

New Reactor Heated Hose



New Hose Design



- New Construction
 - All 25' and 50' hoses now using TXL copper wire
 - The same wire used on whip hoses for the past 4 years
 - New extruded jacket replaces the butyl
 - Improved RTD connector
 - Improved FTS design
 - Improved Xtreme Wrap Scuff
 - Joint Protector (included with Xtreme Wrap hoses)
- Backwards compatible with all Reactor heated hoses in the field
- All heated hose part numbers remain the same



Improved Performance

- Laboratory flex testing has proven the heated hose using TXL wire is at least a 10X improvement over the hose wrapped with flat copper wire
- Improved life of hose
 - Less downtime
 - Reduced lifetime product cost
- TXL wire is coated, offering improved corrosion resistance
 - Prevents copper degradation
 - Prevents hot spots and pin holes
 - Long-term even heating
- Consistent, even heating means improved yield



Whip Hose

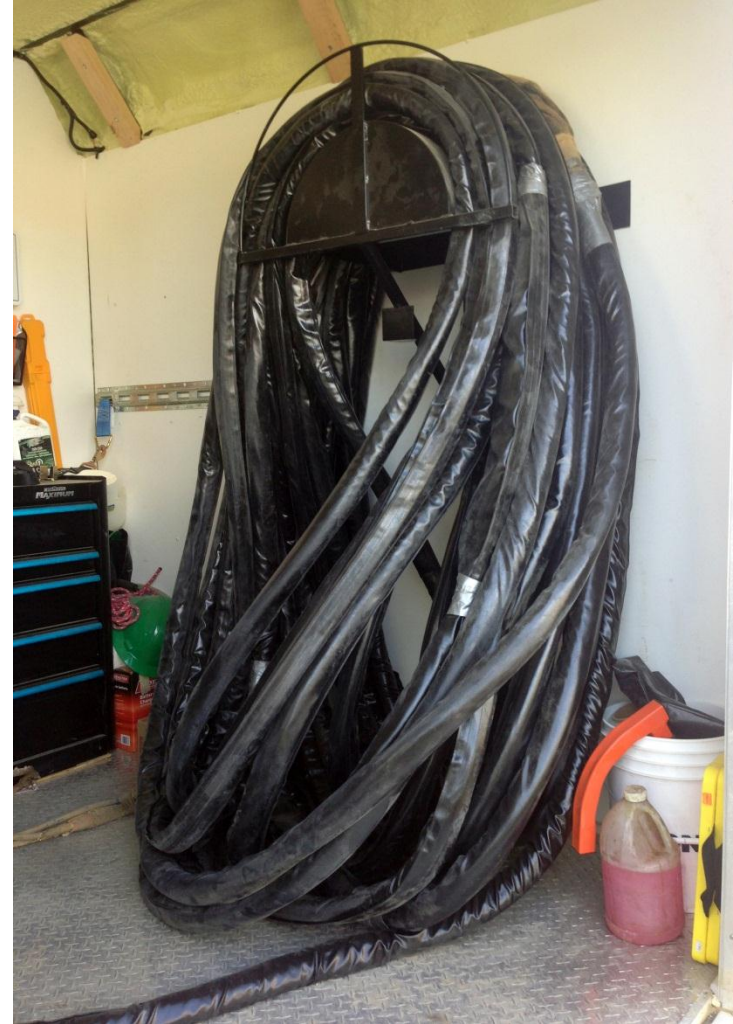
- Whips have been made using TXL wire since 2012
- Whip hose warranty's reduced 90% using TXL wire
- Nearly eliminated fails related to
 - Copper wire breaking
 - Pin holes
 - Copper corrosion
 - Hot spots
- All whip hoses come standard with Xtreme Wrap scuff guard



Do Your Hoses Look Like This?



Protect Your Investment



New Xtreme Wrap



- Protects your investment and improves yield
 - If the hose insulation stay intact, it helps the hose maintain hose heat
 - Spraying at the correct hose heat improves chemical yield
- Form fitting to the hose, no baggy excess material to get snagged in the field
- Urethane coated ballistic nylon for long life, abrasion protection, and oil and water resistance. Good puncture and tear resistance
- Sheds surface moisture and won't absorb water to weigh down the hose bundle or get water logged
- Hook and Loop closure for easy access and maintenance to hose bundle
- Can be easily be added to existing hoses in field

Joint Protector



- Protection for critical components
 - Hose fittings, FTS, electrical connections, RTD and thermocouple fitting connections
- Hook and Loop closure for easy access and maintenance to all connections
- Reduced joint diameter related to no having to heavily tape and protect the joint
- One 3' joint protector included with every 50' Xtreme Wrap hose



Joint Protector



FTS and RTD Cable



- FTS

- Redesigned for improved durability
- Molded body changed to reposition and better protect the wire
- Both RTD and Thermocouple versions have been updated



- RTD

- Now manufactured with an improved assembly process that results in a more rugged and robust connector design
- Results in 5x improved life in lab flex test compared to previous cable

Safety



- The only industry hoses that are ETL approved and carry the ETL Listed Mark
- Reactor and Reactor 2 systems are also ETL approved.
 - In order to maintain your Reactor systems' ETL certification, only ETL approved hoses may be used.



What does the ETL Mark Mean?



- The ETL Listed Mark is proof that your product has been independently tested and meets the applicable published standard
- The ETL Listed Mark – demonstrate compliance to the requirements of widely accepted product safety standards, as determined through independent testing and periodic follow-up inspections by an Nationally Recognized Testing Laboratory (NRTL).
- An ETL Certification Mark is awarded to a product by a third party assessment body to recognize that a product fully meets a set of performance criteria for particular set of product characteristics



Graco ETL Marked Products



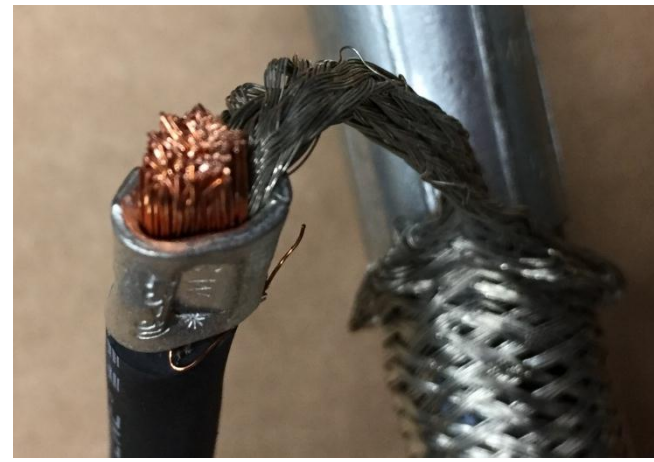
- What does the ETL Listed Mark mean when displayed Graco product?
 - In short, the ETL Listed Mark indicates that this Graco product has been tested by a NRTL, has been found in compliance with accepted national standards, and meets the minimal safety standards required
 - To our distributors, and customers, the ETL Mark is assurance that the product is compliant with safety standards, having been tested and certified by a third-party NRTL organization
- The Graco ETL Marked Hoses are approved to the following standards:
 - UL 499 - Electric Heating Appliances
 - CSA C22.2 - No. 88 - Industrial Heating Equipment

Quality is in the Details: Heating Wire



Graco: Crimped and Soldered

PMC: Crimped



Non-Graco Heated Hoses



- Things to consider when considering a non-Graco hose
 - Safety: Are the hoses evaluated and approved by an independent 3rd party to meet certain safety standards?
 - Are you comparing equal hoses with scuff, joint protectors, RTD cables, etc.?
 - Are the scuff guards equal in quality?
 - Are the hoses design to work specifically with Reactors?
 - Heat Properly
 - Work Safely
 - Designed to be inter-mixed with other manufacturers hoses
 - Are they using the same type thermocouple or RTD wire that will accurately work with the proportioners controls?

Part Numbers



Hose Size	Pressure	Cable Type	No Scuff	Blue Mesh Scuff	Xtreme Wrap Scuff
3/8 x 50'	2000 psi	Ground Wire	246075	256549	24Y549
3/8 x 50'	2000 psi	Thermocouple	246046	246678	24Y678
3/8 x 50'	2000 psi	RTD	24T839	24K240	24Y240
3/8 x 50'	3500 psi	Ground Wire	249588	NA	NA
3/8 x 50'	3500 psi	Thermocouple	246053	246679	24Y679
3/8 x 50'	3500 psi	RTD	24U743	24K241	24Y241
¼ x 10' whip	2000 psi	NA	NA	NA	246050
¼ x 10' whip	3500 psi	NA	NA	NA	245055

*** Refer to heated hose manual 309572 for a complete list of hose assembly part numbers**

Prices Reduced



- Design changes and process improvements results in price reductions
 - All 50' Blue Scuff hoses reduced an average of 12%
 - All 50' Xtreme Wrap hoses reduced an average of 11%
 - Whip Hoses reduced 5%
 - Multi-Hose package: Because of the value of the heated hoses in these packages, the overall list price of the package was reduced an average 0.6%

Accessories



Part	Description	US List	CAN List
25M493	50' Xtreme Wrap	\$430	\$560
25M494	10' Xtreme Wrap	\$95	\$125
25M495	Joint Protector	\$45	\$60
24K207	RTD FTS	\$406	\$528
261669	Thermocouple FTS	\$684	\$890

