Technical information **1.60 - 0198**

Roller doors subject to frequent use

The more a roller door is opened and closed, the greater the wear on its parts. The correct profile types, materials, end pieces and guide rails are therefore vital.

In a test with a roller door shutter of Type 1.1620 made of 1.00 mm aluminium, with normal plastic end pieces, it was found that the various coil diameters in the profile and plastic end piece placed severe bending stress on the profile ends. After almost 30,000 operations, the first cracks appeared at the profile ends around the head piece. After a further 30,000 operations, the shutter had to be exchanged.

Cracks may appear far earlier in broader, taller and heavier roller door shutters.

In a second trial, a roller door shutter of the same type but using specially forged end pieces with a far lower nominal thickness was affixed at the side. This shutter showed no damage th the profile ends after 140,000 operations.

It must be ensured, however, that the shutter runs in guide rails on PVC piping since the special end pieces no longer have a wear surface.

It must furthermore be ensured that doors subject to heavy use should not necessarily use the smallest possible tube, since the stronger hinge movement will also place stress on the profiles.

Doors subject to frequent stress cycles with double-walled profiles 1.100 D and 1.100 R, single-walled profiles of types 1.1440 and 1.1620 without end pieces and /or with special forged end pieces have proven to be especially reliable in practice.

The „Technical Information – Living areas“ should also be consulted for underground garages.