

SUBMITTAL 12" AND 15" HEAVY-DUTY NO-HUB COUPLINGS

Date

Architect

Project

Contractor

Engineer

PROFLO patented No-Hub Couplings are engineered to connect no-hub cast iron pipe in applications replacing the less-efficient hub & spigot material. The Couplings consists of an elastomeric compound gasket (ASTM C-564) housed inside a 304 stainless steel corrugated shield. Six (6) 304 stainless steel clamps surround the shield and provide the sealing force. The 3/8" hex-head screws are made from 305 stainless steel. The couplings are designed for installation torque of 120 in-lbs. The entire coupling is corrosion resistant.

12" & 15" Heavy-Duty No - Hub Couplings			
Size	Part No.	Installation Torque Inch Pounds	No. of Clamps Per Coupling
12"	PFNHWBC12	120	6
15"	PFNHWBC15	120	6

The Design

The PROFLO 12" and 15" Heavy-Duty No-Hub Coupling are engineered to provide superior performance at a very competitive cost. Conforms to ASTM C-1277.

The Gasket

Made from high-quality elastomeric compound (ASTM C-564), the PROFLO No-Hub gasket features a pattern of multiple, thick sealing sectors and adjacent groove sectors laterally spaced. When the clamps are tightened, this pattern permits the clamping bands and the shield to form a restriction impeding the movement of the shield relative to the gasket.

The Shield

0.008" thick type 304 stainless steel shield requires less band load to transfer pressure to the gasket, leaving more clamping load in reserve to compress the gasket. The patented, 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. In addition, the shield design adjusts to differences in the circumference and outside diameters of the pipes being joined. This eliminates gasket wrinkling and thereby eliminating leak paths.

The Clamps

Heavy-duty 304 stainless steel clamps and 3/8" hex-head 305 screws provide the sealing force. Both the 12" and the 15" coupling use six (6) 5/8" wide clamps. The entire assembly is corrosion resistant.

12" & 15" NO-HUB COUPLINGS
Product Information Submittal
for No-Hub Systems

TEST	GASKET PHYSICAL TEST MIN. OR MAX. REQUIREMENTS	ASTM METHOD
Tensile Strength	1500 psi min.	D 412
Elongation	250 min.	D 412
Durometer (Shore A)	70 +/-5 @ 76°F +/- 5°F	D 2240
Accelerated Aging	15% maximum tensile and 20% maximum elongation, 10 points maximum increase in hardness, all determinations after oven aging for 96 hours at 158°F	D573
Compression Set	25% max. after 22 hours at 158°F	D 395 Method B
Oil Immersion	80% max. volume change after immersion in IRM 903 for 70 hours at 212°F.	D 471
Ozone Cracking	No visible cracking at 2 times magnification of the gasket after 100 hours exposure in 1.5 ppm ozone concentration at 104°F. Testing and inspection to be on gasket which is loop mounted to give approximately 20% elongation of outer surface.	D1149
Tear Resistance	150 lbf /in. min.	D 624
Water Absorption	20% max. by weight after 7 days at 158°F	D 471

MATERIALS	
Clamp:	Type 304 AISI stainless steel
Screw:	Type 305 AISI stainless steel 3/8" hex head/shoulder
Shield:	Type 304 AISI stainless steel, corrugated. Shield thickness 0.008"
Gasket:	The gasket is made of an elastomeric compound that meets the requirements of ASTM C-564.

The PROFLO No-Hub Coupling has been engineered to provide an all stainless steel coupling; balancing the desire for a more rigid joint with the need to provide a superior, positive, reliable seal which can accommodate possible disparities in the mating of No-Hub pipe and fittings. This has been accomplished by manufacturing our coupling with our standard corrugated shield of sufficient width to accommodate additional surface-bearing sealing clamps.

The additional sealing clamps, when torqued to 120 in-lbs., deliver additional performance benefits. First, the overall dimensional thickness of the clamp and shield, in conjunction with the additional width of the coupling, result in a more uniformly rigid joint, with the load being supported at both the outer edge of the coupling and the centerline of the joint. Second, the additional sealing clamps yield increased surface-bearing contact between the coupling and the pipe or fittings, thereby inhibiting joint movement at higher internal pressures not commonly associated with DWV systems.

The 12" and 15" diameter couplings consist of a 5 1/2" wide bi-directional, corrugated 304 stainless steel shield in conjunction with six (6) stainless steel clamps mounted in a series, secured in place by means of fixed and "floating" eyelets to allow the clamp "travel" during tightening.

**HEAVY DUTY
NO-HUB COUPLINGS
LARGE DIAMETER SERIES**



12" & 15" No-Hub



HEAVY DUTY NO-HUB COUPLINGS LARGE DIAMETER SERIES



Patented Bi-Directional Shield Design

The 0.008" thick, 304 stainless steel shield absorbs less of the sealing band load during tightening. This allows more load to be transferred to the gasket. Additionally, the shield will adjust to variations in diameters and circumferences of the pipes being joined, thereby eliminating leak paths. The patented, *bi-directional corrugations exert sealing pressure in both parallel and transverse patterns on the gasket and pipe, providing a positive, reliable seal.



POW'R-GEAR® High-Torque Clamps

POW'R-GEAR® high-torque clamps are specifically designed for tough sealing jobs. With a 5/8" wide, 0.028" thick band, they can deliver the band loads required for sealing large diameter applications. Each PROFLO™ 12" and 15" coupling employs six POW'R-GEAR® clamps.



Specially Beaded Gasket

The PROFLO™ gasket is made of elastomeric compounds that meets the requirements of ASTM C564 and features a series of strategically positioned grooves and beads. When tightened, the shield mates with these grooves and beads to exert exceptional sealing pressure and holding power on the pipe to prevent "pull out" failures.



Floating Eyelet Design

Floating eyelets fasten the clamps to the shield, allowing the clamp band and shield to move independently. This freedom prevents the shield from crimping during tightening, which can lead to leakage later on.

Features	PROFLO Wide Body Series 12" & 15" Couplings
5/8" Clamp Band	✓
3/8" Hex Head Screw	✓
No. of Clamps Included	6
Coupling Width	5-1/2"
Shield Color	None
Bi-Directional Shield	✓
Beaded Gasket	✓
Floating Eyelets	✓
Shield Material	304 SS
Band Material	304 SS
Housing Material	304 SS
Screw Material	305 SS
Eyelet Material	305 SS
Gasket Material	ASTM C564 Compliant
Installation Torque	120 in-lbs
Ultimate Torque	150 in-lbs
CISPI 310 Compliant	✓
ASTM C1277 Compliant	✓
ASTM C1540 Compliant	✓
IAPMO	Certified
Massachusetts Approval	✓

PROFLO™ No-Hub Couplings are engineered to connect no-hub cast iron pipe in applications replacing the less efficient hub and spigot material. The couplings consist of a neoprene gasket (ASTM C564) housed inside a 304 stainless steel corrugated shield. Six 304 stainless steel clamps surround the shield and provide the sealing force. The 3/8" hex-head screws are made from 305 stainless steel. The couplings are designed for installation torque of 120 in.- lbs. The entire coupling is corrosion resistant.

*U.S. Patent N. 5,431,458

HEAVY DUTY NO-HUB COUPLINGS LARGE DIAMETER SERIES



PROFLO™ 12" and 15" No-Hub Couplings are constructed with high-torque POW'R-GEAR® clamps and patented bi-directional shield. These elements combine with a specially beaded gasket to deliver optimum sealing and holding power.

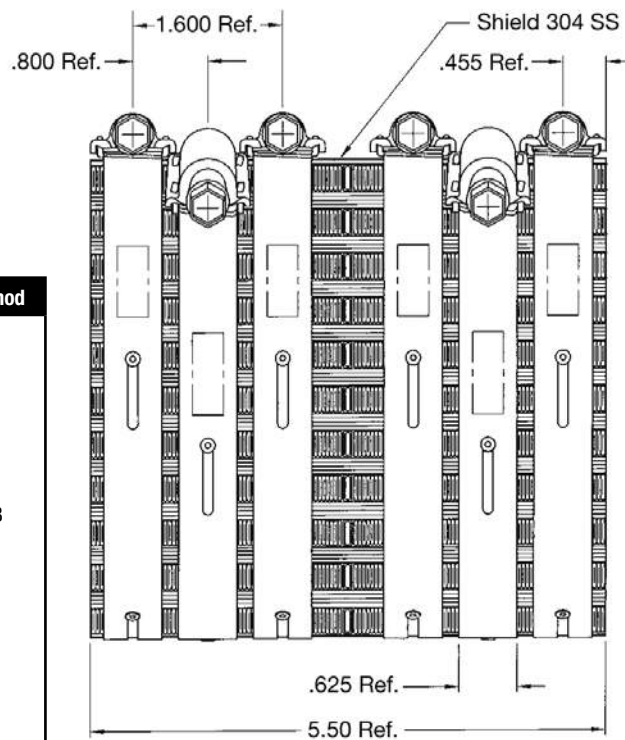
PROFLO™ 12" and 15" diameter couplings consist of a 5 1/2" wide bi-directional corrugated shield made of 304 grade stainless steel. Six high-torque POW'R-GEAR® clamps surround the shield and provide the holding power needed for large diameter applications. The specially beaded gasket mates with the clamps and shield to provide a reliable seal.

PROFLO™ 12" and 15" No-Hub Couplings

Size	Part No.	Installation Torque (Inch-pounds)	No. of Clamps Per Coupling
12"	PFNHWC12	120	6
15"	PFNHWC15	120	6

Gasket Physical Test

Test	Minimum or Maximum Requirements	ASTM Method
Tensile Strength	1500 psi min.	D 412
Elongation	250 min.	D 412
Durometer (Shore A)	70 +/-5 @ 76° F +/-5° F	D 2240
Accelerated Aging	15% maximum tensile and 20% maximum elongation, 10 points maximum increase in hardness, all determinations after oven aging for 96 hours at 158° F	D 573
Compression Set	25% max. after 22 hours at 158° F	D 395 Method B
Oil Immersion	80% max. volume change after immersion in IRM 903 for 70 hours at 212° F	D 471
Ozone Cracking	No visible cracking at 2 times magnification of the gasket after 100 hours of exposure in 1.5 ppm ozone concentration at 104° F. Testing and inspection to be on gasket which is loop mounted to give approximately 20% elongation of outer surface.	D 1149
Tear Resistance	150 lbf/in. min.	D 624
Water Absorption	20% max. by weight after 7 days at 158° F	D 471



Materials

Clamp	Type 304 AISI stainless steel
Screw	Type 305 AISI stainless steel 3/8" hex-head/shoulder
Shield	Type 304 AISI stainless steel, corrugated. Shield thickness 0.008"
Gasket	Gaskets are made of an elastomeric compound that meets the requirements of ASTM C564

Made in the USA

