

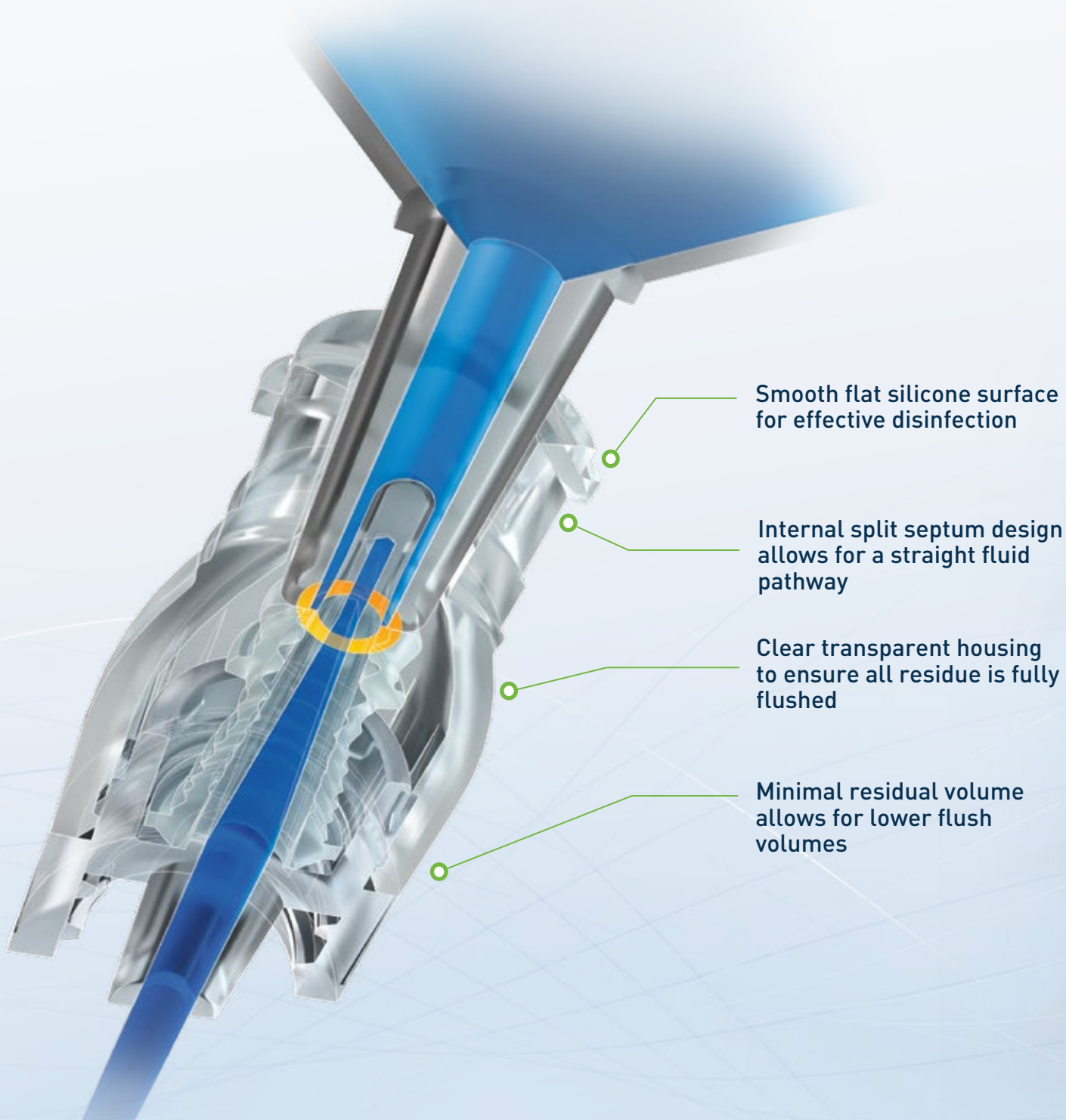
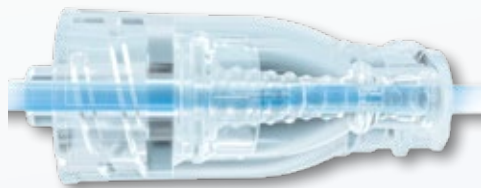
# **STERILE INFUSION** **THERAPY DEVICES**

[www.assetmedical.com](http://www.assetmedical.com)

## Description

NeutrArt® is a single-use, disposable connector intended for use with a vascular access device for administration of fluids during IV therapy. Designed with a transparent housing for flush visualization and a flat swabable valve surface to enhance infection prevention.

The product is a needle-free connector with an integrated silicone seal that protects the patient and healthcare staff from needlestick accidents during intravenous therapy by minimizing needle usage.



Smooth flat silicone surface  
for effective disinfection

Internal split septum design  
allows for a straight fluid  
pathway

Clear transparent housing  
to ensure all residue is fully  
flushed

Minimal residual volume  
allows for lower flush  
volumes

# Features



7-day antimicrobial ingress study available



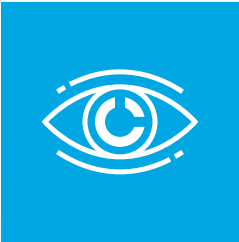
Compatible with TPN solutions, blood and oncology drugs



Allows multiple accesses & suitable for high-flow rate infusion



Minimal volume required for flushing



Clear housing for visualization of fluid path

Materials

Metal-free,  
Latex-free  
PVC-free

Valve Body

Copolyester

Swabable Septum

Silicone



## Expert Opinion

“ The design of the needle-free connectors helps prevent biofilm formation and fibrin adhesion, which are the preconditions for catheter-related bloodstream infections risk. These devices are used to connect catheters, administration sets, and/or syringes to deliver IV therapy. ”

Macklin, Denise, May 2010

Catheter Management, Seminars in Oncology Nursing, Vol 26, No 2 (May), 2010: pp 113-120.

### Clear Transparent Housing

“ Flushing needle-free connectors is critically important because it is the method by which blood or other contaminating infusates is removed from the needle-free connectors. Therefore, the ability to visualize the internal surfaces of the needle-free connector helps the clinician determine if flushing of the needle-free connector is complete. ”

Jarvis, William R., July 29, 2010

Choosing the Best Design for Intravenous Needleless Connectors to Prevent Bloodstream Infections, Infection Control Today.

### Minimal Residual Volume

“ Needle-free connectors which have straight fluid pathways helps to reduce catheter occlusions and catheter-related bloodstream in the clinical setting. Needle-free connectors with little or no dead space in the fluid pathway minimize the surfaces that infusates can contaminate and where biofilm can develop. ”

Macklin, Denise, May 2010

Catheter Management, Seminars in Oncology Nursing, Vol 26, No 2 (May), 2010: pp 113-120.

## Product Specifications

Product Code and Description	Priming Volume (mL)	Displacement (mL)	Flow Rate (mL/min)	Flushing Volume (mL)	Length (cm)
<b>A1010N</b> NeutrArt® Neutral Needle-Free Valve	0.04	<0.01 (neutral)	160 @1m water pressure	0.02	2.5

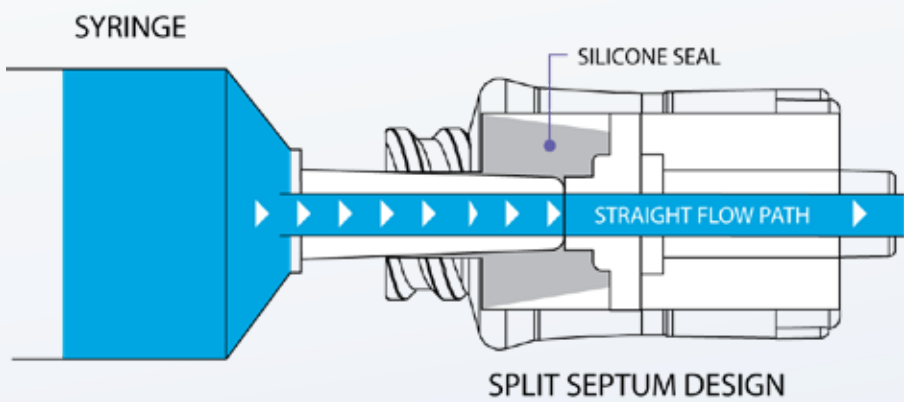
## Packaging Specifications

Container Type	Height(cm)	Width(cm)	Length(cm)	Weight(kg)
Unit Pack (1 Unit)	10	8	5	0.027
Shelf Pack (100 Units)	23	20	16	0.8
Case Pack (1000 Units)	25	43	84	10

# Split Septum Needle-Free Valves



A sterile, closed connection for increased safety and improved patient outcomes.



Size	2.5 cm x 1.27 cm	Flow Rate	Up to 312 mL/min
Weight	1.64 grams	Conforms to	ISO 80369-7

Enhance The Safety & Efficiency  
On Infusion Therapy



## Total IV Device Clarity

FlowArt® is a needle-free valve that has a fully transparent clear housing with an integrated silicone seal and internal fluid pathway, that protects the patient and nursing staff from exposures.

Flat closed seal that provides a microbial barrier

Clear transparent housing to ensure residue is fully flushed

7-day antimicrobial ingress study available

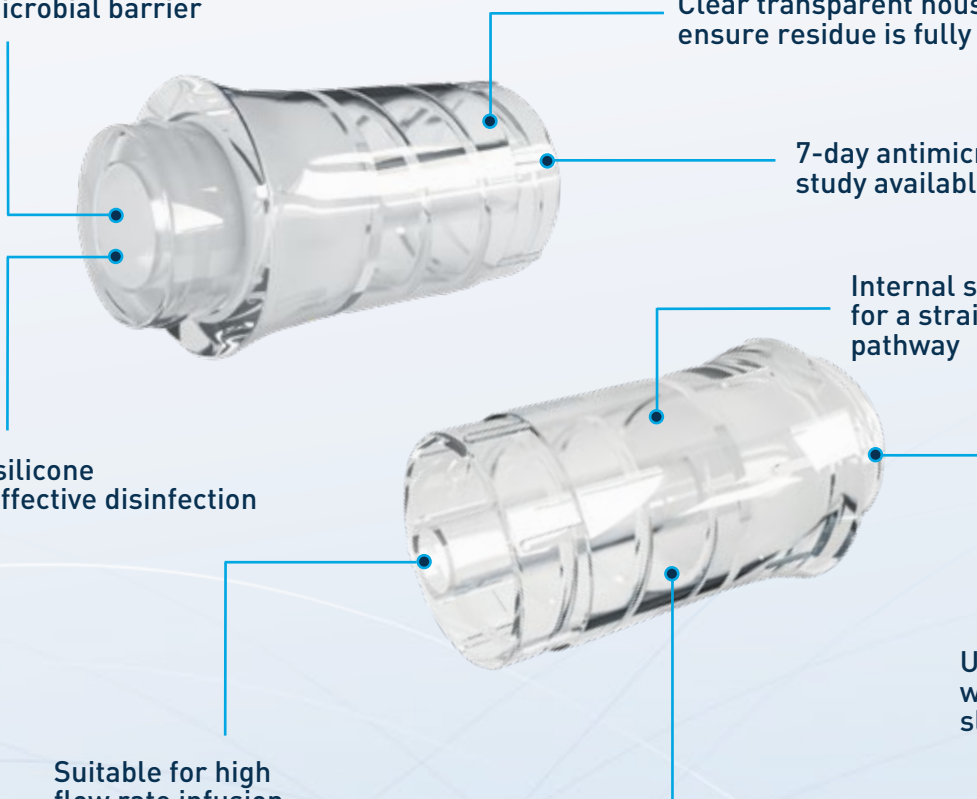
Smooth flat silicone surface for effective disinfection

Internal split septum allows for a straight smooth fluid pathway

Suitable for high flow rate infusion

Universal compatibility with luer lock and luer slip connections

Suitable for TPN, blood and oncology infusions



# Meeting the latest international IV recommendations

- Transparent, needless connector that is opaque, for enhanced visualisation during flushing so that all blood and infusates are cleared
- Fully transparent and clear housing with an integrated, flat silicone seal and split septum
- Internal smooth pathway, providing a microbial barrier
- Multiple access – 600 over 7 days
- Suitable for pressure infusers
- Compatible with CT scan use at 400 PSI
- Compatible with TPN, lipids, blood and oncology
- Compatible with all emergency glass syringes and excellent connectivity with luer slip and luer lock syringes
- Comforms to ISO 80369-7

## Expert Opinion

“...Observe if the internal mechanisms are simple or complex...”

Jarvis, 2013, [infectioncontroltoday.com](https://www.infectioncontroltoday.com/hiv-aids/hiv-cure-research-team-refutes-major-recent-results-how-identify-hiv-persistence)  
<https://www.infectioncontroltoday.com/hiv-aids/hiv-cure-research-team-refutes-major-recent-results-how-identify-hiv-persistence>

“...Taking these features into consideration, a recent survey of expert clinicians found that a smooth external surface, no gap around septum seal and clear housing were among the most important features of needless connectors...”

Jarvis, 2013, [infectioncontroltoday.com](https://www.infectioncontroltoday.com/hiv-aids/hiv-cure-research-team-refutes-major-recent-results-how-identify-hiv-persistence)  
<https://www.infectioncontroltoday.com/hiv-aids/hiv-cure-research-team-refutes-major-recent-results-how-identify-hiv-persistence>

“When needless system are used, a split septum valve may be preferred over some mechanical valves due to increased risk of infection with mechanical valves.”

CDC Recommendations [Guidelines for the Prevention of Intravascular Catheter-Related Infections] (2011)  
<https://www.cdc.gov/infectioncontrol/guidelines/bsi/background/prevention-strategies.html>


























“The ability to visualise the internal surfaces of the needless connector helps the clinician determine if flushing of the needless connector is complete. A transparent needless connector is preferable to one that is opaque.”

Jarvis, 2010

“Straight fluid pathways have been shown to reduce catheter occlusions and CR-BSI in the clinical setting.”

Seminars in Oncology Nursing; Denise Macklin, BSN, RNC  
<https://www.sciencedirect.com/science/article/pii/S0749208110000082>

“...opaque or coloured external housing makes it hard to see any residual blood or particulate matter... clear external housing makes such visualisation possible.”

Product Code	Product Image	Product Description	Units per box	Priming Volume (ml)	Length (cm)	Flow Rate (mL/min)
<b>NeutrArt® Needle-free Valve</b>						
A1010N		NeutrArt® Neutral Needle-free Valve	250	0.04	2.5	160
AU1010N		NeutrArt® Needle-free Valve Neutral with Extension Line	100	0.19	10	70
A2010N		NeutrArt® Double Lumen Needle-free Valve Neutral	100	0.42	10	70
A3010N		NeutrArt® Triple Lumen Needle-free Valve Neutral	100	0.57	10	70
<b>FlowArt® Needle-free Valve</b>						
A1010		FlowArt® Needle Free Valve Port	250	0.085	2.5	312
AU1010		FlowArt® Needle-Free Valve Neutral with Extension Line	100	0.15	8	135
A2010		FlowArt® Double Lumen Needle-Free Valve Port	100	0.35	8.5	100
A2010Y		FlowArt® Double Lumen Valve with Y Connector	50	0.70	13.5	325
A3010		FlowArt® Triple Lumen Needle-Free Valve Port	100	0.40	8.5	110
A2010CV		FlowArt® Double Lumen Needle-Free Valve Port, with Check Valve	100	0.45	9.5	90
A3010CV		FlowArt® Triple Lumen Needle-Free Valve Port, with Check Valve	100	0.75	9.5	95
AT3010		FlowArt® Needle-Free Connector with Three Way Stopcock	100	0.085	2.5	312
ATU3010		FlowArt® Needle-Free Connector with Three Way Stopcock	50	0.50	16.5	100
<b>FlowArt® Bag and Vial Adapters</b>						
AS5010		FlowArt® Valve For Bag Access	100	0.45	9	-
AS5011		FlowArt® Valve For Bag Access, with Check Valve	100	0.80	10.5	-
ASM5010		FlowArt® Mini Spike with Needleless Valve	100	0.11	5.5	-
ASV5010		FlowArt® Valve For Bag Access Vented	50	0.47	9	-
AV4013		FlowArt® Valve For Vial Access, 13 mm	200	0.06	3	-
AV4020		FlowArt® Valve For Vial Access, 20 mm	100	0.08	3	-
<b>FlowArt® IV Filters</b>						
AF6002		FlowArt® Needle-Free Valve Set with 0.2 Micron Filter	50	3.0	18	F. L. 50 V. L. 240
AF6012B		FlowArt® Needle-Free Valve Set with 1.2 Micron Baby Filter	100	0.50	12	F. L. 35 V. L. 95
AF6102		FlowArt® Single Set with 0.2 Micron Filter	50	2.40	14	50
AF6112		FlowArt® Single Set with 1.2 Micron Filter	50	2.40	14	185
AF6202		FlowArt® Dual Port Set with 0.2 Micron Filter	50	1.80	20	24.5
AF6212		FlowArt® Dual Port Set with 1.2 Micron Filter	50	2.50	20	90