

TECHNICAL DATA SHEET / EN

M-3G

Mechanical tee with grooved outlet

M-3G creates a branch from a prepared opening in a steel main pipe. Its grooved outlet accepts a compatible branch connection without inserting a complete three-ended tee into the main run.

A locating outlet housing and opposing housing clamp around the pipe. A dedicated gasket seals around the prepared hole, and the branch is connected using a separate grooved coupling.



01 Technical parameters

Parameter	Value / condition
Working pressure	300 psi / 20.7 bar
Connection	Mechanical
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-3G

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

03 Dimensions and geometry

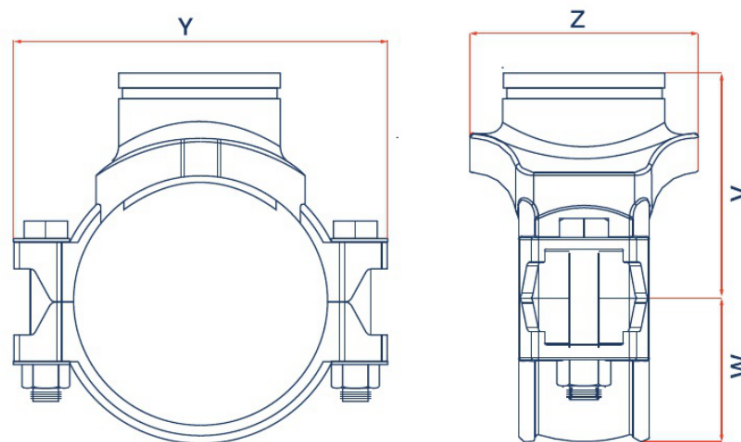


Fig. 1. Dimension symbols used in the table below.

DN	OD [mm]	Hole Ø [mm]	W [mm]	Y [mm]	Z [mm]	V [mm]	Mass [kg]
DN50 x DN25	60.3 x 33.4	38	37	134	70	64	0.85
DN50 x DN40	60.3 x 48.3	44.5	37	134	77	65	0.91
DN65 x DN25	76.1 x 33.4	38	45	151	68	76	1.19
DN65 x DN40	76.1 x 48.3	51	45	151	83	76	1.27
DN80 x DN25	88.9 x 33.4	38	52	161	68	82	1.28
DN80 x DN40	88.9 x 48.3	51	52	161	82	82	1.37
DN80 x DN50	88.9 x 60.3	64	52	161	95	82	1.44
DN100 x DN25	114.3 x 33.4	38	65	188	69	96	1.52
DN100 x DN40	114.3 x 48.3	51	65	188	83	96	1.62
DN100 x DN50	114.3 x 60.3	64	65	188	95	96	1.75
DN100 x DN65	114.3 x 76.1	70	65	188	101	97	1.93
DN100 x DN80	114.3 x 88.9	89	65	188	122	97	2.07
DN125 x DN25	139.7 x 33.4	38	78	232	68	110	2.15
DN125 x DN40	139.7 x 48.3	51	78	232	81	110	2.26
DN125 x DN50	139.7 x 60.3	64	78	232	95	110	2.42
DN125 x DN65	139.7 x 76.1	70	78	232	103	110	2.65
DN125 x DN80	139.7 x 88.9	89	78	232	120	110	2.77
DN150 x DN25	168.3 x 33.4	38	97	126	116	94	2.43
DN150 x DN40	168.3 x 48.3	51	97	126	119	94	2.53
DN150 x DN50	168.3 x 60.3	64	97	126	122	94	2.74

DN	OD [mm]	Hole Ø [mm]	W [mm]	Y [mm]	Z [mm]	V [mm]	Mass [kg]
DN150 x DN65	168.3 x 76.1	70	97	126	124	94	2.96
DN150 x DN80	168.3 x 88.9	89	97	126	129	94	3.13
DN150 x DN100	168.3 x 114.3	114	97	128	—	94	3.52
DN200 x DN25	219.1 x 33.4	38	123	152	142	121	3.95
DN200 x DN40	219.1 x 48.3	51	123	152	145	121	4.11
DN200 x DN50	219.1 x 60.3	64	123	152	148	121	4.37
DN200 x DN65	219.1 x 76.1	70	123	152	152	121	4.58
DN200 x DN80	219.1 x 88.9	89	123	152	155	121	4.83
DN200 x DN100	219.1 x 114.3	114	123	154	—	121	5.31

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

The dimension table covers only variants with available geometry. Dimensions for other sizes require separate confirmation.

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 main-pipe and branch outside diameters, pipe wall, hole requirements, branch groove and pressure. Confirm the exact main-by-outlet combination; the branch coupling is a separate selection.

06 Installation and checks

Fit only on isolated, depressurized and drained pipe; this is not a hot-tapping device. Prepare and deburr the specified hole, remove cuttings and position the correct gasket and housing according to the model instructions.

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 lowest-rated component limits the complete assembly. A gasket material temperature range is not automatically the operating range of the whole joint. Protect water-filled pipework against freezing.

08 Ordering information

Variant	Painted (P)	Galvanized (G)
DN50 × DN40	M-3G-060048P	M-3G-060048G
DN65 × DN40	M-3G-076048P	M-3G-076048G
DN80 × DN40	M-3G-089048P	M-3G-089048G
DN80 × DN50	M-3G-089060P	M-3G-089060G
DN100 × DN40	M-3G-114048P	M-3G-114048G
DN100 × DN50	M-3G-114060P	M-3G-114060G
DN100 × DN65	M-3G-114076P	M-3G-114076G
DN100 × DN80	M-3G-114089P	M-3G-114089G
DN125 × DN50	M-3G-139060P	M-3G-139060G
DN125 × DN65	M-3G-139076P	M-3G-139076G
DN125 × DN80	M-3G-139089P	M-3G-139089G
DN150 × DN40	M-3G-168048P	M-3G-168048G
DN150 × DN50	M-3G-168060P	M-3G-168060G
DN150 × DN65	M-3G-168076P	M-3G-168076G
DN150 × DN80	M-3G-168089P	M-3G-168089G
DN150 × DN100	M-3G-168114P	M-3G-168114G
DN200 × DN65	M-3G-219076P	M-3G-219076G
DN200 × DN80	M-3G-219089P	M-3G-219089G
DN200 × DN100	M-3G-219114P	M-3G-219114G

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