

The rails shown below are custom made. Such types are largely used by makers of large machine tools as raceways for recirculating roller bearings. To utilize the recirculating roller bearings to their maximum potential, the raceways must have the following characteristics:

- 1) Hardness  $60 \pm 2$  HRC
- 2) Parallelism deviation contained within 0.01 mm over length of 1700 millimeters
- 3) Surface texture of 0.3 Ra

The rails produced by ROSA guarantee these characteristics in addition to interchangeability.

By not using rails, machine manufacturers may incur inconveniences which may be summarized as follows:

- 1) It is not always possible to heat treat machine bases.
- 2) By deriving raceways on casted basements, the limitation is represented by the heat treating method such as induction hardening, which is not suitable for use with recirculating roller bearings.
- 3) To grind raceways on a very long basement, it is necessary to use a very long machine which is very costly and not always available.

