

TECHNICAL DATA SHEET / EN

M-1GS

Rigid tongue-and-groove coupling

M-1GS is a rigid coupling for joining prepared grooved steel pipe ends. Its tongue-and-groove housing construction distinguishes it from the angle-pad M-1X and from flexible couplings.

Interlocking housing halves engage the pipe grooves and are held by bolts and nuts. The elastomer gasket provides the seal; the housing carries the mechanical connection.



01 Technical parameters

Parameter	Value / condition
Working pressure	300 psi / 20.7 bar
Connection	Grooved
Gasket material range	EPDM E: -34°C / +110°C
Temperature	For the gasket material only; complete assembly and medium limits also apply.

For aboveground steel pipework in fixed water-based fire-protection systems. The component forms part of a designed pipe assembly; it does not detect or extinguish a fire by itself.

02 Certification and scope

Document	Number	Scope
FM Approvals	PR475688	Model M-1GS

Approval scope depends on model, exact size, execution, pipe, gasket and pressure. Approval is not transferable between variants.

The cited FM scope confirms the red-painted execution. The required approval scope for galvanized execution must be confirmed separately.

03 Dimensions and geometry

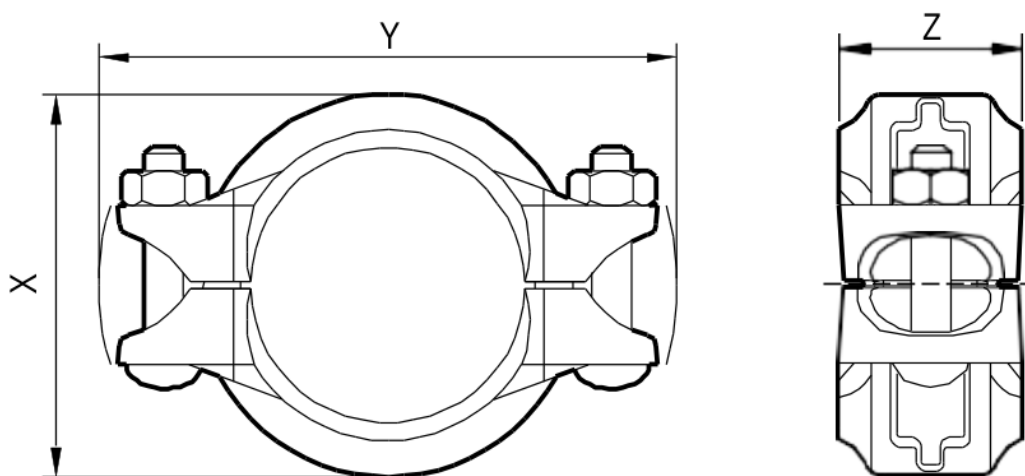


Fig. 1. Dimension symbols used in the table below.

DN	OD [mm]	X [mm]	Y [mm]	Z [mm]	Mass [kg]
DN25	33.4	54	98	44	0.55
DN40	48.3	69	115	44	0.6
DN50	60.3	83	128	45	0.71
DN65	76.1	100	145	46	0.9
DN80	88.9	113	159	47	1.01
DN100	114.3	142	198	49	1.48
DN125	139.7	169	230	50	2
DN150	168.3	199	257	51	2.27
DN200	219.1	256	328	58	4
DN250	273	311	397	59	5.17
DN300	323.9	365	451	60	6.86

Dimensions in mm. Symbols apply only to Fig. 1 and the specified variant. Do not scale the drawing.

04 Main component materials

Component	Material / construction
Housing/body	Ductile iron ASTM A536 Grade 65-45-12
Gasket	EPDM, model-specific profile
Fasteners	Carbon steel to the controlled model bill of materials

05 Selection and compatibility

Specify the model, actual pipe outside diameter, pipe wall and groove preparation, surface finish and pressure requirement. DN alone does not identify every compatible execution.

06 Installation and checks

A competent installer must check pipe preparation and clean sealing surfaces. Use the specified joining components and follow the instructions for the exact model; do not borrow a tightening method from another product.

07 Operation and maintenance

During scheduled inspections, check for leakage, corrosion and mechanical damage. Depressurize and drain the affected section before dismantling; use compatible replacement parts.

Application limitations

This rigid joint is not intended to absorb pipe movement. The lowest-rated assembly component governs pressure. Gasket temperature limits apply only to the specified material and compatible medium; prevent freezing of water.

08 Ordering information

Variant	Painted (P)	Galvanized (G)
DN25	M-1GS-033P	M-1GS-033G
DN40	M-1GS-048P	M-1GS-048G
DN50	M-1GS-060P	M-1GS-060G
DN65	M-1GS-076P	M-1GS-076G
DN80	M-1GS-089P	M-1GS-089G
DN100	M-1GS-114P	M-1GS-114G
DN125	M-1GS-139P	M-1GS-139G
DN150	M-1GS-168P	M-1GS-168G
DN200	M-1GS-219P	M-1GS-219G
DN250	M-1GS-273P	M-1GS-273G
DN300	M-1GS-323P	M-1GS-323G

P — painted; G — galvanized. A code suffix identifies the finish, not approval coverage. Confirm the required approval for the ordered execution.