- **Long-life 6cm Kloehn™ syringes designed for use with IMI Norgren Cadent™ 6 syringe pumps**
- **Rated to 80 psig (5.52 barg)**
- **Syringes available in sizes from 10µL to 50mL with various materials and tip styles**
- **Suitable for use in analytical, biotechnology, medical device, and diagnostic applications**

Specifications

Physical
Length (Dispensed):
4.37″ (11.1cm)
Thread Type:
¼-28 UNF-2A
Test Pressure:
80 psig (5.52) barg
Life cycle (Minimum):
250,000 full strokes
Tested with DI water using IMI standard protocol

Environmental
Operating Temperature:
10°C to 40°C (50°F to 104°F)
Storage Temperature:
-25°C to 85°C (-13°F to 185°F)
Relative Humidity:
Up to 100%

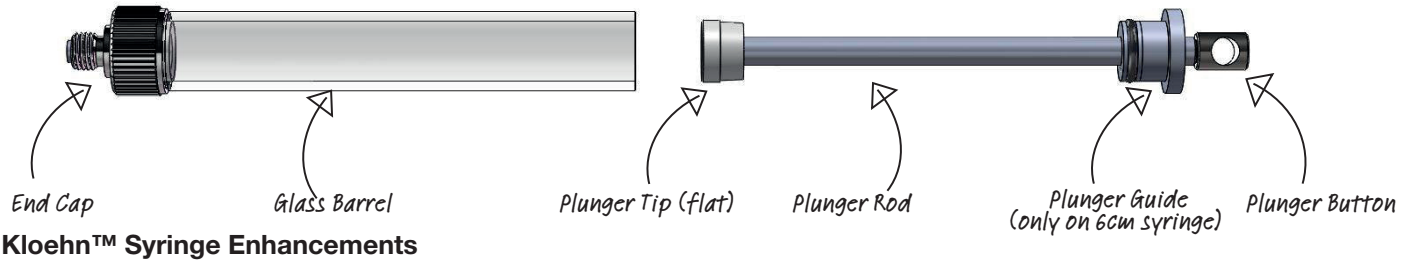
Chemical
Wetted Materials:
Borosilicate glass, PCTFE, PTFE (or UHMW-PE)
Syringe Tips:
Lubricated with laboratory grade silicone (syringes without silicone available on request)

Mechanical Specifications

Kloehn™ Syringe Sizes		10µL	25µL	50µL	100µL	250µL	500µL	1.0mL	1.25mL	2.5mL	5.0mL	10mL	25mL	50mL
Orifice Diameter (in)		0.016	0.016	0.024	0.032	0.039	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
Syringe (End Cap) Diameter (in)		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.75	1.12	1.5
Max Drag Force*	PTFE	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	8.0	8.0
	UHMW	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	10.0	10.0	15.0	-

* Add 1 pound drag force to non-lubricated plunger tips

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 IMIKloehn™customersupport@imi-precision.com

Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. © Norgren Kloehn™, Inc. 2019

UHMW Kloehn™ Syringe Assembly (individually boxed):

Size	Orifice Size (in)	Standard Lubricated Syringe	Zero Dead Volume (Lubricated)
25µL†	0.016	103177	-
50µL	0.024	103178	-
100µL	0.032	24518	-
250µL	0.039	19513	-
500µL	0.076	24694	25427
1.0mL	0.076	24690	25413
1.25mL	0.076	-	25438
2.5mL	0.076	24685	25388
5.0mL	0.076	18857	24691
10.0mL	0.076	19110	24139
25.0mL	0.076	24688	25380

Wetted materials: Borosilicate glass, PCTFE, UHMW-PE, PTFE

† Contains stainless steel in wetted path

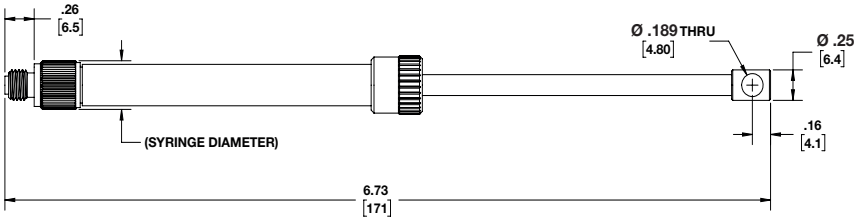
PTFE Kloehn™ Syringe Assembly (individually boxed):

Size	Orifice Size (in)	Standard Lubricated Syringe	Zero Dead Volume (Lubricated)
10µL†	0.016	103179	-
25µL†	0.016	103180	-
50µL	0.024	103185	-
100µL	0.032	17593	-
250µL	0.039	17594	19509
500µL	0.076	17595	19537
1.0mL	0.076	17596	25429
1.25mL	0.076	17597	25431
2.5mL	0.076	17598	19539
5.0mL	0.076	17599	18463
10.0mL	0.076	17600	18469
25.0mL	0.076	17601	23734
50.0mL	0.076	17602	-

Wetted materials: Borosilicate glass, PCTFE, PTFE

† Contains stainless steel in wetted path

Dimensions in inches [mm]
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.

Our policy is one of continued research and development. We therefore reserve the right to amend, without notice, the specifications given in this document. © Norgren Kloehn™, Inc. 2019