



NATIONAL PETROCHEMICAL COMPANY
STANDARDS

ENGINEERING STANDARD
FOR
PRESSURIZING SYSTEM

NPCS-ES-ME-02

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1 SCOPE

- 1.1 The content of this engineering standard is to prescribe the minimum design requirements of pressurizing systems for buildings used in National Petrochemical Company.
- 1.2 The purpose of this standard is to define the constraints and minimum requirements that shall be considered during the engineering activities by design engineer.

2 STANDARDS AND CODES

- 2.1 All procedures and equipments shall comply with the following standards and codes:
- | | |
|---|--|
| ASHRAE 62-1989 | Ventilation for Acceptable Indoor Air Quality. |
| ASHRAE 52-76 | Method of Testing Air-Cleaning Devices used in General Ventilation of Removing particulate Matter. |
| ASHRAE 71-73 | Method of Testing for Rating Unit Ventilators. |
| ANSI/ASHRAE 51-1985 +
ANSI/AMCA 210-85 | Laboratory Methods of Testing Fans for Rating. |
| BS 5720-1979 | Mechanical Ventilation and Air Conditioning in Buildings. |
| NFPA 90A-1981 | Installation of Air Conditioning and Ventilating Systems. |
| NEC U.S. | National Electric Code. |
| NEMA U.S. | National Electrical Manufacturers Association. |

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NPCS-ES-ME-01

Engineering Standard for
Heating, Ventillation and
Air Conditioning.

3

DEFINITION OF TERMS

3.1

ACCEPTABLE AIR QUALITY

Air in which there are no known contaminants at harmful concentration and with which a substantial majority (usually 80%) of the people don't express dissatisfaction called acceptable air.

3.2

AIR FILTER

An air cleaning device to remove light particulate loading from normal atmospheric air before introduction into the building.

3.3

AIR HORSEPOWER

The theoretical value required to drive a fan, if there were no loss in the fan. (100% efficiency)

3.4

BRAKE HORSEPOWER

The horsepower actually required to drive a fan. This includes the energy loss in the fan, and can be determined only by actual test of the fan. The ratio of the air horsepower to brake horsepower called the fan total efficiency.

3.5

EXFILTRATION

Air leakages outward through cracks! interstices, ceiling, floor, and walls of a space or building.

3.6

FAN FLOW RATE

The volumetric flowrate at fan inlet condition.

3.7

FAN TOTAL PRESSURE

The difference between the total pressure at the fan outlet and the total pressure at the fan inlet.

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