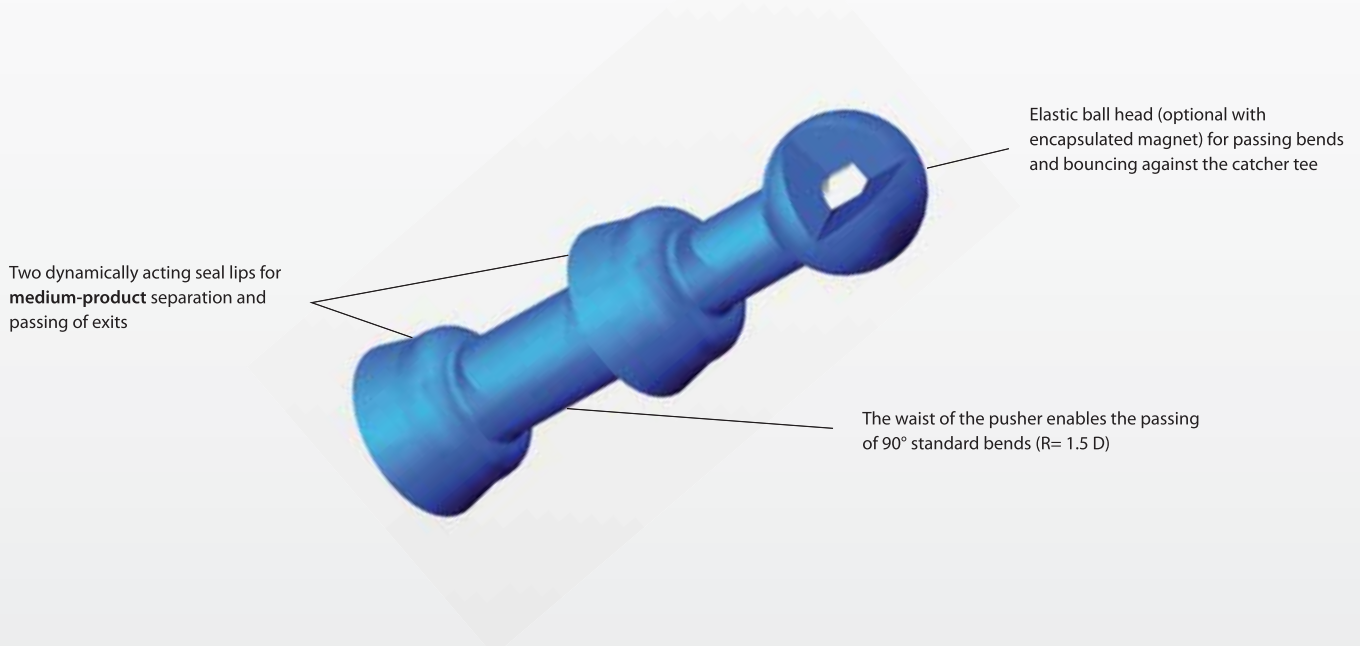
Closed system



Made by Know-how

DMV lip pushers For reliable sealing

DMV lip pushers are of homogeneous construction (hygienic design). They offer excellent cleaning effect and are virtually free of wear. Dynamic lips form a reliable sealing. As a function of the pushing and counterpressure these lips accommodate perfectly, thereby compensating existing deviations in the pipe geometry. The pushers are highly flexible and suited for tight radii ($R = 1.5 \times D$). As an option, dynamic lip pushers are equipped with a magnet for location and control. They are FDA compliant and available in silicone in the nominal widths DN 40 – 100 (1.5" – 4").



DMV pusher launching and receiving station

To satisfy the diverse requirements of the wide range of processes, the optimum pigging method is always designed to the specific project.



Features DMV Product Recovery System

- Closed and sterile pipe system with CIP/SIP LIAG® arc and diverter valves without dead pockets
- Optimized cleaning result by use of dynamic DMV lip pushers with encapsulated inside magnet
- 90° standard bends ($R = 1.5 \times D$) can be passed without any problem
- The pusher can be cleaned in the closed system without removing it
- DMV product recovery systems are optimally suited for low-germ processes and high viscous, fast hardening media, e.g. yoghurt, dressings, soft cheese, chocolate, toothpaste etc.
- Optionally with 3-A 101-00 and FDA compliance

The clean decision.

Basic facts

Nominal sizes:	DIN DN 40 – DN 100 / SMS DN 38 – DN 102 / 1.5" – 4"
Radius of the bends:	Applicable from $R = 1.5 \times D$
Multi-mode:	Manual, semi automated or fully automated
DMV pushing media:	e.g. product, water, air etc.

Materials

Inox parts in contact with product:	AISI 316L (1.4404 / 1.4435)
Other stainless steel parts:	AISI 304 (1.4301)
O-ring seals:	EPDM, FPM (Viton®), FEP, other grades upon request
Shutter of arc valve and diverter valve:	Dyneon™TFM1600, alternatively: glass-fiber reinforced Teflon (GL25), Tecapeek®, Techtron®
DMV lip pusher:	Silicone

Surfaces

In contact with product: $Ra \leq 0.8 \mu m$ ($Ra \leq 32 \mu in$)

Range of temperature

Standard:	-25°C (-13°F) up to +110°C (+230°F)
Optional:	-25°C (-13°F) up to +150°C (+302°F)

Pushing pressure DMV lip pusher

Depending on product (viscosity) and length of the pipe work:
min. 1 bar – max. 10 bar (min. 14.5 psi – max. 145 psi)

Further option

3-A 101-00 and FDA compliance



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