1) **Salient Features**

[a] This is a universal machine for accurate and fast balancing of a wide range of jobs within the capacity of the machine.

[b] Belt drive provided, gives high accuracy eliminating the errors of adaptors and drive shafts of end drive machines.

[c] Small jobs can be accommodated due to pedestal design permitting small distance between them. The high sensitivity also ensures that small jobs can be balanced accurately.

[d] No adaptors are required and jobs can be put straight on the machine and balanced.

[e] The electronics is built on plug-in PCB which are easily replaceable. This ensures quick, easy and good quality repair in the unlikely eventuality of machine fault or breakdown. This system also ensures that future developments are automatically incorporated in existing machines; an advantage being enjoyed by users of ABRO machines purchased even 20 years ago.

[f] The machine has a proven design. Machines of ABRO design are being made in India by ABRO and also being made Abroad as per details given in next para.
2) **International Technology**

‘ABRO’ has pioneered the development of various technologies and was the first in the World to develop various types of Balancing Machines. It continues to make innovations and is currently involved in doing a lot of pathbreaking work in this field.

Based on the technical strength, ABRO designed Balancing Machines are also being manufactured abroad at the following places:

- Manufactured by ABRO GLOBAL at Capetown, South Africa
- Manufactured by GIESLER LTD at London, United Kingdom
- Manufactured by ELETTRORAVA SpA at Torino, Italy
- Manufactured by ELETTRORAVA SpA at Barcelona, Spain.
- Manufactured by PRO-BAL Industrial Balancers Inc. at S. Carolina, U.S.A.

3) **Hard Bearing Design**

The offered machine is of Hard Bearing design which permits changing jobs without any calibration or trial runs by simply dialling the job dimensions as shown on page 4 of our catalogue. After which the very first run gives you the correction value in grams.

4) **Synchronous filters**

All modern balancing machines have filters to cut out spurious vibrations (noise) while measuring unbalance. ABRO use synchronous filters (Automatic Speed Tracking Filters) which eliminate the need for manual tuning or adjustments.

5) **References**

ABRO pioneered the development of HARD BEARING Dynamic Balancing Machines in Asia and continue to make innovations in the field. The reliability that ABRO build into their machines along with their attention to detail, have made them the largest selling machines in India. The attached Reference List carries the names of the first 825 machines sold by us - each of which continues to be our best credential.
Max. weight on rollers for symmetrical rotors (Kg) | 30 | 60 | 150 | 450
Max. weight capacity per pedestal (Kg) | 15 | 30 | 75 | 225
Max. job length accommodated between bearing centres :
   a) With ‘A’ size bed (mm) | 400 | 900 | 1,200 | 1,550
   b) Extension at extra cost, in steps of (mm) | 500 | 300 | 300 | 300
Min. distance between bearing centres
   a) With belt outside pedestals (mm) | 15 | 20 | 25 | 25
   b) With belt inside pedestals (mm) | 30 | 75 | 85 | 90
Max. Job diameter capacity (mm) | 400 | 650 | 850 | 1,100
Journal diameter range :
   -With standard carriages (mm) | 4-40 | 6-55 | 9-75 | 12-100
   -With additional carriages at extra cost upto (mm) | 80 | 110 | 145 | 205
Minimum readable unbalance with digital electronics (gm.mm) | 0.05 | 0.1 | 0.1 | 0.3
Drive power (h.p) | As per covering letter
Balancing speed range of electronics (r.p.m) | 400 - 6000

7) **Standard Equipment**
a) One Master rotor of our own design with removable calibrated unbalance weights to be used for checking the machine’s accuracy at any time.
b) Various tools for the operation of the machine.
c) Surface Belt Drive Type 'B’.
d) 2 nos. Safety Hold-downs.
e) 12 nos. Fuses.
f) 6 nos. Bulbs.
g) 2 sets of Operating Instructions. (Addl. Set @ Rs. 450/- per set).

8) **Terms and Conditions**
As per enclosed terms and conditions.

9) **Delivery**
As per covering letter.

10) **Prices**
As per covering letter.