



**BHARAT HEAVY ELECTRICAL LIMITED CENTRAL FOUNDRY
FORGE PLANT MAINTENANCE & SERVICES DEPPT**

M&S/FS/02

Rev. No. 00

Date: 09/03/2017

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<u>Specification for portable oil centrifuging system</u>			
Clause No	Description		Vendor's Acceptance /Remarks
1.0	GENERAL DESCRIPTION: This specification covers the supply of portable oil centrifuging system capacity 5000 liter per hour (LPH) used for filtration (removal of solids contamination) of used hydraulic oils.		
2.0	TECHNICAL PARAMETERS:		
2.1	Type	Full Automatic control.	
2.2	Application	For removal of solids contamination from used hydraulic oils (especially SS 68 & SS 100).	
2.3	Filtration capacity:	Capacity of 5000 liter per hour (LPH).	
2.4	The system should have the following standard fitments.		
2.4.1	Solid to liquid cleaning centrifuge – One number.	- Centrifuge body should be of LM-6 (or its equivalent) pressure die casted. - Dirt holding capacity up to 10 Kg. - Cover and Body holding clamp should be of Stainless steel.	
2.4.3	3 phase motor	Make – Kirlosker , Crompton greaves, Bharat Bijli, Siemens & ABB.	
2.4.4	Pump (for suction and / or delivery)	Make – Tushaquo / Roto Dell / cbs Make gear pump / lobo pump.	
2.4.5	Pre Strainer	Washable type consumable free should be there in suction line to prevent the entry of bigger foreign particles.	
2.4.6	Control Panel	- Single phasing, Phase reversal /sequence, Phase unbalancing all by one protection relay. - Indicator & Voltmeter also having protection by 2 Amp MCB, Over Load trip indication by 16 mm Diameter indicating Light. - Both Push Button having lighting in off & on condition, R/Y/B phase & other operation by masking plate should be able to find fault without operation of the motor. - Motors are to be connected in same Phase sequence as all wires to be numbered at motor terminals.	
2.5	Special features:	- A separate fine filter cartridge of suitable rating of flow capacity 5000 LPH is required to achieve NAS 7 or better.	



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		This cartridge should be fitted at the outlet end with bypass provision, as per requirement.	
2.6	Acceptance criteria	- The system should be capable of removing solid particles to achieve oil cleanness level NAS 7.	
2.7	Accessories / spares to be supplied with the machine.	- Inlet hose min. 5 meter long , - Outlet hose min. 5 meter long. - 2 sets of consumable fine filters.	
2.8	Performance characteristics of the machine.	- System should be 100% consumable free spares and maintenance expense free except fine filter cartridge. - Machine should not take the help of heating the oil for separation of contaminants. - The machine should be economical in operation by having no consumables. - The system should be such that it can be continuously used on hydraulic oils so as to ensure regular cleaning.	
	Power Source	- 415V. 50 Hz AC	
3.0	PERFORMANCE GUARANTEE / WARRANTY: The Performance of the portable oil centrifuging system shall be guaranteed for a minimum period of 12 months from the date of acceptance at CFFP /BHEL.		