

TECHNICAL DATA SHEET / EN

M-90

90° grooved elbow

M-90 changes the direction of a grooved pipeline by 90°. It is the standard elbow geometry in this range and should be selected by its own centre-to-end dimensions.

Water passes through the shaped fitting body into the perpendicular pipe run. Separate compatible grooved couplings and their gaskets retain and seal the two end connections.



01 Technical parameters

Parameter	Value / condition
Working pressure	300 psi / 20.7 bar
Connection	Grooved

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-90

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

03 Dimensions and geometry

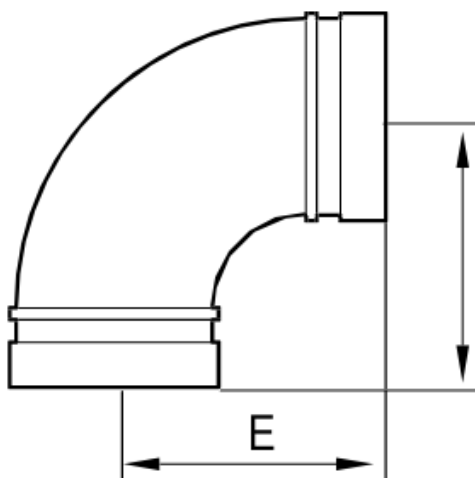


Fig. 1. Dimension symbols used in the table below.

E in the drawing corresponds to CE in the source dimension table.

DN	OD [mm]	E / CE [mm]	Mass [kg]
DN25	33.4	57	0.3
DN32	42.4	70	0.5
DN40	48.3	70	0.5
DN50	60.3	83	0.8
DN65	76.1	95	1.7
DN80	88.9	108	2
DN100	114.3	127	3.2
DN125	139.7	140	5.3
DN150	168.3	165	7.8
DN200	219.1	197	13.6
DN250	273	229	28.7
DN300	323.9	254	33.6

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

05 Selection and compatibility

Select the angle and model, actual pipe outside diameter, pressure and finish. Check centre-to-end dimensions, coupling clearance and the hydraulic calculation; nominal diameter alone does not establish interchangeability.

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

The bare fitting does not establish the rating of its couplings, seals or adjoining equipment. Use the lowest pressure limit of the complete assembly; verify media and temperature compatibility of all sealing components.

08 Ordering information

Variant	Painted (P)	Galvanized (G)
DN25	M-90-034P	M-90-034G
DN32	M-90-042P	M-90-042G
DN40	M-90-048P	M-90-048G
DN250	M-90-273P	M-90-273G
DN300	M-90-323P	M-90-323G

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