BK Static Seals

DESCRIPTION

Back-up Rings & Profiled Static Seals

This technical product sheet compiles SYNERTECH's high-performance solutions for pure static sealing and anti-extrusion auxiliary systems. The **BK** (flat) and **BKS** (concave) back-up rings are structural components without dynamic lips, engineered to be combined with standard O-Rings to prevent interstitial extrusion under high pressure conditions or major clearance gaps. The shaped profiles**GDS, GKM, and GKS** represent specific geometric evolutions with a highly stable seat layout for flanges, manifolds, and valve blocks, where they secure permanent anti-torsion placement.

PROFILES & CONFIGURATIONS

PROFILE	GEOMETRY AND APPLICATION
Type BK	Standard flat rectangular cross-section back-up ring. Prevents O-ring extrusion.
Type BKS	Concave profile back-up ring specifically shaped to cradle the O-ring curvature perfectly.
Type GDS	Special profile seal for highly stable static hydraulic flange couplings.
Type GKM	Shaped static sealing element designed for industrial valve blocks and manifolds.
Type GKS	Compact heavy-duty front static profile with ultimate resistance to high pressure peaks.

MATERIALS & OPERATING LIMITS

MATERIAL / COMPOUND	MAX PRESSURE	TEMPERATURE	APPLICATION
NBR 80/90 ShA	Up to 25 MPa	−30 / +100 °C	Standard hydraulics, mineral oils
FKM Viton	Up to 25 MPa	−20 / +200 °C	High temperatures, aggressive chemicals
PU Polyurethane	Up to 40 MPa	−30 / +110 °C	High mechanical strength, pressure peaks
PTFE Filled	Up to 60 MPa	−60 / +220 °C	Minimum friction, full chemical inertness

MARKET CROSS-REFERENCES

MANUFACTURER	SERIES BK / BKS	STATIC PROFILES
Net Seals	BK / BKS Rings	Shaped Static Seals
Freudenberg	STV Profile	BA Profile static
Parker Prädifa	P5000 Profile	HS Profile static