



**SONGJIANGFLEX**

PASSION FOR FLEX



**PRODUCTS & SOLUTIONS**



# ABOUT US



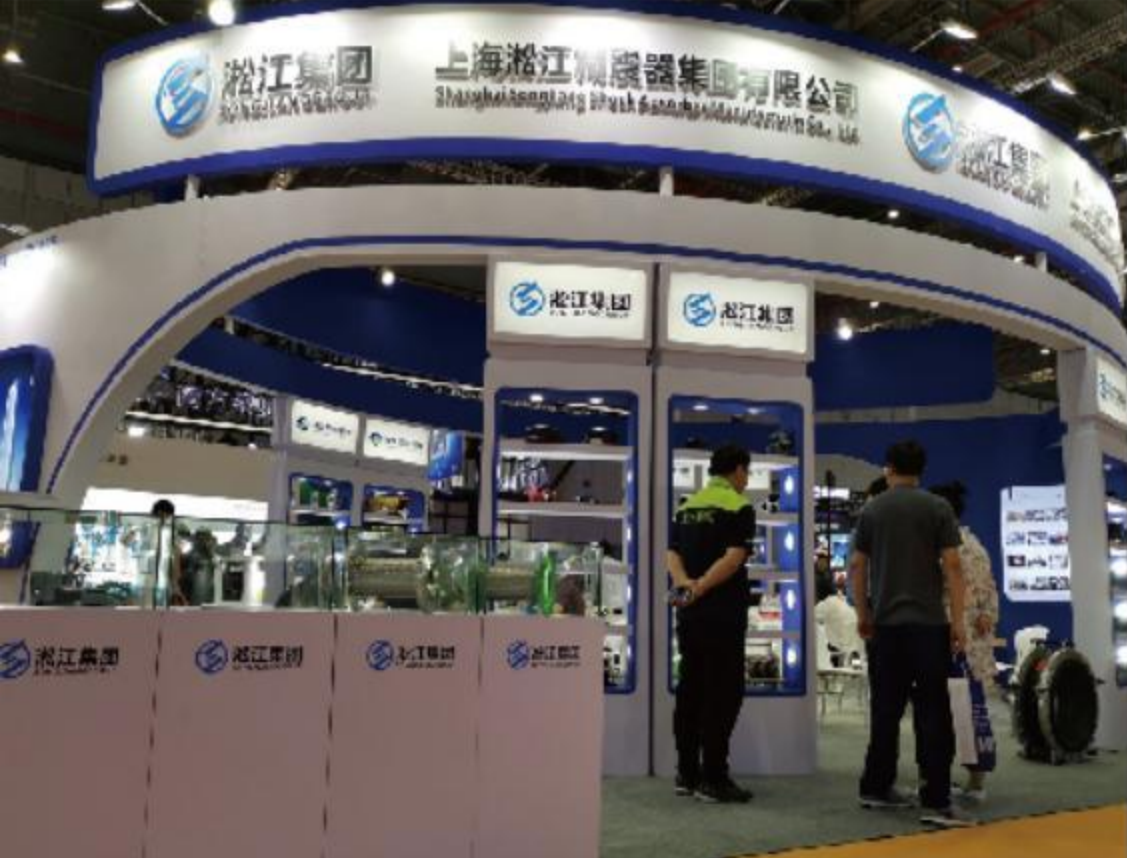
SHANGHAI SONGJIANG GROUP is a conglomerate engaged in the research, development, production, and sales of rubber expansion joints, vibration isolators, metal bellows, compensators and more. It enjoys high reputation and influence in industries such as petroleum, chemical, metallurgy, power, construction, thermal energy, and water supply.

SONGJIANG have been recognized as a Shanghai enterprise complying with safety production standards, a qualified supplier of Shanghai Pudong Water Group, and a qualified supplier of rubber expansion joints for China Nuclear Gansu Nuclear Technology. In 2019, SONGJIANG successfully provided rubber expansion joints for the Chinese commercial aircraft C919.

In 2017, SONGJIANG GROUP invested 18 million dollars in constructing the State-of-the-art automated factory in Nantong City. The new factory introduced a large number of intelligent devices and fully automated production lines. Simultaneously, a dedicated testing center equipped with high-end instruments for product inspection was established.

SONGJIANG has achieved the highest quality standards in the design and manufacture of rubber expansion joints for special and demanding applications, including: superheated steam, differential high pressure, volatile, corrosive, erosive, and slurry fluids, as well as solutions for cavitation and high noise levels. SONGJIANG continuously invests in new technologies, consistently upholding high-quality manufacturing processes, and ensuring the high performance and durability of our products.





## CORE COMPETENCE IN RUBBER BELLOWS

- Skilled and experienced staff , world-class machines and advanced ERP system.
- Provide customizable flexibility in production services.
- Prompt post-sales handling, providing solutions to customers within 12 hours.
- High-quality products with a three-year warranty.

Expansion joints are parts of piping systems for fluid and gaseous media. Rubber expansion joints are flexible pipe connections that can absorb thermal expansion and reduce vibration and noise in pipeline construction. Our "SONGJIANGFLEX" rubber expansion joints have reliably performed these tasks since 1987. Due to their construction and premium quality, our expansion joints have become industry standard.

### Types

15 different qualities

### Sizes

DN25–DN3200 mm, various lengths Operating

### Pressure

PN6–25bar, depending on size and type

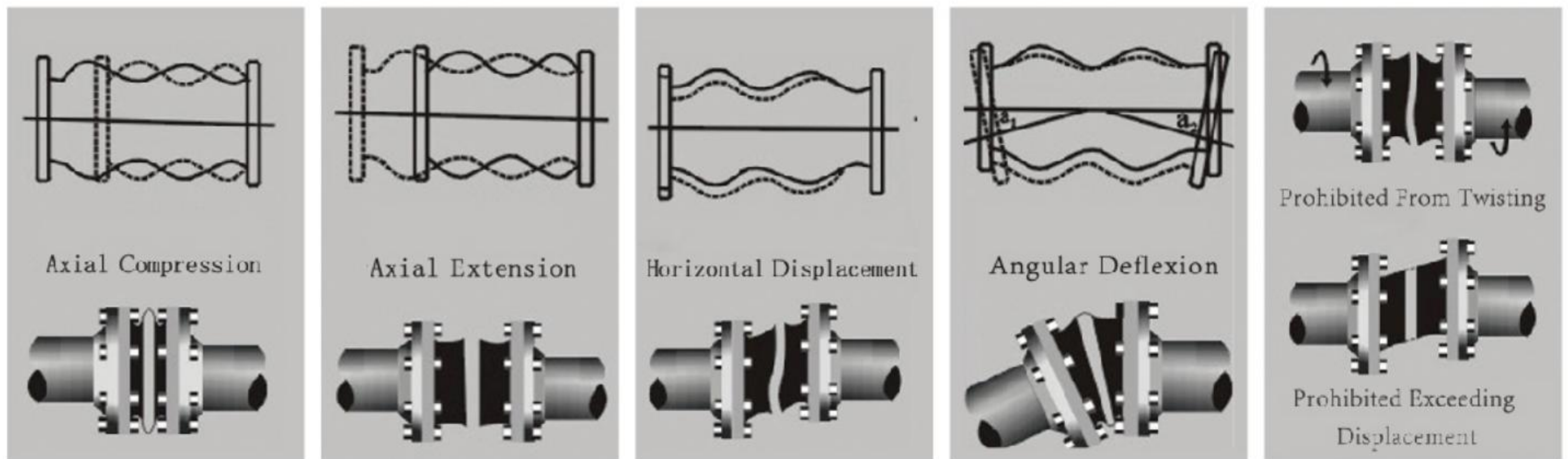
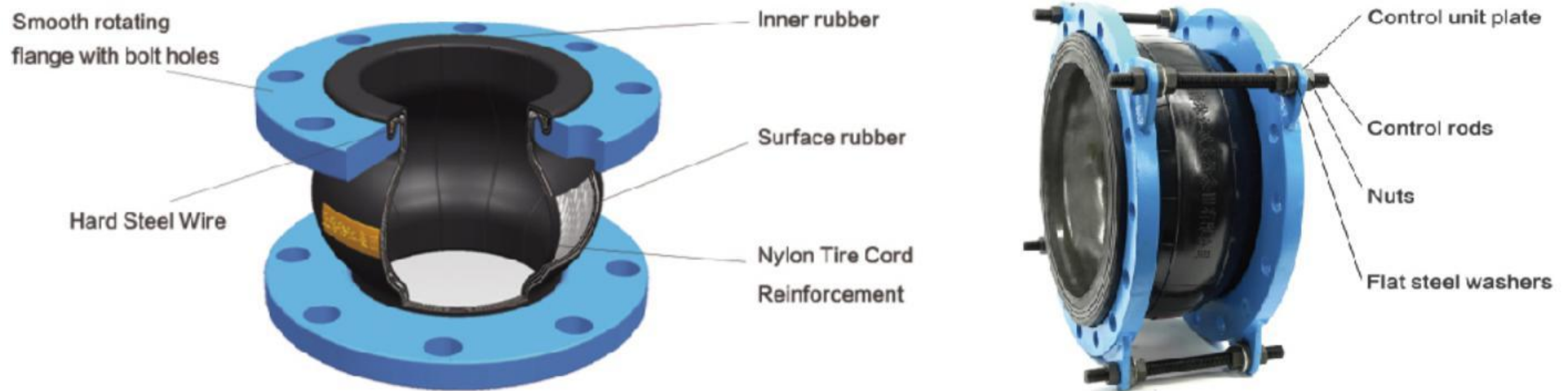
### Temperature

Range -40 °C to +180 °C, depending on rubber quality



# WHY YOU SHOULD CHOOSE SONGJIANGFLEX

SONGJIANGFLEX expansion joints are molded single-sphere type rubber bellows with swiveling metal flanges. Their construction and lengths (installation sizes) strictly adhere to international standards. High-quality raw materials and advanced production technology enable Songjiangflex to have an ultra-long lifespan, greatly reducing your replacement and maintenance costs.



Rubber expansion joints are flexible connectors for the construction of pipe systems. They relieve system strain by reducing vibration and noise and compensate static or dynamic movements caused by thermal change, load stress, pumping surges or construction settlement. They also compensate assembling inaccuracies (misalignment during installation) and can be used as pipe insert pieces to facilitate inspections.

The excellent performance of Songjiang rubber expansion joints (Compared to Metal Expansion Joints):

- show no fatigue failure due to high frequencies of vibration
- are not endangered by stress corrosion cracking due to their higher flexibility
- are suitable for a larger range of media due to their available type variety
- will absorb outer physical influences, e.g. accidental impacts without any damage
- can be used to protect the pipework against high shock stress
- are suitable to substantially reduce vibration and noise



KXT single-sphere type



Internal vacuum ring



PTFE lining



Ductile Iron QT450 & Deflector

# SONGJIANGFLEX PRODUCT RANGE

## KXT-Reinforced Expansion Joint

- Install control rods protection to prevent flanges from pulling off the sphere under high-pressure pipeline conditions.
- Building length: 95 - 260mm
- Dimensions: DN25 - DN 1200
- EN1092 PN16/25 - ASME B16.5 150/300lbs. Other types on request.



## KFT Fire Resistant Rubber Expansion Joint

- For petroleum based products, DIN EN fuels up to 50% aromatic content, cooling water with oily anticorrosion additives, lubrication and hydraulic oil, seawater. Temperature range (depending on medium) -20°C up to +90°C, temporarily up to +100°C. Fire resistant up to 30 min. and +800°C. Electrically dissipative.
- Dimensions: DN 25 - DN600
- Bellow material: Line NBR, Cover CR+Flame retardant
- Swivel neck flange :zinc plated carbon steel



## KWT Elbow Rubber Expansion Joint

- Solution for flexible connections in pipeline bends.
- Building length: 140 - 230mm
- Dimensions: DN50- DN200
- Bellow material: NR, NBR, EPDM, CR (chloroprene)
- Flange material: zinc plated carbon steel
- EN 1092 PN6/10/16 - ASME B16.5 150lbs. Other types on request.



## KHD Full-faced Handmade Expansion joint

- Integrated steel flanges and built to withstand even the most rigorous piping system configurations. The pressure can reach 40 bar, and the temperature can reach 190°C. Gives small reaction forces, providing high reliability and long service life.
- Building length: on request.
- Dimensions: on request, up to DN 3200



## Bronze/Brass Rubber Expansion Joint

- Utilized in ship and marine pipeline systems.
- Building length: 95 - 230mm
- Dimensions: DN25- DN600
- Bellow material: NBR, EPDM, CR (chloroprene)
- Flange material: Bronze/Brass
- EN 1092 PN6/10/16 - ASME B16.5 150lbs. Other types on request.



## KYT Concentric Reducer Expansion Joint

- Used for connections where pipeline diameters need to be changed.
- Building length: 180- 230mm
- Dimensions: DN50\*40 - DN350\*DN300
- Bellow material: NR, NBR, EPDM, CR (chloroprene)
- Flange material: EPOXY painting carbon steel
- EN 1092 PN6/10/16 - ASME B16.5 150lbs. Other types on request.



## KKT Clamp Rubber Expansion Joint

- For use in low-pressure pipeline systems such as return oil pipelines, drainage pipelines, powder conveying, etc., with pressures below 3 bar.
- Building length: on request
- Dimensions: DN25- DN1500(on request)
- Bellow material: NR, NBR, EPDM, Silicone
- Clamp material: SS304/316



## KPT Eccentric Reducer Expansion Joint

- Used for connections where pipeline diameters need to be changed.
- Building length: 110 - 220mm
- Dimensions: DN50\*32- DN200\*150
- Bellow material: NR, NBR, EPDM, CR (chloroprene)
- Flange material: hot-dip galvanized
- EN 1092 PN6/10/16 - ASME B16.5 150lbs. Other types on request.



## SJNG Compensator

- Rubber compensators are elastic connectors with turnable SAE aluminum alloy flanges, bellow consists of high-quality nitrile (NBR).
- For all mineral oil products (except synthetic oils), crude oil, lubrication oil, cooling oil(-20°C up to 80°C), grease (mineral), cold water, warm water up to 60°C, water/oil emulsions, fuel with 30% aromatic content. For operation in suction and return lines.
- Dimensions: NG25 - NG125
- Working pressure: 0.1-2.0bar

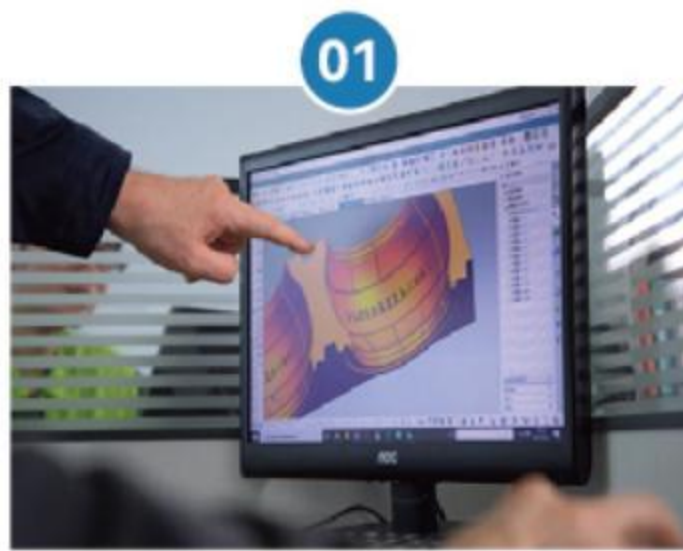


## KDT Full Faced Molded Expansion Joint

- Building length: 255 - 550mm
- Dimensions: DN350- DN3200
- Bellow material: NR, NBR, EPDM, CR (chloroprene)
- Flange material: zinc plated carbon steel
- EN1092 PN6/10 - ASME B16.5 150lbs. Other types on request.



# BELLOWS PRODUCTION & ASSEMBLING & TESTING



01 Design grinding tools



02 Control brand raw material



03 Automatic minor ingredient dispenser



04 Initial compounding of natural rubber



05 Automatic major ingredient dispenser



06 Banbury mixer-Mixing material compounding



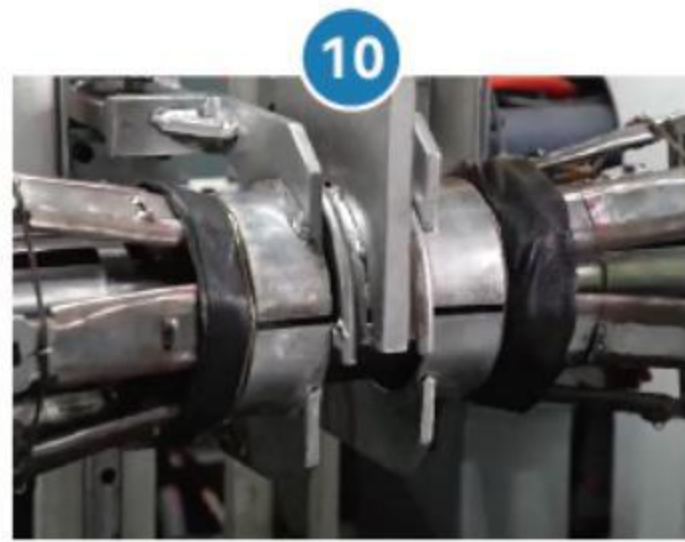
07 Open mill for synthetic rubber



08 Nylon Reinforcing cord Production



09 CNC Cut Reinforcing cord & Rubber



10 Automatic forming Inner rubber bellow



11 Automatic forming of the entire rubber bellow



12 Auto-vulcanization of rubber bellow



13 Inspection rubber bellow after vulcanization



14 Test the performance of Rubber



15 Rubber vulcanization instrument testing



16 X-ray steel wire position detection



17 Flange material testing



18 Assemble rubber expansion joints



19 Rubber joint hydraulic pressure testing



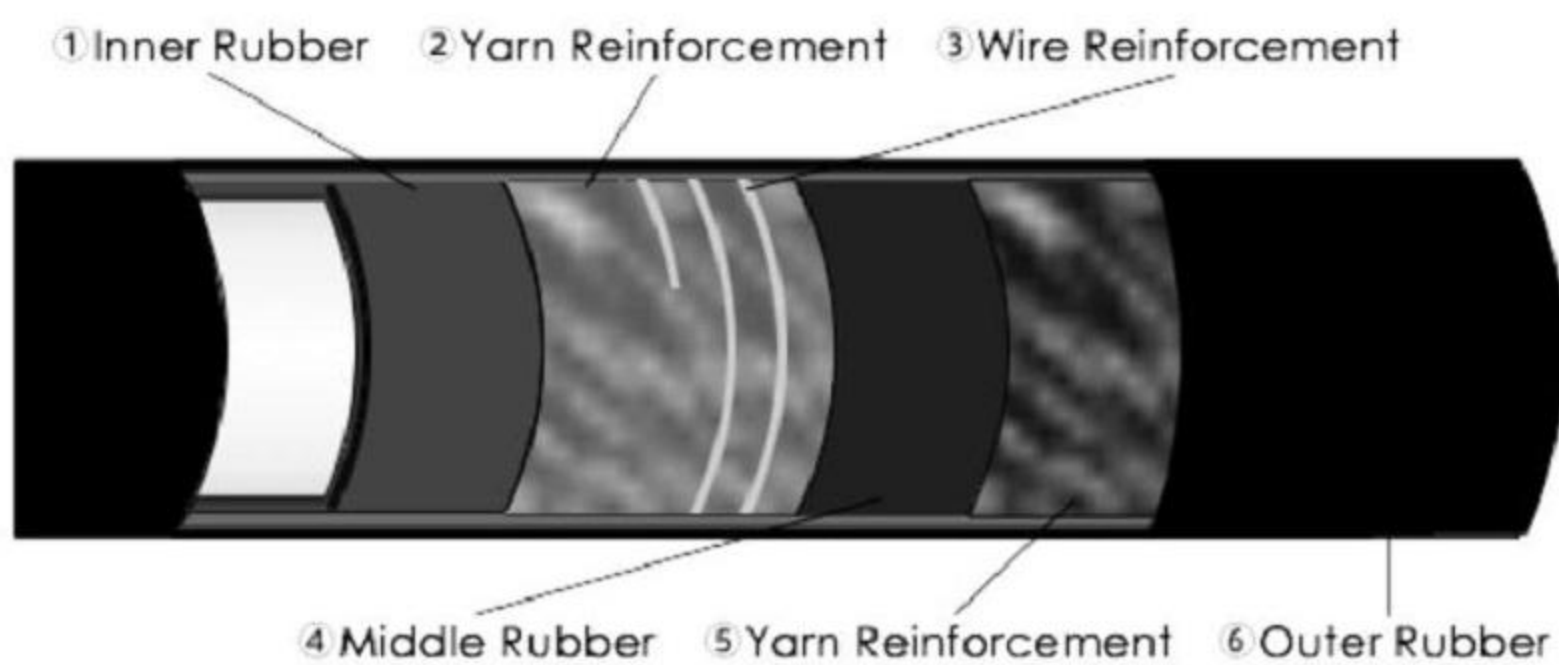
20 Packing for shipment

# SJHD Rubber Hose

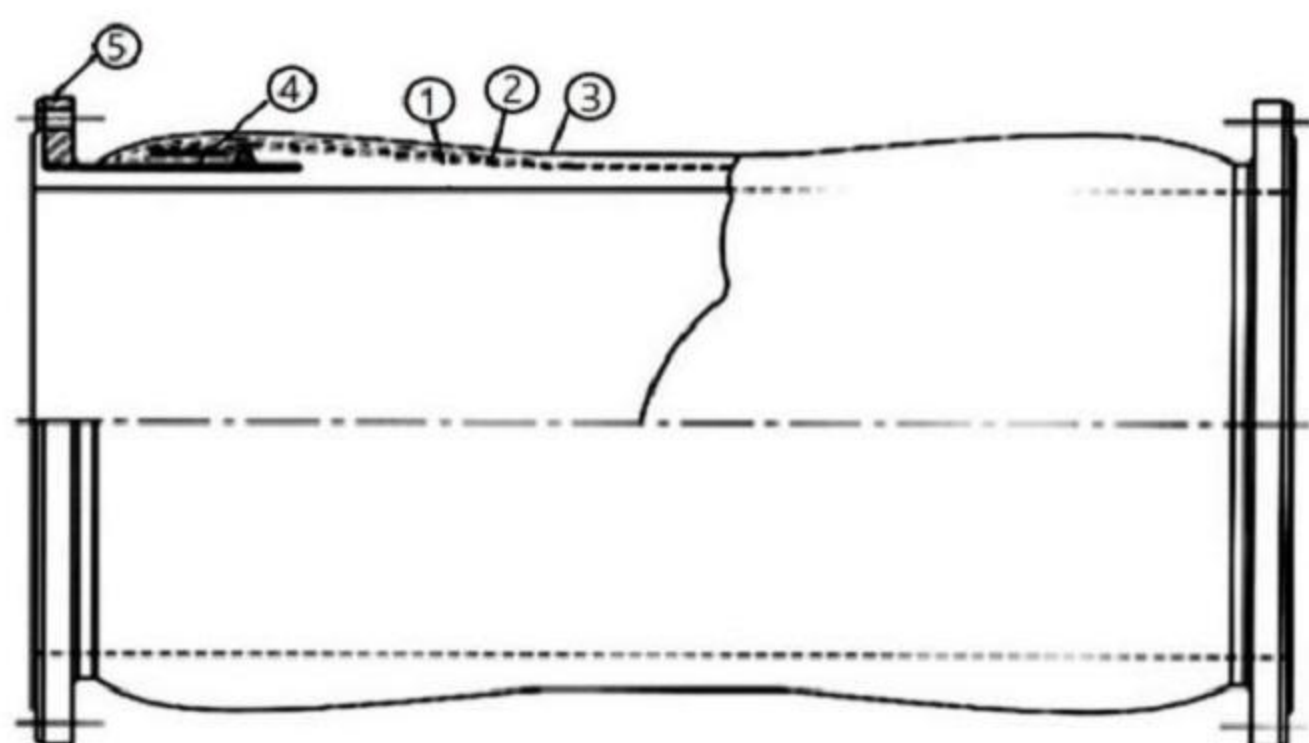
## Description & Application

The SJHD model handmade rubber hoses produced by Shanghai Songjiang are manufactured using industry-leading technology, designed to provide greater strength and pressure capabilities. Made from high-quality rubber combined with woven polyester fabric and reinforced materials, these hoses deliver optimal performance characteristics. The rubber hoses are hand-wrapped, allowing for design variations such as offsets, non-standard face-to-face dimensions, multi-arch configurations, and special flanges or drillings. They are suitable for various heavy-duty industrial applications, including construction, tunnels, tunnel boring machines, extruders, ships, oil, nuclear power, and more.

## Rubber Body Material Structure



NO.	Parts	Material
1	Reinforcing Cord	Yarn Reinforcement
2	Reinforcing Cord	Wire Reinforcement
3	Outer Rubber	NR/NBR/EPDM/Silicone
4	Inner Rubber	NR/NBR/EPDM/Silicone
5	Flange	Galvanized carbon steel



## Product Detailed Technical Parameter Table

ND (A)	ID (mm)	Thickness of Inner Rubber (mm)	Working Pressure (MPa)	Bend Degree	Weight (kg)	Standard Length (mm)
200	203	10	0.5	10°	55	800
250	254	10	0.5	10°	70	800
300	305	15	0.5	10°	100	900
350	355	15	0.6	10°	125	1000
410	406	20	0.6	10°	175	1000
510	510	20	0.8	10°	285	1200
560	560	20	0.8	10°	340	1300
610	610	25	1.0	10°	425	1300
630	630	25	1.0	10°	440	1400
660	660	25	1.0	10°	480	1500
710	710	30	1.2	10°	620	1600
760	760	30	1.5	10°	720	1700
850	850	35	1.5	10°	1500	2500

Note: Rubber material, flanges can be customized according to requirements.

# SONGJIANGFLEX - PROJECTS & APPLICATIONS



Songjiang offers KDF expansion joints to Beijing Daxing International Airport—largest single-building airport terminal in the world.



In 2012, Songjiang provided EPDM rubber expansion joints for the Yanbu Port seawater desalination project in Saudi Arabia.



Songjiang offers JIS rubber joints with ss304 flanges to MITSUBISHI used in pump room.



Songjiang has been supplying metal expansion joints to BASF China's factory on a long-term basis.



Songjiang provides high-pressure reinforced rubber expansion joints for the super-high-rise of Wuhan World Trade Center.



Songjiang supplies rubber expansion joints for the desulfurization system to SINO STEEL.



Songjiang supplies NBR expansion joints for the hydraulic oil cooling system of Fangchenggang Nuclear Power Station.



In 2019, Songjiang's KFT type fire-resistant expansion joints successfully matched with the Chinese commercial aircraft C919 and the Dehe Salvage Cruise.



## OTHER PRODUCTS WE PROVIDE



METAL EXPANSION JOINT / BRAIDED FLEXIBLE CONNECTOR



VIBRATION ISOLATOR / CUSTOM RUBBER PARTS



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