

Scrapers Others

DESCRIPTION

Heavy-Duty Industrial Wiper Rings

This product range compiles SYNERTECH's advanced solutions specifically engineered for the exclusion of critical contaminants in severe operating environments (earthmoving, mining, agriculture, telescopic cylinders, and steel mills). Unlike standard compact models, this series includes profiles with an external metal cage for forced installation in open grooves, bidirectional double-lip wipers for residual oil film control, and wipers with a rigid brass scraping insert to remove ice, solidified mud, and welding spatters.

PROFILES

Type GHW-M (Metal-Cased / Heavy Duty)

Profile with a vulcanized external steel cage and a polyurethane scraping lip. Allows for forced mechanical press-fitting into open grooves, ensuring maximum stability and preventing accidental blowout.

Type PAD / DTW (Double-Lip / Double Effect)

Variants equipped with a geometric double lip: the external lip scrapes environmental impurities, while the second internal lip retains and controls the residual oil film on the rod.

Type AMS / PWG (Brass Lip Wiper)

Heavy-duty solution featuring a rigid front brass or bronze scraper combined with an elastomeric energizing element to crush hard solid sediments.

MATERIALS & OPERATING CONDITIONS

MATERIAL / COMPOUND	PERIPHERAL SPEED	TEMPERATURE	APPLICATION
PU + Carbon Steel	Up to 2.0 m/s	-40 / +110 °C	High abrasion & mud resistance
NBR 90 ShA + Steel Cage	Up to 1.5 m/s	-30 / +110 °C	Heavy-duty mobile hydraulics
FKM Viton + Stainless Cage	Up to 3.5 m/s	-20 / +200 °C	Chemical or high-temp environments
Filled PTFE + Elastomer	Up to 4.0 m/s	-55 / +210 °C	Minimum friction, high speed

COMPATIBLE FLUIDS

Mineral hydraulic oils, synthetic lubricants, water-based hydraulic fluids, glycol mixtures, and aggressive chemical fluids (specific to FKM and PTFE compounds).

MAIN FEATURES

Rigid Anchoring

The ground metal shell tolerates heavy press-fit forces into the cylinder head housing, ensuring a perfect peripheral static seal against water ingress.

Bidirectional Action

In double-lip profiles, the inner edge acts in synergy with the rod seal, optimizing the lubricant film thickness.

Solid Removal

The metallic or reinforced scraping lip acts as a continuous blade, cleanly removing ice and metallic weld spatters.

MAIN ADVANTAGES

- **Extreme System Protection:** The use of metal lips or high-hardness polyurethanes safeguards the primary internal seals from catastrophic scoring caused by solid particles.
- **Zero Micro-Leakage:** The secondary lip of double-acting profiles cuts down environmental contamination, reducing rod 'weeping' to zero.
- **Ultimate Housing Stability:** The metal-to-metal interference ensures that the seal is never dislodged, even under heavy ice loads or solid build-ups.

COMPLIANCE & STANDARDS

All profiles are designed and manufactured in full compliance with international housing tolerances and dimensional specifications of **ISO 6195 Type B / C** and **DIN 3760**.

VARIANTS & CONFIGURATIONS**Standard Range (PU / NBR)**

Optimal for standard earthmoving machinery, agricultural equipment, and general mobile hydraulics. Excellent compromise between service life and cost.

Premium Range (FKM / PTFE)

Specifically engineered for the process industry, high-temperature environments, high-speed cylinders, or marine applications using eco-friendly synthetic fluids.

MARKET INTERCHANGEABILITY

MANUFACTURER	METAL-CASED PROFILE / GHW-M	DOUBLE-ACTING / PAD-DTW
Net Seals	Metal-Rubber Wiper Series	Double Lip Wiper Series
Freudenberg (Simrit)	ASOL / MRA Profile	PRW1 / AUAS Profile
Parker Prädifa	AY / AF Profile	AM / A2 Profile
Dichtomatik	AM Profile	AM-DE Profile
SYNERTECH	GHW-M / AMS Series	PAD / DTW Series