

# Control Enclosures

N

Stahlin's Control Enclosures are designed to accommodate electrical, electronic, instrumentation and mechanical controls indoors and outdoors where corrosion resistant watertight enclosures are needed to provide protection against windblown dust and rain, splashing and hose directed water. The "N" designation reflects a NEMA range series of large capacity enclosures.

With the ample working space involved, this wall mount configuration, or alternate free standing control tower enclosure style will also accommodate combination hydraulic or pneumatic controls along with the supporting electrical control. Fiberglass reinforced polyester supports a very high temperature range when used in oil field, mining, oil platform and general processing controls. Yet, the pleasing cosmetic construction is ideally suited for ordinary indoor or outdoor industrial control mounting.

## Control Enclosures Attributes

- Available in 2 cover options:
  1. Opaque cover
  2. Flush bonded window
- Fiberglass reinforced polyester material
- Memory retaining polyurethane gasket
- 300 series stainless steel hardware
- Integral mounting feet
- Molded in panel mounting inserts or studs
- High temperature, flame-retardant, non corrosive, environmental designs
- Wall mount or free standing configurations

## Control Enclosures Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3, 3R, 4X, 12 as designated
<b>NEMA 250</b>	Type 1, 3, 3R, 4X, 12 as designated
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3, 3R, 4X, 12 as designated
<b>UL1741</b>	File E333478 WT, HWT, FHLWT
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Temperature Range Window</b>	(-26°F to +170°F) (-32°C to +76°C)
<b>Flammability Rating</b>	UL94-5V
<b>Window flammability</b>	UL94-HB
<b>Self extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)



N Series

# Technical Specifications - Control Enclosures Type 4X

"HWT" configuration - Stainless steel hinged, latched down cover



## HWT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Stainless Steel Hardware</b>	300 Series stainless used on all hardware
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts accepting 10-32 screws
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris

## HWT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3, 3R, 4X, 12
<b>NEMA 250</b>	Type 1, 3, 3R, 4X, 12
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3, 3R, 4X, 12
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

### NOTES:

## HWT Accessories

### Back Panels

<b>Aluminum</b>	BP_AL	pg. 149, 151
<b>Fiberglass</b>	BP_FG	pg. 149, 151
<b>Stainless Steel</b>	BP_SS	pg. 149, 151
<b>Carbon Steel</b>	BP_CS	pg. 149, 151

### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

## HWT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13

## Technical Specifications - Control Enclosures

"FHLWT" configuration - Fiberglass hinged, latched down cover



### FHLWT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Non-Metallic Hardware</b>	Glass filled PBT hinge, nylon quarter turn latches
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal Inserts</b>	All bosses utilize threaded brass inserts accepting 10-32 screws
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris
<b>Hinge Material</b>	Glass filled Polybutylene Terephthalate (PBT)

### FHLWT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3, 3R, 4X, 12
<b>NEMA 250</b>	Type 1, 3, 3R, 4X, 12
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3, 3R, 4X, 12
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

#### NOTES:

### FHLWT Accessories

#### Back Panels

<b>Aluminum</b>	BP__AL	pg. 149, 151
<b>Fiberglass</b>	BP__FG	pg. 149, 151
<b>Stainless Steel</b>	BP__SS	pg. 149, 151
<b>Carbon Steel</b>	BP__CS	pg. 149, 151

#### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

### FHLWT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13





## Technical Specifications - Control Enclosures Type 4X

“WT” configuration - Latched down cover, lift off cover

### WT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Stainless Steel Hardware</b>	300 Series stainless used on all hardware
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts accepting 10-32 screws
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris

### WT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3, 3R, 4X, 12
<b>NEMA 250</b>	Type 1, 3, 3R, 4X, 12
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3, 3R, 4X, 12
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

NOTES:

### WT Accessories

#### Back Panels

<b>Aluminum</b>	BP__AL	pg. 149, 151
<b>Fiberglass</b>	BP__FG	pg. 149, 151
<b>Stainless Steel</b>	BP__SS	pg. 149, 151
<b>Carbon Steel</b>	BP__CS	pg. 149, 151

#### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

### WT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13

RT

# Technical Specifications - Control Enclosures Type 3R

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*"RT" configuration - Hinged, latch down cover*



## RT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Rain Shield</b>	Protection against incidental water ingress
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Stainless Steel Hardware</b>	300 Series stainless used on all hardware
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris

## RT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3R
<b>NEMA 250</b>	Type 1, 3R
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3R
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Temperature Range Window</b>	(-26°F to +170°F) (-32°C to +76°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

NOTES:

## RT Accessories

### Back Panels

<b>Aluminum</b>	BP_AL	pg. 149, 151
<b>Fiberglass</b>	BP_FG	pg. 149, 151
<b>Stainless Steel</b>	BP_SS	pg. 149, 151
<b>Carbon Steel</b>	BP_CS	pg. 149, 151

### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

## RT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13

# Technical Specifications - Control Enclosures Type 3R

*"FHLRT" configuration - Fiberglass hinged, through the door latches*



## FHLRT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Rain Shield</b>	Protection against incidental water ingress
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Non-Metallic Hardware</b>	Glass filled PBT hinge, nylon quarter turn latch
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris
<b>Hinge Material</b>	Glass filled Polybutylene Terephthalate (PBT)

## FHLRT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3R
<b>NEMA 250</b>	Type 1, 3R
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3R
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Temperature Range Window</b>	(-26°F to +170°F) (-32°C to +76°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

**NOTES:**

## FHLRT Accessories

### Back Panels

<b>Aluminum</b>	BP_AL	pg. 149, 151
<b>Fiberglass</b>	BP_FG	pg. 149, 151
<b>Stainless Steel</b>	BP_SS	pg. 149, 151
<b>Carbon Steel</b>	BP_CS	pg. 149, 151

### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

## FHLRT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13

# Technical Specifications - Control Enclosures Type 12

N

*"Type 12" configuration - Stainless steel hinged, latch down cover*



## Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Stainless Steel Hardware</b>	300 Series stainless used on all hardware
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris

## Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 12
<b>NEMA 250</b>	Type 1, 12
<b>CSA Std C22.2</b>	File LR069014 Type 1, 12
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Flammability Rating</b>	UL94-5V
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix
<b>NFPA No. 101 Flame Spread</b>	Class A (1)

### NOTES:

## Accessories

### Back Panels

<b>Aluminum</b>	BP_AL	pg. 149, 151
<b>Fiberglass</b>	BP_FG	pg. 149, 151
<b>Stainless Steel</b>	BP_SS	pg. 149, 151
<b>Carbon Steel</b>	BP_CS	pg. 149, 151

### Accessories

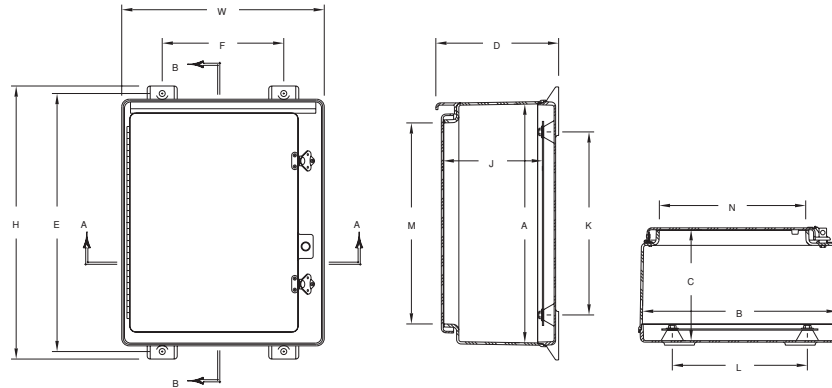
<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

## Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13



Control Enclosures Configuration Technical Charts & Drawings



Wall Mount Enclosures Dimensions

SIZE ID NUMBER	OVERALL H X W X D	INSIDE A X B X C	MOUNTING E X F	J	K	L	ENCLOSURE OPENING M X N	NO. OF LATCHES	SHIPPING WEIGHT	PANEL NUMBER
N16107HWT N16107FHLWT	18.75 x 10.96 x 9.03 (476 x 278 x 229)	15.92 x 10.27 x 8.53 (404 x 261 x 217)	17.50 x 7.00 (444 x 178)	7.8 (198)	12 (305)	7.5 (191)	13.14 x 6.00 (334 x 152)	2	10.7 lbs.	BP1610**
N20166HWT N20166FHLWT	22.75 x 16.87 x 7.77 (578 x 429 x 197)	19.70 x 16.04 x 7.24 (500 x 407 x 184)	21.50 x 10.12 (546 x 257)	6.26 (159)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	17.6 lbs.	BP2016**
N20168HWT N20168FHLWT N20168RT N20168FHLRT	22.75 x 16.87 x 10.27 (578 x 429 x 261)	19.70 x 16.04 x 9.24 (500 x 407 x 235)	21.50 x 10.12 (546 x 257)	8.26 (210)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	19.7 lbs.	BP2016**
N201610HWT N201610RT	22.75 x 16.87 x 12.27 (578 x 429 x 312)	19.70 x 16.04 x 11.24 (500 x 407 x 286)	21.50 x 10.12 (546 x 257)	10.26 (261)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	23 lbs.	BP2016**
N201612HWT N201612RT	22.75 x 16.87 x 14.27 (578 x 429 x 362)	19.70 x 16.04 x 13.24 (500 x 407 x 336)	21.50 x 10.12 (546 x 257)	12.26 (312)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	23.5 lbs.	BP2016**
N201616HWT	22.75 x 16.87 x 17.52 (578 x 429 x 445)	19.70 x 16.04 x 16.99 (500 x 407 x 432)	21.50 x 10.12 (546 x 257)	16.01 (407)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	25 lbs.	BP2016**
N20208 HWT* N20208*	23.50 x 20.50 x 9.69 (597 x 521 x 246)	20.25 x 20.25 x 8.88 (514 x 514 x 225)	22.25 x 14.50 (565 x 368)	7.88 (200)	15.25 (387)	15.25 (387)	17.00 x 16.00 (432 x 406)	2	26 lbs.	BP2020**
N24126HWT	26.95 x 13.72 x 7.98 (685 x 348 x 203)	24.00 x 12.87 x 7.33 (610 x 327 x 186)	25.75 x 6.25 (654 x 159)	6.33 (161)	19.25 (489)	7.25 (184)	21.00 x 8.37 (533 x 213)	2	26 lbs.	BP2412**
N24126WT	26.95 x 13.72 x 7.98 (685 x 348 x 203)	24.00 x 12.87 x 7.33 (610 x 327 x 186)	25.75 x 6.25 (654 x 159)	6.33 (161)	19.25 (489)	7.25 (184)	21.00 x 8.37 (533 x 213)	4	26 lbs.	BP2412**
N241210HWT N241210FHLWT N241210RT	26.95 x 13.72 x 12.49 (685 x 348 x 317)	24.00 x 12.87 x 11.33 (610 x 327 x 288)	25.75 x 6.25 (654 x 159)	10.33 (262)	19.25 (489)	7.25 (184)	21.00 x 8.37 (533 x 213)	2	25 lbs.	BP2412**
N24208HWT N24208FHLWT N24208WT N24208RT N24208FHLRT N24208	27.00 x 21.24 x 9.90 (686 x 539 x 252)	24.05 x 20.39 x 9.25 (611 x 518 x 235)	25.75 x 14.00 (654 x 356)	8.25 (209)	19.25 (489)	15.25 (387)	21.25 x 16.00 (540 x 406)	2 2 6 4 4 2	32 lbs.	BP2420**
N242010HWT* N242010* N242010*	27.00 x 21.24 x 11.90 (686 x 539 x 302)	24.05 x 20.39 x 11.25 (611 x 518 x 286)	25.75 x 14.00 (654 x 356)	8.25 (209)	19.25 (489)	15.25 (387)	21.25 x 16.00 (540 x 406)	2 4 2	37 lbs.	BP2420**
N242410HWT N242410FHLWT N242410WT N242410RT N242410FHLRT N242410	27.00 x 25.24 x 11.90 (686 x 641 x 302)	24.05 x 24.39 x 11.25 (611 x 619 x 286)	25.75 x 17.87 (654 x 454)	10.25 (260)	19.25 (489)	19.25 (489)	21.25 x 20.00 (540 x 508)	2 2 6 4 4 2	38.5 lbs.	BP2424**
N242412HWT* N242412WT* N242412RT N242412FHLRT* N242412	27.00 x 25.24 x 13.90 (686 x 641 x 353)	24.05 x 24.39 x 13.25 (611 x 619 x 336)	25.75 x 17.87 (654 x 454)	12.25 (311)	19.25 (489)	19.25 (489)	21.25 x 20.00 (540 x 508)	2 2 6 4 2	42.1 lbs.	BP2424**
N30206HWT N30206FHLWT N30206RT N30206FHLRT N30206	32.86 x 20.99 x 7.89 (835 x 533 x 200)	29.90 x 20.14 x 7.23 (760 x 511 x 184)	30.75 x 14.25 (806 x 362)	6.23 (158)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	2 2 5 5 2	34 lbs.	BP3020**
N30208HWT N30208FHLWT N30208WT N30208RT N30208FHLRT N30208	32.86 x 20.99 x 9.89 (835 x 533 x 251)	29.90 x 20.14 x 9.23 (760 x 511 x 234)	31.75 x 14.25 (806 x 362)	8.23 (209)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	2 2 8 5 5 2	37 lbs.	BP3020**

N Series

Control Enclosures Configuration Technical Charts & Drawings

Wall Mount Enclosures Dimensions

SIZE ID NUMBER	OVERALL H X W X D	INSIDE A X B X C	MOUNTING E X F	J	K	L	ENCLOSURE OPENING M X N	NO. OF LATCHES	SHIPPING WEIGHT	PANEL NUMBER
N302010HWT N302010RT N302010FHLRT N302010	32.86 x 20.99 x 11.89 (835 x 533 x 302)	29.90 x 20.14 x 11.23 (760 x 511 x 285)	31.75 x 14.25 (806 x 362)	10.23 (260)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	2 2 5 2	39 lbs.	BP3020**
N302012HWT N302012WT N302012	32.86 x 20.99 x 13.89 (835 x 533 x 353)	29.90 x 20.14 x 13.23 (760 x 511 x 336)	31.75 x 14.25 (806 x 362)	12.23 (311)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	8 5 2	42.2 lbs.	BP3020**
N302014HWT N302014FHLWT N302014	32.86 x 20.99 x 15.89 (835 x 533 x 404)	29.90 x 20.14 x 15.23 (760 x 511 x 387)	31.75 x 14.25 (806 x 362)	14.23 (361)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	5 5 2	44 lbs.	BP3020**
N30247HWT N30247FHLWT N30247WT N30247RT N30247	33.41 x 26.32 x 8.81 (849 x 668 x 224)	30.46 x 25.47 x 8.12 (774 x 647 x 206)	32.25 x 18.50 (819 x 470)	7.12 (181)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	2 8 5 5 2	46.3 lbs.	BP3024**
N302410HWT N302410FHLWT N302410RT N302410FHLRT N302410	33.41 x 26.32 x 11.95 (849 x 668 x 304)	30.46 x 25.47 x 11.27 (774 x 647 x 286)	32.25 x 18.50 (819 x 470)	10.27 (261)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	2 2 5 5 2	52.2 lbs.	BP3024**
N302412HWT N302412FHLWT N302412RT N302412FHLRT N302412	33.41 x 26.32 x 13.79 (849 x 668 x 350)	30.46 x 25.47 x 13.10 (774 x 647 x 333)	32.25 x 18.50 (819 x 470)	12.1 (307)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	2 2 5 5 2	52 lbs.	BP3024**
N302414HWT N302414FHLWT N302414WT N302414RT N302414	33.41 x 26.32 x 15.79 (849 x 668 x 401)	30.46 x 25.47 x 15.10 (774 x 647 x 384)	32.25 x 18.50 (819 x 470)	14.1 (358)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	2 8 5 5 2	56 lbs.	BP3024**
N302416HWT N302416FHLWT N302416RT N302416	33.41 x 26.32 x 17.79 (849 x 668 x 452)	30.46 x 25.47 x 17.10 (774 x 647 x 434)	32.25 x 18.50 (819 x 470)	16.1 (409)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	2 5 5 2	56 lbs.	BP3024**
N302422HWT	33.41 x 26.32 x 22.79 (849 x 668 x 579)	30.46 x 25.47 x 21.10 (774 x 647 x 536)	32.25 x 18.50 (819 x 470)	21.1 (536)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	5	67 lbs.	BP3024**
N36308HWT N36308FHLWT N36308RT N36308	39.31 x 32.50 x 10.05 (999 x 826 x 255)	36.31 x 31.69 x 9.36 (922 x 805 x 238)	38.13 x 23.88 (968 x 606)	8.36 (212)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	3 5 5 3	64.9 lbs.	BP3630**
N363010HWT N363010FHLWT N363010RT N363010	39.31 x 32.50 x 12.05 (999 x 826 x 306)	36.31 x 31.69 x 11.36 (922 x 805 x 289)	38.13 x 23.88 (968 x 606)	10.36 (263)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	3 5 5	69 lbs.	BP3630**
N363012HWT N363012FHLWT N363012WT N363012RT N363012	39.31 x 32.50 x 14.05 (999 x 826 x 357)	36.31 x 31.69 x 13.36 (922 x 805 x 339)	38.13 x 23.88 (968 x 606)	12.36 (314)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	3 8 5 5 3	71.6 lbs.	BP3630**
N363016HWT N363016FHLWT N363016RT N363016	39.31 x 32.50 x 18.58 (999 x 826 x 472)	36.31 x 31.69 x 17.39 (922 x 805 x 442)	38.13 x 23.88 (968 x 606)	16.39 (416)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	3 5 5 3	75.4 lbs.	BP3630**
N363020HWT*	39.31 x 32.50 x 22.08 (999 x 826 x 561)	36.31 x 31.69 x 21.39 (922 x 805 x 543)	38.13 x 23.88 (968 x 606)	20.39 (518)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	5	78.5 lbs.	BP3630**
N363021HWT*	39.31 x 32.50 x 23.08 (999 x 826 x 586)	36.31 x 31.69 x 22.39 (922 x 805 x 569)	38.13 x 23.88 (968 x 606)	21.39 (543)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	5	91 lbs.	BP3630**
N363023HWT	39.31 x 32.25 x 25.08 (999 x 819 x 637)	36.31 x 31.69 x 24.40 (922 x 805 x 620)	38.13 x 23.88 (968 x 606)	23.4 (594)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	5	82 lbs.	BP3630**
N363613HWT* N363613FHLWT* N363613RT* N363613FHLRT* N363613*	39.50 x 36.50 x 15.06 (1003 x 927 x 383)	36.25 x 36.25 x 14.50 (921 x 921 x 368)	38.25 x 28.50 (972 x 724)	13.50 (343)	29 (737)	31 (787)	32.00 x 32.00 (813 x 813)	3 3 9 9 3	81 lbs.	BP3636**

\*Available as made to order.

All measures are in inches, items in parentheses are in millimeters.

NOTE: Mounting hole dimension is .50 inches.

\*\*Panel ordered separately.

NW

## Technical Specifications - NW Series - Bonded Window

*"HWT" configuration - Stainless steel hinged, latched down cover*



### HWT Construction

<b>Material</b>	Hot compression molded fiberglass reinforced polyester, hand layup FRP
<b>Gasket</b>	Poured polyurethane seamless gasket provides watertight, dust-tight environmental seal
<b>Stainless Steel Hardware</b>	300 Series stainless used on all hardware
<b>Mounting Bosses</b>	Panel mounting capability for fixed rear panel
<b>Metal inserts</b>	All bosses utilize threaded brass inserts accepting 10-32 screws
<b>Soft Edge Design</b>	Rounded edges, minimal protrusions or exposed pocket areas for assembly of dust and debris
<b>Bonded Window</b>	Precision routed flush bonded Super Abrasion Resistant acrylic material for maximum visibility

### HWT Industry Standards

<b>UL/cUL 50</b>	File E64358 Type 1, 3, 3R, 4X, 12
<b>NEMA 250</b>	Type 1, 3, 3R, 4X, 12
<b>CSA Std C22.2</b>	File LR069014 Type 1, 3, 3R, 4X, 12
<b>Temperature Range</b>	(-76°F to +274°F) (-60°C to +134°C)
<b>Temperature Range Window</b>	(-26°F to +170°F) (-32°C to +76°C)
<b>Flammability Rating</b>	UL94-5V
<b>Window Flammability</b>	UL94V-HB
<b>Self Extinguishing</b>	Non-halogenated, non-flame propagating
<b>Chemical Resistance</b>	Full chemical resistance charts listed in appendix

**NOTES:**

### HWT Accessories

#### Back Panels

<b>Aluminum</b>	BP_AL	pg. 149, 151
<b>Fiberglass</b>	BP_FG	pg. 149, 151
<b>Stainless Steel</b>	BP_SS	pg. 149, 151
<b>Carbon Steel</b>	BP_CS	pg. 149, 151

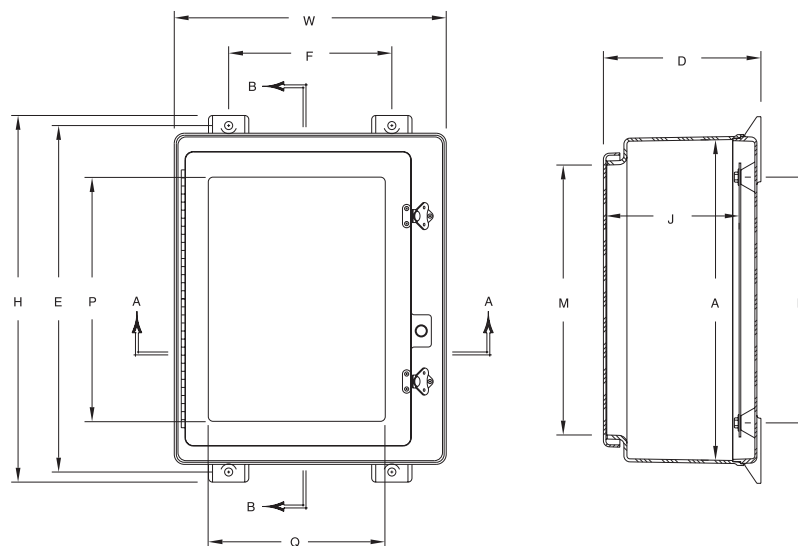
#### Accessories

<b>Drain &amp; Breather Vents</b>	pg. 144, 146
<b>Hole Plugs</b>	pg. 145
<b>Assorted Hubs and Cord Grips</b>	pg. 145, 148
<b>All Other Accessories</b>	pg. 144 - 159

### HWT Modifications

<b>Custom Colors</b>	pg. 12 - 13
<b>Silk Screening</b>	pg. 12 - 13
<b>EMI/RFI Shielding</b>	pg. 12 - 13
<b>Custom Window</b>	pg. 12 - 13
<b>Custom Cutouts/Holes</b>	pg. 12 - 13

Control Enclosures Type 4X - Bonded Window "HWT" Configuration Technical Chart & Drawing



Control Enclosures Type 4X - Bonded Window - "HWT" Dimensions

CATALOG NUMBER	OVERALL H X W X D	INSIDE A X B X C	WINDOW AREA (MAXIMUM) P X Q	MOUNTING E X F	J	K	L	ENCLOSURE OPENING M X N	NO. OF LATCHES	SHIPPING WEIGHT	PANEL NUMBER
NW201610HWT	22.75 x 16.87 x 11.77 (578 x 429 x 299)	19.70 x 16.04 x 11.24 (500 x 407 x 286)	14 x 10 (356 x 254)	21.50 x 10.12 (546 x 257)	10.26 (261)	15.25 (387)	11.25 (286)	16.75 x 12.19 (425 x 310)	2	24 lbs.	BP2016*
NW241210HWT	26.95 x 13.72 x 11.99 (685 x 348 x 304)	24.00 x 12.87 x 11.33 (610 x 327 x 288)	18 x 6 (457 x 152)	25.75 x 6.25 (654 x 159)	10.33 (262)	19.25 (489)	7.25 (184)	21.00 x 8.37 (533 x 213)	2	26 lbs.	BP2412*
NW24208HWT	27.00 x 21.24 x 9.90 (686 x 539 x 252)	24.05 x 20.39 x 9.25 (611 x 518 x 235)	19 x 14 (483 x 356)	25.75 x 14.00 (654 x 356)	8.25 (209)	19.25 (489)	15.25 (387)	21.25 x 16.00 (540 x 406)	4	34 lbs.	BP2420*
NW242410HWT	27.00 x 25.24 x 11.90 (686 x 641 x 302)	24.05 x 24.39 x 11.25 (611 x 619 x 286)	19 x 18 (483 x 457)	25.75 x 17.87 (654 x 454)	10.25 (260)	19.25 (489)	19.25 (489)	21.25 x 20.00 (540 x 508)	4	45 lbs.	BP2424*
NW30208HWT	32.86 x 20.99 x 9.89 (835 x 533 x 251)	29.90 x 20.14 x 9.23 (760 x 511 x 234)	24 x 14 (610 x 356)	31.75 x 14.25 (806 x 362)	8.23 (209)	25.25 (641)	15.25 (387)	27.00 x 16.50 (686 x 419)	5	39 lbs.	BP3020*
NW302410HWT	33.41 x 26.32 x 11.95 (849 x 668 x 304)	30.46 x 25.47 x 11.27 (774 x 647 x 286)	25 x 19 (635 x 483)	32.25 x 18.50 (819 x 470)	10.27 (261)	25.25 (641)	19.25 (489)	27.38 x 21.25 (695 x 540)	5	54 lbs.	BP3024*
NW363012HWT	39.31 x 32.50 x 14.05 (999 x 826 x 357)	36.31 x 31.69 x 13.36 (922 x 805 x 339)	31 x 25 (787 x 635)	38.13 x 23.88 (968 x 606)	12.36 (314)	31.25 (794)	25.25 (641)	33.25 x 27.25 (845 x 692)	5	86 lbs.	BP3630*
NW483612HWT	51.29 x 36.62 x 13.93 (1303 x 930 x 354)	48.33 x 36.22 x 13.25 (1228 x 920 x 336)	43 x 30 (1092 x 762)	50.12 x 28.5 (1273 x 724)	12.25 (311)	21.63 (549)	31.25 (794)	45.25 x 32.00 (1149 x 813)	10	99.8 lbs.	BP4836*

All measures are in inches, items in parentheses are in millimeters

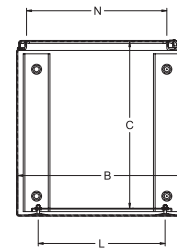
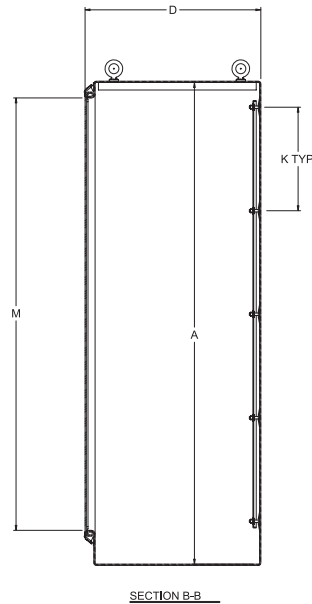
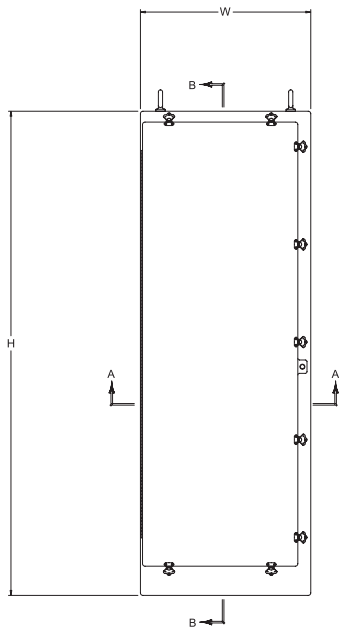
\*Panel ordered separately.

N Series

Control Enclosures - ControlTower® Single Door, Free Standing

**N** ControlTower® Single Door, Free Standing

- FS Type 12, SS hinged, latched down cover
- FSHWT Type 4X, SS hinged, latched down cover
- FSFHLWT Type 4X, fiberglass hinged, through the door latches
- FSRT Type 3R, SS hinged, latched down cover

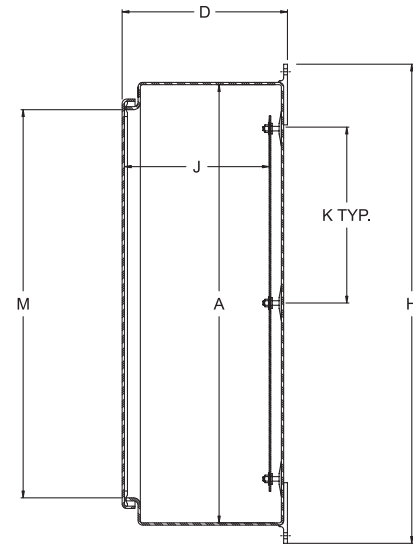
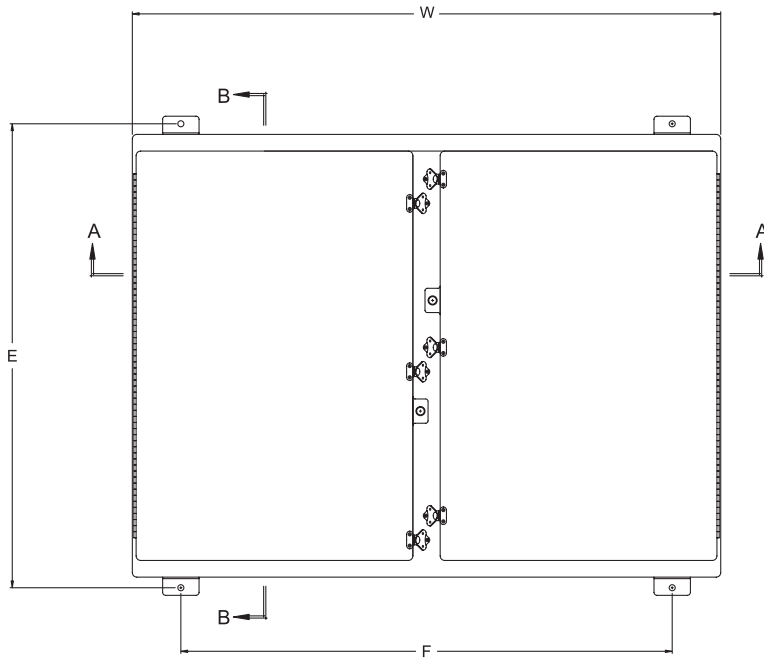




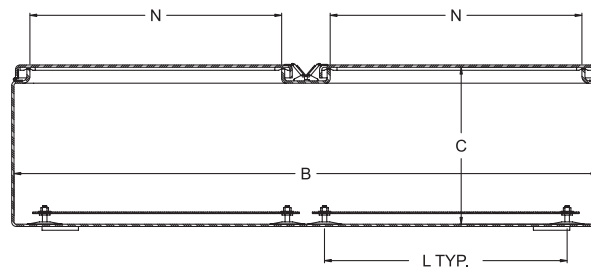
### Control Enclosures - ControlTower® Double Door, Wall Mounted

#### **N** ControlTower® Double Door, Wall Mounted

DDHWT Type 4X, SS hinged, latched down cover  
 DDRT Type 3R, SS hinged, latched down cover



SECTION B-B

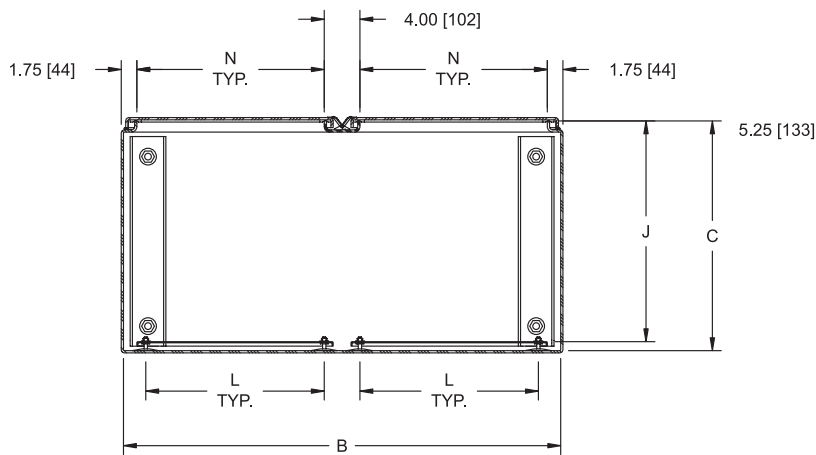
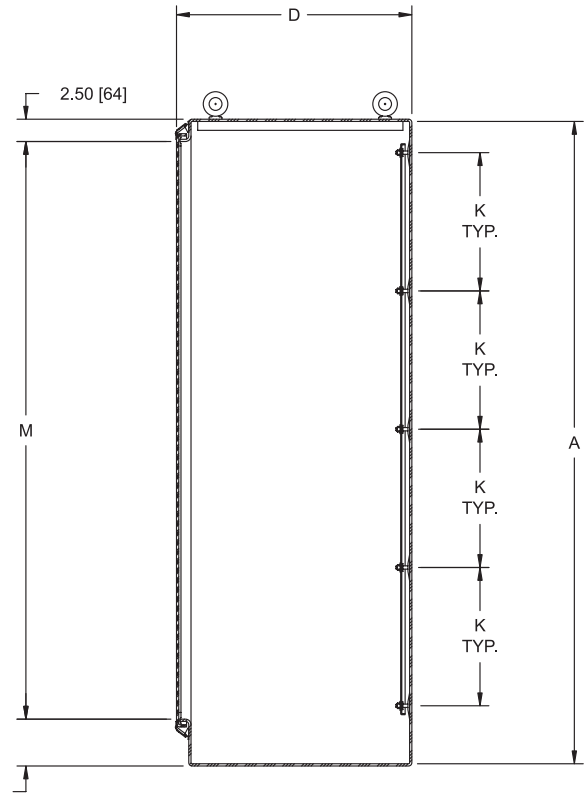
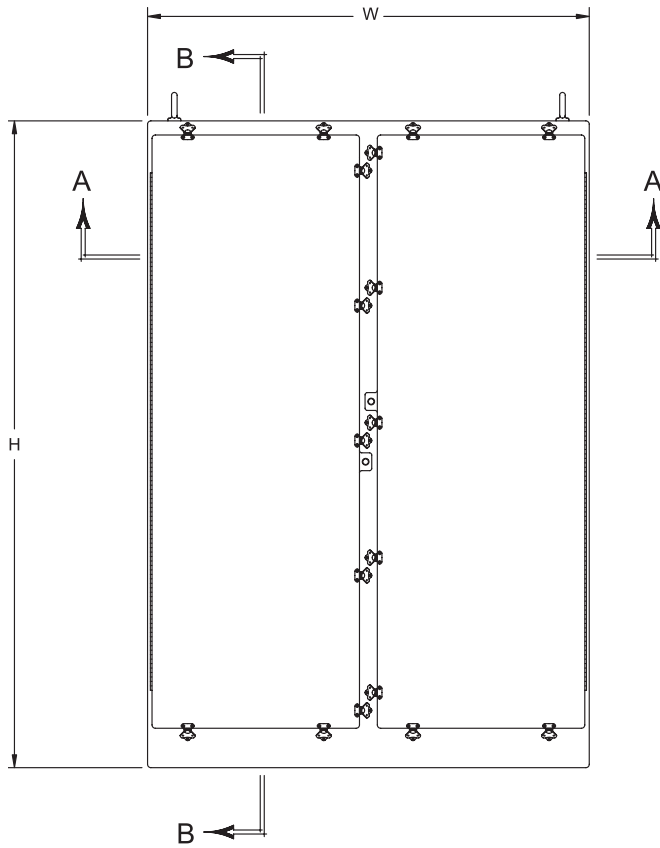


SECTION A-A

Control Enclosures - ControlTower® Double Door, Free Standing

**N** ControlTower® Double Door, Free Standing

- FSDD Type 12, SS hinged, latched down cover
- FSDDHWT Type 4X, SS hinged, latched down cover
- FSDDFHLWT Type 4X, fiberglass hinged, through the door latches
- FSDDRT Type 3R, SS hinged, latched down cover



N Series

## Control Enclosures Configuration Technical Charts

Control Tower Enclosures Dimensions										
SIZE ID NUMBER	OVERALL H X W X D	INSIDE A X B X C	MOUNTING E X F	J	K	L	ENCLOSURE OPENING M X N	NO. OF LATCHES	SHIPPING WEIGHT	PANEL NUMBER
N364812DDRT N364812DDFHLWT	39.50 x 48.50 x 13.62 (1003 x 1232 x 346)	36.12 x 48.12 x 13.00 (917 x 1222 x 330)	38.25 x 40.5 (972 x 1029)	11.94 (303)	14.50 (368)	20.00 (508)	32.00 x 20.75 (813 x 527)	6 14	140 lbs.	BP3648 (2)**
N483612RT N483612FHLWT N483612HWT N483612*	51.29 x 36.62 x 13.93 (1303 x 930 x 354)	48.33 x 36.22 x 13.25 (1228 x 920 x 336)	50.12 x 28.50 (1273 x 724)	12.25 (311)	21.63 (549)	31.25 (794)	45.25 x 32.00 (1149 x 813)	3 10 10 3	96 lbs.	BP4836**
N483616RT N483616FHLWT N483616HWT N483616*	51.29 x 36.62 x 17.93 (1303 x 930 x 456)	48.33 x 32.22 x 17.25 (1228 x 920 x 438)	50.12 x 28.50 (1273 x 724)	16.25 (413)	21.63 (549)	31.25 (794)	45.25 x 32.00 (1149 x 813)	3 10 10 3	109 lbs.	BP4836**
N54428DDRT	57.50 x 42.50 x 9.62 (1460 x 1080 x 244)	54.12 x 42.12 x 9.00 (1374 x 1069 x 228)	56.25 x 34.50 (1429 x 876)	7.94 (201)	23.50 (596)	17.00 (431)	50.00 x 17.50 (1270 x 444)	8	162 lbs.	BP5442 (2)**
N602418RT N602418HWT	63.75 x 24.50 x 20.12 (1619 x 622 x 511)	60.38 x 36.13 x 19.44 (1533 x 918 x 493)	62.50 x 16.75 (1587 x 425)	18.44 (468)	27.63 (702)	19.25 (489)	57.25 x 20.00 (1454 x 508)	9	175 lbs.	BP6024**
N603612RT N603612FHLWT N603612HWT N603612*	64.00 x 36.50 x 14.12 (1627 x 927 x 359)	60.62 x 36.13 x 13.44 (1540 x 918 x 441)	62.75 x 28.75 (1594 x 730)	12.44 (316)	27.63 (702)	31.25 (794)	57.25 x 32.00 (1454 x 813)	3 11 11 3	125 lbs.	BP6036**
N603616RT N603616FHLWT N603616HWT N603616*	64.00 x 36.50 x 18.12 (1627 x 927 x 460)	60.62 x 36.13 x 17.44 (1540 x 918 x 443)	62.75 x 28.75 (1594 x 730)	16.44 (418)	27.63 (702)	31.25 (794)	57.25 x 32.00 (1454 x 813)	3 11 11 3	130 lbs.	BP6036**
N603624HWT	63.75 x 36.50 x 26.12 (1619 x 927 x 663)	60.38 x 36.13 x 25.44 (1533 x 918 x 646)	62.50 x 28.75 (1587 x 730)	24.44 (621)	27.63 (702)	31.25 (794)	57.25 x 32.00 (1454 x 813)	11	140 lbs.	BP6036**
N606012FSDDRT	60.50 x 60.50 x 13.38 (1537 x 1537 x 340)	60.13 x 60.13 x 13.01 (1524 x 1524 x 324)	NA	11.88 (298)	13.00 (330)	25.50 (648)	52.75 x 26.50 (1340 x 673)	10	285 lbs.	BP6060**
N722418FSRT N722418FSHWT	72.50 x 24.50 x 19.38 (1841 x 610 x 492)	72.00 x 24.00 x 18.88 (1829 x 610 x 479)	NA	17.88 (454)	15.50 (388)	18.00 (457)	64.75 x 20.00 (1645 x 508)	5 9	158 lbs.	BP7224**
N722525FSRT N722525FSFHLWT N722525FSHWT N722525FS*	72.50 x 25.50 x 26.38 (1841 x 648 x 670)	72.00 x 25.00 x 25.88 (1829 x 635 x 657)	NA	24.88 (632)	15.50 (388)	19.00 (483)	64.75 x 21.00 (1645 x 533)	5 9 9 5	230 lbs.	BP7225**
N723618FSFHLWT	72.50 x 36.50 x 19.38 (1841 x 927 x 492)	72.00 x 36.00 x 18.88 (1829 x 914 x 479)	NA	17.88 (454)	15.50 (388)	30.00 (762)	64.75 x 32.00 (1645 x 813)	11	290 lbs.	BP7236**
N724818FSDD*	72.50 x 48.50 x 19.38 (1842 x 1232 x 492)	72.00 x 48.00 x 18.88 (1824 x 1219 x 476)	NA	17.88 (450)	15.50 (394)	19.50 (495)	64.75 x 20.50 (1645 x 521)	10	300 lbs.	BP7248**
N724925FSDDRT N724925FSDD*	72.50 x 49.50 x 26.38 (1842 x 1257 x 670)	72.00 x 49.00 x 25.88 (1829 x 1245 x 654)	NA	24.88 (628)	15.50 (394)	20.00 (508)	64.75 x 21.00 (1645 x 533)	10	520 lbs.	BP7249**
N726012FSDD*	72.50 x 60.50 x 13.38 (1842 x 1537 x 340)	72.00 x 60.00 x 12.88 (1829 x 1524 x 324)	NA	11.88 (298)	15.50 (394)	25.50 (648)	64.75 x 26.50 (1645 x 673)	10	315 lbs.	BP7260**
N726018FSDD*	72.50 x 60.50 x 19.38 (1842 x 1537 x 492)	72.00 x 60.00 x 18.88 (1829 x 1524 x 476)	NA	17.88 (450)	15.50 (394)	25.50 (648)	64.75 x 26.50 (1645 x 673)	10	375 lbs.	BP7260**
N727212FSDDFHLWT	72.50 x 72.50 x 13.38 (1842 x 1842 x 340)	72.00 x 72.00 x 12.88 (1829 x 1829 x 324)	NA	11.88 (298)	15.50 (394)	31.50 (800)	64.75 x 32.50 (1645 x 826)	22	480 lbs.	BP7272**
N727218FSDDRT	72.50 x 72.50 x 19.38 (1842 x 1842 x 492)	72.00 x 72.00 x 18.88 (1829 x 1829 x 425)	NA	17.88 (400)	15.50 (394)	31.50 (800)	64.75 x 32.50 (1645 x 826)	10	557 lbs.	BP7272**
N727220FSDDFHLWT	72.50 x 72.50 x 21.38 (1842 x 1842 x 543)	72.00 x 72.00 x 20.88 (1829 x 1829 x 527)	NA	19.88 (501)	15.50 (394)	31.50 (800)	64.75 x 32.50 (1645 x 826)	22	430 lbs.	BP7272**
N903620FSRT	90.50 x 36.50 x 21.38 (2299 x 927 x 543)	90.00 x 36.00 x 20.88 (2286 x 914 x 530)	NA	19.88 (505)	20.00 (508)	30.00 (762)	82.75 x 32.00 (2102 x 813)	6	307 lbs.	BP9036**

\*Available as made to order.

All measures are in inches, items in parentheses are in millimeters.

NOTE: Mounting hole dimension is .50 inches.

\*\*Panel ordered separately.