

Specification:-"A"

Requisition No. 63708213 Date 12.03.09

Technical specification of the High pressure Coach washing machine.

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| 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.