

ARROWgard Blue PLUS[®] Pressure Injectable Two-Lumen CVC Information

Catheter tested for ten (10) pressure injections.¹

Patient ID: _____

Date of Birth (mm/dd/yy): ____/____/____

First Name: _____

Male Female

Last Name: _____

Notes: _____

Location (unit/ward/bed): _____

Insertion Site: Subclavian Jugular

Other: _____

Catheter Tip Configuration:



Kit No.: CDC- _____

Date Inserted (mm/dd/yy): ____/____/____

Injection Log

	Date	Lumen	Media	Volume	Flow Rate
1					
	Notes: _____				
2					
	Notes: _____				
3					
	Notes: _____				
4					
	Notes: _____				
5					
	Notes: _____				
6					
	Notes: _____				
7					
	Notes: _____				
8					
	Notes: _____				
9					
	Notes: _____				
10					
	Notes: _____				



Patient Label

8^{Fr.} | 2^{Lumen} | 16^{cm} catheter length

ARROWgard Blue PLUS[®] Pressure Injectable
Two-Lumen CVC Kit

C-42802-102A (10/07)

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Catheter tested for ten (10) pressure injections.¹

Using maximum viscosity media² at body temperature (11.8 Centipoise (cP) at 37°C)

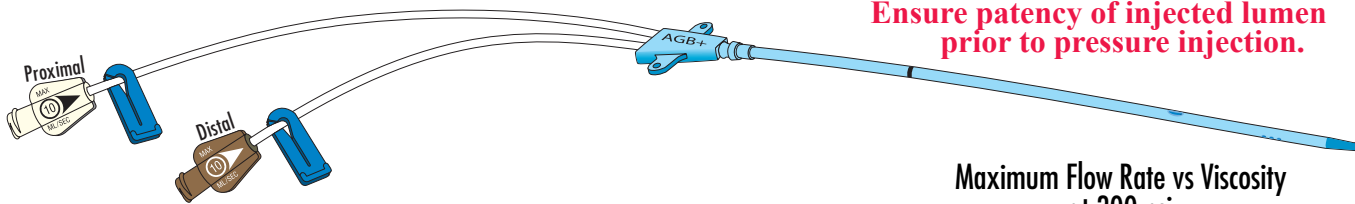
Catheter Lumen	At 300 psi Injector Pressure Setting		At 400 psi Injector Pressure Setting ⁴ Maximum Indicated Catheter Rating		Minimum Static Burst Pressure ³
	Pressure Injection Flow Rate	Maximum Catheter Pressure During Flow Rate	MAX Indicated Pressure Injection Flow Rate	Catheter Pressure During Maximum Flow Rate	
Distal (14 Ga.)	7 mL/sec	60 psi	10 mL/sec	81 psi	302 psi
Proximal (14 Ga.)	7 mL/sec	61 psi	10 mL/sec	76 psi	254 psi

¹ Tested using 125 mL injection volume.

² See Pressure Injectable Catheter Performance chart below for information on lower viscosity contrast media.

³ Static Burst Pressure is the failure point of the catheter when the lumen is completely occluded. Occluded catheter failure occurred at or above this minimum pressure.

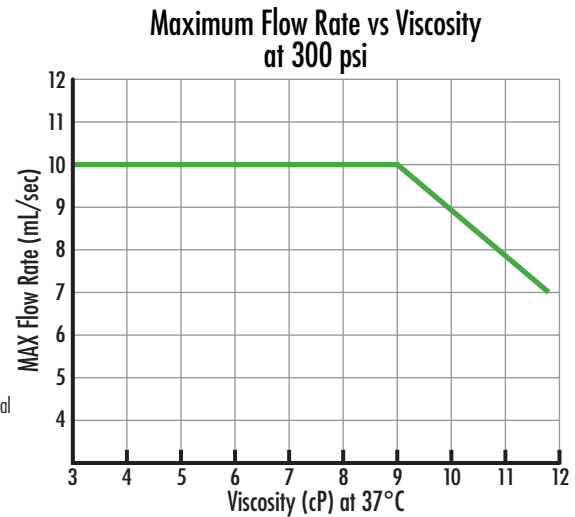
⁴ Achieved using 400 psi rated 60" administration set tubing and nominal injector values. Injector equipment pressure variation may result in slightly diminished flow rates.



Pressure Injectable Catheter Performance:

For pressure injection equipment limited to 300 psi, the following chart (graph) shows the maximum achievable flow rates as a function of viscosity.

Contrast Media Viscosity at 37°C	MAX Flow Rate Distal Lumen at 300 psi	MAX Flow Rate Proximal Lumen at 300 psi
11.8 cP	7 mL/sec	7 mL/sec
9.4 cP	9.5 mL/sec	9.5 mL/sec
6.3 cP	10 mL/sec	10 mL/sec
4.7 cP	10 mL/sec	10 mL/sec



Warnings and Precautions related to Pressure Injection:

- Warning:** Assess each patient for appropriateness of a pressure injection procedure. Pressure injection procedures must be performed by trained personnel well versed in safe technique and potential complications.
- Warning:** Obtain a visual image to confirm catheter tip position prior to each pressure injection.
- Warning:** Ensure patency of each lumen of catheter prior to pressure injection to minimize the risk of catheter failure and/or patient complications.
- Warning:** Discontinue pressure injections at first sign of extravasation or catheter deformation. Follow hospital protocol for appropriate medical intervention.
- Precaution:** To minimize the risk of catheter failure and/or tip displacement, do not exceed ten (10) injections or catheter's maximum recommended flow rate located on product labeling and catheter luer hub.
- Precaution:** Warm contrast media to body temperature prior to pressure injection to minimize the risk of catheter failure.
- Precaution:** Pressure limit settings on injector equipment may not prevent over pressurizing an occluded or partially occluded catheter.
- Precaution:** Use appropriate administration set tubing between catheter and pressure injector equipment to minimize the risk of catheter failure.
- Precaution:** Follow the contrast media manufacturer's specified instructions for use, contraindications, warnings, and precautions.

A Suggested Procedure for Pressure Injection:

Use sterile technique.

- Warning:** Obtain a visual image to confirm catheter tip position prior to each pressure injection.
- Remove injection cap from appropriate extension line of catheter.
- Check for catheter patency:
 - Attach 10 mL syringe filled with sterile normal saline.
 - Aspirate catheter for adequate blood return.
 - Vigorously flush catheter. **Warning:** Ensure patency of each lumen of catheter prior to pressure injection to minimize the risk of catheter failure and/or patient complications.
- Detach syringe.
- Attach pressure injection administration set tubing to appropriate extension line of catheter according to manufacturer's recommendations.
- Precaution:** To minimize the risk of catheter failure and/or tip displacement, do not exceed ten (10) injections or catheter's maximum recommended flow rate located on product labeling and catheter luer hub.
- Inject contrast media in accordance with hospital protocol. **Precaution:** Warm contrast media to body temperature prior to pressure injection to minimize the risk of catheter failure.
- Disconnect catheter from pressure injector equipment.
- Flush catheter using 10 mL syringe (or larger) filled with sterile normal saline.
- Disconnect syringe and replace with sterile injection cap on catheter extension line.