

Source: Australian Pump Technical Handbook 3<sup>rd</sup> Edition and reproduced in entirety with permission from P/A

## DEFINITION OF TERMS AND UNITS

Unless otherwise denoted in the text, the following notation has been used:

A	area	square millimetre
C*	concentration	milligram per litre or kilogram per cubic metre
C <sub>v</sub>	ratio or concentration of solids to slurry by true volume	percent
C <sub>w</sub>	ratio of concentration of solids to slurry by weight	percent
d	diameter normal to flow	millimetre
d <sub>50</sub>	sieve size that retains <b>50%</b> of solids by weight	micron
em	motor efficiency	decimal
ep	pump efficiency	decimal
epm*	pump efficiency when pumping slurry	decimal
epw*	pump efficiency when pumping clean cold water	decimal
E	line voltage	volts
ER*	ratio of pump efficiency for slurry to efficiency for water	
F	force	newton
H	head of liquid	metre
H <sub>t</sub>	pump total dynamic head	metre
H <sub>tm</sub> *	pump total dynamic head for slurry	metre
H <sub>tw</sub> *	pump total dynamic head for clean cold water	metre
H <sub>v</sub>	velocity head	metre
HR*	ratio of pump total dynamic head developed for slurry to head developed for clean cold water	

I	line current	ampere
$K_{md}$	meter disc constant	rev. per kilowatt hour
$K_{mr}$	meter ratio constant	
$M_s$	mass of solids pumped	tonnes per hour
N	speed of rotation	rev. per minute
$N_s^{**}$	specific speed	
$N_{ss}^{**}$	suction specific speed	
p	pressure	kilopascal
P	pump input power	kilowatt
$Q_m$	mass flow rate	kilogram per second
Q	volumetric flow rate	litre per second
r	revolutions	
SG	specific gravity of liquid	
$SG_m^*$	specific gravity of slurry	
$SG_s^*$	specific gravity of solids in suspension	
t	time	second
T	torque	newton metre