



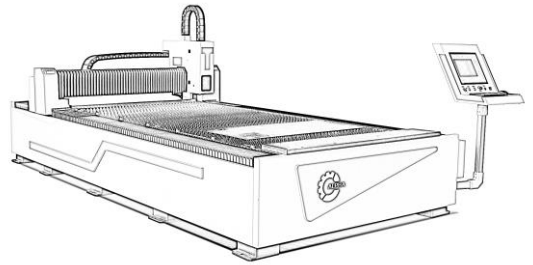
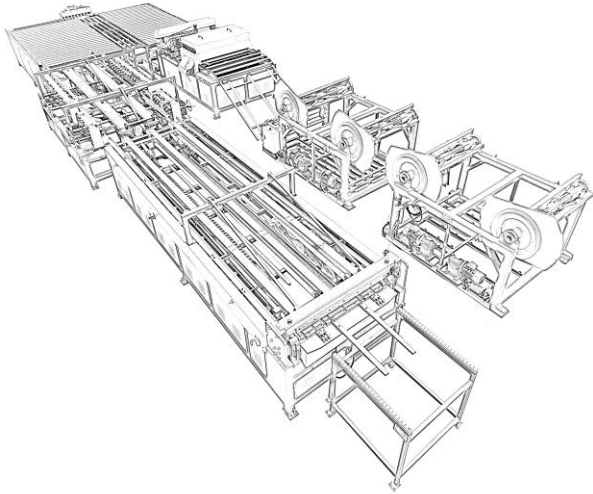
Alpha CNC Group Pty Ltd

21/2-4 Picrite Close, Pemulwuy NSW 2145

Phone: 02 9683 6117

Web: www.alphacnc.com.au

Email: info@alphacnc.com.au



One-stop Supplier of HVAC Machinery

Chill with Confidence, Your Complete HVAC Solution Source

Features:

Experience unmatched efficiency and precision with our cutting-edge duct manufacturing system designed to elevate your production capabilities. Crafted with advanced features and a robust U-type structure, our system is engineered for optimal performance, achieving a remarkable productivity of 25 seconds per piece.



Key Features:

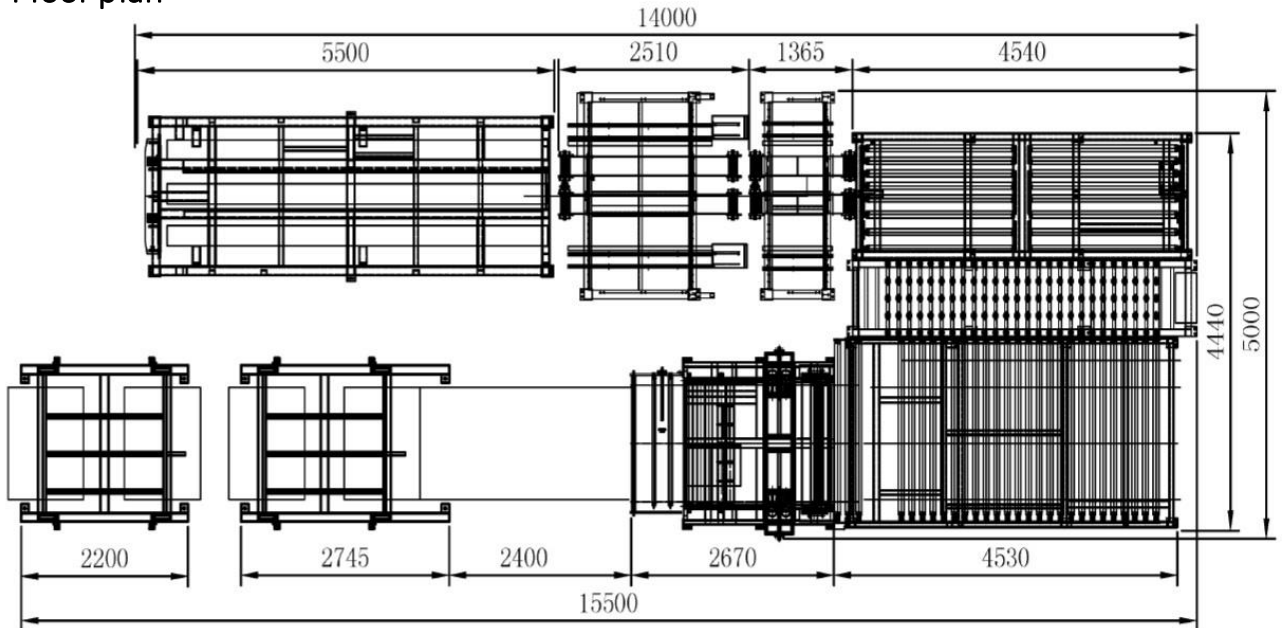
- **U-Type Structure:** Streamline your manufacturing process with our uniquely designed U-type structure, reducing plate passing time and boosting overall productivity.
- **PLC controller with touch screen:** Powered by the state-of-the-art Alpha PLC controller as the central processing unit, our system ensures seamless control and precision.
- **Pittsburgh Seam Integration:** The Pittsburgh Seam, seamlessly integrated after processing, ensures a high-quality finish for your air ducts.
- **Tailored for Large Ducts:** Specifically engineered for large-size duct production, our system prioritizes efficiency by bending the short side first, catering to the demands of large-scale projects.

Basic Configurations:

- Decoiler with 4 Coil Cradles to Cover Common HVAC Gauge 0.6mm, 0.8mm, 1.0mm and 1.2mm
- 9 Rolls Straightener, Beading and Notching
- Hydraulic Guillotine
- PLC Controller with Touch Screen
- Pittsburgh Lock Roll Former
- TDF Flange Forming
- Servo Motor Driven Bending Unit
- Unloading Rack
- Optional Plate Lamination Device



Floor plan



| Model | Thickness(mm) | Width(mm) | Coil Capacity | Weight(kg) | Dimension(mm) |
|-----------|---------------|-----------|---------------|------------|--------------------|
| A1300-VII | 0.6-1.2 | 1250 | 6000kg X4 | 16,000 | 15,000x5,000x2,200 |
| A1600-VII | | 1550 | | 18,000 | 15,000x5,500x2,200 |
| B1300-VII | 0.6-1.5 | 1250 | | 17,000 | 15,000x5,000x2,200 |
| B1600-VII | | 1550 | | 19,000 | 15,000x5,500x2,200 |

Fiber Laser Cutting Machine

Specifications:



| Model | 3015ST/4015ST/6015ST |
|-------------------------------|---|
| Cutting Table Size | 1500*3000/1500*4000/1500*6000mm |
| X-axis Travel | 3000mm |
| Y-axis Travel | 1500mm |
| Z-axis Travel | 80mm |
| Laser Power | 1.5KW/2KW/3KW/6KW |
| Positioning Accuracy | ±0.05mm |
| Repetitive Accuracy | ±0.03mm |
| Rapid Speed | 80m/min |
| Power | 3 Phase 415V/50Hz /100A |
| Machine Weight | 2300KG |
| Dimension | 4300*2670*1780mm |
| Laser Source | Raycus fiber laser 3KW/4KW/6KW |
| Laser Head | Raytools |
| CNC Controller | Cyrcut - PC based CNC - easy integration into factory network |
| Cabinet Electrical Components | SIEMENS/Schneider |
| Machine Frame | SF3015H |
| Water Chiller | Specialized for 1.5KW/2KW/3KW/6KW laser |

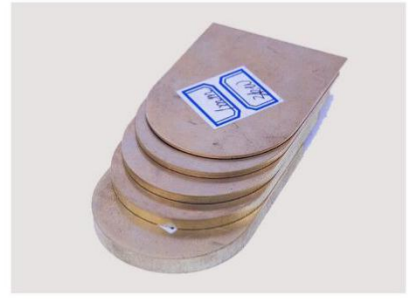
Application & Capability

Materials:

Carbon steel - Stainless steel - Aluminum alloy – Brass – Copper - Galvanized Steel - Titanium

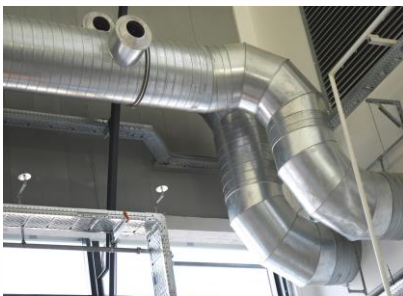
Thickness:

0.5-20mm carbon steel - 0.5-12mm stainless steel - 0.5-10mm aluminium - 0.5- 6mm brass



Industries:

Sheet metal manufacturing, Automobile, machinery manufacturing, elevator manufacturing, household appliances, kitchen and sanitary ware, signage, and other machinery manufacturing and processing industries.



Auto Duct Line III

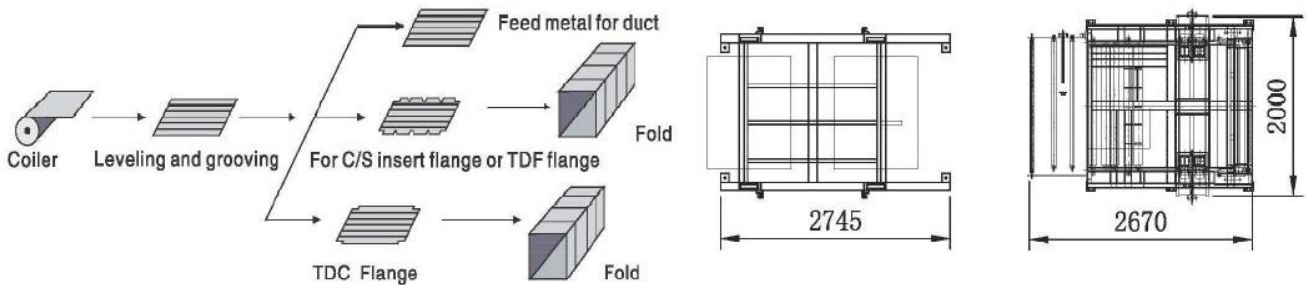
Our Auto Duct Line III is engineered for excellence, featuring a Leveling and Beading Unit, Notching Unit, and Hydraulic Shearing with Plate Bending. Experience unmatched efficiency with a maximum feeding speed of 16m/min and tight tolerances ($\pm 0.5\text{mm}$ length, $\pm 0.8\text{mm}$ diagonal).

Basic Configurations:

- Decoiler with 4 Coil Cradles to Cover Common HVAC Gauge 0.6mm, 0.8mm, 1.0mm and 1.2mm
- PLC Controller with Touch Screen
- Optional: Plate Lamination Device
- Optional: TDF Flange Holes Punching Device

Key Features:

- Leveling and Beading Unit
- Notching Unit
- Hydraulic Shearing and Plate Bending



| Model | Thickness(mm) | Width(mm) | Coil Capacity | Weight(kg) | Dimension(mm) |
|-----------|---------------|-----------|---------------|------------|-------------------|
| A1300-III | 0.6-1.2 | 1250 | 6000kg X4 | 3,500 | 8,850x2,160x1,350 |
| A1600-VII | | 1550 | | 4,000 | 8,850x2,460x1,350 |
| B1300-III | 0.6-1.5 | 1250 | | 3,800 | 8,850x2,160x1,350 |
| B1600-III | | 1550 | | 4,300 | 8,850x2,460x1,350 |

Coil Feeder

Unleash the power of precision with our coil feeder - a meticulously crafted coil line designed to seamlessly integrate with a laser cutting machine, revolutionizing HVAC production.

Key Features:

- Coil feeder with 4 motorized decoilers covering common gauges (0.6mm, 0.8mm, 1.0mm, 1.2mm).
- Cost-effective, waste-reducing alternative to flat sheets.

Seamless Integration with Laser Cutting:

- Designed to equip with a laser cutting machine for unparalleled precision and efficiency.

Efficient Operation:

- Inline straightening and beading
- Removes coil set and prepares sheets for laser cutting.
- Optional shear/guillotine for flat sheet cutting.

User-Friendly Controls:

- Operate effortlessly with a controller or a simple forward/backward jog switch, ensuring adaptability in your workflow



| Model | Thickness(mm) | Width(mm) | Coil Capacity | Weight(kg) | Dimension(mm) |
|------------|---------------|-----------|---------------|------------|-------------------|
| A1300-DC9 | 0.6-1.2 | 1250 | 6000kg X4 | 3,000 | 7,150x2,160x1,350 |
| A1600-DC9 | | 1550 | | 3,500 | 7,150x2,460x1,350 |
| B1300-DC11 | 0.6-1.5 | 1250 | | 3,800 | 7,150x2,160x1,350 |
| B1600-DC11 | | 1550 | | 4,300 | 7,150x2,460x1,350 |

Lock Forming Machine

ALPHA 12HB series pittsburgh lock forming machines are the most widely used machines in manufacturing ducts. They are light and easy to move. They are suitable for being used on site. This 7-station lock former offers 7 forming positions, Pittsburgh and auxiliary double seam, right angle flange, drive cleat with slitler, as well as top mounted power flanger.

A12HA series specification

- 0.5-1.2mm
- Arc welded steel stand, heavy top plate
- Roller material: GCr15
- Roller shaft material: Thermal refined 45#
- Transmission: V-belt
- Control: Normal electric control

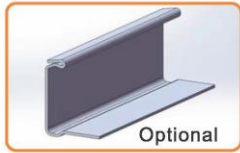
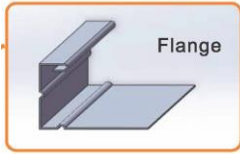


Forming shape



| Model | Thickness(mm) | Forming Shape | Weight(kg) | Dimension(mm) |
|--------|---------------|---------------|------------|---------------|
| A-10HA | 0.4-1.0 | | 160 | 780x500x920 |
| A-12HA | 0.6-1.2 | | 250 | 1,050x550x950 |
| B-15HB | 0.8-1.5 | | 316 | 1,220x550x950 |
| S-12HS | 1.2SS | | 489 | 1,350x700x920 |

TDF Flange Forming Machine



Features:

- **Thickness:** 0.6-1.5 mm
- **High Precision:** Accurate forming of TDF flanges for precise ductwork assembly.
- **Automation:** Automated processes for increased efficiency and reduced labour.
- **Versatility:** Capable of handling various duct sizes and materials.
- **Durable Construction:** Robust design for long-term reliability.
- **Safety Features:** Incorporation of safety measures for operator protection.
- **Low Maintenance:** Minimal upkeep requirements for sustained performance.



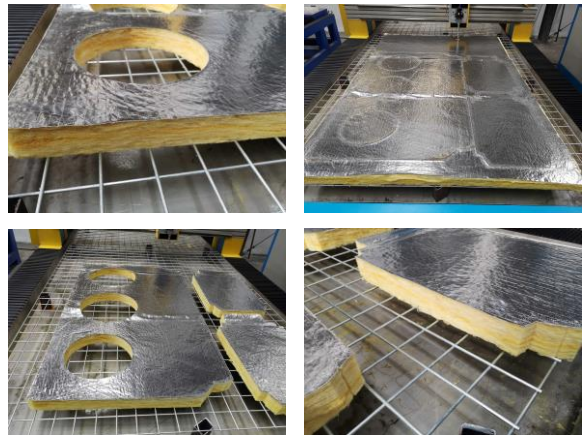
| Model | Thickness(mm) | Flange(mm) | Weight(kg) | Dimension(mm) |
|--------|---------------|------------|------------|-----------------|
| TDF-08 | 0.5-0.8 | 35 | 500 | 2,000x780x1,150 |
| TDF-15 | 0.6-1.2 | | 700 | 2,400x800x1,150 |
| TDF-15 | 1.0-1.5 | | 900 | 2,600x850x1,150 |

CNC Waterjet Cutting Machine



Features:

- Simple design, easy to set up
- High precision rack and pinion driven machine
- High speed servo motor
- Integrated/split machine structure
- Dust proof cover to protect linear rail and rack
- Wireless remote control
- Graphic simulation
- Designed for fiber glass insulation cutting.



| Model | 1530WJ | 1560WJ |
|----------------------|----------------------|-------------|
| Cutting range | 3000x1500mm | 6000x1500mm |
| Z axis travel | 100mm | |
| Tolerance | 0.05mm | |
| Repeatability | 0.03mm | |
| Thickness | 25mm/50mm/75mm/100mm | |
| Max Speed | 60m/min | |
| Max cutting pressure | 3,200bar | |

CNC Waterjet Cutting Machine

Alpha ultra high pressure pump



HP75-300 Intensifier Pump

| | |
|---------------------------------------|---------------|
| Nominal Power Rate | 7.5kW |
| Max. Continuous Pressure | 500-3,000bar |
| Max. Water Flow Rate at Max. Pressure | 1.7L/min |
| Control Voltage & Power Supply | 24VDC |
| Nom. Motor Current | 415V/50Hz 66A |
| Max Noise Level | <92dB |
| Control System | Siemens |
| Min. Inlet Cutting Water Pressure | 2bar |
| Max. Nominal Stroke Rate | 54Min -1 |
| Accumulator Volume | 1L |

BFT40.11 Ecotron pump



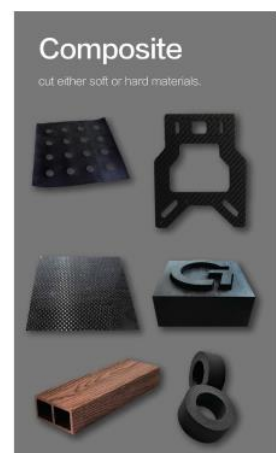
BFT 40.11 Ecotron Intensifier Pump

| | |
|---------------------------------------|---------------|
| Nominal Power Rate | 11kW |
| Max. Continuous Pressure | 500-4,200bar |
| Max. Water Flow Rate at Max. Pressure | 1.2L/min |
| Control Voltage & Power Supply | 24VDC |
| Nom. Motor Current | 415V/50Hz 66A |
| Max Noise Level | <80dB |
| Control System | BFT |
| Min. Inlet Cutting Water Pressure | 2-4bar |
| Max. Nominal Stroke Rate | 54Min -1 |
| Accumulator Volume | 1.6L |

Options

- Auto loading and unloading table
- Auto abrasive cleaning system
- Water chiller
- Water soften system

Applications



Spiral Duct Forming Machine

LXB-100/1600HSR with Roll Shear - Elevate Your Duct Manufacturing

Discover precision and efficiency with our advanced Spiral Ducting Machine, meticulously designed to redefine your duct production process.

Features:

➤ **High-Speed Forming Design:**

Achieve unparalleled efficiency through our innovative high-speed forming mechanism.

➤ **Roll-Shear or Cutting:**

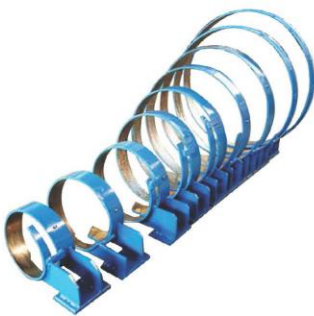
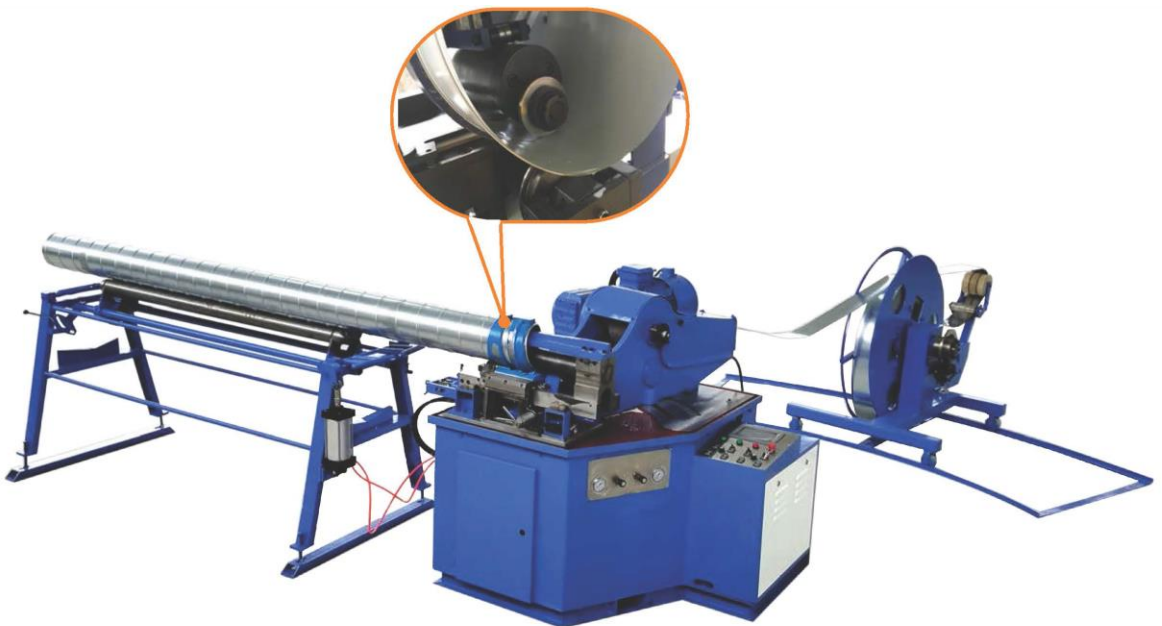
Swift, silent, spark-free cutting ensures a clean finish with minimal burrs.

➤ **Versatile Thickness Processing:**

Seamlessly switch between different thicknesses with dedicated forming and shearing units.

➤ **Aluminium Tube Mould:**

Lightweight and easily interchangeable aluminum tube mould for enhanced flexibility.



Tube mold



Forming Unit

Spiral Duct Forming Machine

LXA-100/1600 Features

- Low cost practical equipment with traditional structure
- Solid steel mould, strong and durable but heavier than aluminium mould
- with Saw Cutting (Optional Plasma Cutting)
- Seamlessly switch between different thicknesses with dedicated forming and shearing units.



LXA-100/1600



| Model | Thickness (mm) | Diameter (mm) | Feedrate (m/min) | Cut-off | Weight (kg) | Dimension(mm) |
|-----------------|----------------|---------------|------------------|------------|-------------|-------------------|
| LXA-100/1600 | 0.6-1.2 | 100-1600 | 0-25 | Saw | 1,200 | 2,940x4,460x1,900 |
| LXB-100/1600HSR | | | 0-60 | Roll shear | 1,500 | 3,150x4,560x1,350 |

Corner Inserter & Vertical Lock Seamer



Corner Inserter

The HVAC pneumatic duct corner assembly machine automates the installation of rectangular duct corner codes, eliminating the need for manual labor. With a swift operation time of approximately 6 seconds per corner, this machine efficiently replaces manual installation for corners.

Specifications:

- Sheet Thickness: 0.5-1.2 mm
- Pressure Range: 0.6-0.8 MPa
- Weight: 450 kg
- Dimensions: 1500*800*1050 mm



Vertical Lock Seamer

Effortlessly streamline your HVAC ductwork production with the Alpha Vertical Duct Seam Closing Machine. This high-production solution ensures swift processing through your workshop, eliminating the need for traditional, time-consuming seam hammering.

Key Features:

- Fast and efficient closure of Pittsburgh seams.
- PLC controller for user-friendly operation.
- Wide working range: 1000mm ~ 1550mm duct seamer

Technical Specifications:

- Duct Height Range: 1000mm ~ 1550mm.
- Closing Speed: 24m/min.
- Galvanized Material Thickness Range: 0.6mm ~ 1.2mm.
- Compact Dimensions: 2250mm x 1000mm x 1100mm.
- Weight: 850kg.
- Power: 415V 3 Phase.

Alpha CNC Group

Elevating Manufacturing Excellence

About Us

Welcome to Alpha CNC, a leading manufacturer and supplier of CNC machinery based in Sydney, Australia, with a dedicated factory in China. With over a decade of industry leadership, we specialize in providing high-quality fibre laser cutters, CNC press brakes, waterjet cutters, and HVAC machinery solutions to industries such as sheet metal manufacturing, automobile, machinery manufacturing, elevator manufacturing, household appliances, kitchen and sanitary ware, signage, and other machinery manufacturing and processing industries.

Our Legacy of Excellence

- **Global Reach:** Our CNC machinery solutions are designed to meet global standards while maintaining cost-effectiveness.
- **Expansion:** In 2016, Alpha expanded with a new factory in China to meet growing market demands.

Core Specializations

- **HVAC Machinery:** Turnkey solutions for the duct sheet metal industry.
- **Fibre Laser Cutter:** Precision and efficiency for metalworking.
- **CNC Press Brake:** Precision bending for metalworking projects.
- **Waterjet Cutter:** Cutting-edge technology for various materials and applications.

Commitment to Quality

- **Stringent Testing:** Every machine is tested by our application engineers before shipment.
- **Client-Centric:** Tailored solutions to meet the unique requirements of our clients.
- **Reliability:** We prioritize reliability, durability, and longevity in our machines.

HVAC Machinery Expertise

- **2017 Milestone:** Importing the first coil line into Australia.
- **Complete Solutions:** Turnkey solutions for the duct sheet metal industry.
- **Customer-Centric Approach:** Small Pittsburgh or automated duct line, we provide tailored solutions.
- **Future-Ready Innovation:** Anticipating and meeting the challenges of HVAC industry evolution.

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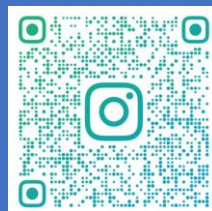
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