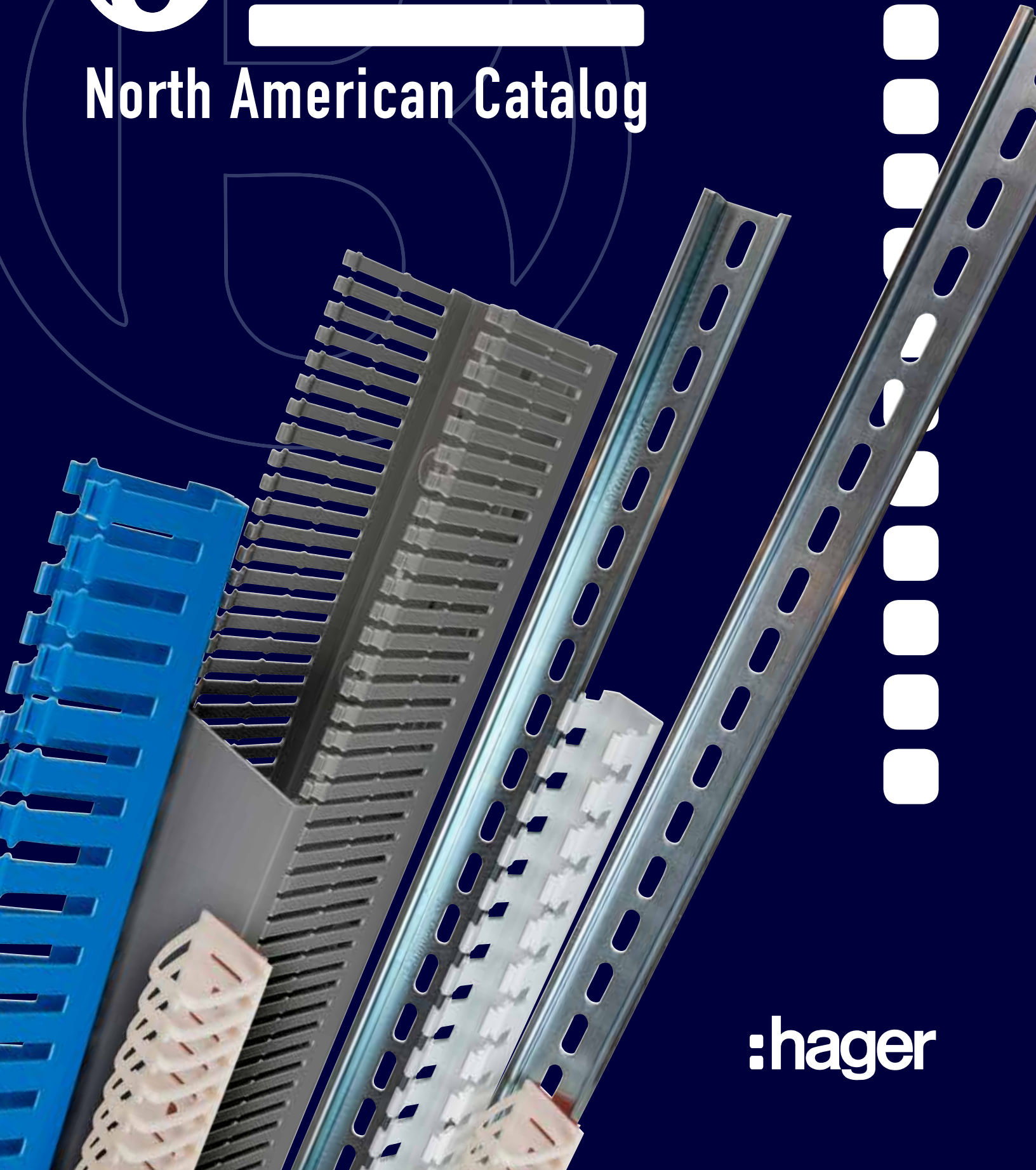


IBOCO[®]

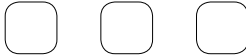
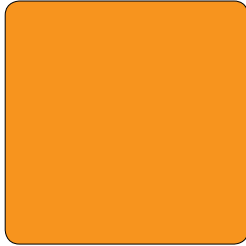
North American Catalog



:hager



Largest inventory of Wire Duct and components in North America



IBOCO Corporation, A Member of Hager Group offers an integrated system of specific solutions for panel builders' needs. This duct system features multiple styles of duct with up to 35 duct sizes, a complete line of DIN rails, and over 40 components and accessories. This combination allows for the simplification and acceleration of panel building operations such as wire retention, identification of equipment/circuits, circuit/wire separation, and the direct mounting of duct and equipment on DIN rails.

IBOCO's parent company Hager Group is a leading supplier of solutions and services for electrical installations in residential, commercial and industrial buildings. Hager brand, with products ranging from energy distribution through cable management and wiring accessories to building automation and security systems, represents the core business of the company. Other brands of Hager Group are Berker, Bocchiotti, Daitem, Diagra, and Elcom. This allows the group to combine all the skills necessary for the development of innovative products, systems and services required for building automation. Together with the customers from industry and the electrical trade, Hager Group is working on future topics such as electro-mobility, Ambient Assisted Living, where building automation facilitates the everyday life of the elderly and individuals who require care, and on the networking of energy-efficient housing, which will provide greater comfort while requiring less energy consumption.

IBOCO's extensive catalog features several product lines: DIN rail, DIN rail accessories, T1 slotted duct, T1-E slotted duct, T1-K black slotted duct, T1-B blue slotted duct, TS/TSH solid duct, DINOSAUR flexible duct, Spiralite, braided expandable sleeveings, installation tools and over 40 accessories. IBOCO's integrated panel management systems continue to evolve and grow to meet the changing needs of panel builders. However, its overriding philosophy remains unchanged: to simplify and accelerate panel building operations including wire identification, retention and separation for panel builders, OEMs', and system integrators in a variety of industries.

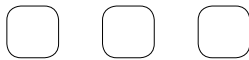
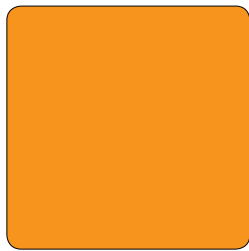
Recent additions to the wire duct family of products, Hager's NAB, North American Base, standard finger PVC wiring duct is 2-meters in length, and includes the lid with a protective film on sizes 1.5" and above, that is easily removable after lid installation. The lid is a flush cover that snaps securely over the fingers, ensuring a tight fit with minimal effort.

Finally, IBOCO's inventory management, and support, is unmatched in the industry, and has the largest volume of efficient and reliable inventory in North America. Our rapid delivery adds time-saving value to your decision to request IBOCO.

- Brand Name Confidence.
- Commitment to quality and service.
- Field Sales Support.
- Highly Trained customer service representatives.
- Flexible sample request program.
- Automated Value-added capabilities



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DIN RAILS

Din Rail is widely used for mounting of terminal blocks, circuit breakers, etc, inside a control panel. The term derives from the original specifications in Germany. Deutsches Institut für Normung (DIN). This specification has been adopted as European (EN) and international (IEC) standards. Din rail saves time when installing, or replacing devices.

IBOCO's extensive offering of din rail, and din rail accessories, are the most comprehensive in the market. All in stock, and ready to ship.

IBOCO's din rail is available in steel, aluminum, copper and stainless steel.

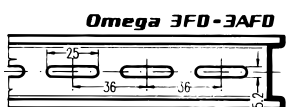
Treated with galvanic zinc plating and passivation (gal Zn 8c according to Din 50960). Minimum thickness 6 microns. Standard length: 2 meters (6'6-3/4")

RoHS compliant.

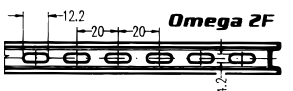
Bottom Mounting Holes



Omega 3F-3AF

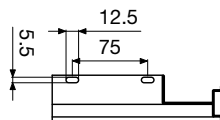


Omega 3FD-3AFD

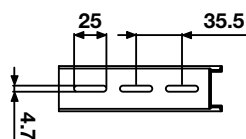


Omega 2F

**Omega 32A1
32A2**



Omega 3FAL1



CATALOG NUMBER	Type Steel	Std. Pack Feet	Lengths Per Pack
G1	Solid	78	12
G1F	With Holes	78	12
G1F1*	With Holes	78	24*
OMEGA 2F	With Holes	130	20
OMEGA 2F1*	With Holes	130	40*
OMEGA 3	Solid	130	20
OMEGA 31	Solid	130	40*
OMEGA 3F	With Holes	130	20
OMEGA 3F1*	With Holes	130	40*
OMEGA 3FD	With Holes	130	20
OMEGA 3A	Solid	65	10
OMEGA 3A1*	Solid	65	20*
OMEGA 3AF	With Holes	65	10
OMEGA 3AF1*	With Holes	65	20*
OMEGA 3AFD	With Holes	65	10
OMEGA 3B	Solid	65	10
OMEGA 3B1*	Solid	65	20*
OMEGA 75	Solid	13	2

ALUMINUM

OMEGA 32A1*	2" Elevated	19.5	6*
OMEGA 32A2	2" Elevated	39	6
OMEGA 3FAL1*	With Holes	130	40*
OMEGA 345A2	4-1/2" Elevated	13	2

COPPER

OMEGA 3ACU	Solid	6.5	1
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STAINLESS STEEL

OMEGA 3SS	Solid	26	4
OMEGA 3SS1*	Solid	26	8*

* One meter in length.

DINCLIC

MOUNTING CLIPS

The Dinclic series of mounting clips allows the installer to mount those devices that are not din rail mountable to the rail directly. Saving installation time.



Catalog Number	Pieces per Pack
DINCLIC DM4	40
DINCLIC FM4	40
DINCLIC FM5	40

Dinclic DM4 For mounting on rail G1, G1F
 Dinclic FM4 - FM5 For mounting on
 OMEGA 3 - OMEGA 3A - OMEGA 3F
 OMEGA 3AF - OMEGA 3B - OMEGA 3FD

Screw size
 FM4 and DM4 - 4 mm. FM5 - 5 mm (US 10-32 can be used)

ST-ST5

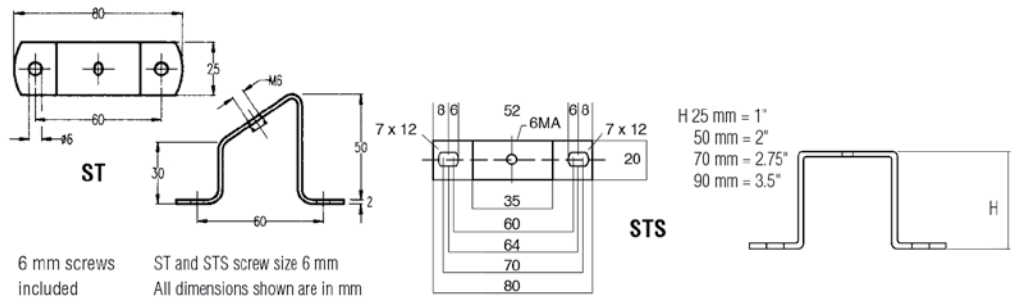
DIN RAIL SUPPORT BRACKETS

The ST Din Rail Support Bracket enables the installer to angle Din Rail installation and provide additional clearance for wiring applications.

The STS series of Din Rail Support Brackets provide additional depth for your din rail installation.



Catalog Number	Pieces per Pack
ST	10
STS 25	10
STS 50	10
STS 70	10
STS 90	10





FLEXIBLE DUCTS SELF-ADHESIVE

DINOSAUR

Dinosaur Duct is a unique product offering from IBOCO that is a flexible, resilient and efficient harnessing solution to your wiring needs.

For wiring to cabinet doors, from control panels and for electronic equipment.

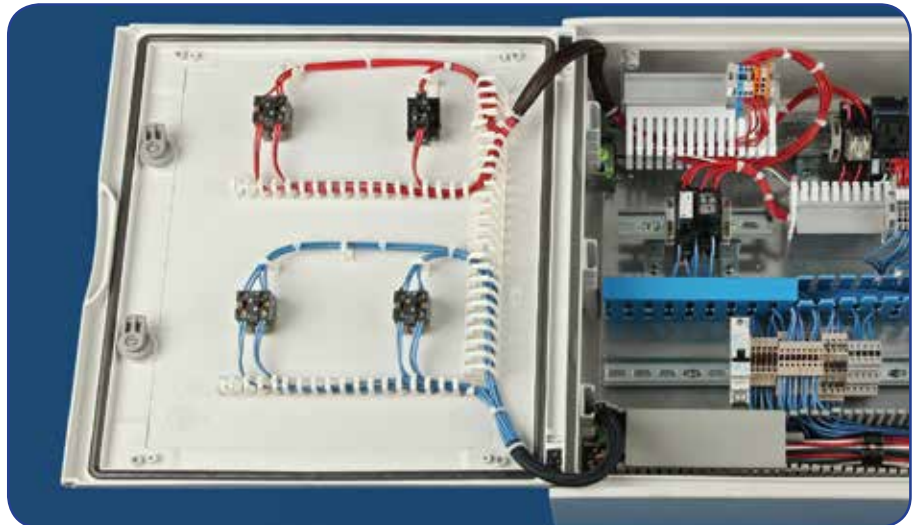
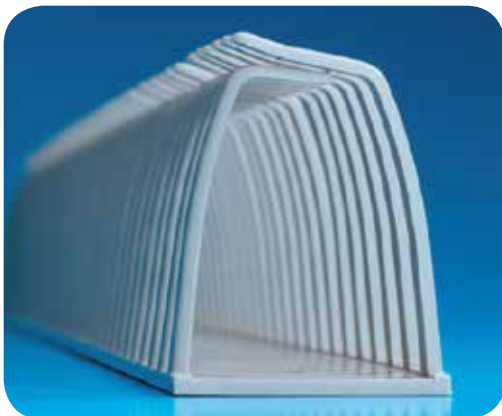
For that part of the cable run that leans against the side of the control cabinet. Dinosaur Flexible Duct is a molded product, made of self-extinguishing polypropylene 19.7 inches in length (500mm). It is available in 3 sizes in Grey and White. Dinosaur has an epoxy adhesive backing, assuring secure mounting.

- Wires can be added or removed in one simple step. The product is reusable.
- Can cut labor by 50%.
- Since Dinosaur has no cover it can accommodate cables in restricted space applications, and allows to displace cable ties, mounts and spiral wrap.
- It can be used in extreme operating conditions (i.e. max. temp. up to 176°F) and has excellent resistance to radiation if exposed to a nuclear environment.
- Dinosaur withstands mechanical stress when installed (i.e. earthquake, falling equipment) while in the event of fire does not emit corrosive, nor toxic gases, and smoke development is minimal.
- The duct can easily be cut to specific sizes using scissors or knife.
- Versatile in many markets, including panel building, food processing, boat building, medical and machine tooling.

Catalog Number	Nominal Size	Lengths* per Pack
DN 25AG	.50 x .75	24
DN 25AW	.50 x .75	24
DN 35AG	1.00 x 1.38	24
DN 35AW	1.00 x 1.38	24
DN 45AG	1.38 x 1.75	14
DN 45AW	1.38 x 1.75	14

NOTE: When applying the Dinosaur with adhesive tape, it is necessary to make sure that the surface is perfectly clean and dry, and allowed to sit for 18 plus hours to insure a strong bond.

UL Recognized File Number E123572

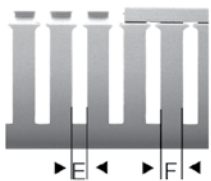




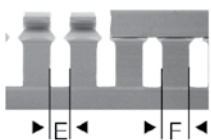
T1 DUCT SERIES

LARGEST INVENTORY OF WIRE DUCT AND COMPONENTS IN NORTH AMERICA

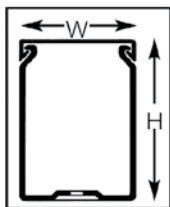
NOMINAL 1 1/2"-2 1/4"-3"-4"



NOMINAL 5/8"-1"



All wiring ducts come complete with cover. Wiring duct covers can be sold separately: IBOCO Corp. Price List.



Non-slip cover design of minimum encumbrance and maximum grip.

CATALOG NUMBER	Nominal Size (WxH)	Dim. in inches (Actual)				Dim. WxH in mm	Std. Ctn. Lengths (1)	(Qty) Feet
		W	H	E	F			
T1-0506G	1/2 x 5/8	.60	.71	.20	.30	15 x 18	20	120
T1-0510G	1/2 x 1	.60	1.18	.20	.30	15 x 30	20	120
T1-0522G	1/2 x 2-1/4	.60	2.36	.20	.30	15 x 60	16	96
T1-1010*	1 x 1	1.00	1.18	.20	.30	25 x 30	18	108
T1-1015*	1 x 1-1/2	1.00	1.57	.31	.47	25 x 40	18	108
T1-1022*	1 x 2-1/4	1.00	2.36	.31	.47	25 x 60	24	144
T1-1030*	1 x 3	1.00	3.15	.31	.47	25 x 80	24	144
T1-1040*	1 x 4	1.00	3.94	.31	.47	25 x 100	8	48
T1-1515*	1-1/2 x 1-1/2	1.57	1.57	.31	.47	40 x 40	20	120
T1-1522*	1-1/2 x 2-1/4	1.57	2.36	.31	.47	40 x 60	18	108
T1-1530*	1-1/2 x 3	1.57	3.15	.31	.47	40 x 80	16	96
T1-1540*	1-1/2 x 4	1.57	3.94	.31	.47	40 x 100	8	48
T1-2215G	2-1/4 x 1-1/2	2.36	1.57	.31	.47	60 x 40	12	72
T1-2222*	2-1/4 x 2-1/4	2.36	2.36	.31	.47	60 x 60	12	72
T1-2230*	2-1/4 x 3	2.36	3.15	.31	.47	60 x 80	12	72
T1-2240*	2-1/4 x 4	2.36	3.94	.31	.47	60 x 100	4	24
T1-3015G	3 x 1-1/2	3.15	1.57	.31	.47	80 x 40	12	72
T1-3022*	3 x 2-1/4	3.15	2.36	.31	.47	80 x 60	12	72
T1-3030*	3 x 3	3.15	3.15	.31	.47	80 x 80	12	72
T1-3040*	3 x 4	3.15	3.94	.31	.47	80 x 100	4	24
T1-3050*	3 x 5	2.95	4.92	.31	.47	75 x 125	6	36
T1-4015G	4 x 1-1/2	3.94	1.57	.31	.47	100 x 40	8	48
T1-4022G	4 x 2-1/4	3.94	2.36	.31	.47	100 x 60	8	48
T1-4030*	4 x 3	3.94	3.15	.31	.47	100 x 80	8	48
T1-4040*	4 x 4	3.94	3.94	.31	.47	100 x 100	4	24
T1-4050*	4 x 5	3.94	4.92	.31	.47	100 x 125	4	24
T1-6040*	6 x 4	5.91	3.94	.31	.47	150 x 100	4	24

Example: T1-0510 G = 1/2"x 1"light GREY duct with cover (1) Each standard length is actually 6'6 3/4" but is counted as 6 feet for packaging and pricing

*Color - add suffix "G" for light GREY "W" for WHITE ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing. Available in 1 meter length contact sales office

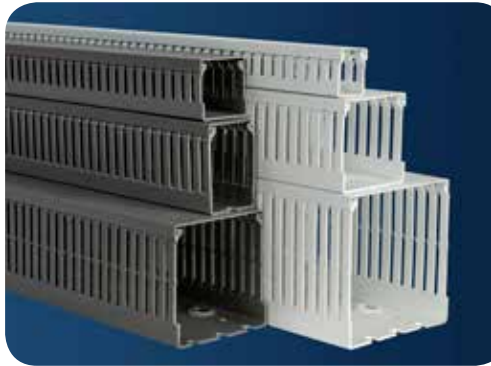


Restricted slot opening for wire retaining.

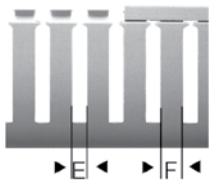
Two predetermined breaklines:
- for breaking off and removal of sidewall finger segments only.
- for removal of sidewall finger and base segments.

Burr-free edges.

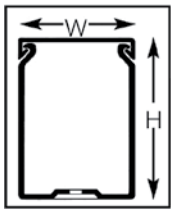
Recess boss for rapid mounting of components.



DUCT SERIES T1-E



All wiring ducts come complete with cover. Wiring duct covers can be sold separately: see page 8 and IBOCO Corp. Price List.

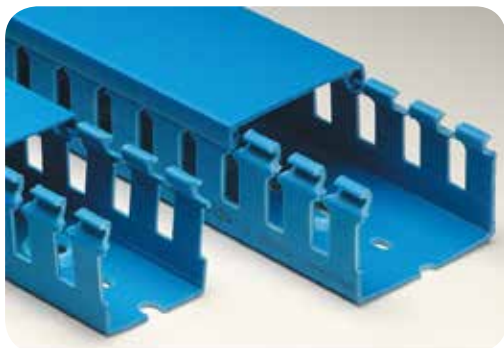


Non-slip cover design of minimum encumbrance and maximum grip.

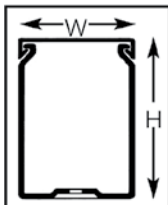


CATALOG NUMBER	Nominal Size (WxH)	Dim. in inches (Actual)				Dim. WxH in mm	Std. Ctn. Lengths (1)	(Qty) Feet
		W	H	E	F			
T1E-1015*	1 x 1-1/2	1.00	1.57	.16	.24	25 x 40	18	108
T1E-1022*	1 x 2-1/4	1.00	2.36	.16	.24	25 x 60	24	144
T1E-1030*	1 x 3	1.00	3.15	.16	.24	25 x 80	24	144
T1E-1040*	1 x 4	1.00	3.94	.16	.24	25 x 100	8	48
T1E-1515*	1-1/2 x 1-1/2	1.57	1.57	.16	.24	40 x 40	20	120
T1E-1522*	1-1/2 x 2-1/4	1.57	2.36	.16	.24	40 x 60	18	108
T1E-1530*	1-1/2 x 3	1.57	3.15	.16	.24	40 x 80	16	96
T1E-1540*	1-1/2 x 4	1.57	3.94	.16	.24	40 x 100	8	48
T1E-2215G	2-1/4 x 1-1/2	2.36	1.57	.16	.24	60 x 40	12	72
T1E-2222*	2-1/4 x 2-1/4	2.36	2.36	.16	.24	60 x 60	12	72
T1E-2230*	2-1/4 x 3	2.36	3.15	.16	.24	60 x 80	12	72
T1E-2240*	2-1/4 x 4	2.36	3.94	.16	.24	60 x 100	4	24
T1E-3015G	3 x 1-1/2	3.15	1.57	.16	.24	80 x 40	12	72
T1E-3022*	3 x 2-1/4	3.15	2.36	.16	.24	80 x 60	12	72
T1E-3030*	3 x 3	3.15	3.15	.16	.24	80 x 80	12	72
T1E-3040*	3 x 4	3.15	3.94	.16	.24	80 x 100	4	24
T1E-4015G	4 x 1-1/2	3.94	1.57	.16	.24	100 x 40	8	48
T1E-4022G	4 x 2-1/4	3.94	2.36	.16	.24	100 x 60	8	48
T1E-4030*	4 x 3	3.94	3.15	.16	.24	100 x 80	8	48
T1E-4040*	4 x 4	3.94	3.94	.16	.24	100 x 100	4	24

*Color - add suffix "G" for light GREY "W" for WHITE ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing. Available in 1 meter length contact sales office



DUCT SERIES T1-B



Blue color duct recognized for intrinsic safe circuits. ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing. Available in 1 meter length contact sales office

CATALOG NUMBER	Nominal Size (WxH)	Dim. in inches (Actual)				Dim. WxH in mm	Std. Ctn. Lengths (1)	(Qty) Feet
		W	H	E	F			
T1-1010B	1 x 1	1.00	1.18	.20	.30	25 x 30	18	108
T1-1022B	1 x 2-1/4	1.00	2.36	.31	.47	25 x 60	24	144
T1-1030B	1 x 3	1.00	3.15	.31	.47	25 x 80	24	144
T1-1515B	1-1/2 x 1-1/2	1.57	1.57	.31	.47	40 x 40	20	120
T1-1522B	1-1/2 x 2-1/4	1.57	2.36	.31	.47	40 x 60	18	108
T1-1530B	1-1/2 x 3	1.57	3.15	.31	.47	40 x 80	16	96
T1-2215B	2-1/4 x 1-1/2	2.36	1.57	.31	.47	60 x 40	12	72
T1-2222B	2-1/4 x 2-1/4	2.36	2.36	.31	.47	60 x 60	12	72
T1-2230B	2-1/4 x 3	2.36	3.15	.31	.47	60 x 80	12	72
T1-3030B	3 x 3	3.15	3.15	.31	.47	80 x 80	12	72
T1-3040B	3 x 4	3.15	3.94	.31	.47	80 x 100	4	24
T1-3050B	3 x 5	2.95	4.92	.31	.47	75 x 125	6	36
T1-4030B	4 x 3	3.94	3.15	.31	.47	100 x 80	8	48
T1-4040B	4 x 4	3.94	3.94	.31	.47	100 x 100	4	24

NOTE: Each standard length is 6' 6-3/4" but is considered as 6 feet for the purpose of pricing and packaging.



T1-K

DUCT SERIES



CATALOG NUMBER	Nominal Size (WxH)	Dim. in inches (Actual)				Dim. WxH in mm	Std. Ctn. Lengths (1)	(Qty) Feet
		W	H	E	F			
T1-1040K	1 x 4	1.00	3.94	.31	.47	25 x 100	8	48
T1-1530K	1-1/2 x 3	1.57	3.15	.31	.47	40 x 80	16	96
T1-2222K	2-1/4 x 2-1/4	2.36	2.36	.31	.47	60 x 60	12	72
T1-2240K	2-1/4 x 4	2.36	3.94	.31	.47	60 x 100	4	24
T1-3030K	3 x 3	3.15	3.15	.31	.47	80 x 80	12	72
T1-3040K	3 x 4	3.15	3.94	.31	.47	80 x 100	4	24
T1-3050K	3 x 5	2.95	4.92	.31	.47	75 x 125	6	36
T1-4040K	4 x 4	3.94	3.94	.31	.47	100 x 100	4	24
T1-4050K	4 x 5	3.94	4.92	.31	.47	100 x 125	4	24

For special sizes contact sales office

ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing.

Available in 1 meter length contact sales office

TS/TSH

DUCT SERIES



TS - Solid duct less mtg. holes

TSH - Solid duct with mtg. holes

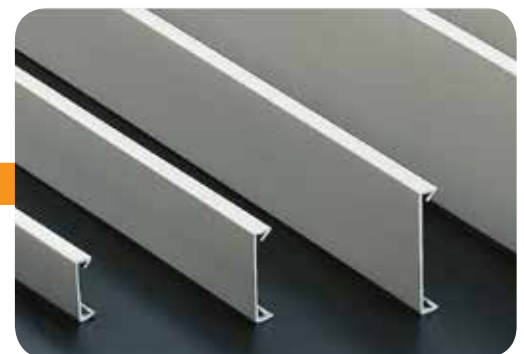
CATALOG NUMBER	Nominal Size (WxH)	Dim. in inches (Actual)		Dim. WxH in mm	Std. Ctn. Lengths (1)	(Qty) Feet
		W	H			
TS/TSH-0506G	1/2 x 5/8	.60	.71	15 x 18	20	120
TS/TSH-0510G	1/2 x 1	.60	1.18	15 x 30	20	120
TS/TSH-1010G	1 x 1	1.00	1.18	25 x 30	18	108
TS/TSH-1015G	1 x 1-1/2	1.00	1.57	25 x 40	18	108
TS/TSH-1030G	1 x 3	1.00	3.15	25 x 80	24	144
TS/TSH-1515G	1-1/2 x 1-1/2	1.57	1.57	40 x 40	20	120
TS/TSH-1522G	1-1/2 x 2-1/4	1.57	2.36	40 x 60	18	108
TS/TSH-1530G	1-1/2 x 3	1.57	3.15	40 x 80	16	96
TS/TSH-2222G	2-1/4 x 2-1/4	2.36	2.36	60 x 60	12	72
TS/TSH-2230G	2-1/4 x 3	2.36	3.15	60 x 80	12	72
TS/TSH-3022G	3 x 2-1/4	3.15	2.36	80 x 60	12	72
TS/TSH-3030G	3 x 3	3.15	3.15	80 x 80	12	72
TS/TSH-3040G	3 x 4	3.15	3.94	80 x 100	4	24
TS/TSH-4030G	4 x 3	3.94	3.15	100 x 80	8	48
TS/TSH-4040G	4 x 4	3.94	3.94	100 x 100	4	24

Optional adhesive backing available: add suffix "A" to catalog number.

Contact the IBOCO sales office for pricing.

COV

COV COVER FOR T1/T1-E/TS/TSH



* Color - add suffix "G" for light GREY RAL 7030
"W" for WHITE

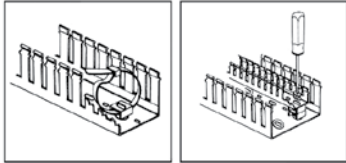
(1) Each standard length is actually 6' 6-3/4" but is counted as 6 feet for packaging and pricing

CATALOG NUMBER	Std. Ctn. Lengths (1)	(Qty) Feet
COV-05*	25	150
COV-10*	25	150
COV-15*	25	150
COV-22*	25	150
COV-30*	25	150
COV-40*	20	120
COV-60*	20	120



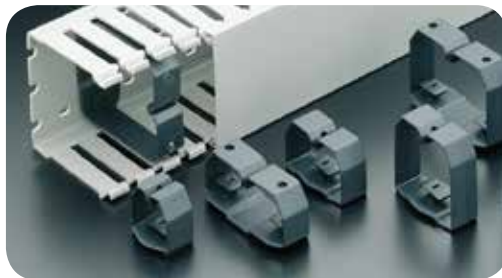
MOUNTING INSERTS CABLE ATTACHMENTS ZP1-ZP2

With a simple quarter turn, ZP1 is used to mount components and SEP-E separators inside duct. Also ZP1 can be used to mount smaller sizes of duct inside larger sizes, thus achieving separation of circuits with different voltages and/or functions.



Catalog Number	Pieces per Carton
ZP1	100
ZP2	50

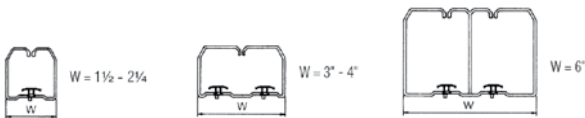
With a simple quarter turn ZP2 can be mounted inside duct. By stacking, mounting levels at different heights are achieved. For tightening a wire bundle inside duct, pass a cable tie through ZP2.



WIRE RETAINERS CL

CL Wire Management Retainers

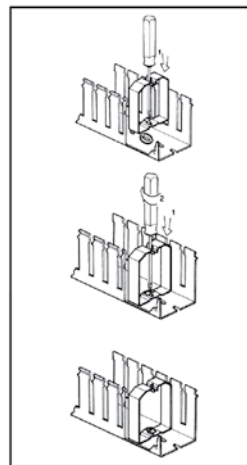
- Retains wires during installation
- Provides additional strain relief of fingers
- Eliminates bulging against sidewall



Catalog number indicates to which duct size (W x H) the CL will fit.

CL wire retainers come complete with mounting elements.

NEW DESIGN avoids fall out of wires especially in ceiling installations.



CATALOG NUMBER	Number Size (WxH)	Pieces per Ctn.
CL-1515	1-1/2 x 1-1/2	40
CL-1522	1-1/2 x 2-1/4	40
CL-1530	1-1/2 x 3	20
CL-2215	2-1/4 x 1-1/2	40
CL-2222	2-1/4 x 2-1/4	20
CL-2230	2-1/4 x 3	20
CL-2240	2-1/4 x 4	20
CL-3022	3 x 2-1/4	10
CL-3030	3 x 3	10
CL-3040	3 x 3	10
CL-4022	4 x 2-1/4	10
CL-4030	4 x 3	10
CL-4040	4 x 4	5
CL-6040	6 x 4	5



SEPARATORS SEP-E

CATALOG NUMBER	Use with Duct Nominal Height	Standard Carton	
		Feet (Meters)	Lengths
SEP-15E	1-1/2	192 (64)	32'
SEP-22E	2-1/4	120 (40)	20'
SEP-30E	3	72 (24)	12'

SEP-E allows the physical separation of circuits with different voltages and/or functions.



SEP-E Mounting detail



DUCTMARK IDENTIFICATION TAG

Resolves the problem of circuit identification in a practical and functional manner.

- Snaps onto sidewall of T1 and NAB duct series to identify wire/circuits inside of the wire duct
- Permanent installation
- Magnified slide for increased visibility
- Need not be removed during maintenance or removal of cover



Ductmark is mounted by snapping it onto the sidewall finger segments taking care that it is placed above the wires coming out to the sidewall slots

Catalog Number	Pieces per Ctn.
DM1	50

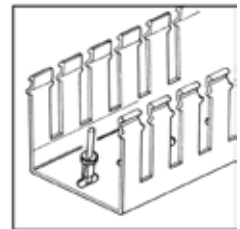
Cannot be used on T1-E Duct or NAB-HD.

DUCTFIX WIRING DUCT RIVETS

MAIN FEATURES

- Elastic Vibration - dampening head
- Good temperature resistance
- Excellent mechanic properties
- Extremely short installation time
- Insulating - Functional - Easy To Apply
- R4 - use B4 or RT4 tool
- R6N - use B6 tool
- R6O - use RT6 tool

Catalog Number	Pieces per Ctn.
R4	250
R6N	250
R6O	250



- Installs quick and easy using the B4 or B6 rivet tool.
- Can be used to install all types of wiring duct with standard mounting holes.
- Hole size R4 - 5/32" (4 mm) – R6 - 7/32" (5.5 mm)

B4-B6 RT4-RT6 RIVET TOOLS

Functional and sturdy

- * All plastic
- ** All metallic - note different rivets for RT6

Catalog Number	Pieces per Ctn.
B4*	1
B6*	1
RT4**	1
RT6**	1





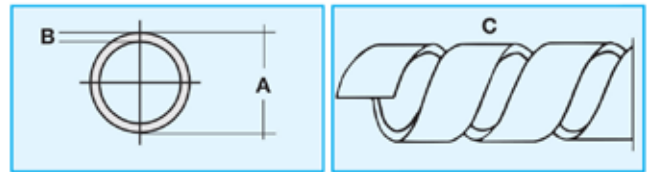
UNIVERSAL SPIRAL WRAPS **SPIRALITE**

Spiral Wrap Tubing

Wire harnessing, cabling and bundling work is simplified utilizing IBOCO's Spiral wrap tubing. Spiral Wrap tubing wraps tightly to the wire and cable being bundled. Maintains flexibility even when bent around sharp edges. Breakouts may be made through the openings of the wrap.

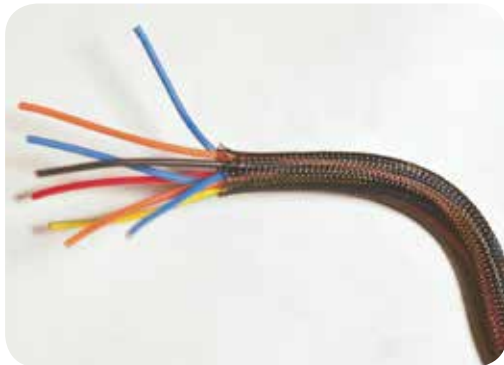
- Flexible, easy to apply.
- Holds bundles securely.
- Makes for flexible connections between control panel and door.

CATALOG NUMBER	Dim. in inches			For Wire Bundles	Feet per Carton
	A	B	C		
P1-PA1-P1K	.06	.12	.20	1/16" to 1/2"	160
P2-PA2-P2K	.16	.24	.31	1/4" to 2"	80
P3-PA3-P3K	.31	.39	.47	3/8" to 3"	80
P4-PA4-P4K	.35	.47	.47	1/2" x 4"	65



- P Natural
- PA Self-extinguishing polyethylene
- PK Black

PK Black available in 100 ft. packs only.



BRAIDED EXPANDABLE SLEEVING **SLEEVING**

The TY series is a lightweight, expandable polyester sleeving that offers high flexibility with resistance to abrasion. The open weave allows for a great range of expansion, ensuring ease of installation and gripping action over a wide range of shapes and sizes.

- Easily applied
- self-fits to irregular shapes and sizes
- Reduces inventory as one size can accommodate many applications



Product Characteristics

Operating temperature:	- 50°C to + 150°C
Physical properties:	Self-extinguishing for UL 94V2
Maximum elongation:	42%
Diameter expansion:	100%
Other:	Halogen - free

CATALOG NUMBER	Nominal I.D. inches (mm)	Nominal Dia. Range inches (mm)	Qty. per Pack (Feet)
TY-5*	.197 (5)	.157 (4) to .472 (12)	325
TY-10*	.375 (10)	.315 (8) to .866 (22)	325
TY-20*	.750 (20)	.630 (16) to 1.378 (35)	164
TY-30*	1.125 (30)	.984 (25) to 1.890 (48)	164
TY-50*	2.000 (50)	1.575 (40) to 2.835 (72)	164

Polyester - Halogen Free - Rated -58°F to +302°F (-50°C to +150°C)
 * Color - add suffix "G" for GREY and "B" for BLACK



LIQUIDTIGHT CONDUIT **GSI - NON METALLIC**



CATALOG NUMBER	Nominal ID	Actual ID	Coil Length
GSI-12*	3/8	0.47	98' (30 meters)
GSI-16*	1/2	0.63	98' (30 meters)
GSI-20*	3/4	0.79	98' (30 meters)
GSI-25*	1	0.98	98' (30 meters)
GSI-32*	1-1/4	1.25	98' (30 meters)
GSI-40*	1-1/2	1.57	98' (30 meters)
GSI-50*	2	1.97	98' (30 meters)

GSI tubing, made of soft PVC with rigid external spiral, provides maximum flexibility and can be used in extremely tight quarters.

- Withstands repetitive motion of automated equipment
- Protects cables from pulling, stretching and tangling
- Facilitates quick installation

* Color - add suffix "G" for LIGHT GREY and "K" for BLACK

LIQUIDTIGHT CONDUIT **RPS - STRAIGHT LIQUIDTIGHT FITTING**



CATALOG NUMBER	Nominal ID	Actual ID	Pieces per Pack
RPS-12*	3/8	0.47	20
RPS-16*	1/2	0.63	20
RPS-20*	3/4	0.79	20
RPS-25*	1	0.98	10
RPS-32*	1-1/4	1.25	10
RPS-40*	1-1/2	1.57	5
RPS-50*	2	1.97	5

RPS (straight) and CUR (90 degree) Liquid-tight fittings are made of fire resistant polypropylene and assures a complete liquid-tight seal.

- No tools required for installation
- Simply apply connector to conduit via clockwise motion until locked
- Corrosion resistant

* Color - add suffix "G" for LIGHT GREY and "K" for BLACK

LIQUIDTIGHT CONDUIT **CUR - 90° LIQUIDTIGHT FITTING**



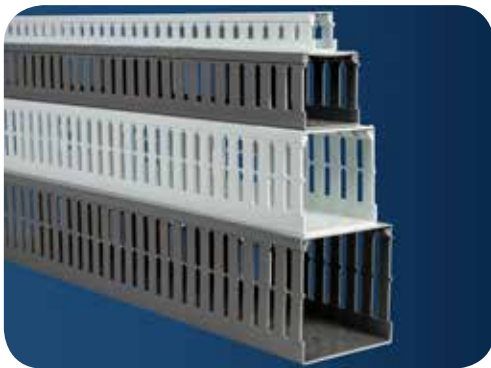
CATALOG NUMBER	Nominal ID	Actual ID	Pieces per Pack
CUR-12*	3/8	0.47	25
CUR-16*	1/2	0.63	25
CUR-20*	3/4	0.79	15
CUR-25*	1	0.98	5
CUR-32*	1-1/4	1.25	5

* Color - add suffix "G" for LIGHT GREY and "K" for BLACK
For 1-1/2" and 2" contact sales office

LIQUIDTIGHT CONDUIT **GT - GASKETS**



CATALOG NUMBER	Fits RA/CUR	Pieces per Pack
GT-12	12	25
GT-16	16	25
GT-20	20	25
GT-25	25	20
GT-32	32	20
GT-40	40	10
GT-50	50	10



STANDARD FINGER (NAB) Hager Wire Duct

The Hager Brand (NAB) standard finger PVC wire duct reflects the mounting hole configuration of all "North American" branded wire duct, for immediate mounting to your back panel or enclosure specified mounting holes.

The lids include a protective, removable film, on sizes 1.5" and above, that is easily removable after lid installation. The individual fingers with two predetermined break lines ensure a clean finger breakout on the upper score line, and easy side-wall removal with hand tool on the lower score line. Each length is 2-meters, and includes lid.

White Grey



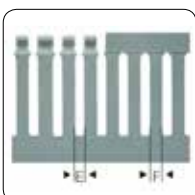
CATALOG NUMBER	CATALOG NUMBER	Nominal Size (W x H)	Dimensions in Inches (actual)				Dimensions W x H (millimeters)	Standard Carton Qty.	
			W	H	E	F		Lengths	Feet
NAB-0506W	NAB-0506G	1/2" x 5/8"	0.60	0.71	0.20	0.30	15 x 18	36	216
NAB-0510W	NAB-0510G	1/2" x 1"	0.60	1.18	0.20	0.30	15 x 30	20	120
NAB-0522W	NAB-0522G	1/2" x 2-1/4"	0.60	2.36	0.20	0.30	15 x 60	16	96
NAB-1010W	NAB-1010G	1" x 1"	1.00	1.18	0.20	0.30	25 x 30	20	120
NAB-1015W	NAB-1015G	1" x 1-1/2"	1.00	1.57	0.31	0.47	25 x 40	18	108
NAB-1022W	NAB-1022G	1" x 2-1/4"	1.00	2.36	0.31	0.47	25 x 60	24	144
NAB-1030W	NAB-1030G	1" x 3"	1.00	3.15	0.31	0.47	25 x 80	24	144
NAB-1040W	NAB-1040G	1" x 4"	1.00	3.94	0.31	0.47	25 x 100	8	48
NAB-1515W	NAB-1515G	1-1/2" x 1-1/2"	1.57	1.57	0.31	0.47	40 x 40	20	120
NAB-1522W	NAB-1522G	1-1/2" x 2-1/4"	1.57	2.36	0.31	0.47	40 x 60	18	108
NAB-1530W	NAB-1530G	1-1/2" x 3"	1.57	3.15	0.31	0.47	40 x 80	16	96
NAB-1540W	NAB-1540G	1-1/2" x 4"	1.57	3.94	0.31	0.47	40 x 100	8	48
NAB-2215W	NAB-2215G	2-1/4" x 1-1/2"	2.36	1.57	0.31	0.47	60 x 40	12	72
NAB-2222W	NAB-2222G	2-1/4" x 2-1/4"	2.36	2.36	0.31	0.47	60 x 60	12	72
NAB-2230W	NAB-2230G	2-1/4" x 3"	2.36	3.15	0.31	0.47	60 x 80	12	72
NAB-2240W	NAB-2240G	2-1/4" x 4"	2.36	3.94	0.31	0.47	60 x 100	4	24
NAB-3015W	NAB-3015G	3" x 1-1/2"	3.15	1.57	0.31	0.47	80 x 40	12	72
NAB-3022W	NAB-3022G	3" x 2-1/4"	3.15	2.36	0.31	0.47	80 x 60	12	72
NAB-3030W	NAB-3030G	3" x 3"	3.15	3.15	0.31	0.47	80 x 80	12	72
NAB-3040W	NAB-3040G	3" x 4"	3.15	3.94	0.31	0.47	80 x 100	4	24
NAB-3050W	NAB-3050G	3" x 5"	2.95	4.92	0.31	0.47	75 x 125	6	36
NAB-4015W	NAB-4015G	4" x 1-1/2"	3.94	1.57	0.31	0.47	100 x 40	8	48
NAB-4022W	NAB-4022G	4" x 2-1/4"	3.94	2.36	0.31	0.47	100 x 60	8	48
NAB-4030W	NAB-4030G	4" x 3"	3.94	3.15	0.31	0.47	100 x 80	8	48
NAB-4040W	NAB-4040G	4" x 4"	3.94	3.94	0.31	0.47	100 x 100	4	24
NAB-4050W	NAB-4050G	4" x 5"	3.94	4.92	0.31	0.47	100 x 125	4	24
NAB-6040W	NAB-6040G	6" x 4"	5.91	3.94	0.31	0.47	150 x 100	4	24

Available in various lengths. Contact sales office.

(1) Each standard length is actually 6'6 3/4", but is counted as 6 feet for packaging and pricing.

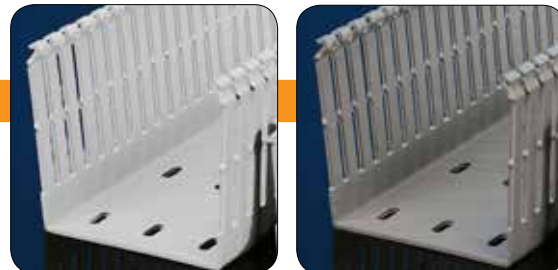
ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing.

All wiring ducts come complete with lid. Wiring duct lids can be sold separately.





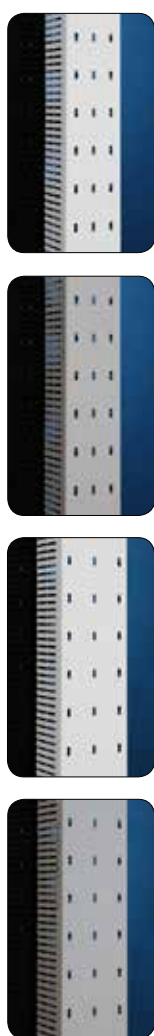
Hager Wire Duct **NARROW FINGER/HIGH DENSITY (NAB)**



The Hager Brand (NAB) narrow finger wire duct reflects the mounting hole configuration of all "North American" branded wire duct, for immediate mounting to your back panel or enclosure specified mounting holes.

The lids include a protective, removable film, on sizes 1.5" and above, that is easily removable after lid installation. The individual fingers with two predetermined break lines ensure a clean finger breakout on the upper score line, and easy sidewall removal with hand tool on the lower score line. Each length is 2-meters, and includes lid.

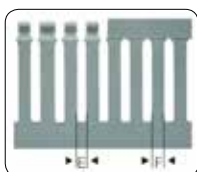
Please note: The NAB narrow finger wire duct is ideal for use with high-density terminal blocks. With narrow finger slots, wires can be neatly managed from any location along the wire duct.



White

Grey

CATALOG NUMBER	CATALOG NUMBER	Nominal Size (W x H)	Dimensions in Inches (actual)				Dimensions W x H (millimeters)	Standard Carton Qty.	
			W	H	E	F		Lengths	Feet
NAB-0506WHD	NAB-0506GHD	1/2" x 5/8"	0.60	0.71	0.16	0.24	15 x 18	36	216
NAB-0510WHD	NAB-0510GHD	1/2" x 1"	0.60	1.18	0.16	0.24	15 x 30	20	120
NAB-0522WHD	NAB-0522GHD	1/2" x 2-1/4"	0.60	2.36	0.16	0.24	15 x 60	16	96
NAB-1010WHD	NAB-1010GHD	1" x 1"	1.00	1.18	0.16	0.24	25 x 30	20	120
NAB-1015WHD	NAB-1015GHD	1" x 1-1/2"	1.00	1.57	0.16	0.24	25 x 40	18	108
NAB-1022WHD	NAB-1022GHD	1" x 2-1/4"	1.00	2.36	0.16	0.24	25 x 60	24	144
NAB-1030WHD	NAB-1030GHD	1" x 3"	1.00	3.15	0.16	0.24	25 x 80	24	144
NAB-1040WHD	NAB-1040GHD	1" x 4"	1.00	3.94	0.16	0.24	25 x 100	8	48
NAB-1515WHD	NAB-1515GHD	1-1/2" x 1-1/2"	1.57	1.57	0.16	0.24	40 x 40	20	120
NAB-1522WHD	NAB-1522GHD	1-1/2" x 2-1/4"	1.57	2.36	0.16	0.24	40 x 60	18	108
NAB-1530WHD	NAB-1530GHD	1-1/2" x 3"	1.57	3.15	0.16	0.24	40 x 80	16	96
NAB-1540WHD	NAB-1540GHD	1-1/2" x 4"	1.57	3.94	0.16	0.24	40 x 100	8	48
NAB-2215WHD	NAB-2215GHD	2-1/4" x 1-1/2"	2.36	1.57	0.16	0.24	60 x 40	12	72
NAB-2222WHD	NAB-2222GHD	2-1/4" x 2-1/4"	2.36	2.36	0.16	0.24	60 x 60	12	72
NAB-2230WHD	NAB-2230GHD	2-1/4" x 3"	2.36	3.15	0.16	0.24	60 x 80	12	72
NAB-2240WHD	NAB-2240GHD	2-1/4" x 4"	2.36	3.94	0.16	0.24	60 x 100	4	24
NAB-3015WHD	NAB-3015GHD	3" x 1-1/2"	3.15	1.57	0.16	0.24	80 x 40	12	72
NAB-3022WHD	NAB-3022GHD	3" x 2-1/4"	3.15	2.36	0.16	0.24	80 x 60	12	72
NAB-3030WHD	NAB-3030GHD	3" x 3"	3.15	3.15	0.16	0.24	80 x 80	12	72
NAB-3040WHD	NAB-3040GHD	3" x 4"	3.15	3.94	0.16	0.24	80 x 100	4	24
NAB-3050WHD	NAB-3050GHD	3" x 5"	2.95	4.92	0.16	0.24	75 x 125	6	36
NAB-4015WHD	NAB-4015GHD	4" x 1-1/2"	3.94	1.57	0.16	0.24	100 x 40	8	48
NAB-4022WHD	NAB-4022GHD	4" x 2-1/4"	3.94	2.36	0.16	0.24	100 x 60	8	48
NAB-4030WHD	NAB-4030GHD	4" x 3"	3.94	3.15	0.16	0.24	100 x 80	8	48
NAB-4040WHD	NAB-4040GHD	4" x 4"	3.94	3.94	0.16	0.24	100 x 100	4	24
NAB-4050WHD	NAB-4050GHD	4" x 5"	3.94	4.92	0.16	0.24	100 x 125	4	24
NAB-6040WHD	NAB-6040GHD	6" x 4"	5.91	3.94	0.16	0.24	150 x 100	4	24



Available in various lengths. Contact sales office.

(1) Each standard length is actually 6'6 3/4", but is counted as 6 feet for packaging and pricing.

ADHESIVE BACKING - add suffix "A" to catalog number - contact sales office for pricing.

All wiring ducts come complete with lid. Wiring duct lids can be sold separately.



Material: ABS/PC
Color: Black

WIRE RETAINERS PREDETERMINED BREAK LINES TR1/TR1-E

A simple to use wire retainer that mounts on the duct fingers. Has predetermined scorelines so that "one size fits all". The TR1 and the TR1-E can be used on the 6", 4", 3", 2 1/4" and 1 1/2" T1, T1-E duct and NAB standard and high density duct. The quick solution for every panel builder during initial panel wiring and maintenance operation.



Catalog Number	Pieces per Ctn.
TR1*	50
TR1E**	50



North American Base (NAB) Lids

IBOCO's Hager brand North American Base (NAB) Lids are included with the wiring duct. If additional lids are required, they may be purchased separately.

All lids on sizes 1.5" and above include a protective removable film, that can be easily removed after installation. The removable film eliminates unwanted scratches and discoloration.



Grey

CATALOG NUMBER	Nominal Size (width)	Size (width) Millimeters	Standard Carton Lengths	Standard Carton Feet
LID-05G	1/2"	15mm	50	300
LID-10G	1"	25mm	25	150
LID-15G	1-1/2"	40mm	25	150
LID-22G	2-1/4"	60mm	25	150
LID-30G	3"	80mm	25	150
LID-40G	4"	100mm	20	120
LID-60G	6"	150mm	20	120

White



CATALOG NUMBER	Nominal Size (width)	Size (width) Millimeters	Standard Carton Lengths	Standard Carton Feet
LID-05W	1/2"	15mm	50	300
LID-10W	1"	25mm	25	150
LID-15W	1-1/2"	40mm	25	150
LID-22W	2-1/4"	60mm	25	150
LID-30W	3"	80mm	25	150
LID-40W	4"	100mm	20	120
LID-60W	6"	150mm	20	120


TOOLS


SX-15 Wiring Duct Cutter

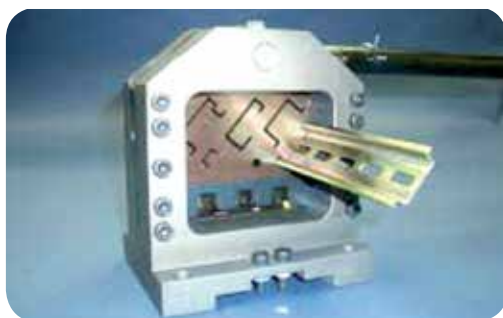
CATALOG NUMBER		Pieces per Pack
SX-15	Hand duct cutter	1
SX-15B	Blade	1

WT-2 Duct & Tubing Cutter

CATALOG NUMBER		Pieces per Pack
WT-2	Duct and tubing cutter	1
WT-2B	Blade	1

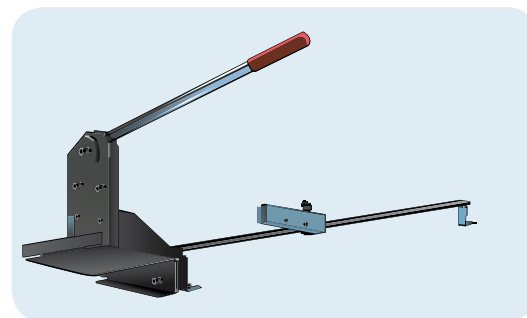
Features and Benefits

- Heavy-duty stainless steel blade
- Easy-grip handle
- Smooth, burr-free cuts on duct and cover
- Quick, easy cutting
- For use with all IBOCO wiring duct products, including DINOSAUR DUCT



DC-510 Din Rail Cutter

CATALOG NUMBER		Pieces per Pack
DC-510	Hand duct cutter	1
DC-510B	Blade	1



BA7 Cutter

CATALOG NUMBER		Pieces per Pack
BA7	Wiring duct cutter	1
BL-120	Wiring duct cutter	1
DCA-100	Aluminum rail cutter	1

Features and Benefits

- Cuts Omega 3/2F/3F/3A/3AF/G1/G1F 6 mm (~ 1.4") steel rods, threaded or not
- Punches oblong hole 8.8 mm x 5 mm (0.35" x 0.20") in either direction on the axis of the rail
- Includes 1m ruler (imperial/metric) with End Stop



IBOCO[®]

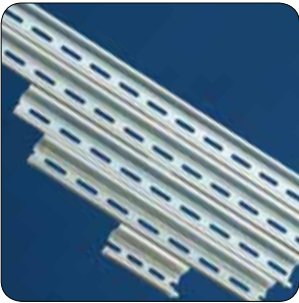


Value Added



IBOCO consistently and accurately meets the needs of panel builders, supporting them with industry leading technical expertise focused on wire duct and din rail applications.

IBOCO has been an industry leader in the supply of integrated panel management systems and related products for over thirty years.



We can modify and customize our wire duct and DIN rails for both IBOCO and Hager products.

For orders from 10 to 10,000 pieces we can customize wire duct lengths, fingers, hole patterns to match your back plate, and attach adhesive strips. Also all styles of DIN Rail may be cut, drilled and packaged to your specifications.



Our design engineers will work directly with you to ensure the correct product is delivered. We'll provide customized samples to your complete satisfaction, maintain stock, put together complete kits with custom labeling to your cartons.

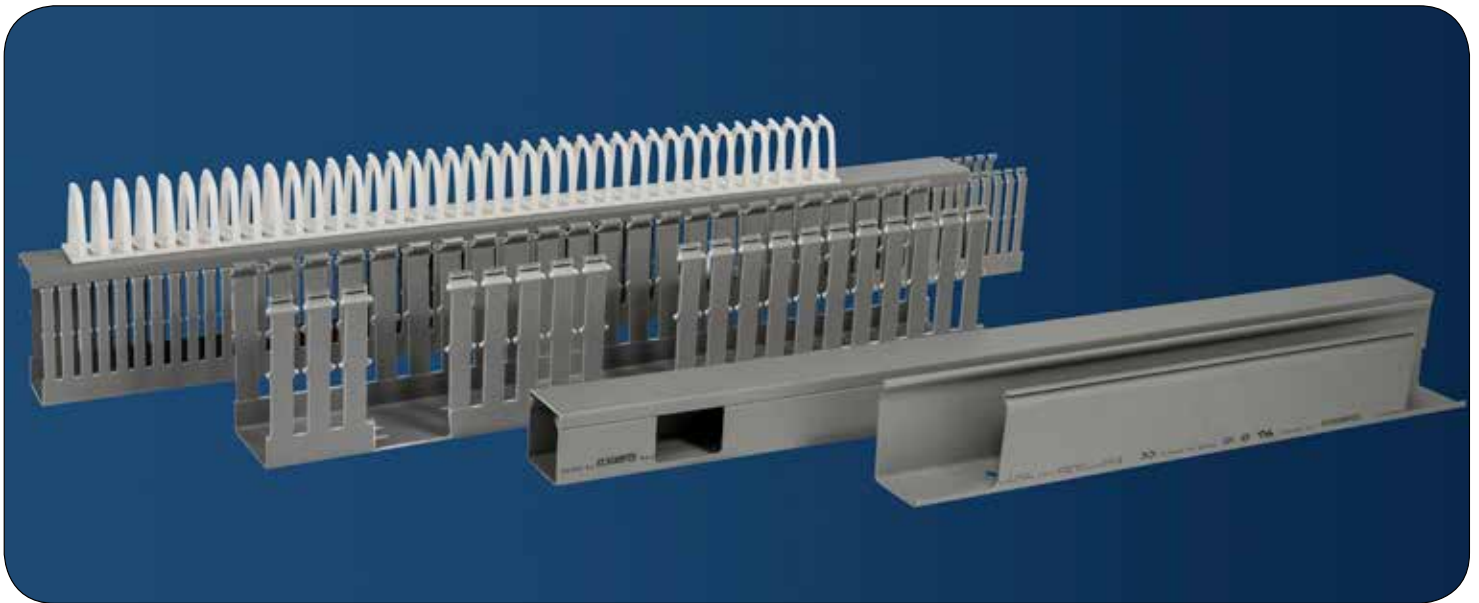
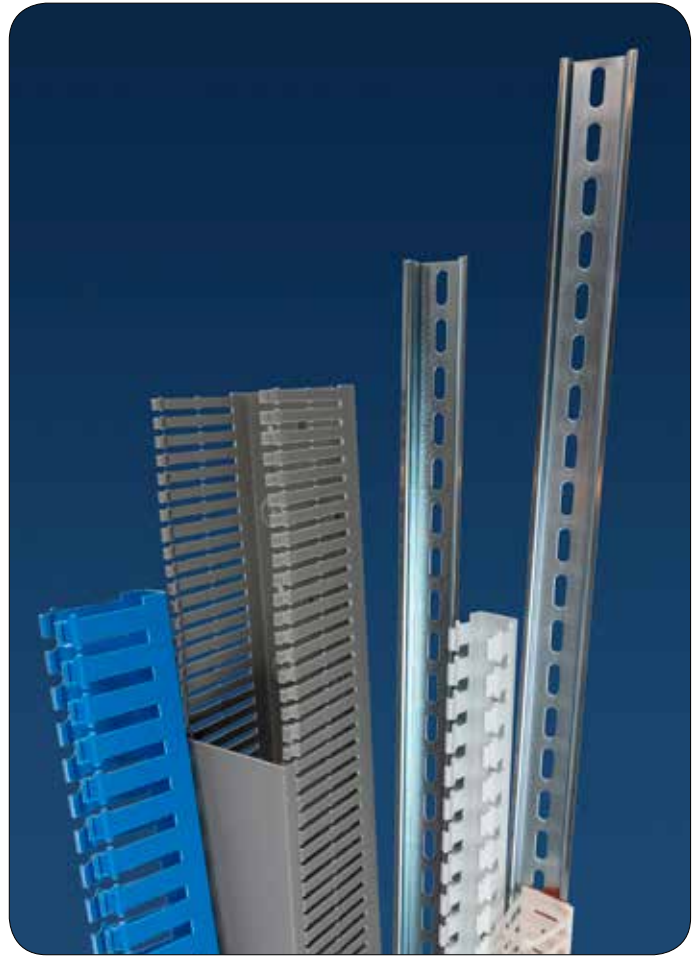
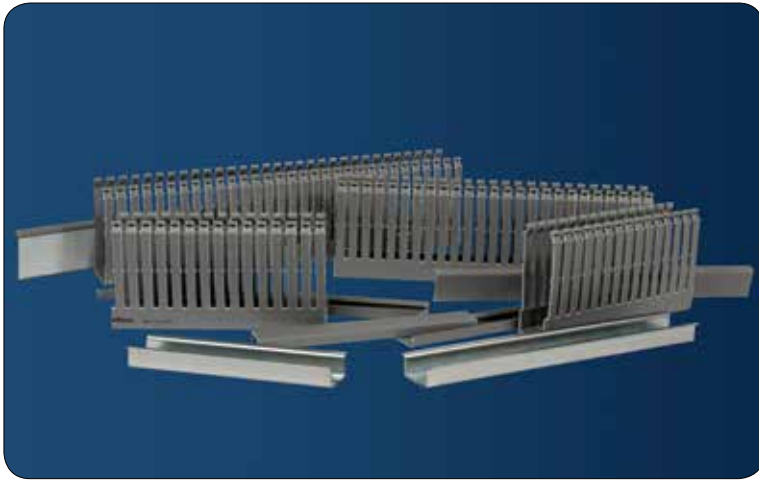


Shipments of your customized product can be received in less than two weeks once the final design is approved.

All of this will save you time, money, reduce scrap, and help eliminate injuries.



Customization





Adhesive Backed Duct

Adhesive tape can be applied to all sizes of our T1, T1E, TS and TSH Wiring Duct Series products.

Adhesive backing can be used for the following applications:

1) TEMPORARY MOUNTING (See Table Below):

Gives installer ample time to secure duct (rivets or screws) with precision and accuracy.

2) PERMANENT MOUNTING:

Significantly reduces labor costs and time by eliminating the need to drill or tap holes during installation. IBOCO recommends the entire width of the duct be covered with a Rubber based adhesive tape. Contact factory for pricing.

Note: IBOCO recommends that, when using rubber tape, approximately 12 hours of curing time is allowed.

Please add an "A" to the part number when ordering (i.e. T1-2230GA). Adhesive is applied as ordered. Lead time 5-7 business days. For pricing please contact the factory.

Tape Specifications:

- * Double-sided rubber based polyolefin foam tape
- * Application Temperature Range 65° F to 100° F
- * General Service Temperature -20° F to 175° F



Factory Applied Tape (Temporary Mounting)
Rubber Based Only

Duct Size W x H	Rows of Tape	Tape Size (in)	Tape Thickness
.5 x .5 Thru 1.5 x 2.25	1	.50	.0313
1.5 x 3 Thru 3 x 2	2	.50	.0313
3 x 3 Thru 3 x 5	2	.75	.0313
4 x 1.5 Thru 4 x 5	2	.75	.0313
6 x 4	3	.75	.0313

Rolls of Adhesive to Purchase Separately

PART NUMBER	Tape Size (in)	Roll Length (in)
MT-32A50 (Rubber)	.50	216
MT-32A75 (Rubber)	.75	216

Panel Management

IBOCO 's Space Saver Panel Management System

In a dual entry or swing out panel application, this new and innovative panel management system provides a faster, effective and efficient installation.

Save Space

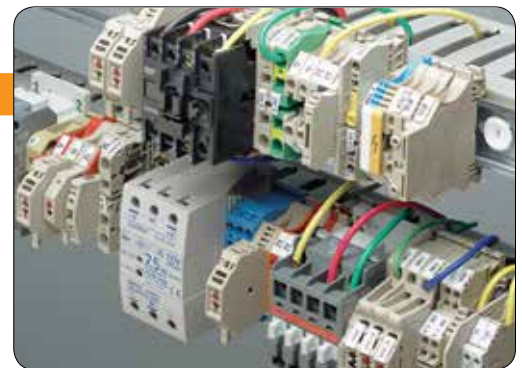
Use up to 30% less panel space

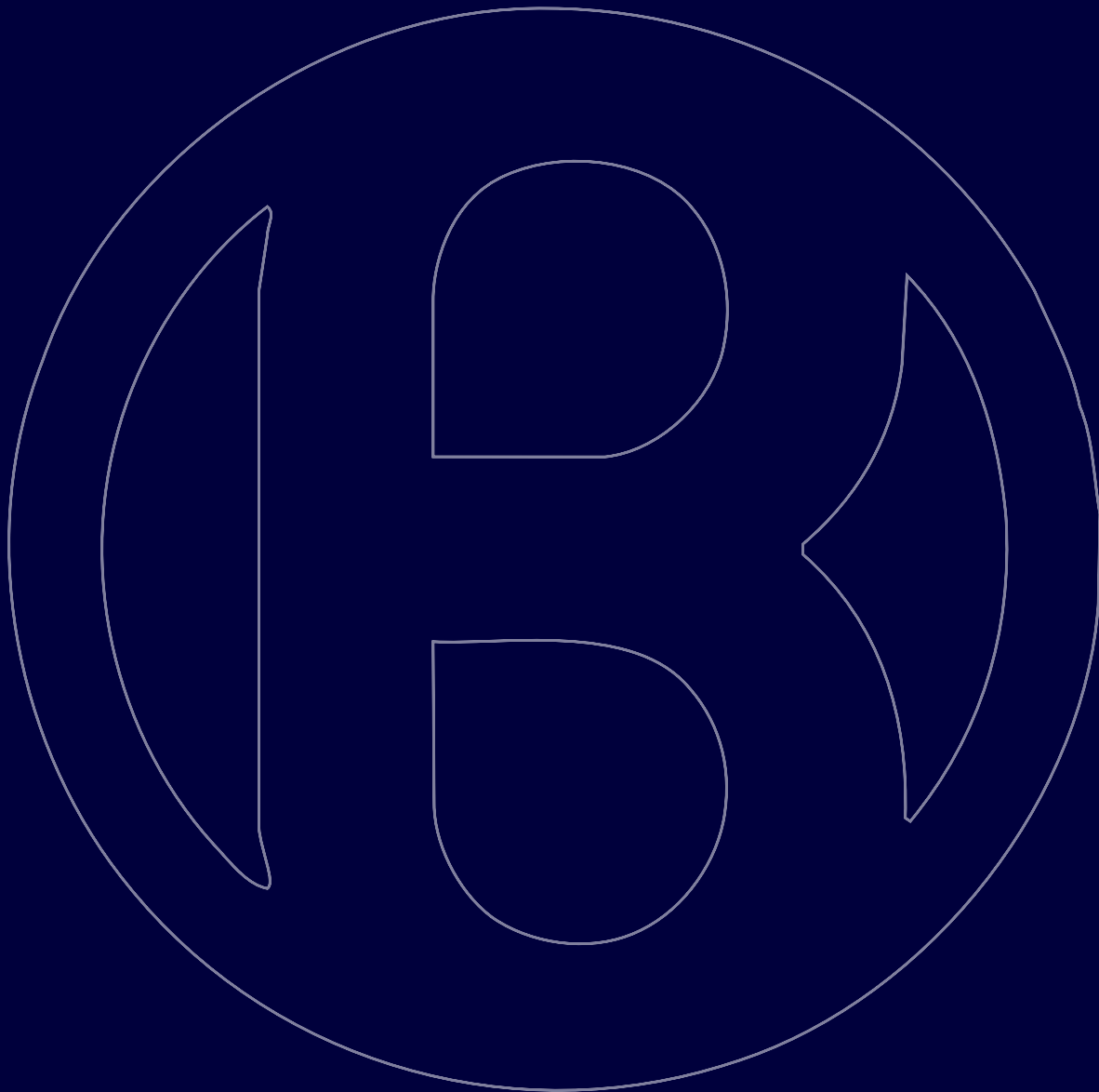
Save Labor

Installations are clean and simple with ZP-1 mounting inserts

Save Money

Use smaller enclosures for your next project





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