

# NOWPak<sup>®</sup> Canister Dispense Connector

*Thread-on stainless steel connector allows pressure or pump delivery of high-viscosity materials from NOWPak Liner-based Canister Systems with optimized flow rates*

The high-viscosity dispense connector is an innovative delivery solution for high-viscosity chemical, representing Entegris' next generation connector offering. The high-viscosity connector is used together with the NOWPak<sup>®</sup> Liner-based Canister and its indirect pressure system.

## APPLICATIONS

- Polyimide
- OCR
- Other high-viscosity chemical



*Clockwise from top left: High-viscosity connector for 19-40 liter size canisters; high-viscosity connector with NCV-200-B closure for 200 liter size canisters; NCV-200-T shipping cap with NCV-200-B closure for 200 liter size canisters*

## FEATURES & BENEFITS

- Optimizes flow rates for highly viscous materials
- Minimizes defects associated with particle and micro-bubbles
- Enhanced chemical compatibility performance and cleanliness
- Improved protection for moisture sensitive materials

## SPECIFICATIONS

### High-viscosity Dispense Connector

<b>Part number</b>	ND-HD-XALX-XXX (see ordering information on page 7 for part number configurations)	
<b>Tube connections</b>	Liquid out fittings	3/4" standard flare fitting, PVDF nut supplied
	Air inlet fittings	1/4" elbow
		6 mm elbow
		1/4" straight
6 mm straight		
<b>Dispense method</b>	Pressure or pump	
<b>Weight</b>	40 liter and smaller	2.2 kg (4.9 lbs)
	200 liter	2.3 kg (5.0 lbs)
<b>Thread type</b>	63 mm buttress	
<b>Performance</b>	VYN option	Maximum operating pressure: 2.0 kgf/cm <sup>2</sup> (30 psi) maximum  Pressure relief valve rating: 2.5 kgf/cm <sup>2</sup> (35 psi) maximum
	VWN option	Maximum operating pressure: 2.0 kgf/cm <sup>2</sup> (30 psi) maximum  Pressure relief valve rating: 2.0 kgf/cm <sup>2</sup> (29 psi) maximum

## SPECIFICATIONS

### High-viscosity Connector

<b>Materials of construction</b>	Wetted	Probe	Machined 316 stainless steel
		Liquid outlet fitting	Molded PFA, compression style
		O-ring seal	Molded Chemraz® (white)
	Nonwetted	Upper connector body	Machined, stainless steel
		Lower connector body	Machined, stainless steel
		Retainer	Machined, stainless steel
		Gas inlet fitting	Machined, stainless steel
		Bushings	Machined, polypropylene
		Cap screws	Machined, stainless steel
O-Ring seals*		Molded EPDM or Chemraz	
Cleanroom bag		Polyethylene	
<b>Manufacturing standards</b>	Fabricated and tested in a Class 5 Cleanroom as per International Standard ISO 14644-1:1999 Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness.  100 percent pressure decay tested using high-purity nitrogen.		
<b>Cleanliness</b>	Connector to be free from lubricants and other extraneous foreign materials consistent with Entegris processes and procedures.		
<b>Labeling</b>	Each connector is labeled with the part number and serial number for traceability. Each shipping carton is labeled with the part number, purchase order number, and quantity of connectors.		
<b>Packaging</b>	Each connector is double bagged (heat sealed, cleanroom processed, PE inner bag; heat sealed, PE outer bag), then packaged in a corrugated shipping carton lined with PE foam.		
<b>Shipping Information</b>	Box quantity (minimum order quantity)	1	
	Box dimensions (L × W × H)	158.8 mm × 184.2 mm × 168.3 mm (6¼" × 7¼" × 6⅝")	
	Box weight (connector)	2.35 kg (5.2 lbs)	

\* Note: Damage to the stainless steel probe, such as scratches or dents that are caused by mishandling, may affect the performance of the seal. Performance issues caused by mishandling are not covered under the Limited Warranty.

## SPECIFICATIONS (CONTINUED)

### NCV-200-T Shipping Cap for High-viscosity Connector

This shipping cap is designed to thread onto the NCV-200-B closure for 200-liter canisters to seal the canister prior to shipping.

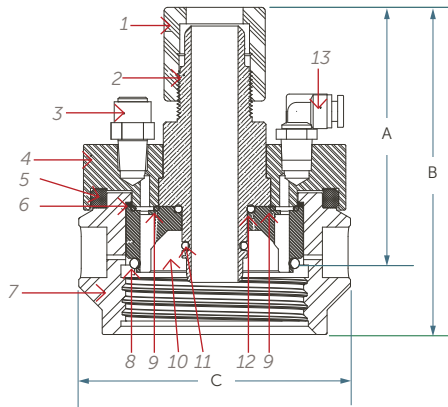
<b>Neck thread</b>	Buttress 63 mm	
<b>Application torque</b>	27–34 N•m (20–25 ft•lb), 275–347 Kg•cm	
<b>Materials of construction</b>	Cap body	Stainless steel
	Liquid/fitment seal	Chemraz o-ring
	Cap seal	Teflon® encapsulated o-ring

### NCV-200-B Closure for High-viscosity Connector

This closure is for use with 200 liter canisters. The closure is threaded onto the canister and then sealed with the NCV-200-T shipping cap, or the high viscosity connector can be threaded onto the closure for 200 liter applications.

<b>Neck thread</b>	Buttress 4.75-4	
<b>Application torque</b>	47–54 N•m (35–40 ft•lb), 479–551 Kg•cm	
<b>Materials of construction</b>	Closure body	Stainless steel
	Compression ring	Polypropylene
	Closure o-ring	Teflon encapsulated

## DIMENSIONS



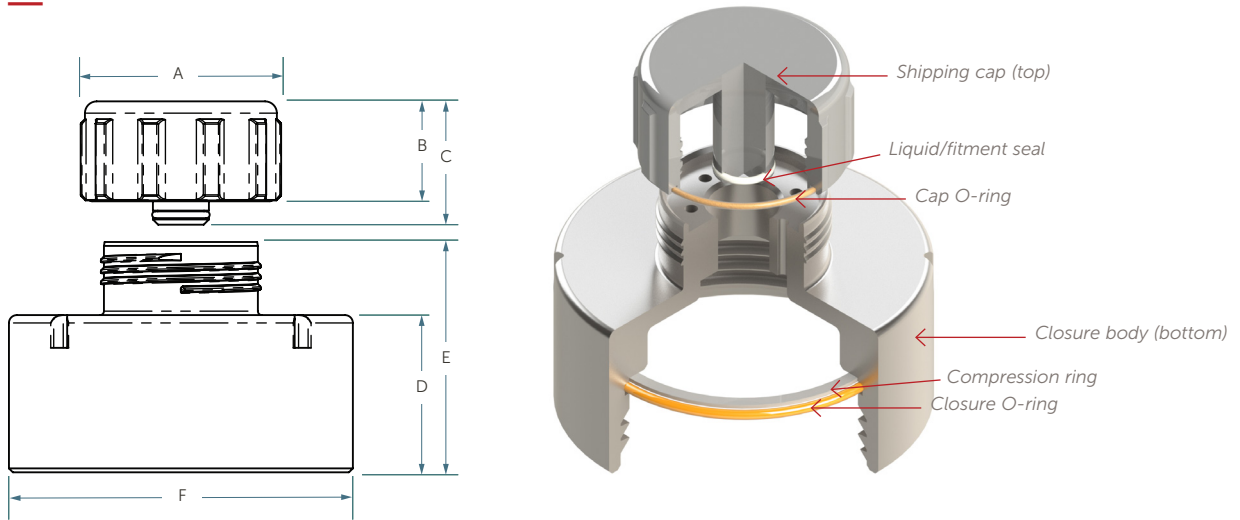
### High-viscosity Connector

#### Dimensions

A	Height to top of neck	85.0 mm (3.35")
B	Height	110.3 mm (4.34")
C	Diameter	95.2 mm (3.75")

Item	Quantity	Description
1	1	Nut, 3/4" tube, Flaretek®, PVDF
2	1	Probe, dispense, high viscosity, stainless steel
3	1	Valve, relief VYN option: 35 psi VWN option: 29 psi
4	1	Body, upper connector
5	1	Bushing, upper
6	1	Bushing, lower
7	1	Body, lower connector, 63 mm thread
8	1	O-ring, can seal, option of EPDM or Chemraz
9	2	O-ring, option of EPDM or Chemraz
10	1	Retainer, connector
11	1	Primary seal, o-ring, liquid seal, Chemraz
12	1	O-ring, Chemraz
13	1	Gas inlet fitting per configuration table
14	1	Dowel (not shown)
15	4	Screw, socket head cap (not shown)
16	4	Washer SS #8 lockwasher (not shown)

**DIMENSIONS (CONTINUED)**

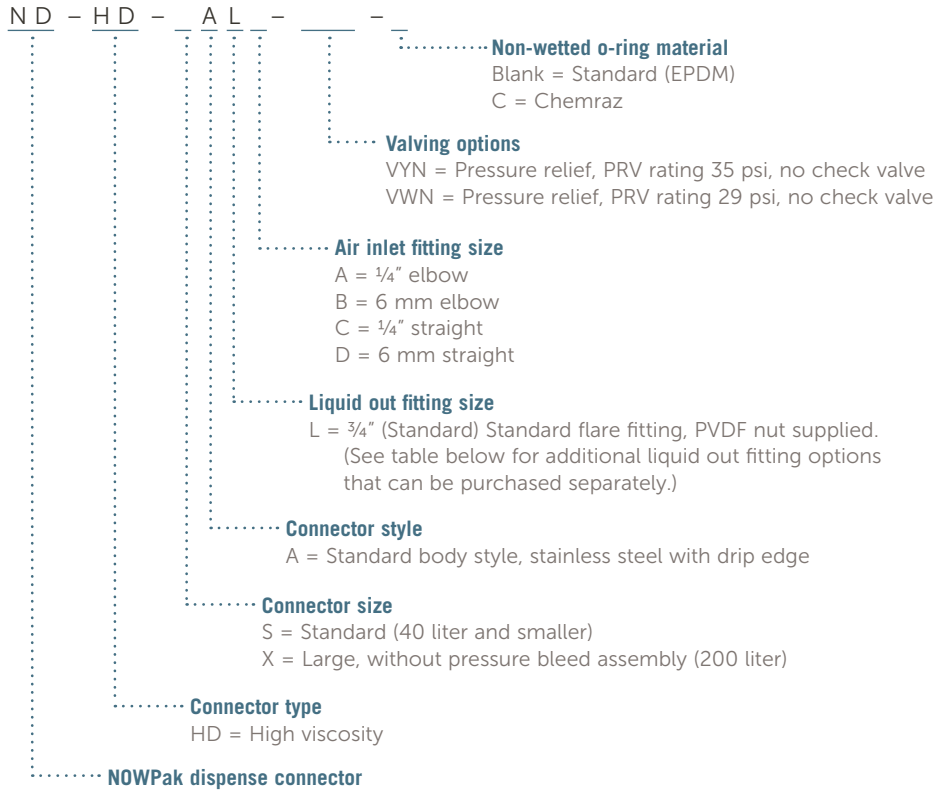


NCV-200-T and NCV-200-B High Viscosity Closure (for use with 200-liter size)

Part number	Description	Dimensions (maximum)	mm (inch)	
NCV-200-T	Shipping cap (top)	Outside diameter	77.7 mm (3.06")	A
		Cap height	38.4 mm (1.51")	B
		Overall height:	47.8 mm (1.88")	C
NCV-200-B	Closure (bottom)	Closure height	61.0 mm (2.40")	D
		Overall height	89.3 mm (3.52")	E
		Outside diameter	133.4 mm (5.25")	F

## ORDERING INFORMATION

High-viscosity Connector: part number



### Liquid Out Fitting Options (available for purchase separately)

Part number	Liquid out fitting size
E16-12TFN-1	3/4" to 1" Entegris Flaretek elbow
SU12T-16FN-1	3/4" to 1" Entegris Flaretek straight
E12-12TFN-1	3/4" to 3/4" Entegris Flaretek elbow
E8-12TFN-1	3/4" Spacesaver to 1/2" Entegris Flaretek elbow (reduces from 3/4" to 1/2")
SU12T-8FN-1	3/4" to 1/2" Entegris Flaretek straight

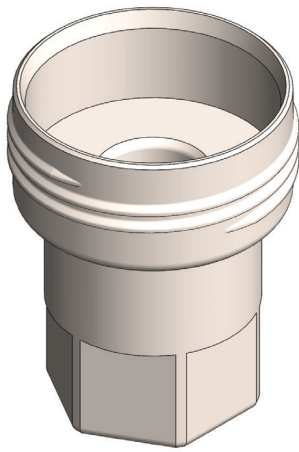
Note: High-viscosity connectors require the use of specifically designed high-viscosity diptubes. See the Connector Accessories section on page 8 for part numbers.

## ORDERING INFORMATION (CONTINUED)

### Connector Accessories

Part number	Accessory	Description
NDTV-P8	PE diptube	Diptube, high-viscosity, HDPE, 19 L
NDTV-P40		Diptube, high-viscosity, HDPE, 40 L
NDTV-P200		Diptube, high-viscosity, HDPE, 200 L
NDTV-T8	FEP diptube	Diptube, high-viscosity, FEP, 19 L
NDTV-T40		Diptube, high-viscosity, FEP, 40 L
NDTV-T200		Diptube, high-viscosity, FEP, 200 L
NL-019-NS50A-1	Replacement liner (liner only)	Liner, NS50, 19 L
NL-040-NS50A-1		Liner, NS50, 40 L
NL-200-NS60H-1		Liner, NS60, EPDM o-ring, 200 L
NL-200-NS60J-1		Liner, NS60, TFE/P o-ring, 200 L
NLVP-019-NS50A-1	Replacement liner and diptube	Liner, NS50, with high-viscosity PE diptube, 19 L
NLVP-040-NS50A-1		Liner, NS50, with high-viscosity PE diptube, 40 L
NLVP-200-NS60H-1		Liner, NS60, with high viscosity PE diptube, EPDM o-ring, 200 L
NLVP-200-NS60J-1		Liner, NS60, with high viscosity PE diptube, TFE/P o-ring, 200 L
NLVT-019-NS50A-1		Liner, NS50, with high-viscosity FEP diptube, 19 L
NLVT-040-NS50A-1		Liner, NS50, with high-viscosity FEP diptube, 40 L
NLVT-200-NS60H-1		Liner, NS60, with high-viscosity FEP diptube, EPDM o-ring, 200 L
NLVT-200-NS60J-1		Liner, NS60, with high-viscosity FEP diptube, TFE/P o-ring, 200 L
NA-124-A (½" NPT output)	Cleaning fixture	Cleaning fixture attaches to connector and provides ports for flushing cleaning solvent through the connector.
NA-124-B (1" NPT output)		
NC-W1	Cap/closures	Breakseal closure, white LLDPE, 63 mm thread for 40-liter and smaller canisters.
NCV-200-B		Stainless steel closure body (bottom), 63 mm thread for 200-liter canister. The closure body threads directly onto 200-liter canisters. The NCV-200-T shipping cap threads onto the top of the NCV-200-B. The ND-HD high viscosity connector threads onto the NCV-200-B for 200-liter size canisters.
NCV-200-T		Shipping cap (top), stainless steel, for 200-liter canister (threads onto NCV-200-B closure).
NCV-200-T-V		Shipping cap with vent port, stainless steel, for 200-liter canister.





Cleaning fixture  
NA-124-A, NA-124-B



NCV-200-T shipping cap with  
NCV-200-B closure  
(200-liter size)

### Connector Replacement Parts

Part number	Description	Quantity	Reference item number See page 3, Dimensions section	Recommended timing for replacement*
NA-57	Replacement o-ring	1	Liquid seal, reference item 11**, Chemraz	6 months
NA-58	Replacement o-ring	1	Can seal, reference item 8**, EPDM	6 months
NA-59	Replacement o-ring	1	Can seal, reference item 8**, Chemraz	6 months

\* The recommended o-ring replacement timing is an approximation. Actual replacement timing can be impacted by other factors such as the chemical used, environment and care and handling.

\* See page 5 for table of reference items.

### LIMITED WARRANTY

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