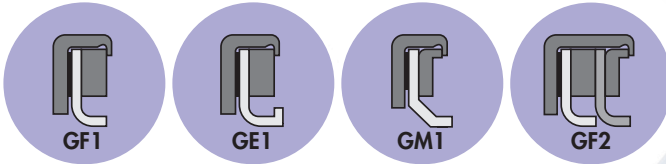


# CHEMFLEX CASE SEAL

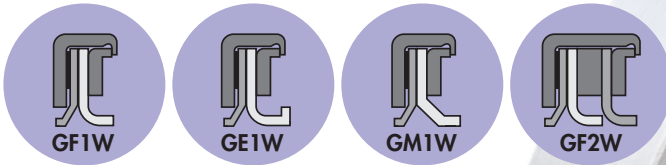


## ROTARY PTFE LIP SEALS

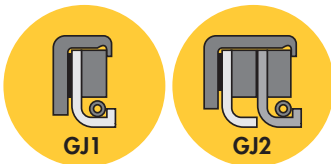
### LIP SEAL



### LIP SEAL + WIPER



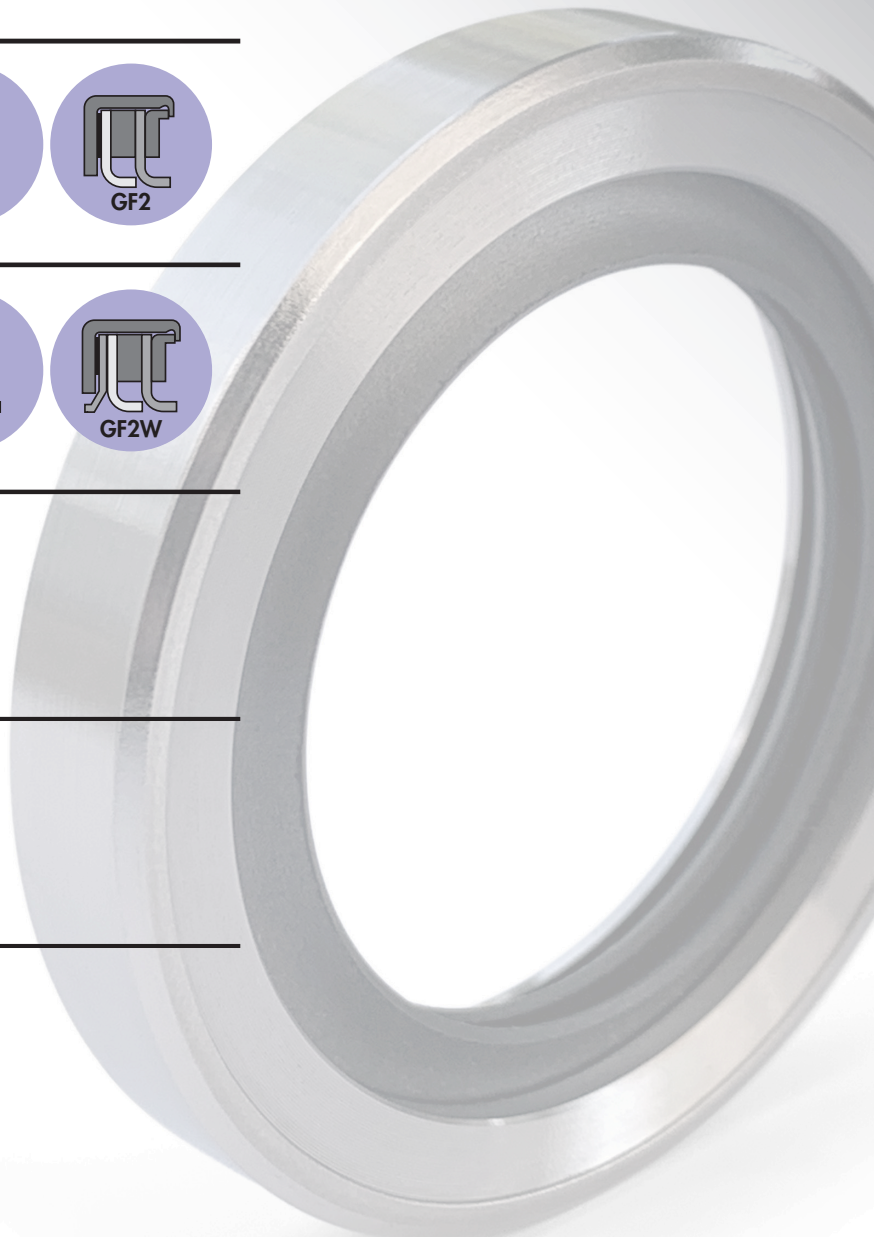
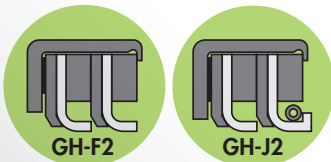
### GARTER LIP SEAL



### GARTER LIP SEAL + WIPER



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# CHEMFLEX CASE SEAL

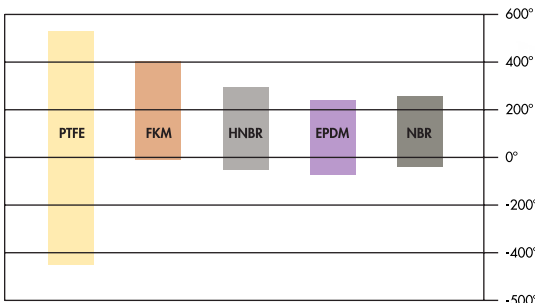
## ROTARY PTFE LIP SEALS

The **Chemflex Case Seal** is a rotary lip seal design featuring a metal case and Tylon PTFE seal. Case Seals are recommended where operating conditions exceed the capabilities of typical elastomer radial oil seals. **Chemflex Case Seal** critical operating conditions include shaft speed, pressure, and temperature. The design of the Chemflex Case Seal provides excellent leakage protection and external contamination exclusion in highly demanding applications.

The assembly features a metal case press-fit into the bore which provides static OD sealing and anti-rotation. Dynamic sealing functions are performed by the Tylon PTFE seal lip and exclusion lips that yield low break-out torque and low running friction. Static gaskets fixed between seal components prevent leakage through the seal assembly.

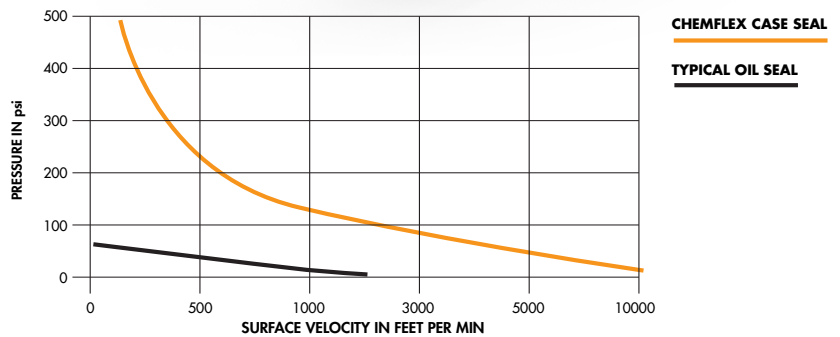
Tylon seal lip of the **Chemflex Case Seal** allows for stick-slip free operation, effectively reducing heat generation and allowing surface speeds of up to 10,000 sfpm (50 m/s). The Black Hawk line of **Chemflex Case Seals** provides high-performance sealing in challenging applications offered at a competitive price.

Working temperature limits of typical seal lip materials.



TEMPERATURE RANGE FOR VARIOUS SEALING MATERIAL BEFORE BREAKDOWN

PV comparison between Chemflex Case Seal vs. typical oil seal.



Tylon	Compound/Advantage	Color	Case Materials	Gasket	Spring Material
T09	Graphite, Low Friction	Black	Stainless Steel	NBR	Stainless Steel
T10	Carbon Fiber, Excellent Wear & Extrusion Resistance	Black	Aluminum	FKM	
T20	Glass/MoS <sub>2</sub> , High Wear Resistance	Black	Cold Roll Steel	EPDM	
T35	Polyimide, FDA Compliant, Great on Soft Mating Surfaces	Tan	Zinc Plated Cold Roll Steel	Durlon®	
T91	Mineral, FDA Compliant, Low Abrasion	White			

\*Additional PTFE Compounds Available

Hydrodynamic sealing lip design options are available, contact Black Hawk Seals Engineering for details.

### FEATURES

- Low friction and breakaway torque
- Surface speed up to 10,000 feet per minute
- Wide temperature range -65° F to 450° F [-53° C to 232° C]
- Pressure up to 500 psi [35 Bar]
- Chemical resistance
- Large diameter capability
- Custom profile design capability to meet aggressive application requirements.
- Cost competitive

### TYPICAL APPLICATIONS

- Motor
- Gearboxes
- Pumps
- Compressors
- Valve
- Extruders
- Spindles
- Mixers
- Cryogenics

