

# Technical Catalogue



**UNIVERSAL  
INDUSTRIES**

[www.universalac.in](http://www.universalac.in)



South Asia  
ISO 9001 : 2015  
Certificate No. 99 100 22850

# AIR DISTRIBUTION PRODUCT - VOLUME CONTROL DAMPERS

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## **G.I. VOLUME CONTROL DAMPERS**

### **APPLICATION**

Suitable to control the air volume in ducts in air conditioning, Ventilation and heating systems. Ensures duct system air balancing and also suitable to use in Air handling units, where high air velocities and pressures are encountered.

### **MOUNTING**

Mounting in the branches of air distribution ducts and mouth of the air handling units by means of bolt and nuts.

### **CONSTRUCTION DETAILS**

Frames: High quality galvanized steel frame with standard flange size of 30mm having standard depth of 150mm or as per the client's requirement depth and flange sizes. Blades: High quality galvanized steel 'V' grooved blades having 150mm height or as per client requested height blades. Linkage Details: Standard 3mm thick x 20mm Electro Plated Linkages Spindles and bearings: Outer 0 14.5 mm/ Inner 0 9.3mm Electro plated EN-1A bush bearings and 09.2mm x63mm long electro plated spindle rods or brass bushes as per client's requests.



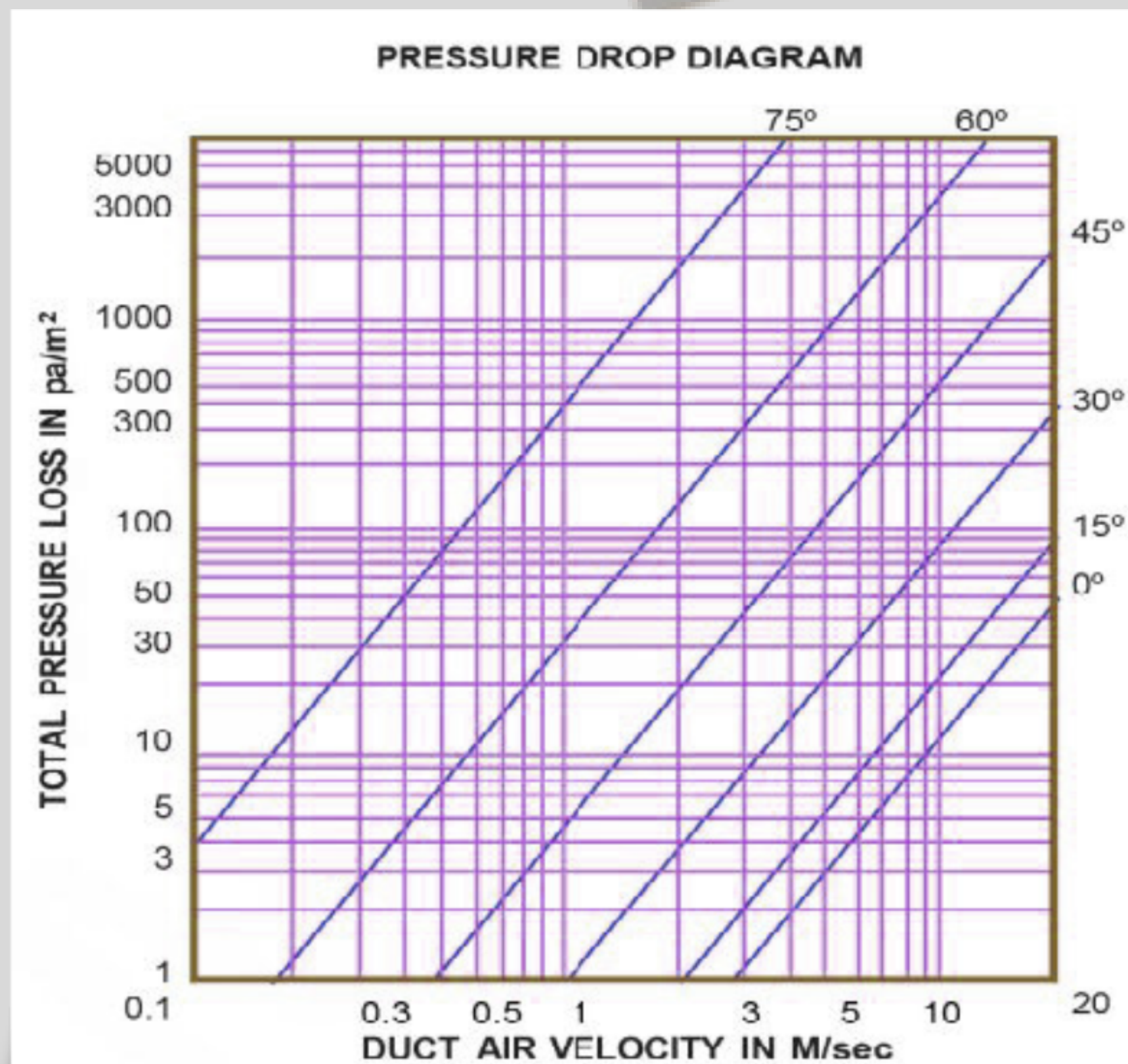
# *FACTORY FABRICATED G.I. VOLUME CONTROL DAMPERS*

## **IMPLEMENTATION**

Frame with flat frontal face and inner 'V' grooved multi blades assembly. Frames are welded and inner blades are connected to the frame by means of spindle rods and bushes. Bushes are available in brass/ bronze. All blades are connected by a suitable flat link arrangement with handle to operate the dampers in opposed blades type operation with status indicator lockable screws indicating open or closed position. Available in manual control or motorized control operations, as well as in standard or Non-Standard sizes also available. For motorized operation extended spindle rod will be provided to fix the motor. Actuators available with various torque capacities to meet the large size requirements.

## **Available Sizes**

Available in minimum for 100x100 mm to maximum any standard or Non Standard sizes.

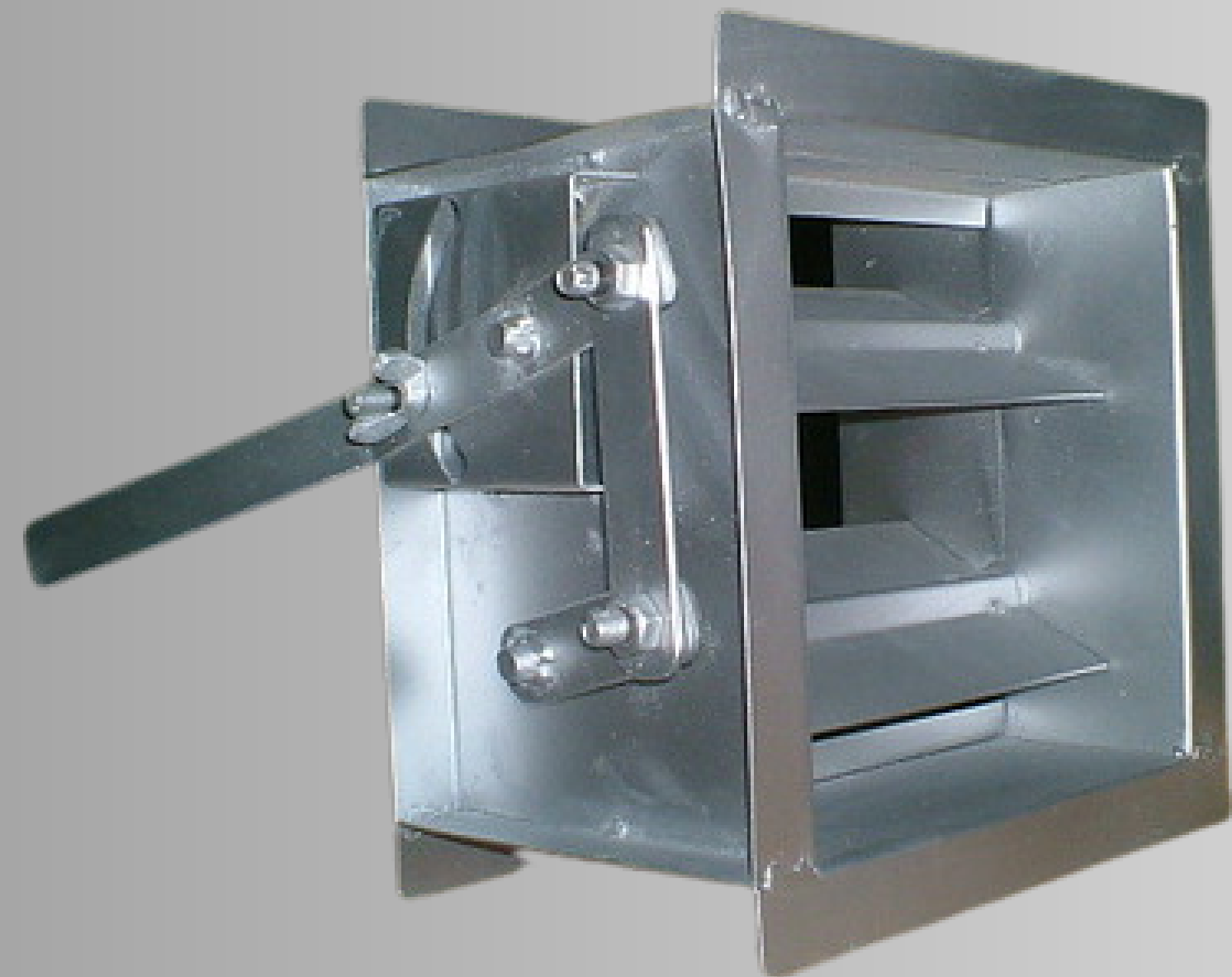




# *FACTORY FABRICATED G.I. VOLUME CONTROL DAMPERS*

## **Standard Specification of the VCD'S**

<b>G.I VCD Model</b>	<b>16/16</b>	<b>16/18</b>	<b>18/18</b>	<b>18/20</b>
<b>Outer casing</b>	<b>165 WG (1.6mm thick)</b>	<b>165 WG (1.6mm thick)</b>	<b>185 WG (1.2mm thick)</b>	<b>185 WG (1.2mm thick)</b>
<b>Inner Blade</b>	<b>165 WG (1.6mm thick)</b>	<b>185 WG (1.2mm thick)</b>	<b>185 WG (1.2mm thick)</b>	<b>185 WG (1.0mm thick)</b>





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# *FACTORY FABRICATED ALUMINIUM VOLUME CONTROL DAMPERS*

## **ALUMINIUM VOLUME CONTROL DAMPERS**

### **APPLICATION**

Suitable to control the air volume in ducts in air conditioning, ventilating and heating systems. Ensures duct systems air balancing and also suitable to use in air handling units, where high air velocities and pressure are encountered.

### **MOUNTING**

Mounted in the branches or air distribution ducts and also in the mouth of the Air handling units by means of bolts and nuts.

### **IMPLEMENTATION**

Frames and blades both are high quality extruded aluminium sections. The frame with flat frontal face to suit for flanged connections with the ducts. Frames are fixed by screws and inner blades are aero foil type. Frames and blades are connected by means of nylon bushes and rods with gear for smooth operation in case of larger size AHU dampers, blades are connected by means of machined spindles, bushes with flat link arrangements, air volume adjusted by a lockable quadrant with status indicator, lockable screws indicating open or closed position. Available in manual control or motorized control operations, as well as in standard or non-standard sizes also available. For motorized operation extended spindle rod will be provided to fix the motor. Actuators available with various torque capacities to meet the larger sizes requirements.

### **STANDARD FINISHES**

Available in Natural Aluminium anodised or in powder coated.



# *FACTORY FABRICATED ROUND VOLUME CONTROL DAMPERS*

## **ROUND VOLUME CONTROL DAMPERS**

### **APPLICATION**

Suitable to control the air volume in Air distribution ducts in Air conditioning, ventilating and Heating systems. Ensures duct systems air balancing.

### **MOUNTING**

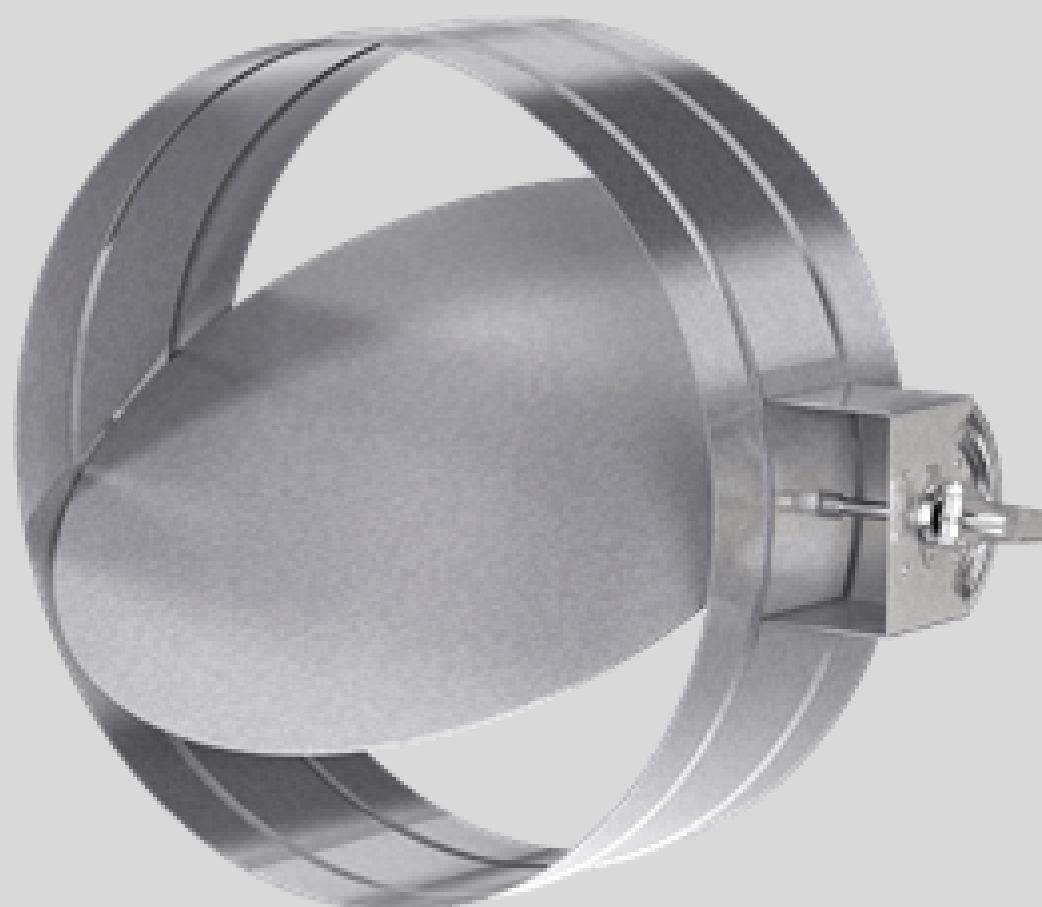
Mounted in the branches of air distribution Round ducts by means of bolts or by hidden fixing systems.

### **IMPLEMENTATION**

Frame and blade both are Galvanised steel sheet. Frame joints made by welding or by Ducting mulcut method. Two grooves are formed on both the ends for hidden fixing systems. Blade and frame connected by bushes and spindles. With the handle for manual operation Air volume adjusted by a lockable quadrant with status indicator, indicating open or closed position. For motorized operation extended spindle will be provided to fix the motor. Available with actuator or without actuators.

### **STANDARD FINISHES**

Galvanised steel with Aluminium paints and available in high quality aluminium.





## **PRESSURE RELIEF DAMPERS**

### **APPLICATION**

For low pressure relief applications from 5 to 75 pascals in air-conditioning, ventilating systems. Used for room pressure control or a basic non-return valves.

### **MOUNTING**

Mounted on unit mouths and ducts or on the valves by using bolt and nut systems.

### **IMPLEMENTATION**

Frames are constructed in galvanized steel and blades in galvanized and also in high grade aluminium sheets. Frames are either flanged for surface or in channel frame for sleeve. Blades are connected by means of screws or rods with the frame. Available in outwards airflow or in inwards airflow types.

### **STANDARD FINISHES**

Galvanized steel finish or aluminium with or without powder coated.

**PRESSURE RELIEF  
DAMPERS**





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# *FACTORY FABRICATED BACK DRAUGHT DAMPERS*

## **BACK DRAUGHT DAMPERS**

### **APPLICATION**

For pressure relief applications upto airvelocities of 10 m/sec in air-conditioning, ventilating systems. Used for room to room pressure control or a basic non-return valves.

### **MOUNTING**

Mounted on unit mouths and ducts oron the valves by using bolt and nut systems.

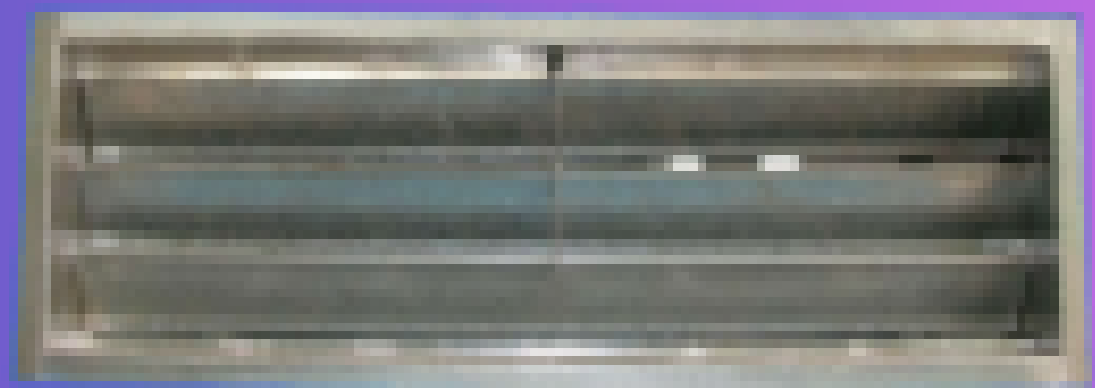
### **IMPLEMENTATION**

Frames are constructed in galvanized steel and blades in galvanized and also in high grade aluminium sheets. Frames are either flanged for surface or in channel frame for sleeve. Blades are connected by means of screws or rods and bushes with the frame. All the blades are connected by a proper link arrangements to avoid noise. Available in outwards airow or in inwards airflow types.

### **STANDARD FINISHES**

Galvanized steel finish or aluminium with or without powder coated.

**BACK DRAUGHT  
DAMPERS**







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**CPWD APPROVED  
RECTANGULAR DUCT**

	भारत सरकार GOVERNMENT OF INDIA केंद्रीय लोक निर्माण विभाग CENTRAL PUBLIC WORKS DEPARTMENT e-mail: kereesm1.ppz@cpwd.gov.in	
कार्यपालक अभियंता और वरिष्ठ प्रबंधक (विद्युत)-I का कार्यालय पालक्काड परियोजना क्षेत्र, आ.पी.सं. कैंपस परिचय कन्जिककोड, पालक्काड - 678 623		OFFICE OF THE EXECUTIVE ENGINEER & SENIOR MANAGER (ELECTRICAL)-I PALAKKAD PROJECT ZONE, IIT CAMPUS KANJIKODE WEST, PALAKKAD - 678 623
No.23(S)/E/EE&SM(E)-I/PPZ/2021/388		Dated: 15/09/2021

To  
The Project Manager,  
M/s Shapoorji Pallonji and Company Private Limited,  
C/o IIT Palakkad Permanent Campus,  
Malampuzha Road, Near Gramalakshmi Mudralayam,  
Pudussery Village, Kanjikode West  
Palakkad, Kerala-678 623.

Name of the Work: Construction of Permanent Campus for Indian Institute of Technology Palakkad Phase I A (Package I) at Pudussery Village, Kanjikode West, District Palakkad, Kerala.  
Agt. No. 02/CE&ED/EE&SM(C)-I/PPZ/2019-20.

Subject: Submission of Technical Data Sheet of HVAC Duct & Solar hot water system-for additional make approval-Reg.  
Ref 1: - SPCL Letter No. SPCPL/CHN/IIT-PKD-IA/CPWD/2021-22/456 Dt: 26/08/2021  
Ref 2: - SPCL Letter No. SPCPL/CHN/IIT-PKD-IA/CPWD/2021-22/464 Dt: 04/09/2021

Sir,  
With reference to the above subject, the Technical Data Sheet of the subject items are duly verified and hereby approved for work at IIT Palakkad Project subject to agreement conditions and comments.

SL NO	ITEM DESCRIPTION	MAKE
1	HVAC Duct	Universal Industries
2	Solar Hot Water System	V Guard

Comments :  
1. Detailed technical specification shall be got approved separately before procurement.

Yours Faithfully  
  
(Manu Varkey)  
Executive Engineer & Senior Manager (E) - I

**CIPET  
TEST CERTIFICATE**

रिपोर्ट : इंस्टिट्यूट ऑफ प्लास्टिक्स टेक्नोलॉजी  
प्लास्टिक्स टेक्नोलॉजी, नया बजार  
गिंदी, चेन्नई - 600 032  
फोन : 91-44-2225 4701-8 फैक्स : 91-44-22254707  
ई-मेल : chennai@cipet.gov.in वेबसाइट : www.cipet.gov.in

CIPET : INSTITUTE OF PLASTICS TECHNOLOGY  
(Ministry of Chemicals & Fertilizers, Govt. of India)  
Guindy, Chennai - 600 032.  
Tel : 91-44-2225 4701-8 Fax : 91 - 44 - 22254707  
E-mail : chennai@cipet.gov.in Website : www.cipet.gov.in

परीक्षण रिपोर्ट / TEST REPORT  
रिपोर्ट सं / REPORT NO. : 69320  
दिनांक / Date : 11-05-2022  
भाग - ग / PART - C  
क्र.सं / Sl. No. 29246

Test Duration: 27-04-2022 To 11-05-2022

S.no.	Test Name	Test Method / Standard	Unit	Test Value Obtained
1	Compression strength at 10% deformation	IS: 11239 Part 11	MPa	0.162
2	Density	IS: 11239 Part 12	kg/m <sup>3</sup>	46.0

REMARKS  
1. This Test report/Certificate is issued only for the samples submitted to CIPET.  
2. The Results stated above related only to the items tested.  
3. The Quality of the subsequent production lot has to be ensured by the purchaser.  
4. This report, in full or part, shall not be reproduced, published, advertised, used for any legal action, Unless prior permission has been secured.  
5. Selection of samples for individual test has been done in accordance with respective clauses of IS.  
6. Details of test sub-contracted: Nil

\*\*\*End Of Report\*\*\*

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AUTHORISED SIGNATORY

**CERTIFICATE**

The Certification Body of TÜV SÜD South Asia Private Limited certifies that

Universal Industries  
DP-58, 1st Main Road, SIDCO Industrial Estate,  
Kattur, Thirumullaivoyal, Chennai - 600062, Tamil Nadu, India

has implemented Quality Management System in accordance with ISO 9001:2015 for the scope of

Manufacture and Supply of  
HVAC Ducts, Grilles & Diffusers, Pre Insulated Pipes & Accessories

The certificate is valid from 2022-12-12 until 2025-12-11  
Subject to successful completion of annual periodic audits  
The present status of this certificate can be obtained through TÜV SÜD website by scanning below QR code and by entering the certificate number (without spaces) on web page. Further clarifications regarding the status & scope of this certificate may be obtained by consulting the certification body at [sales@tuv-sud.com](mailto:sales@tuv-sud.com)

Certificate Registration No. 99 100 22850  
Date of Initial certification: 2022-12-12  
Issue Date: 2022-12-12 Rev. 00

Rajesh Kulkarni  
Head of Certification Body  
of TÜV SÜD South Asia Private Limited,  
Mumbai  
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. • TÜV SÜD House • Sakhi Naka • Andheri (East) • Mumbai - 400072 • Maharashtra • India

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[factory@universalac.in](mailto:factory@universalac.in)

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Hyderabad : 98403 98484  
Bangalore : 98410 16272  
Cochin : 73056 91444