

NOVA Energy & Automation



Product Specifications

MRI Wall Duct

Model AWD Aluminium Non Ferrous

A 3D perspective rendering of an MRI wall duct. The duct is shown as a dark blue, rectangular structure with a white interior. It is composed of several interconnected sections, with some parts being slightly offset to show the depth and structure. The duct is set against a light blue background.

03 January 2012

Product Description

1. Large Capacity Wire Ways

Large capacity aluminium wire ways are commonly used to route signalling, power, data, and mechanical connections to MRI equipment during new construction and renovations. Wire ways allow cable routing to be accomplished in applications where conduit is not feasible while maintaining the integrity and aesthetics of the medical imaging suite. Upgrades and maintenance to the medical imaging equipment are easy to accomplish with the removable covers and modular design of the Nova wire duct.

Aluminium wire ways (Non Ferrous Metal) are commonly used inside of the MRI Magnet room.

Wall Duct can be installed in non load-bearing applications surface mounted on the wall or flush mounted in the wall. It is typically installed on walls, above the ceiling, or surface mounted on the floor. Wall Duct is manufactured in a variety of sizes from 4 inch up to 48 inches.



Figure 1: Wall Duct

2. Features/Benefits

Features

- ETL listed to UL 870 and cUL standards to conform to NEC.
- Constructed of rigid 12GA 3003 formed Aluminium
- Painted during manufacturing to provide a clean finish to the room DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
- Material selection support with Guaranteed Bill of Materials
- Auto Cad Drawings available for every project
- Superior Packaging and Labelling

Benefits

- Allows access to wiring and mechanical connections for maintenance
- Provides a standardized platform for future modifications or upgrades
- ¼" rabbetted cover provides superior protection of cabling, and clean look during field modifications.
- Allows cable routing to be accomplished in applications where conduit is not feasible
- Engineering and customer service support throughout the project
- Packaged and labeled with project identification such as room number, wall number and configuration to assist in faster installations
- Non Ferrous for MRI Installations

3. Commonly Used Sizes

Size	Example Part Number	Example Description
6"x3.5"	AW0635-FT	6" Wide x 3.5" Deep Aluminium Flat T
10"x3.5"	AW1035-FT	10" Wide x 3.5" Deep Aluminium Flat T
18"x3.5"	AW1835-FT	18" Wide x 3.5" Deep Aluminium Flat T
18" x 6"	AW1860-FT	18" Wide x 6" Deep Aluminium Flat T
24" x 3.5"	AW2435-FT	24" Wide x 3.5" Deep Aluminium Flat T
24" x 6"	AW2460-FT	24" Wide x 6" Deep Aluminium Flat T
24" x 8"	AW2480-FT	24" Wide x 8" Deep Aluminium Flat T
30" x 3.5"	AW3035-FT	30" Wide x 3.5" Deep Aluminium Flat T
36"x 6"	AW3660-FT	36" Wide x 6" Deep Aluminium Flat T
	Other sizes readily available upon request	

4. Specifications

Aluminium Wall Duct Body

Description	Aluminium wall duct body
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Grounding	Grounding Lug included
Approvals	ETL Listed to UL/cUL 870 file 100450372CRT-001a, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount wall duct	Aluminium rabbetted Cover for flush mount wall duct
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included

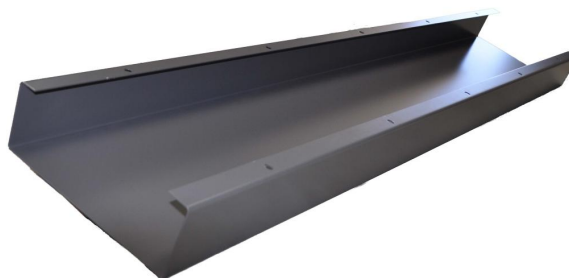


Figure 2: Aluminium Wall Duct Body

Aluminium Wall Duct Coupling

Description	Aluminium wall duct coupling used to connect 2 sections of similar size duct. 1 piece needed for every splice.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	Pre drilled holes and self tapping 316 SS screws included
Approvals	UL/cUL, NEC Article 376, NEC 517



Figure 3: Aluminium Wall Duct Coupling

Aluminium Divider

Description	Divider used to separate power and signalling cables inside of the duct. Used to create multiple compartments inside of 1 piece of wireway.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	Pre drilled holes and 316 SS mounting hardware included
Approvals	UL/cUL, NEC Article 376, NEC 517



Figure 4: Wall Duct Divider

Aluminium End Closure

Description	Aluminium wall duct end closure used to terminate wire duct
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	Pre drilled holes and 316 SS mounting hardware included
Approvals	UL/cUL, NEC Article 376, NEC 517



Figure 5: Aluminium Wall Duct End Closure

Aluminium Box Connector

Description	Aluminium wall duct box connector (flange) generally used to terminate a wireway into a junction box
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	Pre drilled holes and 316 SS mounting hardware included
Approvals	UL/cUL, NEC Article 376, NEC 517



Figure 6: Aluminium Wall Duct Junction Box Connector

Aluminium Wall Duct Inside 90°

Description	Inside 90 degree turn generally used to go inside a corner where 2 walls meet or transition from surface mounted floor duct to vertical wall duct.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount inside 90° elbow	Aluminium rabbetted Cover for flush mount inside 90° elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included



Figure 7: Aluminium Wall Duct Inside 90°

Aluminium Wall Duct Sweep Inside Sweep 90⁰

Description	Inside 90 degree turn generally used to go inside a corner where 2 walls meet or transition from surface mounted floor duct to vertical wall duct. Used in applications where a larger bending radius is preferred.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount sweep inside sweep 90 ⁰ elbow	Aluminium rabbetted Cover for flush mount sweep inside sweep 90 ⁰ elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included



Figure 8: Aluminium Wall Duct Sweep Inside 90⁰

Aluminium Wall Duct Outside 90⁰

Description	Outside 90 degree turn generally used to go around a corner, pillar or other obstructing objects on the wall or above the ceiling.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount outside 90 ⁰ elbow	Aluminium rabbetted Cover for flush mount outside 90 ⁰ elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included



Figure 9: Aluminium Wall Duct Outside 90°

Aluminium Wall Duct Sweep Outside 90°

Description	Outside 90 degree turn generally used to go around a corner, pillar or other obstructing objects on the wall or above the ceiling. Used in applications where a larger bending radius is preferred.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount sweep outside sweep 90° elbow	Aluminium rabbetted Cover for flush mount sweep outside sweep 90° elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included

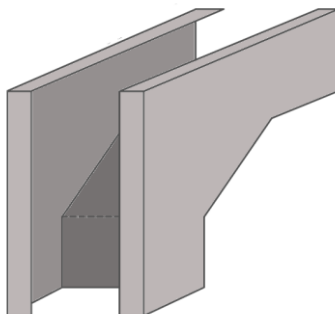


Figure 10: Aluminium Wall Duct Sweep Outside 90°

Aluminium Wall Duct Flat 90⁰

Description	Flat (Horizontal) 90 degree turn generally used to transition from vertical to horizontal duct on the wall.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount flat 90 ⁰ elbow	Aluminium rabbetted Cover for flush mount flat 90 ⁰ elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included



Figure 11: Aluminium Wall Duct Flat 90⁰

Aluminium Wall Duct Flat T

Description	Flat T generally used to extend duct vertically on a horizontal run of wireway.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount wall duct	Aluminium rabbetted Cover for flush mount wall duct
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included
Optional Fittings	Divider Tunnel W1835-FTun	Divider Tunnel W1835-FTun



Figure 12: Aluminium Wall Duct Flat T

Aluminium Wall Duct Flat X

Description	Flat X generally used to extend cross vertical and horizontal wireways.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount flat X	Aluminium rabbetted Cover for flush mount flat X
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included
Optional Fittings	Divider Tunnel W1835-FXTun	Divider Tunnel W1835-FXTun

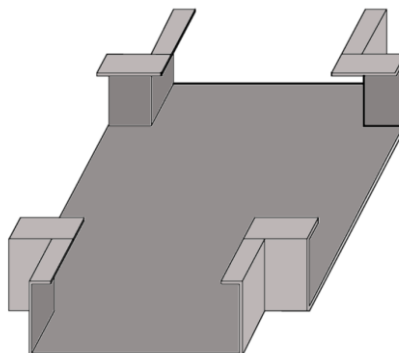


Figure 13: Aluminium Wall Duct Flat X

Aluminium Wall Duct Flat 45⁰

Description	Flat (Horizontal) 45 degree turn generally used in surface mount floor duct applications.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount flat 45 ⁰ elbow	Aluminium rabbetted Cover for flush mount flat 45 ⁰ elbow
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included

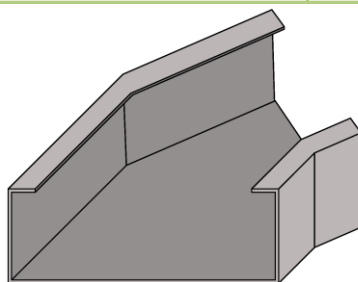


Figure 14: Aluminium Wall Duct Flat 45⁰

Aluminium Wall Duct Inside 45⁰

Description	Inside 45 degree turn generally used above the ceiling to route wires around difficult obstructing objects.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Max Wire Gauge	Not Applicable- Bending Radius does not exceed 45 ⁰
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount wall duct	Aluminium rabbetted Cover for flush mount wall duct
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included

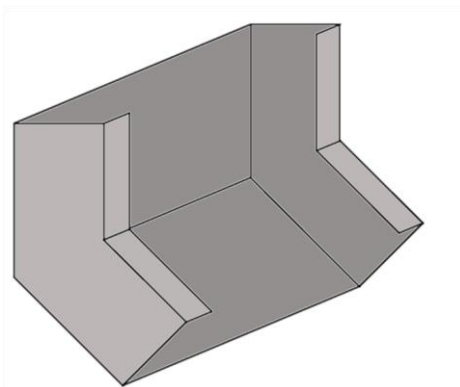


Figure 15: Aluminium Wall Duct Inside 45°

Aluminium Wall Duct Horizontal Floor Riser 90°

Description	Horizontal floor riser generally used to transition from surface floor duct to horizontal wall duct.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517

Cover Options	Surface	Flush
Description	Aluminium rabbetted Cover for surface mount Aluminium horizontal floor riser	Aluminium rabbetted Cover for flush mount Aluminium horizontal floor riser
Hardware	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included	stainless steel spring nuts, clips, pre-drilled holes, and mounting screws included



Figure 16: Aluminium Horizontal Floor Riser

Aluminium Wall Duct Flush to surface transition

Description	A 2 foot section of wall duct with a grommeted opening in the back side. Used to couple a flush mounted duct to a surface mounted duct (overlapping). Typically used to connect a horizontal surface duct to a vertical flush duct.
Construction	12 GA 3003 Aluminium
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	No mounting hardware Included- to be determined in the field
Approvals	UL/cUL, NEC Article 376, NEC 517
Cover	Includes surface mounted cover



Figure 17: Aluminium Flush to surface transition

Aluminium Wall Duct Size Transition Coupling

Description	Wall duct coupling used to connect 2 different size wall ducts. 1 piece needed for every splice.
Construction	12 GA 3003 Aluminium (For Aluminium please specify P/N AW0635-CP)
Finish	DuPont Imron 3.5 HG high gloss ASA-49 (Light Grey)
Hardware	Pre drilled holes and self tapping screws included
Approvals	UL/cUL, NEC Article 376, NEC 517

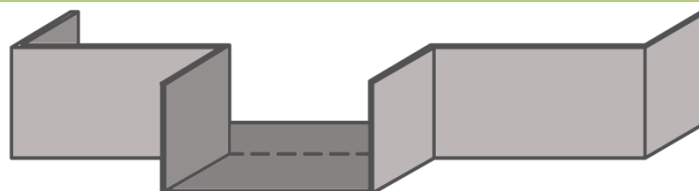


Figure 18: to Aluminium Wall Duct Coupling

5. Packaging

Materials are packaged with the information necessary to expedite the delivery to the correct person, in the correct room, and in the correct location. All items are individually labelled with Drawing reference notes.

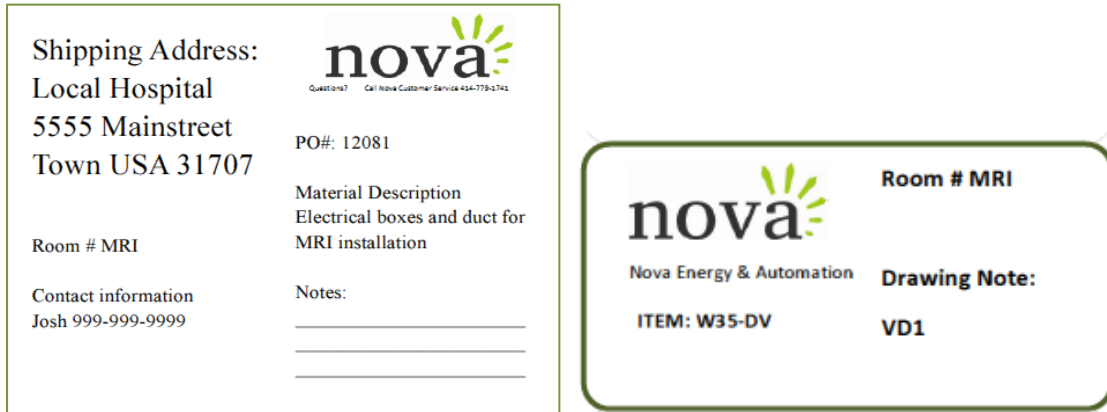


Figure 22: Sample Labels (Pallet and Component)

6. Product Service and Technical Assistance

Nova Automation, LLC
2722 N. Avondale Blvd
Milwaukee WI 53210
PH# 262-309-2950
Website: www.NovaAutomation.net

7. Warranty

This limited warranty set forth below is given by Nova Automation (“Seller”) with respect to the electrical equipment (“Product”) packaged with this limited warranty. The Product, when delivered to you in new condition in its original packaging, is warranted against defects in materials or workmanship as follows: For a period of three (3) years from the date of original purchase, defective parts or a defective Product returned to a Seller, or its authorized service providers, as applicable, and proven to be defective upon inspection, will be repaired, or exchanged for a new Product, as determined by the Seller, or the authorized service provider.

This limited warranty covers all defects encountered in normal use of the Product, and does not apply in the following cases: Loss of or damage to the Product due to abuse, mishandling, alteration, accident, electrical current fluctuations, failure to follow operating, maintenance or environmental instructions prescribed by Seller, failure to follow Sellers installation instructions, or service performed by someone other than Seller or its authorized service provider.

Nova assumes no responsibility for labor or freight costs incurred in connection with the installation, removal, or replacement of products determined to be defective or any consequential or incidental

damages arising from the use of the product. Nova Automations entire liability on any claim of loss or damage resulting from a defective product is limited to the replacement of the product.

WARRANTY IS VOID IF PRODUCT IS NOT USED FOR THE PURPOSE FOR WHICH IT WAS MANUFACTURED.

8. Approvals

Prepared By _____

([Job Title])

This document requires the following approvals

Approved By _____

([Job Title])

([Job Title])

Approval Date _____