PRODUCT CATALOGUE







WHAT MAKES A MILL COMPETITIVE



A long-standing tradition

Scholze Germany GmbH began its long outstanding tradition in 1921, in the east Saxon town of Zittau, where Reinhold Scholze founded the original company. Accessories for imported looms were produced at that time. Saxony's lovely Upper Lusatia was a natural location for a company of that kind. The region's innumerable weaving mills produced cloth that had already earned a good reputation far beyond Germany. At this early date, the company had begun to specialise in the mass production of warp beams.

Continued innovation

The original breakthrough came in 1936, when ribbed aluminium flanges were first cast in a centrifugal mold. At the end of the 1950's the company was re-founded in the Hessian town of Frankenberg/Eder. A path-breaking development occurred at Scholze in 1960, when doublewalled flanges, the basis of today's highly successful system, were first cast. Their greatly reduced weight minimised permanent deformation, whirl effects were effectively eliminated by Scholze's excellent design. To achieve big running length, Scholze is currently producing Magnum beams with flange diameters of up to 1.600 mm. The spray-galvanising method for the tubes was first applied by Scholze, whereby knot holes become redundant in most cases.

To the benefit of the customer

The Scholze GmbH + Co. KG's management regards a customer-orientated, world-wide perspective and a core group of motivated workers Today's product mix of the complete supplier Scholze is characterised by following product lines: back and warp beams in a variety of models, cloth beams, canisters, tubes and flanges, rollers, tiebars, rotating parts, rationalisation equipment and accessories. All of these products conform to the ISO 9001 quality standards.

Achieving these standards is made possible by our fully-committed labour force. Each of the 40 workers currently employed by Scholze Germany GmbH has been in-house trained and possesses





BACK BEAMS

LOOM BEAMS CANISTERS BOBBINS

WARP BEAM TUBES

exceptional expertise as well as years of practical experience. Our workers regard closeness to the customer and the apt solution of the customer's technical problems as the foremost goals of our entire enterprise. Both our products and our production processes are capable of accommodating the most rigorous customer demands. Refinements are carried out in detail to ensure that the customer receives only products capable of meeting the most intense competitive demands. Qualified and skilled workers are standing for enhanced quality at Scholze.





FLANGES

CLOTH BEAMS

RATIONALISATION EQUIPMENT

> LONG PARTS CONTRACT MANUFACTURE REFERENCES







SCHOLZE BACK BEAMS

Back beams made by Scholze have been successfully in worldwide use for decades. The precisely matched entity of flange and tube is the decisive criterion for a high user benefit. Insulating felt, spray-galvanising and smoothing, electrogalvanising or phosphatising are methods used for the tube surfaces, essentially affecting a uniform warping quality.

The back beams are most advantageously located by means of bevel toothing. In addition, journal or steep taper locations are possible too. The back beam flanges may be ribbed, single- or double-walled. Ribbed or single-walled flanges may be used for warping speeds of about 600 m/min. High warping speeds are exclusively and advantageously ensured by Scholze doublewalled flanges.







Suggested application

Qual	ity- Tube surface	Tube diameter a	at a flange diame	ter of
class		up to 1.000 mm	up to 1.250 mm	as from 1.250 mm
Q1	Insulating felt, without knotting hole	s 300 mm	400 mm	450 mm
Q2	Insulating felt, without knotting hole	s 300 mm	400 mm	450 mm
Q3	Spray-galvanised, smoothed	300 mm	400 mm	450 mm
Q4	Spray-galvanised, smoothed, better	300 mm	400 mm	450 mm
	electro-galvanised or phosphatised			



Driving heads (top) Locating heads (bottom)

For high speeds

When using ribbed flanges, soiling of yarns is increasing at higher speeds due to the fan effect and the energy demand is rising. Thanks to the use of the smooth high-speed flange, these handicaps are prevented. For ever larger flange diameters, the use of Scholze doublewalled flanges is advisable.

All Scholze back beams are dynamically balanced in accordance with the regulations of the warping-frame manufacturer.





Beam location via journal (top) and steep taper (bottom)





Loom beam, diameter 1600 mm



SCHOLZE LOOM BEAMS

Loom beams made by Scholze are sub-assemblies that offer sophisticated designs for permanent and perfect use thanks to the combination of tube, flanges and locks. Precision steel tubes are used exclusively and can be surface-treated on request. The zinc-aluminium spray-metallising method has stood the test in practice, combining the benefit of corrosion protection with the yarn entrainment effect without any need for knot holes or adhesive tapes. As to beam flanges, Scholze offers a completely overlapping assortment, including ribbed flanges, flat flanges; and universally applicable double-walled flanges, featuring a loading capacity being up to 2.5 times higher than conventional ribbed flanges. Magnum beams with flange diameters of up to 1.600 mm will ensure long machine running times. Inside surfaces of flanges are well suited to working with yarns, and perfect crosssections of the rims ensure an excellent quality of the end product.









Sectional warp beams for Raschel or knitting machines with flange diameters up to 1.400 mm





Scholze directly delivers warp beams in full-length or sectional warp beam design to Japanese loom manufacturers for all quality classes.
TOYOTA/TSUDAKOMA warp beams are distinguished by two principal designs:
1. Journal location
2. Bearing-ring (Toyota) or adapter location

2. Bearing-ring (Toyota) or adapter location (Tsudakoma)

All variants can be supplied either with or without driving gear. The available beam flange diameters range from 600 up to 1250 mm. Beam flanges in ribbed design are used for quality classes Q1 through Q3 and ATLAS double-walled flanges for Q4.

TOYOTA TSUDAKOMA









One-part or joined (bolted) bobbins and canisters made of aluminium and steel



SCHOLZE CANISTERS AND BOBBINS





- One-part canisters made of spheroidal cast steel or aluminium are used in heavy weaving for the production of wire, glass or manmade fibre meshes and filter cloth
- Steel canisters in bolted assemblies for heavy weaving – also available specially lacquered
- Scholze canisters for felt weaving
- split beams for use in knitting machine
- Canisters for filament yarns
- One-part or joined (bolted) bobbins and canisters made of aluminium and steel









SCHOLZE WARP BEAM TUBES



Double-slotted knot hole

Warp beam tubes made by Scholze add to, combined with the functionally matched flanges, a sub-assembly that guarantees permanent and perfect application. Sophisticated constructive designs and the exclusive use of precision steel tubes with uniform wall thickness lay the foundations – an essential quality feature, particularly in the range of threads.

Included in the Scholze product range are standard warp beam tubes according to DIN with diameters of 150, 168, 193, 219.1, and 270 mm, provided with the sturdy flat thread. On particular request Scholze also produces tubes in customised dimensions. Thanks to their constructive design and the largely dimensioned cross sections, Scholze warp beam tubes ensure high load absorption and quick adjustability. Force-fit connection and centring between tube and flange are achieved by means of the Scholze locking system. All components are interchangeable thanks to standardised manufacture. All beam tubes may be surface-treated. Preference is given by the users to the zinc-aluminium spraymetallising method. The fine grain will provide for an excellent surface adherence. Further to the benefit of excellent protection against corrosion by the special surface finish (schoopage), the effect of yarn entrainment is so high that knot holes or adhesive tapes are redundant in most cases. Smooth run is permanently ensured for the flange's range of adjustment. Electro-galvanising features another kind of surface treatment mainly used for non-elastic warp yarn materials, such as glass or fibreglass.



Tube end face recessed for mounting of various adapters

Pike tube, end with drive bores

Pike tube, end with drive bores

Tube with necked-in flange and 4 locking screws

Pike tube, end face with driving bores

Pike tube, end face with driving bores

Loom beam tube with exterior flange, centric or eccentric guide and locking screws

Coupling end for fixed flanges (half-length warp beams)

Euro tube 1 with 6 driving bores, Euro tube 2 with 9 driving bores





Dornier

Somet

Van de Wiele

Picanol GTM, Euro beam with six or nine thread bores

Euro beam with six or nine thread bores and one set screw

Tsudakoma/Toyota

Sulzer Textil Jumbo tube P7100/P7200



Universal bearing support, outside, complete with locking screws



Universal bearing support, outside, complete with locking screws



Universal bearing support, inside, complete with locking screws



Open-ended tube with driving slots

Use and quality classification

Minimum wall thickness below thread:

- Minimum wall thickness 3.7 mm: max. flange diameter of 800 mm with knot holes, knot holes generally with a spacing of 320 mm and the like
- Minimum wall thickness 6.0 mm: max. flange diameter of 1.000 mm with knot holes, knot holes generally with a spacing of 320 mm
- Minimum wall thickness 7.5 mm: flange diameter beyond 1.000 mm, available with and without knot holes
- Minimum wall thickness 12.5 mm, smooth: generally available without knot holes, smooth tube when using manmade continuous filament yarns

Fixed ribbed flange with bearing ring



SCHOLZE BEAM FLANGES



Beam flanges made by Scholze are the result of comprehensive experience in textile technology as well as product and production engineering. Seventy-five seasoned years of manufacturing and confidential, co-operative work with both loom manufacturers and end-users stand behind each flange we sell. In 1936, aluminium flanges were first cast in a strong mold worldwide. Using the gravity die casting method, Scholze is nowadays ensuring high dimensional stability, strong microstructures and, last but not least, short delivery times.

Beam flanges in system

Scholze offers a complete assortment of flanges to cover all conceivable weaving circumstances. A completely overlapping system of ribbed flanges, flat flanges and universally applicable double-walled flanges provide this flexibility. Among the simplest and most cost-effective flanges are our ribbed flanges, generally suited to the currently fashionable natural fibres. Best suited to manmade fibres are our smoothsurfaced, double-walled Atlas flanges, capable of running at high speeds, yet without the bothersome "fan effect". Diameters of up to 1.600 mm (the "Magnum" flange) are available. The double-walled flange developed by Scholze features a loading capacity being 2.5 times higher than conventional ribbed flanges. This striking benefit has hence been proved by more than 2 million applications in practice. All beam flanges

made by Scholze have got a surface – in natural or anodised aluminium – that is particularly well suited to working with yarns.

The rims, furthermore, have cross-sections designed to avoid the problems that are otherwise known from the contact of the threads with the flange.

A surface well-suited to yarns





Flange with technical specifications

Radially ribbed warp beam flange



Ribbed flanges

- predominantly for use with natural fibre yarns, with the exception of silk
- good cost-to-benefit ratio for low compressive loads
- for a fixed program of weaving with loom beams of equal size which are seldom, if ever, changed
- a low-cost alternative with all of the quality characteristics of Scholze beam flanges
- heavy flanges in higher quality classes, which will allow yarns of greater bulk to be accepted, are available

Double-walled flange Compact



Double-walled flanges

- complete coverage of all quality classes, therefore suitable from lightest up to heaviest loads
- very slight deflection, high elasticity and minimal deformation together result in the virtual avoidance of trapped threads

• no whirl effects and reduced injury hazards due to smooth outside

• easier handling due to their greater mass-toefficiency ratio (2.5 times the stiffness of conventional ribbed flanges of the same weight)

• availability of customised forming to meet unusual demands



Double-walled back beam flange High-speed "Atlas" type flange Quality class 2 through 4





Double-walled flange



Double-walled "Atlas" flange

fibres and high warp speeds

recommended for use with manmade



Double-walled "Record" flange recommended for use with fibres with a high portion of manmade fibres



Double-walled "Compact" flange recommended for use with reclaimed fibres



Radially ribbed warp beam flange

Standard back beam flange



Fixed flange for half-length warp beams in small width, light design



Fixed flange for half-length warp beams, medium design



Category of demands to be met by flanges pursuant to DIN ISO 8116 – T4

The deflection curve of a flange must run in the associated range of quality classes specified thereto.



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Fixed flange for half-length warp beams, steel with bearing ring attached, heavy design

14

Special steel flanges of any dimensions

Light metal lock ring



Radial lock

Axial lock "Special" together with a double-walled warp beam flange for high beamspeeds and high outer diameters





Fixed steel flanges with stainless surface and drive plates attached, all typical diameters (800 through 1.600 mm) are available in the quality classes Q2, 3 and 4

Axial lock ring





Bearing ring for fixed flanges, turned, drilled, hardened, ground, phosphatised for all loom types in question

Locks

For force-fit connection and centring of tube and flange, Scholze has developed a system of locks that meets very well the different demands in practical use. The Scholze lock system is comprised of the components:

- lock ring
- radial lock
- axial lock

and is used in dependence on the loading circumstances.





Scholze offers suitable cloth beams and associated handling equipment for all loom systems. The surfaces of cloth beams may be optionally:

- aluminium tubes, smooth
- aluminium tubes, lengthwise fluted
- steel tubes with through slot
- Surface finish methods:
- schoopaged (spray-metallized)
- chrome-steel plated
- lacquered

SCHOLZE CLOTH BEAMS



Cloth beam, surface lengthwise fluted, schoopaged



Cloth beam, surface schoopaged

Euro cloth beam with guide slot and gear on one side







Sulzer Textil, P-machine

Steel tube with through driving slot for locating of plastic change tubes, suitable for all loom types







Scholze offers an assortment grown from practice for all common loom types and yarn materials, from natural fibres through manmade up to fibreglass yarns to suit these in-factory processes.

- containers for back beams, warp beams, halflength warp beams and giant batches
- beam storing- and let-off devices in external configuration (for flange diameters of up to 1.600 mm)
- handling and reach-in trucks including harness insertion device
- trucks for idle handling
- lifting and handling trucks for cloth beams
- collecting trucks for cloth beams
- batch winders for giant batches with diameters of up to 1.500 mm, with and without inspection line, with and without traversing mechanism
- torque-controlled batch winders

The following explanations feature an excerpt of the more comprehensive offer of Scholze GmbH + Co. KG for the rationalisation on in-factory logistics.

Translag container systems

The TRANSLAG container systems (for handling and storing) ensure safe and gentle logistics for loom beams, warp beams, sectional warp beams, back beams, and even for cloth batches. The individual components can be stacked in several units on top of each other, may be joined one with another, and feature a cost-effective alternative.

Constructive design:

- primed and lacquered against extra charge, also available in execution hot-dip galvanised
- firmly welded stacking straps are also available for storage only, without intended transportation
- also available in mobile jack design on customer's request
- suspended storage through the central batch winding tube is possible under the model designation S7 for cloth batches to avoid squeezing pleats







SCHOLZE - REFERENCES WORLD-WIDE





Beam-warping machine of Karl Mayer, Obertshausen/Germany with Scholze beam, Picture: Karl Mayer



Scholze warp beam on a loom of Lindauer DORNIER GmbH/ Germany, Picture: Lindauer DORNIER GmbH



Scholze warp beam on a loom of Sultex AG/Switzerland, Picture: Sultex AG





Since 1959, weaving accessories made by Scholze at Frankenberg: Warp beams, back beams, half-length warp beams, sectional warp beams, cloth beams, dyeing beams, batch winders, canisters, storing and handling stands, containers, cylinders and turning parts for weaving machines, textile and food industry.



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