

# PRODUCT PRESENTATION VIPRO-PUMP

PERFECTLY DOSED!

PRODUCT MANAGEMENT & MECHANICAL ENGINEERING

TÖGING AM INN, NOVEMBER 2022





# VIPRO-PUMP IN MODULAR DESIGN – SIZE M






# DISPENSER SIZES

## 5 different pump sizes:

- vipro-PUMP 14 (4RD6)
- vipro-PUMP 40 (3RD8)
- vipro-PUMP 100 (3RD10)
- vipro-PUMP 180 (3RD12)
- vipro-PUMP 500 (2RD12-3D)



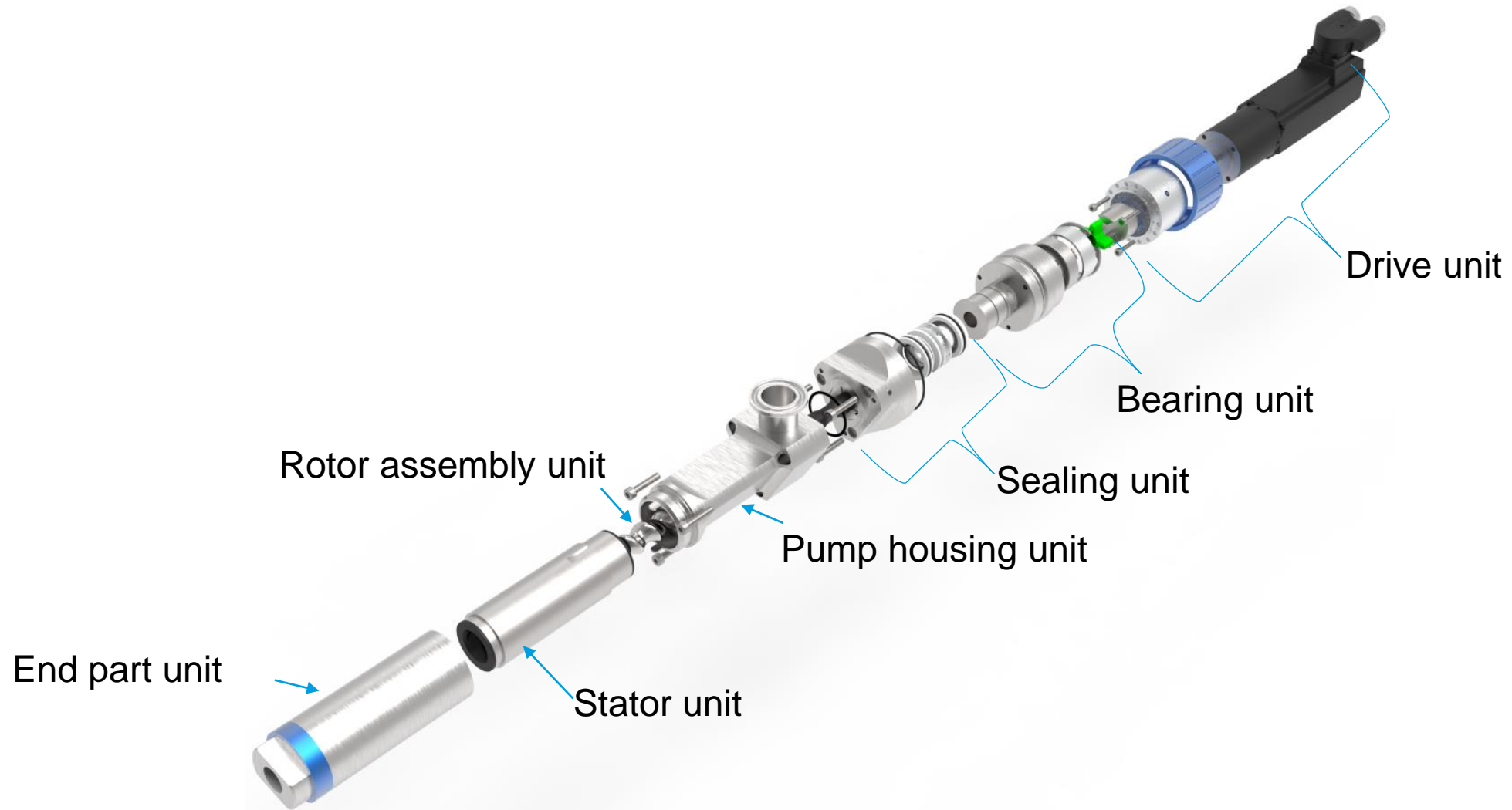
Technical data	vipro-PUMP 14	vipro-PUMP 40	vipro-PUMP 100	vipro-PUMP 180	vipro-PUMP 500
Dosing volume (ml/rev)	~ 0.14	~ 0.38	~ 1.1	~ 1.8	~ 5.2

Dosing volume: **14/40/100/180/500**

This indication equates roughly the dosing volume per revolution \* 100:

e.g. 1.8 ml per revolution \* 100 = 180 ml -> **Dispenser vipro-PUMP 180**

# OVERVIEW OF COMPONENTS





# PRODUCT ADVANTAGE STATOR UNIT

## **vipro-PUMP:**

- ✓ Defined, consistent stator pressing by fixation at metal sleeve instead of fixing at elastomer
- ✓ Poka-Yoka system: No wrong mounting direction possible (end part cannot be installed inversely)

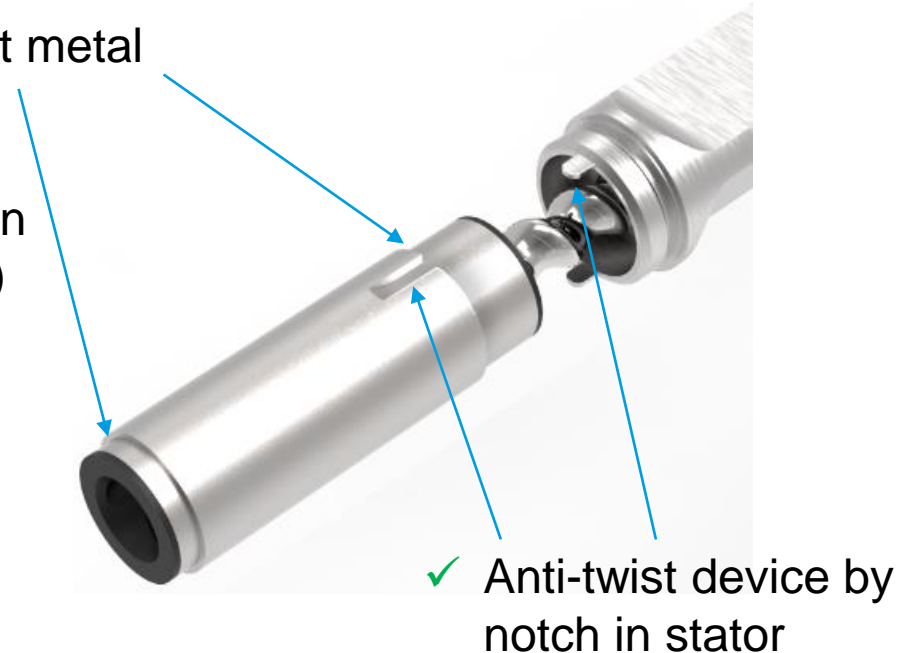
## **Available stator materials:**

- Elastomer vidur-E1
- Elastomer vidur-P1
- Elastomer vidur-C1
- Elastomer vidur-L1

**vidur** (registered trademark)

*vi* for ViscoTec; *dur* for duration and durability

This elastomer trademark is used for all stator materials in new products.





## PRODUCT ADVANTAGE DIVIDABLE DRIVE SHAFT

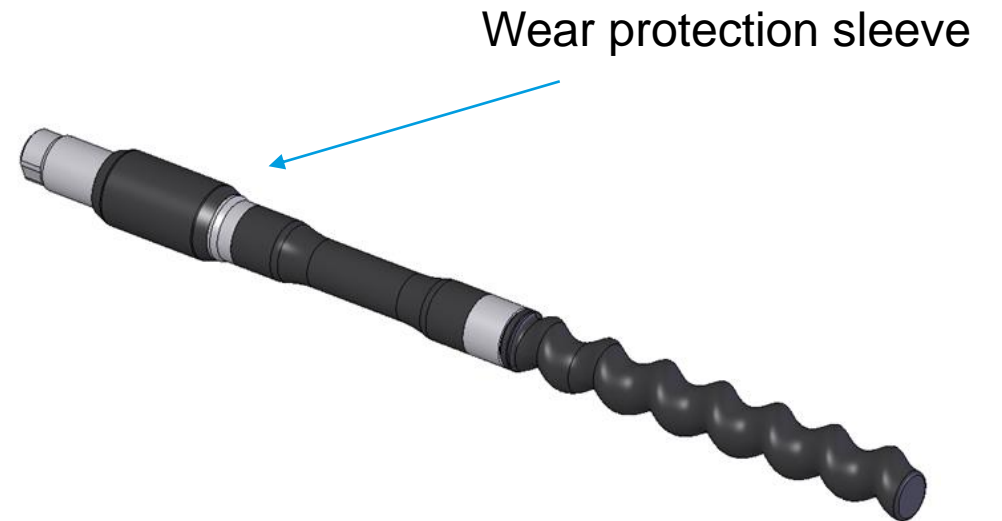
- ✓ In case of sealing package or drive shaft replacement, rotor assembly can be separated by screw.
- ✓ Though the rotor assembly can be used again and must not be destroyed.
- ✓ This also enables the re-use of the ball-bearing housing.
- ✓ Cost savings for customers in repair case (~ 50 % compared to non-dividable version).





# PRODUCT ADVANTAGE EXCHANGEABLE WEAR PROTECTION SLEEVE

- ✓ Exchangeable wear protection sleeve in hard-chrome plated stainless steel (standard) and black ceramics available
- ✓ Grooves on the sleeves caused by the sealing can be minimized with black ceramics
- ✓ Reduction of spare part costs due to convertibility





# PRODUCT ADVANTAGE

## LENGTH STANDARDISATION OF CERAMIC ROTOR

- ✓ Length standardization per pump size of versions with stainless steel rotor ceramic rotor
- ✓ No length compensation by a 10 mm distance ring needed anymore
- ✓ Convertibility enables more flexibility
- ✓ Cost savings by avoiding of re-invest for complete dispenser
  
- ✓ 4 different pump sizes for black ceramics available:
  - vipro-PUMP 14 (4RD6)
  - vipro-PUMP 40 (3RD8)
  - vipro-PUMP 100 (3RD10)
  - vipro-PUMP 180 (3RD12)

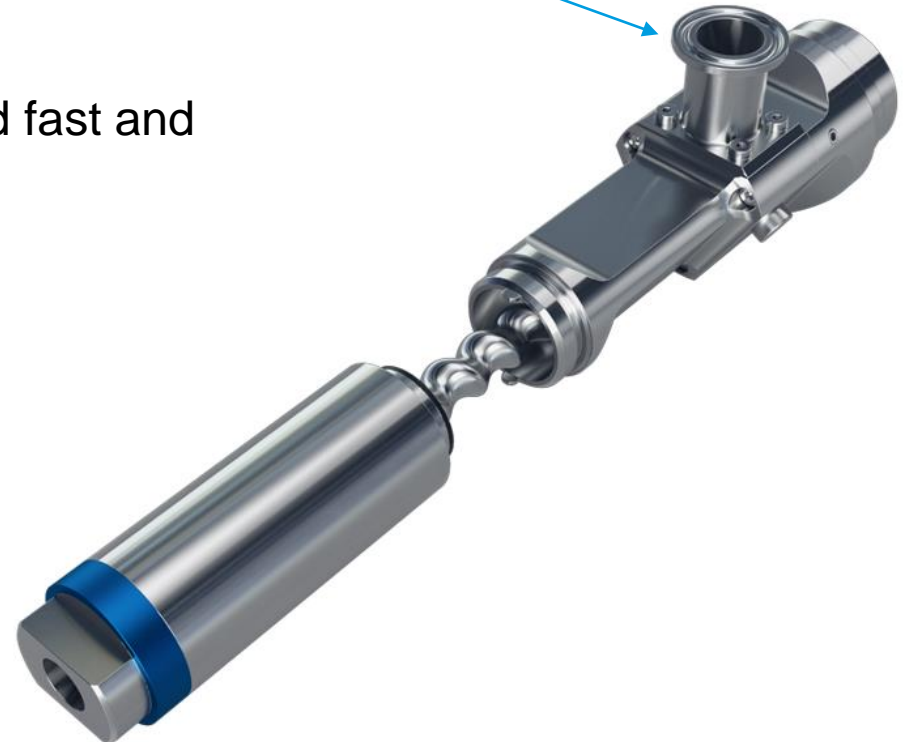






# PRODUCT ADVANTAGE ENLARGED MATERIAL ENTRY

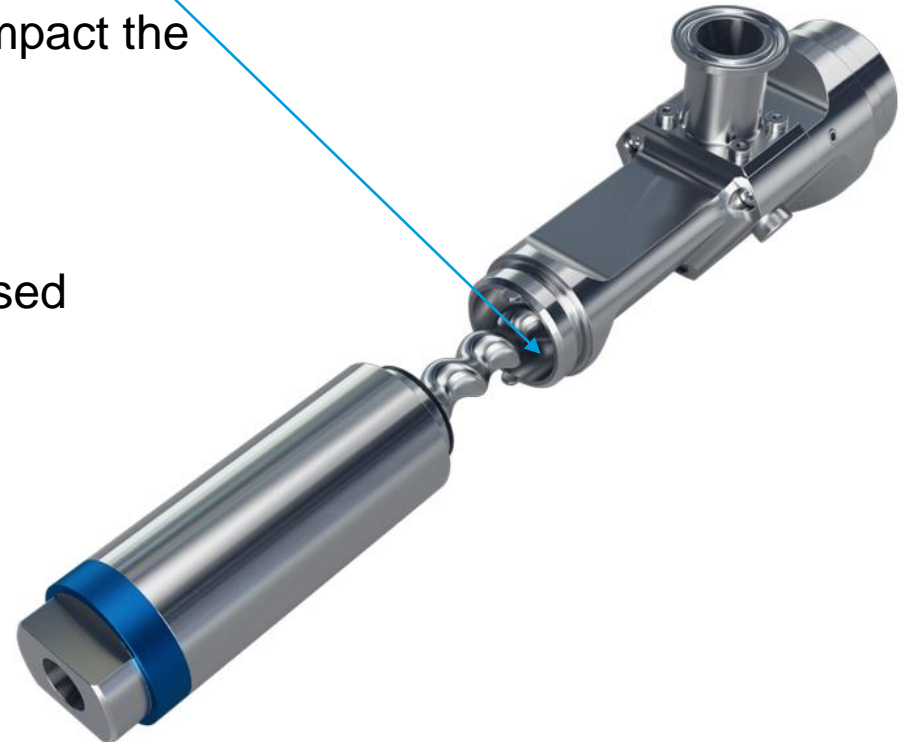
- ✓ Enlarged material entry Tri-Clamp DN 20 (3/4" instead of 1/2")
- ✓ Minimized pressure loss at pump inlet
- ✓ Optimized material flow
- ✓ Material supply can be connected and disconnected fast and easily





# PRODUCT ADVANTAGE NON-STICK COATING

- ✓ Non-stick coating of pump-housing interior
- ✓ Dosing material does not stick in pump housing interior
- ✓ No residues remain in pump housing which might impact the dosing process even for very adhesive materials
- ✓ No impact on dosing process
- ✓ Costs for maintenance and cleaning can be decreased

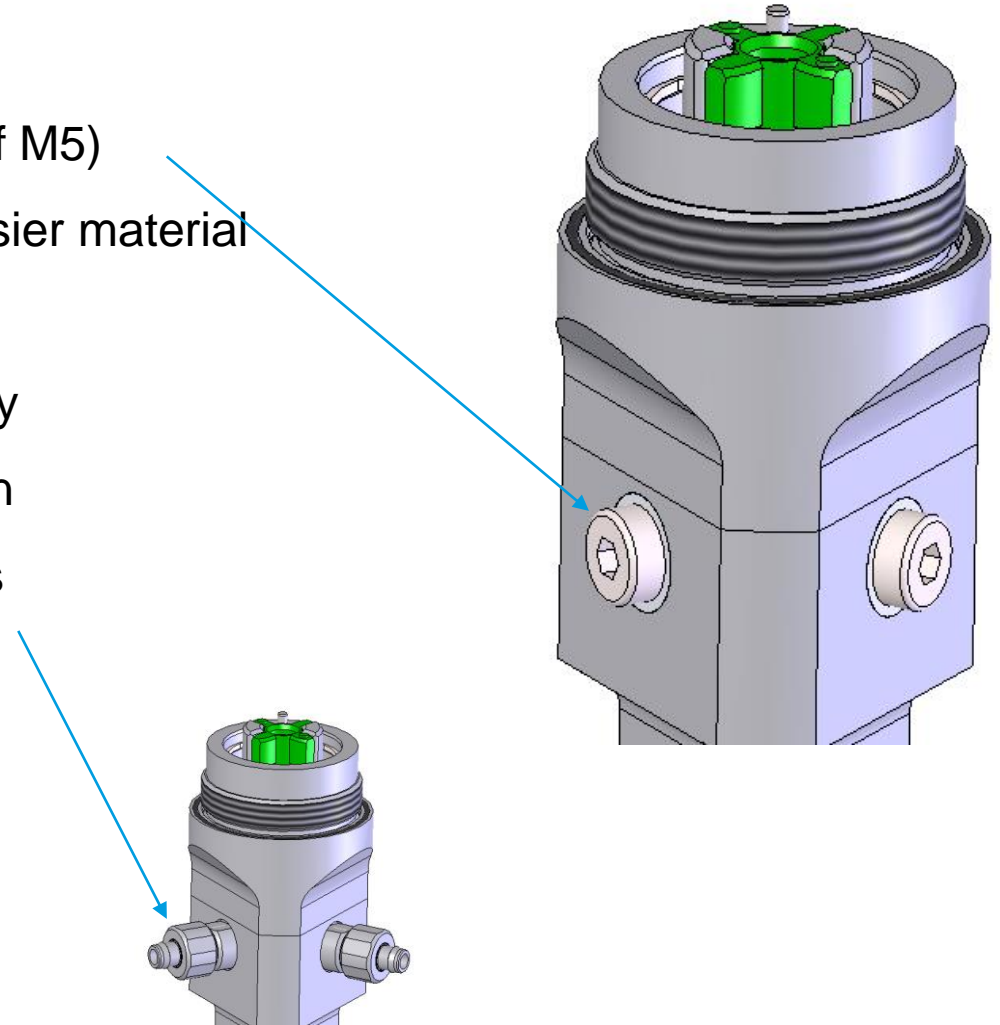




# PRODUCT ADVANTAGE

## M8 BLEEDING SCREW AND BLEEDING VALVE

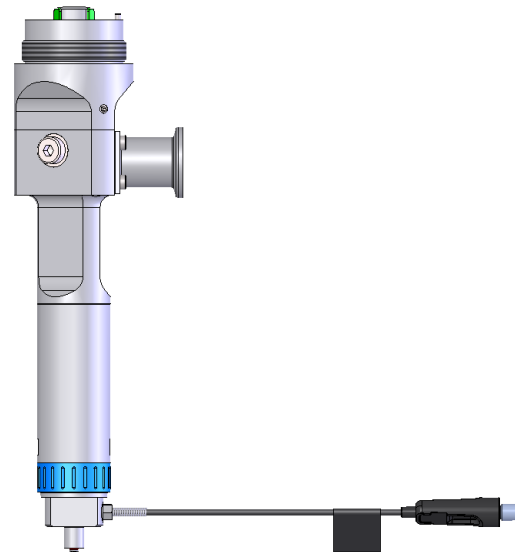
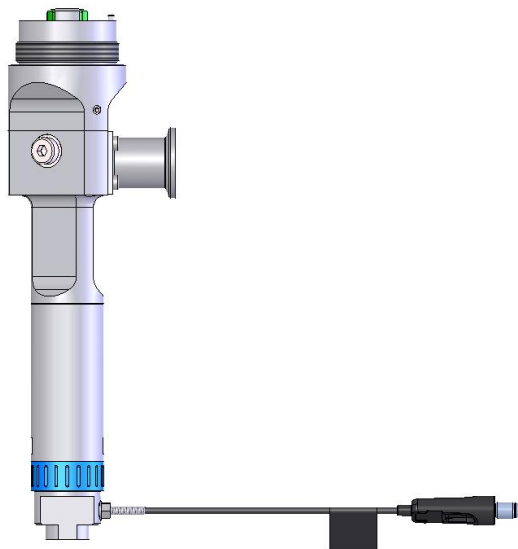
- ✓ Easier bleeding by M8 bleeding screw (instead of M5)
- ✓ Suitability also for highly viscous materials by easier material exit through the borehole
- ✓ Both sided bleeding screws for better accessibility
- ✓ Optional: M8 bleeding valve with hose connection
- ✓ Time saving by quick and clean bleeding process



# PRODUCT ADVANTAGE

## END PART INCL. CONNECTION FOR M6 SENSOR

- ✓ End part with optional sensor flowplus-SPT M6 for dosing pressure and temperature measuring
- ✓ Can be integrated into standard end part and luer lock end part for fine dosing

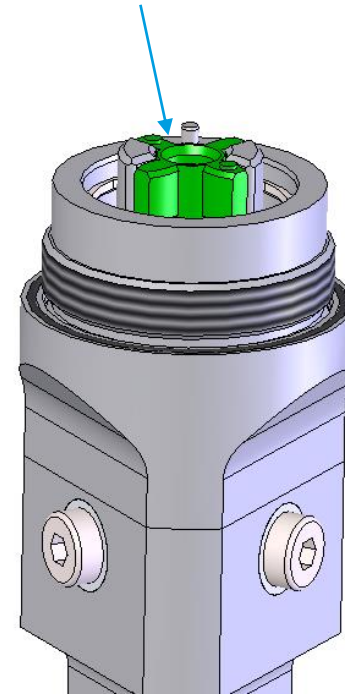


# PRODUCT ADVANTAGE

## CLAW COUPLING FREE FROM CLEARANCE

- ✓ Drive unit connection by claw coupling instead of bolt connection
- ✓ Optimized power transmission free from clearance in both rotating directions (for dosing and suck-back)
- ✓ No wearing and no maintenance sensitivity of coupling

**Claw coupling**



# DRIVE UNIT VIPRO-DRIVE

Two different drive units available for all dispenser sizes:

A) Stand-alone capable intelligent drive unit

B) Drive unit for external control unit

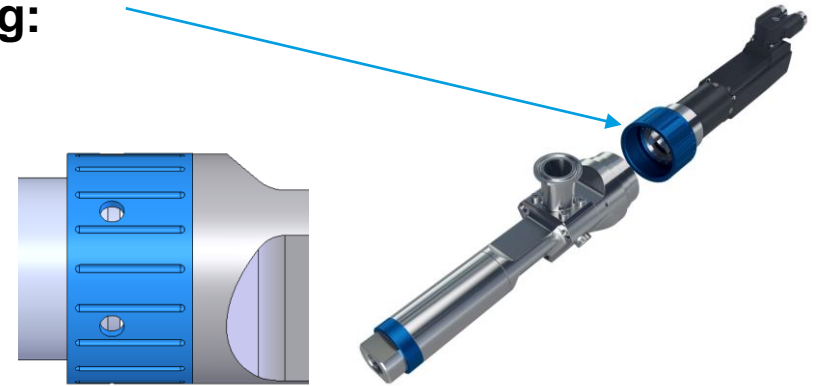




# PRODUCT ADVANTAGE LOCK RING

- ✓ Lock ring instead of clamp for drive unit fixation
- ✓ Quick and easy assembling & disassembling
- ✓ The lock ring can be released with one hand, while the dispenser can be hold with the other hand
- ✓ Fixing ring remains at drive unit after disassembling of dispenser though it cannot get lost
- ✓ No tools necessary

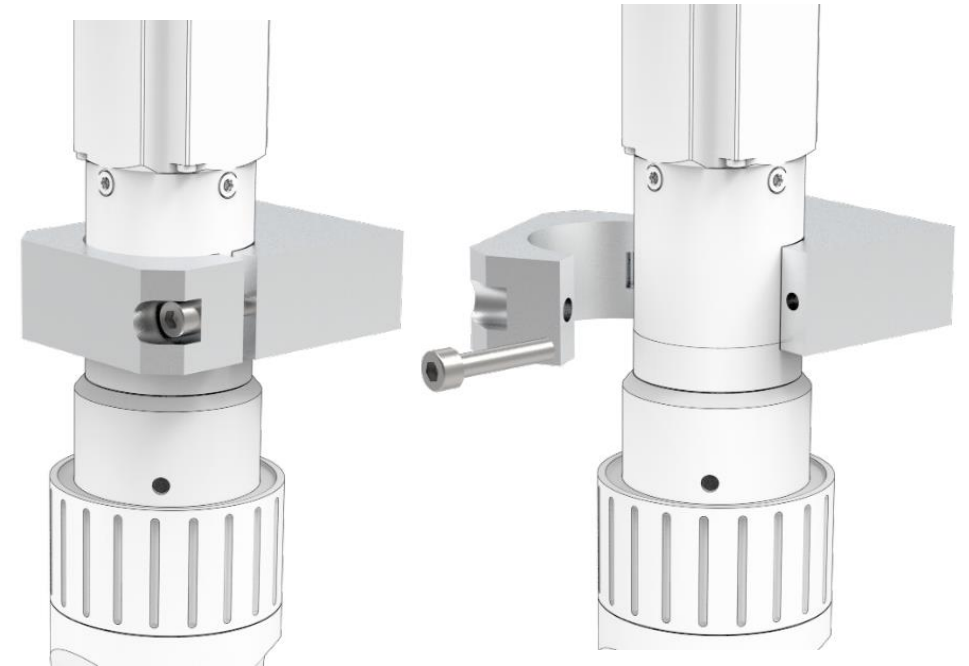
**Lock ring:**





# PRODUCT ADVANTAGE DISPENSER BRACKET

- ✓ Optimized dispenser bracket with hinge
- ✓ Screw connection on one side instead of two sides
- ✓ Easy assembling & disassembling
- ✓ Fast adjustable orientation
- ✓ The dispenser including drive unit can be holded easily by one hand while the other hand can used for screwing.
- ✓ Defined fixing position at gear flange



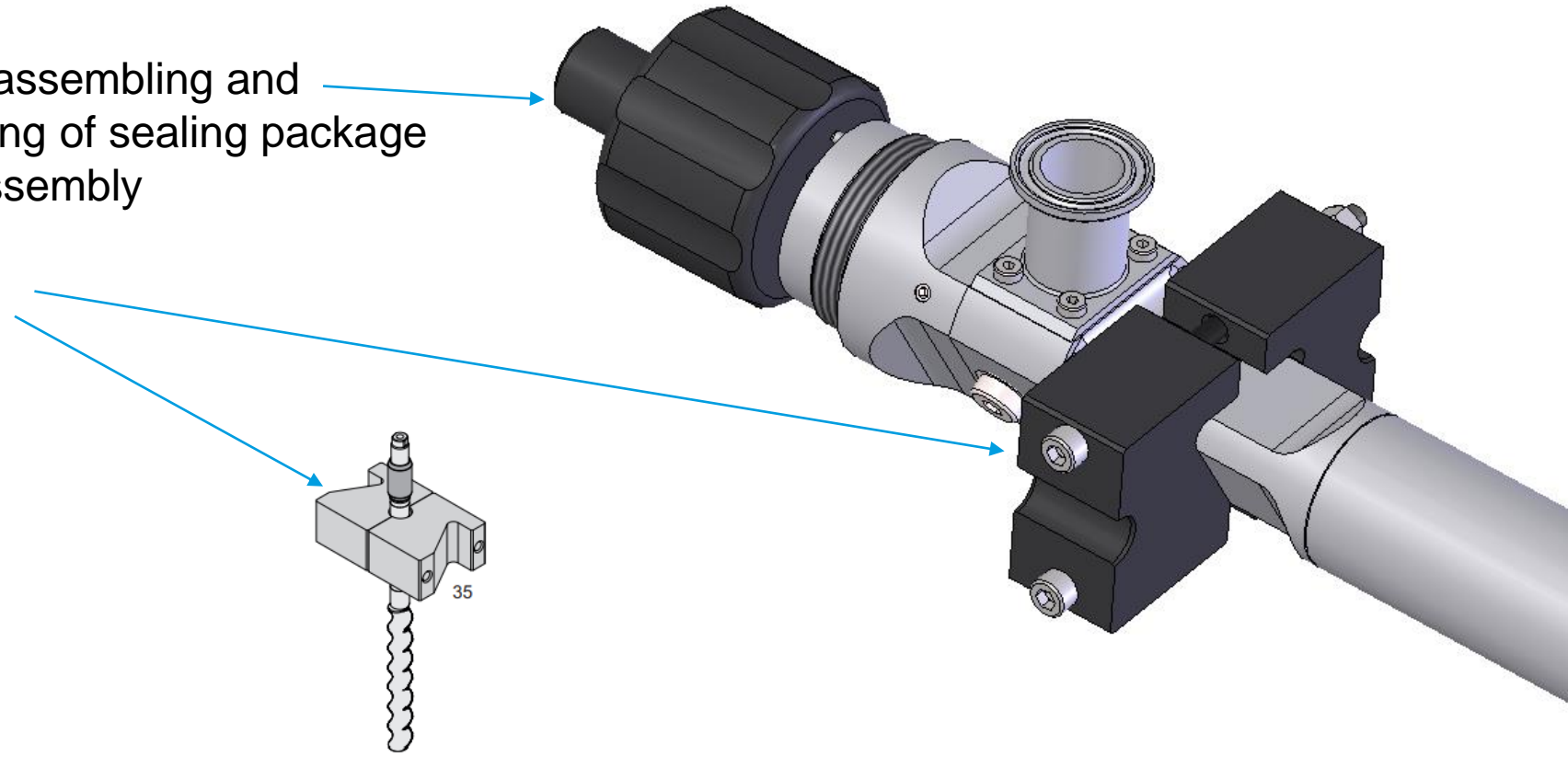




# PRODUCT ADVANTAGE ASSEMBLY AID + FIXTURE TOOL

Optional accessories:

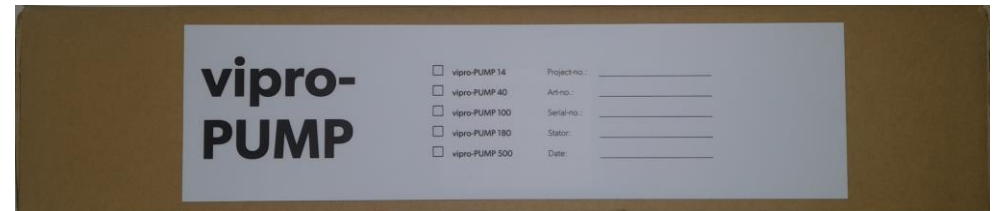
- ✓ Aid tool for assembling and disassembling of sealing package and rotor assembly
- ✓ Fixture tool





# PRODUCT ADVANTAGE ECO-FRIENDLY PACKAGING

- ✓ Sustainable, eco-friendly packaging
- ✓ Packaging material can be completely recycled
- ✓ Protection of environment and easy disposal as wastepaper
- ✓ Unified packaging for all dispenser sizes
- ✓ Accessories (if selected) are included in dispenser packaging
- ✓ No additional outer packaging is required





# TECHNICAL DATA

Technical data	vipro-PUMP 14	vipro-PUMP 40	vipro-PUMP 100	vipro-PUMP 180	vipro-PUMP 500
Dosing volume (ml/rev)	~ 0.14	~ 0.38	~ 1.1	~ 1.8	~ 5.2
Max. volume flow (ml/min) <sup>(2)</sup>	17	47	137	225	650
Min. dosing volume (ml) <sup>(1)</sup>	0.01	0.03	0.09	0.14	0.42
Max. dosing pressure (bar) <sup>(1)</sup>	30	30	30	30	20
Inlet pressure (bar) <sup>(1)</sup>	20	20	20	20	15
Dosing accuracy (%) <sup>(3)</sup>	± 1	± 1	± 1	± 1	± 1
Repeatability (%) <sup>(1)</sup>	> 99	> 99	> 99	> 99	> 99
Operating temperature (°C)	10 - 40	10 - 40	10 - 40	10 - 40	10 - 40
Material temperature (°C) <sup>(1)</sup>	10 - 50	10 - 50	10 - 50	10 - 50	10 - 50
Max. rotation speed (rev/min) <sup>(4)</sup>	125	125	125	125	125
Weight without drive (kg)	1.6	1.6	1.7	1.9	1.9

(1) Depends on material.

(2) Depends on viscosity and primary pressure.

(3) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the material.

(4) Higher speed causes increased wear.



# DIMENSIONS

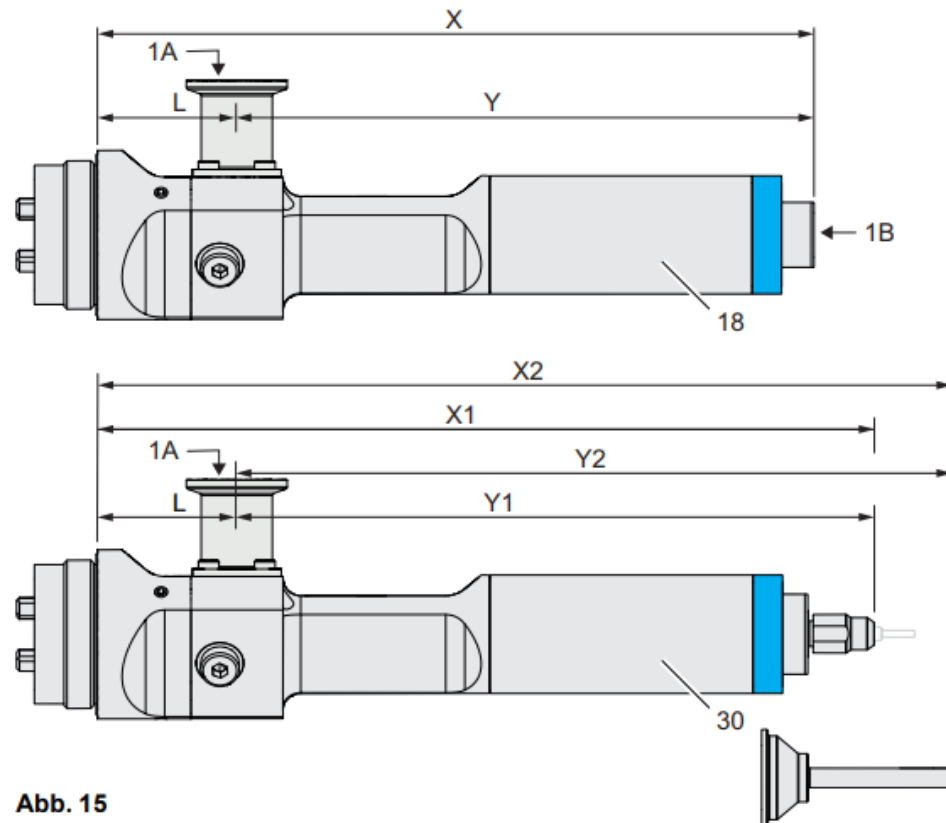


Abb. 15

## Dimensions

vipro PUMP	14	40	100	180	500
X (mm)	190	190	211	244	244
Y (mm)	143	143	164	197	197
X1 / X2 (mm)	206 / 230	206 / 230	229 / 250	261 / 285	261 / 285
Y1 / Y2 (mm)	159 / 183	159 / 183	183 / 203	214 / 238	214 / 238
L	47	47	47	47	47
1A	DN20	DN20	DN20	DN20	DN20
1B	G 3/8"	G 3/8"	G 3/8"	G 3/8"	G 3/8"

Dimensions X/Y incl. end part (18)

Dimensions X1/X2 & Y1/Y2 incl. end part for fine dosing insert (30)



# DIMENSIONS

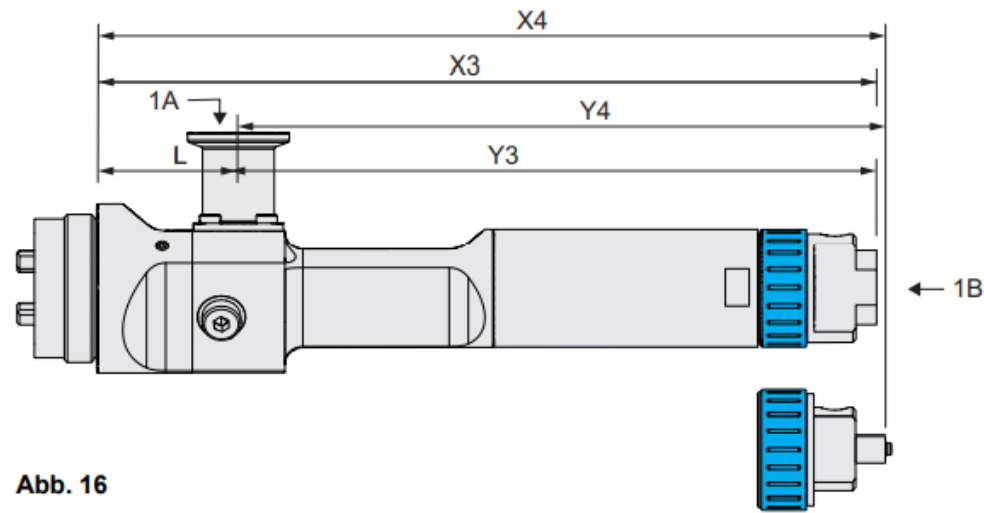


Abb. 16

## Dimensions

vipro PUMP	14	40	100	180	500
X3 / X4 (mm)	160 / 163	160 / 163	182 / 185	214 / 217	214 / 217
Y3 / Y4 (mm)	208 / 211	208 / 211	229 / 232	261 / 264	261 / 264
L	47	47	47	47	47
1A	DN20	DN20	DN20	DN20	DN20
1B	G 1/4" G 3/8"	G 1/4" G 3/8"	G 1/4" G 3/8"	- G 3/8"	- G 3/8"

Dimensions X3/X4 & Y3/Y4 incl. end part for sensor adapter



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