

LECTURE 37

PNEUMATIC ACTUATORS

FREQUENTLY ASKED QUESTIONS

1. What is the function of a pneumatic actuator?

Answer:

Function of pneumatic actuator is to convert the pressure energy of compressed air energy into mechanical energy to perform useful work.

2. How do you classify pneumatic actuators?

Answer

We can classify the linear actuator as linear actuators, rotary actuators

3. What is the function of a pneumatic cylinder?

Answer

A cylinder converts air pressure into a straight line or linear motion.

4. Define Air cylinder

Answer

An air cylinder is an operative device in which the static input energy of compressed air that is pneumatic power is converted into mechanical output power by reducing the pressure of air to that of the atmosphere.

5. Why air cylinders cannot be used for precise speed control

Answer

Due to compressibility of air, the air cylinder tends to slow down if the load is increased and accelerate when the load is decreased.

6. What are four uses for pneumatic cylinders?

Answer

Truck air brakes, parts positioning. Automobile lifts and robotic arm motions.

7. Put a check (X) by each item which is part of a cylinder

X	Piston	X	Bore
X	Rod end port	X	Cylinder rod
X	Seals		Cylinder block
X	Cylinder barrel		Flow control valve
X	Blind end port		Regulator