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**SPECIFICATION:** G-8210-1

**TITLE:** "SEALING THE ANNULAR SPACE  
BETWEEN THE GAS MAIN PIPE AND THE  
CASING PIPE OR MANHOLE WALL  
SLEEVE"

**VOLUME:** 2 (Section 5.0)

**PROFILE NO.:** GAS0123

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**REVISIONS:** (See ★)

- 1) Table of Contents - Added Safety Review.  
Footer
- 2) Section 7.0 - Revised Titles to several  
spec's.



# G-8210-1 Gas Operations Standards

**TITLE: SEALING THE ANNULAR SPACE BETWEEN THE  
GAS MAIN PIPE AND THE CASING PIPE OR  
MANHOLE WALL SLEEVE**

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**1.0 SCOPE**

This specification describes the construction (new and replacement work) requirements for sealing the annular space between the gas main pipe and the casing (e.g. abandoned main) pipe or manhole wall sleeve to prevent leakage (gas, water) into the casing pipe or manhole.

**2.0 LEGAL REQUIREMENTS**

This specification is in compliance with the applicable sections stipulated in:

- 2.1 Code of Federal Regulations, Title 49, Part 192, "Transportation of Natural and Other Gas By Pipeline: Minimum Federal Safety Standards".
- 2.2 Rules and Regulations of the State of New York, Public Service Commission, 16 NYCRR Part 255 "Transmission and Distribution of Gas".

**3.0 GENERAL REQUIREMENTS**

- 3.1 The annular space between the gas main pipe and the casing (e.g. abandoned main) pipe shall be sealed at each and every casing end.
- 3.2 Gas mains entering a manhole (regulator or ROV) shall be sleeved and sealed with link seals at the manhole wall. See EO-6702-D and also Section 5.2 for the proper size wall sleeve and link seals.
- 3.3 For large diameter ( $\geq 16"$ ) main insertions into a larger casing pipe, then consult Gas Distribution Engineering.



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3.0 **GENERAL REQUIREMENTS** (Continued)

3.4 Steel gas mains installed inside a casing pipe for more than 10 feet, shall be supported by insulating skids. A skid shall be installed within 5 feet of each end of the casing and on 10 foot centers throughout the casing. See Specification G-100,280 (Volume 6) for the approved skids.

4.0 **MAIN INSERTIONS**

4.1 The 3M Cold Shrink shall be used to seal the annular space at each casing end for:

- 1 1/4" IPS plastic mains inserted into a 2" casing pipe.

3M cold shrink, 2" x 1 1/2" (will seal 1 1/4"), cl/stk #341-5692.

- 2" IPS plastic mains inserted into a 3" casing pipe.

3M cold shrink, 3" x 2", cl/stk 341-5700.

When the 3M cold shrink is unavailable, then use a gasket with waterproof caulking material, Hilti foam, or duct seal and tape.

**NOTE:** When using the 3M cold shrink, then the new main has to first be "inserted through" the 3M cold shrink. The 3M cold shrink cannot be installed after the main has been inserted into the casing pipe.

4.2 Link seals, when applicable, shall be used to seal the annular space at each casing end. See Section 5.1 and 5.2 for link seal usage.



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**4.0 MAIN INSERTIONS (Continued)**

- 4.3 For proper link seal installation, see the manufacturer's installation instructions, which comes with each package.
- 4.4 For main insertions that preclude the use of the 3M cold shrink and/or link seals, then Hilti foam shall be used to seal the annular space at each casing end.

**5.0 LINK SEALS**

**5.1 Gas Main Pipe Inserted Through A Casing (ST/CI) Pipe**

PIPE SIZE NOM. DIA.	CASING PIPE NOM. DIA.	LINK SEAL MODEL NO.	NO. OF LINKS REQUIRED	CL/STK #	NO. OF PKGS TO ORDER
1 1/4"	3" ST/CI	LS-300-C	4	341-0750	1
2"	4" ST/CI	LS-300-C	6	341-0750	1
2"	6" ST/CI	LS-475-C	5	341-1006	1
2"	8" ST/CI	LS-500-C	4	341-1055	1
3"	6" ST/CI	LS-425-C	4	341-0776	1
4"	6" ST/CI	LS-300-C	10	341-0750	1
4"	8" ST/CI	LS-475-C	7	341-1006	1
4"	10" ST/CI	LS-500-C	6	341-1055	1
6"	8" ST/CI	LS-300-C	15	341-0750	2
6"	10" ST/CI	LS-475-C	10	341-1006	1
8"	10" ST/CI	LS-300-C	19	341-0750	2
8"	12" ST	LS-475-C	12	341-1006	2
8"	12" CI	LS-400-C	9	341-0768	1
10"	16" ST	LS-525-C	10	341-1030	1
10"	16" CI	LS-500-C	10	341-1055	1
12"	16" ST	LS-425-C	12	341-0776	2
12"	16" CI	LS-400-C	12	341-0768	2
12"	18" ST	LS-525-C	12	341-1030	2
12"	18" CI	LS-500-C	12	341-1055	2
16"	20" ST	LS-400-C	15	341-0768	2
16"	20" CI	LS-475-C	21	341-1006	3
20"	24" ST	LS-400-C	18	341-0768	2
20"	24" CI	LS-475-C	26	341-1006	3
24"	30" ST	LS-500-C	21	341-1055	3
30"	36" ST	LS-500-C	26	341-1055	3



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5.0 **LINK SEALS** (Continued)

**NOTE:** Link seals are not intended to support the weight of the pipe.

Do not use an impact gun to install link seals. Use a socket or offset wrench.

After tightening has been completed, all link seal bolt heads shall be coated with mastic.

5.2 Gas Main Pipe Inside A Manhole Wall (ST/PVC) Sleeve

<u>PIPE SIZE NOM. DIA.</u>	<u>M/H WALL SLEEVE NOM. DIA.</u>	<u>LINK SEAL MODEL NO</u>	<u>NO. OF LINKS REQUIRED</u>	<u>CL/STK NO.</u>	<u>NO. OF PKGS TO ORDER</u>
1/2"	2"	LS-200-C	4	341-1048	1
1"	3"	LS-300-C	4	341-0750	1
1 1/4"	3"	LS-300-C	4	341-0750	1
1 1/2"	3"	LS-300-C	7	341-1048	1
2"	4"	LS-300-C	6	341-0750	1
3"	6"	LS-425-C	4	341-0776	1
4"	8"	LS-475-C	7	341-1006	1
6"	10"	LS-475-C	10	341-1006	1
8"	12"	LS-475-C	12	341-1006	2
10"	16"	LS-525-C	10	341-1030	1
12"	16"	LS-425-C	12	341-0776	2
16"	20"	LS-400-C	15	341-0768	2
20"	24"	LS-400-C	18	341-0768	2
24"	30"	LS-500-C	21	341-1055	3
30"	36"	LS-500-6	26	341-1055	3



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**6.0 ASSOCIATED SPECIFICATIONS**

- General Specification for the Installation of Gas Distribution Mains - G-8005
- ★ Pipeline Casing Insulating Skids - G-100,280 (Volume 6)
- Field Coating of Steel Pipe and Fittings Installed Underground and in Subsurface Structures - G-8209
- Corrosion Control of Steel Gas Distribution Mains and Services - G-8205
- Sealing the Annular Space Between the Gas Service Pipe/Tubing and the Wall Sleeve, Old Service Pipe, or Aboveground Non-Concrete/Masonry Wall - G-8096
- ★ Link Seals For Sealing the Annular Space Between Pipe and Casing - G-100,237 (Volume 6)
- Method of Sealing Gas Piping in Manhole Walls - EO-6702-D

**\*NOTE:** These EO's are not for general issue. These drawings shall apply only when specified by Gas Distribution Engineering.



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