

Specification:-"A"

Requisition No. 63708213 Date 12.03.09

Technical specification of the High pressure Coach washing machine.

Technical Data	
Pump type	Triplex in Line
Generally confirming to	API 674
Wet end construction	Spheroid Grey Iron Body with SS 304 internals
Flow in lit / min	200
Pressure in Kg./sq.cm.	60
Medium to be pumped	Water
NPSHR	3.2m
Valve configuration	Vertical
Sp. gravity	1.0
Viscosity	1 c Poise max.
Temperature, deg. C.	Ambient
Crank shaft speed, spm	365
Plunger dia., mm	50
Stroke length, mm	95
Suction X Discharge size	Suitable for connection with 2" dia inlet & outlet pipe.
Lubrication	Splash type
Noise level	85dB (1mtr distance)
End connections	Screwed as per BSP
Pressure Relief valve cum regulator (PRV)	Spring loaded - Externally mounted
# Pulsation Dampener	Std. Air filled (Residue 10%)
Material of construction	
Crank case	FG 260
Crankshaft	Alloy steel - case hardened
Bearings	Tapered roller - NTN / KOYO, Japan
Connecting rods	S.G. Iron as per ISI865
Cylinder body	S.G. Iron as per ISI865
Cartridge packing	Chevron
Plunger	SS 304
Valve assembly	SS 304 - Stellite welded
Motor HP / RPM	30 / 1500
# Drive	Belt / Pulleys
# Pressure gauge	Glycerin filled SS constn
# Mounting	Whole unit mounted on a rugged base made of MS C cannels.
DRIVE - Electric Motor of Crompton or equivalent make	30 HP 1500 rpm
Volt /Hz/Phase	415V/50Hz/3AC
Insulation Class	F class
Degree of Protection	IP 55
Base frame	C- channeled heavy duty common for the pump/motor unit
Electric Control Panel	
Motor rating	30 HP three phase induction motor
Application	Indoor
Conductor	Standard
Electric control panel consisting of	Star delta starter, Power On-Off indicator & start stop push button, Overloading relay protection, & under /over voltage relay protection, Hour totaliser & Ammeter/ voltmeter, single Phase preventer, changeover switch, 5 Mtr long motor to panel cable. OVER VOLTAGE

Major Parameters:

- Crank case in Cast Iron Grade 30 & Cylinder body in S G Iron (Grade ISI865).
- Pump oil cover/lid can be opened without draining the oil in the crankcase
- Plunger velocity less than 1 mtrs/sec
- Oil seal for crosshead/plunger to be double lip wiper MIDL type
- Crank case to have built in gear reduction to facilitate low running speed
- Gear reduction to be 15 deg. Helical type with 8 DP module
- Gear replaceable, press fitted on crankshaft
- Crankshaft and pinion shaft to be dynamically balanced in line with IS requirements and report attached
- Gear & Pinion shaft to be case hardened alloy steel with a Ultrasonic and stress relief report attached with supply
- Bearings to be Tapered roller, original Japanese NTN or Koyo make
- Valve cage typed with seats in satellite welded SS and valve in hard delrin
- Pump foundation to be slotted type non-hole configuration for adjustment of misalignment, if any.
- Cylinders to be replaceable tapered SS 316 or equiv.
- NPSH required must be less than 4 mtrs., performance curve confirming NPSH vis a vis Speed to be attached.
- Inlet/Outlet sizes: Suction 3" BSPT (tapered)
Discharge 1/ ½ " BSPT (tapered)
- Bare Pump weight to be at least 250 kgs
- Flow pulsation less than 5%
- Noise level: Less than 60dB from 1 mtr distance in accordance with IS:12065
- Motor as per IS325 and Degree of protection IP55
- "F" class insulation must for the motor
- Base frame machine/serrate finish with flatness value less than 1
- Pulleys/couplings to be dynamically balanced.

Note:- Pump should be supplied with necessary spares i.e. valve (suction & delivery assly), Oil seal, Chevron Packing, for three year maintenance & should have warranty of minimum 24 month.