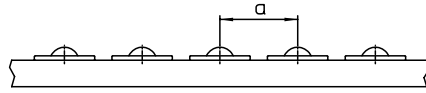




**TECHNICAL DATA**



**ARRANGEMENT OF BALL TRANSFER UNITS**

How the ball transfer units should be arranged depends on the under-surface of the load to be transported. For loads with a uniform, even bottom surface, e.g. packing cases, the distance between the ball transfer units is calculated by dividing the smallest dimension by 2.5.

Example: under-surface of the load to be transported = 500 x 1000 mm  
Distance between ball transfer units:

$$a = \frac{500 \text{ mm}}{2,5} = 200 \text{ mm}$$

**CONVEYING SPEED AND LOAD CAPACITY**

The maximum conveying speed allowed amounts to 2 m/s. The load capacities specified apply to any mounting position and are based on 106 rotations of the load ball. With the units being used over a longer time at speeds exceeding 1 m/s, an increase in temperature as well as a reduction in travel life must be expected depending on the load, in particular with sizes 22750.0016/22750.0036.

Computation of Travel Life

$$L = \left( \frac{C}{F} \right)^3 10^6 \text{ rotations}$$

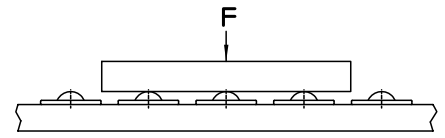
L = Travel life  
C = Load capacity (N)  
F = Load (N)

**TEMPERATURE RESISTANCE**

Ball transfer units with felt seals are temperatureresistant up to a permanent operating temperature of 100 °C. At temperatures exceeding 100 °C, only non-galvanized ball transfer units with steel load ball and without felt seal should be used. Observe the reduction in load capacity! The load capacity should be multiplied with the temperature factor (see table).

**Attention:**  
Only use high-temperature lubricants!  
Observe the manufacturers' instructions!  
If necessary, wash-off any present lubricating oil.

Temperature	Temperature Factor
°C	fT
125	0,9
150	0,8
175	0,7
200	0,5



**LOAD DETERMINATION OF BALL TRANSFER UNITS**

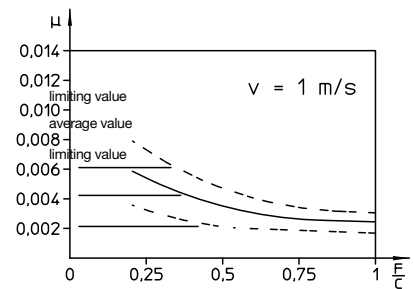
To determine the load of a ball transfer unit, the weight of the article to be conveyed should be divided by 3. If the height tolerance of the load balls is good and the surface of the work-piece to be conveyed suitable, the calculation can be based on the number of ball transfer units under load.

Example:  
Weight of the article to be conveyed = 300 kg

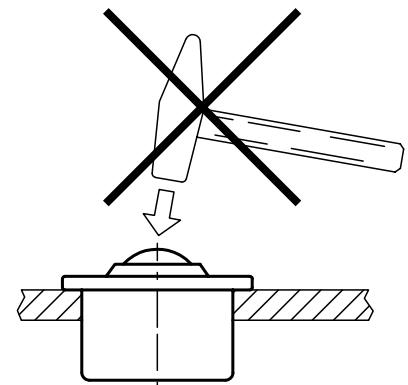
Ball transfer unit load  
 $a = \frac{300 \text{ kg}}{3} = 100 \text{ kg}$

**FRICTION**

The diagram shows the friction values as a function of load and speed for ball transfer units. These approximate values apply to all mounting positions with operation on a hardened steel plate.



**ASSEMBLY INSTRUCTIONS**



**Note:**  
Information is valid for former steel designs.