

## DATA SHEET

**HLL LIFECARE LIMITED, CHENNAI**

<b>nne pharmaplan</b>	<b>REVIVAL OF BCG VACCINE LABORATORY, GUINDY, CHENNAI</b>		
	<b>Binocular compound microscope</b>		
	<b>Project No:</b>	<b>110729</b>	
	<b>Equipment ID :</b>	<b>BF-MSC 01</b>	
	<b>Document No:</b>	<b>DS/BF-MSC 01</b>	

**1 Process requirements**

1.1 It is used to analyse the various types of microbiological samples. It will be placed in the "IPQC" room (BF012) of the BCG Bulk first floor.

**2 Technical Specification**

2.1	Model	cGLP Compliant; Clean Room Compliant	
2.2	Type	Binocular compound microscope	
2.3	Expected operational hours per day	08-10 hrs	
2.4	Quantity	1 No	
2.5	Dimensions	<i>Vendor to specify</i>	
2.6	Utility		
2.6.1	Power required	<i>Vendor to specify</i>	

**3 Material of Construction**

3.1 Body Ergonomic body with stain and particle resistant finish.

**4 Specific Equipment requirement**

- 4.1 Head should rotate 360° and inclined at 30°. Features interpupillary and dioptic adjustment.
- 4.2 Minimum magnification of the microscope should be 10X
- 4.3 Nose piece position should be, reversed, extra-large, ball-bearing nose piece with a wide, knurled grip for easy operation. Features must be high-grade smooth operation and with positive click stops.
- 4.4 Stage should be delivering a high level of fluid motion control and longevity. Motion must be controlled with a right-hand low-position coaxial control and it should be driven by a rack and pinion system.
- 4.5 Focusing movement should be vertical oblective movement and coaxial, low-position coarse and fine focus controls; it should be graduated to 2 microns per division; fitted with safety autostop. Range should be ± 20mm
- 4.6 Refractive error should be +/- 5D left eyepiece.
- 4.7 Working distance should be auxiliary objective to object distance 270 mm
- 4.8 The microscope should have two focusing knobs mounted together. The large knob should be for coarse focus adjustment. The smaller knob should be for fine focus adjustment.
- 4.9 Condenser: Bright field, Abbe N.A. 1.25 with iris diaphragm and swing out filter holder which shall be moved through rack pinion. The condenser unit to incorporate high efficiency optical system for optimum utilization of light from low to high magnification.
- 4.10 The diaphragm should be wide open and must be able to pass light through the condenser.
- 4.11 The diaphragm should be opened just enough to allow the objective lens to collect all of the light that should comes through the sample.
- 4.12 Eyepiece eyecup with a low brightness level should be provided in order to suppress light reflection.
- 4.13 All oblectives should be coated scratch proof.
- 4.14 Lens should be coated antifungal.
- 4.15 All bolts, nuts on the exterior part of the equipment should be with cup head or cup net.
- 4.16 20/30 W mercury lamp for illumination shall be provided.

4.17 **Approved makes:**  
 a) Carl Zeiss India Pvt Ltd  
 b) Olympus  
 c) Nikon Instruments  
 d) Cole parmer

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<b>5 Other requirement</b>						
5.1	The instrument must be portable.					
5.2	A training for lab technicians has to be included in the offer.					
5.3	Equipment cover should be provided.					
5.4	All external parts of the microscope should be disinfected with standard disinfectants					
<b>6 Regulatory guidelines / standards</b>						
	NA					
<b>7 Safety</b>						
7.1	Proper earthing should be given for the instrument.					
7.2	Adjustable down stopper to prevent accidental damage to slides					
<b>8 Documents</b>						
	Following documents, but not limited to these, are expected from the vendor as part of the supply package in hard copy as well as editable electronic file					
8.1	Operation and maintenance manuals.					
8.2	IOQ protocol.					
8.3	Comprehensive one year warranty letter from date of completion.					
	List of standard spare parts with ordering information.					
<b>9 Timelines</b>						
	Not Applicable					
<b>NOTE:</b> Accurate size and technical specification need to be mentioned by the vendor						
	AFI Approved for Enquiry			AFO Approved for Ordering		
2	2014-02-05	BKSH		VKKA	<input type="checkbox"/>	<input type="checkbox"/>
Rev	Date	Completed By		Checked By	AFI	AFO

15/3/14  
 [ENGR DEPT]  
 BCGVL