

TOUGH PERFORMERS – DURABLE DESIGN MODULAR WEAR PROTECTION

**NEW:
ELECTRICALLY
CONDUCTIVE
WEAR
PROTECTION –
DEKRA TESTED**



JACOB
NO. 1 IN TUBING SYSTEMS

DURABLE DESIGN – WEAR PROTECTION RANGE



A broad spectrum of applications in industry and agriculture causes high wear in tubing systems. In view of this, we have developed the new modular wear protection range: DURABLE DESIGN.

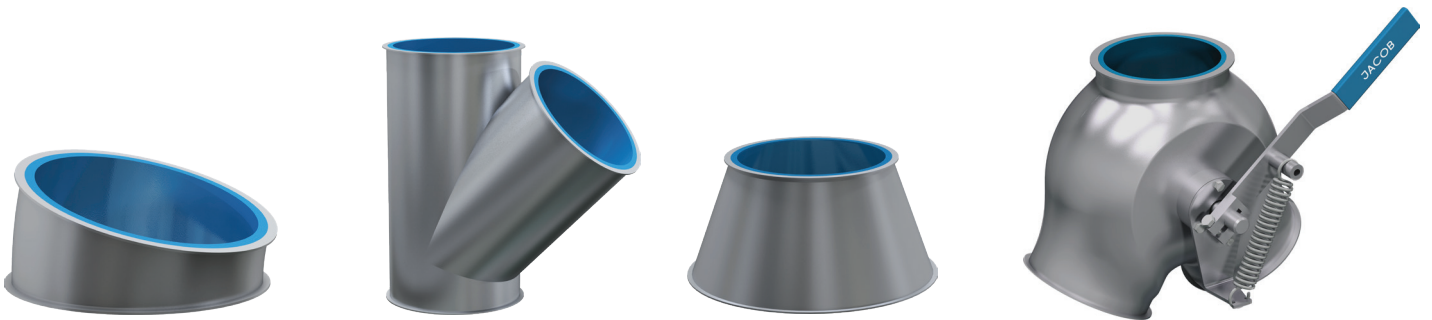
The wear protection is glued or bolted in the standard product range and consists of a polyurethane base. The materials differ in their various properties. The products are combined with our modular tubing system. In the standard product range, we offer diameters ND 6" to ND 14" with bolted wear protection and diameters ND 4" to ND 14" with glued wear protection. Diameters larger than ND 14" are generally available on request. Polyurethane offers the advantage of a flexible and yet wear-resistant structure. The impact energy, particularly from deflection, is therefore absorbed as a result and thus extends the lifetime.

DURABLE DESIGN is frequently used in industry, e.g., for the transportation of cement, lime, sand, grit, concrete or mineral wool, and in agriculture, e.g., for the transportation of grain, soybean, corn or barley.

Thanks to the modular JACOB system, you can simply replace worn tube components with tubing from the DURABLE DESIGN line. You can still use pull rings and seals from the standard product range. To ensure an optimum product flow, we have a transition component (see drawing) in our standard product range with a chamfered lining which is fixed particularly securely in place. We recommend fitting this component at every place where lined tubing begins.

Version	Glued wear protection		Bolted wear protection		
	PU ocher	Kryptane red	Blue Ox	Kryptane green	Kryptane blue
Tubing diameter	ND 4" – 14"		ND 6" – 14"		
Wear protection material	PU ocher	Kryptane red	Blue Ox	Kryptane green	Kryptane blue
Material thickness	0.2362"	0.2362"	0.2559"	0.2362"	0.2362"
Expanded metal	–	–	✓	✓	✓
Food grade	–	✓	–	✓	–
Temperature resistance	-4°F to +176°F	-4°F to +176°F	-4°F to +176°F	-4°F to +176°F	-22°F to +176°F
Shore A hardness	70	80	85	83	83
Electrostatic conductivity	–	–	–	–	✓
Application	For high impact wear due to coarse products without sharp edges.	With high shear and impact wear due to fine-grained products up to 3/16", dry and wet, at an angle of incline of up to about 30°.	Mainly for the grain and concentrated feed industry, for light to medium wear.	For high shear and impact wear due to coarse products up to 2". For a higher angle of incline of 30 to 60°.	With high shear and impact wear, e.g., in the grain and concentrated feed industry, for conveying products with increased dust content.
Feature	Flexible use, suitable for light and medium wear.	Low friction coefficient, consequently no caking of the products and good shear properties.	Focus on grain and concentrated feed.	Good resistance, including to coarse and sharp-edged products.	Flame-resistant and electrically conductive (in installed state DEKRA tested), good anti-friction properties.

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Your benefits with DURABLE DESIGN

- Wear protection in a modular system
- Perfect for combining with JACOB pull ring system
- Easily replaceable
- Wide product spectrum, wear protection with different materials possible from ND 4"
- Easy to assemble
- Longer lasting when conveying abrasive materials
- Choice of 6 materials in the standard product range
- Other linings available on request

Technical data

For the DURABLE DESIGN wear protection range, JACOB uses tubing components from the modular system which are lined with different materials:

- JACOB tubing system with a lip for pull ring connection
- Wall thicknesses 16 gauge and 14 gauge, other wall thicknesses on request
- Powder-coated RAL 7032 in the standard product range
- Special colors, galvanized tubing or chrome-nickel steel on request
- Bolted wear protection: ND 6" to 14" mm in the standard product range, ND >14" on request
- Glued wear protection: ND 4" to 14" mm in the standard product range, ND >14" on request

	Product range ND >14" on request	PU ocher and Kryptane red (glued)	Blue Ox, Kryptane green, Rhino Hyde blue and Kryptane blue (bolted)
ND 6" – 14"	Transition component 2"	ND 4" – 14"	ND 6" – 14"
Rhino Hyde blue	Tubes 2" – 39"	ND 4" – 14"	ND 6" – 14"
0.3150"	Tubes 78¾"	ND 4" – 14"	–
✓	Segments 5°–30°	ND 4" – 14"	ND 6" – 14"
✓	Segments 45°	ND 4" – 14"	ND 6" – 14" Special segment (with straight back)
-4°F to +176°F	Bends R = 1D, 90°	ND 4" – 14"	–
85	Bends R = 2D, 30°–90°	ND 4" – 14"	–
–	Slip tubes 8" – 39"	ND 4" – 14"	–
Recommended application: For conveying bulk goods without sharp edges with high shear and impact wear.	Laterals 30° and 45°	ND 4" – 14"	ND 6" – 14"
	Symmetrical Y-branches 60° and 90°	ND 4" – 14"	ND 6" – 14"
	Cones	ND 4" – 14"	ND 6" – 14" Special cone (with 2" connecting flange)
	Connecting flange with loose flange	ND 4" – 14"	ND 6" – 14"
	Adapters with loose flange	ND 4" – 14"	–
	Spouts from square to round	ND 4" – 14"	ND 6" – 14"
	Spouts from square to round 45° and 60°	ND 4" – 14"	ND 6" – 14"
Electrically conductive and FDA certified, universally usable and high quality.	Two-way valves with inner collar, hand-operated	–	ND 6" – 14"



**DURABLE
DESIGN**

Tough performers: The new wear protection range from JACOB makes your tubing system extremely resistant. This allows you to maximize the service life and the cost-effectiveness of your industrial plants. For this purpose, we use standard tubing components with a diameter of ND 4" to ND 14" from the modular system. Diameters larger than 14" are generally available on request. Depending on the requirements, these are lined with different polyurethane compounds. This ensures that the full modularity is maintained. As a result, the wear protection is not only for

installation in new systems, but also for easy replacement of worn-out tubing components. In combination with the JACOB pull ring system, this is fast and easy to achieve. The benefit of the polyurethane is its elasticity that absorbs the impact energy. On request, we also offer ceramic linings, a non-adhesion coating such as PTFE or a lining of your choice. Cast-iron tubing and hot-galvanized or powder-coated tubing with 11 gauge wall thickness are available as an alternative. Our team would be pleased to assist you with selecting the right wear protection.

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