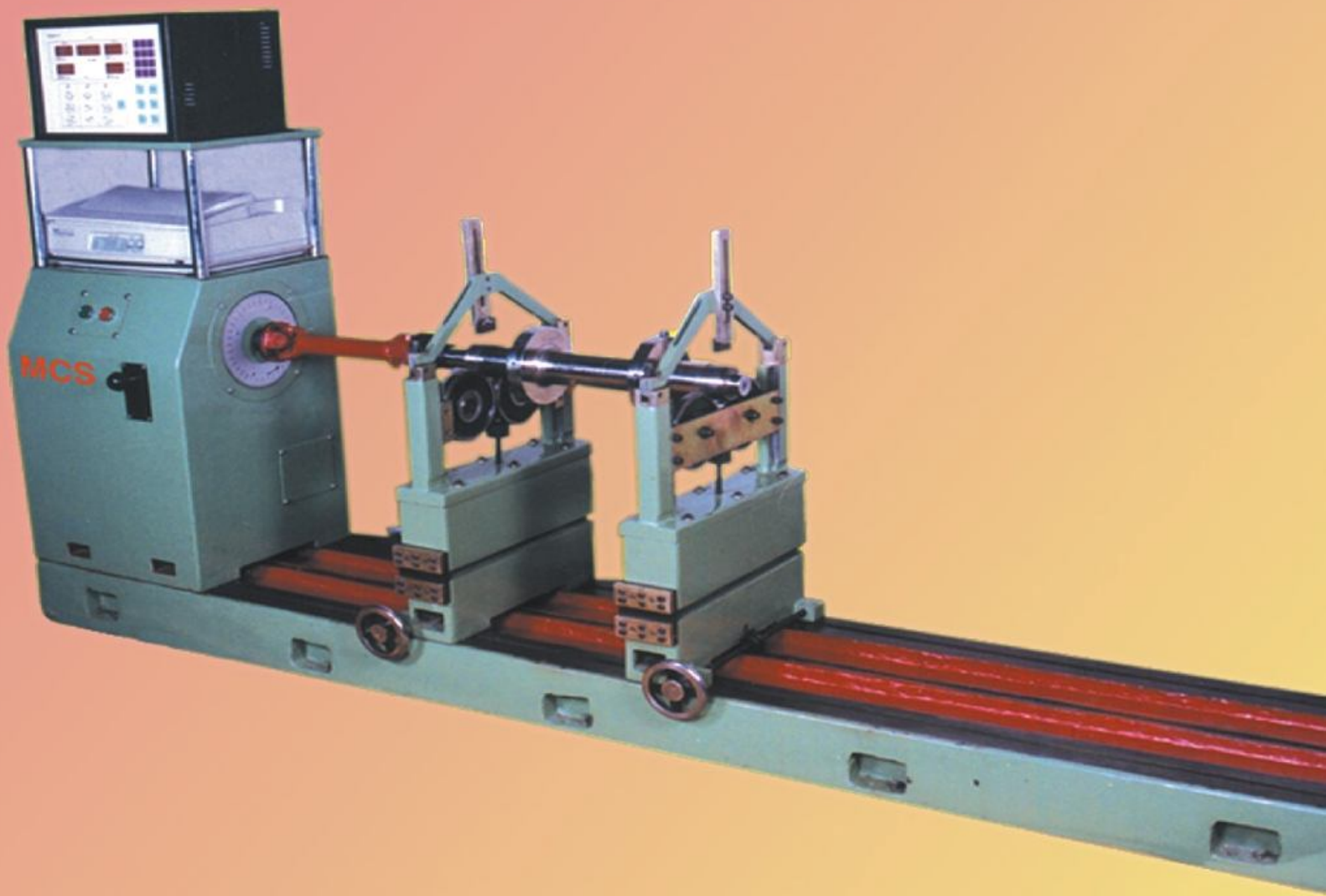
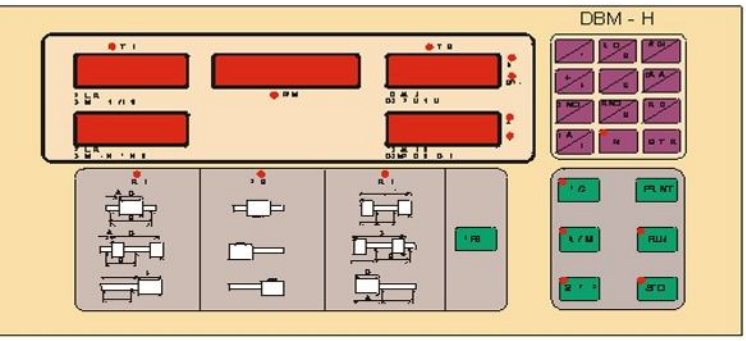
MCS DYNAMIC BALANCING MACHINES
WITH MICROPROCESSOR BASED MEASURING PANEL

These machines use tow piezoelectric transducers for sensing force of unbalance and one phase generator for generating reference signal. These signals are processed further in microprocessor based panel which includes preamplifier, integrators, filters and compytation.Amount of unbalance and angle of unbalance for both planes are displayed. Panel is provided with sealed membrane keyboard for entry of rotor dimensions, serial number etc. Printout of test result can be obtained on dot matrix printer.

- **Accurate, Reliab e & Rugged system.**
- **Drive methods which meet your requ rement.**
- **Microprocessors based control un t**
- **Dot-Matr x pr nter nterface. (optional)**
- **Automation as per customers requirement.**
- **Fu ly indigen ous Design.**
- **Safety and ease of Handling.**
- **Easy to insta , operate & maintain.**
- **RS-232 communication port. (optiona)**
- **Ba ancing of 2/4/6 throw crankshafts**



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ROTOR.NO:01        SERIAL.NO:0001
A=0155 mm     B=0785 mm      C=0455 mm
R1=0080 mm          R2=0080 mm
TL1=0150 g.mm       TL2=0150 g.mm
TRIAL:0001          SPEED=0500 R.P.M.
U1=076  gm.           U2=075  gm
ANGLE=037 Deg.-     ANGLE=038 Deg.-
TL1*40.53           TL2*40.00
TRIAL:0002          SPEED=0500 R.P.M.
U1=00.3 gm.           U2=00.0 gm
ANGLE=090 Deg.-     ANGLE=270 Deg.-
IN TOL              IN TOL
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FEATURES :

- Digital display of unbalance amount, angle and rpm.
- Inbuilt POST (Power on Self Test) provides effective fault finding
- Front panel full-fledged membrane keyboard with numeric keypad.
- Built in Centronics interface. (optional)
- Searial communication port. (optional)
- Data entry for rotor serial number, rotor dimensions, balancing tolerances.
- Auto-ranging, Automatic course / fine range selection
- Data for 50 rotors can be stored.
- Auto / Manual mode selection from keyboard.
- 3 to 99 component selection in component mode.
- 2-4-6 plane calculation (optional).
- Program for vertical machines with job exxentricity compensation software (optional).

MCS has developed an electronic conversion package which will update the existing balancing machines of all capacities at an economical cost.A microprocessor based control panel can be fitted to horizontal / vertical type hard bearing/soft bearing machines of any make MCS's conversion package consists of following things

- Microprocessors based control panel
- Phase generator assembly
- Left / Right crystal assembly

TECHNICAL SPECIFICATIONS
HORIZONTAL TYPE UNIVERSAL HARD BEARING MACHINES

MODEL	UNIT	DBM-10	DBM 30	DBM 50	DBM-100	DBM-300	DBM-650	DBM-1000	DBM-3000	DBM-7000	DBM-10000	DBM-20000
Weight of rotor	kg	0.5-10	-30	2-50	3-100	10-300	20-650	10-1000	30-300	70-700	100-1000	200-20000
Max weight on each pedestal	kg	7.5	22.5	30	75	180	480	600	1800	5250	6000	12000
Max diameter of rotor over bed	kg	600	600	600	1000	1000	1200	1600	2000	2400	2400	3000
Max distance measured from coupling end to extreme bearing centre	mm	480	480	1100	1350	1350	1650	1650	2400	3300	3300	3200
Min. distance between roller bearing of pedestals	mm	75	75	75	90	110	300	350	500	560	500	330
Rotor Journal dia	mm	5-50	5-50	5-80	15-80	20-120	20-120	25-140	35-200	55-300	55-300	70-300
Balancing speed in	RPM	1000	700	700	600	500	350	300-600	250,500	200-400	200-400	200-400
Power of drive motor	HP	0.33	0.75	1.75	1.5	3	5	7.5	20 Spring	30 Spring	40 Spring	60 Spring
Acceleration Capability (GD^2n^2)	kgm^2n^2	$0.29+10^6$	$0.37+10^6$	$0.37+10^6$	$0.88+10^6$	$3.9+10^6$	$3.56+10^6$	$14.2+10^6$	$88+10^6$	$168+10^6$	$216+10^6$	$301+10^6$
Minimum unbalance mass measured	g	0.01	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Maximum unbalance mass measured	kg	1.4	4	4	4	4	4	4	4	4	4	4
Unbalanced reduction ratio	%	95	95	95	95	95	95	95	95	95	95	95
Minimum achieveable unbalanced per Rotor Weight for max weight rotor	gmm/kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Graphic Art

Note :
1. All pedastals are designed to take 25% occasional overload
2. All the above machines operate on mains supply of 440 V, 3 ph, 50 cycles
3. Due to constant R & D, specifications and features are subject to change without notice

Manufactured By :
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