STANDARD NO-HUB COUPLINGS SUBMITTAL

DATE: _____

ARCHITECT: _____ PROJECT: _____

CONTRACTOR: _____ ENGINEER: _____

The IDEAL-TRIDON Heavy Standard No-Hub Couplings are engineered to connect no-hub cast iron pipe and fittings. The coupling sleeve or gasket is manufactured from a properly vulcanized virgin compound where the primary elastomer is Neoprene. The gasket is housed inside a 300 series stainless steel corrugated shield. Depending on the size of the shield, (2) or (4) 300 stainless steel clamps surround the shield and provide the sealing force. The 5/16" hex-head screws are made from 300 series stainless steel. Sizes range from 1 1/2" – 10" and are designed for both above and below grade installation and in temperature environments from -30F to 220°F. The couplings are designed for installation torque of 60 inch-pounds. The entire coupling is corrosion resistant.

FIND YOUR PART NUMBER

Size (pipe diameter)	Part Number	Number of Clamps	Coupling Width	Installation Torque	Screw Hex Size
1 ½"	6217M8G	2"	1 ½"	60 inch-pounds (all sizes)	5/16" (all sizes)
2"	6218M8G				
3"	6219M8G				
4"	6220M8G				
5"	6221M8G	4"	3"		
6"	6222M8G				
8"	6223M8G		4"		
10"	6230M8G				
2" x 1½"	6233M8G	2"			
3" x 2"	62R198G				
4" x 3"	62R208G				

MATERIALS

Components	All Compliant to CISPI 310 and ASTM C1277
Clamp	All **300** Series AISI Stainless Steel (Band and Screw Housing)
Screw	All **300** Series AISI Stainless Steel (5/16" Hex Head / Shoulder)
Shield	All **300** Series AISI Stainless Steel
Rivets	All **300** Series AISI Stainless Steel
Gasket	Elastomeric Compound Primarily Consisting of Neoprene; Meets ***ALL*** Requirements of **ASTM C564**

Coupling Meets **ASTM C1277**
Gasket Meets **ASTM C564**
IAPMO Listed File # 3198
Meets CSA B602

THE CLAMPS

Standard-duty clamps with all 300 series stainless steel construction, featuring 1/2" wide bands in sizes 1 1/2 – 4" and 9/16" wide bands in sizes 5-10 with 5/16" hex head screws, provide optimum sealing force at an 60 inch-pound installation torque.

THE GASKET

Made from a high-quality, properly vulcanized virgin compound where the primary elastomer is polychloroprene (Neoprene). It is in full compliance with ASTM C-564. Neoprene withstands high liquid temperatures, is fire and oil resistant, and resists decay and deterioration when exposed to effluents in the pipe, air, or soil.

The Ideal-Tridon No-Hub gasket features multiple sealing beads under the clamp bands which impede the movement of the gasket and pipe, providing superior sealing pressure and holding power.

THE SHIELD

The 0.007" thick all 300 series stainless steel shield requires less band load to transfer pressure to the gasket, leaving more clamping load in reserve to compress the gasket. The bi-directional corrugations create clamp sealing pressure in both parallel and transverse patterns on the gasket and pipe, thereby avoiding pull-out failures, and providing a positive, reliable seal.

GASKET PERFORMANCE

Specific material composition requirements, workmanship, and physical testing of mechanical properties of the rubber sealing gasket have been established by ASTM C564 to ensure the prevention of damage caused by the wide varieties of environmental exposure that no-hub coupling products may experience. The specification requires all gaskets to be manufactured from a properly vulcanized virgin compound in which the primary elastomer is neoprene. The proper blend of rubber elastomers have proven effective in these gaskets maintaining their sealing properties throughout hot and cold conditions, ozone, chemical, and solvent exposure, along with the physical strength to resist damage from physical stresses such as foundation settling or other naturally occurring events. Below is a table of physical testing requirements that must be met to ensure the quality, performance, and reliability of Ideal-Tridon no-hub coupling products.

Test	Gasket Physical Testing - Minimum or Maximum Requirements		ASTM Method
Tensile Strength **Elongation** **Durometer**	Tests performed on new samples at room temperature (76°F ± 5°F)	**1500 psi minimum** **250% elongation before break** **70 ± 5 points**	**D412:** @ 20 in/min **D412:** @ 20 in/min **D2240:** Shore A
Tensile Strength **Elongation** **Durometer**	Heat-aged sample testing Test after heat aging for 96 hr @ 158°F (± 2°)	**No greater than a 15% loss in strength** **No greater than a 20% loss in elongation before break** **No greater than a 10-point increase in hardness**	**D573**
Compression Set	Test after heat aging for 22 hr @ 158°F (± 2°) at an induced deflection of 25%	**25% maximum compression set after 30-minute recovery**	**D395:** Method B
Oil Immersion	Test after immersion in IRM 903 oil for 70 hr (± 0.7 hr) @ 212°F (± 2°)	**80% maximum allowable volume increase**	**D471**
Ozone Cracking	Test and inspect after 100 (± 1) hours exposure in 100 pphm ozone concentration at 104°F (± 2°) while loop mounted to induce approximately 20% elongation.	**No visible cracking at 2x magnification of the gasket**	**D1149:** Method B
Tear Resistance	Pull sample cut from die C into 2 pieces	**No less than 150 pounds per inch of thickness before tearing**	**D624:** Die C Cutout
Water Absorption	Test after immersion in distilled water for 7 days @ 158°F (± 2°)	**20% maximum allowable weight increase**	**D471**

COUPLING PERFORMANCE

Ideal-Tridon no-hub products are designed to meet or exceed specifications for couplings used in all drain, waste, and vent (DWV) no-hub cast iron pipe systems. Examples include residential or commercial sanitary applications such as hospitals or large multi-level commercial buildings, or above- and below-ground storm water piping systems. All Ideal-Tridon Standard No-Hub Couplings are designed to be installed with a pre-set torque wrench calibrated at 60 inch-pounds to accommodate the all 300 series stainless steel 5/16" hex-head/shoulder screw.

Coupling Meets **ASTM C1277**

Gasket Meets **ASTM C564**

IAPMO Listed File # 3198

Meets CSA B602

BRACING AND INSTALLATION

In applications using larger diameter pipes, it is required that adequate bracing be placed on the pipes to support the larger forces that can inherently act on the joints. Per the Cast Iron Soil Pipe and Fittings Handbook, published by the Cast Iron Soil Pipe Institute (CISPI), horizontal pipes and fittings larger than 5" nominal diameter shall be suitably braced to prevent horizontal movement. This shall be done at every branch opening or change of direction by the use of braces, blocks, rodding, or other suitable method, to prevent movement. Vertical components shall be secured at each stack base and at sufficiently close intervals to keep the system in alignment and to adequately support the pipe and its contents. Refer to local codes for specific requirements.