

Technical Catalogue



**UNIVERSAL
INDUSTRIES**™

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

Spiral Duct

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FACTORY FABRICATED SPIRAL DUCT



Introduction :

Spiral duct has fewer joints and connectors than rectangular duct and is also easier to seal – reducing leakage and waste. Fewer leaks mean a more efficient, energy and cost-saving HVAC system.

Spiral Ductwork is fully sealed which allows the fan speed to increase and operating pressure to be compensated.

Major Benefits of Spiral Duct for HVAC Systems

- *Low Leakage Rates*
- *Less Static Pressure Loss*
- *Easy to Clean*
- *Less Noise*
- *No Additional Space is required*
- *Budget Friendly*



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FACTORY FABRICATED SPIRAL DUCT

Applications

- Air conditioning (including high pressure and velocity air distribution systems)
- Ventilation (Industrial & Tunnel)
- Warm air heating
- Fume and dust extraction
- Pneumatic conveying
- Exhaust and air intake pipes
- Humidification.

Specifications :

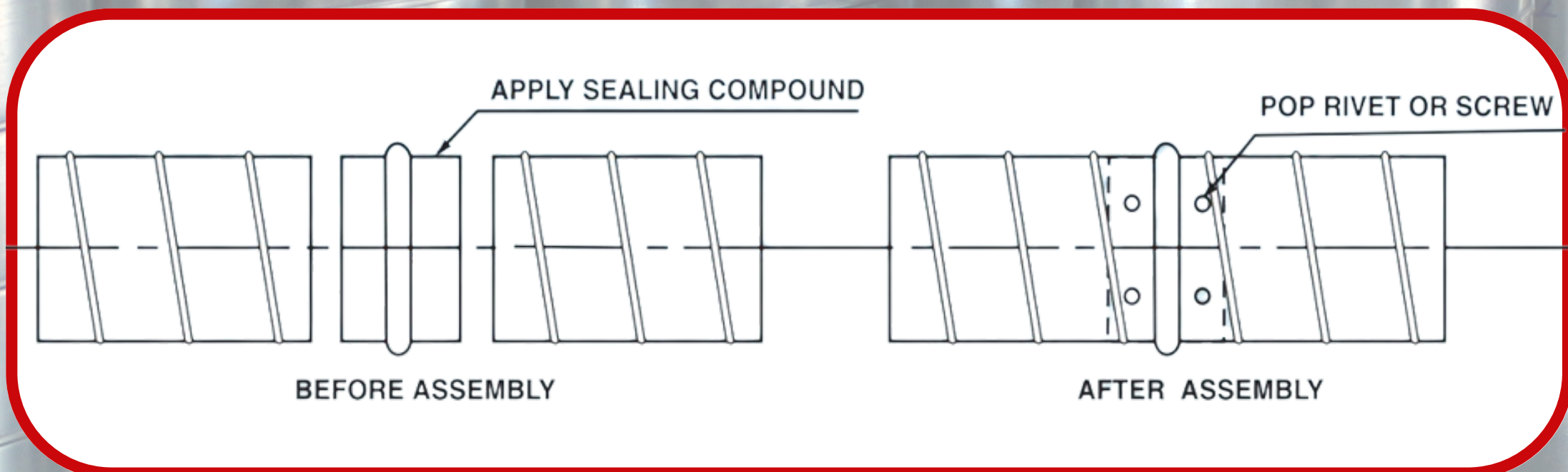
0.50mm (26G) to 1.2mm (18G)

Thickness of Spiral ducts as per IS 655
(HVAC Duct construction standards)



Jointing System

Spiral Ducts and duct fittings joined together by slip joint coupling.



SPIRAL DUCT MANUFACTURING RANGE

Diameter	100mm to 1400mm
Length	Unlimited
Material	Galvanised Steel, Aluminium, Mild Steel (CRCA), Stainless Steel, etc
Surface Constructions	Plain or Corrugated (to increase the rigidity of the ducting by 300%)



FACTORY FABRICATED SPIRAL DUCT

**STANDARDS : IS 655 [TABLE : 8 Thickness of Sheet for Circular
Spiral (*Galvanized Steel Duct*)
-(Clause 6.2.3)]**

Classification Of Duct By pressure	Low Pressure Duct	Medium Pressure Duct & High Pressure Duct	Thickness Of Sheet, (Minimum) mm
Internal Diameter of Duct (d), mm	$d \leq 450$	$d \leq 200$	0.5 (26G)
	$450 < d \leq 710$	$200 < d \leq 560$	0.6 (24G)
	$710 < d \leq 1000$	$560 < d \leq 1000$	0.8 (22G)
	$1000 < d$	$800 < d \leq 1000$	1.0 (20G)
	-	$1200 < d$	1.2 (18G)

**STANDARDS : IS 655 [TABLE : 9 Thickness of Sheet for Circular
Spiral (*Stainless Steel Duct*)
-(Clause 6.2.3)]**

Classification Of Duct By pressure	Low Pressure Duct	Medium Pressure Duct & High Pressure Duct	Thickness Of Sheet, (Minimum) mm
Internal Diameter of Duct (d), mm	$d \leq 560$	$d \leq 250$	0.5 (26G)
	$560 < d \leq 800$	$250 < d \leq 560$	0.6 (24G)
	$800 < d \leq 1000$	$560 < d \leq 800$	0.8 (22G)
	$1000 < d$	$800 < d \leq 1000$	1.0 (20G)
	-	$1000 < d$	1.2 (18G)



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**CPWD APPROVED
RECTANGULAR DUCT**

	भारत सरकार GOVERNMENT OF INDIA केंद्रीय लोक निर्माण विभाग CENTRAL PUBLIC WORKS DEPARTMENT e-mail: kereesme1.ppz@cpwd.gov.in	
कार्यपालक अभियंता और वरिष्ठ प्रबंधक (विद्युत्)-1 का कार्यालय पालक्काट परियोजना क्षेत्र, आ.पी.से. कैंपस परिचय कन्जिकोड, पालक्काट - 678 623	OFFICE OF THE EXECUTIVE ENGINEER & SENIOR MANAGER (ELECTRICAL)-1 PALAKKAD PROJECT ZONE, IIT CAMPUS KANJIKODE WEST, PALAKKAD - 678 623	
No.23(5)/E/EE&SM(E)-I/PPZ/2021/3&F	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. SPCL/CHN/IIT-PKD-IA/CPWD/2021-22/456 Dt: 26/08/2021
Ref 2: - SPCL Letter No. SPCL/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 सं / REPORT NO. : 69320
दिनांक / Date : 11-05-2022

भाग - ग / PART - C

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 ³	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 received.
5. Selection of samples for individual test has been done in accordance with respective clauses of IS.
6. Details of test sub-contracted: Nil

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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 info.south@tuv-sud.com

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

Rahul Kale
Head of Certification Body of TÜV SÜD South Asia Private Limited, Mumbai
Member of TÜV SÜD Group

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Factory : DP-58, 1st Main Road, Sidco Industrial Estate, Kattur, Thirumullaivoyal, Chennai - 600 062

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