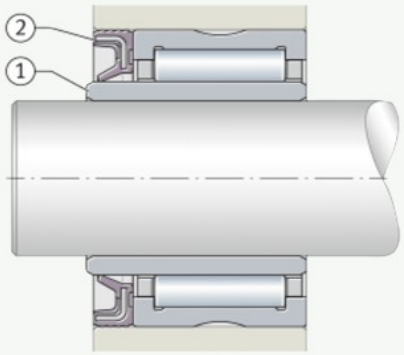
3 Inner rings

Inner rings are used where:

- the shaft cannot be used as a rolling bearing raceway for needle roller and cage assemblies, drawn cup needle roller bearings with open ends, drawn cup needle roller bearings with closed end and needle roller bearings (it cannot be hardened and ground)
- needle roller bearings must be combined with wider inner rings in order to allow larger axial displacements of the shaft in relation to the housing (e.g. in bearings with a non-locating bearing function)
- optimum running surfaces are required for seal lips ➤*992*|*1* and ➤*994*|*4*.

1
Wider inner ring, outside surface used as raceway for seal lip

① *Inner ring IR*
② *Sealing ring G*



3.1 Product design

Design variants

The bearing components are available as:

- inner ring IR ➤*992*|*2*
- inner ring LR ➤*993*|*3*.

Inner rings IR

The raceway is precision machined

Inner rings IR are made from hardened rolling bearing steel and have precision machined raceways ➤*992*|*2*. Chamfers on the end faces facilitate the matching of the rings with the needle roller and cage assembly or of the bearing ring with the needle roller set and prevent damage to the seal lips of the bearings. Inner rings are available with and without a lubrication hole ➤*992*|*2*. Rings with a lubrication hole have the suffix IS1 ➤*995*|*3.5*, ➤*998*|▦.

Inner rings are also available by agreement with several lubrication holes.

2
Inner rings IR

① *Inner ring without lubrication hole*
② *Inner ring with lubrication hole*