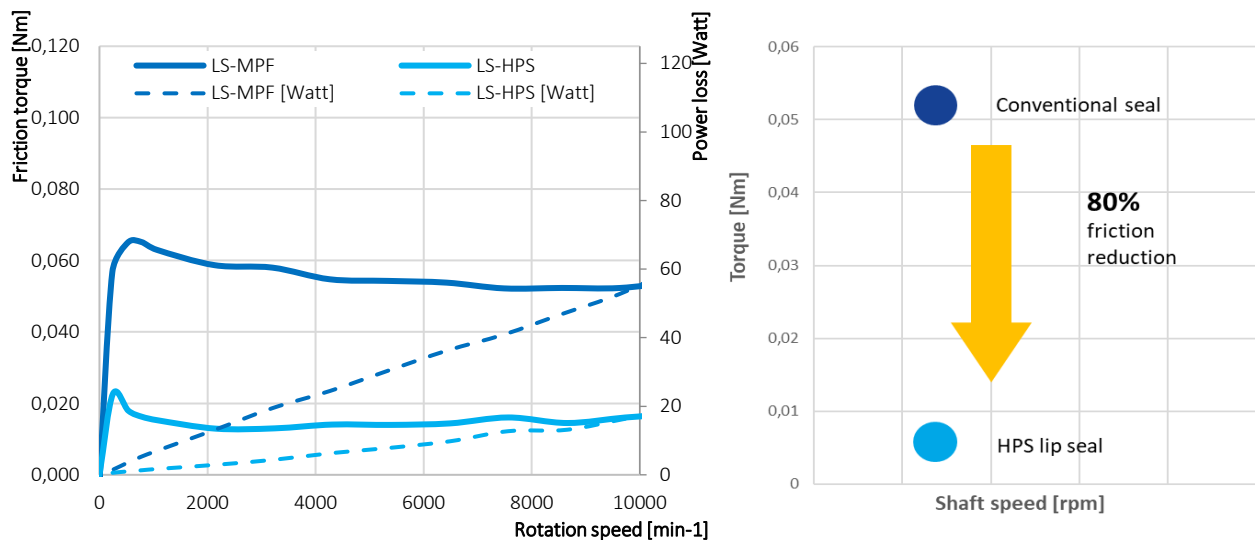




Lip Seal HPS & Lip Seal MPF – Water Pump Seals

- Low friction – high efficiency
- Excellent sealing performance
- Highly suitable for electric water pumps
- Durable and reliable
- Modular design & reduced working height



The **Lip Seal HPS** (High Pressure Sleeve) is the ideal seal for mechanical driven and electric water pumps for both main engine cooling and auxiliary applications. The Ø4mm and Ø8mm are specifically developed for small diameter shafts.

The advantage of the sleeve is the optimized surface which will reduce wear (friction) on the lips. The superior robustness is achieved by the hardened sleeve. This results in reliability and long lifetime. Furthermore the sleeve gives the benefit of using different shaft materials, which allows a reductions in total cost. The sealing lips are made from proprietary HNBR rubber and PTFE developed by EKK with excellent heat and wear resistant. The seal is unitized with the sleeve, therefore providing ease of installation.

The **Lip Seal MPF** (Mechanical Press Fit) is a modular, high-quality design for standard automotive water pump shaft and bore dimensions. Thanks to its excellent field performance, easy installation and low friction features it is well recognized in the market.

This lip seal has set a new standard in sealing performance and price / quality ratio. It is developed based on the proven technology of the first generation and is very suitable for cost-driven applications.

Operation conditions:

Specification	Lip Seal HPS	Lip Seal MPF	Unit
	Dimension	Dimension	
Medium	Coolant / water solution	Coolant / water solution	[-]
Coolant mixture	40 - 60	40 - 60	%
Pressure - nominal	0 up to 0,5	0 up to 0,2	MPaG
Pressure - peak	- 0,1 up to 0,6	- 0,1 up to 0,3	MPaG
Temperature - nominal	- 20 up to +120	- 20 up to +110	°C
Temperature - peak	- 40 up to +140	- 40 up to +140	°C
Speed - nominal	0 – 8.000	0 – 7.000	Min ⁻¹
Speed - peak	10.000	10.000	Min ⁻¹
Elastomer materials	HNBR / PTFE	HNBR / PTFE	[-]

Assembly dimensions:



Specification	Abbr.					Unit
		1230	0816	0412	Special 1220	
Shaft diameter	D _s	12	8	4	12	mm
Shaft roughness		6,3	6,3	6,3	6,3	µmRz
Shaft hardness		N/A	N/A	N/A	N/A	[-]
Bore diameter	D _b	30	16	12	20	mm
Bore roughness		≤1,6	≤1,6	≤1,6	≤1,6	µmRa
Total height	H ₂	8,75	8,65	8,15	8,75	mm
Mounting depth	H ₁	6,6	7,0	7,0	6	mm



Specification	Abbr.			Unit
		1220	1230	
Shaft diameter	D _s	12	12	mm
Shaft roughness		0,1 -0,6	0,1 -0,6	µmRa
Shaft hardness		>50	>50	HRC
Bore diameter	D _b	20 /30	20 /30	mm
Bore roughness		≤1,6	≤1.6	µmRa
Total height	H ₂	7,6	7,6	mm
Mounting depth	H ₁	5,5	5,5	mm

