




TD-106-1 Rev.No.5	Form No.		<p style="text-align: center;">PRODUCT STANDARD PULVERISERS HYDERABAD</p>	Product STD NO.	BA 53040	
				Rev No. 03		
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);"> COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company. </p>		<u>MULTI POINT ROTARY PROBE</u>				
		<p>1.0. DESCRIPTION : Multi Point rotary probe for pulverized coal sampling.</p> <p>2.0. APPLICATION : This probe is used to collect samples of pulverised coal through isokinetic method, in the vertical run of pulverised coal pipes. One representative sample shall be collected from 64 sampling points evenly distributed over a full cross-section of the circular coal pipe. Sampler is inserted through a dustless connector in to the pulverised fuel pipe. These probes shall be adjustable to suit for a range of standard pipe sizes 15" to 31".</p> <p>3.0. SCOPE OF SUPPLY : Each sampling system shall necessarily include the following.</p> <ol style="list-style-type: none"> 1. 2” NPT Male Adopter for connecting to Dustless connector (DC). 2. Sampling probe. 3. Refer for each variant: <ul style="list-style-type: none"> Var 01: Rotatable head(s), each with four sampling nozzles/orifices, suitable for the coal pipe inner diameter. Var 04: ‘Motorized’ Rotatable head(s), rotated by electric motor, each with four sampling nozzles/orifices, suitable for the coal pipe inner diameter along with snap lock/fast lock connector for quick connection to the dustless connector. 4. Refer for each variant: <ul style="list-style-type: none"> Var 01: Portable control unit, including venturi flow meter, electric heater with controller, electric timer, main fuse and control valves, Temperature gauge, Differential pressure gauge etc. 				
		Revisions: Refer to record of revisions:	Prepared: GK	Approved: JGK	Date: 05.07.99	

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.			<p style="text-align: right;">Var 04: Portable control unit for ‘automatic’ start and stop of sampling, adjustment of sampling air velocity & calculation of fuel flow rate, including weighing scale for sample, venturi flow meter, electric heater with controller, electric timer, main fuse and control valves, Temperature gauge, Differential pressure gauge etc.</p> <ol style="list-style-type: none"> 5. Electric components suitable for power supply 220/240 V A.C. power cable with plug & socket 50 Hz. 6. Calibration curve for venturi flow meter. 7. Cyclone, sample collecting jar and three disposable back up air filters. 8. Probe carrying case. 9. Connecting hoses. 10. Tool Kit. 11. Any other item to make it a complete set. <p>3.0.1 Var 05: Dustless connector with fast lock/snap lock, by short turn of handle suitable for connection to 50 mm female pipe thread or matching the sampling port connection of the Pulverised Fuel pipes. Dustless connector shall be capable of working in conjunction with rotary probes specified above.</p>				Rev No. 03					
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<p style="text-align: center;">COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company.</p>						<p>4.0. SIZE : Probe model shall be suitable/adjustable for standard Fuel pipe sizes 15" to 31".</p> <p>5.0. OPERATING CONDITION : Pulverised fuel to be sampled at</p> <ol style="list-style-type: none"> 1. Coal air mixture temperature from 65°C. to 95°C 2. Hot air pressure from 400 to 600 mmwc. 3. Coal air ratio from 1:1.5 to 1:2.5 4. % moisture in pulverised coal 6%. 5. Plant compressed air available is at 4 kg/cm² (g). with ½" NPT male 6. Flexible hose 20 meters length with ½" NPT female at one end to connect ½" NPT – Male connection and other end suitable to connect to the portable control unit. <p>6.0. HANDLING : Equipment should be portable and easy to handle. Weight of all items put together shall not exceed 20 Kg. Carry cases for all equipment including probes should be supplied.</p> <p>7.0. APPLICABLE STANDARD : Scope of Supply shall be in accordance with ISO 9931 standard latest revision.</p> <p>8.0. TESTING : Performance test, calibration curves and TCs to be enclosed with the material supply.</p> <p>9.0. CATALOGUE : Installation and O & M manuals- each 3 copies to be supplied along with the material.</p> <p>10.0. SPARES : Supply should be with two years operational spares and one extra set of sampling probes. Break up price for the spares to be indicated in the quotation.</p> <p>11.0. PACKING : Items to be packed in suitable package, which protects from weather and transit damages and also storage at site for long usage.</p> <p>12.0. GUARANTEE : Items shall be guaranteed for 18 months for trouble free operation or 24 months from the date of supply, whichever is earlier.</p>



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PULVERISERS
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13.0. MATERIAL CODE :

VAR.	MATERIAL DESCRIPTION	MATERIAL CODE
01	MULTI POINT ROTARY PROBE	BA9753040016
02	SAMPLING NOZZLES	BA9753040024
03	AIR FILTERS	BA9753040032
04	MULTI POINT ROTARY PROBE-MOTORIZED (SL)	BA9753040040
05	DUSTLESS CONNECTOR	BA9753040059

Note: Var 02, 03 & 05 shall be capable of working in conjunction with rotary probes specified above and these items will be required to meet the spares requirement.

RECORD OF REVISIONS

REV. NO	DATE	REVISION DETAILS	REVISED	APPROVED
01	07.12.2001	2"NPT M-DC was suitable for 2" female threads. Var Nos. added.	CNY	GK
02	25.06.2004	Item No. 10 added in Clause 3-0 Item No. 7 in clause 5-0 was "size 50mm".	BPK	GK
03	12.06.13	Clauses 2.0, 3.0, 4.0, 13.0 revised. Clause 12 added. Var 04 & 05 added.	RR	MVRM