

TECHNICAL DATA SHEET / EN

M-1X

Rigid angle-pad grooved coupling

M-1X joins two prepared grooved pipe ends to create a rigid connection. It is intended for locations where the pipe layout requires restraint at the joint, rather than designed flexibility.

Two housing halves engage the pipe grooves. Inclined bolt pads draw the housing into position, while a dedicated elastomer gasket seals against the pipe surfaces.



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-1X

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

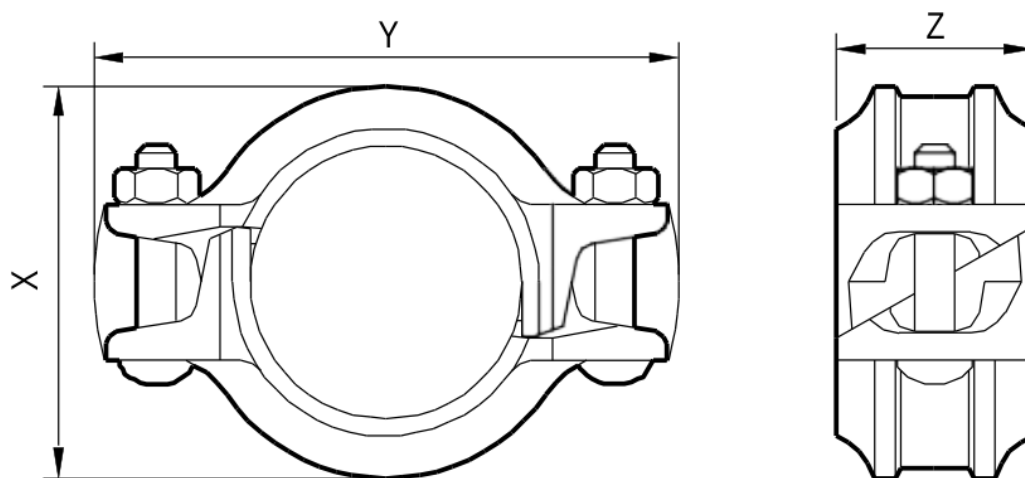


Fig. 1. Dimension symbols used in the table below.

DN	OD [mm]	X [mm]	Y [mm]	Z [mm]	Mass [kg]
DN25	33.4	55	98	45	0.49
DN40	48.3	70	115	45	0.62
DN50	60.3	85	130	47	0.77
DN65	76.1	103	151	49	1
DN80	88.9	116	164	49	1.11
DN100	114.3	144	194	51	1.52
DN125	139.7	172	232	51	2.12
DN150	168.3	201	261	52	2.53
DN200	219.1	260	325	61	4.49
DN250	273	314	397	61	5.53
DN300	323.9	368	451	62	7.22

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	Mercatura code
DN25 / 33.4 mm	M-1X-033
DN40 / 48.3 mm	M-1X-048
DN50 / 60.3 mm	M-1X-060
DN65 / 76.1 mm	M-1X-076
DN80 / 88.9 mm	M-1X-089
DN100 / 114.3 mm	M-1X-114
DN125 / 139.7 mm	M-1X-139
DN150 / 168.3 mm	M-1X-168
DN200 / 219.1 mm	M-1X-219
DN250 / 273 mm	M-1X-273
DN300 / 323.9 mm	M-1X-324

Specify finish, gasket and required approval scope with the variant identifier. The identifier alone does not establish these attributes.