

COMPANY PROFILE

METAL TECH INDUSTRIES WLL

Bldg 970.Block 952,
Road 5218, Ras Zuwayed
Post Box 10995, Kingdom of Bahrain
TEL: 77315555, FX:77314444,
Cell: 39646453, 32346666,
38766940,39998423
sales@metaltechbahrain.com

HVAC DUCT MANUFACTURING

HVAC DUCT INSTALLATION

HVAC AIRCONTROL ACCESSORIES

ALUMINUM CLADDING

ACOUSTIC /THERMAL INSULATION

FIRE RATED DUCTS

STAINLESS STEEL DUCTS

DRY WALL PARTITION PROFILES

FALSE CEILING PROFILES



CONTENTS

- **Introduction**
- **Products and Services**
- **Location**
- **Production Facilities**
- **Process Flow Chart for HVAC Ducting System**
- **Manufacturing Capacity**
- **Site Execution**
- **Health and Safety**
- **Raw Materials & Inventory**
- **Human Resources**
- **Quality Control and Quality Assurance**
- **Sales and project management procedures**
- **Customer Satisfaction**
- **Conclusion**

Introduction

METALTECH INDUSTRIES WLL established in the year 2013 as HVAC Duct manufacturing and Installation Company serving the Bahrain Market for its requirements of HVAC products and services. The company equipped with state of art technology machines for its production requirements at its 3500 SQ Mtr facilities near ALBA. The company has been promoted by technocrats from the HVAC field with an experience of more than 23 years of undertaking and completing landmark projects in Bahrain and overseas.

Metal Tech Industries WLL envisaged to render the market with efficient services with the most modern types of machinery and infrastructure. The clientele extends to most of the MEP contractors in Bahrain such as BEMCO WLL, AJM Kooheji & Sons, Nass Electrical contracting WLL, Yatheem Air conditioning, Al Kharafi & Sons, Shapoorji Pallonji Middle East, Almoayyed Airconditioning.

Products and Services

Metaltech Provides the Fabrication and Installation of our products as follows:

- 1 Galvanized Steel duct Works
- 2 Thermal and acoustic insulation
- 3 Stainless Steel/Black Steel for Kitchen extract
- 4 Pre-insulated ductworks
- 5 Plain Aluminum/Stucco Embossed Cladding for Duct Works.
- 6 Volume control Dampers
- 7 Access doors,
- 8 Non-Return dampers
- 9 Silencers
- 10 Fire dampers.
- 11 Square diffusers/grills,
- 12 Linear Slot diffusers
- 13 Linear bar grills
- 14 Exhaust/Fresh Air louvers etc.

Location

METALTECH's production facilities is located at Bldg No. 970, Road 5218, Block-952 at ALBA which extend 3500 sq mtr which cater to the needs of manufacturing as well as storage of materials. The location is near Industrial Land mark of Bahrain ALBA and easily accessible.

Production Facilities

The Factory is equipped with fully automated machines for manufacturing Sheet metal fabrication for HVAC duct Works and other products. Automated machineries include latest numerical control machineries for fabrication processing, precision metal forming machines etc which enable us to meet high quality/quantity requirements without any delay.

A Review of State of Art machineries installed by Metal Tech is as follows:

Vicon HVAC 520 Plasma Dual Table Cutting System - USA.

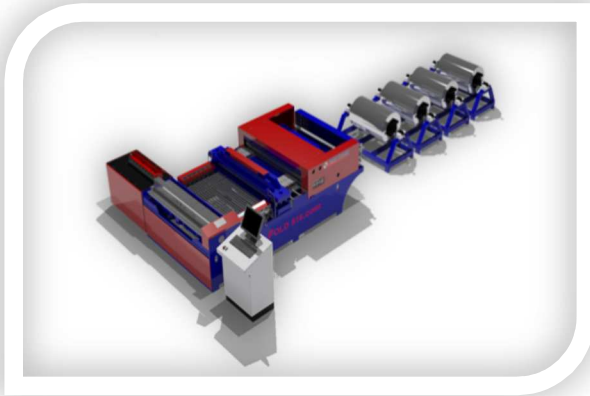


This machine is used for the fabrication of duct fitting like elbows, reducers, offsets etc. This is operated by specially designed fabrication software named **VICON 3.4 Tour revision 2a** which is the latest version available in the market. The entry of plasma cutting technology made fabrication process much faster with a better quality comparing to the conventional sheet metal fabrication

system. All client requirement standards like DW144/SMACNA/ ASHARE can be complied with this machine. The revolution in the pace and quality brought in to the fabrication process by the machine enabled the company to challenge with all

kind of high quality and fast track assignments in the market to utmost customer satisfaction.

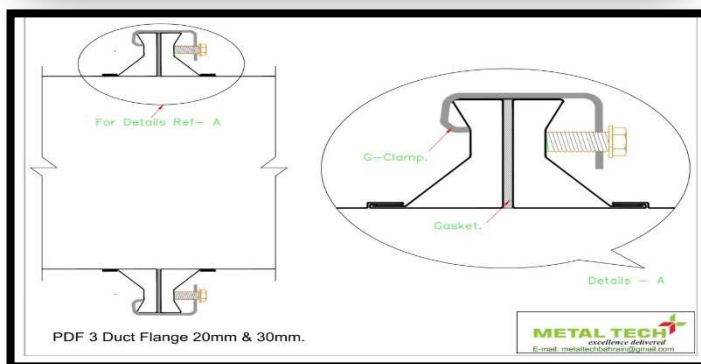
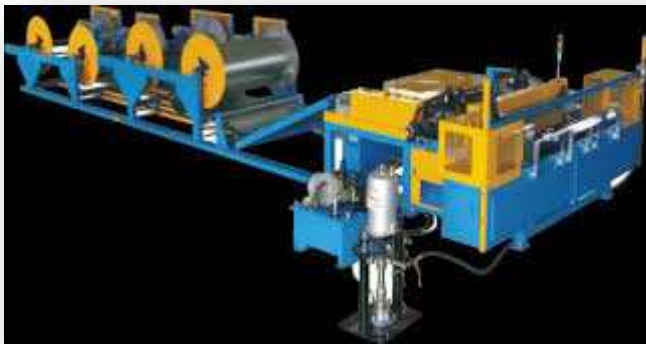
❖ **Duct Forming Machine-HVAC Coil line Processing & Fold'N' Shear System-U.K.**



Manufacturing of any size rectangular duct work can be done by fully automated duct forming machine. The machine can process shearing bending and notch cutting process and the output will be ready for next stage of the chain process, lock forming. The machine output capacity is approximately 70 running meters of straight duct per hour. This

completely automated duct forming system can produce extremely high quality straight ducts with a lesser tolerance ratio in the notch formation for lock forming which enable to deliver completely leak proof air conditioning systems.

❖ **PDF-3 Flange Duct Forming Machine-South Korea.**



Manufacturing of any size PDF-3 Flange rectangular duct work can be done by fully automated duct forming machine (Refer Fig). The machine can process shearing, notch cutting and pittsburg lock forming process and the output will be ready for PDF-3 flange forming and bending. The machine output capacity is approximately 90 running meters of straight duct per hour. This completely automated duct forming system can produce extremely high quality straight ducts with a lesser tolerance ratio in the

notch formation for flange forming which enable to deliver completely leak proof air conditioning systems.

❖ **PDF-3 Flange Duct Forming Machine- South Korea.**



Manufacturing of any length PDF-3 20&30mm flanges on duct work can be done by this machine. The machine output capacity is approximately 140 running meters of straight duct per hour. This completely automated flange forming unit can produce extremely high quality hollow section flanges *without any crimping welding or riveting*. We are the only manufacture in Bahrain doing PDF-3 flanges.

❖ **PDF-3 Flange Duct Bending Machine- South Korea.**



This unit is used exclusively for PDF3-20&30mm flanged duct bending. PDF Flanged ducts cannot be folded in normal folding machine. The machines removed the difficulty of folding PDF-3 flanged ducts with precision bending technology operated electrically.

❖ **Motorized Shearing Machine- SCHECHTL GERMANY**



Automation of cutting of any thin sheet can be achieved by selecting the ideal control system type for the requirements from the different variants. Cutting of any nonstandard size up to 3 meter long and 1.5mm thick can be carried out using this machine.

❖ **Duct Zipper RAS 22.10- GERMANY**



SpeedySeamer RAS D 22.10 is used for lock forming of straight run open ended ducts. The open edges of ducting coming out from coil line machine will be passed through this machine to form square duct with fine quality and 100% leak proof seam locking system. By delivering 100 % fine quality seams with a minimum processing time this

German origin machine made revolution in the duct manufacturing industry.

❖ **Electric Bending Machine- SCHECHTL GERMANY**



Any degree bending can be performed by this machine which helps to fold any angular formation required and fabricate all types of complicated duct fitting. This novel German folder with a unique performance level, wide range of bending option and fast output is contributing a very important role in the chain process of efficient duct manufacturing.

❖ **Manual Bending Machine- SCHECHTL GERMANY**

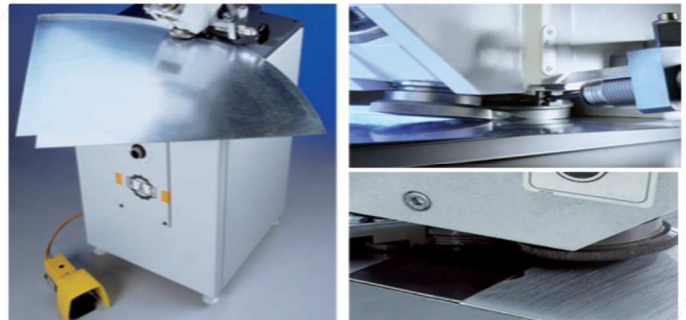


This is a manual bending machine can be used for folding deep flanges. The segmented tooling's provided at all three bar elements i.e. , upper beam, lower beam and bending beam make the machine possible to bend parts at all 4 sides and produce even complex box shapes with flanges up and down.

The segments vary from 30 mm to 200 mm. With the snap-on system provided at all segments it can be changed and combined quickly without using any additional screws and tools. Single segments can be removed from the support rail to get space for preformed flanges. Working a part on all four sides without using any additional inserts will help to form flanges without any damages on the product.

Elbow Flanger-RAS GERMANY

The RAS 21.20 flanging machine turns up 90 degree flanges on radius cheeks so that the parts are ready for Pittsburgh or Snaplock joints. Quick, Safe, Cost efficient.

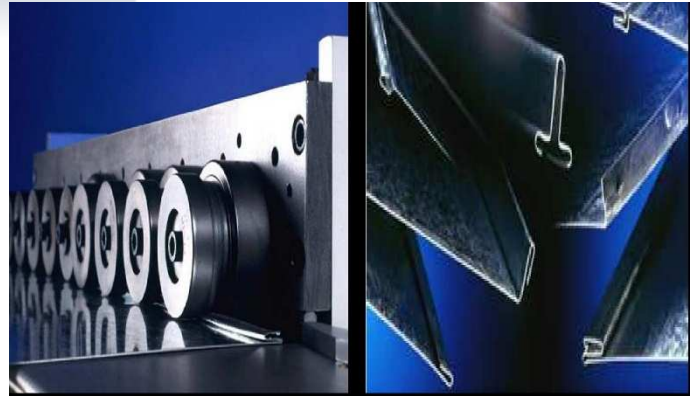


SpeedySeamer RAS 22.09 GERMANY



The universal Roll forming machine is used exclusively to produce contours and folds on steel sheet or non-ferric sheet metal in a strength range of approximately 400N/mm², using the rolls sets available with machine.

This machine can process Pittsburgh seams for end roll forming and S- seam / normal C-Drive cleat.



❖ **Duct Beading Machine- DUCTFORMER U.S.A**



Ancient method of cross braking using bending machine is completely replaced by the new Duct Former beading machine. Ductformer's Sheet Duct Beader is designed to bead up to 16 gauge mild steel sheets in a single pass through operation. The simplistic yet heavy duty design is making this machine a staple of any

sheet metal shop for many years to come. The beading from DUCTFORMER will makes the ducting much stronger than cross bending along with reducing the processing time.

❖ **Pneumatic Cleat folder Machine-Flagler- U.S.A.**

This machine is used for bend Flanges for C- drive cleat. The Flagler Open Throat Pneumatic Cleat folders come complete with 6 gallon surge tank so they can be operated from a standard 3/8" compressed air line. Each model comes equipped with micro PLC controller, guard safety switch, and hardened bending bar.



❖ **Sheet Rolling Machine- U.S.A.**



This machine is used for rolling the curved parts of duct fittings like elbow, T-pieces, Y-pieces. etc.

❖ **Swaging Machine RAS11.15 Germany.**



This machine is used to form grooves on pipes. The swaging machines include 9 pairs of swaging wheels for different types of applications.

❖ **Laser Cutting Machine.**

We are the only factory in Bahrain to introduce Laser Cutting in duct manufacturing process. Laser Cutting is on an average 3 times faster than any other plasma system and can provide the cleanest cut edges with absolutely no zinc burn



Gore Locker for Circular Duct.

Circular Duct Works are now common in any projects. To get advantage of this market We have included GORE LOCKER Machine in our Plant to reduce the time consumed production of Circular Ducts. By this machine Round duct Elbows can be formed with reduced labour and will result in faster production. This machine can handle the metal thickness from 0.5mm to 1.20mm.



❖ Spiral Duct Former



Spiral Duct Forming Machine are being used for production of Spiral duct from slit coils which is the faster production method used by factory. The machine can produce spiral duct with a dia from 100mm to 1600mm and sheet metal thickness from 0.50mm to 1.20mm.

❖ Other machineries



- A) Spot welding machine for making circular fittings.
- B) Pin Spot Welding machines for fixing insulation fasteners on acoustic/thermal insulation.
- C) Tig Welding machines for stainless Steel duct welding.
- D) ARC welding machines MS black sheet duct welding.

Manufacturing Capabilities

Metal Tech using the latest technology of production with state-of-the-art machinery and engaging qualified and trained staff is capable of processing approximately 180 MT sheet metal per month per shift of 8 hours. As per the project requirements, the company can engage its capabilities to meet maximum output to meet the demand of projects.

Project Installations

Our Manpower consists of qualified Engineers, supervisors, and a trained workforce who have years of experience in HVAC duct installation projects. Our

dedicated project team provided their capability of handling any type of difficult installation such as Malls, Hotels, Hospitals, or any other requirement from the client. The supervisors will be guided by the engineers in measuring duct works as per the site construction drawings received from the client and site condition. The duct fitters are well-trained to achieve any targets according to the project requirements. We have our internal quality controlling teams to ensure the workmanship and product specification. The promoters and the current project team have been completed several prestigious projects in Bahrain and overseas before establishing this company. A few selected projects are as follows.

- Royal Saudi Air force - Technipe - Albader Mechanical services Damam.- 25 numbers ammunition storage and aircraft hangers in various location of kingdom of Saudi Arabia. The project involves manufacturing and installation of 2800 MT G.I ducting 900 MT black steal ducting for smoke ventilation system and 23 MT Stainless ducting for laboratory and clean rooms.
- Bahrain World Trade Center.
- Arcapita Bank Head Quarters.
- Four Season Hotel Bahrain
- Kraft Food Factory at BIIP.

Health and Safety

The company emphasizes safety measures and conducts training and toolbox talks to ensure accident accident-free atmosphere at the site. Further to this a close monitoring of the processes/installations by safety personnel to maintain maximum safety both in the factory and at site. The workers are well trained by our training team to operate equipment and tools in a safer way to avoid any accidents.

Materials & Inventory Management

A dedicated team of store, purchase, and QA/QC departments is monitoring the inward and outward flow of materials. According to the annual sales plan, a purchase plan will be prepared by this team. The requirements for the projects and factory with a 3-month look ahead program will be made in the weekly construction meeting. The purchases will be done according to the annual project sales plan incorporating the requirements from the factory and project team. The inward materials will be inspected and approved by the QA/OC team to make sure the material quality meets the project requirements. There will be always a

minimum stock of material in the store for the regular moving items which will satisfy any additional emergency requirement.

Human Resources

To deliver their products and projects successfully, every organization should have trained and qualified work force monitored and guided by supervisors and engineers. Our human resource department is providing all such needs in molding a competitive work force by selecting the right candidate and having proper training for selected candidates according to the kind of work they are handling. Only trained work force will be handed over to production and project department where they will have guidance from higher officials.

Quality Control and Quality Assurance

The factory production processes are done using fully automated machines operated by qualified professionals. The machine operators and fabricators are guided by their immediate supervisors and Factory managers. All the inward materials are inspected by the QA/QC department to ensure the right materials from specified manufacturers are only procured. The fabrication chain process will be monitored by the inspectors at regular intervals. The final inspection will be done and the QA/QC approval sticker will be stamped on the products before each delivery.

Site works are monitored by the supervisors to ensure the correct workmanship and quality. All the works will undergo an internal inspection before submitting the client inspection request. The project QA/QC team will race the installation inspection request to the client and will make sure that all the inspections are approved by the consultant.

Sales and project management procedures

Sales Department

The project and production requirements in the market will be monitored by the sales dedicated personnel and reported to sales management. According to the collected information, an annual sales plan will be made by the sales team. The client requirement will continuously be followed up by the sales department to ensure 100% client satisfaction.

Once the drawings are received from the client, the estimation department will prepare a detailed BOQ and installation cost according to the client's specifications

and site conditions. According to this information, sales division will arrive at a cost that will be approved by the management. The tender will be submitted to the client once it is approved by the management. Once the job is awarded to the company it will be handed over to the Project department for execution.

Project Department

For the awarded jobs, the details of the contract along with the specification and drawing will be handed over to the project Manager. According to this information BOM and work force requirement will be procured. All the materials will be submitted for approval before starting the installation.

According to the instructions from the Engineers, Supervisors will take measurement and forward to factory. The measurement will be cross checked by the factory in charge before fabrication. The fabrication requests approved by the factory manager will be manufactured and dispatched from the factory after QA/QC inspection.

The materials received at site will be inspected by the project QA/QC and hand over to the supervisors for installation. The ducting will be installed under the strict monitoring of the supervisors and Engineers to ensure the workmanship and quality. The installed work will undergo for an internal inspection prior to client inspection.

Customer satisfaction

The company is equipped to take all type of projects in the market. Our production and project team is keen in keeping a warm relationship with the clients. A quality product, timely delivery and competitive price are always guaranteed to our customers.

Projects

The promoters and the current project team have successfully completed several prestigious projects in Bahrain and overseas. A few selected projects are as follows.

Cardiac Centre@ Awali



Oiasis Mall @ Juffair



MARASSI MALL



DILMUNIA MALL



TILAL TOWER



HILTON GARDEN



KAZERONI HEIGHTS II @ AMWAJ



AMAS HOUSING PROJECTS @SALMAN CITY



NADEEM SCHOOL @ DILMUNIA



ROYAL TERMINAL BAHRAIN AIRPORT



EXHIBITION WORLD , BAHRAIN



Conclusion

Metal Tech have a proven team in undertaking, executing and completing several prestigious projects in Bahrain and overseas which is making us much more confident to attend more on the same or above profile to achieve new landmarks.

-END-