

## B&R Enclosures Industrial Enclosure Solutions

[brenclosures.com.au](http://brenclosures.com.au)

At B&R, we have been delivering safety for people and security for equipment since 1955. Our products are designed in Australia for Australian conditions.







#### Pretreatment

A B&R branded zinc coated steel enclosure is punched, bent, welded and ground on the way through our factory. Following fabrication it goes through an automated process which consists of the following:

- Alkaline cleaner
- Reticulated freshwater rinse
- Iron phosphate coating
- Reticulated freshwater rinse
- Demineralised water with polymer additive

Tiltration tests are also conducted to ensure that the material meets the required specifications.

#### Powdercoat Finish

The powdercoat paint is applied at an average coating thickness of 100µm for a ripple finish and 70µm for a gloss. The minimum coating thickness is 60µm on the exterior of the enclosure and 25µm on the interior (conforms to AS/NZS 4506:1998).

#### Testing

The powdercoat paint finish is tested extensively to the following standards and ensure consistent paint finish, both quality and colour, across our range of enclosures.

- Powdercoating thickness test (AS1580.108.1:1994)
- CureTest, solvent resistance method (AS/NZS4506:1998)
- Adhesion, cross cut test (AS/NZS 1580.408.4:1993)
- Paint colour comparison test (AS2700:1996)



# Polynova PJ

## Adaptable Boxes



- Suitable for power distribution, junction and marshalling, process control and automation.
- Adaptable thermoplastic enclosures designed to house terminations and electrical components in individual boxes or assembled into a suited configuration.
- Capable of withstanding temperatures -25°C to 90°C.
- Conformity, Approvals:
  - UL94, V1 rating
  - IEC695-2-1:960° Glow WireTest
- Manufactured from UV stabilised polycarbonate.
- Light Grey RAL7035.

Comes standard with:

- Stainless steel cover screws



### ORDERING GUIDE

Part Number		Dimensions (mm)							Weight (kg)
		External			Internal		Mounting Centres		
Opaque	Transparent	Height (A)	Width (B)	Depth (C)	Cover Depth (D)	Usable Depth (E)	Height (F)	Width (G)	
PJ110706	PJ110706T	110	75	65	15	53	75	40	0.1
PJ111106	–	110	110	65	15	53	75	75	0.2
PJ151107	PJ151107T	150	110	75	15	62	115	75	0.2
PJ151507	PJ151507T	150	150	75	15	62	115	115	0.3
PJ221507	PJ221507T	220	150	75	15	62	185	115	0.4
PJ302207	PJ302207T	300	220	75	15	62	265	185	0.7
PJ180908*	–	180	90	85	19	72	140	60	0.3
PJ151110	PJ151110T	150	110	100	40	87	115	75	0.3
PJ151510	PJ151510T	150	150	100	40	87	115	115	0.4
PJ221510	PJ221510T	220	150	100	40	87	185	115	0.4
PJ302210	PJ302210T	300	220	100	40	87	265	185	0.8
PJ111111	PJ111111T	110	110	112	62	100	75	75	0.2
PJ151115	PJ151115T	150	110	150	90	137	115	75	0.3
PJ151515	PJ151515T	150	150	150	90	137	115	115	0.4
PJ221515	PJ221515T	220	150	150	90	137	185	115	0.5
PJ302215	PJ302215T	300	220	150	90	137	265	185	0.9

\* PJ180908 is rated to IP66



# Polynova PS

## High Performance Non-Metallic Enclosures



- Designed for environments that require a high IP rating including housing terminations, signal infrastructure, pushbuttons and switchgear.
- Suitable for power distribution, junction and marshalling, process control and automation.
- Enclosures can be installed from the front.
- Capable of withstanding temperatures of -40°C to 75°C.
- Conformity, Approvals:
  - UL94, V1 rating
  - IEC695:960° Glow Wire Test
- Manufactured from UV stabilised polyester (opaque) or polycarbonate (transparent lid).
- Light Grey RAL7035.

Comes standard with:

- All fixings (see ordering guide for screw material)



### ORDERING GUIDE

Part Number		Dimensions (mm)								Weight (kg)
		External				Internal		Mounting Centres		
Opaque	Transparent	Height (A)	Width (B)	Depth (C)	Cover Depth (D)	Usable Depth (E)	Height (F)	Width (G)		
PS110804	PS110804T	110	80	45	20	40	92	62	0.2	
PS060505*	—	65	50	55	20	50	52	37	0.1	
PS160805	PS160805T	160	80	55	15	50	145	66	0.2	
PS080806	PS080806T	82	80	60	15	55	70	68	0.2	
PS110807	PS110807T	110	80	70	20	65	92	62	0.2	
PS180807	PS180807T	180	80	70	20	65	162	62	0.3	
PS121207	PS121207T	125	125	75	20	70	105	105	0.2	
PS171207	PS171207T	175	125	75	25	70	157	109	0.4	
PS201507	PS201507T	200	150	75	25	70	182	132	0.5	
PS251707	PS251707T	250	175	75	25	70	232	157	0.6	
PS130808	PS130808T	130	80	85	35	80	112	62	0.3	
PS250808	PS250808T	250	80	85	35	80	232	62	0.4	
PS160809	PS160809T	160	80	90	15	85	145	66	0.2	
PS202009	PS202009T	200	200	95	20	90	182	182	0.7	
PS121210	PS121210T	125	125	100	20	95	105	105	0.4	
PS171210	PS171210T	175	125	100	50	95	157	109	0.5	
PS171710	PS171710T	175	175	100	50	95	157	157	0.5	
PS201510	PS201510T	200	150	100	20	95	182	132	0.6	
PS251510	PS251510T	250	150	100	20	95	232	132	0.8	
PS251710	PS251710T	250	175	100	50	95	232	157	0.6	
PS171712	PS171712T	175	175	125	75	120	157	157	0.5	
PS201513	PS201513T	200	150	130	50	125	182	132	0.8	
PS202013	PS202013T	200	200	130	20	125	182	182	0.9	
PS251513	PS251513T	250	150	130	50	125	232	132	0.9	

\* Mounting feet included, all other units mount through the enclosure corners with no drilling required



# Polynova PC

## Enclosure & Distribution System



- Suitable for housing terminations and electrical components for low voltage control systems and distribution.
- Excellent resistance to mechanical impact and aggressive chemicals.
- Raised mounting points prevent build up of materials behind enclosure body.
- Capable of withstanding temperatures -30°C to 120°C.
- Conformity, Approvals:
  - UL94, V1 rating
  - IEC695-2-1:960° Glow WireTest
- Manufactured from UV stabilised glass reinforced polyester (opaque lid) and polycarbonate (transparent lid).
- Light Grey RAL7035.

- Comes standard with:
- Insulated mounting pan
  - Thermoplastic screws



### ORDERING GUIDE

Part Number		Dimensions (mm)							Weight (kg)
		External			Internal		Mounting Centres		
Opaque	Transparent	Height (A)	Width (B)	Depth (C)	Cover Depth (D)	Usable Depth (E)	Height (F)	Width (G)	
PC131313*	PC131313T*	135	135	130	20	110	115	115	0.6
PC181313*	PC181313T*	180	135	130	20	110	160	115	0.8
PC181813*	PC181813T*	180	180	130	20	110	160	160	1.0
PC271313*	PC271313T*	270	135	130	20	110	253	115	1.1
PC271817	PC271817T	270	180	170	42	150	245	155	1.7
PC272717	PC272717T	270	270	170	42	150	245	245	2.3
PC361817	PC361817T	360	180	170	42	150	335	155	2.2
PC362717	PC362717T	360	270	170	42	150	335	245	2.9
PC363617	PC363617T	360	360	170	42	150	335	335	3.6
PC542717	PC542717T	540	270	170	42	150	515	245	4.1
PC543617	PC543617T	540	360	170	42	150	515	335	5.5
PC545417	PC545417T	540	540	170	42	150	515	515	8.0
PC362720	PC362720T	360	270	205	72	180	335	245	3.2
PC363620	PC363620T	360	360	205	72	180	335	335	3.9
PC542720	PC542720T	540	270	205	72	180	515	245	5.0
PC543620	PC543620T	540	360	205	72	180	515	335	6.0
PC545420	PC545420T	540	540	205	72	180	515	515	8.5
PC723620	PC723620T	720	360	205	72	180	695	335	8.0
PC725420	PC725420T	720	540	205	72	180	695	515	11.0

\* Opaque parts material is polyamide.



# Polynova PM

## Modular Enclosures & Distribution System



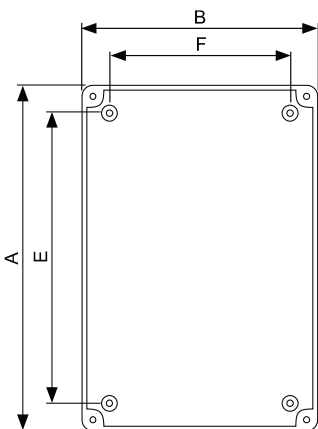
- Suitable for general electrical applications including power distribution, junction and marshalling, process control and automation.
  - Designed for use as an individual enclosure or arranged in combinations to form complete distribution banks.
  - Modularity allows for changing depth without comprising the IP rating.
  - Capable of withstanding temperatures -25°C to 120°C.
  - Conformity, Approvals:
    - UL94, V1 rating
    - IEC695:960° Glow Wire Test
  - Manufactured from UV stabilised polycarbonate.
  - Light Grey RAL7035.
- Comes standard with:
- Insulated mounting pan
  - Thermoplastic screws



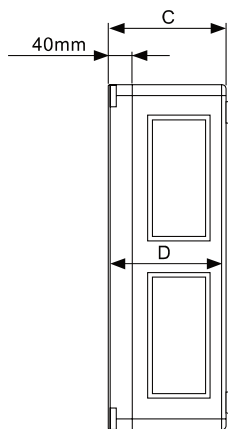
### ORDERING GUIDE

Part Number		Dimensions (mm)							Weight (kg)
		External		Internal		Mounting Pan			
Opaque	Transparent	Height (A)	Width (B)	Depth (C)	Usable Depth (D)	Height (E)	Width (F)		
PM2718	PM2718/T	270	180	165	140	200	110	1.5	
PM2727	PM2727/T	270	270	165	140	200	200	2.0	
PM3627	PM3627/T	360	270	165	140	290	200	2.6	
PM5427	PM5427/T	540	270	165	140	470	200	3.7	
PM5436	PM5436/T	540	360	165	140	470	290	5.0	

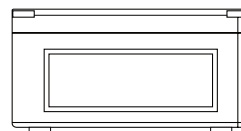
### TECHNICAL DRAWINGS



Front View



Side View



Bottom View





# Polynova PN

## Hinged Non-Metallic Enclosure System



- Designed for applications that require regular access for maintenance.
- Suitable for termination of electrical circuits, housing electronics and signal infrastructure.
- Easy-to-use latch assembly.
- Hinged and latched lid for easy opening.
- 180° door opening.
- Capable of withstanding temperatures -40°C to 75°C.
- Conformity, Approvals:
  - UL94, V1 rating
  - IEC695:960° Glow Wire Test
- Manufactured from UV stabilised polyester (opaque lid) and polycarbonate (transparent lid).
- Light Grey RAL7035.

- Comes standard with:
- Insulated mounting pan
  - Latches
  - Wall mount brackets

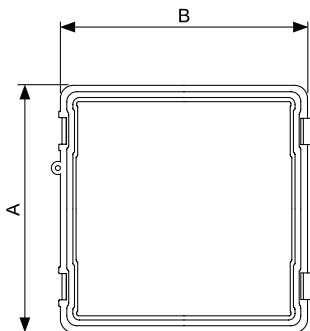


### ORDERING GUIDE

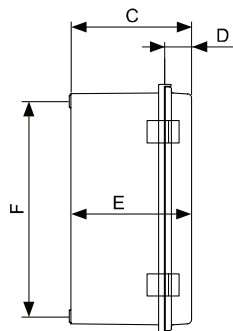
Part Number		Dimensions (mm)								Weight (kg)
		External				Internal	Mounting Centres			
Opaque	Transparent	Height (A)	Width (B)	Depth (C)	Cover Depth (D)	Usable Depth (E)	Height (F)	Width (G)		
PN131007	PN131007T	130	100	70	20	65	96	66	0.2	
PN151007	PN151007T	150	100	70	20	65	116	66	0.2	
PN201007	PN201007T	200	100	70	20	65	166	66	0.3	
PN312013	PN312013T	308	203	132	30	125	256	154	0.9	
PN362515	PN362515T	360	250	150	30	145	310	210	1.9	
PN453516	PN453516T	450	350	160	30	155	402	302	2.2	
PN504020	PN504020T	500	400	200	30	195	454	354	3.2	
PN534320	PN534320T	530	430	200	30	195	457	357	4.3	
PN605025#	PN605025T#	635	535	250	30	245	577	477	7.5	
PN705025#	PN705025T#	735	535	250	30	245	677	477	8.5	

# Enclosures supplied with a metal mounting pan as standard

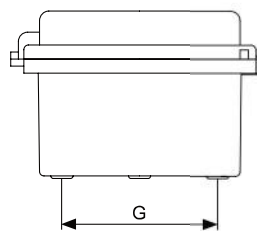
### TECHNICAL DRAWINGS



Front View



Side View



Bottom View



# Polynova PU

## General Purpose Enclosures & Distribution System



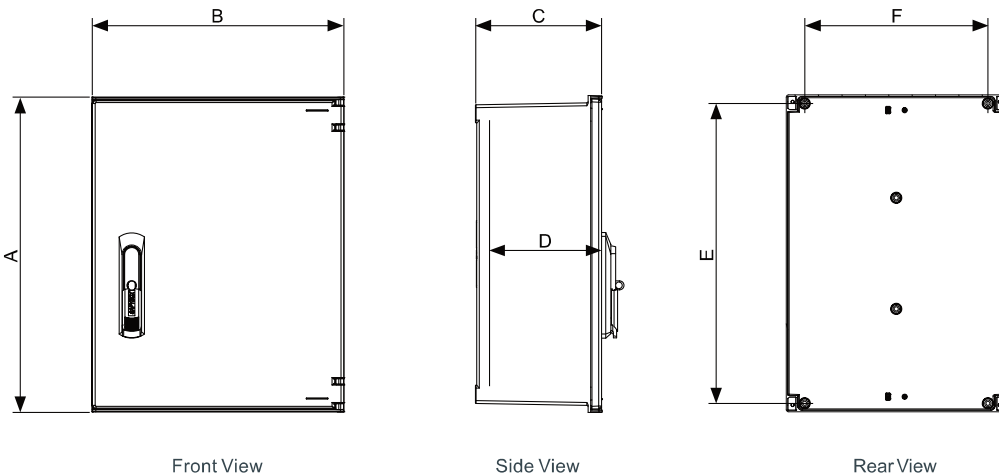
- Suitable for applications in harsh environments and requiring easy visual inspection.
  - Suitable for low voltage (LV) double insulated applications.
  - Capable of withstanding temperatures -30°C to 120°C.
  - Conformity, Approvals:
    - CE Mark
    - IEC695:960° Glow Wire Test
    - UL94, V1 rating
  - 3-point locking comes as standard (except PU302514 enclosures).
  - Manufactured from UV stabilised glass reinforced polyester (body) and polycarbonate (transparent window).
  - Light Grey RAL7035.
- Comes standard with:
- Insulated mounting pan
  - Lockable swing handle keyed to 92268 half euro barrel (except PU302514 & PU302514/W)
  - Double bit ¼ turn lock on 300x250x140 enclosures only.



### ORDERING GUIDE

Part Number		Dimensions (mm)									
		External		Internal	Mounting Centres		Window		LockType	Weight (kg)	
Plain Door	Window Door	Height (A)	Width (B)	Depth (C)	Usable Depth (D)	Height (E)	Width (F)	Height			Width
PU302514	PU302514/W	300	250	140	113	244	180	190	80	¼ turn	1.9
PU403020/3L	PU403020/W3L	400	300	200	173	342	230	280	120	3-point	3.6
PU504020/3L	PU504020/W3L	500	400	200	173	442	330	380	220	3-point	5.0
PU604023/3L	PU604023/W3L	600	400	230	203	540	330	480	220	3-point	7.0
PU605023/3L	PU605023/W3L	600	500	230	203	540	430	480	320	3-point	8.0
PU806030/3L	PU806030/W3L	800	600	300	273	738	530	600	400	3-point	13.0

### TECHNICAL DRAWINGS



# Polynova PD

## General Purpose Enclosures & Distribution System



- Suitable for a variety of general electrical applications.
- 150° door opening for ease of access to internal systems.
- Capable of withstanding temperatures of -40°C to 110°C.
- Conformity, Approvals:
  - UL94, V1 rating
  - IEC695-2-1:960° Glow Wire Test
- Manufactured from UV stabilised glass filled reinforced polyester.
- Light Grey RAL7035.

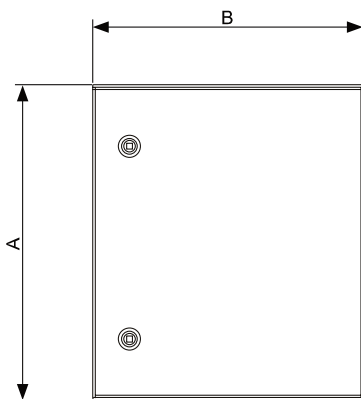
- Comes standard with:
- Insulated mounting pan
  - 8mm triangle lock



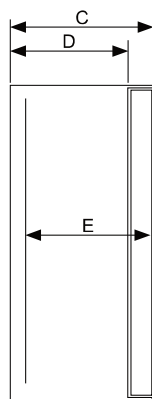
### ORDERING GUIDE

Part Number	Dimensions (mm)													Weight (kg)
	External		Internal		Opening Size		Mounting Centres		Mounting Pan			Thick		
	Height (A)	Width (B)	Depth (C)	Usable Depth (D)	Usable Depth (E)	Height (F)	Width (G)	Height	Width	Height				
PD353015	350	300	160	130	126	300	250	269	219	330	245	4	3.8	
PD503020	500	300	200	170	166	450	250	419	219	480	245	4	5.5	
PD504020	500	400	200	170	166	450	350	419	319	480	345	4	6.5	
PD654020	650	400	200	170	166	600	350	569	319	630	345	6	9.0	
PD655025	650	500	250	220	216	600	450	569	419	630	445	6	11.0	
PD806030	800	600	300	270	266	750	550	719	519	780	545	6	18.0	

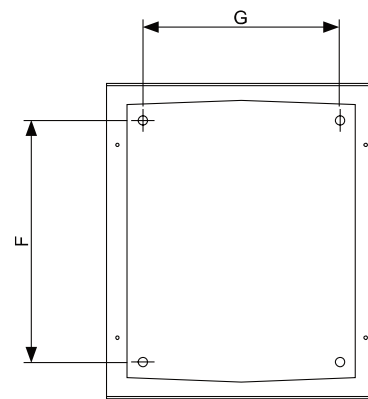
### TECHNICAL DRAWINGS



Front View



Side View



Rear View



# Forte FR

## General Purpose Enclosures



- Often used to house switchgear or components in a variety of applications.
- Designed to be wall-mounted quickly with punched holes on rear as standard.
- 110° door opening
- Manufactured from 1.2mm or 1.6mm thick carbon steel.
- Powdercoated Light Grey RAL7035.

Comes standard with:

- Wall mount brackets
- 2mm steel mounting pan
- Gland plate (200mm deep and above)
- Chromed steel lock with 7mm square steel insert (NI020)
- Earth strap kit



### ORDERING GUIDE

Part Number	Dimensions (mm)												
	External				Internal	Mounting Pan		Gland Opening		Opening		Number of Locks	Weight (kg)
	Height (A)	Width (B)	Depth (C)	Thk.	Usable Depth (D)*	Height (E)	Width (F)	Width (G)	Depth (H)	Height (I)	Width (J)		
FR030212	300	200	120	1.2	102	250	150	–	–	–	–	1	3.7
FR030215	300	200	150	1.2	132	250	150	–	–	256	156	1	3.9
FR030315	300	300	150	1.2	132	250	250	–	–	256	256	1	5.3
FR030415	300	400	150	1.2	132	250	350	–	–	256	356	1	6.5
FR040315	400	300	150	1.6	132	350	250	–	–	356	256	1	6.5
FR030320	300	300	200	1.2	180	250	250	250	120	256	256	1	6.5
FR040320	400	300	200	1.6	180	350	250	250	120	356	256	1	9.0
FR050320	500	300	200	1.6	180	450	250	250	120	456	256	1	7.5
FR060320	600	300	200	1.6	180	550	250	250	120	556	256	1	17.0
FR030420	300	400	200	1.6	180	250	350	250	120	256	356	1	7.5
FR040420	400	400	200	1.6	180	350	350	250	120	356	356	1	13.0
FR050420	500	400	200	1.6	180	450	350	250	120	456	356	1	12.0
FR060420	600	400	200	1.6	180	550	350	250	120	556	356	1	17.0
FR070420	700	400	200	1.6	180	650	350	250	120	656	356	2	23.0
FR050520	500	500	200	1.6	180	450	450	440	120	456	456	1	14.0
FR060620	600	600	200	1.6	180	550	550	440	120	556	556	1	17.0
FR080620■	800	600	200	1.6	180	750	550	440	120	756	556	2	30.0
FR040430	400	400	300	1.6	280	350	350	250	120	356	356	1	20.0
FR060430	600	400	300	1.6	280	550	350	250	120	556	356	1	20.0
FR050530	500	500	300	1.6	280	450	450	440	120	456	456	1	20.0
FR060630	600	600	300	1.6	280	550	550	440	120	556	556	1	27.0
FR080630■	800	600	300	1.6	280	750	550	440	120	756	556	2	34.0
FR100630■	1000	600	300	1.6	280	950	550	440	120	956	556	2	41.0
FR120630■	1200	600	300	1.6	280	1150	550	440	120	1156	556	2	42.0
FR100830^	1000	800	300	1.6	280	950	750	440	120	956	556	2	52.0
FR120830^	1200	800	300	1.6	280	1150	750	440	120	1156	756	2	61.0
FR100840^	1000	800	400	1.6	382	950	750	440	120	956	556	2	63.0
FR120840^	1200	800	400	1.6	382	1150	750	440	120	1156	756	2	65.0

\* From mounting pan to inside of door

■ Includes vertical door rails

^ Includes horizontal and vertical door rails



For more information  
[« benclosures.com.au/fr.htm](http://benclosures.com.au/fr.htm)

# Universal NI – Zinc Coated Steel

## General Purpose Enclosures



- Built for industrial and demanding environments.
- Threaded sockets on the rear of the enclosure to allow mounting feet attachment without compromising the IP rating.
- 120° door opening for ease of access to internal systems.
- Conformity, Approvals:
  - CEMark
  - Lloyds Register #06/10007 (E2)
- Manufactured from 1.2/1.6mm thick zinc coated steel.
- Powdercoated Pebble Grey RAL7032 or X15 Orange.

Comes standard with:

- 2mm steel mounting pan powdercoated white
- Gland plate (200mm deep and above)
- Chromed steel lock with 7mm square steel insert (NI020)
- Door rails
- Earth strap kit



### ORDERING GUIDE

Part Number		Dimensions (mm)										Material Thickness (mm)	Weight (kg)
		External			Internal	Mounting Pan		Gland Opening		No. of Fixing Points (Suits M8 fixings)			
Standard	X15 Orange	Height (A)	Width (B)	Depth (C)	Usable Depth (D)*	Height (E)	Width (F)	Width (G)	Depth (H)				
NI03021	NI03021/RO	300	200	150	125	250	150	–	–	4	1.2	3.9	
NI03031	NI03031/RO	300	300	150	125	250	250	–	–	4	1.2	5.0	
NI03041	NI03041/RO	300	400	150	125	250	350	–	–	4	1.2	6.5	
NI04032■	NI04032/RO■	400	300	200	175	350	250	250	120	4	1.6	8.0	
NI03042	NI03042/RO	300	400	200	175	250	350	250	120	4	1.6	7.5	
NI04042■	NI04042/RO■	400	400	200	175	350	350	250	120	4	1.6	12.0	
NI05042■	NI05042/RO■	500	400	200	175	450	350	250	120	4	1.6	14.0	
NI06042■	NI06042/RO■	600	400	200	175	550	350	250	120	4	1.6	17.0	
NI05052■	NI05052/RO■	500	500	200	175	450	450	440	120	4	1.6	17.0	
NI04062■	NI04062/RO■	400	600	200	175	350	550	440	120	4	1.6	16.0	
NI06062■	NI06062/RO■	600	600	200	175	550	550	440	120	4	1.6	23.0	
NI08062■	NI08062/RO■	800	600	200	175	750	550	440	120	6	1.6	30.0	
NI10062■	NI10062/RO■	1000	600	200	175	950	550	440	120	6	1.6	37.0	
NI04043■	NI04043/RO■	400	400	300	275	350	350	250	120	4	1.6	14.0	
NI06043■	NI06043/RO■	600	400	300	275	550	350	250	120	4	1.6	20.0	
NI04063■	NI04063/RO■	400	600	300	275	350	550	440	120	4	1.6	19.0	
NI06063■	NI06063/RO■	600	600	300	275	550	550	440	120	4	1.6	27.0	
NI08063■	NI08063/RO■	800	600	300	275	750	550	440	120	6	1.6	34.0	
NI10063■	NI10063/RO■	1000	600	300	275	950	550	440	120	6	1.6	41.0	
NI08083^	NI08083/RO^	800	800	300	275	750	750	440	120	6	1.6	43.0	
NI10083^	NI10083/RO^	1000	800	300	275	950	750	440	120	6	1.6	52.0	
NI12083^	NI12083/RO^	1200	800	300	275	1150	750	440	120	6	1.6	61.0	

\* Mounting pan to inside of door

■ Includes vertical door rails

^ Includes horizontal and vertical door rails



# Universal NI – 316 Stainless Steel

## General Purpose Enclosures



- Built for industrial and demanding environments.
- Threaded sockets on the rear of the enclosure to allow mounting feet attached without compromising the IP rating.
- 120° door opening for ease of access to internal systems.
- Conformity, Approvals:
  - CE Mark
  - Lloyds Register #06/10007 (E2)
- Manufactured from 1.2/1.5mm thick 316 stainless steel.
- N4 surface finish.

Comes standard with:

- 2mm steel mounting pan powdercoated white
- Stainless steel lock with 7mm square stainless steel insert (NI020/S)
- Door rails
- Earth strap kit



### ORDERING GUIDE

Part Number	Dimensions (mm)						No. of Fixing Points (Suits M8 fixings)	Material Thickness (mm)	Weight (kg)
	External		Internal		Mounting Pan				
	Height (A)	Width (B)	Depth (C)	Usable Depth (D)*	Height (E)	Width (F)			
NI03021/S	300	200	150	125	250	150	4	1.2	3.9
NI03031/S	300	300	150	125	250	250	4	1.2	5.3
NI03041/S	300	400	150	125	250	350	4	1.2	6.8
NI04031/S	400	300	150	125	350	250	4	1.5	6.7
NI04032/S■	400	300	200	175	350	250	4	1.5	9.0
NI03042/S	300	400	200	175	250	350	4	1.2	9.0
NI04042/S■	400	400	200	175	350	350	4	1.5	11.0
NI05042/S■	500	400	200	175	450	350	4	1.5	14.0
NI06042/S■	600	400	200	175	550	350	4	1.5	16.0
NI05052/S■	500	500	200	175	450	450	4	1.5	16.0
NI04062/S■	400	600	200	175	350	550	4	1.5	16.0
NI06062/S■	600	600	200	175	550	550	4	1.5	22.0
NI08062/S■	800	600	200	175	750	550	6	1.5	29.0
NI10062/S■	1000	600	200	175	950	550	6	1.5	28.0
NI10082/S■	1000	800	200	175	950	750	4	1.5	45.0
NI04043/S■	400	400	300	275	350	350	4	1.5	19.0
NI06043/S■	600	400	300	275	550	350	4	1.5	19.0
NI04063/S■	400	600	300	275	350	550	4	1.5	19.0
NI06063/S■	600	600	300	275	550	550	4	1.5	25.0
NI08063/S■	800	600	300	275	750	550	6	1.5	32.0
NI10063/S■	1000	600	300	275	950	550	6	1.5	39.0
NI08083/S^	800	800	300	275	750	750	6	1.5	41.0
NI10083/S^	1000	800	300	275	950	750	6	1.5	49.0
NI12083/S^	1200	800	300	275	1150	750	8	1.5	58.0

\* Mounting pan to inside of door

■ Includes vertical door rails

^ Includes horizontal and vertical door rails



# Project Profile

## BHP Olympic Dam Northwest Adelaide, SA



BHP wanted to create a fibre enclosure hub which would be used to link a fibre ring underground with the surface.



Olympic Dam mine is a large polymetallic mine located in South Australia, approximately 550km Northwest of Adelaide.

Home to a major source of oxide copper gold deposit, Olympic Dam produces combined quantities of Copper, Gold, Uranium and Silver through an underground mining system integrated with a metallurgical processing plant.

The deposit was discovered in 1975 and the mine was opened in 1988 by WMC Resources. BHP gained control of this mine in mid-2005.



“ B&R were able to design and supply an enclosure that was 100% fit-for-purpose, which made for a seamless installation. ”

MPS Building & Electrical, a local contractor based in Roxby Downs, provide a wide range of domestic, commercial and industrial mining services to the Roxby Downs community and surrounding areas.

MPS contacted B&R to assist with finding a solution to a fibre enclosure hub capable of linking four mining shafts to the surface.

B&R's design and engineering team worked closely with MPS Building & Electrical to create an enclosure specific to BHP's requirements. The customised solution was supplied through Auslec Electrical and Data located in Wingfield.

B&R designed a double door stainless steel field cabinet which was 1000mm deep and capable of housing electrical and monitoring equipment.

Due to the remote location of the project and the type of equipment installed, sunshades and lockable handles were included to reduce heat within the enclosure and prevent vandalism.

B&R have worked alongside BHP and MPS Building & Electrical on past projects, installing enclosure solutions into a variety of different applications.

B&R's ability to design custom solutions along with their reliable service meant MPS Building & Electrical could confidently deliver this project and supply an enclosure suitable for harsh mining environments.

B&R and MPS look forward to working together again. This enclosure was specifically designed for this project and is being considered as a standard for future installations.



For more information  
« [brenclosures.com.au/project/bhp-olympic-dam](http://brenclosures.com.au/project/bhp-olympic-dam)

# Universal DD – Zinc Coated Steel

## Double Door Enclosures



- Suitable for industrial or demanding conditions.
- No centre mullion —extremely easy to access all equipment mounted on the included mounting pan.
- 180° opening doors.
- Conformity, Approvals:
  - Lloyds Register #06/10007 (E2)
- Manufactured from 1.6mm thick zinc coated steel.
- Powdercoated Pebble Grey RAL7032.

Comes standard with:

- 2mm steel mounting pan powdercoated white
- Gland plates fitted internally or externally – dual on 1200mm wide
- Door rails
- Chromed steel lock with 7mm square steel insert (DD020) on units below 1600mm high
- Lockable L handle keyed to 92268 (DD050) on units 1600mm and above
- Earth strap kit



### ORDERING GUIDE

Part Number	Dimensions (mm)								No. of Gland Plates	Weight (kg)
	External		Internal	Mounting Pan		Opening				
	Height (A)	Width (B)	Depth (C)	Usable Depth* (D)	Height (E)	Width (F)	Height (G)	Width (H)		
DD10103	1000	1000	300	250	940	915	940	920	1	67.0
DD12103	1200	1000	300	250	1140	915	1140	920	1	78.0
DD16104	1600	1000	400	350	1540	915	1540	920	1	108.0
DD18104	1800	1000	400	350	1740	915	1740	920	1	119.0
DD20104	2000	1000	400	350	1940	915	1940	920	1	131.0
DD12124	1200	1200	400	350	1140	1115	1140	1120	2	98.0
DD16124	1600	1200	400	350	1540	1115	1540	1120	2	125.0
DD18124	1800	1200	400	350	1740	1115	1740	1120	2	138.0
DD20124	2000	1200	400	350	1940	1115	1940	1120	2	152.0
DD18125	1800	1200	500	450	1740	1115	1740	1120	2	147.0
DD20125	2000	1200	500	450	1940	1115	1940	1120	2	161.0

\* Mounting pan to inside of door



See Page 72 for a range of lock options available for the Universal DD range.





# Incline SR

## Mining and Industrial Enclosures



- Designed for rugged industrial applications including local control stations, mini control consoles or motor isolators.
- Suitable for mine sites and sugar mills.
- 30° sloping roof and 20mm overhang to prevent build up of solids.
- Specially designed gutter system.
- Conformity, Approvals:
  - Lloyds Register #06/10007 (E2)
  - Manufactured from 1.5mm thick 316 stainless steel.
  - N4 surface finish or powdercoated X15 orange.

Comes standard with:

- 2mm steel mounting pan powdercoated white
- Stainless steel gland plate
- Mounting flanges top & bottom
- Stainless steel lock with 7mm square stainless steel insert (NI020/S)
- Door rails
- Earth strap kit



### ORDERING GUIDE

Part Number		Dimensions (mm)											Weight (kg)
		External				Internal	Mounting Pan		Gland Opening		Mounting Centres		
Standard	X15 Orange	Height (A)	Width (B)	Depth (C)	Total Height (D)**	Usable Depth* (E)	Height (F)	Width (G)	Width (H)	Depth (I)	Height (J)	Width (K)	
SR03021/S	SR03021/SRO <sup>▲</sup>	300	200	150	507	140	250	150	175	70	477	100	5.5
SR04031/S	SR04031/SRO <sup>▲</sup>	400	300	150	607	140	350	250	175	70	577	200	9.0
SR03042/S■	SR03042/SRO <sup>▲</sup>	300	400	200	536	190	250	350	250	120	506	300	10.0
SR04042/S■	SR04042/SRO <sup>▲</sup>	400	400	200	636	190	350	350	250	120	606	300	13.0
SR06042/S■	SR06042/SRO <sup>▲</sup>	600	400	200	836	190	550	350	250	120	806	300	17.0
SR04062/S■	SR04062/SRO <sup>▲</sup>	400	600	200	636	190	350	550	440	120	606	500	18.0
SR08062/S■		800	600	200	1036	190	750	550	440	120	1006	500	31.0
SR10062/S■		1000	600	200	1236	190	950	550	440	120	1206	500	37.0
SR04063/S■	SR04063/SRO <sup>▲</sup>	400	600	300	694	290	350	550	440	120	663	500	21.0
SR06063/S■	SR06063/SRO <sup>▲</sup>	600	600	300	894	290	550	550	440	120	863	500	28.0
SR08063/S <sup>▲</sup>	SR08063/SRO <sup>▲▲</sup>	800	600	300	1094	290	750	550	440	120	1063	500	35.0

<sup>▲</sup> Available on request

\* Mounting pan to inside of door

\*\* Includes from bottom of enclosure to top mounting flange

■ Includes vertical door rails

<sup>▲</sup> Includes horizontal and vertical door rails



See Page 72 for a range of lock options available for the Incline SR range.



# Project Profile

Roy Hill Climate-Ready Enclosure Newman, WA



BHP wanted to create a fibre enclosure hub which would be used to link a fibre ring underground with the surface.



With a proven history designing and supplying enclosure solutions for heavy haul rail projects, B&R Enclosures were contracted to supply a range of 3mm aluminium rail cabinets.

This included single and double width control cabinets with full internal frames, post mount test switch boxes, post mount track disconnect boxes, single and double width battery cabinets with battery interconnection cables.

These cabinets were part of the project's satellite positioning based train control and protection technology including integrated electronic train order systems, centralised interlocking as well as communications-based protection of maintenance vehicles to be built by Samsung C&T for Ansaldo STS. This project drew on previous expertise and products supplied to the RioTinto AutoHaul project and RAFA. In addition, this project demanded adherence to a unique set of Roy Hill project requirements and specifications.

“B&R worked closely with Ansaldo STS prior to and throughout the project to ensure successful delivery and long-term performance.”

The cabinets were installed in the remote outback of Northern Western Australia where average ambient temperatures can be above fifty degrees in the dry season while monsoonal rain and cyclonic winds are prevalent in the wet season.

Combine this with the potential for vermin infestations and extreme dust infiltration, the cabinets needed to have technical approval and accreditation through rigorous testing and documentation protocol.

At B&R's head office, located in Brisbane, the design team were able to utilise their in-house environmental testing facility to investigate the effects of structural certification, heat rise, humidity, wind load and ingress protection. A series of tests were conducted which included placing an operational cabinet within an environmental room where resistive heaters were used to simulate internal heat loads of between 500 and 2000 watts loss. A maximum 20K temperature difference was obtained through testing for an ambient temperature range of 272.4K to 323K and the abovementioned heat loads. Wind testing of the cabinets was simulated through applying a manual point force between 30 and 55 (kgf) to simulate a Region D, Level 4 wind load panels.

A particular point of difference was in B&R's proficiency to manufacture using aluminum. The advantages of using aluminum as an alternative to stainless steel or zinc coated steel included improved corrosion resistance, low density and excellent thermal conductivity for high exposure environments. The use of aluminum also lends to decreased costs in freight and general installation due to its lighter make-up.

A team of B&R design engineers worked closely with Ansaldo STS personnel to refine the cabinet solution ensuring the cabinet's integrity in sustained arduous environmental conditions. The comprehensive design research and testing conducted by B&R allowed Ansaldo STS to further qualify the project's successful delivery and long-term performance. Accordingly, B&R worked very closely with Ansaldo STS prior to and throughout the project time line - from early stage design, prototyping and testing through to final commissioning, completion and hand over.



For more information  
« [brenclosures.com.au/project/roy-hill/](http://brenclosures.com.au/project/roy-hill/)

# Pilbara SP with Sunshades – 316 Stainless Steel

## Mining and Industrial Enclosures



- Designed for the most common mining, mineral processing and infrastructure projects.
- used in local control stations, mini control consoles or motor isolation control stations.
- 30° sloping roof to prevent build up of water and solids.
- Lifting lugs conform to *AS4991:LiftingDevices*.
- One (1) tonne SWL on each lifting lug (excluding SP040425).
- Region D wind rated to *AS1170.2-2002:Structural design actions – Wind actions*
- Easy installation with top and bottom mounting flanges.
- Conformity, Approvals:  
Lloyds Register #06/10007 (E2)
- Manufactured from 1.5mm thick 316 stainless steel.
- N4 surface finish or powdercoated X15 orange.

Comes standard with:

- Sunshades – top, door and both sides
- Steel mounting pan powdercoated white
- Stainless steel padlockable swing handle with LockSock®
- 3-point locking (excluding SP040425range)
- 2mm stainless steel gland plate
- Lifting lugs on enclosures (excluding SP040425range)



### ORDERING GUIDE

Part Number		Dimensions (mm)														
		External			Total		Internal	Mounting Pan		Gland Opening		Mounting Centres		Opening		Weight (kg)
316SS (N4)	X15 Orange	Height (A)	Width (B)	Depth (C)	Height (D)	Width (E)	Usable Depth (F)*	Height (G)	Width (H)	Width (I)	Depth (J)	Height (K)	Width (L)	Height (M)	Width (N)	
SP070522/S/SK	SP070522/SRO/SK	700	500	220	950	600	153	630	430	120	440	920	400	640	420	95.0
SP100822/S/SK	SP100822/SRO/SK	1000	800	220	1252	900	153	930	730	120	740	1218	600	940	720	145.0
SP040425/S/SK*	SP040425/SRO/SK*	400	400	250	680	500	203	330	330	140	320	641	300	340	320	65.0
SP070535/S/SK	SP070535/SRO/SK	700	500	350	1040	600	303	630	430	240	420	1005	400	640	420	110.0
SP100840/S/SK	SP100840/SRO/SK	1000	800	400	1365	900	353	930	730	210	640	1334	600	940	720	170.0

\* From mounting pan to inside of door.

# Does not come with a front sunshade.



See Page 72 for a range of lock options available for the Pilbara SP range.



# Lambert LB

## Sunshaded Mining Enclosures



- 30° sloping roof to prevent build up of water and solids.
- Fully enclosed 3-point locking system.
- Easy installation with top and bottom mounting flanges.
- Removable doors with pintle hinges.
- Lifting lugs conform to *AS4991:Lifting Devices*.
- One (1) tonne SWL on each lifting lug.
- Region D wind rated to *AS1170.2-2002:Structural design actions – Wind actions*
- Conformity, Approvals:  
Lloyds Register #06/10007 (E2)
- Manufactured from 1.5mm thick 316 stainless steel.
- N4 surface finish.

Comes standard with:

- Sunshades – top, doors, sides and rear
- Full width steel rear mounting pan powdercoated white
- Stainless steel padlockable swing handle with LockSock®
- Door stays
- 3mm brass gland plate
- Door rails
- Earth strap kit



### ORDERING GUIDE

Part Number	Dimensions (mm)															
	External			Internal				Mounting Pan		Gland Opening		Mounting Centres		Opening		Weight* (kg)
	Height (A)	Width (B)	Depth (C)	Total Height (D)	Total Width (E)	Total Depth (F)	Usable Depth (G)	Height (H)	Width (I)	Width (J)	Depth (K)	Height (L)	Width (M)	Height (N)	Width (O)	
LB100840/S	1000	800	400	1368	896	502	324	930	730	640	210	1335	600	940	720	250.0
LB101040/S	1000	1000	400	1368	1096	502	324	930	930	840	210	1335	800	940	920	300.0
LB101440/S	1000	1400	400	1368	1496	502	324	930	1330	540	210	1335	1320	940	1320	320.0

\* Includes crate for safe transportation

### ACCESSORIES

Product	Description	Part Number	Dimensions (mm)			LB100840/S	LB101040/S	LB101440/S
			Height	Width	Depth			
Side mounting pan	Powdercoated B33 Mist Blue	LBSMP1040	930	200	15	•	•	•
Powdercase	Lockable	LBLPC/020315	233	300	167	•	•	•
		LBLPC/020615	233	600	167	•	•	•



See Page 72 for a range of lock options available for the Lambert LB range.



For more information  
[brenclosures.com.au/lb.htm](http://brenclosures.com.au/lb.htm)



The two types of custom power distribution boards are manufactured and completely wired with electrical equipment supplied by ABB at B&R's facility in Brisbane, Australia.

A modified design of B&R's Bowen enclosure was used for the outside and underground applications as it is manufactured from 316 stainless steel, has an IP66 protection and comes with a 30 degree sloping roof designed to prevent water or sediment build-up.

The power distribution boards used within buildings on the mine site are based on Monarch IP which is manufactured from 316 stainless steel and also has an IP66 protection.

B&R's design and engineering team were successful in manufacturing and testing a power distribution board that allowed internal connections for testing facilities as well as a dedicated terminal for field connections all within the compact size dimensions Jacobs Engineering specified.

The project is on-going and is expected to be completed by 2020. During this time B&R will continue to strengthen their working relationship with ABB, Jacobs Engineering and RioTinto and look forward to providing future projects with 100% fit-for-purpose complete enclosure solutions.



For more information  
[brenclosures.com.au/project/ayu-tolgoi-mine/](http://brenclosures.com.au/project/ayu-tolgoi-mine/)

# Field FC

## Industrial Field Enclosures



- Suitable for housing ITS equipment, GPS receivers / transmitters, road monitoring / traffic management in infrastructure applications.
- Designed to protect electronic equipment in outdoor and isolated locations.
- Has been specifically designed to minimise vandalism.
- Flush front and rear doors with concealed hinges.
- Sunshield roof to minimise the effects of solar radiation.
- Conformity, Approvals:  
Lloyds Register #06/10007 (E2)
- Manufactured from 2mm thick zinc coated steel, 1.5mm thick 316 stainless steel or 2mm thick aluminium.
- Powdercoated Smoke Blue T33 or N4 surface finish.

Comes standard with:

- Enclosure frame
- Front and rear door
- Sunshield roof
- 3mm aluminium gland plates
- 100mm high plinth – stainless steel
- Eye bolts
- Vertical mounting posts



### ORDERING GUIDE

Part Number			Dimensions (mm)						
			External			Front Opening		Side Opening	
Zinc coated steel	316 stainless steel	Aluminium	Height (A)	Width (B)	Depth (C)	Height (D)	Width (E)	Height (F)	Width (G)
FC130706 <sup>▲</sup>	FC130706/S <sup>▲</sup>	FC130706/A <sup>▲</sup>	1375	755	620	1085	640	1095	440
FC160706 <sup>▲</sup>	FC160706/S <sup>▲</sup>	FC160706/A <sup>▲</sup>	1675	755	620	1385	640	1395	440
FC190706 <sup>▲</sup>	FC190706/S <sup>▲</sup>	FC190706/A <sup>▲</sup>	1975	755	620	1685	640	1695	440
FC220706 <sup>▲</sup>	FC220706/S <sup>▲</sup>	FC220706/A <sup>▲</sup>	2275	755	620	1985	640	1995	440

<sup>▲</sup> Available on Request

### ACCESSORIES QUICK SELECTION GUIDE

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