

Kevlar / Aramid Packing — Size Chart / Common Sizes / Specifications

Common sizes & typical application scenarios

Product form	Typical stocked sizes (metric & imperial)	Typical application scenarios
Round braided cord	Ø 2.0, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0, 12.0 mm ($\approx 1/16'' \rightarrow 1/2''+$)	Small valve stems, instrumentation valves (2-4 mm); pumps & mixers (4-8 mm); large stuffing boxes / marine glands (8-12 mm).
Square braid (corner yarns)	3×3, 4×4, 5×5, 6×6, 8×8 mm	Offers improved sealing corner contact — common in centrifugal pump glands and reciprocating valves for better compression control.
Ribbon / flat braid / tape	widths 6, 8, 12 mm; thickness per supplier	Layered ring packing for slow agitators, mixers and large diameter shafts.
Spools / reels	short spools (1-10 m), full reels (10-100 m+); feet-per-lb / metres-per-kg tables published by vendors	Field repair / maintenance stocking — cut rings to gland ID on site.
Typical application by diameter	Ø2-4 mm = small stem & sampling valves; Ø4-8 mm = standard centrifugal pumps & valve glands; Ø8-12+ mm = heavy slurry pumps, large agitators, marine stern tubes (when jacketed).	Chemical plants (corrosive service), power plant feedpumps, oil & gas auxiliary pumps, water / boiler feed, seawater service (with correct impregnant).

2) Aramid (Kevlar) — graphite / carbon-enhanced and hybrid constructions

(aramid braided core with graphite/carbon fillers or combined with PTFE faces / aramid corners — designed for abrasive, higher-temperature or lower-leak applications)

Common sizes & typical application scenarios

Product form	Typical sizes	Typical application scenarios
Aramid + graphite/carbon braided cord	Ø 4 - 10 mm; square 4×4 - 8×8 mm	Slurry pumps, pulp & paper stock pumps, mineral processing, dredging auxiliary pumps — where abrasion and chemical resistance required.
Aramid core + PTFE face (hybrid braid)	Ø 4 - 8 mm, square variants	Chemical & slurry pumps that need PTFE chemical barrier on faces but aramid mechanical core. Used in pulp & paper, chemical processing, desalination feed pumps.
Metal-jacketed / Inconel-wrapped variants (rare)	larger diameters (6 - 12+ mm)	Extremely abrasive or high pressure shaft seals where jacket protects braided core — mining, high-pressure slurry services. (Vendor availability is specialty.)

3) Special constructions & installation notes (engineering rules of thumb)

Typical service examples (quick mapping)

Service / duty	Recommended Kevlar packing type	Typical size examples
Clean chemical valves (low speed)	PTFE-impregnated Kevlar round braid	Ø2 - 4 mm
Centrifugal pumps (general chemical)	PTFE-impregnated Kevlar square/round braid	Ø4 - 8 mm
Abrasive slurry pumps / pulp	Aramid + graphite/carbon hybrid; aramid with aramid-corner yarns	Ø6 - 10 mm
Reciprocating pumps / compressors	High-density braided aramid with PTFE impregnant (low leakage)	square braid 4×4 → 6×6 mm
Marine / seawater bilge pumps	Aste / TEADIT aramid styles for seawater (PTFE impregnated)	Ø4 - 8 mm
(Examples & vendor style references: Aste CVS® 4526, John Crane K1730/K1760 family, SEPCO ML4004 GFO/Kevlar).		