



Technical Submittal

**ALMASA FOR ENGINEERING
INDUSTRIES**

Km26 Cairo Alex Road
Abou-Rawash industrial
Area Giza , Egypt

TEL: 01155580368
: 01064648877
:0233784403

E-Mail
Almsas@enshaagroup.com

Certificate of Registration

ISO 9001:2015

This is to Certify that
Quality Management System of
**ELMASA FOR ENGINEERING INDUSTRIES FOR OWNERSHIP
(MOHAMED EBRAHIM MOHAMED ESMAIEL)**
KILO 26., ALEXANDRIA DESERT RD, INDUSTRIAL ZONE, ABOU RAWASH, GIZA - EGYPT

has been assessed and found to conform to the requirements of
ISO 9001:2015
for the following scope :

MANUFACTURING OF AIR CONDITIONING AND REFRIGERATION ACCESSORIES

| | |
|---------------------------|----------------------------|
| Certificate No | : 19IQDP53M |
| Initial Registration Date | : 18/09/2019 |
| Date of Expiry | : 17/09/2022 |
| 1st Surv. Due | : 18/08/2020 |
| | Issuance Date : 18/09/2019 |
| | 2nd Surv. Due : 18/08/2021 |



Director



ACCREDITED™
Management Systems
Certification Body
MSCB-119



AQC MIDDLE EAST FZE.

Head Office: E1-1401 E Amber Gem Tower, Sheikh Khalifa Bin Zayed Road, 2, Ajman, UAE. e-mail: info@aqcworld.com.

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 (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawn).

Certificate Verification: Please Re-check the validity of certificate at <http://www.aqcworld.com/activeclients.aspx> or www.aqcworld.com at Active Clients.
Certificate is the property of AQC Middle East FZE and shall be returned immediately when demanded

ALMASA

ENGINEERING INDUSTRIES

DUCTWORK



ISO 9001:2015 ACCREDITED
Management System
Certification
MSCB-119



Most common air distribution definitions

- **Air outlet** : is the outermost panel within any type of object that controls the rate in which air passes into the surrounding area
- **Air Change**: The amount of air required to completely replace the air in a room or building.
- **Air Diffuser**: An air distribution outlet or grille designed to direct airflow into desired patterns.
- **Air Distribution**: The transportation of a specified air flow to or from the treated space or spaces, generally by means of ductwork.
- **Ak value** (of an air terminal device): Quotient obtained by dividing a measured air flow rate by a measured air velocity according to a specific process and a specific instrument.
- **ASHRAE**: A leading HVAC/R Association - American Society of Heating, Refrigerating and Air Conditioning Engineers
- **ASTM**: American Society for Testing and Materials.
- **BTU** (British thermal unit): The amount of heat that will raise or lower one pound of water 1 degree F. at 39.2 degrees F
- **CFM**: (Cubic Feet per Minute) A standard measurement of airflow that indicates how many cubic feet of air pass by a stationary point in one minute.
- **Comfort Zone**: The range of temperatures, humidity and air velocities at which the greatest percentage of people feel comfortable.
- **Damper**: A device that is located in ductwork to adjust air flow.
- **Ductwork**: A pipe or closed conduit made of sheet metal, fiberglass board, or other suitable material used for conducting air to and from an air handling unit.
- **Exhaust**: Air removed deliberately from a space, by a fan or other means, usually to remove Contaminants.
- **Heat Transfer**: Flow of heat energy induced by a temperature difference.
- **HVAC**: (Heating, Ventilating and Air Conditioning) Heating, Ventilating and Air Conditioning
- **Plenum**: Air compartment connected to a duct
- **Sound Attenuators**: Components which are inserted into the air distribution system and designed to reduce airborne noise which is propagated along the ducts.
- **Supply Air**: The air flow entering the treated space.
- **VAV System**: (Variable Air Volume System) A mechanical HVAC system capable of serving multiple zones which controls the temperature maintained in a zone by controlling the amount of heated or cooled air supplied to the zone.
- **Throw** is the distance from the center of the outlet face to a point where the velocity of the air stream is reduced to a specified velocity, usually 150 [0.75], 100 [0.50] or 50 fpm
- **Drop** is the result of vertical spread of the air stream due to entrainment of room air, and the buoyancy effect due to the density differences between the total air package and the surrounding primary room air.
- **Ventilation**: The process of supplying or removing air by natural or mechanical means to or from any space

General

Rectangular Duct System is manufactured to meet the most stringent HVAC/Industrial specifications and quality standards using vast experience and expertise in the field and its state-of-the-art equipment. For over a decade, Rectangular Duct System is available for various HVAC and other industrial/commercial applications. Energy efficiency through minimum air leakage rate and indoor air quality are the basis of engineered products.

Ducts are manufactured on CNC machinery such as Auto fold & Shearing machines, Plasma Arc Cutting machines, and Auto Seaming machines.

Rectangular Ducts are available in the following construction :-

- Galvanized Construction: - GI rectangular ducts are fabricated from hot dipped galvanized sheets in accordance with ASTM A 653, Lock forming quality with G90 / Z27 (275 grams / m²) zinc coating.
- Stainless steel :- SS ducts are fabricated out from prime SS sheets of 316 / 304 grades with fully welded longitudinal and transverse joints.
- Black steel / Mild steel ducts :- black steel ducts are fabricated from hot rolled / cold rolled black steel sheets with fully welded longitudinal and transverse joints.
- Aluminum ducts:- Aluminum ducts are fabricated from aluminum sheets of AA1100 / Equal grade of sheets with Hemmed 'S' & Drive 'C' cleats or angled type transverse joints.

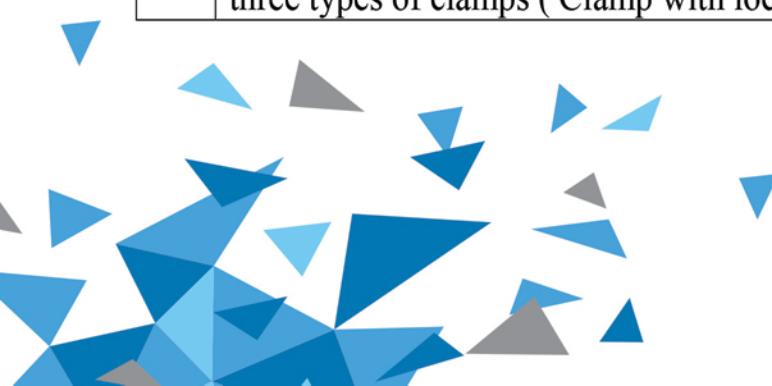
Product Features :

- Excellent quality ducts fabricated from a variety of GI sheet makes.
- Mild / Black steel and Stainless steel rectangular ducts can be fabricated with fully welded longitudinal and transverse joints for airtight and watertight joints.
- Duct construction as per DW144 / SMACNA/ASHRAE standards provides superior strength, low leakage rate and vibration free products.
- No limitation on duct size. Any size of duct can be constructed.
- Less leakage with superior quality slip on angle transverse joints with integral sealant. TDF type integral angles are also available as an option.
- All GI ducts shall be with beading at 300mm distance, which act as stiffeners and help minimizing vibration and drumming noise of duct sheet panels. Tie rods and stiffeners shall be provided, if required.
- Factory fabricated and "Ready to Install" ducts at the site.
- Accurate in finished dimensions.
- Special identification stickers on duct pieces cross referred to AC units/drawings/areas for an easy installation process.
- Quick and easy installation without the use of special tools.



Production Process

| Op. no. | Operation description |
|------------|--|
| 1 | Loading the steel coils to the m/c coilers with different mat. Thickness acc. To the required duct gauge., |
| 2 | Feeding the m/c control by the required duct dimensions and Qty. according to coils width. |
| 3 | Select the required flange type (TDC or TDF) |
| 4 | Determined the duct shape either (L , U or squared) |
| 5 | Setup the different steps of the m/c with the required parameters |
| 6 | Automatic Uncoiling sheet metal from coilers |
| 7 | Leveling & straitening step for sheet metal |
| 8 | Beading step for the feeding sheet metal |
| 9 | Punching & notching for duct corner with the determined duct dimension for TDF flange system |
| 10 | One edge bending step |
| 11 | Pittsburgh locking and cutting step for the other duct edge |
| 12 | Flanging step for the both sides of the duct length |
| 13 | Bending step for the duct corners |
| 14 | Unloading duct from the m/c |
| 15 | Seam locking step for duct length by seam locking m/c |
| 16 | 4 Flange corner insertion in each duct side and lock it by corner locker m/c |
| 17 | Stick the duct label in one side of the duct unit |
| 18 | Assemble the Duct units in each other to Rich the required duct length by using 4 hex Screws and 4 hex Nuts through the flange corner pieces . |
| 19 | The flange of the four duct sides for the two duct units locked together by either of three types of clamps (Clamp with locking screw or C clamp or sliding C clamp) |



The tables below show the standard gauges of sheet metal used in accordance to duct dimensions either rectangular or round These thicknesses are based on SMACNA requirements different gauges may also be fabricated upon request



| The National Association Sheet Metal Contractors 1929 | | |
|--|-------------------------------|----------------|
| RECTANGULAR SIZES | GAUGE OF SHEETS FOR DUCT SIZE | ROUND DIAMETER |
| Up to 12 in. | 26 | Up to 12 in. |
| 13 to 30 in. | 24 | 13 to 30 in. |
| 31 to 42 in. | 22 | 31 to 40 in. |
| 43 to 60 in. | 20 | 41 to 60 in. |
| 61 in. and over | 18 | 61 in and over |





Black Steel Duct

Black steel duct is made by the high thickness steel sheet then welding together to become the box shape. As a result, the duct is more strong and suitable for high pressure duct such as Main kitchen exhaust, stack duct in an automobile industry.

Material cold / hot rolled Black Steel sheet

Thickness 1.2-6 mm

Length 1.00 , 1.25 , 1.50 meter as stander

Assembly angled

Pressure 2-10 inch of water

Using Guide

- For high pressure Duct
- Distribute the hot air
- Smoke exhausting
- Smell exhausting



Typical Air Changes Per Hour Table

| Residential | |
|---------------------------|-------|
| Basements | 3-4 |
| Bedrooms | 5-6 |
| Bathrooms | 6-7 |
| Family Living Rooms | 6-8 |
| Kitchens | 7-8 |
| Laundry | 8-9 |
| Light Commercial | |
| Offices | |
| Business Offices | 6-8 |
| Lunch Break Rooms | 7-8 |
| Conference Rooms | 8-12 |
| Medical Procedure Offices | 9-10 |
| Copy Rooms | 10-12 |
| Main Computer Rooms | 10-14 |
| Smoking Area | 13-15 |
| Restaurants | |
| Dining Area | 8-10 |
| Food Staging | 10-12 |
| Kitchens | 14-18 |
| Bars | 15-20 |
| Public Buildings | |
| Hallways | 6-8 |
| Retail Stores | 6-10 |
| Foyers | 8-10 |
| Churches | 8-12 |
| Restrooms | 10-12 |
| Auditoriums | 12-14 |
| Smoking Rooms | 15-20 |

Recommended noise levels

NC Curves

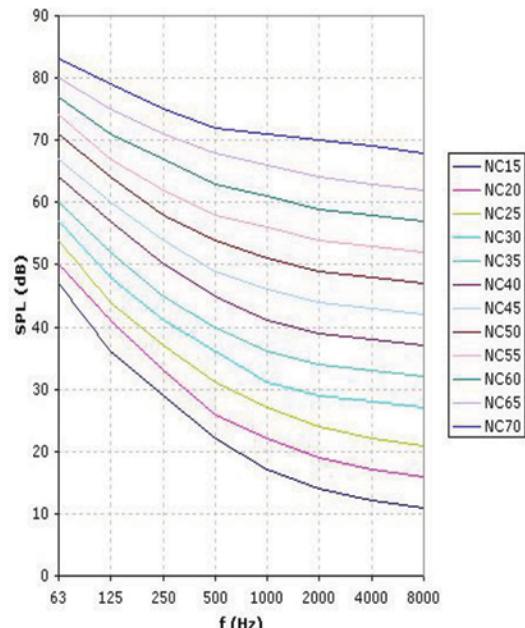
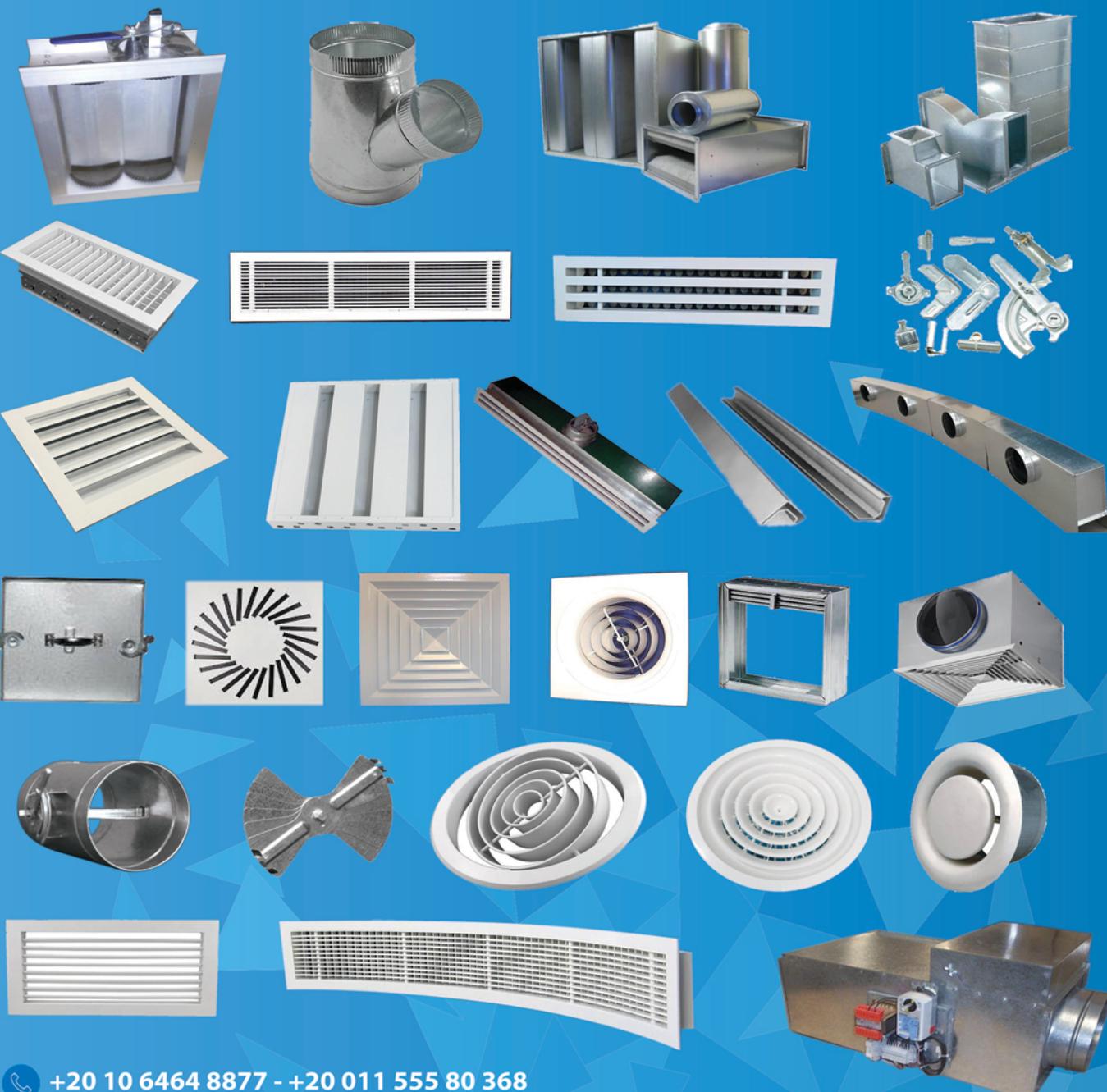


Figure 1: The NC curves.

IMPORTANT CONVERSIONS

| PRESSURE | | ENERGY | | | |
|-------------------------|---|------------------|-------------------------|---|-------------------------------|
| 1) 1 Kg/Cm2 | = | 14.223 psig | 1) kcal/hr x 3.968 | = | BTU/hr |
| 2) 1 Bar | = | 14.504 psig | 2) Ton | = | (Watts/hr x 3.413) / 12000 |
| 3) 1 Bar | = | 1.0197 Kg/cm2 | 3) Watts/hr | = | (No.of Tons x 12000) / 3.413 |
| VOLUME | | 4) BTU/hr | | | |
| 1) 1 Ft ³ | = | 28.3 Litree | 5) 1 Ton | = | Watts/hr x 3.413 |
| 2) 1 Metre ³ | = | 35.315 Ft | 6) kchl/hr | = | 12000 btu/hr |
| 3) 1 oz | = | 29.57 milliliter | 7) 1 HP | = | Watts/hr x 0.8598 |
| 4) 1 Metre ³ | = | 1000 Litres | 8) 1 KW | = | 760 Watts |
| | | | 9) 1 Ton | = | 1000 Watts |
| | | | 10) 1 Ton | = | 3.413kw |
| | | | | = | 3024 kcal/hr |
| TEMPERATURE | | AREA | | | |
| 1) 0°F | = | 1.8 x 0°C+32 | 1) 1 metre ² | = | 35.315 ft ² |
| 2) 0°C | = | (F-32) / 1.8 | | | |
| WEIGHT | | DISTANCE | | | |
| 1) 1 Ton | = | 1000 Kg | 1) 1 INCH | = | 25.4 MM |
| 2) 1 Kg | = | 2.2 Pounds | 2) 1 Feet | = | 12 Inches |
| | | | 3) 1 Meter | = | 3.28 foot |
| | | | 4) 1 Meter | = | 39.36 inch |



+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road,
Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9,
Altagamoa alawal, Cairo, Egypt



ALMASA FOR ENGINEERING INDUSTRIES

Rectangular Duct fitting production Procedure

Process sheet

Production & Technical Dept.





Rectangular Duct fitting production Procedure

Technical data

- 1- Duct fitting specification
 - Duct fitting types (Elbow, Reducer, T Joint, Neck, and Takeoff).
 - Duct fitting dimensions.
 - Thickness According to SMACNA thickness Gauge.
 - Flange types TDC or TDF.
- 2- Raw material specification
 - Galvanized Steel sheet According to EN 10142.
 - Tolerance According to EN 10143.
 - Regular Spangle – Chromate - UN oiled.
 - Zinc coat 275 gr/m² - Test Certificate.
- 3- Duct accessories specification
 - All duct fitting accessories required for a duct systems available from our side.
 - All required technical data and assembly instruction for our duct fitting accessories available from our side.
- 4- Production
 - Plasma cutting M /C
 - S Joint rolling M/C
 - L Joint rolling M/C
 - Flange TDF M/C
 - Seam locking M /C
 - Corner locking M/C

+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road, Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9, Altagamoa alawal, Cairo, Egypt





Production Process

| Op. o. | Operation description |
|--------|--|
| 1 | Loading the steel sheet to the plasma cutting m/c Table with Thickness acc. To the required duct gauge. |
| 2 | Feeding the plasma cutting m/c control by the required duct fitting type and dimensions. |
| 3 | Select the required flange type (TDC or TDF) |
| 4 | Setup the different steps of the m/c with the required parameters |
| 5 | Startup the cutting process |
| 6 | Making S Joint for the fitting sides by using S Joint Rolling M/C |
| 7 | Making L Joint for the fitting sides by using L Joint Rolling M/C |
| 8 | Making TDF flange for both sides of the duct fitting by using TDF M/C |
| 9 | Preassembly the duct fitting sides |
| 10 | Seam locking step for duct length by seam locking m/c |
| 11 | 4 Flange corner insertion in each duct side and lock it by corner locker m/c |
| 12 | Stick the duct Fitting label in one side of the Fitting unit |
| 13 | Assemble the Duct fitting units in the duct by using 4 hex Screws and 4 hex Nuts through the flange corner pieces. |
| 14 | The flange of the four duct fitting & duct sides locked together by either of three types of clamps (Clamp with locking screw or C clamp or sliding C clamp) |

+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road, Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9, Altagamoa alawal, Cairo, Egypt





References:

- Duct fitting specification according to SMACNA standard
- Raw material thickness gauge according to SMACNA standard
- Raw material specification according to SMACNA standard (Sheet metal zinc coating supplier test certificate)
- Duct accessories specification and types according to SMACNA standard

+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road, Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9, Altagamoa alawal, Cairo, Egypt





ALMASA FOR ENGINEERING INDUSTRIES

Rectangular duct production procedure

Process sheet

Production & Technical Dept.





Rectangular duct production procedure

Technical data

- 1- Duct specification.
- 2- Raw material specification.
- 3- Duct accessories specification.
- 4- Production M/C's.

1- Rectangular duct specification

- Duct Dimensions (W x H) mm or inch.
- Duct Length (L) mm or inch.
- Thickness According to SMACNA thickness Gauge.
- Flange types TDC or TDF.

2- Raw Material Specification

- Galvanized Steel Coil According to EN 10142.
- Tolerance According to EN 10143.
- Regular Spangle – chromate -UN oiled.
- Zinc coat 275 gr/m² - Test Certificate.

3- Duct accessories specification

- All duct accessories required for a duct systems available from our side.
- All required technical data and assembly instruction for our duct accessories available from our side.

4- Production M/C's

- Auto Line For Rectangular Duct Manufacturing
- Seam Locking M/C

Corner locking /C

+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road, Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9, Altagamoa alawal, Cairo, Egypt





Production Process

| Op. no. | Operation description |
|---------|--|
| 1 | Loading the steel coils to the m/c coilers with different mat. Thickness acc. To the required duct gauge, By overhead crane. |
| 2 | Feeding the m/c control by the required duct dimensions and Qty. according to coils width. |
| 3 | Select the required flange type (TDC or TDF) |
| 4 | Determined the duct shape either (L , U or squared) |
| 5 | Setup the different steps of the m/c with the required parameters |
| 6 | Automatic Un coiling sheet metal from coilers |
| 7 | Leveling & straitening step for sheet metal |
| 8 | Beading step for the feeding sheet metal |
| 9 | Punching & notching for duct corner with the determined duct dimension for TDF flange system |
| 10 | One edge bending step |
| 11 | Pittsburgh locking and cutting step for the other duct edge |
| 12 | Flanging step for the both sides of the duct length |
| 13 | Bending step for the duct corners |
| 14 | Unloading duct from the m/c |
| 15 | Seam locking step for duct length by seam locking m/c |
| 16 | 4 Flange corner insertion in each duct side and lock it by corner locker m/c |
| 17 | Stick the duct label in one side of the duct unit |
| 18 | Assemble the Duct units in each other to Rich the required duct length by using 4 hex Screws and 4 hex Nuts through the flange corner pieces. |
| 19 | The flange of the four duct sides for the two duct units locked together by either of three types of clamps (Clamp with locking screw or C clamp or sliding C clamp) |

+20 10 6464 8877 - +20 011 555 80 368

+2 02 233 78 44 03

Almasa@enshaagroup.com

Factory : Km26 Cairo Alex road, Abou-Rawash industrial area, Giza, Egypt

Head Office: Villa 3, Elmogawra 9, Altagamoa alawal, Cairo, Egypt





References:

- Duct specification according to SMACNA standard
- Raw material thickness gauge according to SMACNA standard
- Raw material specification according to SMACNA standard
(Sheet metal zinc coating supplier test certificate)
- Duct accessories specification and types according to
SMACNA standard





Sheet metal works Compliance Sheet

| | | | |
|---------------------|---|---------------------|--------|
| PROJECT : | ONE-NINETY MIXED USE DEVELOPMENT, CAIRO, EGYPT | Consultant : | |
| Contractor : | Almasa Engineering | Date : | 7-2022 |
| SUPJECT : | Galvanized Steel Duct Construction & Fabrication Compliance Sheet | | |
| PREPARED BY | | | |

| NO. | DESCRIPTION | COMPLY / NOT | NOTES |
|---|--|--------------|-------|
| SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS | | | |
| A | All ductwork, sheet metal flues, register boxes, air changers, dampers and all auxiliary work of any kind necessary to make the various air conditioning, ventilating and heating systems of the building complete and ready for satisfactory operation shall be furnished and installed. All ductwork shall be constructed in accordance with the latest edition of SMACNA Duct Construction Standards. | COMPLY | |
| B | All ductwork indicated on drawings is schematic. Ductwork shall be set up and down, offset, change in duct size and/or location to meet field conditions and coordination between trades without additional cost to the owner. | COMPLY | |
| C | Dimensions given on drawings of all acoustically lined ducts shall be clear inside dimension. | COMPLY | |
| D | A snap lock seam shall not be permitted. | COMPLY | |
| E | Use gasketed type joint when dissimilar metals are joined. | COMPLY | |
| F | All galvanized ductwork shall be hung with galvanized hangers. | COMPLY | |
| G | Access doors as specified elsewhere shall be provided in the ducts wherever required for access to fusible link dampers, controls, and all equipment concealed inside the ducts. | COMPLY | |





| | | | |
|---|--|--------|--|
| H | Unless otherwise noted, all ductwork shall be substantially built of lock forming quality galvanized steel having a galvanized coating of 33 grams for both sides of 0.1 sq. m. of sheet. Ducts shall have approved joints and seams smooth on the inside with a neat finish on the outside. Duct joints shall be as airtight as possible, with laps made in the direction of air flow and no flanges projecting into the air stream. All angles shall be galvanized. | COMPLY | |
| I | Tapers for low pressure ducts shall be constructed in accordance with SMACNA standards. When a taper is used in a "diverging" air flow and the duct size increases, the sides are to be pitched to maximum of 20 degrees to prevent turbulence or an additional increase of static pressure. When a taper is used in a "contracting" air flow and the duct size is decreasing, the sides are to be pitched to a maximum of 30 degrees. | COMPLY | |
| J | Where space conditions permit, full radius turns shall be used at offsets in low pressure ducts radius = duct width. | COMPLY | |
| K | Where space conditions do not permit a short radius, vaned elbow or square elbows shall be used. All square elbows shall be fitted with double thick turning vanes. | COMPLY | |
| L | When it is impossible to offset a low pressure duct around an obstruction or when it is necessary to make provisions for vertical hangers of the ceiling construction passing through ducts, the obstruction shall be encompassed with a "streamliner". | COMPLY | |
| M | Install manual dampers, automatic dampers (provided by control manufacturer) fire dampers, smoke dampers, grilles, registers, diffusers, register boxes, access doors, etc., as indicated on the drawings described elsewhere in the specifications and as required for a complete system ready for operation. Balancing dampers shall be provided in each branch, split or tap connection of low pressure ducts unless otherwise noted on plans. Quadrant dampers shall be furnished and installed in locations shown on plans. | COMPLY | |





| N | Exact dimensions of register boxes must await approval of grilles, and exact locations shall be submitted for approval, otherwise any changes directed after installation shall be made without additional cost to the Owner. All register boxes and other openings must be kept tightly closed during construction to keep out rubbish. | COMPLY | | | | | | | | | | | | | |
|--------------------|---|--------------------|-------------------------------|-----------|-----|------------|-----|-------------|-----|--------------|-----|-----------|-----|--------|--|
| A | Low pressure ductwork is defined as ductwork in the systems where velocities do not exceed 10 m/sec and static pressures do not exceed 500 Pa at fan discharge. <table><thead><tr><th>Duct Width (mm)</th><th>Sheet Metal Thickness (mm)</th></tr></thead><tbody><tr><td>Up to 600</td><td>0.8</td></tr><tr><td>601 to 760</td><td>0.8</td></tr><tr><td>761 to 1220</td><td>0.8</td></tr><tr><td>1221 to 2030</td><td>1.0</td></tr><tr><td>over 2031</td><td>1.2</td></tr></tbody></table> | Duct Width (mm) | Sheet Metal Thickness (mm) | Up to 600 | 0.8 | 601 to 760 | 0.8 | 761 to 1220 | 0.8 | 1221 to 2030 | 1.0 | over 2031 | 1.2 | COMPLY | |
| Duct Width (mm) | Sheet Metal Thickness (mm) | | | | | | | | | | | | | | |
| Up to 600 | 0.8 | | | | | | | | | | | | | | |
| 601 to 760 | 0.8 | | | | | | | | | | | | | | |
| 761 to 1220 | 0.8 | | | | | | | | | | | | | | |
| 1221 to 2030 | 1.0 | | | | | | | | | | | | | | |
| over 2031 | 1.2 | | | | | | | | | | | | | | |
| B | All low pressure ductwork shall be galvanized steel, except where otherwise specified, with gauges as follows, and constructed and braced so not to deform, break or fail to support its own weight. | COMPLY | | | | | | | | | | | | | |
| C | Total air outlet volume for low pressure duct systems, measured by means of a velometer, shall be at least 95% of actual fan supply (measured by means of duct traverse taken with a pitot tube and water manometer.) | COMPLY | | | | | | | | | | | | | |
| A | Medium pressure ductwork is defined as ductwork in systems where velocities exceed 10 m/sec and static pressures do not exceed 1500 Pa. <table><thead><tr><th>Duct Width (mm)</th><th>Sheet Metal Thickness (mm)</th></tr></thead><tbody><tr><td>up to 600</td><td>.8</td></tr><tr><td>601 to 760</td><td>.8</td></tr><tr><td>761 to 1200</td><td>1.2</td></tr><tr><td>1221 to 2030</td><td>1.5</td></tr><tr><td>over 2031</td><td>1.5</td></tr></tbody></table> | Duct Width (mm) | Sheet Metal Thickness (mm) | up to 600 | .8 | 601 to 760 | .8 | 761 to 1200 | 1.2 | 1221 to 2030 | 1.5 | over 2031 | 1.5 | COMPLY | |
| Duct Width (mm) | Sheet Metal Thickness (mm) | | | | | | | | | | | | | | |
| up to 600 | .8 | | | | | | | | | | | | | | |
| 601 to 760 | .8 | | | | | | | | | | | | | | |
| 761 to 1200 | 1.2 | | | | | | | | | | | | | | |
| 1221 to 2030 | 1.5 | | | | | | | | | | | | | | |
| over 2031 | 1.5 | | | | | | | | | | | | | | |
| B | All medium pressure ductwork shall be galvanized steel except where otherwise specified, with gauges, as follows, brace and construction so as to support its own weight and not to break, rattle or deform under pressure. | COMPLY | | | | | | | | | | | | | |





| | | | |
|---|---|--------|--|
| C | Total air outlet volume for medium pressure duct systems, measured by means of a velometer, shall be at least 98% of actual fan supply (measured by means of a duct traverse taken with a Pitot tube and water manometer) i.e., maximum 2% leakage. | COMPLY | |
| A | All kitchen cooking equipment exhaust ductwork shall be constructed of minimum 3.4 mm thick black iron. | COMPLY | |



| م | اسم المشروع | الشركة المنفذة | موقع المشروع |
|----|------------------------------|--------------------------------------|------------------|
| 1 | كارفور سيني سنتر الماظه | ليدز | سيني سنتر الماظه |
| 2 | كارفور الاسماعيلية | ليدز | الاسماعيلية |
| 3 | حي الورارات | جيزة سيسنمز (الاسكندرية للانشاءات) | العاشر من رمضان |
| 4 | مصنع يوتيبيا للأدوية | شرق الدلتا للمقاولات | 6 اكتوبر |
| 5 | جامعة زويل | حسن عالم تكنولوجى | العين السخنه |
| 6 | محطة تحلية مياه العين السخنه | سمارت سيسكو | الفيوم |
| 7 | كلية الزراعه جامعه الفيوم | كاف للمقاولات | العاشر من رمضان |
| 8 | الاوبرا | انكورب الدوليه (اوراسكوم) | العاشر من رمضان |
| 9 | حي الورارات | EMEC (الغرابلي) | العاشر من رمضان |
| 10 | العالمين الجديدة | هاي سكوير سيسنمز | العالمين |
| 11 | مول 8000 | ارجنوت | العاشر من رمضان |
| 12 | المنصورة 8 | أسيك (سياك) | العاشر من رمضان |
| 13 | مستشفى اسر الشهداء | VISION EGYPT | مدينة بدر |
| 14 | حي الورارات | EMECO (الرواد) | العاشر من رمضان |
| 15 | الهايكستب العسكري | ارجنوت | الهايكستب |
| 16 | محطة تحلية الضبعه | سمارت سيسكو | الضبعه |
| 17 | مركز ميتاميد لعلاج الاورام | الهندسية للتشييد والبناء (تسنيم) | التجمع الخامس |
| 18 | ماركيرل للصناعات الدوائية | إنشاء للمقاولات والتجارة | العبور |
| 19 | امون للأدوية | إنشاء للمقاولات والتجارة | العبور |
| 20 | مطعم الجلاة | شركة الدبيب | العين السخنه |
| 21 | مصنع العاشر | هاي سكوير سيسنمز | العاشر من رمضان |
| 22 | حي الورارات | انكورب الدولية (سميريت) | العاشر من رمضان |

| | | | |
|------------------|--------------------------|-----------------------|-----------|
| العاصمة الاداريه | EMECO | كيان العسكري | 23 |
| العاصمة الاداريه | تراست كوند (اوراسكوم) | اوبرا | 24 |
| التجمع الخامس | انشاء للمقاولات والتجارة | هايبر ماركت خير بلدنا | 25 |
| اكتوبر | ديزاينر | مصنع بيبسى | 26 |
| مصر الجديدة | لينك انترناشونال | لاكورفا 1970 | 27 |
| التجمع الخامس | المجموعه المتحده | بورتونيو كايرو | 28 |
| الجولف | TECNO ARAB | فيلا حازم | 29 |
| اسكندرية | ليذر | كارفور محطة الرمل | 30 |
| دمنهور | ليذر | كارفور دمنهور | 31 |
| جامعه الدول | ليذر | عرب ليج جامعه الدول | 32 |
| التجمع الخامس | ICE | نماء 44 | 33 |
| اسكندرية | جيماك جروب | فاركو ماك | 34 |
| اسكندرية | تيمبريتشر للتكييف | بنك الدم | 35 |
| العاصمة الاداريه | ليذر | المنصورة 2 | 36 |
| حي الاسمارات | بروسيرفس | مركز خدمة نيسان | 37 |
| العاصمة الادارية | المؤسسه المتكاملة | حي الوزارات | 38 |
| العاصمة الاداريه | ليذر | الصاله المغطاه | 39 |
| الاقصر | EGO | مستشفى البياضيه | 40 |
| الاقصر | EGO | الكنيسة الانجليزية | 41 |
| العاصمة الاداريه | هوم سيزون | حي الوزارات | 42 |
| العاصمة الاداريه | بناء المستقبل | اوبرا | 43 |
| الشيخ زايد | adler | skay | 44 |
| سوهاج | ليذر | مستشفى سوهاج | 45 |

| | | | |
|-------------------------|--------------------------|--------------------------|----|
| العاصمة الادارية | بناء المستقبل | الاوبرا | 46 |
| الشيخ زايد | ليدز | skay | 47 |
| ال السادس من اكتوبر | الفتح | جامعه زويل | 48 |
| حدود ليبيا | ديزاين اير | مستشفى الداخله | 49 |
| العاصمة الاداريه | جريين للمشروعات | بنك الاسكان والتعمير | 50 |
| مدينة نصر | ايفورت للتجارة والصناعه | مصلحة الضرايب | 51 |
| طنطا | ميبكو ايجيبت | كلية طب اسنان | 52 |
| مطروح | الريانية | قاعدة محمد نجيب العسكرية | 53 |
| العاصمة الاداريه | انشاء للمقاولات والتجارة | ساحة الشعب | 54 |
| المنطقة الصناعية اكتوبر | انشاء للمقاولات والتجارة | خوفو فارم | 55 |
| العالمين الجديده | هوم سيزون | ويبيكو | 56 |
| الهرم | سيفتي اند بروتكشن | مستشفى ثابت ثابت | 57 |
| العبور | جيماك جروب | كيمال | 58 |
| شرم الشيخ | جاز شيل | فور سيزون | 59 |
| الغردقه | روفيك | مستشفى الغردقه العام | 60 |
| ال السادس من اكتوبر | ECS | سيدكو للادويه | 61 |
| طريق اسكندرية الصحراوي | ECS | سوديك | 62 |
| العاصمة الاداريه | ميراتك (اوراسكوم) | R5 | 63 |
| العاصمة الاداريه | سمكريت (انكورب) | R5 | 64 |
| الساحل الشمالي | الرواد | بلايا سي شيل | 65 |
| ال السادس من اكتوبر | ECS | بنيه | 66 |
| مدينة بدر | ECS | مصنع المستقبل | 67 |

تم تسليم
14/04/2021
رقم ٢٥٥٣



طلب اعتماد مواد

| | | | |
|-------------------|----------------------|---|--|
| MS/R5/Z04/ME/0169 | رقم الطلب: Rev.00 | المالك : هيئة المجتمعات العمرانية | (Zone-04) – R05 بالعاصمة الإدارية الجديدة |
| صفحة 1/1 | التاريخ : 14/04/2021 | المقاول: شركة رواز الهندسة الحديثة الاستشاري: جماعة المهندسين الاستشاريين ECG | المقاول : شركة رواز الهندسة الحديثة |

1. قسم التقديم:

الثاني معماري كهرباء صحى تكييف مهندس اخرى

2. صلة التقديم:

| | | | | | | | | | |
|------------------|---|---------------|---|------------|---|----------------|---|------|---|
| Compliance Sheet | 5 | شهادات اختبار | 4 | Data Sheet | 3 | كتالوج (عدد 2) | 2 | عينة | 1 |
|------------------|---|---------------|---|------------|---|----------------|---|------|---|

3. التقديم بالفرض:

للعلم اخرى للأعتماد

4. الموقع:

Zone 04 : المقطعة

5. تفاصيل التقديم:

| كود الاعتماد | مراجع العطاء | مواصفات | الطاقة | اللوح | عدد النسخ | رقم مراجع المستندات | المصنع / الموردة | بيان / الوصف | م |
|--------------|--------------|---------|--------|-------|-----------|---------------------|------------------|----------------------------------|---|
| 33 | 15880 | | | | 2 | | Almasu | Galvanized Steel Metal Duct Work | 1 |

ملاحظات المقاول:
لزوم اعمال التكيف

| |
|---------------------------------|
| مدير قسم الابتكار وموكل المقاول |
| الاسم : |
| التوقيع : |

مهندس المكتب الذي
الاسم :
التوقيع :

- 1) معتمد (A)
 - 2) معتمد مع ملاحظات (B)
 - 3) يعاد تقديمها بعد استيفاء الملاحظات (C)
 - 4) مرفوض ولا يعاد تقديمها (D)
- * Contractor should submit Test Report of Galvanization from approved laboratory .
- * Duct fabrication including (gauges, reinforcements, take-offs, elbows, reducers, transformation joints, access doors, guiding vanes, etc.) to be as pressure class and the approved details according to SMACNA standards -
- * Installation should be as per SMACNA standard and approved shop drawings -

التاريخ: 14/04/2021



استلام المقاول بعد المراجعة
الاسم :
التوقيع :
Project No 2550



استلام الاستشاري
الاسم :
التوقيع :
Project No 2550

| | |
|----------------|--|
| Project Name | العاصمة الإدارية الجديدة - مشروع الاوربا |
| Project Number | اوراسكوم - 2479 |
| Submittal No. | <u>OC/ECG/OP/ME/MAT-0274 Rev.00</u> |
| Subject | Sheet metal Duct works-ALMASA |
| Action | Approved with notes - Code (B). |
| Date | 21-05-2019 |

HVAC COMMENTS

1. Sample should be submitted to site for approval before delivery.
 2. The test report of galvanization value of sheet metal duct should be submitted from approved laboratory.
 3. Duct fabrication (including gauges, reinforcements, takeoffs, elbows, reducers, transformations, joints, access doors, guide vanes, flexible connections, etc.) to be as per pressure class and the approved details in accordance to SMACNA standards.
 4. Installation should be as per SMACNA standard and approved shop drawings.

مشروع (5000) - العاصمة الادارية الجديدة

طلب اعتماد مواد

| | |
|--|--|
| الاستشاري: جماعة المهندسين الاستشاريين | المالك: هيئة الشئون المالية للقوات المسلحة |
| مقدم من: شركة اوراسكوم | |
| أسم وتوقيع المرسل: مهندس / البر بدورى MG | |
| بتاريخ: 2019 / 05 / 15 | بتاريخ: 2019 / 05 / 15 |

اصدار رقم: 00

رقم التمودج: OC/ECG/OP/ME/MAT/0274

| عنوان التمودج/ | | | | | |
|----------------|---------------|-----------|--|-----------|-------|
| رقم المعاينة | رقم المعاينات | نوع الصنف | البيان / الوصف | عدد النسخ | مسلسل |
| | 15880 | EGYPT | <p>• SHEET METAL DUCTWORK</p> <p>FROM ALMASA ENGINEERING INDUSTRIES</p> <p>Note: The sample will not be returned back to the contractor in case of approval</p> <p>1 SAMPLE APPROVED</p> <p>With Corrections / Notes As Noted Do Not</p> <p>الجزء: <input checked="" type="checkbox"/> الجزء: <input type="checkbox"/></p> <p>الدور: <input type="checkbox"/> Date: <input type="checkbox"/></p> | 1 | |

تعهد المقاول: المستندات المرفقة تم تسييرها وراجعتها من حيث تطابقها مع العقد وتغير مقبوله للاستخدام في هذا المشروع من قبل المقاول

| الاستشاري المختص | الملحوظات |
|------------------|--------------------------------------|
| astashari | Refer to our notes in attached File. |

| الاستشاري | المقاول | الاستشاري | استلام المقاول |
|---------------|---|-----------|----------------|
| 20 / 1 / 2019 | <input checked="" type="checkbox"/> REC'D | | |
| 20 / 1 / 2019 | 21 MAY 2019 | | |

| التوزيع قبل الاعتماد: | | | | | | التوزيع بعد الاعتماد: | | | | | |
|-----------------------|-------|----------|-------|--------|--------|-----------------------|--------|-----------|--------|-----|--|
| الاستشاري | | | | | | المقاول | المالك | الاستشاري | المالك | No. | |
| Q.S | تخطيط | ميكانيكا | تكييف | كهرباء | معماري | منذني | | | | | |
| | | | | | | | | | | | |

ملل TD

مشروع (5000) – العاصمة الادارية الجديدة

طلب اعتماد مواد

الاستشاري: جماعة المهندسين الاستشاريين

الملك: هيئة الشئون المالية للقوات المسلحة

مقدمہ : شرکہ اور اسکوہ

أحمد وتوقيع الرسالة

2010/05/15 4:15

اصدار رقم ٠٩

رقم التموزج: QC/ECG/QP/ME/MAT/0274

| عنوان التموزج / | | HVAC SYSTEM - SHEET METAL DUCTWORK | | | | |
|-----------------|--------------|--|---------------|-----------|-------|--|
| رقم المقايسة | رقم المعايير | الصنف/بلد المصنع | البيان/الوصفت | عدد النسخ | مسلسل | |
| 15880 | EGYPT | <ul style="list-style-type: none"> • SHEET METAL DUCTWORK FROM ALMASA ENGINEERING INDUSTRIES <p><u>Note:</u> The sample will not be returned back to the contractor in case of approval</p> <p>1 SAMPLE</p> | 4 + CD | 1 | | |

تعهد المقاول: المستندات المرفقة تم تنسيقها وموافقتها من حيث اطابقها مع العقد وتعتبر مقبولة للاستخدام في هذا المنشىء من قبل المقاول.

| الاستئماني المختص | الملاحظات | الإعتماد بواسطة: | التوقيع: | بتاريخ: |
|-------------------|-----------|------------------|----------|---------|
| | | | | 20 / / |

١- محمد = محمد مع ملاحظات وبيان التقديم من **آخر**، **٢- محمد** = محمد مع ملاحظات وبيان التقديم من **آخر**،

ب = معتقد مع ملاحظات يعى للعقل أن يست بناء على الملاحظات

| | | | |
|--------------------|-----------------------|-----|----------------|
| اعتماد الاستشاري | _____ / _____ / _____ | م/م | |
| 20 / _____ / _____ | الاستلام بواسطة | | استلام المقاول |
| 20 / _____ / _____ | | | |

التوزيع قبل الاعتماد :

| | | | | | | | |
|-----------|-----|--------------------------------------|------|-----|-----|---------|---|
| ١٩٠٥ | ٤٧٨ | ١٢:٠٠ | ٢٠١٩ | ٥ | ٢٠ | الاثنين | مذكرة |
| مسلسل | كود | ساعة | سنة | شهر | يوم | تاريخ | |
| رقم الملف | | عملية: | | | | | <input type="checkbox"/> تليفون |
| ٤٧٩ | | مشروع (٥٠٠) العاصمة الادارية الجديدة | | | | | <input type="checkbox"/> زيارة |
| | | | | | | | <input checked="" type="checkbox"/> داخلي |

من { المهندس: مراد رجب
العنوان: إدارة المكتب الفني "مبني ب"
الى { المهندس: حسن فهمي
العنوان: المكتب الفني -مبني ب

المتابعة « بال التاريخ والتوقيع »
صورة للعلم

OC-ECG-OP-ME-MAT-0274

اصدار رقم ٠٠ بتاريخ ٢٠١٨/٠٥/١٩ والواردة بتاريخ ٢٠١٩/٠٥/٢٠ وذلك للمراجعة
والاعتماد.

ونفضلوا بقبول فائق الاحترام ،،،

٢٠١٩/٥/٢٠

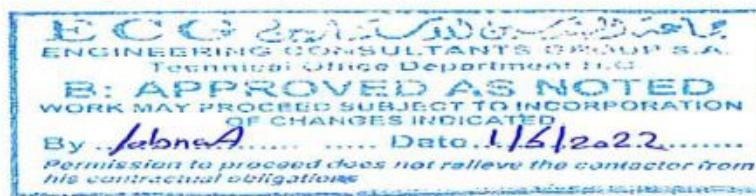
المرفقات : عدد ١ نسخة

٦٤

Prj .Name : Fifth Square – Office Building
Prj .No: : 3016
Material : Sheet Metal Duct Work - Al MASA
Action : Code (B)
Submittal No : 158-OBP-MS-MEC-038 Rev. - 00-
Date : 01/6/2022

Ductwork Comments

- **The submitted fabricator (AL MASA) is accepted as a fabricator and the submitted supplier (Kandil / AlGhurair) are accepted subject to the following .**
1. The contractor must submit sample to (ECG site engineer) for approval before delivery.
 2. Duct gauges should be as per specs. section section 233113 clause 2.1K
 3. The test report of galvanization value of sheet metal duct which covered the specification's requirement should be submitted from approved laboratory before delivery.
 4. Duct fabrication & installation (including gauges, reinforcements, takeoffs, elbows, reducers, transformations, joints, access doors, guide vanes, flexible connections, etc.) to be as per Specs. and the approved details in accordance to SMACNA standards.
 5. Kitchen duct, smoke duct, Aluminum duct (if required) is not included in the submittal. and should be submit in a separate submittal



✓ ✓ ✓ ✓ ✓
csc 1/6/22



Building 2, Block 10, El Sefarat District, Nasr City, Cairo, Egypt, 11765
 Mailing Address: P.O.Box 1167 Cairo 11511 - Egypt
 Phone: (+202) 2352 4740 | Fax: (+202) 2352 5748
 e-mail: ecg@ecgsa.com

www.ecgsa.com



MCG
MENTOR
• CONTROLS • FAIRY •



المعهد التعليمي ومستشفي الاراضن المطوبنة - مستشفي ثابت للاراضن المعدية
جامعة القاهرة - كلية الطب - مستشفيات جامعة القاهرة
الشركة المصرية للمقاولات والإدارة والصيانة
مكتب مهندس جروب للاستشارات (ادخارف شوقي)

اسم المشروع
المملكة
الجهة التنفيذية
مستشار الجهة التنفيذية

MATERIAL SUBMITTAL REQUEST (MSR) طلب اعتماد عينة / مواد

رقم الطلب: TH-MSR-HVAC-MCG-AT-00011

رقم الإصدار: Rev-01

من: Safety & Protection Association (S&P.A)

التاريخ: 31/3/2021

الى: مكتب مهندس جروب للاستشارات (ادخارف شوقي)

رقم العذر:

| الرتبة / التقييم (المهندس الاستشاري) | عدد السعف | العينة رقم الشناور/ الخ ... | الصانع / المورّد | وصف البند اسم / نوع العينة ، الأبعاد ، السعة ، الاستخدام ... الخ | رقم |
|---|-----------|-----------------------------------|------------------|---|-----|
| بروجر التقييم سماعة | ١ | | ALMASSA | DUCT WORK | ١ |
| | | | | | ٢ |
| | | | | | ٣ |
| | | | | | ٤ |
| | | | | | ٥ |
| | | | | | ٦ |
| | | | | | ٧ |
| | | | | | ٨ |
| | | | | | ٩ |

١٧/٤/٢٠٢١



العنوان:
الاسم:
التوقيع:

هذا المقاول يأكّل جميع العينات أو المواد المقلمة قد تم فحصها بمعزلة، وهي مطابقة للمواصفات ومتماضية مع بنود ومستندات العذر ما عدا التالي:

الى: (المقاول) من: (الاستشاري)
التاريخ:

- ملاحظات على:
 أ - يتم استكمال الأصول في حالة أن يكون التقييم (١) أو (٢)
 ب - النخل من التقييم يتم بمعرفة المقاول
 ج - هذا الشخص لا يعطي المقاول من مسؤليته تجاه مقتبلة تلك الخامات / المعادلات لالتزامات العذر

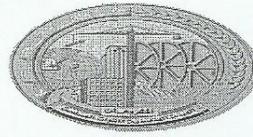
استكمال (٢)
١٤/٤/٢٠٢١

الاستشاري

المقاول

الصفحة (١)

- تعريب درجات التقييم:
 ١ مفضّلة
 ٢ مفضّلة بملحقات
 ٣ بعد التقييم بعد إتمام الملحقات
 ٤ مرفوضة



طلب اعتماد مواد

الاستشاري: شركة المهندسون الاستشاريون العرب (محم - باخوم)

المالك: مدينة زويل للعلوم والتكنولوجيا

مقدم من : شركة أبتاجع مصر للتعمير (علم تكنولوجي) موجه إلى: الهيئة الهندسية للقوات المسلحة (٦٤١)

اسم وتوقيع استشاري الهيئة: _____

اسم وتوقيع طاقم الاشراف :

٢٠١٩ / / بتاريخ: ٢٠١٩/٠٤/٠١

اصدار رقم: 01

رقم النموذج: MAT/HAT/MECH/047

| <input type="checkbox"/> بديل | <input type="checkbox"/> حسب مستندات التعاقد | عنوان النموذج / Fan Coil Unit | | | |
|-------------------------------|--|-------------------------------|--|------------------|-------|
| رقم المقايسة | رقم المواصفات | المصنع / بلد الصنع | البيان / الوصف | عدد النسخ | مسلسل |
| | 15815 | EL-Masa | <p>Galvanized Duct (Sample Attached)</p> <p>Submittal Including:-</p> <p>1-Catalog.</p> <p>2-Duct Data Sheet Submittal.</p> <p>3- Certificates.</p> | 2 Copy + 1 CD | 1 |

تعهد المقاول: المستندات المرفقة تم تنسيقها وراجعتها من حيث تطابقها مع العقد وتعتبر مقبولة للاستخدام في هذا المشروع من قبل المقاول

الملاحظات

- Kandil steel manufacture approved.
 - Duct size to be as approved shop dwgs.
 - Sample approved (fabricated size) BS-MH-Sol-R3
 - Follow design dwg no BS-MH-Sol-R2 at
Fabricated Duct specially Table Medium (low)
pressure on the drawing design (attached).

ج = معتمد مع ملاحظات ويعاد التقديم مرة أخرى

معنی = |

د = الطلب مرفوض ويعاد التقديم مرة أخرى

ب = معتمد مع ملاحظات. يمكن للعمل أن ينتهي بنهاية على الملاحظات

٢٠١٩/١٠/٤١

nashor

A circular library stamp with a decorative border containing numbers from 1 to 30. The center contains the word "RECEIVED" above the date "02 APR 2019". Below the date is a stamp reading "National Library TECHNOLOGIES" with "MENA" written vertically. The stamp is signed "Hatem" at the bottom.

الصيغة الاستشارة، اعتماد

اعتماد طاقة الاشخاص

استلام المقاول

الاعتماد قبل التوزيع

التوزيع بعد الاعتماد :

طلب اعتماد مواد

Material Approval Request

P2

التاريخ: 14/11/2021

SC-MUST-MAR-MEP-048-00

جامعة مصر للعلوم والتكنولوجيا

التاريخ:

رقم الطلب:

عنوان:



أخرى / Other

As Built Dwg

مواصفات فنية Specs

رسومات تشكيل work shop

نوع المستند

المرفقات:
DATA SHEET + 3 نتائج + CD + عينات

ميكانيكا

كهرباء

معماري

الشاسي

نوعية العمل

طلب اعتماد: الصاج الخاص باعمال التكيف

اسم المورد: شركة العاسة

اسم المصنع: شركة العاسة

اسم المستند

SAMCRETE - Engineers & Contractors

Contractor/المقاول

الاسم/Name: م/ السيد نرويش

التوقيع/Signature:

مدير الاتصال وميكانيك

الاسم/Name: م/ محمد نصر

التوقيع/Signature:

مدير المكتب الفني

الاتصال وميكانيك

نتيجة الفحص / Result

Evaluation / التقييم

مرفوض/Rejected
 D

Resubmit / يعاد التقديم
 C

معتمد بشروط/
Approved as noted
 B

معتمد/
Approved
 A

تاريخ الاستلام / Date
Receive

: Receiver / المستلم

: Recommendation / القرار والمتوصيات

- ① The submitted material is approved as Duct Fabricator only.
- ② samples for other thickness (1.5 mm) to be provided.
- ③ Black Steel Duct sample to be provided.
- ④ Contractor has to use the approved duct material.

استشاري المشروع/ Project Consultant

الاستشاري
Consultant

الاسم/Name:

التوقيع/Signature:

التاريخ/Date: ٢٠٢١/١١/١٤

مدير المشروع

Project Manager

الاسم/Name:

التوقيع/Signature:

التاريخ/Date: ٢٠٢١/١١/١٤

طلب اعتماد مواد

| | | | | |
|---------------------|-------------|-----------|-------------------------------|--|
| HDB//OC/MTR/ME/0045 | رقم الطلب : | الإصدار : | المالك : بنك التعمير والإسكان | مشروع إنشاء مبني بنك التعمير والإسكان بالعاصمة الإدارية الجديدة |
| Rev.00 | | | | المقاول : شركة أوراسكوم للإنشاءات |

التاريخ : 19/12/2020

١. قسم التقديم :

| | | | | | | |
|-------------------------------|-------------------------------|--|------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> اخرى | <input type="checkbox"/> حريق | <input checked="" type="checkbox"/> تكيف | <input type="checkbox"/> صحي | <input type="checkbox"/> كهرباء | <input type="checkbox"/> معماري | <input type="checkbox"/> انساني |
|-------------------------------|-------------------------------|--|------------------------------|---------------------------------|---------------------------------|---------------------------------|

٢. صفة التقديم :

| | | | | | | | |
|--|---|--|---|--------------------------------|---|---|---|
| <input checked="" type="checkbox"/> اخرى | 4 | <input checked="" type="checkbox"/> كتالوجات | 3 | <input type="checkbox"/> خامات | 2 | <input checked="" type="checkbox"/> عينات | 1 |
|--|---|--|---|--------------------------------|---|---|---|

٣. التقديم بالغرض:

| | | |
|-------------------------------|--|--------------------------------|
| <input type="checkbox"/> اخرى | <input checked="" type="checkbox"/> للاعتماد | <input type="checkbox"/> للعلم |
|-------------------------------|--|--------------------------------|

٤. تفاصيل التقديم:

| كود الاعتماد | مراجع العقد | | | عدد النسخ | ارقام مراجع المستندات | المصنعين / الموردين | البيان / الوصف | م |
|--------------|-------------|-----------|-------|-----------|-----------------------|---------------------|--|---|
| | مواصفات | المقاييسة | اللوح | | | | | |
| 15810 | | | | | | ALMASA / Green | Galvanized & Black steel , Duct works Fabricator | 1 |

Attachments :

- 0- Sample
- 1- Contract BOQ
- 2- Compliance Sheets
- 3- Previous approvals
- 4- Quality certificate
- 5- Reference project
- 6- certificates



| | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| مدير المكتب الفني الاسم: التوقيع: | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|

| | | | | | |
|---|---|---|---|--|--|
| <input type="checkbox"/> معتمد (A) | <input type="checkbox"/> معتمد مع ملاحظات (B) | <input type="checkbox"/> يعاد تقديمها بعد استيفاء الملاحظات (C) | <input type="checkbox"/> منفوض ولا يعاد تقديمها (D) | الإسم: التوقيع: | الإسم: التوقيع: |
| ال التاريخ: 29 DEC 2020 | | | | الإسم: التوقيع: | الإسم: التوقيع: |
| مشروع بنك التعمير والإسكان العاصمة الإدارية الجديدة | | | | الإسم: التوقيع: | الإسم: التوقيع: |
| استلام المقاول بعد المراجعة الإسم: التوقيع: | | | | الإسم: التوقيع: | الإسم: التوقيع: |

Submittal for approval of materials

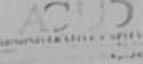
dar Dar Al-Hiloom
30 JUN 20
RECEIVED

Date: 20-Jun-2020

Request no: EGY-MAT-ME-0003-REV 01

Project no. & title:

PE1926BAC - Monumental Spine

| | | |
|---|------------|---|
| Employer: | Engineer: | Contractor: |
|  | dar |  |

1. Material description (one item only on this form):

(See SAMPLE)

Area of application PRAYER ROOM

Drawing ref PE1926B-TD-PR1-MH-102

BOQ ref no

N/A

Specification Ref 221316

Standards

N/A

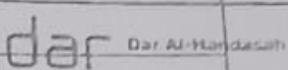
Attach all relevant technical literature marked to identify relevant description current Test Certificates, samples as appropriate

2. Manufacturer / supplier

Company Name شركه الاسم

Address بورساليه من المكابر

Local agent EGYPT



Project No. E1926BAC

Request No.

Date 20-Jun-2020

Page 1 of 1

A-H ✓

SOU ✓

A-Rae ✓

Date Egypt

3. Delivery:

Country of origin

Availability

Locally Manufactured

Overseas

Delivery

Ex-works/ total duration

[] []

[]

Program

Date material required on site

[]

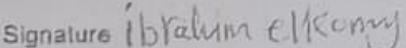
Latest date for order

[]

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated, also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by

IBRAHIM ELKOMY

Signature 

4. Engineer's Representative comments:

see attached Comment

- Approved
- Approved as noted
- Revise and resubmit
- Rejected
- Sample required
- Tests required
- Additional information required
- Manufacturer's guarantee required

Signature



Date

5/7/20

Approval and/or signature does not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.



SHAKER

**MASR
CONSULT**
Envir. & Infrastructure Studies
Prof. Dr. Sameh Abdel-Gawad



شركة وادى النيل للمقاولات والاستشارات العقارية
Wady El Nil Contracting & Real Estate
Investment Co.

Sohag Pediatric Hospital

نموذج طلب فحص مواد جديدة

Volume Damper : ALMASA

الموضوع :

SH-MT-ME018: رقم المسلسل

01 مراجعة :

28/12/2020 التاريخ :

نوع المرفقات :

المرفقات :



رسومات ولوحات



عروض فنية وكatalogات



عينه ومواد

الاعتماد

وصف العنصر



مدير المشروع :

التوقيع :

مدير المكتب الفني :

التوقيع :

ملاحظات الاستشاري :

- * accepted as per sample submitted on site
- * any volume dampers not similar the sample will be rejected this company

ج

ج

28 DEC 2020

SCG
SST

الاستشاري

الاستشاري

المقاول



معتمد وبأدا المقاول في العمل



معتمد مع وجود ملاحظات وبأدا المقاول في العمل



غير معتمد ويقدم منه اخر ولا يأدا المقاول في العمل



غير معتمد ولا يعاد تقديم منه اخر.

التاريخ : 2020 / /

اسم الاستشاري : waleed

التاريخ : 28/12/2020

التاريخ : 2020 / /



وزارة الدفاع
ادارة المهندسين العسكريين
مشروع ١١٠

REF:P110-MA-MEP-00372

التاريخ: ٢٠١٩/٠٣/١١

لجنة اعتماد مواد

رقم الطلب:

تاريخ الطلب :

مقدم من شركة : المقاولون العرب

DATA SHEET

CATALOGUES

SAMPLE

CERTIFICATES

إلى جميع الشركات والمكاتب الإستشارية

تم إعتماد العينة الآتية :

| NO | DESCRIPTION | BRAND | CODE |
|----|-------------|--------|------|
| 1 | صاج ملحفن | ALMASA | B |

وذلك مع الالتزام بالآتي:-

- ان تكون التوريدات مطابقة للعينة المقدمة.
- الصاج المستخدم يكون نفس نوع الصاج المعتمد بالمشروع.
- والتصنيع طبقاً لما جاء في SMACNA.

رئيس لجنة الاعتماد

التوقيع ()

عقيد / محمد جمال سلطان

عضو (٢)

التوقيع ()

ملزم أول / محمد المرساوى

عضو (١)

التوقيع ()

نقيب / احمد عايدى رمضان

تعليمات: في حالة استخدام الشركات مواد غير معتمدة من المكتب الفني سيتم مصادرتها وإتلافها

ديانتنا هدا
٢٠١٩/٣/١٣



التاريخ: 10 مارس - 2019

المشروع: الـ 110 الحربي

المسلسل: 1636/S/AR/2019

الموضوع: اعتماد العرض الفنى .

السادة / المكتب الفنى (ادارة المهندسين العسكريين)

تحية طيبة وبعد-

بالإشارة إلى الموضوع أعلاه وإلى خطاب سيادتكم رقم P110-ME-MEP-SC-01582 المقدم من شركة
المقاولون العرب .

| المورد | الصنف |
|--------|-----------|
| MLMASA | صاج مجلفن |

لامانع من الاعتماد كود (B) على ان يتم الاتى :

1- التوريد يكون طبقا للعينه .

2- الصاج المستخدم يكون نفس نوع الصاج المعتمد بالمشروع .

3- التصنيع طبقا لما جاء فى SMACNA

وتفضلا بقبول فائق الاحترام،،

مدير ادارة الاعمال الكهروميكانيكية
بالمشروع
م/ اسماعيل رشاد



مدير المكتب الفنى للاعمال الميكانيكا
بالمشروع
م/ طارق سعيد

صورة إلى: السيد اللواء / وليد هلال
صورة إلى: المهندس / أحمد شاهين (مدير عام مشروع 110 صبور)
صورة إلى: المهندس / خالد فاروق (مدير المكتب الفنى للمشروع)

وزارة الدفاع
ادارة المهندسين العسكريين
اللواء ٢٣ انشاءات
الكتيبة ٤٥ انشاءات
مشروع ١١٠



Ref: P110-ME-MEP-SC-01582

التاريخ : ٢٠١٩/٠٣/٠٣

| | | | | | | | | | |
|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------------|--------------------------------|-------------|----------|-----------|----------|
| <input type="checkbox"/> BLD 1 | <input type="checkbox"/> BLD 2 | <input type="checkbox"/> BLD 3 | <input type="checkbox"/> BLD 4 | <input type="checkbox"/> BLD 5 | <input type="checkbox"/> BLD 6 | Papers (A4) | A0/A1/A2 | Catalogue | المرفقات |
| <input type="checkbox"/> BLD 7 | <input type="checkbox"/> BLD 8 | <input type="checkbox"/> BLD 9 | <input type="checkbox"/> BLD 10 | <input type="checkbox"/> Other: | Papers (A3) | CD | Sample | | |

ردا على خطب رقم :

الموضوع :- اعتماد مواد MEP

إلى مكتب صبور:

بالإشارة إلى الموضوع أعلاه ، مرفق لكم طلب اعتماد مقدم من شركة المقاولون العرب بخصوص أعمال MEP.

وهي كالتالي :-

| المورد | الصنف |
|--------|----------|
| ALMASA | صاج مجلن |

المرفقات :-

- عينة.
- كتالوج

قائد طاقم الإشراف
لأعمال الالكترونيكيك
عقيد / محمد جمال سلطان
()

عنه النقيب / أحمد عايدى رمضان

OWNER : UTOPIA

CONSULTANT : BECT

CONTRACTOR : EDC

| ISSUER | TO | BLDG | FLOOR | CAT | SEC | DOC | NO. | REV. | Scale | FOLIO |
|--------|------|------|-------|------|-----|-----|-----|-------|-------|-------|
| EDC | BECT | 00 | 00 | MECH | 0 | MSM | 15 | 14 00 | A4 | |

| | | |
|-----------|------|----------------------|
| Submitted | Date | 12-02-19 |
| From: | To: | Eng. : Tayser Hassan |
| Project : | | UTOPIA FACTORY |

Section I : Request for Approval of the following

| No. | Ser No. | Description of Submittal | Zone | Building | Axis | Contract Reference Documents | Approval |
|-------|---------|--|------|----------|-----------|------------------------------|----------|
| | | | | | Longitud. | Specs. Article No. | Code |
| 15.14 | 1 | <i>Material and Manufacture Factory of SHEET METAL DUCT WORK Sample with Catalog</i> | | | | | |

PROJ-101/MECH/TRMT-34/REV-14

Section II : Approval Status

| | | | | |
|--|---|------------|--------------------------|-------|
| A | Approved with no comments | Civil Eng. | Name: <i>[Signature]</i> | Sign. |
| B | Approved with comments (Resubmittal isn't required) | Architect | Name: <i>[Signature]</i> | Sign. |
| C | Approved with comments (Resubmittal is required) | Elec. Eng. | Name: <i>[Signature]</i> | Sign. |
| D | Refused (Resubmittal is required) | Mech. Eng. | Name: <i>[Signature]</i> | Sign. |
| Remarks : | | | | |
| <p>* As per factory visit & Final Sample received</p> <p>Almaso ok knowned</p> | | | | |
| | Co-ordinator | | Sign. | |
| | Site Manager | | Sign. | |
| | Project Manager | | Sign. | |

Rola mohamed

OWNER : UTOPIA

CONSULTANT : BECT

CONTRACTOR : EDC

| ISSUER | TO | BLDG | FLOOR | CAT | SEC | DOC | NO. | REV. | Scale | FOLIO |
|--------|------|------|-------|------|-----|-----|-----|-------|-------|-------|
| EDC | BECT | 00 | 00 | MECH | 0 | MSM | 15 | 14 00 | A4 | |

| | | |
|-----------|------|----------------------|
| Submitted | Date | 12-02-19 |
| From: | To: | Eng. : Tayser Hassan |
| Project : | | UTOPIA FACTORY |

Section I : Request for Approval of the following

| No. | Ser No. | Description of Submittal | Zone | Building | Axis | Contract Reference Documents | Approval |
|-------|---------|--|------|----------|-----------|------------------------------|----------|
| | | | | | Longitud. | Specs. Article No. | Code |
| 15.14 | 1 | <i>Material and Manufacture Factory of SHEET METAL DUCT WORK Sample with Catalog</i> | | | | | |

PROJ-101/MECH/TRMT-34/REV-14

Section II : Approval Status

| | | | | |
|--|---|------------|--------------------------|-------|
| A | Approved with no comments | Civil Eng. | Name: <i>[Signature]</i> | Sign. |
| B | Approved with comments (Resubmittal isn't required) | Architect | Name: <i>[Signature]</i> | Sign. |
| C | Approved with comments (Resubmittal is required) | Elec. Eng. | Name: <i>[Signature]</i> | Sign. |
| D | Refused (Resubmittal is required) | Mech. Eng. | Name: <i>[Signature]</i> | Sign. |
| Remarks : | | | | |
| <p>* As per factory visit & Final Sample received</p> <p>Almaso ok knowned</p> | | | | |
| | Co-ordinator | | Sign. | |
| | Site Manager | | Sign. | |
| | Project Manager | | Sign. | |

Rola mohamed
14/2/2019



MILL TEST CERTIFICATE

KANDIL STEEL

ISO 9001:2015

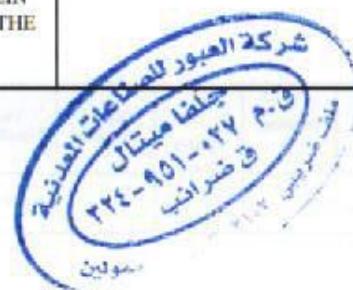
ISO 14001:2015

BS OHSAS 18001:2007

| CUSTOMER: المعاشرة للمصنوعات الالكترونية | | | | | | | | | | ISSUANCE DATE: 10/11/2021 | | | | | | | | | | |
|--|--------|-----------------|-------|--------|---|-------|--------------------------|-------|-------|-----------------------------------|-------|-------------------------------------|--|-------------------------|----------------|-------------|----------|--------|---|-----------------------|
| COMMODITY: Prime Hot Dip Galvanized Steel Coils | | | | | | | | | | TOLERANCE: Acc. to EN-10143 | | | | | | | | | | |
| SPECIFICATION: Zinc Coating & Steel Grade DX51D acc. to EN-10346, Mechanical Test acc. to EN-10002-1, Chemical Test acc. to ASTM E 415 & Salt Spray Test acc. to ASTM 1654 | | | | | | | | | | WIDTH TOLERANCE: Acc. to EN-10143 | | | | | | | | | | |
| Coil / Bundle No. | Origin | Dimensions (mm) | | | Weight (MT) | | Chemical Composition (%) | | | | | Mechanical Properties | | | | Steel Grade | ADH Test | | Zinc Coating Gravimetric Triple Spot Test Gm/m ² | Salt Spray Test (hrs) |
| | | Thick. | Width | Length | Net | Gross | C | Si | Mn | P | S | Yield Strength (N/mm ²) | Ultimate Tensile Strength (N/mm ²) | Elongation (%) | Hardness (HRB) | | Bending | Impact | | |
| 1 | EZDKH | 0.70 | 1250 | Coil | 4.100 | — | 0.060 | 0.029 | 0.251 | 0.009 | 0.003 | 320 | 362 | 24.5 | 62 | DX51D | Pass | Pass | 289 | 72 |
| 2 | EZDKH | 0.80 | 1250 | Coil | 4.060 | — | 0.065 | 0.029 | 0.251 | 0.009 | 0.003 | 315 | 354 | 25.8 | 60 | DX51D | Pass | Pass | 292 | 72 |
| 3 | EZDKH | 1.00 | 1250 | Coil | 4.000 | — | 0.062 | 0.029 | 0.251 | 0.009 | 0.003 | 322 | 371 | 26.9 | 61 | DX51D | Pass | Pass | 293 | 72 |
| 4 | EZDKH | 1.20 | 1250 | Coil | 3.950 | — | 0.065 | 0.029 | 0.140 | 0.009 | 0.003 | 298 | 332 | 30.2 | 60 | DX51D | Pass | Pass | 291 | 72 |
| 5 | EZDKH | 1.50 | 1250 | Coil | 3.880 | — | 0.052 | 0.029 | 0.140 | 0.009 | 0.003 | 310 | 351 | 28.9 | 60 | DX51D | Pass | Pass | 287 | 72 |
| MADE IN EGYPT | | | | | WE HEREBY CERTIFY THAT, THE MATERIAL DESCRIBED HEREIN HAS BEEN SATISFACTORILY TESTED IN ACCORDANCE WITH THE SPECIFICATION | | | | | | | | | QUALITY CONTROL MANAGER | | | | | | |

KS.QC.FR.24

Issue No.: 0
Issue Date: 22/11/2015





السلام عليكم ورحمة الله وبركاته

السادة شركة سامكريت (توسيعات جامعة مصر للعلوم والتكنولوجيا)

التاريخ: 10/11/2021

نحيط علماً بياً لكم أن شركة الماسة للصناعات الهندسية عميل لدينا للخامات المجلفنة ويتم توريد الخامات المجلفنة لـ طبقاً للمواصفات الآتية Hot Dip Galvanized Steel (Al-Ezz Dekheila Steel Co.-Alex. (S.A.E.))

| البلد | نوع الخام | السطح | وزن الجلفنة (ج/م²) | السمك (م) | العرض (م) | درجة السحب | منشا الخام | مواصفة الجلفنة طبقاً للأوروبي | سامحة السمك والأبعاد طبقاً للمواصفة الأوروبي |
|-------|-----------|-------|--------------------|-----------|-----------|------------|------------|-------------------------------|--|
| 1 | مجلفن | عادي | 275 & 330 | 0.70 | 1250 | DX51D | EZ-DKH | EN 10346 | EN 10143 |
| 2 | مجلفن | عادي | 275 & 330 | 0.80 | 1250 | DX51D | EZ-DKH | EN 10346 | EN 10143 |
| 3 | مجلفن | عادي | 275 & 330 | 1.00 | 1250 | DX51D | EZ-DKH | EN 10346 | EN 10143 |
| 4 | مجلفن | عادي | 275 & 330 | 1.20 | 1250 | DX51D | EZ-DKH | EN 10346 | EN 10143 |
| 5 | مجلفن | عادي | 275 & 330 | 1.50 | 1250 | DX51D | EZ-DKH | EN 10346 | EN 10143 |

