



Product Guide - Electrical Control Enclosures

A sampling of STYLES, TYPES and ACCESSORIES

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ENCLOSURE STYLES

We are pleased to offer various **STYLES** and **TYPES** of enclosures with **ACCESSORIES** that add versatility. The environmental conditions to which the enclosure will be exposed will dictate the type you should select. Style on the other hand, refers to the design elements you want included in the enclosure.



NEMA4X IP66 Stainless Double Door

Featuring overlapping doors and no center post these models provide an inherent interlock between doors and can accommodate large one-piece subplates.



NEMA12 IP54 Stainless Double Door

If additional subplate space is needed we can add side-wall subplates. This build also included a lift-truck suitable plinth base.



NEMA12 IP54 Steel Double Door

Coupled to a piece of automation equipment, this enclosure arrived on site ready for HMI, Harting connectors, conduit and pushbuttons.



NEMA12 IP54 Steel Double Door

The installed foot kit in this build allowed for a smaller enclosure while still having the HMI at a suitable viewing height. The integral door louvers provided necessary heat management without appearing as an afterthought kit.



NEMA12 IP54 Steel Double Door

The rugged construction of this build included reinforced lifting eyebolts and a 3-point latching pad-lockable die-cast handle with fan mounting provisions.



NEMA12 IP54 Steel Console

This style is often the best solution for applications where users will be sitting or standing for extended periods of time operating controls. We have built this style enclosure in a great many varieties to service all kinds of industries over the years.



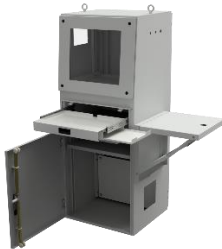
NEMA1 IP20 Aluminum Console

This console was equipped with an HID smart card reader for Time and Attendance tracking in factory security booths. Of course, it was supplied with a tamper-resistant latch.



NEMA4X IP66 Stainless Monitoring Console

This stand-and-sit console was designed to house all the equipment necessary for process monitoring at a large brewery in Western Canada.



NEMA12 IP54 Steel Workstation Console

A major domestic auto manufacturer has standardized on this workstation. It has full accommodation for a PC, display, printer and even a subplate for control equipment.



NEMA12 IP54 Steel Pendant Console

This sturdy stand mounted console is also available in a telescopic height version. You'll find that factories are littered with these: placing the controls right where the operators need them.



NEMA12 IP54 Steel Sloped Front Console

Our accurate and repeatable blanking processes make panel wiring a breeze without the drilling, jig sawing and punching. Allowing your technicians to save time and focus on the electronics.



NEMA12 IP54 Monitoring Console

This build was designed to support four video monitors to keep an eye on a production environment. Have a seat and don't worry too much if you spill some coffee. The desk top is stainless-steel.



NEMA3 IP55 Steel Pull Box

Probably our largest selling style, the Pull Box, is used as a feeder, termination or a splitter box. We can offer these in quite a range of sizes, shapes and types to suit your specific project requirements.



NEMA1 IP20 Steel Pull Box

Our Pull Boxes most commonly are screw closure and many integrate lifting handles on the covers for your technician's convenience and safety.



NEMA1 IP20 Steel Pull Box

Some situations require access from multiple surfaces or directions. We can customize the build to your exact requirements.



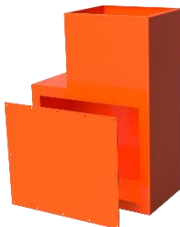
NEMA1 IP20 Steel Pull Box

Modular Pull Boxes can be used to house existing equipment and wiring.



NEMA1 IP20 Steel Pull Box

Virtually any shape or access configuration can be arranged to accommodate updates to existing field installations.



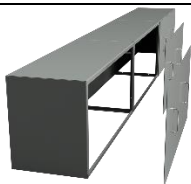
NEMA1 IP20 Steel Pull Box

Simply constructed these Pull Boxes are a terrific way to increase the volume of an adjacent electrical enclosure.



NEMA3 IP55 Steel Pull Box

This application enabled an outdoor ground-fed power cable feed to pass safely through a block wall to service the facility within.



NEMA12 IP54 Ganged Steel Pull Boxes

Pull Boxes can even be joined together to enclose larger spans of terminations or house numerous electrical components.



NEMA12 IP54 Steel 1-Door Enclosure

This common model can be supplied in either wall-mount or free-standing variations. A wide variety of hardware are available to suit your needs.



NEMA12 IP54 Stainless 1-Door Enclosure

The plain galvanized subplate, concealed hinges and automotive style door mechanism finish this corrosion resistant build with clean modern appearance.



NEMA3 IP55 Steel 1-Door Enclosure

Even odd proportions are no issue for a custom builder. Sometimes the right size for the project is not found in a catalogue.



NEMA3 IP55 Steel 1-Door Enclosure

Our adaptability with specialized profiles, accesses and mounting provide a professionally designed touch to your installations.



NEMA12 IP54 Steel 1-Door Enclosure

Even the most basic of enclosures ought to function well, look good and last. That's not just our name but also your name going on it!



NEMA12 IP54 Steel HMI Enclosure

The HMI Enclosure provides easy access to switches, pushbuttons and lights. These are often supplied with NEMA clamps or quarter-turn mechanisms for door closure.



NEMA12 IP54 Steel HMI Enclosure

Today's installations often involve suspended HMIs to save floor space and bring the control to the best operating height for the user.



NEMA12 IP54 Steel HMI Enclosure

A twist on the classic Jct Enclosure, we use the simplicity to house the complexity of today's controllers.



NEMA12 IP54 Steel HMI Enclosure

We offer complete HMI solutions, from stands to arms to swivels.



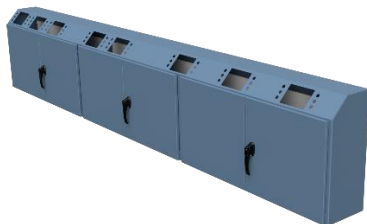
NEMA12 IP54 Steel HMI Enclosure

Not every project requires an elaborate controller. Sometimes tweaking a JIC Enclosure will do the trick, nicely.



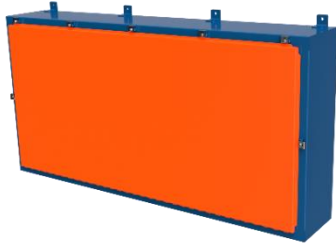
NEMA12 IP54 Steel HMI Enclosure

With fewer limitations governing the shape of an enclosure it is possible to create a control station that truly has ergonomics considered.



NEMA12 IP54 Steel HMI Enclosure

Today's production lines - while more compact than in years prior - require considerable control and monitoring. You can gang together multiple HMIs if that's what you need to achieve your goals.



NEMA4 IP66 Aluminum Jct Enclosure

Sized between a JIC and a 1-Door Enclosure this design provides a full-sized inner subplate for controls and device mounting. Although frequently wall-mounted we can provide these with our foot kit too.



NEMA3 IP55 Steel Jct Enclosure

A client required a solution that they could slip-over and fasten to an existing outdoor installation. Our response? Okay!



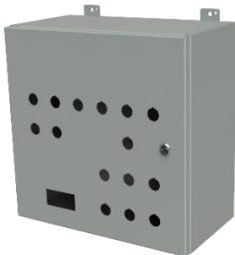
NEMA12 IP54 Steel Jct Enclosure

A simple, classic and reliable solution to your electrical and control needs.



NEMA12 IP54 Steel Jct Enclosure

We weren't sure whether this was a console and HMI or a Jct Enclosure. With a drop-down door on supports and concealed hinge hardware this panel looks great in operation.



NEMA12 IP54 Steel Jct Enclosure

We can easily provide your device mounting knockouts. Let us do the grunt work for you.



NEMA12 IP54 Steel Jct Enclosure

Our quarter-turn door hardware provides a durable and secure closure.



NEMA12 IP54 Steel 2-Door Enclosure

Building upon the same construction platform as our 1-Door style enclosures we offer the same quality construction in larger enclosure configurations. While electronics have become more compact over the years there is still a need for these larger builds to service many applications.



NEMA12 IP54 Aluminum 2-Door Enclosure

This was an unusual build. We delivered this oddly high, lightweight aluminum build exactly as ordered.



NEMA12 IP54 Steel 2-Door Enclosure

Our rugged, clean construction ensures protection from - and for - your controls.



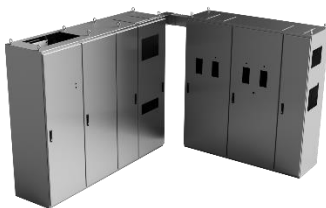
NEMA4 IP66 Steel 3-Door Enclosure

These multi-door installations are often utilitarian in their appearance however our focus is on the precise fit and performance of every component.



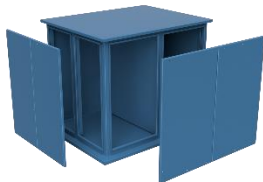
NEMA12 IP54 Steel 4-Door Enclosure

This build included extras such as a plinth base, knockouts, mechanical door interlock, polycarbonate viewing window and a folding shelf kit. This unit was shipped to the site fully assembled and ready to wire.



NEMA12 IP54 Stainless 7-Door Enclosure

This build was installed in a crane control room. The installed drive systems generated so much heat that three air conditioning units were used to maintain the operating temperature.



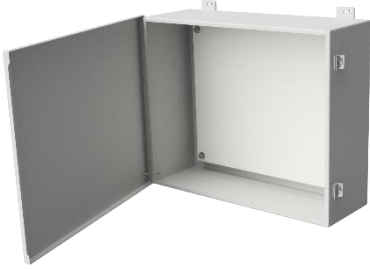
NEMA1 IP20 Multi-Door Enclosure

Sometimes there are just more wires and terminations than you know what to do with. We can cover that.



NEMA12 IP54 Multi-Door Enclosure

A major manufacturer was looking to build a robot cell with enclosed controls and high visibility. We offered greater than 200° EOAT visibility with this design.



NEMA12 IP54 Steel JIC Enclosure

These general utility enclosures offer the most basic of design and functionality features and provide an economical solution to your enclosure needs. We are pleased to offer these with lift-off or screwed covers as well as the popular continuous piano hinge. Normally these enclosures don't extend much beyond 20"Hx20"W and feature screwed JIC clamps to keep the cover securely in place.



NEMA4X IP66 Stainless JIC Enclosure

We supplied this for a project that the contents would likely never be accessed again but it needed to look good and handle the weather.



NEMA4 IP66 Steel JIC Enclosure

Simple. Enclosed. Safe.



NEMA4X IP66 Stainless PB Box

Acting as an operator interface this style of enclosure provides a durable solution to access pushbuttons, lights and switches. These enclosures are normally relatively small and can be offered in a pendant or sloped variation with screwed or hinged covers.



NEMA4X IP66 Stainless PB Box

We extend the limits on what a PB Box can house.



NEMA12 IP54 Steel PB Box

Customized mounting alternatives give you just the right fit.



NEMA12 IP54 Steel PB Box

Our finishes provide the durability you need when your controls are being handled daily.



NEMA3R IP24 Aluminum Dual Access 1-Door Enclosure

We can offer any of our enclosure designs in this arrangement which will often ship with dual back-to-back subplates. This may eliminate your need for a second enclosure altogether.



NEMA4X IP66 Stainless Dual Access 3-Door Enclosure

Some of our designs challenge our manufacturing abilities. That is when our manufacturing abilities increase.



NEMA12 IP20 Steel Dual Access Console Enclosure

These specialized builds enclose electrical, controls, pneumatics and hydraulics in an efficient portable design.



NEMA1 IP20 Steel Dual Access Console Enclosure

No, this is not R2-D2, but with the controls and systems installed it is nearly as capable.



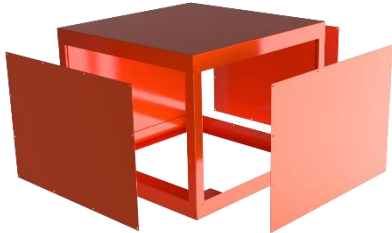
NEMA12 IP54 Steel Dual Access Console Enclosure

Many of today's manufacturing control rooms are like clean rooms. We're proud to build products that you too can take pride in.



NEMA4X IP66 Stainless Extension Box

These are useful anytime you need to extend an enclosure or add volume to an existing build. Offering quite a variety of access options these enclosures can cover a transformer or sensitive piece of externally mounted equipment.



NEMA1 IP20 Steel Extension Box

This design is commonly used to cover sensitive equipment on top of existing enclosures.



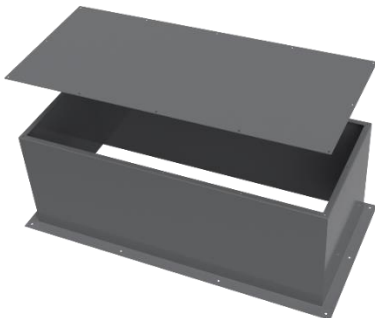
NEMA12 IP54 Steel Extension Box

This Extension was produced to add height (volume) to a common modular enclosure builder's standard product. The eyebolt extensions coupled perfectly into their lid.



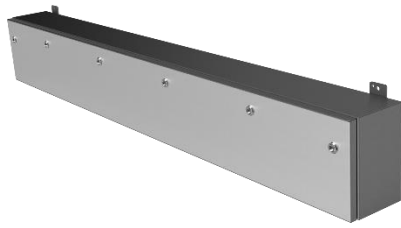
NEMA12 IP54 Steel Extension Box

Often referred to as a sleeve, this Extension can be used to couple enclosures together.



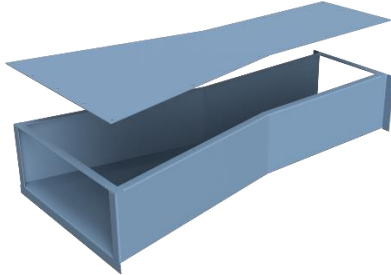
NEMA12 IP54 Steel Extension Box

These top-hat style Extensions are used extensively as add-on covers. You'll find them on sides, backs, fronts and tops of enclosures.



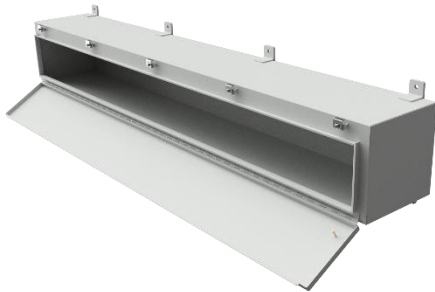
NEMA4X IP66 Stainless Trough Box

These troughs and duct may come with closed or opened ends and are often chained together to satisfy lay-in or pull-through applications, or to just act as an electrical splitter box. We offer these with a variety of hinge and closure hardware as well as numerous rating types.



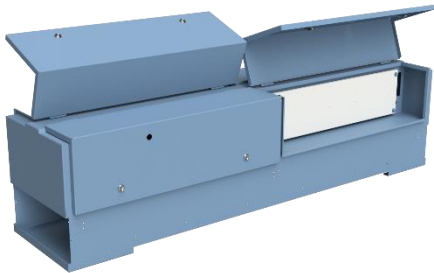
NEMA1 IP20 Steel Trough Box

This Trough passes power and communication cables from an electrical enclosure to a machining center.



NEMA4 IP66 Steel Trough Box

This Trough was used as a splitter box to serve electrical disconnects in a damp location.



NEMA4 IP66 Steel Trough Box

Some Troughs get a bit more complicated like this one that required access to multiple subplates for terminal strips.

ENCLOSURE TYPES

We are pleased to offer a wide range of enclosure types to satisfy your specific NEMA, UL, CSA and IEC project requirements. Below are some of the most common types we are asked for. Bear in mind that every type of enclosure can be supplied in a variety of STYLES and enhanced with your choice of ACCESSORIES.

Without getting lost in the technicality of the various enclosure types lets simplify this and break down your application into two basic categories – indoor and outdoor use.

INDOOR, NON-HAZARDOUS USE

	20	22	65	66	53	54			IP
<i>Provides a Degree of Protection Against the Following Conditions:</i>	1	12	4	4X	12				CSA
	1	2	4	4X	5	12	12K	13	NEMA
Access to Hazardous Parts	✓	✓	✓	✓	✓	✓	✓	✓	
Ingress of Solid Foreign Objects (Falling Dirt)	✓	✓	✓	✓	✓	✓	✓	✓	
Ingress of Water (Dripping and Light Splashing)		✓	✓	✓	✓	✓	✓	✓	
Ingress of Solid Foreign Objects (Circulating Dust, Lint, Fibers and Flyings)			✓	✓		✓	✓	✓	
Ingress of Solid Foreign Objects (Settling Airborne Dust, Lint, Fibers and Flyings)			✓	✓	✓	✓	✓	✓	
Ingress of Water (Hosedown and Splashing Water)			✓	✓					
Oil and Coolant Seepage						✓	✓	✓	
Oil or Coolant Spraying and Splashing								✓	
Corrosive Agents				✓					
May be Ventilated	✓	✓							

OUTDOOR, NON-HAZARDOUS USE

	55		24		55		65	66	IP
<i>Provides a Degree of Protection Against the Following Conditions:</i>	4	4X				4	4X	CSA	
	3	3X	3R	3RX	3S	3SX	4	4X	NEMA
Access to Hazardous Parts	✓	✓	✓	✓	✓	✓	✓	✓	
Ingress of Water (Rain, Snow and Sleet)	✓	✓	✓	✓	✓	✓	✓	✓	
Sleet					✓	✓			
Ingress of Solid Foreign Objects (Wind Blown Dust, Lint, Fibers and Flyings)	✓	✓			✓	✓	✓	✓	
Ingress of Water (Hosedown)							✓	✓	
Corrosive Agents		✓		✓		✓		✓	
May be Ventilated			✓	✓					

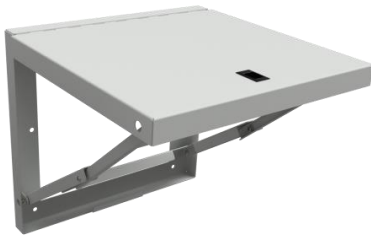
ENCLOSURE ACCESSORIES



The **Door Hold Open Bracket** will support or prop your door open at 90°. With its positive engagement, it will prevent the door from opening further and from closing until wanted. A very common addition in outdoor enclosures where unexpected wind gusts can damage door hinges.



The **Enclosure Foot Kit** can be easily bolted to an existing enclosure or we can supply them welded on for new builds. Available in any desired height and depth these feet elevate an enclosure to an optimum height.



A **Folding Shelf Kit** adds convenient support for a laptop or other device while working on a control panel. These shelves fold neatly away when not in use and remain captive by use of a flush slide latch. Our design allows for a bolted connection if you wish to add this to an existing build.



Our **Hinged Access Cover** can provide secure limited access to controls or devices within a control panel without exposing personnel to fully opening the enclosure. Available with a viewing window these covers provide great functionality for devices with display lights or readouts that require occasional access.



Our **Inner Swing Door** panels add a layer of isolation between personnel and an energized subplate in an open enclosure. Frequently these doors would contain push buttons, lights and other devices that personnel require access to.



The **Keyboard Tray** can come with an ambidextrous mouse tray and even an enclosed housing. This package will add functionality to door mounted display screens and workstations. Virtually all of our accessories are available in steel, stainless or aluminum construction with your choice of finish.