

Pump Details

Pump Model	M3H-CR 200/150
Rated Flow	100 l/sec
Rated Head	30 m
Efficiency	67.78 %
QBEP	77.74 %
Impeller Diameter	432 mm
Pump Speed	976 rpm
Minimum Speed	450 rpm
Maximum Speed	1200 rpm
Tip speed	22.08 m/s
NPSH required	1.294 m

Selection Details

Required Flow	100 l/sec
Required Head	30 m
Static Head	5 m
Friction Head	25 m
Suction Height	5 m
Discharge Height	10 m
Discharge Pressure	50 kPa
Head Ratio	1
NPSH Available	2.67 m
No. of pumps	1
Power absorbed - Total	54 kW

Slurry Details

Solid flow rate	149.1 Tons/hr
Slurry flow rate	100 l/sec
SG solid	2.7
SG liquid	1
SG slurry	1.233
% comp. by weight	30 %
% comp by volume	13.7 %
Ave. particle size	0.3 microns
Max particle size	0 microns
Widely graded particles	False
Froth factor	0
Set ER & HR manually	False
Efficiency ratio	1
Head ratio	1

Suction Pipe Details

Pipe Material	HDPE [PE100]
Roughness factor	0.015 mm
Pipe Nominal Diameter	200 mm
Pipe Internal Diameter	155.6 mm
Pipe velocity	5.259 m/s
Pipe Length	100 m
Friction loss for fittings	0 m
Total Friction Head	12.36 m

Discharge Pipe Details

Pipe Material	HDPE [PE100]
Roughness factor	0.015 mm
Pipe Nominal Diameter	225 mm
Pipe Internal Diameter	175 mm
Pipe velocity	4.157 m/s
Settling velocity	0.12 m/s
Pipe Length	123.7 m
Friction loss for fittings	0 m
Total Friction Head	8.507 m

Electrical Driver Details

Motor	75 kW
Power absorbed - @ Duty	53.5 kW
Power required	66.88 kW
Frame size	250S/M
Temperature rise	0
Insulation class	
Bearing size D/E	
Bearing size N/D/E	
Weight	0
Shaft size	0