



PAT MCCRORY

*Governor*

DONALD R. VAN DER VAART

*Secretary*

KIM H. COLSON

*Director*

December 15, 2015

Mr. Timothy Connor, Chemical Engineer, Municipal Support Division  
via e-mail to: [connor.timothy@epa.gov](mailto:connor.timothy@epa.gov)

Located at:  
Office of Wastewater Management  
Environmental Protection Agency  
[cwsrfwaiver@epa.gov](mailto:cwsrfwaiver@epa.gov)  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Subject: AIS Availability Waiver Request(s)  
Winston-Salem and Forsyth County  
City/County Utilities Commission  
Muddy Creek Consolidated Pumping Station (CIPS)  
Engineer: Black and Veatch  
Contractor: MWH Constructors  
Project No. CS370399-08.1

Dear Mr. Connor:

The North Carolina Division of Water Infrastructure (Division) has reviewed the information provided by the Contractor, the Engineer, and the City of Winston Salem for CWSRF Project CS370399-08.1 submitted on October 29, 2015 and additional information received 12/11/2015. The following information is provided to EPA requesting AIS Waiver for the following items:

- Stainless Steel Closure Couplings
- Long Radius Flanged Reducing Bends

The city has previously been granted AIS Waivers for items necessary and critical to the construction and schedule for this important project that are not available from domestic sources. A Waiver was previously issued by EPA to the City of Toledo, Ohio for similar reducing bends. These couplings and fittings were specified by the Engineer and the City due to the nature of the project and their previous experience, and professional judgement.

Additional information will be provided if needed and as requested.



The Division's regular construction inspections of CW and DW SRF Projects cover loan administration, construction, and SRF Requirements. If you have any questions or comments, please contact me at (919) 616-4245 or at tom.poe@ncdenr.gov.

Sincerely,

*Tom S Poe*

Tom S. Poe  
Construction Inspector

tsp

Attachments:

Project Specifications and Details for the Waiver Requested items:

- Stainless Steel Closure Couplings
- Long Radius Flanged Reducing Bends

cc, via e-mail:

Jeremy Hogan, MWH Construction

Terry Cornett, P.E., Black & Veatch Corp.,  
1277 Millerwood Drive, Winston-Salem, NC 27106

Mr. Ron Hargrove, Utilities Director  
Winston-Salem and Forsyth County City/County Utilities Commission

Seth Robertson, P.E., Mark Hubbard, P. E, Ken Pohlig, P.E. DWI Supervisors

NC-CWSRF Project File and Share Drive



10/29/2015

Terry Cornett  
Black & Veatch International Company  
10715 David Taylor Drive, Suite 240,  
Charlotte, NC 28262 USA

Subject: Availability Waiver Request from American Iron and Steel Provisions  
Clean Water Revolving Loan Fund (CWSRF)  
Muddy Creek WWTP Consolidated Influent Pumping Improvements (SRF CS370399-08)  
Winston-Salem, North Carolina

Mr. Cornett,

MWHC formally requests relief from the AIS provision on the basis of certain iron and steel products not being produced in the United States in sufficient and reasonably available quantities. This waiver request is specifically related to 54 and 78 inch diameter Stainless Steel Closure Couplings to be used for the Muddy Creek Wastewater Treatment Plant Improvements Project as specified in the attached contract specifications. MWHC received notice from their supplier (Hobas Pipe) that 54 and 78 inch diameter Stainless Steel Closure Couplings which are compatible with Hobas pipe are not available in sufficient and reasonably available quantities in a timeframe that would allow the project to meet its schedule.

MWHC has contacted several other vendors and has not been able to find a source that can provide Stainless Steel Closure Couplings which are compatible with Hobas pipe.

Feel free to contact me if you have any questions.

Sincerely,  
MWH Constructors,

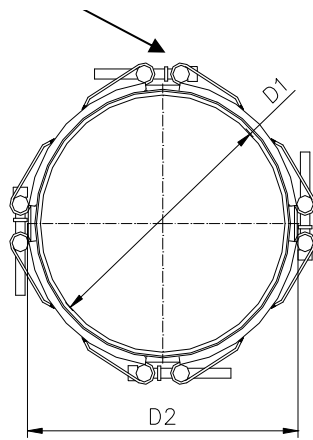
Jeremy Hogan  
Project Engineer

Attachments:

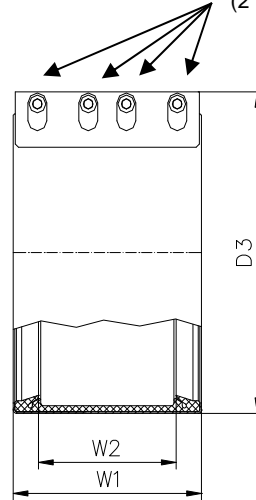
- A) Cutsheets for Stainless Steel Closure Couplings which are compatible with Hobas pipe

# HOBAS Closure Coupling

**Bolting Closure**  
(1 to 4 per coupling)



**Bolting Closure**  
(2 to 4 per coupling)



Components / Materials	W4 or W5
Casing	AISI 304 / 316SS
Screws	AISI 316 / 316L or equal
Bolts	AISI 316 / 316L or equal
Sealing sleeve	EPDM / NBR

Pipe Diameters			Working Pressures PSI	Coupling Details						Bolt Closures per Coupling	Bolts per Closure
ND	Min	Max		D1	D2	D3	W1	W2	LBS		
18	19.50	19.53	87	19.53	20.64	21.81	5.5	3.6	19.8	1	2
20	21.60	21.62	87	21.62	22.73	23.90	5.5	3.6	20.9	1	2
24	25.79	25.82	72.5	25.82	27.48	28.66	8.3	4.7	49.5	1	3
27	27.94	27.97	72.5	27.97	29.63	30.81	8.3	4.7	49.5	1	3
28	29.97	30.01	58	30.01	31.67	32.85	8.3	4.7	54.2	1	3
30	32.01	32.05	58	32.05	33.71	34.89	8.3	4.7	56.2	1	3
33	33.97	34.01	58	34.01	35.67	36.85	8.3	4.7	68.8	1	3
36	38.29	38.34	58	38.34	40.00	41.18	8.3	4.47	70.3	1	3
41	42.84	42.90	58	42.90	44.56	45.74	8.3	4.7	84.3	1	3
42	44.47	44.53	58	44.53	46.19	47.37	8.3	4.7	85.0	1	3
44	45.84	45.89	58	45.89	47.55	48.73	8.3	4.7	88.9	1	3
45	47.64	47.60	58	47.60	49.26	50.44	8.3	4.7	90.8	1	3
48	50.76	50.82	58	50.82	52.48	54.84	8.3	4.7	105.0	2	3
51	53.87	53.93	43.5	53.93	55.59	57.95	8.3	4.7	111.1	2	3
54	57.05	57.11	43.5	57.11	58.77	61.13	8.3	4.7	114.5	2	3
57	59.97	60.04	43.5	60.04	61.70	64.06	8.3	4.7	117.1	2	3
60	62.84	62.92	43.5	62.92	64.58	66.94	12.2	8.7	166.5	2	4
63	65.96	66.03	43.5	66.03	67.69	70.05	12.2	8.7	175.1	2	4
66	69.12	69.20	43.5	69.20	70.86	73.22	12.2	8.7	182.0	2	4
69	72.43	72.51	43.5	72.51	74.17	76.53	12.2	8.7	184.0	2	4
72	75.37	75.45	43.5	75.45	77.11	79.47	12.2	8.7	192.5	2	4
78	81.53	81.62	43.5	81.62	85.64	85.64	12.2	8.7	201.0	4	4
84	86.89	86.98	36	86.98	91.00	91.00	12.2	8.7	218.3	4	4
85	88.46	88.55	36	88.55	92.57	92.57	12.2	8.7	219.6	4	4
90	94.12	94.32	36	94.32	98.34	98.34	12.2	8.7	253.9	4	4
96	99.42	99.52	36	99.52	103.5	103.5	12.2	8.7	269.0	4	4
104	107.9	108.1	36	108.1	112.1	112.1	12.2	8.7	295.0	4	4
110	113.9	114.2	36	114.2	118.4	118.4	12.2	8.7	303.6	4	4



## Closure Couplings

### Gravity Flow

Closures are Stainless Steel Couplings which are straight, loose collars with internal gasket systems. The joints seal by compressing the gaskets between the natural O.D. of any HOBAS pipe and the inside of the collar. The typical assembly sequence is shown in Figure 2. Easiest assembly is accomplished with the pipes and coupling in "straight" alignment with an adequate bevel (chamfer) on the outside edge of the pipes to be joined.

### Stainless Steel Coupling

This consists of a casing, gasket and a lockpart. The purpose of the casing is to house the gasket and to press it onto the pipe surface when the lockpart is closed. The lockpart is designed to pull the two ends of the casing together circumferentially around the pipe. In order to achieve this, the coupling is labeled with a torque to ensure the gasket is compressed sufficiently against the pipe surface.

Couplings are sold individually, however, a pair are typically utilized at each closure location.

### Pressure Systems

To effect closures in force mains, utilize mechanical couplings (with appropriate corrosion protection) such as manufactured by Dresser or Viking-Johnson.

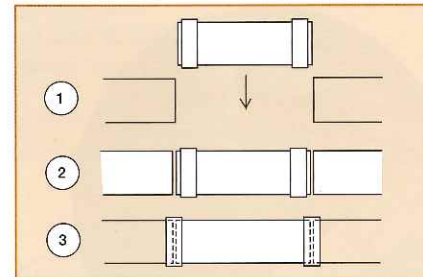
### Flush FWC Coupling

The flush FWC coupling joint consists of a reduced diameter FWC coupling fixed to one pipe end (in a recess) that seals to the spigot (recessed) end of another pipe by compressing the elastomeric gasket contained on the inside of the coupling. The joint has approximately the same O.D. as the pipe, so when assembled, the joint is essentially flush with the pipe outside surface. It is designed for pressure service in jacking installations. Allowable angular deflection limits and joining force are similar to the FWC coupling.

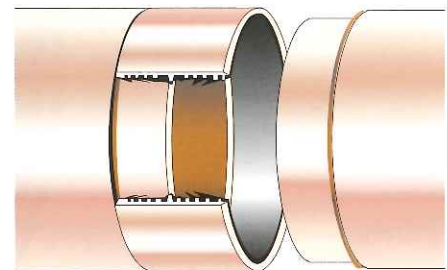
Stainless steel closure coupling.



**Note:** When using mechanical joints, torque bolts to the minimum needed for sealing - maximum 25 ft-lbs.



**FIGURE 2** - Closure coupling installation & assembly.



Flush FWC Coupling.



Pressure jacking pipes' leak-free, flush joints.