



ENGINEERING SOLUTIONS REDEFINED



**ENTHALPY SOLUTIONS PVT. LTD.**

GI Ducting Solutions For HVAC Industries

*Quality* is the  
**BEST** business *Plan.*

# COMPANY PROFILE

" Enthalpy Solutions Pvt Limited " has one of the most efficient facility in the industry for manufacturing of Factory fabricated and assembled RECTANGULAR DUCTING SOLUTIONS & ITS ACCESSORIES required for HVAC industries. The " Enthalpy " is equipped with the latest state of the art technology including automatic CNC machines imported from FIRMAC –England & SPIRO –Switzerland , computerized software programmes for quantity estimation , Drawing take off , material record & dispatch. Enthalpy solutions Pvt Limited employs highly qualified technical staff with rich experience in design and manufacturing Ducting solutions as per client /consultant requirement with third party inspection acceptance. The manufacturing Automation & engineering experience offers good quality, prompt services & desired delivery with cost effective solutions. Dedicated to your satisfaction, Our 30,000 sq feet manufacturing facility can accommodate your all kind of job both large & Small . Our versatility and wide range of products truly makes us your "One Stop Duct Fabricator"

Our products are not just technologically advanced but conceived to serve the ever-rising market needs. The products are designed and manufactured with a restless pursuit of quality as defined by our customer expectation for performance, reliability, and timely delivery. Please contact us to learn How we can save your time and money for your all kind of sheet metal fabrication and HVAC ducting requirement.

## VISION

Providing efficient, intelligent and cost effective solutions for its valued Customers.

## MISSION

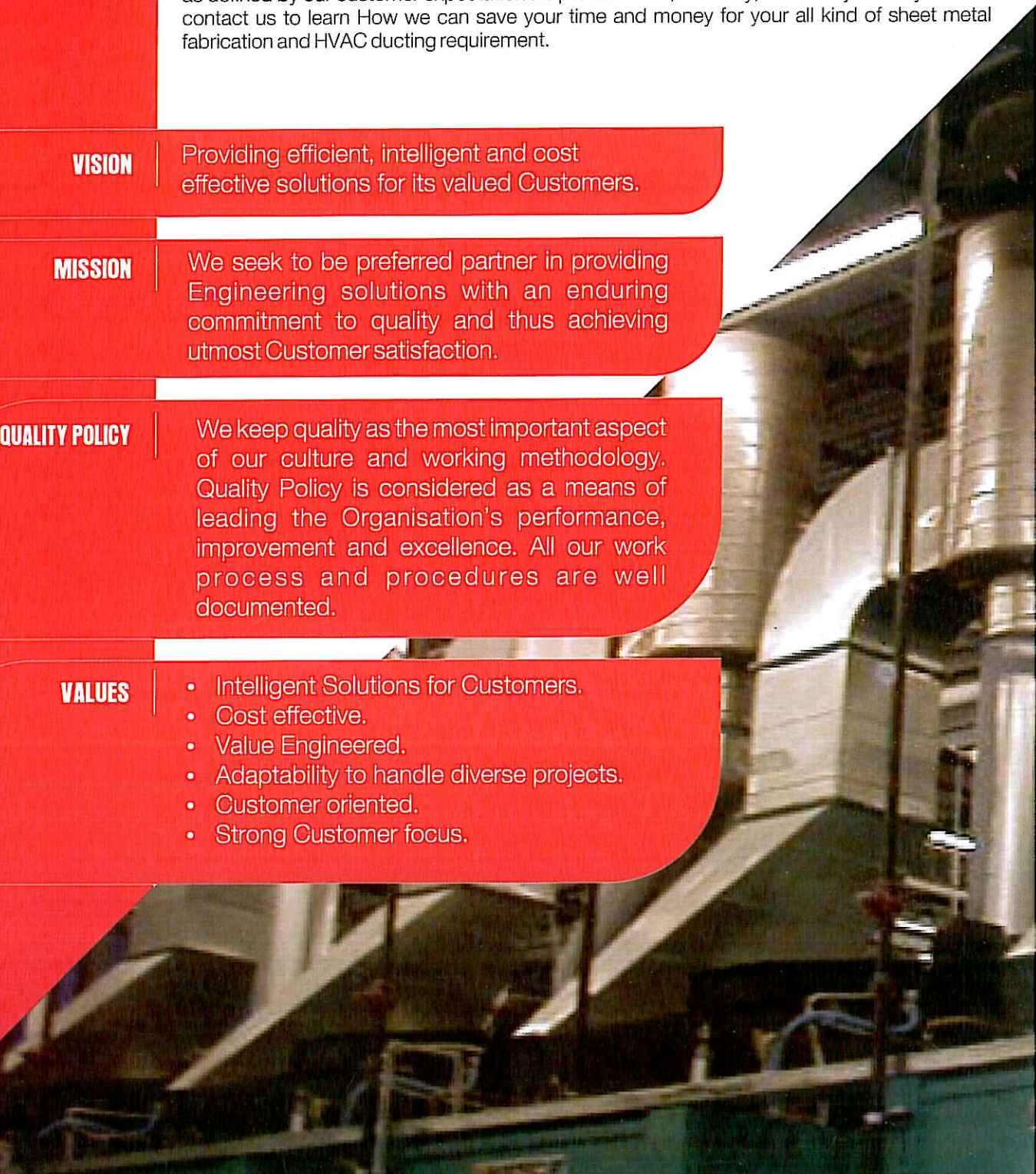
We seek to be preferred partner in providing Engineering solutions with an enduring commitment to quality and thus achieving utmost Customer satisfaction.

## QUALITY POLICY

We keep quality as the most important aspect of our culture and working methodology. Quality Policy is considered as a means of leading the Organisation's performance, improvement and excellence. All our work process and procedures are well documented.

## VALUES

- Intelligent Solutions for Customers.
- Cost effective.
- Value Engineered.
- Adaptability to handle diverse projects.
- Customer oriented.
- Strong Customer focus.



# Our Products

## “ENDUCT”

Galvanised Rectangular Shaped Ducting for Domestic , Commercial, & Industrial Air Conditioning System

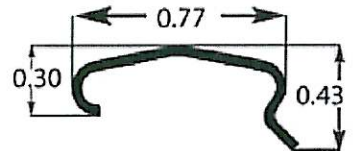
### Enthalpy TDF Flanged System

Enthalpy TDF (Transverse Duct Flange) system is an integral flange rolled directly on to the duct ends automatically during the duct forming process. TDF is a SMACNA approved T-25b flange system which helps in quick assembly/installation at site, saves labour/material cost, minimises air leakage & hence power consumption.

#### TDF Flange

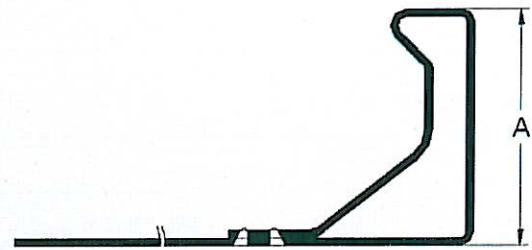


#### TDF Cleat



### Enthalpy CGF Flanged System

Enthalpy CGF (Continuous Girth) flanging system is a unique and patented, not only for being integral to duct, but for being in line with the more common slips on profile flange. CGF shape and dimensions are almost identical to the slip-on flange so the CGF system has all the advantages without losing the standard look & properties of finished duct. Thus, CGF system is a superior innovative alternative to the Slide on flange.



(CGF Flanged)

### Advantages of ENTHALPY CGF Duct Systems

- Integral flange system; no separate assembly of flanges.
- Unique stitched design makes CGF flange airtight.
- Less mastic and sealants required.
- Site assembly is very fast as no need to cut, adjust, align or fix flanges separately to duct as in the case of slide on flanges.
- Saves on labour & additional joining accessories such as screws, pop rivets, sealant.
- Strong, aesthetically pleasing, rigid because of double fold and mechanically stitched design.
- Deflection strength is doubled; almost equal to a complete rolled section.
- Can withstand High Pressures.
- Conform to British Standards and tested as per B.S.R.I.A.
- CGF is first and only flange to pass J5 and J6 British specification (Dw 144) acceptance test for both deflection and leakage.



# In House Duct

## Manufacturing Facility

The duct manufacturing system is initiated through a software program developed in United Kingdom, in which the sizes of required ducts are fed on choosing respective fitting option such as taper, elbow, tee and radius etc. The software automatically calculates the required number of sheets along with the labels for sticking on to the duct blanks.

### Plasma Cutting Machine

The plasma cutting machine download respective file created for specific project and cuts the duct fittings feed in computer. Each blank of ducting is tagged with gummed labels for proper identification. All duct fittings are cut on plasma cutting machine, a unique computerised cutting system which uses compressed air to cut the metal sheets. The high velocity jet of high temperature compressed air is directed on to the sheet by means of plasma torch which cut the sheet into required profile.



### ADF Machine

ADF - Automatic Duct Former is computerised duct forming coil line having four coil un-winders. It is a versatile machine selects the suitable coil based on gauge and width of duct. On programming the machine produces "L" shaped or "Full Box" shaped ducts continuously. It also prepares plain sheets with or without beading for plasma cutting machine. When compared to other machines it is compact and highly productive machine so that higher production can be achieved in shorter duration.

### CGF Flange Forming Machine

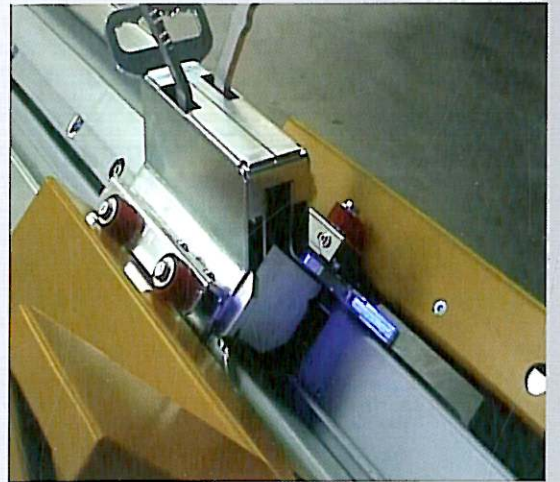
Enthalpy TDF & Enthalpy CGF flange systems are alternatives to the Slide-on flange "on all straight duct & duct fitting"

Enthalpy flange systems are integral, air tight & mechanically strong suitable for all transverse duct joints. Enthalpy CGF is a patented flange eliminates the cost of buying & making duct flange frames hence increases the productivity.



## Nu-Loc Auto Seaming Machine

The Nu-Loc Auto Seaming machine does the complete longitudinal seam from two raw edges to the finished seam. The duct is first pre-formed into any square or rectangular size from a minimum of 100 x 100mm. The duct is laid into the "V" shaped guides with the open corner downwards. The leading end of the duct is clamped together to prevent any twist being formed, and is released from the clamp after the seam is completed.



## TDF / CGF Corner

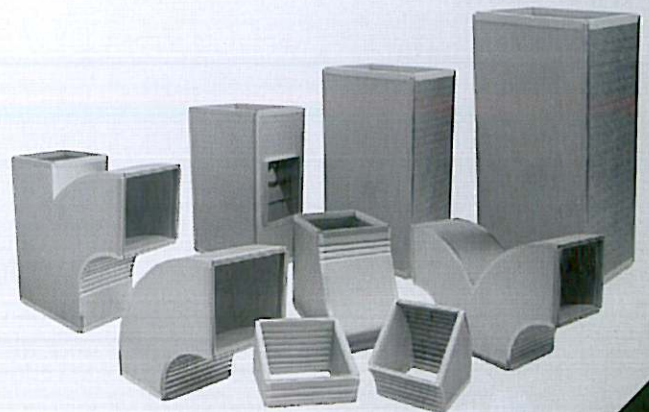
After closing the seam, solid "L" or "I" corners are inserted into the TDF or CGF flange by help of wooden mallet or hammer.

"I" corners are punched together by means of hydraulic crimping tool to form solid bond.



## Finished Duct

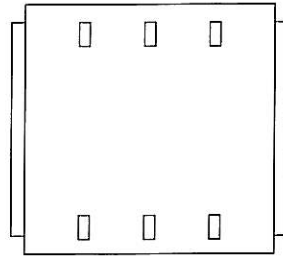
Finished duct in 35mm Enthalpy TDF or ENTHALPY CGF flange profile in accordance with HVAC DW144 of U.K. and SMACNA of U.S.A. Standards.



# Manufacturing Sequence for the Production of Complete Flanged Ducts



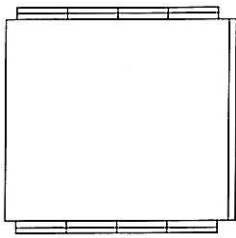
Machine 1 : ADF Decoiling, Leveling, Pleating, Notching, Folding & Shearing



Pittsburgh Seam (Male)



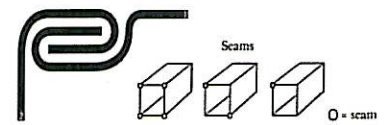
Machine 2 : Pittsburgh Lock Forming



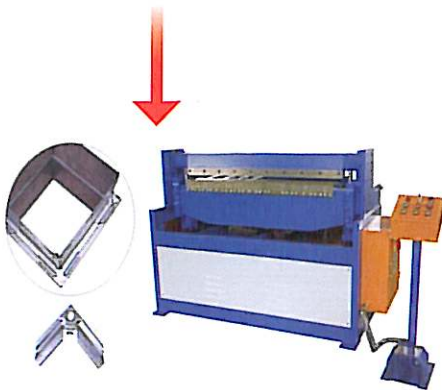
Finish Flange



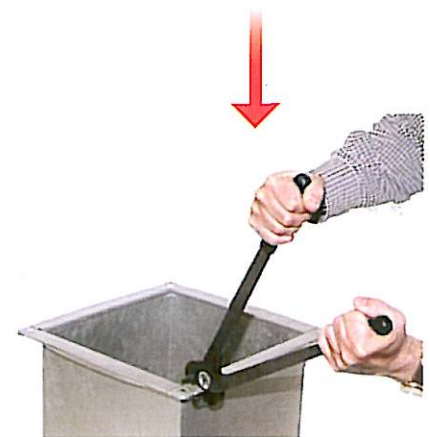
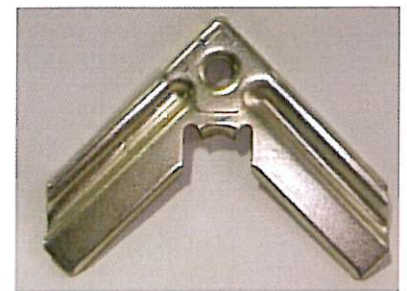
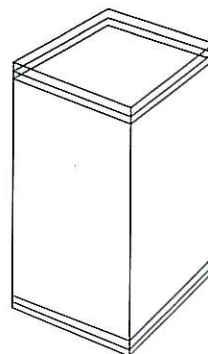
Machine 3 : 35mm TDF & CGF Flanges Forming



Pittsburgh seam Female



Machine 4: Stand Alone Hyd. Folding-Folds the Ducts.



Manually Adding of Corners

# Credentials:

## YEAR 2016



BIDCO



NBCC



Reliance Retail



DPS Ghaziabad



AiiMS Rishikesh

## YEAR 2014 & 2015



Delhi International Air Limited - Terminal 3 Project



Mumbai Airport



Honda Siel Car Ltd. Greater Nodia



Uflex Ltd. Jammu



MCD Building - Tallest in North India



All India Institute of Medical Science - ALLMS, Rishikesh



Steller IT Park Gurgaon



BTPP Gurgaon



Toyota Kirloskar Bangalore



Khalsa Heritage Complex, Anandpur Sahib Punjab



DLF Magnolias Gurgaon



Samsung Heavy Industries Ltd. Noida



Punj Lloyd, Madhya Pradesh



Wipro, New Delhi



M.B. Hostel Faridabad

# Certificate



## Certificate of Registration

Certificate Number: 1016QFSXXXX

**ENTHALPY SOLUTIONS PVT. LTD.**

PLOT NO. B2/B39, SITE B, SURAJPUR INDUSTRIAL AREA, GREATER NOIDA, UTTAR PRADESH, INDIA

Accredited Certification Services Pvt. Ltd. certify that the Management system of the above organization has been audited and confirmed to be in accordance with the requirements of the management system standard mentioned below

**ISO 9001:2008**

The Quality Management System is applicable to

**MANUFACTURING AND CONTRACTING PROVISIONS OF MECHANICAL (HVAC AND FIRE FIGHTING), ELECTRICAL AND PLUMBING-MEP ENGINEERING SERVICES SUCH AS DESIGN, SUPPLY, INSTALLATION, OPERATION AND MAINTENANCE FOR BUILDING AND INDUSTRIAL APPLICATIONS AND DUCTS, SOUND ATTENUATORS AND SHEET METAL ACCESSORIES FOR HEATING, VENTILATION AND AIR CONDITIONING (HVAC) AND TUNNEL VENTILATION SYSTEM (TVS) APPLICATIONS**

Date of Initial Registration : 05-Feb-2016

Date of Expiry : 22-Sep-2018

1st Surve due by : Jan-2017

Date of Issue : 05-Feb-2016

Renewal Due by : Aug-2018

2nd Surve due by : Jan-2018

JAS-ANZ



M143204151P



Managing Director

Accredited Certification Services Pvt. Ltd.

Accredited By: Joint Accreditation System of Australia & New Zealand (JAS-ANZ).

B09, IVY Estate, Wagholi, Pune - 412 207, Maharashtra, India (verify certificate at <http://www.accert.com>)

\* Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date. (In case surveillance audit is not allowed to be conducted, this certificate shall be suspended/terminated)

\* In case of complaint or clarification please write at [info@accert.com](mailto:info@accert.com) or [infoaccert@gmail.com](mailto:infoaccert@gmail.com) and for verification services pls visit [www.accert.com](http://www.accert.com)

\* Certificate is the Property of Accredited Certification Services Pvt. Ltd. and shall be returned immediately when demanded

\* JAS-ANZ url [www.jas-anz.org/registrant](http://www.jas-anz.org/registrant)



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**ENTH ALPY**  
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