



CUSTOM MADE HOSE CAPABILITIES

TITAN CUSTOM MADE HOSE...MANUFACTURED TO YOUR SPECIFICATIONS**INDUSTRY LEADER**

Titan Industries is proud to be the largest full-service Custom Made Hose manufacturer in the United States. Titan specializes in designing and fabricating hand-built application-engineered hoses and assemblies. We have extensive experience in the art and science of hose design, engineering, and production, and take pride in our ability to manufacture specialized products that meet the demanding requirements of the industrial marketplace.

STATE-OF-THE-ART DESIGN AND MANUFACTURING

Our experienced hose designers begin the manufacturing process by surveying your unique requirements and designing a material transfer solution ideally suited for your specific application. Utilizing computer controlled lathes that ensure consistent wrap pressure and material overlap, Titan's master hose builders bring the project to fruition by marrying traditional hand-built hose craftsmanship with state-of-the-art technology to fabricate a completed assembly capable of performing in even the most demanding application.

CUSTOMER SUPPORT

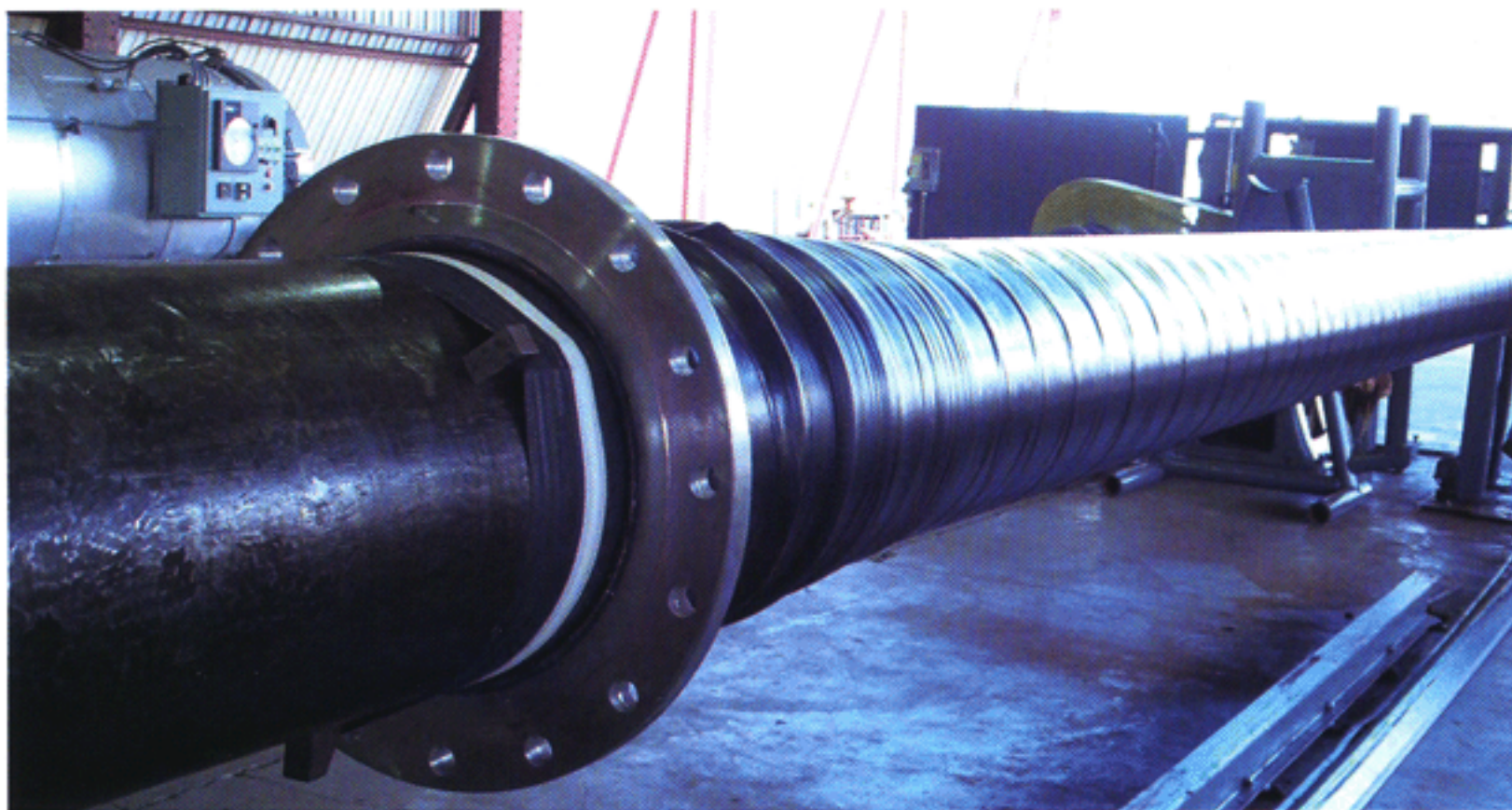
We are here to make your next project a success by filling your specialized orders quickly and affordably. We are confident that we can meet your needs by utilizing our manufacturing facilities in California and North Carolina, bi-coastal design centers, and our experienced sales and customer service teams. Call us today so that we can earn the right to be your preferred custom made hose supplier.

CUSTOM MADE HOSE DESIGN CENTERS

Salisbury, North Carolina
Arvada, Colorado

CUSTOM MADE HOSE MANUFACTURING FACILITIES

South Gate, California
Salisbury, North Carolina



DESIGN CAPABILITIES

Virtually any feature of a custom made hose can be modified to meet your specific requirements.

- | | |
|--------------------|--------------------|
| • Inside Diameter | • Color |
| • Outside Diameter | • Tube Thickness |
| • Length | • Working Pressure |
| • Weight | • Bend Radius |
| • Color | • End Fittings |

INDUSTRIES

Applications requiring custom made hose can be found in nearly every industry.

- | | |
|------------------------|---------------------------------|
| • Bulk Hauling | • Mining and Mineral Processing |
| • Chemical Plants | • Paper Mills |
| • Concrete Plants | • Power Plants |
| • Construction | • Refineries |
| • Dock Facilities | • Sand and Gravel Plants |
| • Dredge Operations | • Sewage Treatment Plants |
| • Manufacturing Plants | • Steel Mills |

APPLICATIONS

Titan's custom made hose products are ideally suited for applications that require special tube and cover compounds, large diameters, and built-in end fittings.

- | | |
|---------------------------|-------------------------------|
| • Acid Discharge | • Oil Suction & Discharge |
| • Chemical Processing | • Sand Suction |
| • Concrete Transfer | • Slurry Pumping |
| • Hot Tar and Asphalt | • Tanker and Barge Transfer |
| • Material Handling | • Vapor Recovery |
| • Molten Sulphur Transfer | • Water Suction and Discharge |



TITAN CUSTOM MADE HOSE... MANUFACTURED TO YOUR SPECIFICATIONS

SIZE CAPABILITIES

Our ability to manufacture large diameter hoses up to 60" I.D. opens endless possibilities - No job is too big!

Hose I.D.	Manufactured Length
2" to 16"	Any length up to 100 ft. maximum.
17" to 48"	Any length up to 60 ft. maximum.
49" to 60"	Any length up to 50 ft. maximum.



Autoclave for steam curing large diameter hoses

MANUFACTURING MATERIALS

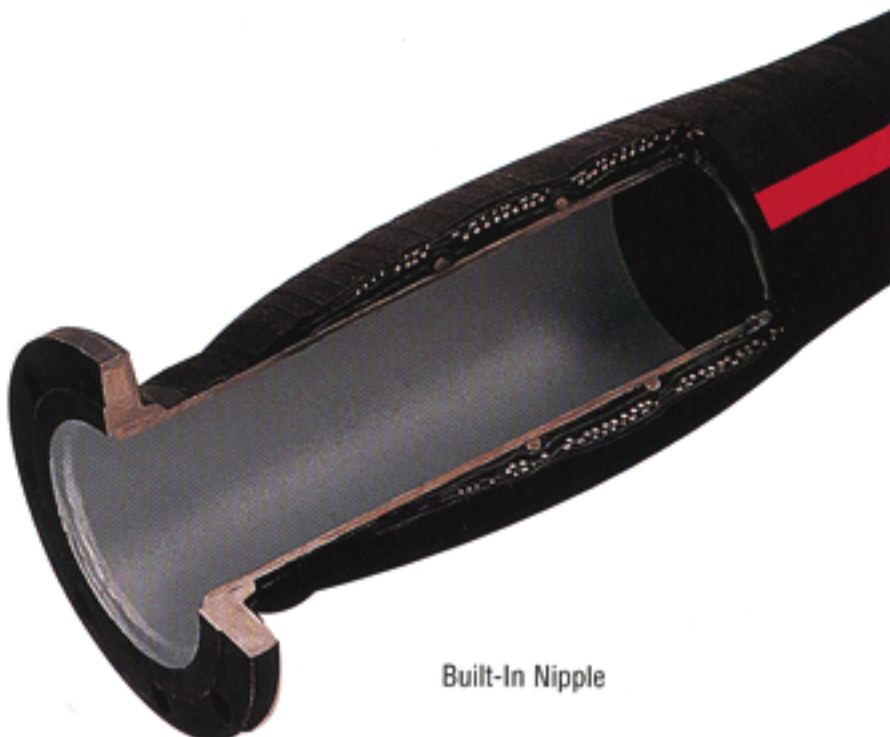
Titan's highly trained chemists work with a wide variety of materials to meet the unique requirements of the industrial marketplace.

ASTM Designation	Common Name	Composition	General Properties
BR	Polybutadiene	Butadiene	Excellent abrasion and low temperature resistance. High resilience.
CR	Neoprene®	Polychloroprene	Good weathering resistance & flame retarding. Moderate resistance to petroleum based fluids. Good physical properties.
CSM	Hypalon®	Chlorosulfonyl-polyethylene	Excellent ozone, weathering, and acid resistance. Good resistance to heat, abrasion, and petroleum based fluids.
EA	Vamac®	Ethylene-acrylic elastomer	Outstanding heat, ozone, and oil resistance.
EPDM	Ethylene Propylene Rubber	Ethylene-propylene diene-terpolymer	Excellent ozone, chemical, and aging characteristics. Poor resistance to petroleum based fluids.
FKM	Fluoroelastomer	Fluorocarbon Rubber	Excellent high temperature resistance, particularly in air or oil. Very good chemical resistance.
IIR	Butyl	Isobutylene-isoprene	Very good weathering resistance. Low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.
	Kevlar®		Unique combination of toughness, extra-high tenacity, and exceptional thermal stability.
NBR	Nitrile	Acrylonitrile-butadiene	Excellent resistance to petroleum based fluids. Moderate resistance to aromatics. Good physical properties.
	Nomex®		High temperature, exceptional thermal stability, good resistance to degradation by a wide range of chemicals, and industrial solvents.
NR	Natural Rubber	Polyisoprene, natural	Excellent physical properties including abrasion and low temperature resistance. Poor resistance to petroleum products.
SBR	SBR	Styrene-butadiene	Good physical properties, including abrasion resistance. Poor resistance to petroleum based fluids.

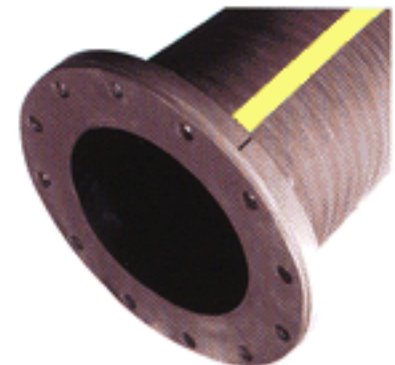
END FITTING STYLES

Choose from a wide variety of built-in, internally expanded, and swaged fittings to make the perfect connection.

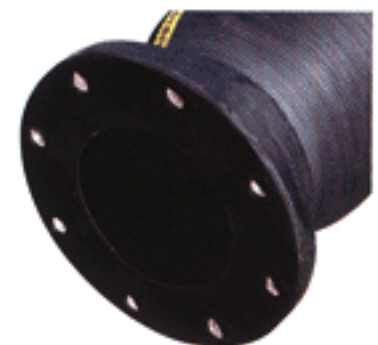
End Fitting Style	Description
Built-In Nipple	Steel nipple is built into the hose during fabrication providing maximum holding power and a full flow unrestricted transition area. Available in threaded, flanged, or grooved end styles. Recommended for heavy duty, high pressure applications.
Built-In Rubber Flange (B.I.R.F.) or Duck & Rubber Flange	Fabric plies and hose tube turn up the face of the flange. Steel back-up flange and rubber flange are molded together. Recommended for light to medium duty, low pressure, abrasive applications.
Modified Built-In Rubber Flange (Mod B.I.R.F.)	Hose tube extends through the steel nipple and up the face of the flange providing a full flow unrestricted transition area. Extends service life by protecting the steel nipple from contact with conveyed material. Recommended for heavy duty, high pressure, abrasive applications.
Enlarged	Hose end is enlarged to accommodate the outside diameter of pipe.
Fixed or Floating Flanges	Built-in, internally expanded, or externally swaged 150# and 300# drilling ANSI forged steel flanges.
Rota-Lok	Hose tube extends through the steel nipple and up the face of the stub end providing a full flow unrestricted transition area. Either full floating or split ring flanges are used to ensure proper bolt hole alignment. Recommended for heavy duty, abrasive applications.
Rubber Lined	Provides added abrasion resistance and extended service life. Recommended for highly abrasive or corrosive applications.
Soft Cuff	Internal wire reinforcement is eliminated from the end of the hose providing a soft and flexible section that creates a leakproof seal when clamped.
Straight or Plain Ends	End of hose is cut straight with no end connections.
Custom Ends	Hose couplings designed specifically to your engineered specifications.



Built-In Nipple



Rota-Lok



Built-In Rubber Flange

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DESIGN OPTIONS

We have the capabilities to design and fabricate a hose to meet your exact requirements.

Design Options	Description
Cover Styles	Smooth or corrugated designs for enhanced flexibility.
Gimbel Construction	Internally smooth, externally corrugated construction. Imbedded individual steel rings provide added strength and flexibility. Recommended for short lengths and large I.D. hoses requiring a tight bend radius.
Kevlar® Reinforcement	Provides high working pressures for heavy duty applications.
Electrical Conductivity	Various compound materials and design methods are available to meet your conductivity requirements.
Heat Resistance	Compounds and internal and external reinforcement materials offer exceptional thermal stability.
Oil Resistance	RMA classified type A, B, and C tube compounds.
Custom Fabrications	Preformed 30°, 45°, and 90° elbows, "Y's", and "T's".



Preformed Elbows



Preformed "Y"



Gimbel Construction

PACKAGING SERVICES

Titan offers value added shipping services to protect your hose and assemblies while in transit.

Packaging	Description
Slat Packing	Wood slats are banded securely to the hose protecting the structural integrity of the assembly during shipping. Recommended for hoses that are shipped in straight lengths, 6" I.D. and larger.
Custom Crating	Custom fabricated shipping crates protect the hose and minimize shipping costs.



Slat Packing



Custom Crates