



# Chandigarh College of Engineering & Technology

Government Institute under UT Administration, Affiliated to Panjab University

CHANDIGARH COLLEGE OF ENGINEERING AND TECHNOLOGY, SECTOR 26, CHANDIGARH		
Experiment No-6		Rev = 1
Subject: Fluid Mechanics Lab.	Subject Code: MEC-456	Semester: 4

**Experiment:** To determine the friction coefficients for pipes of different diameters.

**Equipment required:** Darcy's apparatus

**Description of equipment's to be used:**

1. Darcy's apparatus consists of two pipes with different pipes
2. One common inlet valve is provided in the main supply line for the whole apparatus.
3. A measuring tank.

**Theory:**

While the nature of flow depends upon the Reynolds Number, the frictional resistance offered to the flow of fluids depends essentially on the roughness of the surface of the conduit carrying the flow. In laminar flow this frictional resistance is mostly due to viscous resistance of fluid to flow. In turbulent flow it is due to resistance offered by viscosity of fluid and surface roughness of the conduct this frictional resistance causes loss of head which is given by Darcy and Weisbach equation:

$$h_f = \frac{4fLV^2}{2gD}$$

Where  $f$  is called Darcy's friction factor and given by  $f = 64/Re$  for laminar flow and depends upon relative roughness of pipe in case of turbulent flow.

$L$  = Pipe length

$V$  = Velocity

$D$  = Diameter of pipe

# Mechanical Fm Lab Manual

**JS Bruner**



## **Mechanical Fm Lab Manual:**

## **Mechanical Fm Lab Manual** Book Review: Unveiling the Power of Words

In some sort of driven by information and connectivity, the ability of words has be much more evident than ever. They have the ability to inspire, provoke, and ignite change. Such is the essence of the book **Mechanical Fm Lab Manual**, a literary masterpiece that delves deep in to the significance of words and their affect our lives. Written by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we shall explore the book is key themes, examine its writing style, and analyze its overall impact on readers.

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