

„Prelonring“ - construction and assembly terms :

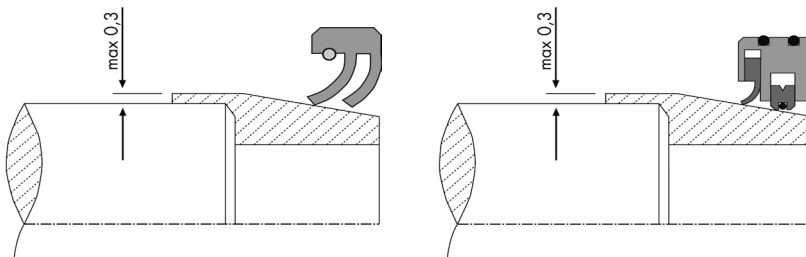
Construction:

- The sealing space must be axially accessible
- The bore must be closed after assembly to prevent axial movement (out of the sealing space)
- There shall be a little axial clearance of the fitted prelonring because of thermal expansion ($D < 200\text{mm}$: 0,2...0,3mm; $D > 200\text{mm}$: 0,5mm)
- Axial pressure on the seal is to be avoided especially for types with a dynamic ring/lip (Typ V and V/IV-A)
- Surface finish of the housing Ra=1,8 μm Rt=10 μm
- Surface finish of the shaft Ra=0,2...0,8 μm Rt = 1,0...4,0 μm
- Shaft hardness: 45 HRC ... 65 HRC
- Tolerances: shaft h11 housing H8

Shaft 20°		Housing 30° (45°)			
Shaft-diameter	Length of chamfer	Shaft-diameter	Length of chamfer	Housing-diameter	Length of chamfer
$d_w \leq 20$	l = 3 mm	$100 < d_w \leq 140$	l = 7 mm	$60 \leq d_a$	l = 3 mm (1,5)
$20 < d_w \leq 30$	l = 5 mm	$140 < d_w \leq 220$	l = 8 mm	$60 < d_a \leq 200$	l = 4 mm (2)
$30 < d_w \leq 100$	l = 6 mm	$220 < d_w \leq 400$	l = 12 mm	$200 < d_a$	l = 6 mm (3)

Assembly:

- Gentle handling and careful assembly are of critical relevance to ensure the effectivity and great advantages of PTFE-seals; assembly instructions from elastomere seals are not transferable
- Stretching of the inner diameter of the seal beyond that diameter of the shaft is to be avoided; this is why the housing bore and the shaft are furnished with insertion chamfers [chamfer "housing bore" 30...45° min. length 2,5 mm...1,5 mm; chamfer "shaft" 10°...15° min. length 12 mm...8 mm], otherwise an assembly sleeve should be used



- For easy assembly within the housing, the seal can be cooled and the housing can be warmed
- For easy assembly on the shaft, the shaft can be cooled and the seal can be warmed (up to 100°C)
- While force fitting is used, a flat ring should be laid over the sealing ring before pressing into place; direct hammer blows to the sealing ring must be avoided
- Gaps and sharp edges of the construction have to be covered [for instance by a thin sheet metal – f. i. 0,005" brass shim stock] to avoid damages during assembly of the seal
- If there is no restriction by the application, gaps between the lips of the seal can be filled with grease to extend service life of the seal
- Grooves, scratches, rusty spots, buckles and other damages on the shaft restrict the function and reduce service life of the seal
- During assembly the seal must not be strained or stretched by heavy shaft or housing component, to prevent damage to the seal before use
- Maintain cleanliness during assembly
- Assembly „against“ the lip: mount the seal from the back side of the lip onto the shaft. Then dismantle an finally mount the seal „against“ the lip onto the shaft

Die vorgenannten Angaben beruhen auf jahrzehntelanger Erfahrungen in der Herstellung und Anwendung von Dichtelementen und Kunststoffen. Trotzdem können unbekannte Parameter und Bedingungen beim praktischen Einsatz allgemeingültige Aussagen erheblich einschränken, so dass es praktischer Versuche beim Anwender selbst bedarf. Wegen der Vielzahl der Verwendungsmöglichkeiten unserer Produkte, können wir deshalb keine Gewährleistungen und Haftung für die Richtigkeit unserer Empfehlungen im Einzelfall übernehmen.

ASSEMBLY

Prelonring

Notes:

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