

# Important Dash Pot Mechanism Formulas PDF



**Formulas**  
**Examples**  
**with Units**

## List of 36 Important Dash Pot Mechanism Formulas

### 1) Length of Piston for Pressure Drop over Piston Formula ↻

Formula

$$L_p = \frac{\Delta P_f}{\left(6 \cdot \mu \cdot \frac{v_{\text{piston}}}{C_R^3}\right) \cdot (0.5 \cdot D + C_R)}$$

Evaluate Formula ↻

Example with Units

$$4.9632 \text{ m} = \frac{33 \text{ Pa}}{\left(6 \cdot 10.2 \text{ P} \cdot \frac{0.045 \text{ m/s}}{0.45 \text{ m}^3}\right) \cdot (0.5 \cdot 3.5 \text{ m} + 0.45 \text{ m})}$$

### 2) Length of Piston for Shear Force Resisting Motion of Piston Formula ↻

Formula

$$L_p = \frac{F_s}{\pi \cdot \mu \cdot v_{\text{piston}} \cdot \left(1.5 \cdot \left(\frac{D}{C_R}\right)^2 + 4 \cdot \left(\frac{D}{C_R}\right)\right)}$$

Evaluate Formula ↻

Example with Units

$$5.1221 \text{ m} = \frac{90 \text{ N}}{3.1416 \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \left(1.5 \cdot \left(\frac{3.5 \text{ m}}{0.45 \text{ m}}\right)^2 + 4 \cdot \left(\frac{3.5 \text{ m}}{0.45 \text{ m}}\right)\right)}$$



### 3) Length of Piston for Vertical Upward Force on Piston Formula

Formula

Evaluate Formula 

$$L_p = \frac{F_v}{v_{\text{piston}} \cdot \pi \cdot \mu \cdot \left( 0.75 \cdot \left( \frac{D}{C_R} \right)^3 + 1.5 \cdot \left( \frac{D}{C_R} \right)^2 \right)}$$

Example with Units

$$5.0024 \text{ m} = \frac{320 \text{ N}}{0.045 \text{ m/s} \cdot 3.1416 \cdot 10.2 \text{ P} \cdot \left( 0.75 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^3 + 1.5 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^2 \right)}$$

### 4) Pressure Drop over Length of Piston given Vertical Upward Force on Piston Formula

Formula

Example with Units

Evaluate Formula 

$$\Delta P_f = \frac{F_v}{0.25 \cdot \pi \cdot D \cdot D}$$

$$33.2601 \text{ Pa} = \frac{320 \text{ N}}{0.25 \cdot 3.1416 \cdot 3.5 \text{ m} \cdot 3.5 \text{ m}}$$

### 5) Pressure Drop over Piston Formula

Formula

Evaluate Formula 

$$\Delta P_f = \left( 6 \cdot \mu \cdot v_{\text{piston}} \cdot \frac{L_p}{C_R} \right) \cdot (0.5 \cdot D + C_R)$$

Example with Units

$$33.2444 \text{ Pa} = \left( 6 \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \frac{5 \text{ m}}{0.45 \text{ m}} \right) \cdot (0.5 \cdot 3.5 \text{ m} + 0.45 \text{ m})$$

### 6) Pressure Gradient given Rate of Flow Formula

Formula

Evaluate Formula 

$$dp|dr = \left( 12 \cdot \frac{\mu}{C_R} \right) \cdot \left( \left( \frac{Q}{\pi} \cdot D \right) + v_{\text{piston}} \cdot 0.5 \cdot C_R \right)$$

Example with Units

$$8231.8319 \text{ N/m}^3 = \left( 12 \cdot \frac{10.2 \text{ P}}{0.45 \text{ m}} \right) \cdot \left( \left( \frac{55 \text{ m}^3/\text{s}}{3.1416} \cdot 3.5 \text{ m} \right) + 0.045 \text{ m/s} \cdot 0.5 \cdot 0.45 \text{ m} \right)$$



## 7) Pressure Gradient given Velocity of Flow in Oil Tank Formula

Formula

$$dp|dr = \frac{\mu \cdot 2 \cdot \left( u_{\text{Oil tank}} - \left( v_{\text{piston}} \cdot \frac{R}{C_H} \right) \right)}{R \cdot R - C_H \cdot R}$$

Evaluate Formula 

Example with Units

$$50.9776 \text{ N/m}^3 = \frac{10.2 \text{ P} \cdot 2 \cdot \left( 12 \text{ m/s} - \left( 0.045 \text{ m/s} \cdot \frac{0.7 \text{ m}}{50 \text{ mm}} \right) \right)}{0.7 \text{ m} \cdot 0.7 \text{ m} - 50 \text{ mm} \cdot 0.7 \text{ m}}$$

## 8) Shear Force Resisting Motion of Piston Formula

Formula

$$F_s = \pi \cdot L_p \cdot \mu \cdot v_{\text{piston}} \cdot \left( 1.5 \cdot \left( \frac{D}{C_R} \right)^2 + 4 \cdot \left( \frac{D}{C_R} \right) \right)$$

Evaluate Formula 

Example with Units

$$87.8546 \text{ N} = 3.1416 \cdot 5 \text{ m} \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \left( 1.5 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^2 + 4 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right) \right)$$

## 9) Total Forces Formula

Formula

$$T_f = F_v + F_s$$

Example with Units

$$410 \text{ N} = 320 \text{ N} + 90 \text{ N}$$

Evaluate Formula 

## 10) Velocity of Flow in Oil Tank Formula

Formula

$$u_{\text{Oil tank}} = \left( dp|dr \cdot 0.5 \cdot \frac{R \cdot R - C_H \cdot R}{\mu} \right) - \left( v_{\text{piston}} \cdot \frac{R}{C_H} \right)$$

Evaluate Formula 

Example with Units

$$12.7524 \text{ m/s} = \left( 60 \text{ N/m}^3 \cdot 0.5 \cdot \frac{0.7 \text{ m} \cdot 0.7 \text{ m} - 50 \text{ mm} \cdot 0.7 \text{ m}}{10.2 \text{ P}} \right) - \left( 0.045 \text{ m/s} \cdot \frac{0.7 \text{ m}}{50 \text{ mm}} \right)$$

## 11) Vertical Force given Total Force Formula

Formula

$$F_v = F_s - F_{\text{Total}}$$

Example with Units

$$87.5 \text{ N} = 90 \text{ N} - 2.5 \text{ N}$$

Evaluate Formula 



## 12) Vertical Upward Force on Piston given Piston Velocity Formula

Formula

Evaluate Formula 

$$F_V = L_P \cdot \pi \cdot \mu \cdot v_{\text{piston}} \cdot \left( 0.75 \cdot \left( \left( \frac{D}{C_R} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{D}{C_R} \right)^2 \right) \right)$$

Example with Units

$$319.849 \text{ N} = 5 \text{ m} \cdot 3.1416 \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \left( 0.75 \cdot \left( \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^2 \right) \right)$$

## 13) Dynamic Viscosity Formulas

### 13.1) Dynamic Viscosity for Pressure Reduction over Length of Piston Formula

Formula

Evaluate Formula 

$$\mu = \frac{\Delta P_f}{\left( 6 \cdot v_{\text{piston}} \cdot \frac{L_P}{C_R^3} \right) \cdot (0.5 \cdot D + C_R)}$$

Example with Units

$$10.125 \text{ P} = \frac{33 \text{ Pa}}{\left( 6 \cdot 0.045 \text{ m/s} \cdot \frac{5 \text{ m}}{0.45 \text{ m}^3} \right) \cdot (0.5 \cdot 3.5 \text{ m} + 0.45 \text{ m})}$$

### 13.2) Dynamic Viscosity for Shear Force Resisting Motion of Piston Formula

Formula

Evaluate Formula 

$$\mu = \frac{F_s}{\pi \cdot L_P \cdot v_{\text{piston}} \cdot \left( 1.5 \cdot \left( \frac{D}{C_R} \right)^2 + 4 \cdot \left( \frac{D}{C_R} \right) \right)}$$

Example with Units

$$10.4491 \text{ P} = \frac{90 \text{ N}}{3.1416 \cdot 5 \text{ m} \cdot 0.045 \text{ m/s} \cdot \left( 1.5 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^2 + 4 \cdot \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right) \right)}$$



### 13.3) Dynamic Viscosity given Rate of Flow Formula

Evaluate Formula 

Formula

$$\mu = \frac{dp|dr \cdot \frac{C_R^3}{12}}{\left(\frac{Q}{\pi} \cdot D\right) + v_{\text{piston}} \cdot 0.5 \cdot C_R}$$

Example with Units

$$0.0743 \text{ P} = \frac{60 \text{ N/m}^3 \cdot \frac{0.45 \text{ m}^3}{12}}{\left(\frac{55 \text{ m}^3/\text{s}}{3.1416} \cdot 3.5 \text{ m}\right) + 0.045 \text{ m/s} \cdot 0.5 \cdot 0.45 \text{ m}}$$

### 13.4) Dynamic Viscosity given Velocity of Flow in Oil Tank Formula

Evaluate Formula 

Formula

$$\mu = 0.5 \cdot dp|dr \cdot \frac{R \cdot R - C_H \cdot R}{v_{\text{Oil tank}} + \left(v_{\text{piston}} \cdot \frac{R}{C_H}\right)}$$

Example with Units

$$10.8076 \text{ P} = 0.5 \cdot 60 \text{ N/m}^3 \cdot \frac{0.7 \text{ m} \cdot 0.7 \text{ m} - 50 \text{ mm} \cdot 0.7 \text{ m}}{12 \text{ m/s} + \left(0.045 \text{ m/s} \cdot \frac{0.7 \text{ m}}{50 \text{ mm}}\right)}$$

## 14) Velocity of Piston Formulas

### 14.1) Velocity of Piston for Shear Force Resisting Motion of Piston Formula

Evaluate Formula 

Formula

$$v_{\text{piston}} = \frac{F_s}{\pi \cdot \mu \cdot L_p \cdot \left(1.5 \cdot \left(\frac{D}{C_R}\right)^2 + 4 \cdot \left(\frac{D}{C_R}\right)\right)}$$

Example with Units

$$0.0461 \text{ m/s} = \frac{90 \text{ N}}{3.1416 \cdot 10.2 \text{ P} \cdot 5 \text{ m} \cdot \left(1.5 \cdot \left(\frac{3.5 \text{ m}}{0.45 \text{ m}}\right)^2 + 4 \cdot \left(\frac{3.5 \text{ m}}{0.45 \text{ m}}\right)\right)}$$



## 14.2) Velocity of Piston for Vertical Upward Force on Piston Formula

Formula

Evaluate Formula 

$$v_{\text{piston}} = \frac{F_V}{L_P \cdot \pi \cdot \mu \cdot \left( 0.75 \cdot \left( \left( \frac{D}{C_R} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{D}{C_R} \right)^2 \right) \right)}$$

Example with Units

$$0.045 \text{ m/s} = \frac{320 \text{ N}}{5 \text{ m} \cdot 3.1416 \cdot 10.2 \text{ P} \cdot \left( 0.75 \cdot \left( \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{3.5 \text{ m}}{0.45 \text{ m}} \right)^2 \right) \right)}$$

## 14.3) Velocity of Piston given Velocity of Flow in Oil Tank Formula

Formula

Evaluate Formula 

$$v_{\text{piston}} = \left( \left( 0.5 \cdot \text{dp|dr} \cdot \frac{R \cdot R - C_H \cdot R}{\mu} \right) - u_{\text{oiltank}} \right) \cdot \left( \frac{C_H}{R} \right)$$

Example with Units

$$0.0987 \text{ m/s} = \left( \left( 0.5 \cdot 60 \text{ N/m}^3 \cdot \frac{0.7 \text{ m} \cdot 0.7 \text{ m} - 50 \text{ mm} \cdot 0.7 \text{ m}}{10.2 \text{ P}} \right) - 12 \text{ m/s} \right) \cdot \left( \frac{50 \text{ mm}}{0.7 \text{ m}} \right)$$

## 14.4) Velocity of Pistons for Pressure Drop over Length of Piston Formula

Formula

Evaluate Formula 

$$v_{\text{piston}} = \frac{\Delta P f}{\left( 6 \cdot \mu \cdot \frac{L_P}{C_R^3} \right) \cdot (0.5 \cdot D + C_R)}$$

Example with Units

$$0.0447 \text{ m/s} = \frac{33 \text{ Pa}}{\left( 6 \cdot 10.2 \text{ P} \cdot \frac{5 \text{ m}}{0.45 \text{ m}^3} \right) \cdot (0.5 \cdot 3.5 \text{ m} + 0.45 \text{ m})}$$

## 15) When Piston Velocity is Negligible to Average Velocity of Oil in Clearance Space Formulas

### 15.1) Clearance given Pressure Drop over Length of Piston Formula

Formula

Evaluate Formula 

$$C_R = \left( 3 \cdot D \cdot \mu \cdot v_{\text{piston}} \cdot \frac{L_P}{\Delta P f} \right)^{\frac{1}{3}}$$

Example with Units

$$0.418 \text{ m} = \left( 3 \cdot 3.5 \text{ m} \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \frac{5 \text{ m}}{33 \text{ Pa}} \right)^{\frac{1}{3}}$$



## 15.2) Clearance given Shear Stress Formula

Formula

$$C_H = \sqrt{1.5 \cdot D \cdot \mu \cdot \frac{v_{\text{piston}}}{\tau}}$$

Example with Units

$$50.8758 \text{ mm} = \sqrt{1.5 \cdot 3.5 \text{ m} \cdot 10.2 \text{ P} \cdot \frac{0.045 \text{ m/s}}{93.1 \text{ Pa}}}$$

Evaluate Formula 

## 15.3) Diameter of Piston for Pressure Drop over Length Formula

Formula

$$D = \left( \frac{\Delta P f}{6 \cdot \mu \cdot v_{\text{piston}} \cdot \frac{L_p}{C_R^3}} \right) \cdot 2$$

Example with Units

$$4.3676 \text{ m} = \left( \frac{33 \text{ Pa}}{6 \cdot 10.2 \text{ P} \cdot 0.045 \text{ m/s} \cdot \frac{5 \text{ m}}{0.45 \text{ m}^3}} \right) \cdot 2$$

Evaluate Formula 

## 15.4) Diameter of Piston given Shear Stress Formula

Formula

$$D = \frac{\tau}{1.5 \cdot \mu \cdot \frac{v_{\text{piston}}}{C_H \cdot C_H}}$$

Example with Units

$$3.3805 \text{ m} = \frac{93.1 \text{ Pa}}{1.5 \cdot 10.2 \text{ P} \cdot \frac{0.045 \text{ m/s}}{50 \text{ mm} \cdot 50 \text{ mm}}}$$

Evaluate Formula 

## 15.5) Dynamic Viscosity for Pressure Drop over Length Formula

Formula

$$\mu = \frac{\Delta P f}{\left( 6 \cdot v_{\text{piston}} \cdot \frac{L_p}{C_R^3} \right) \cdot (0.5 \cdot D)}$$

Example with Units

$$12.7286 \text{ P} = \frac{33 \text{ Pa}}{\left( 6 \cdot 0.045 \text{ m/s} \cdot \frac{5 \text{ m}}{0.45 \text{ m}^3} \right) \cdot (0.5 \cdot 3.5 \text{ m})}$$

Evaluate Formula 

## 15.6) Dynamic Viscosity given Shear Stress in Piston Formula

Formula

$$\mu = \frac{\tau}{1.5 \cdot D \cdot \frac{v_{\text{piston}}}{C_H \cdot C_H}}$$

Example with Units

$$9.8519 \text{ P} = \frac{93.1 \text{ Pa}}{1.5 \cdot 3.5 \text{ m} \cdot \frac{0.045 \text{ m/s}}{50 \text{ mm} \cdot 50 \text{ mm}}}$$

Evaluate Formula 

## 15.7) Dynamic Viscosity given Velocity of Fluid Formula

Formula

$$\mu = dp|dr \cdot 0.5 \cdot \left( \frac{R^2 - C_H \cdot R}{u_{\text{Fluid}}} \right)$$

Example with Units

$$0.455 \text{ P} = 60 \text{ N/m}^3 \cdot 0.5 \cdot \left( \frac{0.7 \text{ m}^2 - 50 \text{ mm} \cdot 0.7 \text{ m}}{300 \text{ m/s}} \right)$$

Evaluate Formula 



## 15.8) Dynamic Viscosity given velocity of piston Formula

Formula

Evaluate Formula 

$$\mu = \frac{F_{\text{Total}}}{\pi \cdot v_{\text{piston}} \cdot L_P \cdot \left( 0.75 \cdot \left( \left( \frac{D}{C_R} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{D}{C_R} \right)^2 \right) \right)}$$

Example with Units

$$7.9725_P = \frac{2.5_N}{3.1416 \cdot 0.045_{\text{m/s}} \cdot 5_{\text{m}} \cdot \left( 0.75 \cdot \left( \left( \frac{3.5_{\text{m}}}{0.45_{\text{m}}} \right)^3 \right) + 1.5 \cdot \left( \left( \frac{3.5_{\text{m}}}{0.45_{\text{m}}} \right)^2 \right) \right)}$$

## 15.9) Length of Piston for Pressure Reduction over Length of Piston Formula

Formula

Example with Units

Evaluate Formula 

$$L_P = \frac{\Delta P_f}{\left( 6 \cdot \mu \cdot \frac{v_{\text{piston}}}{C_R^3} \right) \cdot (0.5 \cdot D)}$$

$$6.2395_{\text{m}} = \frac{33_{\text{Pa}}}{\left( 6 \cdot 10.2_P \cdot \frac{0.045_{\text{m/s}}}{0.45_{\text{m}}^3} \right) \cdot (0.5 \cdot 3.5_{\text{m}})}$$

## 15.10) Pressure Drop over Lengths of Piston Formula

Formula

Evaluate Formula 

$$\Delta P_f = \left( 6 \cdot \mu \cdot v_{\text{piston}} \cdot \frac{L_P}{C_R^3} \right) \cdot (0.5 \cdot D)$$

Example with Units

$$26.4444_{\text{Pa}} = \left( 6 \cdot 10.2_P \cdot 0.045_{\text{m/s}} \cdot \frac{5_{\text{m}}}{0.45_{\text{m}}^3} \right) \cdot (0.5 \cdot 3.5_{\text{m}})$$

## 15.11) Pressure Gradient given Velocity of Fluid Formula

Formula

Example with Units

Evaluate Formula 

$$dp/dr = \frac{u_{\text{Oiltank}}}{0.5 \cdot \frac{R \cdot R - C_H \cdot R}{\mu}}$$

$$53.8022_{\text{N/m}^3} = \frac{12_{\text{m/s}}}{0.5 \cdot \frac{0.7_{\text{m}} \cdot 0.7_{\text{m}} - 50_{\text{mm}} \cdot 0.7_{\text{m}}}{10.2_P}}$$





## 15.12) Velocity of Fluid Formula

Evaluate Formula 

Formula

$$u_{\text{Oil tank}} = dp|dr \cdot 0.5 \cdot \frac{R \cdot R - C_H \cdot R}{\mu}$$

Example with Units

$$13.3824 \text{ m/s} = 60 \text{ N/m}^3 \cdot 0.5 \cdot \frac{0.7 \text{ m} \cdot 0.7 \text{ m} - 50 \text{ mm} \cdot 0.7 \text{ m}}{10.2 \text{ P}}$$

## 15.13) Velocity of Piston for Pressure reduction over Length of Piston Formula

Formula

$$v_{\text{piston}} = \frac{\Delta P f}{\left(3 \cdot \mu \cdot \frac{L_P}{C_R^3}\right) \cdot (D)}$$

Example with Units

$$0.0562 \text{ m/s} = \frac{33 \text{ Pa}}{\left(3 \cdot 10.2 \text{ P} \cdot \frac{5 \text{ m}}{0.45 \text{ m}^3}\right) \cdot (3.5 \text{ m})}$$

Evaluate Formula 

## 15.14) Velocity of Piston given Shear Stress Formula

Formula

$$v_{\text{piston}} = \frac{\tau}{1.5 \cdot D \cdot \frac{\mu}{C_H \cdot C_H}}$$

Example with Units

$$0.0435 \text{ m/s} = \frac{93.1 \text{ Pa}}{1.5 \cdot 3.5 \text{ m} \cdot \frac{10.2 \text{ P}}{50 \text{ mm} \cdot 50 \text{ mm}}}$$

Evaluate Formula 

## 15.15) When Shear Force is Negligible Formulas

### 15.15.1) Dynamic Viscosity for Total Force in piston Formula

Formula

$$\mu = \frac{F_{\text{Total}}}{0.75 \cdot \pi \cdot v_{\text{piston}} \cdot L_P \cdot \left(\left(\frac{D}{C_R}\right)^3\right)}$$

Evaluate Formula 

Example with Units

$$0.1002 \text{ P} = \frac{2.5 \text{ N}}{0.75 \cdot 3.1416 \cdot 0.045 \text{ m/s} \cdot 5 \text{ m} \cdot \left(\left(\frac{3.5 \text{ m}}{0.45 \text{ m}}\right)^3\right)}$$



Formula

$$L_p = \frac{F_{\text{Total}}}{0.75 \cdot \pi \cdot \mu \cdot v_{\text{piston}} \cdot \left( \left( \frac{D}{C_R} \right)^3 \right)}$$

Example with Units









$$4.913_{\text{m}} = \frac{2.5_{\text{N}}}{0.75 \cdot 3.1416 \cdot 10.2_{\text{P}} \cdot 0.045_{\text{m/s}} \cdot \left( \left( \frac{3.5_{\text{m}}}{0.45_{\text{m}}} \right)^3 \right)}$$



## Variables used in list of Dash Pot Mechanism Formulas above

- $C_H$  Hydraulic Clearance (Millimeter)
- $C_R$  Radial Clearance (Meter)
- $D$  Diameter of Piston (Meter)
- $dp|dr$  Pressure Gradient (Newton per Cubic Meter)
- $F_{Total}$  Total Force in Piston (Newton)
- $F_V$  Vertical Component of Force (Newton)
- $F_s$  Shear Force (Newton)
- $L_P$  Piston Length (Meter)
- $Q$  Discharge in Laminar Flow (Cubic Meter per Second)
- $R$  Horizontal Distance (Meter)
- $T_f$  Total Force (Newton)
- $u_{Fluid}$  Fluid Velocity (Meter per Second)
- $u_{Oiltank}$  Fluid Velocity in Oil Tank (Meter per Second)
- $v_{piston}$  Velocity of Piston (Meter per Second)
- $\Delta P_f$  Pressure Drop due to Friction (Pascal)
- $\mu$  Dynamic Viscosity (Poise)
- $\tau$  Shear Stress (Pascal)

## Constants, Functions, Measurements used in list of Dash Pot Mechanism Formulas above

- **constant(s):**  $\pi$ ,  
3.14159265358979323846264338327950288  
*Archimedes' constant*
- **Functions:** **sqrt**, sqrt(Number)  
*A square root function is a function that takes a non-negative number as an input and returns the square root of the given input number.*
- **Measurement: Length** in Meter (m), Millimeter (mm)  
*Length Unit Conversion* 
- **Measurement: Pressure** in Pascal (Pa)  
*Pressure Unit Conversion* 
- **Measurement: Speed** in Meter per Second (m/s)  
*Speed Unit Conversion* 
- **Measurement: Force** in Newton (N)  
*Force Unit Conversion* 
- **Measurement: Volumetric Flow Rate** in Cubic Meter per Second (m<sup>3</sup>/s)  
*Volumetric Flow Rate Unit Conversion* 
- **Measurement: Dynamic Viscosity** in Poise (P)  
*Dynamic Viscosity Unit Conversion* 
- **Measurement: Pressure Gradient** in Newton per Cubic Meter (N/m<sup>3</sup>)  
*Pressure Gradient Unit Conversion* 
- **Measurement: Stress** in Pascal (Pa)  
*Stress Unit Conversion* 



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