

TECHNICAL DATA SHEET / EN

M-1N

Flexible grooved coupling

M-1N joins grooved pipe ends where the design calls for limited movement at the joint. Flexibility is a controlled feature of the selected size and pipe preparation, not unrestricted displacement.

The housing engages both pipe grooves while retaining the designed clearances between the pipe ends and housing. These clearances permit limited axial movement and angular deflection; an elastomer gasket maintains the seal.



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-1N

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

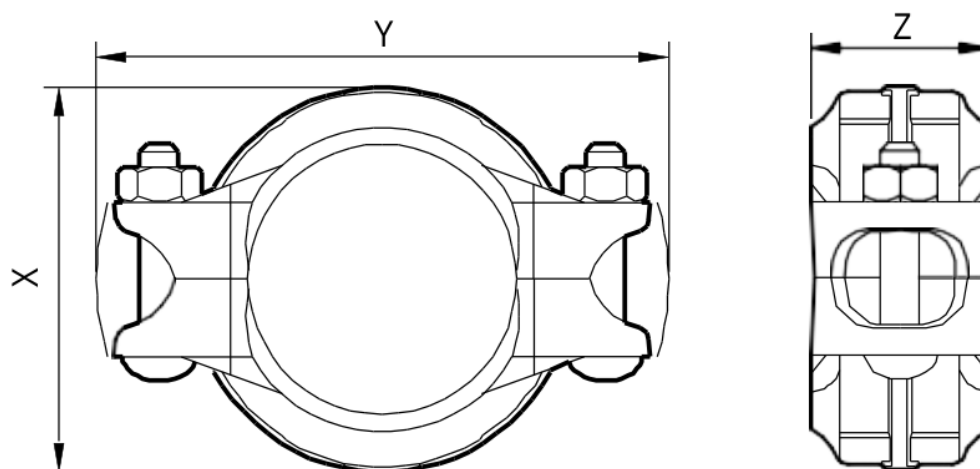


Fig. 1. Dimension symbols used in the table below.

DN	OD [mm]	X [mm]	Y [mm]	Z [mm]	Mass [kg]
DN25	33.4	53	98	44	0.55
DN40	48.3	68	115	44	0.6
DN50	60.3	83	130	45	0.71
DN65	76.1	100	147	46	1
DN80	88.9	113	172	47	1.11
DN100	114.3	142	202	51	1.66
DN125	139.7	172	236	51	2.42
DN150	168.3	199	275	52	2.83
DN200	219.1	256	343	61	5.06
DN250	273	311	397	61	5.91
DN300	323.9	365	451	62	7.39

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 actual pipe outside diameter, wall and groove preparation, plus the required movement. Obtain the size-specific axial and angular allowances; do not extrapolate them from another size.

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

A flexible coupling is not an unrestricted expansion joint and does not replace the designed supports or anchors. Respect the lowest component pressure rating, gasket compatibility and protection against freezing.

08 Ordering information

Variant	Painted (P)	Galvanized (G)
DN25	M-1N-034P	M-1N-034G
DN40	M-1N-048P	M-1N-048G
DN50	M-1N-060P	M-1N-060G
DN65	M-1N-076P	M-1N-076G
DN80	M-1N-089P	M-1N-089G
DN100	M-1N-114P	M-1N-114G
DN125	M-1N-139P	M-1N-139G
DN150	M-1N-168P	M-1N-168G
DN200	M-1N-219P	M-1N-219G
DN250	M-1N-273P	M-1N-273G
DN300	M-1N-323P	M-1N-323G

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