

**TECHNICAL SPECIFICATION**  
for  
**High pressure Three Plunger Reciprocating Pump coupled with  
Electric Motor & Base Cap.200 litre/min, 30 HP,1500RPM**

	Description
<b>Major Parameters</b>	
Application	Pressurized Coach Cleaning in Railway
Pump Type	Triplex in Line
Wet End Construction	Spheriod Grey(SG)Iron Body with SS -304
Flow in lit/min.(LPM)	180-200
Working Pressure in Kg/Sq.cm	0-50 (working pressure setting between 10-25 kg/cm <sup>2</sup> )
Medium to be pumped	Water
Valve configuration	Vertical
In built gear box	3.0:1 to 4.0:1
Valve assembly	SS-304/SS-316 – Delrin
Motor HP/RPM	30/1500 & as per IS325 & Degree of protection IP55
Motor make	ABB/CGL/Hindustan/KEC/Siemens
<b>Material Construction -</b>	
Crank case	FG 260
Crank shaft	Alloy steel-Case Hardened with test certificate
Bearings	Tapered Roller-NTN/Koyo, Japan with traceability certificate
Connecting rods	S.G.Iron as per IS 1865
Cylinder body	S.G.Iron as per IS 1865
Packing	Chevron
Plunger	SS 304/316 – Hard chrome plated with test certificate or SS -304 with ceramics coating with test certificate
<b>Minor Parameters</b>	
Pinion shaft speed, rpm	1450-1500
Crank shaft speed, spm	350-400
Plunger dia, mm	50-60 mm
Stroke length, mm	95-100
Suction X Discharge size	3"x 1½"
Lubrication	Splash type
Noise level	less than 85 dB (1 mtr distance)
End connections	Screwed as per BSP
Pressure Relief valve cum regulator(PRV)	Spring loaded-Externally mounted
Bearing	Tapered Roller –NTN/Koyo, Japan
Motor insulation type	F class
Pulsation Dampener	Std. Air filled (Residue 10%)

  
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 (SUNIL TAILOR)  
 Sr. Divi. Mech. Engineer (Coaching)  
 West Central Railway, Bhopal

Control Panel	DELTA or equiv- make <b>Variable frequency device</b> to control pressure in tandem with Pressure transmitter through a pressure controller along with Voltmeter/Ammeter & MCB
Transmission Drive	Belt & pulleys
Pressure gauge	WIKA or equiv. make Glycerin filled
Base frame	Whole unit i.e Motor & Pump mounted on a common MS C channel frame.
Recommended spares for 24 months	Kit consisting of Valve, Spring, O rings, Packing, Back Up rings, connecting rod, plunger, bearing, bearing shell set of big & small end etc.
Concomitant Accessories	Nil
Optional Accessories each	Pulsation dampener, Drive, Pressure gauge, Base frame.
Spares for 24 months	Essential consumable spares related to operation & maintenance for at least two years. Such as Valve kits, springs. O rings, Packing, Back up ring etc
AMC requirement	No
Warranty on site	24 months from date of commissioning of equipment.
Special requirement	Nil

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**Annexure-II**

To be submitted by the firm along with offer-

Tender specification	Specification quoted by the firm	Deviation if any with clarification