

HYMAX[®]

a **MUELLER** brand

HYMAX GRIP[®] COUPLING RESTRAINT (1.5" - 12")

Product Specifications

FEATURES

- Joins and restrains a wide range of piping types and diameters
- Unique radial gripping system
- Universal gripping teeth suitable for many pipe types. Check with your local salesperson for pipe material verification
- Ready to use, stab-fit design
- Allows 4° dynamic deflection per end, potentially reducing future damage
- Durable ductile iron body
- Patented hydraulically-assisted gasket with 2-stage sealing

SPECIFICATIONS

STANDARDS

- HYMAX GRIP meets or exceeds standards AWWA C219, NSF 61, NSF 372.

SIZE

- Available in nominal diameter from 1.5" - 12".

MATERIALS

END RINGS

- 1.5" - 3": Cast steel ASTM A216 WCB.
- 4" - 12": Ductile iron casting ASTM A536 Grade 65-45-12.

CENTER RINGS

- 1.5" - 12" ductile iron casting ASTM A536 Grade 65-45-12.
- All product sizes with handle.



GASKETS

- EPDM and NBR available. Both are compounded for water and sewage in accordance with ASTM D2000, meet international standards for contact with drinking water.

GRIP CHAIN

Gripping teeth:

- Size 1.5" - 3": FN-0405 (Fe4Ni05Mo).
- Sizes 4" - 12": AISI 420.
- Sizes 4" - 12" High Pressure: FN-0405 (Fe4Ni05Mo).

BRIDGE

- Available in AISI 304 or 316 Stainless Steel. ASTM A240.

SPHERICAL SPACERS

- Available in AISI 304 (ASTM A351 CF8) or AISI 316 (ASTM A351 CF8M) Stainless Steel.

COATING

- 100% fusion bonded epoxy for enhanced corrosion protection.
- Average thickness 14 mm.
- Meets AWWA C116 standard.

BOLTS, NUTS AND WASHERS

- Available in AISI 304 or 316 Stainless Steel. Rolled thread with anti-galling coating. ASTM F593, ASTM F594, ASTM A240 respectively.



JOIN



REPAIR



RESTRAIN



TAP

MUELLER

PRODUCT PERFORMANCE

WORKING TEMPERATURE

- EPDM: -20°F up to +125°F
- NBR: -4°F up to +125°F

DYNAMIC DEFLECTION

- Up to 4° per side

MIN. PIPE INSERTION

- 3.6"

PRESSURES & ΔT

- ΔT - HDPE pipe expands and contracts with changes in temperature and exerts large pull-load forces on the coupling. ΔT for HDPE pipe is the change in temperature the coupling can withstand when installed on HDPE pipe.
- Stiffeners are required when installing this product on HDPE pipe.

Standard Pressure GRIP				
Steel, DI, CI, PVC, and SS		HDPE		
ND (inch)	Working Pressure (psi)		Working Pressure (psi)	ΔT for HDPE SDR 9 (°F)
1.5/2	232		232	85
2.5	232		232	85
3	232		232	85
4	232		232	85
6	232		232	85
8	232		193	50
10	232		163	50
12	232		155	35

MAXIMUM OFFSET FOR MISALIGNED PIPES

- 0.25"

MAXIMUM OUT OF ROUNDNESS

- ND 1.5" - ND 3": 0.12"
- ND 4" - ND 12": 0.16"

VACUUM TEST

- 12 psi

*Registered patent

High Pressure GRIP		
Steel, DI, CI, PVC, HDPE, and SS		
ND (inch)	Working Pressure (psi)	ΔT for HDPE SDR 9 (°F)
4	250	100
6	250	100
8	250	100
10	250	100
12	250	70

PRODUCT TABLES

TORQUE		
ND (inch)	EPDM (ft-lb)	NBR (ft-lb)
1.5/2	50	50
2.5	50	50
3	50	50
4	90	105
6	110	110
8	200	200
10	200	200
12	200	200

PRODUCT CONFIGURATIONS

The product is offered in several different configurations. Note that the "xx" marking in the Cat. no. should be replaced as directed:

Part Number 890-XX

56 - Standard Pressure Grip with EPDM gasket, Fasteners AISI 304SS

57 - Standard Pressure Grip with NBR gasket, Fasteners AISI 304SS

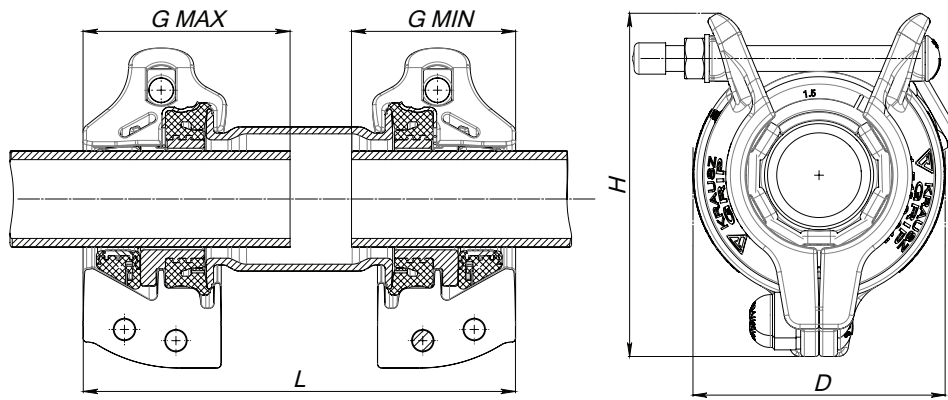
58 - High Pressure Grip with EPDM gasket, Fasteners AISI 304SS

59 - High Pressure Grip with NBR gasket, Fasteners AISI 304SS

96 - Standard Pressure Grip with EPDM gasket, Fasteners AISI 316SS

For example -

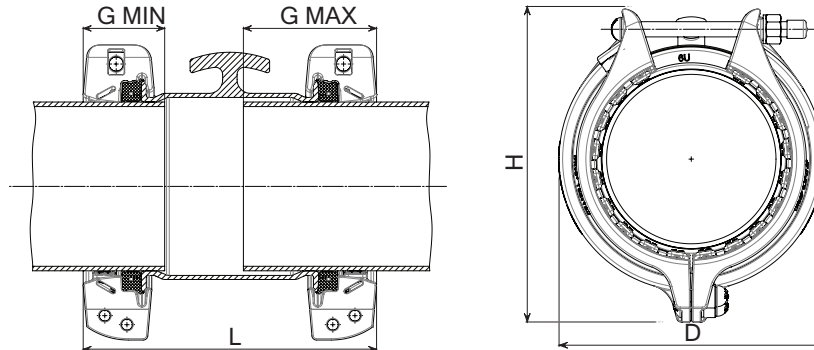
890-XX-015039-16 should be read as 890-56-015039-16 for EPDM gasket and 890-57-015039-16 for NBR gasket.



HYMAX GRIP NOMINAL SIZE 1.5" - 3" (*)

HYMAX Part Number	Nominal Diameter (inch)	Overall Range (inch)	Before Removal of the Inner Layer (inch)	After Removal of the Inner Layer (inch)	L (inch)	D (inch)	H (inch)	Bolts Qty. - Size	G - Max Stab Depth (inch)	Approx. Weight (lbs)
890-XX-015039-16	1.5/2	1.54 - 2.64	1.54 - 2.20	2.17 - 2.64	10	5.35	7.48	2 - M14	4.5	15.45
890-XX-025059-16	2.5	2.32 - 3.43	2.32 - 2.99	2.95 - 3.43	10	6.18	8.07	2 - M14	4.5	20.26
890-XX-030080-16	3	3.15 - 4.17	3.15 - 3.74	3.70 - 4.17	11.93	6.93	9.06	2 - M14	5.5	25.53

* NOTE: configs 58 & 59 are not relevant for 1.5" - 3" sizes



HYMAX GRIP NOMINAL SIZE 4" - 12"

HYMAX Part Number	Nominal Diameter (inch)	Overall Range (inch)	L (inch)	D (inch)	H (inch)	G - Max Stab Depth (inch)	Bolts Qty. - Size	Approx. Weight (lbs)
890-XX-04111-16	4	4.40 - 5.10	11.4	8.7	10.6	5.3	2 - 5/8	32
890-XX-06165-16	6	6.50 - 7.20	12.8	10.9	12.9	5.9	2 - 5/8	43
890-XX-08216-16	8	8.50 - 9.40	13.3	13.8	15.7	6.1	2 - 3/4	74
890-XX-10270-16	10	10.65 - 11.55	13.5	16.2	18.2	6.3	2 - 3/4	92
890-XX-12322-16	12	12.68 - 13.39	13.5	17.4	19.8	6.3	2 - 3/4	100

To learn more, visit [HymaxUSA.com](https://www.hymaxusa.com).

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