DATE: 4/11/2017

BID NO.: 50-00119494

INVITATION TO BID
THIS IS NOT AN ORDER

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

VENDOR:

BUYER: DREAMEY

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work is to be done in a workman-like manner, according to standard practices. Any deviations or alterations from the specifications must be indicated and backup documentation supplied with your quotation.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES 12-17 DAYS

INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK _____

INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK _____

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

***** ALL BIDDERS MUST COMPLETE SECTION BELOW *****

FIRM NAME: CIMSCO

SIGNATURE: (Must be signed here) Jeff Devalcer TITLE: SALES

PRINT OR TYPE NAME: JEFF DEVALCER

ADDRESS: 1840 LTA CO.

CITY, STATE: METAIRIE, LA ZIP: 70001

TELEPHONE: 504 835-7315 FAX: 504 832-0820

EMAIL ADDRESS: JEFF@CIMSCOINC.COM

TOTAL PRICE OF ALL BID ITEMS: $ 19720.00

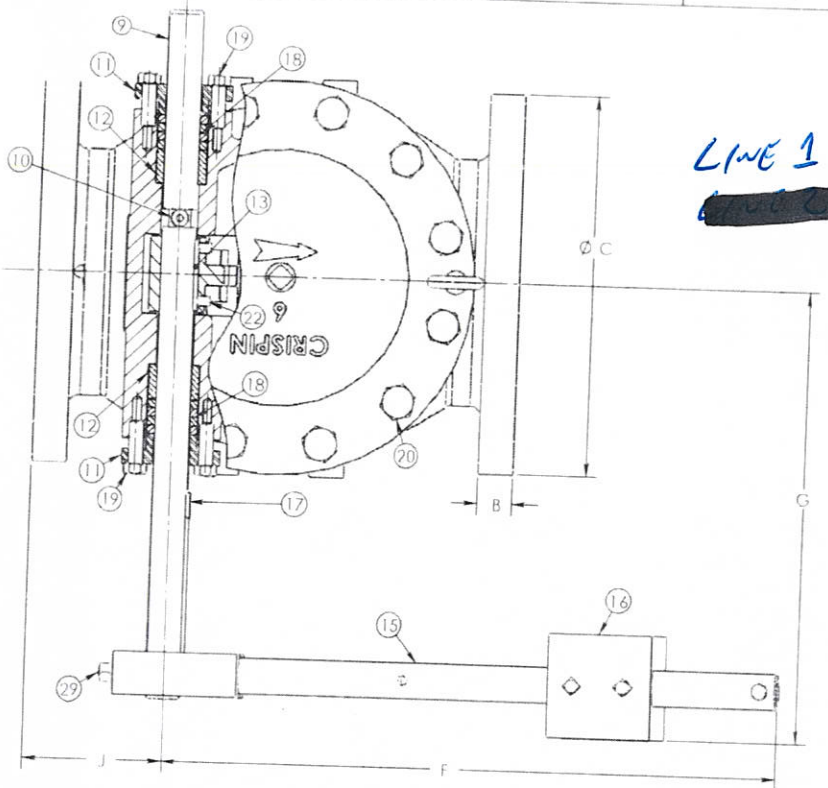
DATE: 4/11/2017

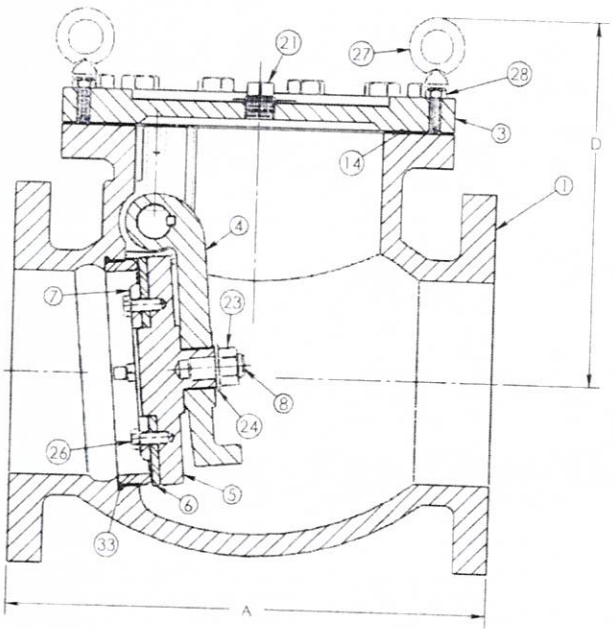
INVITATION TO BID FROM JEFFERSON PARISH - continued

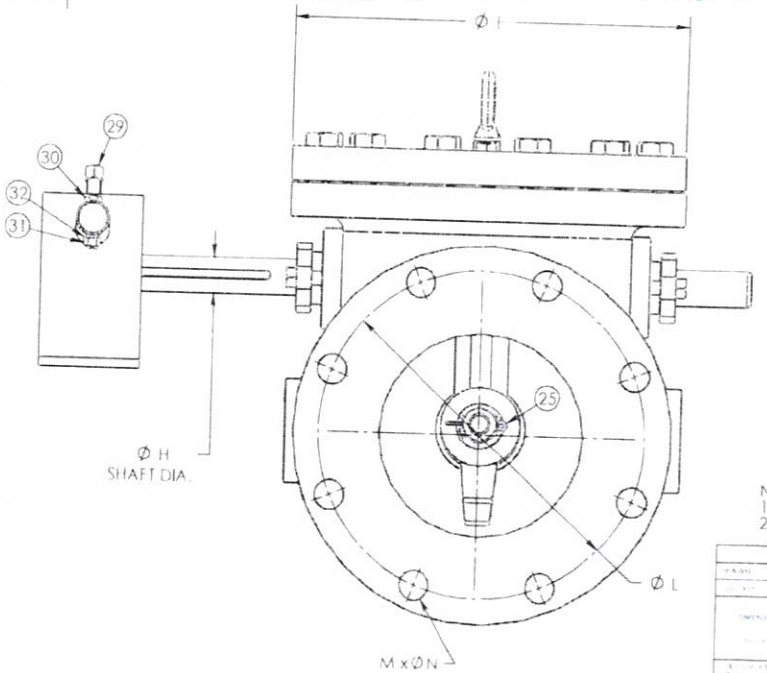
BID NO.: 50-00119494

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
			ONE TIME PURCHASE.		
1	8.00	EA	0001 - Valve, check, 4 inch, 13 inch face to face, flanged, lever and weight, IBBM, bronze disc facing, epoxy coated, stainless steel nuts and bolts, domestic, American Flow no. C504A4H0703PRPR (0621680)	885.00	7080.00
2	4.00	EA	0002 - Valve, check, 6 inch, 17-1/2 inch face to face, flanged, lever and weight, and weight, IBBM, bronze disc facing, epoxy coated, stainless steel nuts and bolts, domestic, Golden Anderson figure no. 220 (0621730)	1275.00	5100.00
3	6.00	EA	0003 - Valve, check, wafer, 6 in, ductile iron body, external spring and lever, stainless steel hardware, 2-3/4 in face to face, ANSI class 150, ANSI B16.1, Enduro-Bond, KF Eagle series 18 no. 7394-126K419191 (0621930)	840.00	5040.00
4	4.00	EA	0004 - Valve, plug, 6 inch x 10-1/2 inch face to face, flanged, eccentric, cast iron body, solid ductile iron plug with nitrile elastomer coating, 100 percent port, nickel seat, Milliken no. 601N1FP-AG, with above ground gear operator with handwheel and operating nut. (0625020)	625.00	2500.00







LINE 1 >

"SWL" Series Dimensions (Lever Weight)

SIZE	MODEL NO.	A	B	ØC	D	ØE	F	G	ØH	J	ØL	MxØN	WT. (LB)
3"	SWL31-LW	9.50	.75	7.50	8.20	7.31	12.00	8.79	.75	3.00	6.00	4 x .75	71
4"	SWL41-LW	11.50	.94	9.00	9.00	8.06	12.00	10.42	.87	3.75	7.50	8 x .75	121
6"	SWL61-LW	[illegible]											188
8"	SWL81-LW	19.50	1.12	13.50	12.50	13.19	18.00	15.10	1.25	5.75	11.75	8 x .88	370
10"	SWL101-LW	24.50	1.19	16.00	14.94	16.50	18.00	17.04	1.25	7.25	14.25	12 x 1.00	650
12"	SWL121-LW	27.50	1.25	19.00	16.63	18.25	18.00	20.66	1.50	7.75	17.00	12 x 1.00	858
14"	SWL141-LW	31.00	1.38	21.00	18.94	21.50	24.75	24.41	2.00	8.50	18.75	12 x 1.12	1007
16"	SWL161-LW	36.00	1.44	23.50	21.83	24.50	24.75	25.91	2.00	10.00	21.25	16 x 1.12	1360
18"	SWL181-LW	40.00	1.56	25.00	22.80	27.25	30.75	28.91	2.00	11.00	22.75	16 x 1.25	1823
20"	SWL201-LW	40.00	1.69	27.50	24.82	29.25	30.75	30.91	2.00	10.00	25.00	20 x 1.25	2240
24"	SWL241-LW	48.00	1.88	32.00	28.88	33.50	36.68	34.50	2.75	12.00	29.50	20 x 1.38	3535
30"	SWL301-LW	60.00	2.18	38.75	35.63	41.75	37.06	39.41	3.12	15.00	36.00	28 x 1.38	5906
36"	SWL361-LW	63.00	2.44	46.00	40.31	48.50	44.00	43.91	3.50	13.50	42.75	32 x 1.62	8345

* INCLUDED IN COST IS 2/EA FILLER FLANGES + 2/EA FLANGE PACKS W/ BOLTS + GSKT TO MEET OLD STYLE LAY LENGTH. ASSEMBLED. *

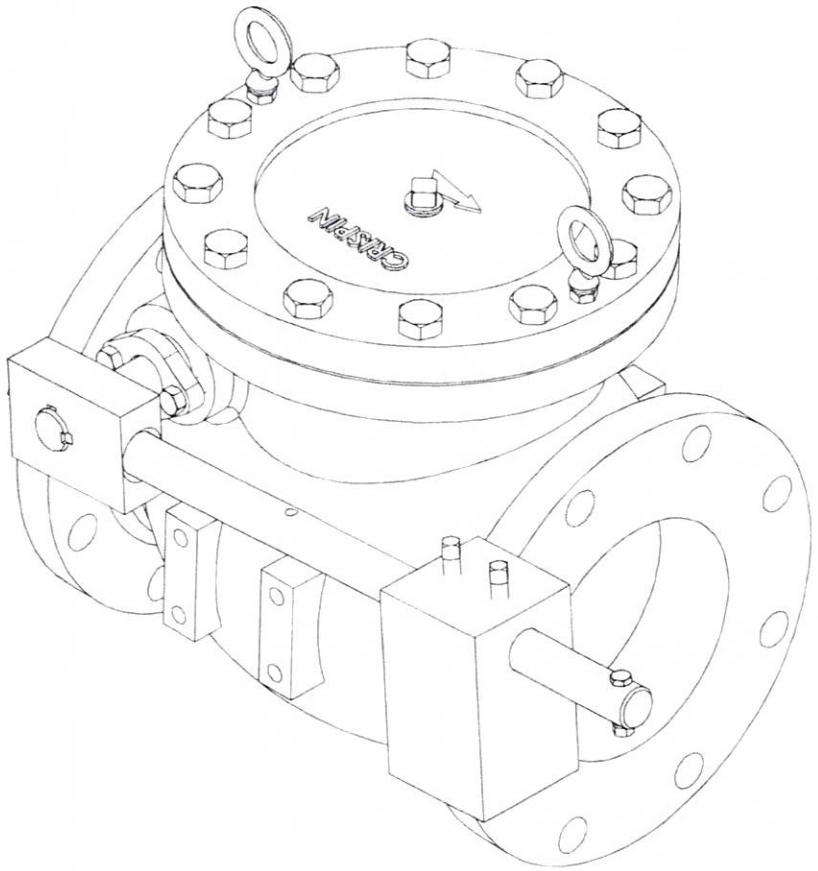
NOTES:
1. 250 PSIG MAX. WORKING PRESSURE
2. 500 PSIG HYDROSTATIC TEST PRESSURE

CRISPIN VALVES

3" THRU 36" CLASS 125/150 SWING CHECK VALVE w/ LEVER & WEIGHT

SIZE C | DWG. NO. SWL-3-36-LW | REV. 0

SHEET 1 OF 2



PARTS LIST			
ITEM	DESCRIPTION	MATERIAL	QTY
1	BODY	DUCTILE IRON A536 Gr 65-45-12	1
2	BODY SEAT	ASTM A351 Gr CF8M	1
3	COVER	DUCTILE IRON A536 Gr 65-45-12	1
4	DISC ARM	DUCTILE IRON A536 Gr 65-45-12	1
5	DISC	DUCTILE IRON A536 Gr 65-45-12	1
6	DISC SEAT	D2000 BUNA N RUBBER 70 DUROMETER	1
7	SEAT RETAINER	AISI 304	1
8	STUD	18-8 STAINLESS STEEL	1
9	PIVOT SHAFT	A276 TYPE 304	1
10	PIVOT SHAFT PIN	BEARING BRONZE ALLOY 932 (SAE 660)	1
11	PACKING GLAND	CARBON STEEL	2
12	PIVOT SHAFT BUSHING	BEARING BRONZE ALLOY 932 (SAE 660)	2
13	INNER PIVOT SHAFT KEY	316 SS	1
14	COVER GASKET	KLINGERSIL C-4401	1
15	LEVER WELDMENT	CARBON STEEL	1
16	LEVER WEIGHT	ASTM A36	1
17	OUTER PIVOT SHAFT KEY	316 SS	1
18	PACKING	PTFE IMPREGNATED, INTERLOCK BRAID	8
19	HEX HD CAP SCREW	18-8 STAINLESS STEEL	4
20	HEX HD CAP SCREW	STEEL, GR 5, ZINC PLTD	12
21	PIPE PLUG, SQ HD	CARBON STEEL	1
22	SOC SET SCREW, CUP PT.	18-8 STAINLESS STEEL	2
23	STD HEX HD NUT	18-8 STAINLESS STEEL	1
24	FLAT WASHER	18-8 STAINLESS STEEL	1
25	COTTER PIN	18-8 STAINLESS STEEL	1
26	HEX HD CAP SCREW	18-8 STAINLESS STEEL	8
27	EYEBOLT	STEEL, ZINC PLATED	2
28	HEX HEAD JAM NUT	STEEL, ZINC PLATED	2
29	SQ HD SET SCREW	CARBON STEEL	3
30	HEX HD CAP SCREW	STEEL, GR 5, ZINC PLTD	1
31	STD HEX HEAD NUT	STEEL, ZINC PLATED	1
32	LOCK WASHER	STEEL, ZINC PLATED	1
33	O-RING	BUNA N DUROMETER 70	1

CRISPIN VALVES

3" THRU 36" CLASS 125/150
SWING CHECK VALVE
w/ LEVER WEIGHT

SIZE: C | DWG. NO.: SWL-3-36-LW | REV: 0

SCALE: 3/8 | WT: 186.85 LB | SHEET 2 OF 2

TNEMEC

PRODUCT DATA SHEET

POTA-POX® PLUS SERIES N140F

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamidoamine Epoxy

COMMON USAGE Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.

COLORS 1211 Red, 1255 Beige, 00WH Tnemec White, 15BL Tank White, 39BL Delft Blue, 35GR Black. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **NSF/ANSI Std. 61.** Ambient air cured Series N140F is qualified for use on tanks and reservoirs of 1,000 gallons (3,785 L) capacity or greater, pipes 18 inches (46 cm) in diameter or greater and valves four (4) inches (10 cm) in diameter or greater. Series N140F is certified by **NSF International** in accordance with **NSF/ANSI Std. 50** for pools and other recreational water facilities. Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2.** Contact your Tnemec representative for systems and additional information. A two-coat system at 4.0-6.0 dry mils (100-150 dry microns) per coat passes the performance requirements of MIL-PRF-4556F for fuel storage. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.

PERFORMANCE CRITERIA Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS Self-priming, 22, 91-H_2O, 94-H_2O, L140, L140F, N140, V140, 141

TOPCOATS **Interior:** Series 22, FC22, L140, L140F, N140, N140F, V140, V140F, 141, 406
Exterior: Series 27, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, L140, L140F, N140, N140F, V140, V140F, 156, 157, 161, 175, 180, 181, 446, 740, 750, 1028, 1029, 1074, 1074U, 1075, 1075U, 1077, 1078, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following recoat times apply for Series N140F. Immersion Service—Surface must be scarified by blasting with fine abrasive after 30 days. Atmospheric Service—After 30 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140F is 14 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

PRIMED STEEL **Immersion Service:** Scarify the epoxy prime coat surface by abrasive blasting with fine abrasive before topcoating if it has been exterior exposed for 30 days or longer and N140F is the specified topcoat.

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

CAST/DUCTILE IRON Contact your Tnemec Representative or Tnemec Technical Services.

CONCRETE Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6, ICRI-CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 215 or 218.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 68.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 10.0 mils (50 to 225 microns) per coat. **Note:** MIL-PRF-4556F applications require two coats at 4.0-6.0 mils (100-150 microns) per coat. Otherwise, the number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME AT 5 MILS DFT

Temperature	To Handle	To Recoat	Immersion
75°F (24°C)	4 hours	5 hours	7 days
65°F (18°C)	7-8 hours	9-11 hours	8 days
55°F (13°C)	12-14 hours	16-20 hours	9-10 days
45°F (7°C)	18-22 hours	28-32 hours	12-13 days
35°F (2°C)	28-32 hours	46-50 hours	16-18 days

Curing time varies with surface temperature, air movement, humidity and film thickness.
Note: For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure. **Note:** Refer to product listings on www.nsf.org for specific potable water return to service information.

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 2.3 lbs/gallon (273 grams/litre)
Thinned 5% (#60): 2.5 lbs/gallon (299 grams/litre)
Thinned 10% (#4): 2.7 lbs/gallon (323 grams/litre) †

HAPS **Unthinned:** 2.3 lbs/gal solids
Thinned 5% (#60): 2.3 lbs/gal solids
Thinned 10% (#4): 3.1 lbs/gal solids

THEORETICAL COVERAGE 1,094 mil sq ft/gal (26.8 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

PACKAGING 5 gallon (18.9L) pails and 1 gallon (3.79L) cans — Order in multiples of 2.

POTA-POX® PLUS | SERIES N140F

NET WEIGHT PER GALLON 12.68 ± 0.25 lbs (5.75 ± .11 kg) (mixed) †

STORAGE TEMPERATURE Minimum 20°F (-7°C) Maximum 110°F (43°C)
For optimum application properties, material temperature should be above 60°F (16°C) prior to application.

TEMPERATURE RESISTANCE (Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE Part A: 24 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 82°F (28°C) Part B: 80°F (27°C)

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	6.0 (150)	9.0 (230)	182 (16.9)
Minimum	2.0 (50)	3.0 (75)	545 (50.7)
Maximum	10.0 (225)	15.0 (375)	109 (10.1)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. †

MIXING
1. Start with equal amounts of both Parts A & B.
2. Using a power mixer, separately stir Parts A & B.
3. Add Part A to Part B under agitation, stir until thoroughly mixed.
4. Both components should be above 50°F (10°C) prior to mixing. For application to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand thirty (30) minutes and restir before using. For optimum application properties, blended components should be above 40°F (4°C).

THINNING N140F: Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 4 Thinner or thin up to 5% or 1/4 pint (190 mL) per gallon with No. 60 Thinner. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution: Series N140F NSF certification is based on thinning with No. 4 or No. 60 Thinner for tanks and only No. 60 Thinner for pipe and valves.** Use of any other thinner voids NSF/ANSI Std. 61 certification. V140F: Use No. 4 Thinner. **Caution: Series V140F NSF certification is based on thinning with No. 4 Thinner only.** Use of any other thinner voids NSF/ANSI Std. 61 certification. **Note:** When using Series V140F, a maximum of 4.5% of No. 4 Thinner may be used to comply with VOC regulations.

POT LIFE 2 hours at 50°F (10°C) 1 hour at 75°F (24°C) 30 minutes at 100°F (38°C)

SPRAY LIFE 30 minutes at 75°F (24°C)
Note: Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	75-100 psi (5.2-6.9 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	3000-4800 psi (207-330 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.
Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE Minimum 35°F (2°C) Maximum 135°F (57°C)
The surface should be dry and at least 5°F (3°C) above the dew point. Coating won't cure below minimum surface temperature.

CLEANUP Flush and clean all equipment immediately after use with the recommended thinner or MEK.

† Values may vary with color.

Heavy Duty AWWA C508

LEVER AND WEIGHT SWING CHECK VALVES

Line 2

Straight Through, Single- or Double Increasing

FIGURE 220 STRAIGHT THROUGH											
SIZE (Inlet and Outlet)	**3"**	**4"**	**6"**	**8"**	**10"**	**12"**	**14"**	**16"**	**18"**	**20"**	**24"**
A	12	13	17-1/2	18	23	28	33	36	40	40	48
B	7	8-1/2	9	12	14	16	22	23	24	24	28
C	5	5	6	9	9	11	13	14	18	18	20
D	10	11	12	14	15	17	20	24	28	28	34
E	5	5	7	8	9	11	14	16	18	18	21
WGT	100	150	230	310	480	970	1480	1800	1400	2800	6000

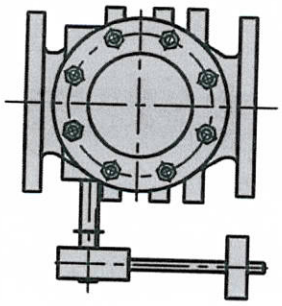
Dimensions in inches, weight in pounds. Consult factory for larger sizes.

FIGURE 221 SINGLE-INCREASING					
SIZE (Inlet x Outlet)	**3" X 4"**	**4" X 6"**	**6" X 8"**	**8" X 10"**	**10" X 12"**
A	12	13	17-1/2	18	23
B	7	8-1/2	9	12	14
C	5	5	6	9	9
D	10	11	12	14	15
E	5	5	7	8	9
WGT	120	175	250	350	525

Dimensions in inches, weight in pounds. Inlet is nominal size of valve.

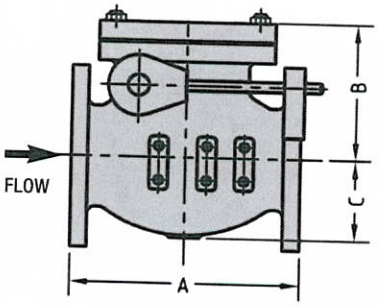
FIGURE 222 DOUBLE-INCREASING			
SIZE (Inlet x Outlet)	**4" X 8"**	**6" X 10"**	**8" X 12"**
A	13-1/2	18-7/8	22-1/4
B	8-1/2	9	12
C	5	6	9
D	11	12	14
E	5	7	8
WGT	180	270	390

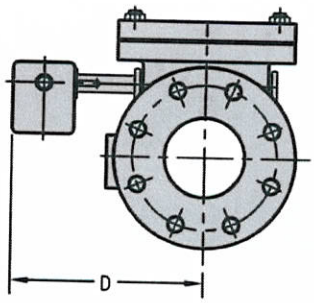
Dimensions in inches, weight in pounds. Inlet is nominal size of valve.



LEVER and WEIGHT FIGURE NUMBERS				
	Straight Through		Single-Increasing	Double-Increasing
Flanges per ANSI B16.1	316 Stainless Steel Body Seat*	Bronze Body Seat**	316 Stainless Steel Body Seat	316 Stainless Steel Body Seat
Class 125	220-DS	220-D	221-DS	222-DS
Class 250	220-US	220-U	221-US	222-US

* Standard 3" to 12", ** Standard 14" to 24"
For Metal-to-Metal Seating, Suffix "M," e.g., Figure 220-DM, Figure 222-USM
For Vertical Installation, Suffix "A," e.g., Figure 220-DAM, Figure 222-UASM





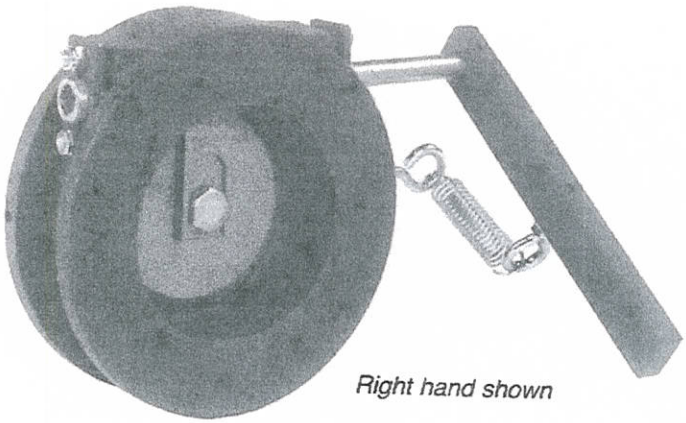
NOTE:

Standard position of lever and weight is on right side facing inlet. Opposite side can be provided upon order or position can be changed in the field.

MILLIKEN
VALVE COMPANY
2625 Brodhead Road
Suite #100
Bethlehem, PA 18020
Phone: 610-861-8803
Fax: 610-861-8094
Website: www.millikenvalve.com

Line 3

Milliken Wafer Check Valve Figure 700



Right hand shown

- Narrow Face-to-Face
- Heavy Duty Cast Iron Body
- 316 Stainless Steel Internals
- Spring Assisted Closure
- Reversible Spring Arm Assembly
- Elastomer Seat in Body
- Unobstructed Round Port
- Disc Position Indicator
- Manual Override Lever
- Economical Alternative

Scope of the Line: Wafer Check Valve

SPECIAL: STAINLESS STEEL HARDWARE

Sizes
3" - 12"

Body
The compact wafer body is constructed of ASTM A-126 Class B cast iron. This short face-to-face dimension means less space is required than with traditional flanged swing check valves.

Seat
Numerous "O" ring seat materials are available. Positive retention of the seat is accomplished by the dovetail groove machined in the valve body. This groove reduces the possibility of the "O" ring being displaced from the body while allowing removal and replacement during maintenance.

Packing
Split rings of PTFE packing are employed to prevent leakage through the shaft, and can be adjusted when necessary.

Shaft / Bushings
The one piece 316 stainless steel shaft is supported by two (2) bronze bushings to insure proper alignment of the disc and seat. The design allows the shaft/arm to be field changed to either left or right hand positions.

Disc
A corrosion resistant 316 stainless steel disc is used to reduce the chance of disc failure. Precision machining of the mating surface provides uniform contact between the disc and seat.

Disc Arm
Continuing the concept of 316 stainless steel internals the disc arm is manufactured of 316 stainless steel. The arm is attached to the disc and shaft by use of stainless steel fasteners.

Spring / Arm Assembly
The spring arm assembly provides both positive indication of the disc position as well as serving as a manual override for use in back flushing the system. The spring allows the valve to operate properly even if installed in a vertical line. The spring also permits a predetermined line pressure to be reached prior to the valve opening. Optional weight is available.

Flow
Round unobstructed ports translate to higher flow capabilities than are possible with other types of wafer check valves.

Wafer Check Valve (Figure 700): Technical Specifications

General
Check valve shall be of the short face-to-face type with external spring to ensure tight shutoff. The pressure rating shall be 200 psi.

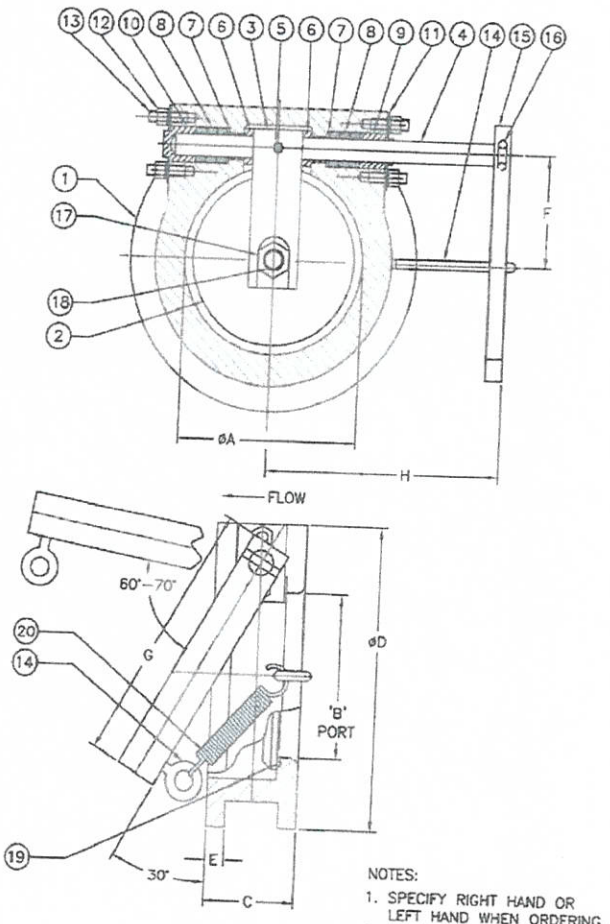
Valve Bodies
Valve bodies shall be of ASTM A-126 Class B cast iron. Disc and disc arm shall be of ASTM A-743 Grade CF8M stainless steel.

Valve Shaft
The valve shaft shall be manufactured of ASTM A-276 Grade 316 stainless steel and supported by two (2) SAE 660 bronze bearings. Shaft sealing shall be accomplished by multiple rings of braided PTFE Teflon rings. Packing shall be utilized on each side of the valve.

Arm Assembly
The design of the valve shall be such that spring/arm assembly can be field changed from right to left. The closure spring shall be manufactured of ASTM A-228 spring steel. The spring arm shall be constructed of carbon steel ASTM A-36 and designed to provide disc position indication. The spring arm shall be capable of overriding the spring action for use as an override lever.

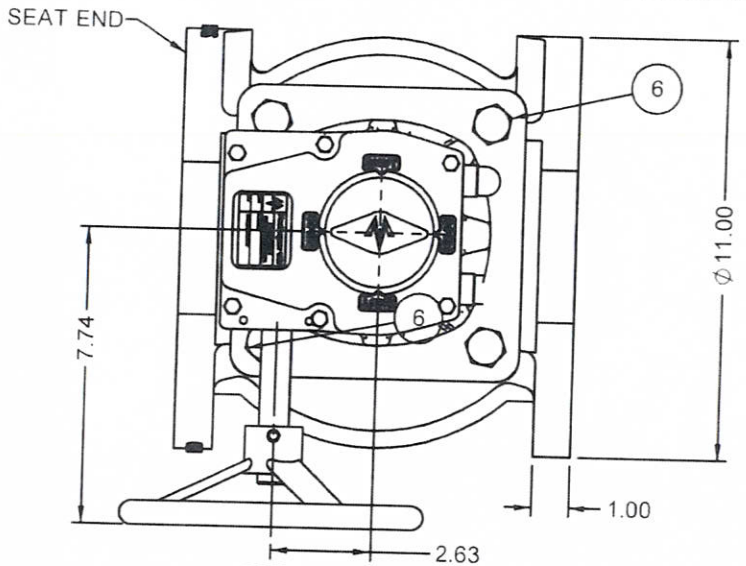
Valve Seat
The valve seat shall be of specified O-ring material and retained in a dovetail groove in the valve body.

ITEM	QTY.	COMPONENT	MATERIAL/SPEC.
20	1	SPRING	STAINLESS STEEL
19	1	O-RING SEAT	AS SPECIFIED
18	1	THREADED ROD	316 S.S.
17	1	NUT	316 S.S.
16	1	SPRING PIN	STEEL
15	1	SPRING ARM	STEEL ASTM A36
14	2	EYEBOLT	STAINLESS STEEL
13	4	THREADED ROD	STAINLESS STEEL
12	4	NUT	STAINLESS STEEL
11	2	PLATE	STEEL ASTM A36
10	1	BLIND GLAND	BRONZE SAE 660
9	1	PACKING GLAND	BRONZE SAE 660
8	AR	PACKING	P.T.F.E.
7	2	WASHER	BRONZE SAE 660
6	2	BUSHING	BRONZE SAE 660
5	1	S.H. CAP SCREW	316 S.S.
4	1	SHAFT	316 S.S.
3	1	DISC ARM	ASTM A-743 CF8M
2	1	DISC	ASTM A-743 CF8M
1	1	BODY	A126 CL.B IRON



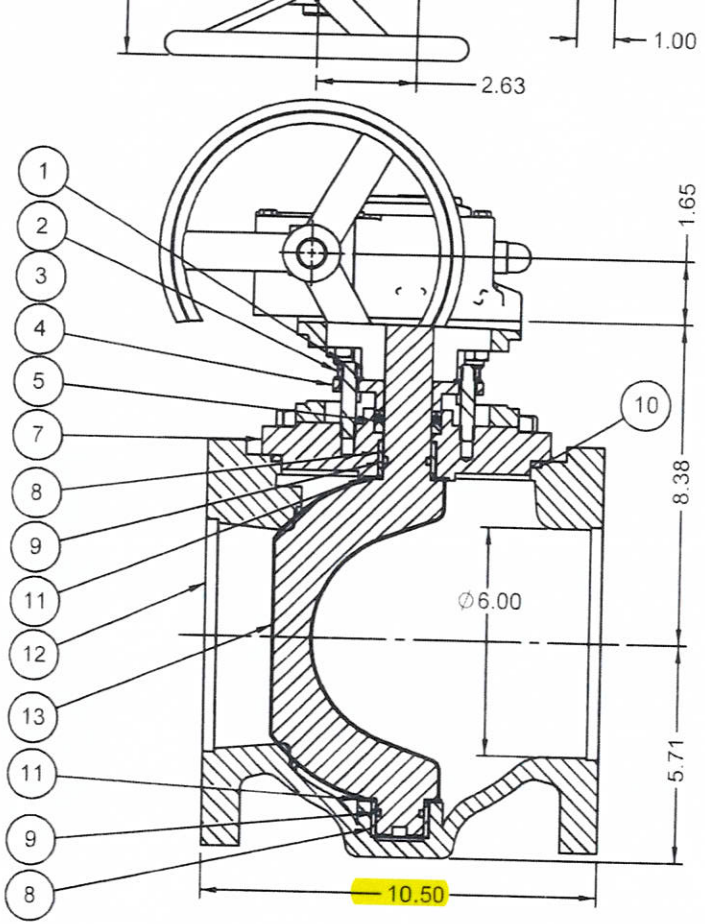
NOTES:
1. SPECIFY RIGHT HAND OR LEFT HAND WHEN ORDERING.
2. RIGHT HAND SHOWN.

SIZE	A	B	C	D	E	F	G	H	WT. LB.
3	2.63	2.06	3.75	5.25	0.50	2.13	3.75	5.00	18
4	3.63	3.03	2.25	6.88	0.44	2.13	7.00	6.00	13
6	5.44	4.75	2.75	8.75	0.56	3.25	7.25	7.13	27
8	7.25	6.44	2.88	11.00	0.63	4.00	8.75	8.06	42
10	8.50	7.63	3.13	13.13	0.88	4.88	11.25	9.50	63
12	10.44	9.50	3.50	16.13	0.88	5.88	13.25	13.88	96

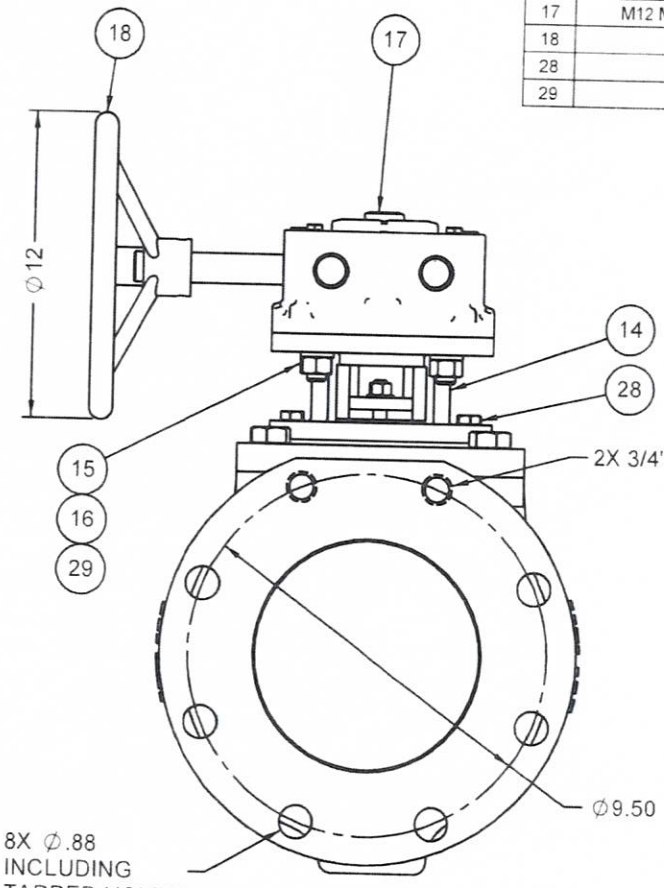


LINE 4

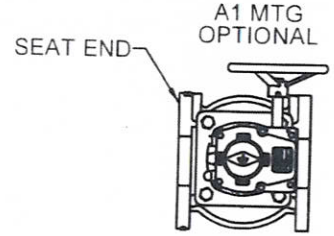
ITEM	DESCRIPTION	MATERIAL
01	GLAND STUD	STAINLESS STEEL
02	HEX NUT	STAINLESS STEEL
03	FLAT WASHER	STAINLESS STEEL
04	GLAND	ASTM A126 CL.B
05	V-RING SET	NBR
06	HEX HEAD CAPSCREW	STAINLESS STEEL
07	COVER	ASTM A126 CL.B
08	BEARING	SST. SINTERED
09	O-RING	NBR
10	O-RING	NBR
11	THRUST WASHER	PTFE
12	BODY	ASTM A126 CL.B
13	PLUG MOLDED	A536 GR.65-45-12+NBR
14	GEARBOX ADAPTER	ASTM A126 CL.B
15	LOCK WASHER	STAINLESS STEEL
16	HEX NUT	STAINLESS STEEL
17	M12 MASTERGEAR GEARBOX	PURCHASED
18	HAND WHEEL	CARBON STEEL
28	BOLT	STAINLESS STEEL
29	STUD	STAINLESS STEEL



NOTE: SHOWN IN "A3" ORIENTATION (STANDARD)



A1 MTG
OPTIONAL



A3 MTG
STANDARD

REV.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

DO NOT SCALE DRAWING

DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE SPECIFIED

DRAWN	
CHECK	
QA	
MFG	C. GEARY
APP	

K-FLO
Crispin Valves

6" FLANGED FIG800
PLUG VALVES W/
M12 MASTERGEAR
ABOVE GROUND

SIZE	DWG. NO.	REV.
C	6in FL HW	0

SCALE: 1:4.21 SHEET 1 OF 1

TNEMEC

PRODUCT DATA SHEET

POTA-POX® PLUS SERIES N140F

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamidoamine Epoxy

COMMON USAGE Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.

COLORS 1211 Red, 1255 Beige, 00WH Tnemec White, 15BL Tank White, 39BL Delft Blue, 35GR Black. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **NSF/ANSI Std. 61.** Ambient air cured Series N140F is qualified for use on tanks and reservoirs of 1,000 gallons (3.785 L) capacity or greater, pipes 18 inches (46 cm) in diameter or greater and valves four (4) inches (10 cm) in diameter or greater. Series N140F is certified by **NSF International** in accordance with **NSF/ANSI Std. 50** for pools and other recreational water facilities. Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2.** Contact your Tnemec representative for systems and additional information. A two-coat system at 4.0-6.0 dry mils (100-150 dry microns) per coat passes the performance requirements of MIL-PRF-4556F for fuel storage. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.

PERFORMANCE CRITERIA Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS Self-priming, 22, 91-H_2O, 94-H_2O, L140, L140F, N140, V140, 141

TOPCOATS **Interior:** Series 22, FC22, L140, L140F, N140, N140F, V140, V140F, 141, 406
Exterior: Series 27, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, L140, L140F, N140, N140F, V140, V140F, 156, 157, 161, 175, 180, 181, 446, 740, 750, 1028, 1029, 1074, 1074U, 1075, 1075U, 1077, 1078, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following recoat times apply for Series N140F: Immersion Service—Surface must be scarified by blasting with fine abrasive after 30 days. Atmospheric Service—After 30 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140F is 14 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

PRIMED STEEL **Immersion Service:** Scarify the epoxy prime coat surface by abrasive blasting with fine abrasive before topcoating if it has been exterior exposed for 30 days or longer and N140F is the specified topcoat.

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils

CAST/DUCTILE IRON Contact your Tnemec Representative or Tnemec Technical Services.

CONCRETE Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6, ICRI-CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 215 or 218.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 68.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 10.0 mils (50 to 225 microns) per coat. **Note:** MIL-PRF-4556F applications require two coats at 4.0-6.0 mils (100-150 microns) per coat. Otherwise, the number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME AT 5 MILS DFT

Temperature	To Handle	To Recoat	Immersion
75°F (24°C)	4 hours	5 hours	7 days
65°F (18°C)	7-8 hours	9-11 hours	8 days
55°F (13°C)	12-14 hours	16-20 hours	9-10 days
45°F (7°C)	18-22 hours	28-32 hours	12-13 days
35°F (2°C)	28-32 hours	46-50 hours	16-18 days

Curing time varies with surface temperature, air movement, humidity and film thickness.
Note: For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure. **Note:** Refer to product listings on www.nsf.org for specific potable water return to service information.

VOLATILE ORGANIC COMPOUNDS
Unthinned: 2.3 lbs/gallon (275 grams/litre)
Thinned 5% (#60): 2.5 lbs/gallon (299 grams/litre)
Thinned 10% (#4): 2.7 lbs/gallon (323 grams/litre) †

HAPS
Unthinned: 2.3 lbs/gal solids
Thinned 5% (#60): 2.3 lbs/gal solids
Thinned 10% (#4): 3.1 lbs/gal solids

THEORETICAL COVERAGE 1,094 mil sq ft/gal (26.8 m^2/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

PACKAGING 5 gallon (18.9L) pails and 1 gallon (3.79L) cans — Order in multiples of 2.

POTA-POX® PLUS | SERIES N140F

NET WEIGHT PER GALLON 12.68 ± 0.25 lbs (5.75 ± .11 kg) (mixed) ÷

STORAGE TEMPERATURE Minimum 20°F (-7°C) Maximum 110°F (43°C)
For optimum application properties, material temperature should be above 60°F (16°C) prior to application.

TEMPERATURE RESISTANCE (Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE Part A: 24 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 82°F (28°C) Part B: 80°F (27°C)

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	6.0 (150)	9.0 (230)	182 (16.9)
Minimum	2.0 (50)	3.0 (75)	545 (50.7)
Maximum	10.0 (225)	15.0 (375)	109 (10.1)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. 4

MIXING
1. Start with equal amounts of both Parts A & B.
2. Using a power mixer, separately stir Parts A & B.
3. Add Part A to Part B under agitation, stir until thoroughly mixed.
4. Both components should be above 50°F (10°C) prior to mixing. For application to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand thirty (30) minutes and restir before using. For optimum application properties, blended components should be above 40°F (4°C).

THINNING N140F: Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 4 Thinner or thin up to 5% or 1/4 pint (190 mL) per gallon with No. 60 Thinner. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution: Series N140F NSF certification is based on thinning with No. 4 or No. 60 Thinner for tanks and only No. 60 Thinner for pipe and valves.** Use of any other thinner voids NSF/ANSI Std. 61 certification. V140F: Use No. 4 Thinner. **Caution: Series V140F NSF certification is based on thinning with No. 4 Thinner only.** Use of any other thinner voids NSF/ANSI Std. 61 certification. **Note:** When using Series V140F, a maximum of 4.5% of No. 4 Thinner may be used to comply with VOC regulations.

POT LIFE 2 hours at 50°F (10°C) 1 hour at 75°F (24°C) 30 minutes at 100°F (38°C)

SPRAY LIFE 30 minutes at 75°F (24°C)
Note: Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	75-100 psi (5.2-6.9 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	3000-4800 psi (207-330 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.
Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE Minimum 35°F (2°C) Maximum 135°F (57°C)
The surface should be dry and at least 5°F (3°C) above the dew point. Coating won't cure below minimum surface temperature.

CLEANUP Flush and clean all equipment immediately after use with the recommended thinner or MEK.

÷ Values may vary with color.