



K S RANGASAMY COLLEGE OF TECHNOLOGY
Tiruchengode – 637215
(An Autonomous Institution, Affiliated to Anna University, Chennai)
DEPARTMENT OF MECHANICAL ENGINEERING



Flipped Class Circular			
Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	II / IV / A
Course Code & Name	50 ME 005 – Fluid Mechanics and Fluid Machines	Date	24.01.2023

All the students of Mechanical Engineering (II year/ IV sem. /A-sec) are instructed to go through the below listed online lecture videos. Further, the discussion session is planned for the same on 27.01.2023 (2-hour) to recognize the concepts. Hence, acquire the knowledge/concepts and come up with the answer.

Module: **Pressure Measurement**

Topic: - **Pressure and Types of Pressure**

Video Link: https://www.youtube.com/watch?v=ikt-MxC3_1o&t=17s

Video Link: https://www.youtube.com/watch?v=FqYv6p_Dth4

Course Instructor
(Dr.S.Jeyaprakasam)



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Flipped Class questions and answers

Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	II / IV / A
Course Code & Name	50 ME 005 – Fluid Mechanics and Fluid Machines	Date & Hour	27.01.2023 (2nd Hour)

Module: **Pressure Measurement**

Topic: - **Pressure and Types of Pressure**

Video Link: https://www.youtube.com/watch?v=ikt-MxC3_1o&t=17s

Video Link: https://www.youtube.com/watch?v=FqYv6p_Dth4

Questions and Answer:

- 1) What are the types of pressure?
 - Absolute pressure.
 - Gauge pressure.
 - Differential pressure.
 - Vacuum pressure.
- 2) List out the different units of pressure
 - There are several other units of pressure such as pounds per square inch and bar, unit of atmospheric pressure is atm, centimetres of water, millimetres of mercury or inches of mercury (used as a unit of blood pressure), torr
- 3) Define gauge pressure
 - Gauge pressure is the pressure relative to atmospheric pressure. For the pressures above atmospheric pressure, gauge pressure is positive.
- 4) What do you mean by absolute pressure?
 - Absolute pressure is a pressure that is relative to the zero pressure in the empty, air-free space of the universe. This reference pressure is the ideal or absolute vacuum. It is denoted with the subscript “abs”:
P_{abs}.
- 5) Define vacuum pressure.
 - Vacuum pressure (Figure 2 labeled C) is a measure of the pressure of a gas in a space where the pressure is lower than atmospheric pressure. It is expressed as a negative gauge pressure, often in units of millimeters of mercury (mmHg) or Pascals (Pa).

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(Dr.S.Jeyaprakasam)

Module Coordinator
(Dr.M.Gnanasekaran)



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Flipped Class Activity Report

Programme & Branch	B.E. & Mechanical Engineering	Year/Sem/Sec	II / IV / A
Course Code & Name	50 ME 005 – Fluid Mechanics and Fluid Machines	Date Hour	24.01.2023 (2nd Hour)

Module: **Pressure Measurement**

Topic: - **Pressure and Types of Pressure**

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ACTIVITY DURING CLASS

- Based on the video lecture content, the following questions were asked among the students.

Questions:

- 1) What are the types of pressure?
- 2) List out the different units of pressure.
- 3) Define gauge pressure.
- 4) What do you mean by absolute pressure?
- 5) Define vacuum pressure.

LEARNING OUTCOMES:

- All the students had acquired fundamentals concepts pressure and types of pressure along with its units. More than 70% of the students had given correct answer for the questions posted during the class.
- 20% of the students understood the concepts and answered only three questions and rest of the students had gone through the contents but they didn't answered.
- Students who had not answered were taught with explanation of pressure and types of pressure
- This approach enhanced the self-learning ability of students.

Course Instructor

(Dr.S.Jeyaprakasam)

Module Coordinator

(Dr.M.Gnanasekaran)