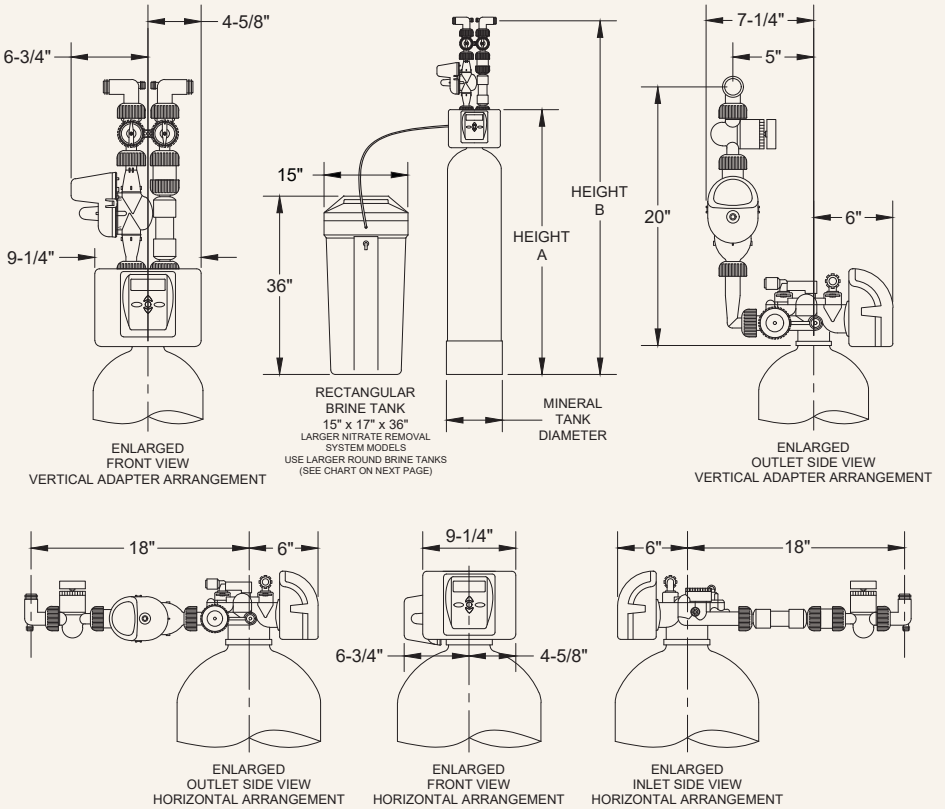
LANCASTER
WATER TREATMENT

DIAMOND LINE LXNHBP-NB – NITRATE CONDITIONERS

X-FACTOR SERIES LXNHBP-NB NITRATE CONDITIONER



LXNHBP-NB PROGRAM CYCLES*	NITRATE CONDITIONER							
Model Number	7-LXNHBP-100NB		7-LXNHBP-150NB		7-LXNHBP-200NB		7-LXNHBP-300NB	
Units:	Minutes	Gallons	Minutes	Gallons	Minutes	Gallons	Minutes	Gallons
Cycle 1: Backwash	10	10	10	10	10	13	10	22
Cycle 2: Regenerant Draw DN & Slow Rinse	50	18.5	50	18.5	50	26	50	36
Cycle 3: Backwash	10	10	10	10	10	13	10	22
Cycle 4: Rinse	5	5	5	5	5	6.5	5	11
Cycle 5: Fill - Treated Water into Brine Tank	6.67	3.33	10.00	5.00	13.33	6.67	20.00	10.00
Salt Setting - Salt Usage Per Regen (LBS Salt)	10 LBS		15 LBS		20 LBS		30 LBS	
Total Gallons to Drain**	46.8		48.5		65.2		101.0	
Total Regeneration Time (Minutes)	81.7		85.0		88.3		95.0	
Total Time No Water to Service - NHWBP Valve Closed (Minutes)***	75		75		75		75	

*Downflow Regenerant, Post-fill Factory Program Settings
**Based on 50 PSI Inlet Pressure
*** The NHWBP Valve closes before Cycle 1 Backwash and opens before Cycle 5 Fill.
Gallons to Drain = (Backwash Min. x DLFC GPM) + (Fast Rinse Min. x DLFC GPM) + (Regenerant Draw DN Min. x Slow Rinse GPM) + (LBS NaCl x 1 Gal./3 LBS NaCl)
Note: Slow Rinse GPM is obtained from injector charts for each color injector at various pressures.

X-FACTOR SERIES LXNHBP-NB NITRATE CONDITIONER

LXNHBP-NB SPECIFICATIONS	NITRATE CONDITIONER			
Model Number	7-LXNHBP-100NB	7-LXNHBP-150NB	7-LXNHBP-200NB	7-LXNHBP-300NB
Inlet/Outlet Fitting Options (Inches)[1]	0.75 - 1.0[1] - 1.25 - 1.5	0.75 - 1.0[1] - 1.25 - 1.5	0.75 - 1.0[1] - 1.25 - 1.5	0.75 - 1.0[1] - 1.25 - 1.5
Built-In Meter Included	No	No	No	No
Bypass Valve Included	Yes	Yes	Yes	Yes
No Hard Water Bypass (NHWBP) Valve Included	Yes	Yes	Yes	Yes
Drain Fit. Elb. NPT or OD Poly Tube Size (Inches)	3/4 NPT or 5/8 Tube	3/4 NPT or 5/8 Tube	3/4 NPT or 5/8 Tube	3/4 NPT or 5/8 Tube
Water Pressure Range (PSI)	20 - 100	20 - 100	20 - 100	20 - 100
Water Operating Temperature Range (°F)	35 - 100	35 - 100	35 - 100	35 - 100
Influent Water Hardness (GPG)	≤ 4	≤ 4	≤ 4	≤ 4
Influent Iron (PPM)	< 0.3	< 0.3	< 0.3	< 0.3
Influent Manganese (PPM)	< 0.05	< 0.05	< 0.05	< 0.05
Plug-In Power Adapter Input (VAC - Hz - A)	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A
Plug-In Power Adapter Output (VDC - A)	15V DC - 0.5A	15V DC - 0.5A	15V DC - 0.5A	15V DC - 0.5A
Plug-In Power Adapter Cord Length	15 FT	15 FT	15 FT	15 FT
PC Board Relay Terminal Block DC Output (V)	12V DC	12V DC	12V DC	12V DC
3 Volt Lithium Coin Cell Battery (Type)	CR2032	CR2032	CR2032	CR2032
Suggested Service Flow Rate Range (GPM)[2]	1.00 - 3.74	1.50 - 5.61	2.00 - 7.48	3.00 - 11.22
Height "A" (Inches)[3]	47.60	61.40	55.50	72.73
Height "B" (Inches)[3]	60.60	74.40	68.50	85.73
Mineral Tank Size: Diameter x Height (Inches)	10 x 40	10 x 54	12 x 48	14 x 65
Bottom Distributor Type	Plate	Plate	Plate	Plate
Top Basket Distributor	Yes	Yes	Yes	Yes
Underbed Layer (Support Bedding)	No	No	No	No
Cubic Feet of Nitrate Selective Resin (LBS)	1.0 (44 LBS)	1.5 (66 LBS)	2.0 (88 LBS)	3.0 (132 LBS)
Brine Tank Size (Inches)	15 x 17 x 36[3]	15 x 17 x 36[3] (Salt Grid)	15 x 17 x 36[3] (Salt Grid)	18 D x 40 H (Salt Grid)
Brine Tank Capacity (LBS Salt)	275	275	275	450
DLFC - Drain Line Flow Control (GPM)[4]	1.0	1.0	1.3	2.2
RFC - Brine Line (Re-Fill) Flow Control (GPM)	0.5	0.5	0.5	0.5
Injector (Color)	1E - White	1E - White	1F - Blue	1H - Green
Grains Capacity (Grains @ LBS Salt)[5]	8,000 @ 10.0	12,000 @ 15.0	16,000 @ 20.0	24,500 @ 30.0
Water to Drain at 50 PSI Inlet Pressure (Gallons)	47	49	65	101

[1]1.0 MNPT Elbow Standard - Options Available
[2]Service flow rates based on Nitrate Selective anion exchange resin standard design conditions - service flow rate range 8 - 30 BV/h.
[3]See Diagram
[4]DLFC sizes selected based on Nitrate Selective anion exchange resin standard design conditions - 50% backwash bed expansion at 4.5 m/h and 50°F.
[5]Grains Capacity is based on 8,241 grains per cubic foot as CaCO3 operating capacity of Nitrate Selective anion exchange resin for nitrate removal at 10 pounds of NaCl per cubic foot with an influent concentration of 600 mg/L TDS (sulfate concentration of 265 mg/L). Programming grains capacity must be in increments of 500 grains.