

3 cm Kloehn™ Syringes

- Designed for use with Cadent™ 3 syringe pumps
- Rated to 80psig (5.52barg)
- Available in various volumes, materials and tip styles
- Suitable for use in analytical, biotechnology and diagnostic applications



Technical features

Physical

Length (dispensed):
2.37"

Thread type:
1/4-28 UNF-2A

Test pressure:
80psig (5.52barg)

Life cycle *1) (minimum):
100,000

*1) Tested with DI water using IMI standard protocol

Environmental

Operating temperature:
10°C ... 40°C (50°F ... 104°F)

Storage temperature:
–33°C ... 71°C (–27°F ... 160°F)

Relative humidity:
Up to 100%

Chemical

Wetted materials:
Borosilicate glass, PCTFE, PTFE
(or UHMW-PE)

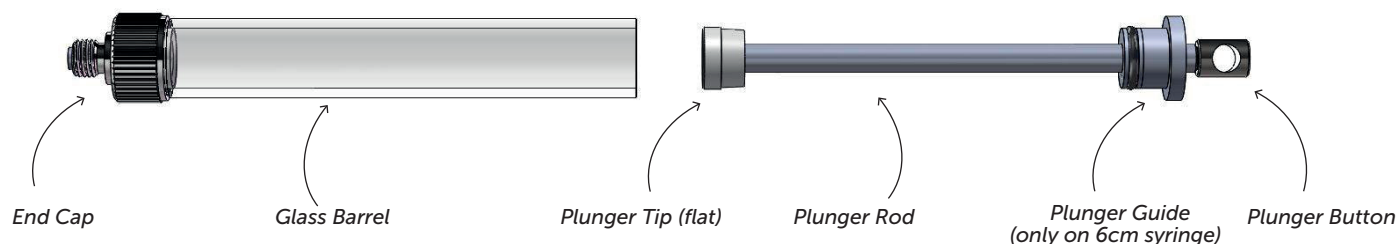
Syringe tips:
Lubricated with laboratory grade
silicone

Mechanical specifications

Kloehn Syringe Sizes		50µL	100µL	250µL	500µL	1.0mL	2.5mL	5.0mL
Orifice Size (in)		0.023	0.023	0.031	0.031	0.073	0.073	0.073
Syringe(End Cap) Diameter (in)		0.43	0.43	0.43	0.43	0.43	0.56	0.72
Button Diameter (in)		0.25	0.25	0.25	0.25	0.3	0.3	0.3
Max Drag Force* (lbs)	PTFE	3.0	3.0	3.0	3.0	3.0	6.0	6.0
	UHMW	7.0	7.0	7.0	7.0	7.0	10.0	10.0

*Add 1 pound (lbs) drag force for non-lubricated plunger tip syringes. Installation torque = 20in-oz

Kloehn syringe anatomy



Kloehn syringe enhancements



Zero Dead Volume Plunger Tip

Kloehn Syringes are available with an enhanced Zero Dead Volume (ZDV) plunger tip. These tips have a pointed end and extend into the end cap, providing a fully swept wetted path, minimizing the presence of residual fluids to address cross-contamination or carryover into subsequent operations.

Both flat and ZDV plunger tips can be supplied in either PTFE, a chemically inert material offering high durability, or UHMW-PE, offering high impact strength and suitable for use with fluids containing particulate.

Glass Barrel Shrink Wrap

For increased safety when using Kloehn syringes in high pressure environments, the syringes can be supplied with a shrink-wrapped glass barrel.

This enhancement is available on request and can be applied to any syringe volume dispense size.



For other customization requests, contact us at IMIKloehncustomersupport@imi-precision.com

PTFE Kloehn Syringes (individually boxed):

Dispense volume	Orifice size (in)	Standard lubricated syringe	ZDV Syringe (lubricated)
50µL	0.023	23164	-
100µL	0.023	23165	27961
250µL	0.031	23166	-
500µL	0.031	23167	-
1.0mL	0.073	23168	28008
2.5mL	0.073	23169	-
5.0mL	0.073	23170	-

Wetted materials: Borosilicate glass, PCTFE, UHMW-PE, PTFE
For other sizes and configurations, contact Sales

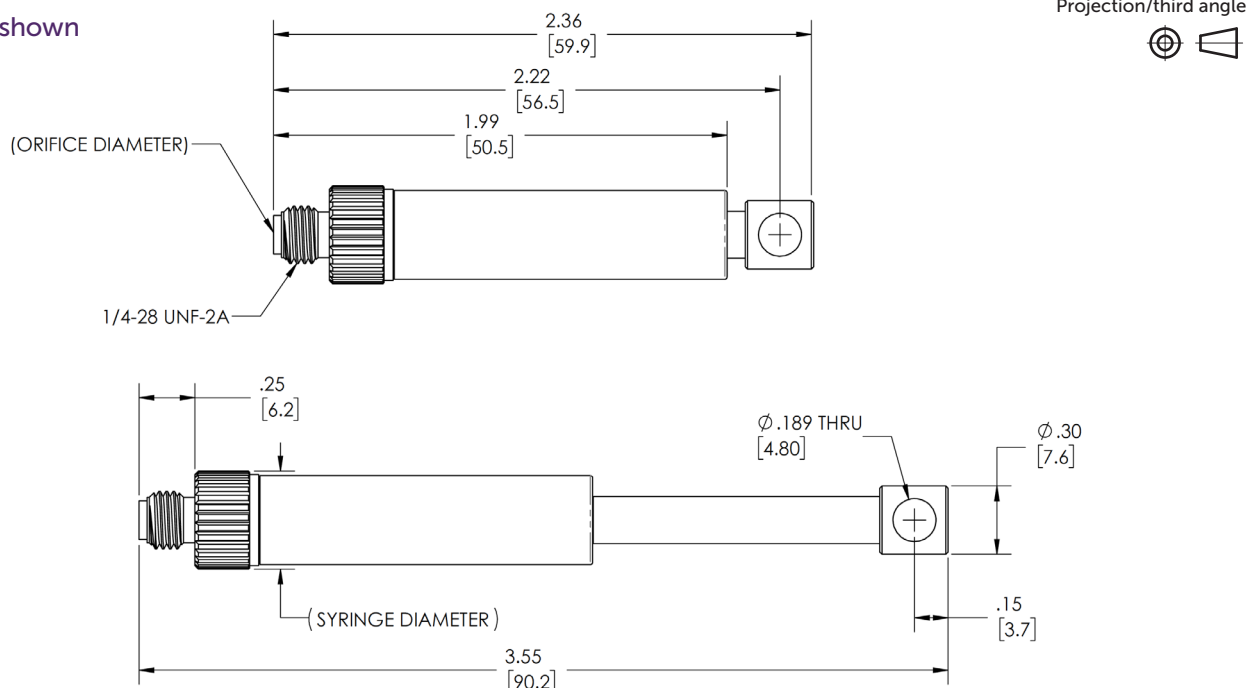
UHMW Kloehn Syringes (individually boxed):

Dispense volume	Orifice size (in)	Standard lubricated syringe
50µL	0.023	24411
100µL	0.023	24412
250µL	0.031	24413
500µL	0.031	24414
1.0mL	0.073	24415
2.5mL	0.073	24416
5.0mL	0.073	24417

Wetted materials: Borosilicate glass, UHMW-PE, PTFE
For other sizes and configurations, contact Sales

Dimensions

1mL syringe shown



Warning

Improper selection, misuse, age or malfunction of components used in systems can cause failure in various modes. The system designer is warned to consider the failure modes of all component parts and to provide adequate safeguards to prevent personal injury or damage to equipment or property in the event of such failure modes.

System designers and end-users are cautioned to consult instruction sheets and specifications available from the factory. The system designer/end-user is responsible for verifying that all requirements for the application are met.

Due to unlimited application, system conditions and chemistries, it is the buyers responsibility to validate the product within their specific application.

Proposition 65

These products may contain chemicals known to the state of California to cause cancer, or birth defects, or other reproductive harm.