

$$\text{Force (N)} = \text{Pressure (MPa)} \times \text{Area(mm}^2\text{)}$$

$$\text{Pressure (MPa)} = \frac{\text{Force (N)}}{\text{Area(mm}^2\text{)}}$$

$$\text{Area(mm}^2\text{)} = \frac{\text{Force(N)}}{\text{Pressure(MPa)}}$$

$$\text{kW} = \frac{\text{MPa (PRV)} \times \text{Pump litres per minute} \times 1,2}{60}$$

*PRV = Pressure Relief Valve (Pressure setting of the relief valve)*

$$\text{Pump flow rate(Litres per min)} = \frac{\text{cm}^3 \text{ per pump revolution} \times \text{Pump RPM}}{1000}$$

$$\text{cm}^3 \text{ per pump revolution} = \frac{\text{Pump flow rate} \times 1000}{\text{Pump RPM}}$$