

The logo icon consists of a stylized 'M' shape formed by a series of horizontal lines of varying lengths, creating a sense of depth and movement.

Mercatura[®]

Grooved system



Mercatura – or more precisely, the people behind the creation of this brand – have been active in the fire protection industry since the late 1990s. They initially developed their business in Eastern Europe and Asia. In 2015, they decided to expand into Hungary, where the Mercatura brand was established, with its headquarters in Budapest.

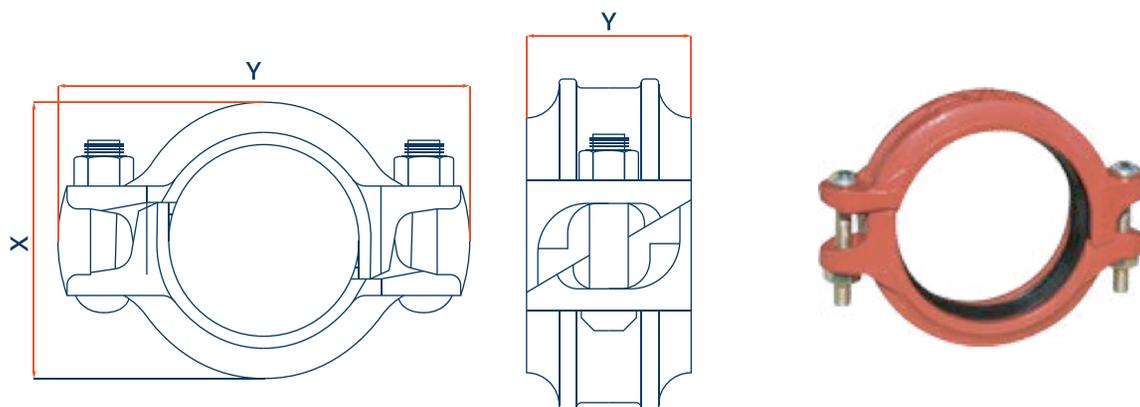
Mercatura is a brand that prides itself on delivering high-quality products. All solutions undergo rigorous in-house testing and are certified by internationally recognized institutions such as FM, UL, CNBOP and PAVUS. The product portfolio continues to grow, and the company's ambitious goal is to provide fire safety solutions across Europe, the Middle East, and Africa.

In 2025, with its main headquarters in Budapest, the company decided to open its own warehouse in Poland. This investment aims to accelerate delivery times and expand the product line with the introduction of grooved fittings systems and DELUGE systems.

Mercatura products are modern, technologically advanced solutions that guarantee proven quality.

Your safety is our priority.

QUICK GROOVED RIGID COUPLING 1X



Size Range:

DN40 X DN32 through DN200 X DN150
(48.3 mm x 42.4 mm through 219.1)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

28 bar (400 psi) to 52 bar (750 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Coating:

Painted red, Galvanised

Material:

- "Coupling: Ductile cast iron (ASTM A536 Grade 65-45-12)
- Gasket: EPDM
- Bolts and nuts: Quenched iron

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Max. Work Pressure	Max. End Load	Allowable Pipe End Separation	Dimensions			Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Nominal Dia.	Actual Outside Dia.				W	Y	Z			Painted red	Galvanised
DN	mm	PSI	Lbs.	mm	mm	mm	mm	kg			
25	33,4	750	1020	2,2	55	98	45	M10X50	0,49	M-1X-033P	M-1X-033G
32	42,4	750	1620	2,2	64	110	45	M10X50	0,58	M-1X-042P	M-1X-042G
40	48,3	750	2130	2,2	70	115	45	M10X50	0,62	M-1X-048P	M-1X-048G
50	60,3	600	2660	2,2	85	130	47	M10X50	0,77	M-1X-060P	M-1X-060G
65	76,1	550	3890	2,7	103	151	49	M10X55	1,00	M-1X-076P	M-1X-076G
80	88,9	550	5290	2,7	116	164	49	M10X55	1,11	M-1X-089P	M-1X-089G
100	114,3	500	7950	3,3	144	194	51	M12X70	1,52	M-1X-114P	M-1X-114G
125	139,7	500	11880	3,3	172	232	51	M12X75	2,12	M-1X-139P	M-1X-139G
150	168,3	500	17240	3,3	201	261	52	M12X75	2,53	M-1X-168P	M-1X-168G
200	219,1	400	23370	4,9	260	325	61	M16X85	4,49	M-1X-219P	M-1X-219G
250	273,0	350	31770	4,9	314	397	61	M20X115	5,53	M-1X-273P	M-1X-273G
300	323,9	350	44690	4,9	368	451	62	M20X115	7,22	M-1X-324P	M-1X-324G

Installation

INSTALLATION OF THE ELBOW WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

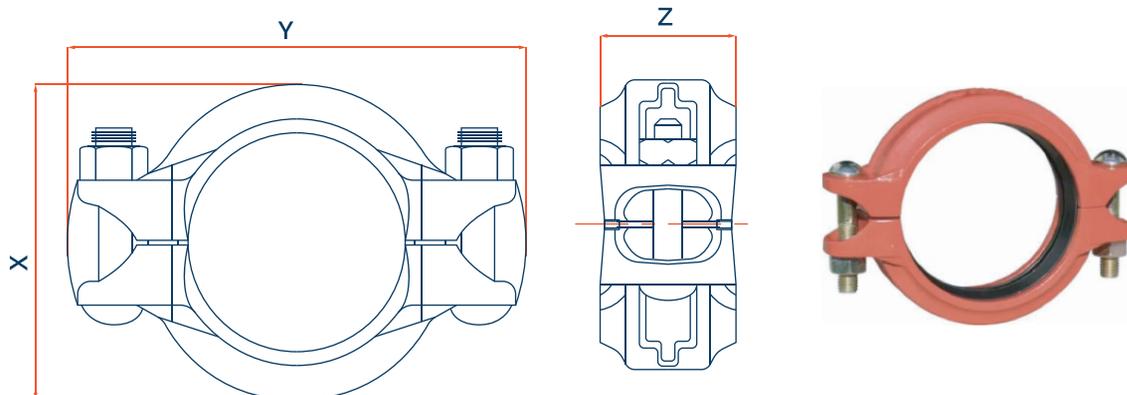
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED RIGID COUPLING 1GS



Size Range:

DN40 X DN32 through DN200 X DN150
(48.3 mm x 42.4 mm through 219.1)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

28 bar (400 psi) to 52 bar (750 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Coating:

Painted red, Galvanised

Material:

- "Coupling: Ductile cast iron (ASTM A536 Grade 65-45-12)
- Gasket: EPDM
- Bolts and nuts: Quenched iron

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Max. Work Pressure	Max. End Loam	Allowable Pipe End Separation	Dimensions			Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Nominal Dia.	Actual Outside Dia.				W	Y	Z			Painted red	Galvanised
DN	mm	PSI	Lbs.	mm	mm	mm	mm	kg			
25	33,4	750	1020	2,3	54	98	44	M10X50	0,55	M-1GS-034P	M-1GS-034P
32	42,4	750	1620	2,3	63	109	44	M10X50	0,58	M-1GS-042P	M-1GS-042G
40	48,3	750	2130	2,3	69	115	44	M10X50	0,60	M-1GS-048P	M-1GS-048G
50	60,3	600	2660	2,3	83	128	45	M10X50	0,71	M-1GS-060P	M-1GS-060G
65	76,1	550	3890	2,3	100	145	46	M10X55	0,90	M-1GS-76P	M-1GS-076G
80	88,9	550	5290	2,7	113	159	47	M10X75	1,01	M-1GS-089P	M-1GS-089G
100	114,3	500	7950	2,7	136	192	49	M12X70	1,44	M-1GS-114P	M-1GS-114G
125	139,7	500	11880	2,7	169	230	50	M12X75	2,00	M-1GS-139P	M-1GS-139G
150	168,3	500	17240	2,7	199	257	51	M12X75	2,27	M-1GS-168P	M-1GS-168G
200	219,1	400	23370	4,9	256	328	58	M16X85	4,00	M-1GS-219P	M-1GS-219G
250	273,0	350	31770	4,9	311	397	59	M20X115	5,17	M-1GS-273P	M-1GS-273G
300	323,9	350	44690	4,9	365	451	60	M20X115	6,68	M-1GS-324P	M-1GS-324G

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Installation

INSTALLATION OF THE ELBOW WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

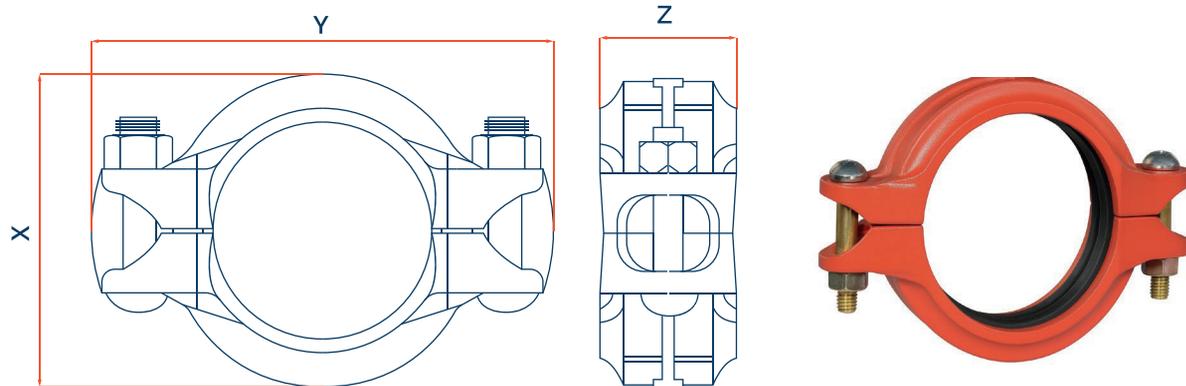
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED FLEXIBLE COUPLING 1N



Size Range:

1" to 12" DN25 to DN300

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

21 bar (300 psi) to 52 bar (750 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

- Coupling: Ductile cast iron
(ASTM A536 Grade 65-45-12)
- Gasket: EPDM

Bolts and Nuts:

Heat-treated, electro-galvanized oval neck bolts with heavy-duty hex nuts. Comply with ASTM A449 (mechanical & chemical) and ASTM A183 (mechanical)

Coating:

Painted red, Galvanized

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Max. Work Pressure	Dimensions			Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Inches	DN	mm		W	Y	Z			Painted red	Galvanised
1	25	33,4	750	53	98	44	M10x50	0,55	M-1N-033P	M-1N-033G
1 ¼	32	42,4	750	62	110	44	M10x50	0,58	M-1N-042P	M-1N-042G
1 ½	40	48,3	750	68	115	44	M10x50	0,6	M-1N-048P	M-1N-048G
2	50	60,3	600	83	130	45	M10x50	0,71	M-1N-060P	M-1N-060G
2 ½	65	76,1	550	100	147	46	M10x55	0,9	M-1N-076P	M-1N-076G
3	80	88,9	550	113	172	47	M10x55	1,11	M-1N-089P	M-1N-089G
4	100	114,3	500	136	196	51	M12x70	1,66	M-1N-114P	M-1N-114G
5	125	139,7	500	166	230	51	M16x85	2,42	M-1N-139P	M-1N-139G
6	150	168,3	500	199	275	52	M16x85	2,83	M-1N-168P	M-1N-168G
8	200	219	400	256	343	61	M20x100	5,06	M-1N-219P	M-1N-219G
10	250	273	350	311	397	61	M22x135	5,91	M-1N-273P	M-1N-273G
12	300	323,9	350	365	451	62	M22x135	7,39	M-1N-324P	M-1N-324G

Installation



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

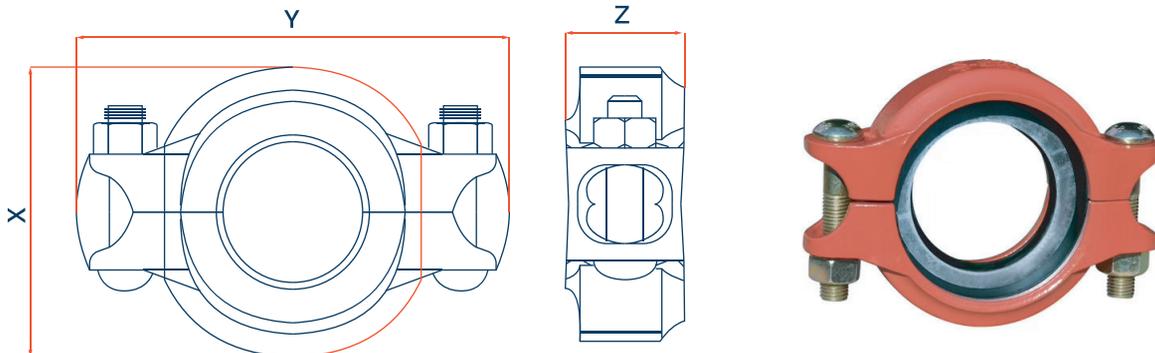
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED REDUCING COUPLING 1NR



Size Range:

DN40 X DN32 through DN200 X DN150
(48.3 mm x 42.4 mm through 219.1)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

28 bar (400 psi) to 38 bar (550 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

- Coupling: Ductile cast iron (ASTM A536 Grade 65-45-12)
- Gasket: EPDM

Bolts and Nuts:

Heat-treated, electro-galvanized oval neck bolts with heavy-duty hex nuts. Comply with ASTM A449 (mechanical & chemical) and ASTM A183 (mechanical)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Max. Work Pressure	Max. Work Loan	Max. Work End Sep.	Dimensions			Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Run Pipe	X	Branch Pipe				X	Y	Z			Painted red	Galvanised
mm	X	mm	PSI	Lbs.	mm	mm	mm	mm	kg			
48,4	x	42,4	550	1190	2,4	64	129	47	M10X50	0,66	M-1NR-048042P	M-1NR-048042G
60,3	x	42,4	550	1190	2,6	80	145	47	M10X50	0,86	M-1NR-060042P	M-1NR-060042G
60,3	x	48,3	550	1559	2,6	80	145	47	M10X50	0,87	M-1NR-060048P	M-1NR-060048G
76,1	x	60,3	550	2437	2,9	95	160	49	M12X75	1,35	M-1NR-076060P	M-1NR-076060G
88,9	x	60,3	500	2215	3,1	115	178	49	M12X75	1,59	M-1NR-089060P	M-1NR-089060G
88,9	x	76,1	550	3888	3,1	115	178	49	M12X75	1,48	M-1NR-089076P	M-1NR-089076G
114,3	x	60,3	500	2215	3,5	141	208	51	M16x85	2,72	M-1NR-114060P	M-1NR-114060G
114,3	x	76,1	500	3534	3,5	141	208	51	M16x85	2,51	M-1NR-114076P	M-1NR-114076G
114,3	x	88,9	550	5292	3,5	141	208	51	M16x85	2,33	M-1NR-114089P	M-1NR-114089G
139,7	x	88,9	400	3848	4,0	168	247	51	M20X115	3,68	M-1NR-139089P	M-1NR-139089G
139,7	x	114,3	450	7157	4,0	168	247	51	M20X115	3,19	M-1NR-139114P	M-1NR-139114G
168,3	x	114,3	400	6362	4,7	199	276	51	M20X115	4,24	M-1NR-168114P	M-1NR-168114G
219,1	x	168,3	400	13789	4,9	261	356	61	M22X135	3,38	M-1NR-219168P	M-1NR-219168G

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Installation



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

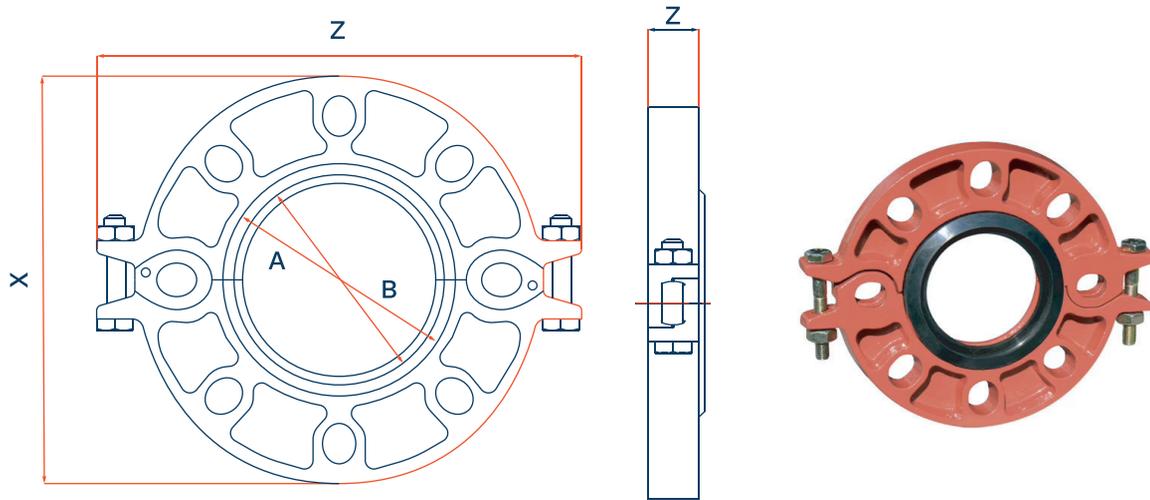
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

SPLIT FLANGE 321



Size Range:

DN50 through DN200
(60.3 mm through 219.1 mm)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

28 bar (400 psi) to 34 bar (500 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

- Coupling: Ductile cast iron (ASTM A536 Grade 65-45-12)
- Gasket: EPDM

Bolts and Nuts:

Heat-treated, electro-galvanized oval neck bolts with heavy-duty hex nuts. Comply with ASTM A449 (mechanical & chemical) and ASTM A183 (mechanical).

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Max. Work Pressure	Max. End Load	Gasket Seat		Dimensions			Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Nominal Dia.	Actual Outside Dia.			A	B	X	Y	Z			Painted red	Galvanised
DN	mm	PSI	Lbs.	mm	mm	mm	mm	mm	mm	kg		
50	60,3	500	2215	64	78	165	218	20	M10X70	1,76	M-321-060P	M-321-060G
65	76,1	500	3534	80	94	185	238	22	M10X70	2,41	M-321-076P	M-321-076G
80	88,9	500	4811	93	107	200	250	22	M10X70	2,55	M-321-089P	M-321-089G
100	114,3	500	7952	119	133	229	280	24	M10X70	3,24	M-321-114P	M-321-114G
125	139,7	500	11879	145	159	250	313	22	M12X70	3,49	M-321-139P	M-321-139G
150	168,3	500	17236	174	188	285	345	26	M12X70	4,73	M-321-168P	M-321-168G
200	219,1	400	23371	225	242	343	404	30	M12X70	6,95	M-321-219P	M-321-219G

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Installation



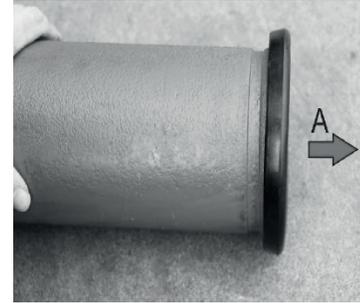
1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket opening side towards "A". Make sure the gasket sealing lip is flush with the pipe end.



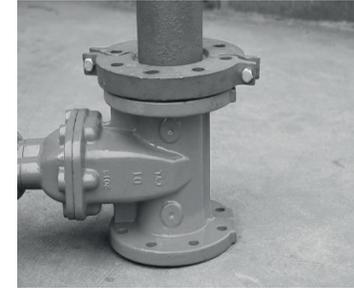
4. Housing installation

Remove bolts and nuts, place two housings over the gasket, making sure the housing keys fit into the pipe grooves. Reinsert the bolts and hand tighten the nuts.



5. Tighten nuts

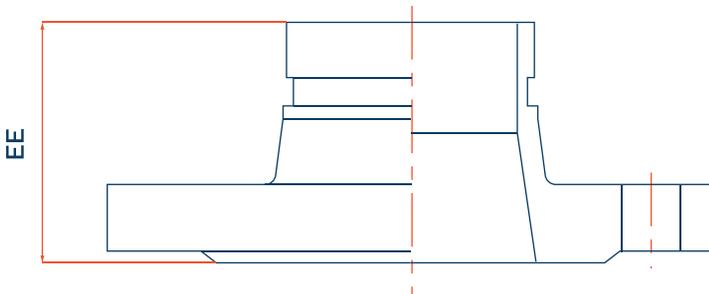
Securely tighten nuts alternatively and equally to the specified bolts torque by using spanner.



6. Connect mating flange

Align flange bolt holes with mating flange (or valve) bolt holes. Insert a standard flange bolt through bolt hole and hand tighten a nut. Insert another bolt opposite the first and hand tighten a nut. Continue this until all bolt hole are fitted. Tighten nuts evenly to specified bolt torque, so flange faces remain parallel. Assemble completed.

FLANGE ADAPTOR NIPPLE 321G



Size Range:
DN50 through DN125
(60,3 mm through 139,7)

Approvals:
FM, UL, PAVUS, CNBOP

Working pressure:
R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:
-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:
Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:
Painted red, Galvanised

Application:
Water based fire-suppression systems

Installation:
Refer to "Installation Manual"

Maintenance:
Visual check

PART NUMBERS & DIMENSION

Size		Flange Adaptor Nipple 321G		Ref.No	
Nominal Dia.	Actual Outside Diameter	EE	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
50	60,3	70	1,5	M-321G-060P	M-321G-060G
65	76,1	70	1,9	M-321G-076P	M-321G-076G
80	88,9	70	2,3	M-321G-089P	M-321G-089G
100	114,3	80	3,5	M-321G-0114P	M-321G-0114G
125	139,7	80	4,0	M-321G-0139P	M-321G-0139G

Installation

ALL GROOVED FITTINGS MUST BE CONNECTED USING GROOVED COUPLINGS. SEE THE INSTALLATION INSTRUCTIONS FOR RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

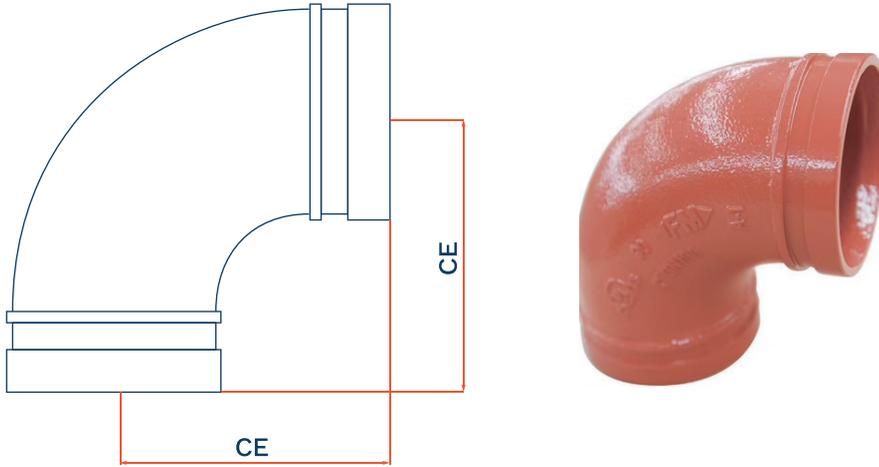
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED STANDARD ELBOW 90° 90



Size Range:
DN25 through DN300
(33,4 mm through 323,9)

Approvals:
FM, UL, PAVUS, CNBOP

Working pressure:
R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:
-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:
Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:
Painted red, Galvanised

Application:
Water based fire-suppression systems

Installation:
Refer to "Installation Manual"

Maintenance:
Visual check

PART NUMBERS & DIMENSION

Size		Grooved Elbow 90° 90		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
25	33,4	57	0,3	M-90-033P	M-90-033G
32	42,4	70	0,5	M-90-042P	M-90-042G
40	48,3	70	0,5	M-90-048P	M-90-048G
50	60,3	83	0,8	M-90-060P	M-90-060G
65	76,1	95	1,7	M-90-076P	M-90-076G
80	88,9	108	2,0	M-90-089P	M-90-089G
100	114,3	127	3,2	M-90-114P	M-90-114G
125	139,7	140	5,3	M-90-139P	M-90-139G
150	168,3	165	7,8	M-90-168P	M-90-168G
200	219,1	197	13,6	M-90-219P	M-90-219G
250	273,0	229	28,7	M-90-273P	M-90-273G
300	323,9	254	33,6	M-90-324P	M-90-324G

Note: This document provides general product information only. The data, illustrations and diagrams are for reference and are not contractually binding. In the event of any discrepancies, the manufacturer's official technical documentation shall prevail. Please note that certificates, test reports and approvals may be issued in the name of the OEM manufacturer. The content of this document is subject to change without notice. All rights reserved.

Installation

INSTALLATION OF THE ELBOW OR TEE WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.

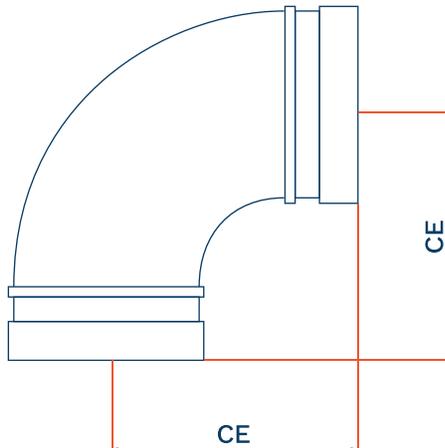


7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED SHORT ELBOW

90° 90S



Size Range:
DN50 through DN200
(60,3 through 219,1)

Approvals:
FM, UL, PAVUS, CNBOP

Working pressure:
R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:
-34 °C to 110 °C (-29.2 °F to 230 °F)

Coating:
Painted red, Galvanised

Material:
Ductile cast iron (ASTM A536 Grade 65-45-12)

Application:
Water based fire-suppression systems

Installation:
Refer to "Installation Manual"

Maintenance:
Visual check

PART NUMBERS & DIMENSION

Size		Grooved Short Elbow 90° 90S		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
50	60,3	70	0,6	M-90S-060P	M-90S-060G
65	76,1	76	1,0	M-90S-076P	M-90S-076G
80	88,9	86	1,3	M-90S-089P	M-90S-089G
100	114,3	102	2,1	M-90S-114P	M-90S-114G
125	139,7	124	3,5	M-90S-139P	M-90S-139G
150	168,3	140	5,6	M-90S-168P	M-90S-168G
200	219,1	173	10,5	M-90S-219P	M-90S-219G

Installation

INSTALLATION OF THE ELBOW WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

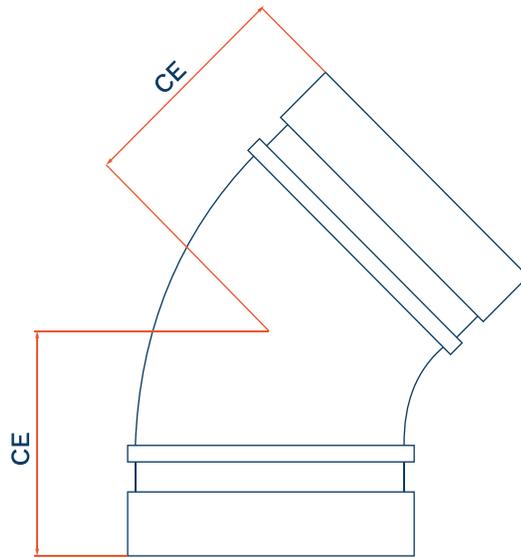
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED ELBOW 45° 120



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Grooved Elbow 45° 120		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.		
DN	mm	mm	kg	Painted red	Galvanised
25	33,4	44	0,3	M-120-033P	M-120-033P
32	42,4	44	0,5	M-120-042P	M-120-042P
40	48,3	44	0,4	M-120-048P	M-120-048P
50	60,3	51	0,5	M-120-060P	M-120-060P
65	76,1	57	0,6	M-120-076P	M-120-076P
80	88,9	64	1,1	M-120-089P	M-120-089P
100	114,3	76	1,7	M-120-114P	M-120-114P
125	139,7	83	2,7	M-120-139P	M-120-139P
150	168,3	89	4,4	M-120-168P	M-120-168P
200	219,1	108	8,4	M-120-219P	M-120-219P
250	273,0	121	13,0	M-120-273P	M-120-273P
300	323,9	133	18,0	M-120-324P	M-120-324P

Installation

INSTALLATION OF THE ELBOW OR TEE WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

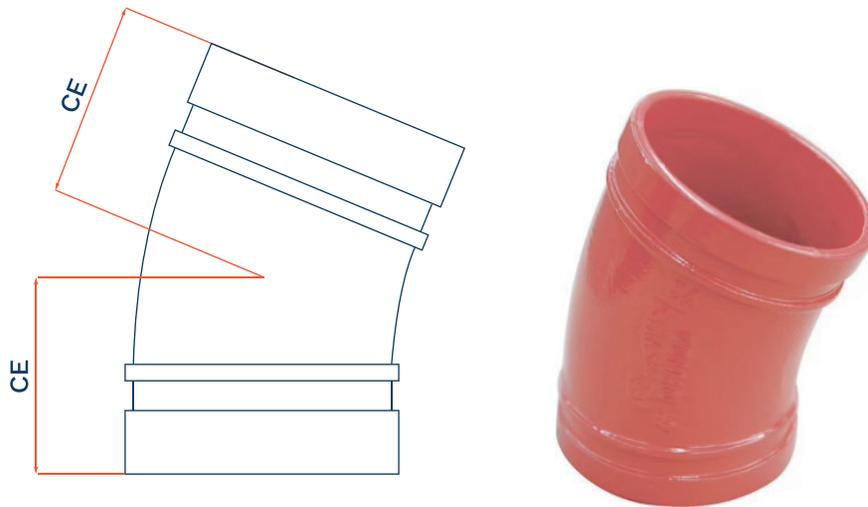
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED ELBOW 22.5° 110



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Grooved Elbow 22.5° 110		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
25	33,4	44	0,2	M-110-033P	M-110-033G
32	42,4	44	0,3	M-110-042P	M-110-042G
40	48,3	44	0,4	M-110-048P	M-110-048G
50	60,3	51	0,6	M-110-060P	M-110-060G
65	76,1	51	0,8	M-110-076P	M-110-076G
80	88,9	57	1,0	M-110-089P	M-110-089G
100	114,3	73	1,8	M-110-114P	M-110-114G
125	139,7	73	2,5	M-110-139P	M-110-139G
150	168,3	79	4,0	M-110-168P	M-110-168G
200	219,1	83	6,4	M-110-219P	M-110-219G
250	273,0	89	10,4	M-110-273P	M-110-273G
300	323,9	102	18,1	M-110-324P	M-110-324G

Installation

INSTALLATION OF THE ELBOW OR TEE WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

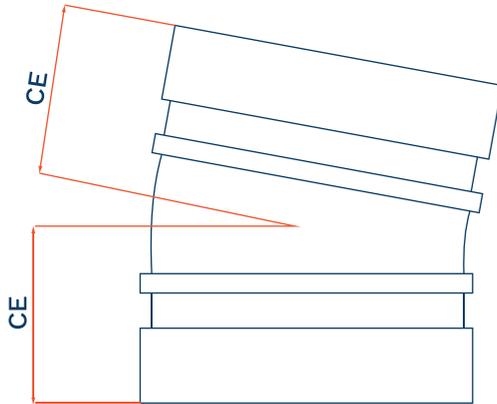
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED ELBOW 11.25° 105



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Grooved Elbow 11.25° 105		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
25	33,4	35	0,2	M-105-033P	M-105-033G
32	42,4	35	0,2	M-105-042P	M-105-042G
40	48,3	35	0,2	M-105-048P	M-105-048G
50	60,3	35	0,5	M-105-060P	M-105-060G
65	76,1	38	0,6	M-105-076P	M-105-076G
80	88,9	38	1,0	M-105-089P	M-105-089G
100	114,3	44	1,6	M-105-114P	M-105-114G
125	139,7	51	2,1	M-105-139P	M-105-139G
150	168,3	51	3,2	M-105-168P	M-105-168G
200	219,1	51	4,6	M-105-219P	M-105-219G
250	273,0	54	5,3	M-105-273P	M-105-273G
300	323,9	57	13,5	M-105-324P	M-105-324G

Installation

INSTALLATION OF THE ELBOW OR TEE WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

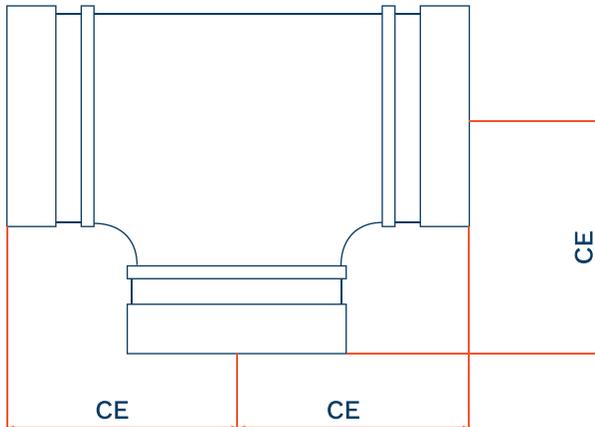
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED EQUAL TEE 130



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Grooved equal tee 130		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.		
DN	mm	mm	kg	Painted red	Galvanised
25	33,4	57	0,5	M-130-033P	M-130-033G
32	42,4	70	0,7	M-130-042P	M-130-042G
40	48,3	70	0,9	M-130-048P	M-130048G
50	60,3	83	1,4	M-130-060P	M-130-060G
65	76,1	95	2,4	M-130-076P	M-130-076G
80	88,9	108	3,0	M-130-089P	M-130-089G
100	114,3	127	5,4	M-130-114P	M-130-114G
125	139,7	140	8,1	M-130-139P	M-130-139G
150	168,3	165	10,4	M-130-168P	M-130-168G
200	219,1	197	21,6	M-130-219P	M-130-219G
250	273,0	229	44,9	M-130-273P	M-130-273G
300	323,9	254	60,3	M-130-324P	M-130-324G

Installation

INSTALLATION OF THE ELBOW, TEE OR END CAP WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

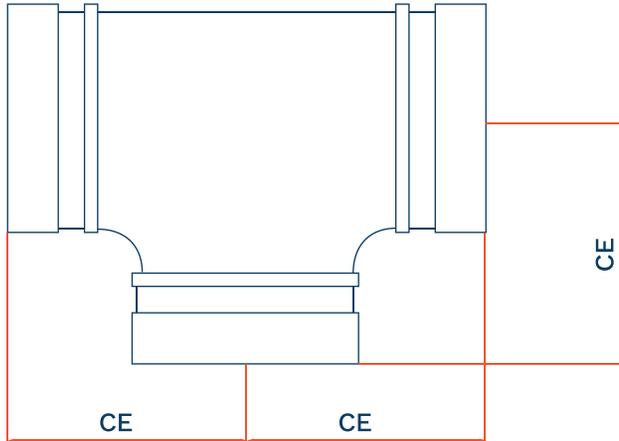
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED SHORT EQUAL TEE 130S



Size Range:
DN50 through DN200
(60,3 through 219,1)

Approvals:
FM, UL, PAVUS, CNBOP

Working pressure:
R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:
-34 °C to 110 °C (-29.2 °F to 230 °F)

Coating:
Painted red, Galvanised

Material:
Ductile cast iron (ASTM A536 Grade 65-45-12)

Application:
Water based fire-suppression systems

Installation:
Refer to "Installation Manual"

Maintenance:
Visual check

PART NUMBERS & DIMENSION

Size		Short Equal Tee 130S		Ref.No	
Nominal Dia.	Actual Outside Diameter	CE	Approx. Wgt.		
DN	mm	mm	kg	Painted red	Galvanised
50	60,3	70	0,9	M-130S-060P	M-130S-060G
65	76,1	76	1,4	M-130S-076P	M-130S-076G
80	88,9	86	1,7	M-130S-089P	M-130S-089G
100	114,3	102	2,8	M-130S-114P	M-130S-114G
125	139,7	124	4,4	M-130S-139P	M-130S-139G
150	168,3	140	7,2	M-130S-168P	M-130S-168G
200	219,1	173	14,0	M-130S-219P	M-130S-219G

Installation

INSTALLATION OF THE ELBOW WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

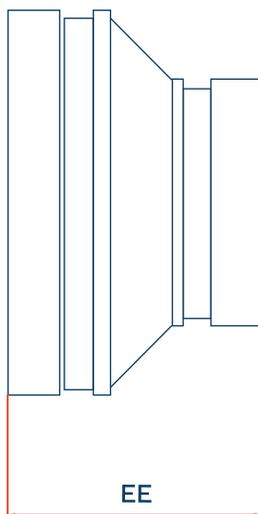
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED CONCENTRIC REDUCER STYLE 240

**Size Range:**

DN32 X DN25 through DN300 X DN250
(42.4 mm x 33.4 mm through 323,9 mm x 273 mm)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

28 bar (400 psi) to 38 bar (550 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Grooved Concentric Reducer Style 240		Ref.No	
Run Pipe	X	Branch Pipe	EE	Aprox. Wgt	Painted red	Galvanised
mm	X	mm	mm	kg		
42,4	x	33,4	64	0,20	M-240-042033P	M-240-042033G
48,3	x	33,4	64	0,30	M-240-048033P	M-240-048033G
48,3	x	42,4	64	0,30	M-240-048042P	M-240-048042G
60,3	x	33,4	64	0,30	M-240-060033P	M-240-060033G
60,3	x	42,4	64	0,40	M-240-060042P	M-240-060042G
60,3	x	48,3	64	0,40	M-240-060048P	M-240-060048G
76,1	x	33,4	64	0,50	M-240-076033P	M-240-076033G
76,1	x	42,4	64	0,50	M-240-076042P	M-240-076042G
76,1	x	48,3	64	0,50	M-240-076048P	M-240-076048G
76,1	x	60,3	64	0,50	M-240-076060P	M-240-076060G
88,9	x	33,4	64	0,60	M-240-089033P	M-240-089033G
88,9	x	42,4	64	0,60	M-240-089042P	M-240-089042G
88,9	x	48,3	64	0,60	M-240-089048P	M-240-089048G
88,9	x	60,3	64	0,70	M-240-089060P	M-240-089060G
88,9	x	76,1	64	0,70	M-240-089076P	M-240-089076G
114,3	x	33,4	76	0,90	M-240-114033P	M-240-114033G
114,3	x	42,4	76	0,90	M-240-114042P	M-240-114042G
114,3	x	48,3	76	1,00	M-240-114048P	M-240-114048G
114,3	x	60,3	76	1,00	M-240-114060P	M-240-114060G
114,3	x	76,1	76	1,10	M-240-114076P	M-240-114076G
114,3	x	88,9	76	1,10	M-240-114089P	M-240-114089P
139,7	x	33,4	89	1,40	M-240-139033P	M-240-139033G
139,7	x	42,4	89	1,40	M-240-139042P	M-240-139042G
139,7	x	48,3	89	1,40	M-240-139048P	M-240-139048G
139,7	x	60,3	89	1,50	M-240-139060P	M-240-139060G
139,7	x	76,1	89	1,50	M-240-139076P	M-240-139076G
139,7	x	88,9	89	1,60	M-240-139089P	M-240-139089G
139,7	x	114,3	89	1,70	M-240-139114P	M-240-139114G
168,3	x	33,4	102	2,10	M-240-168033P	M-240-168033G
168,3	x	42,4	102	2,10	M-240-168042P	M-240-168042G
168,3	x	48,3	102	2,20	M-240-168048P	M-240-168048G
168,3	x	76,1	102	2,30	M-240-168076P	M-240-168076G
168,3	x	88,9	102	2,30	M-240-168089P	M-240-168089G
168,3	x	114,3	102	2,40	M-240-168114P	M-240-168114G
168,3	x	139,7	102	2,40	M-240-168139P	M-240-168139G
219,1	x	33,4	127	4,10	M-240-219033P	M-240-219033G
219,1	x	42,4	127	4,20	M-240-219042P	M-240-219042G
219,1	x	48,3	127	4,20	M-240-219048P	M-240-219048G
219,1	x	60,3	127	4,30	M-240-219060P	M-240-219060G
219,1	x	76,1	127	4,30	M-240-219076P	M-240-219076G
219,1	x	88,9	127	4,50	M-240-219089P	M-240-219089G
219,1	x	114,3	127	4,60	M-240-219114P	M-240-219114G
219,1	x	139,7	127	4,80	M-240-219139P	M-240-219139G
219,1	x	168,3	127	5,00	M-240-219168P	M-240-219168G
273,0	x	114,3	152	7,50	M-240-273114P	M-240-273114G
273,0	x	139,7	152	7,60	M-240-273139P	M-240-273139G
273,0	x	168,3	152	7,80	M-240-273168P	M-240-273168G
273,0	x	219,1	152	8,80	M-240-273219P	M-240-273219G
323,9	x	114,3	178	9,90	M-240-323114P	M-240-323114G
323,9	x	139,7	178	10,00	M-240-323139P	M-240-323139G
323,9	x	168,3	178	10,30	M-240-323168P	M-240-323168G
323,9	x	219,1	178	11,20	M-240-323219P	M-240-323219G
323,9	x	273,0	178	13,80	M-240-323273P	M-240-323273G

Installation

ALL GROOVED FITTINGS MUST BE CONNECTED USING GROOVED COUPLINGS. SEE THE INSTALLATION INSTRUCTIONS FOR RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

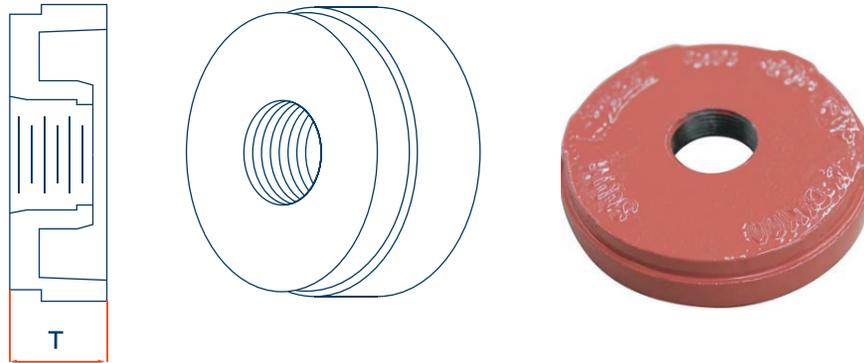
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED END CAP WITH CENTER HOLE 300CH



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Nominal Size	Pipe OD	Thread size	Approx. Wgt.	Ref.No	
				Painted red	Galvanised
50 x 25	60.3 x 33.7	25	0.3	M-300CH-060034P	M-300CH-060034G
65 x 25	76.1 x 33.7	25	0.4	M-300CH-076034P	M-300CH-076034G
80 x 40	88.9 x 48.3	40	0.8	M-300CH-089048P	M-300CH-089048P
100 x 40	114.3 x 48.3	40	0.9	M-300CH-114048P	M-300CH-114048G
100 x 50	114.3 x 60.3	50	1.0	M-300CH-114060P	M-300CH-114060G
125 x 40	139.7 x 48.3	40	1.4	M-300CH-139048P	M-300CH-139048G
125 x 50	139.7 x 60.3	50	1.8	M-300CH-139060P	M-300CH-139060G
150 x 40	168.3 x 48.3	40	2.0	M-300CH-168048P	M-300CH-168048G
150 x 50	168.3 x 60.3	50	2.2	M-300CH-168060P	M-300CH-168060G
200 x 40	219.1 x 48.3	40	4.5	M-300CH-219048P	M-300CH-219048G
200 x 40	219.1 x 60.3	50	4.8	M-300CH-219060P	M-300CH-219060G

Installation

INSTALLATION OF THE ELBOW, TEE OR END CAP WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

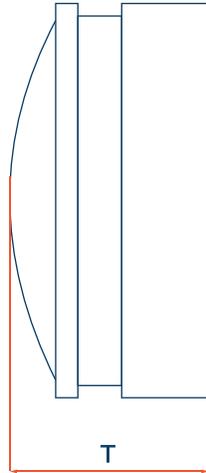
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED END CAP 300



Size Range:

DN25 through DN300
(33,4 mm through 323,9)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

R.W.P. rated working pressure 300 psi (21 bar)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size		Grooved end cap 300		Ref.No	
Nominal Dia.	Actual Outside Diameter	T	Approx. Wgt.	Painted red	Galvanised
DN	mm	mm	kg		
25	33,4	28	0,1	M-300-033P	M-300-033G
32	42,4	28	0,13	M-300-042P	M-300-042G
40	48,3	28	0,15	M-300-048P	M-300-048G
50	60,3	37	0,22	M-300-060P	M-300-060G
65	76,1	37	0,32	M-300-076P	M-300-076G
80	88,9	41	0,41	M-300-089P	M-300-089G
100	114,3	51	0,71	M-300-114P	M-300-114G
125	139,7	51	1,11	M-300-139P	M-300-139G
150	168,3	55	1,51	M-300-168P	M-300-168G
200	219,1	68	3,13	M-300-219P	M-300-219G
250	273,0	75	5,52	M-300-273P	M-300-273G
300	323,9	81	8,44	M-300-323P	M-300-324G

Installation

INSTALLATION OF THE ELBOW OR TEE WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

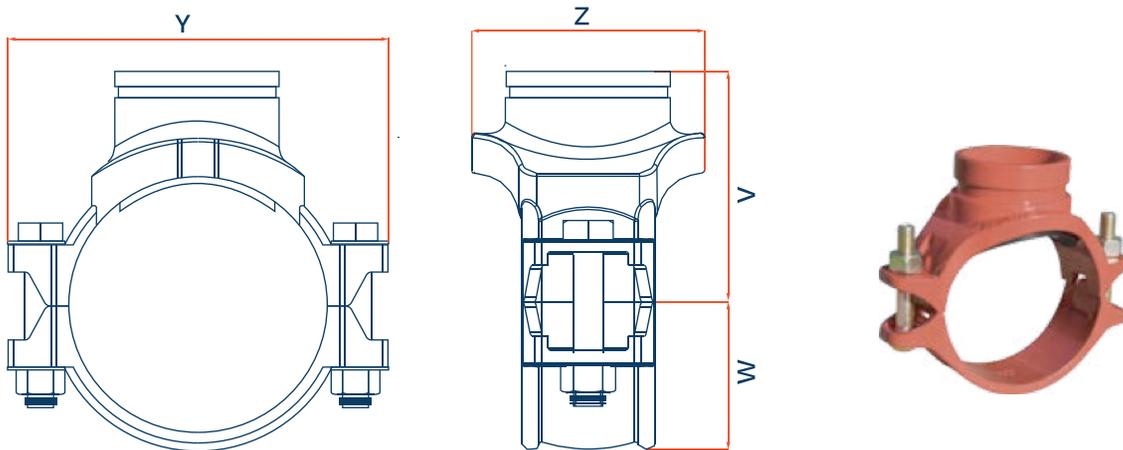
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

GROOVED OUTLET MECHANICAL TEE 3G



Size Range:

DN50 X DN25 through DN300 X DN250
(60.3 mm x 33.7 mm through 219.1 mm x 114,3 mm)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

Up to 35 bar (500 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

Ductile cast iron (ASTM A536 Grade 65-45-12)

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Max. Work Pressure	Hole Size	Dimensions				Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Run Pipe	X	Branch Pipe			W	Y	Z	V			Painted red	Galvanised
mm	X	mm	PSI	mm	mm	mm	mm	mm	kg			
60,3	x	33,7	500	38	37	134	70	64	M12X65	0,85	M-3G-060033P	M-3G-060033G
60,3	x	42,4	500	44,5	37	134	77	65	M12X65	0,89	M-3G-060042P	M-3G-060042G
60,3	x	48,3	500	44,5	37	134	77	65	M12X65	0,91	M-3G-060048P	M-3G-060048G
76,1	x	33,4	500	38	45	151	68	76	M12 X75	1,19	M-3G-076033P	M-3G-076033G
76,1	x	42,4	500	44,5	45	151	76	76	M12X75	1,22	M-3G-076042P	M-3G-076042G
76,1	x	48,3	500	51	45	151	83	76	M12X75	1,27	M-3G-076048P	M-3G-076048G
88,9	x	33,4	500	38	52	161	68	82	M12X75	1,28	M-3G-089033P	M-3G-089033G
88,9	x	42,4	500	44,5	52	161	75	82	M12X75	1,31	M-3G-089042P	M-3G-089042G
88,9	x	48,3	500	51	52	161	82	82	M12X75	1,37	M-3G-089048P	M-3G-089048G
88,9	x	60,3	500	64	52	161	95	82	M12X75	1,44	M-3G-089060P	M-3G-089060G
114,3	x	33,4	500	38	65	188	69	96	M12X75	1,52	M-3G-114033P	M-3G-114033G
114,3	x	42,4	500	44,5	65	188	75	96	M16X85	1,55	M-3G-114042P	M-3G-114042G
114,3	x	48,3	500	51	65	188	83	96	M16X85	1,62	M-3G-114048P	M-3G-114048G
114,3	x	60,3	500	64	65	188	95	96	M16X85	1,75	M-3G-114060P	M-3G-114060G
114,3	x	76,1	500	70	65	188	101	97	M16X85	1,93	M-3G-114076P	M-3G-114076G
114,3	x	88,9	500	89	65	188	122	97	M16X85	2,07	M-3G-114089P	M-3G-114089P
139,7	x	33,4	500	38	78	232	68	110	M16X85	2,15	M-3G-139033P	M-3G-139033G
139,7	x	42,4	500	44,5	78	232	75	110	M16X85	2,19	M-3G-139042P	M-3G-139042G
139,7	x	48,3	500	51	78	232	81	110	M16X85	2,26	M-3G-139048P	M-3G-139048G
139,7	x	60,3	500	64	78	232	95	110	M16X85	2,42	M-3G-139060P	M-3G-139060G
139,7	x	76,1	500	70	78	232	103	110	M16X85	2,65	M-3G-139076P	M-3G-139076G
139,7	x	88,9	500	89	78	232	120	110	M16X85	2,77	M-3G-139089P	M-3G-139089G
168,3	x	33,4	500	38	97	126	116	94	M16X85	2,42	M-3G-168033P	M-3G-168033G
168,3	x	42,4	500	44,5	97	126	118	94	M16X85	2,47	M-3G-168042P	M-3G-168042G
168,3	x	48,3	500	51	97	126	119	94	M20X115	2,53	M-3G-168048P	M-3G-168048G
168,3	x	60,3	500	64	97	126	122	94	M20X115	2,74	M-3G-168060P	M-3G-168060G
168,3	x	76,1	500	70	97	126	124	94	M20X115	2,96	M-3G-168076P	M-3G-168076G
168,3	x	88,9	500	89	97	126	129	94	M20X115	3,13	M-3G-168089P	M-3G-168089G
168,3	x	114,3	500	114	97	128	--	94	M20X115	3,52	M-3G-168114P	M-3G-168114G
219,1	x	33,4	500	38	123	154	142	121	M20X115	3,95	M-3G-219033P	M-3G-219033G
219,1	x	42,4	500	44,5	123	154	144	121	M20X115	3,98	M-3G-219042P	M-3G-219042G
219,1	x	48,3	500	51	123	154	145	121	M12X75	4,11	M-3G-219048P	M-3G-219048G
219,1	x	60,3	500	64	123	154	148	121	M12X75	4,37	M-3G-219060P	M-3G-219060G
219,1	x	76,1	500	70	123	154	152	121	M12X75	4,58	M-3G-219076P	M-3G-219076G
219,1	x	88,9	500	89	123	154	155	121	M12X75	4,83	M-3G-219089P	M-3G-219089G
219,1	x	114,3	500	114	123	154	--	121	M12X75	5,31	M-3G-219114P	M-3G-219114G

Installation

PROPER TORQUING OF BOLTS IS REQUIRED TO OBTAIN SPECIFIED PERFORMANCE.

- OVER TORQUING THE BOLTS MAY RESULT IN DAMAGE TO THE BOLT AND/OR CASTING WHICH COULD RESULT IN PIPE JOINT SEPARATION;
- UNDER TORQUING THE BOLTS MAY RESULT IN LOWER PRESSURE RETENTION CAPABILITIES, LOWER BEND LOAD CAPABILITIES, JOINT LEAKAGE AND PIPE JOINT SEPARATION. PIPE JOINT SEPARATION MAY RESULT IN SIGNIFICANT PROPERTY DAMAGE AND SERIOUS INJURY.



1. Pipe preparation

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don't drill the hole on weld line



2. Remove burrs

If any burrs or slug exists at the pipe hole, please remove them before assembly, to protect the gasket and avoid leakage.



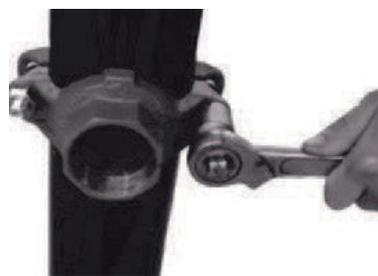
3. Gasket installation

Insert the gasket into outlet housing making sure the tab in the gasket line up with the tab recesses in the housing. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.



4. Alignment

Align the strap around the pipe, insert the bolts and tighten the nuts finger-tight.



6. Tighten nuts

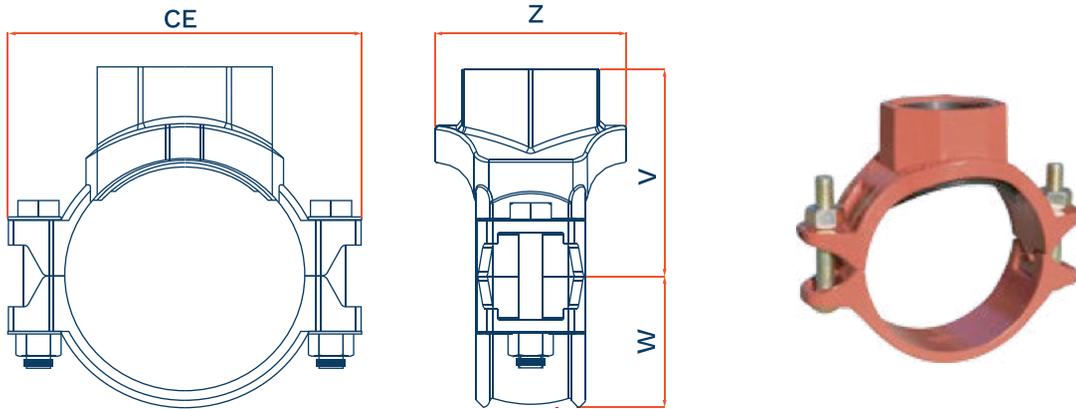
Alternatively and evenly tighten the nuts to the specified bolt torque.



7. Assembly Completed

There should be even gaps on two sides between upper and lower housings.

THREADED OUTLET MECHANICAL TEE 3J



Size Range:

DN50 X DN25 through DN300 X DN250
(60.3 mm x 33.7 mm through 219.1 mm x 114,3 mm)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

Up to 34 bar (500 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Coating:

Painted red, Galvanised

Material:

- Ductile cast iron (ASTM A536 Grade 65-45-12)
- Gasket: EPDM

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Max. Work Pressure	Hole Size	Dimensions				Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Run Pipe	X	Branch Pipe			W	Y	Z	V			Painted red	Galvanised
mm	X	mm	PSI	mm	mm	mm	mm	mm	kg			
60,3	x	33,7	500	38	37	134	70	62	M12X65	0,81	M-3J-060033P	M-3J-060033G
60,3	x	42,4	500	44,5	37	134	77	65	M12X65	0,92	M-3J-060042P	M-3J-060042G
60,3	x	48,3	500	44,5	37	134	77	65	M12X65	0,98	M-3J-060048P	M-3J-060048G
76,1	x	33,4	500	38	45	151	68	66	M12 X75	1,17	M-3J-076033P	M-3J-076033G
76,1	x	42,4	500	44,5	45	151	76	68	M12X75	1,27	M-3J-076042P	M-3J-076042G
76,1	x	48,3	500	51	45	151	83	69	M12X75	1,33	M-3J-076048P	M-3J-076048G
88,9	x	33,4	500	38	52	161	68	72	M12X75	1,25	M-3J-089033P	M-3J-089033G
88,9	x	42,4	500	44,5	52	161	75	74	M12X75	1,36	M-3J-089042P	M-3J-089042G
88,9	x	48,3	500	51	52	161	82	75	M12X75	1,43	M-3J-089048P	M-3J-089048G
88,9	x	60,3	500	64	52	161	95	79	M12X75	1,56	M-3J-089060P	M-3J-089060G
114,3	x	33,4	500	38	65	188	69	87	M12X75	1,45	M-3J-114033P	M-3J-114033G
114,3	x	42,4	500	44,5	65	188	75	89	M12X75	1,58	M-3J-114042P	M-3J-114042G
114,3	x	48,3	500	51	65	188	83	89	M12X75	1,67	M-3J-114048P	M-3J-114048G
114,3	x	60,3	500	64	65	188	95	93	M12X75	1,86	M-3J-114060P	M-3J-114060G
114,3	x	76,1	500	70	65	188	101	97	M12X75	2,05	M-3J-114076P	M-3J-114076G
114,3	x	88,9	500	89	65	188	122	100	M12X75	2,31	M-3J-114089P	M-3J-114089P
139,7	x	33,4	500	38	78	232	68	100	M16X85	2,08	M-3J-139033P	M-3J-139033G
139,7	x	42,4	500	44,5	78	232	75	103	M16X85	2,23	M-3J-139042P	M-3J-139042G
139,7	x	48,3	500	51	78	232	81	103	M16X85	2,31	M-3J-139048P	M-3J-139048G
139,7	x	60,3	500	64	78	232	95	107	M16X85	2,53	M-3J-139060P	M-3J-139060G
139,7	x	76,1	500	70	78	232	103	110	M16X85	2,86	M-3J-139076P	M-3J-139076G
139,7	x	88,9	500	89	78	232	120	114	M16X85	3,10	M-3J-139089P	M-3J-139089G
168,3	x	33,4	500	38	97	126	116	260	M16X85	2,34	M-3J-168033P	M-3J-168033G
168,3	x	42,4	500	44,5	97	126	118	260	M16X85	2,51	M-3J-168042P	M-3J-168042G
168,3	x	48,3	500	51	97	126	119	260	M16X85	2,58	M-3J-168048P	M-3J-168048G
168,3	x	60,3	500	64	97	126	122	260	M16X85	2,85	M-3J-168060P	M-3J-168060G
168,3	x	76,1	500	70	97	126	124	260	M16X85	3,15	M-3J-168076P	M-3J-168076G
168,3	x	88,9	500	89	97	126	129	260	M16X85	3,44	M-3J-168089P	M-3J-168089G
168,3	x	114,3	500	114	97	128	--	260	M16X85	--	M-3J-168114P	M-3J-168114G
219,1	x	33,4	500	38	123	154	142	328	M20X115	3,82	M-3J-219033P	M-3J-219033G
219,1	x	42,4	500	44,5	123	154	144	328	M20X115	4,02	M-3J-219042P	M-3J-219042G
219,1	x	48,3	500	51	123	154	145	328	M20X115	4,16	M-3J-219048P	M-3J-219048G
219,1	x	60,3	500	64	123	154	148	328	M20X115	4,47	M-3J-219060P	M-3J-219060G
219,1	x	76,1	500	70	123	154	152	328	M20X115	4,78	M-3J-219076P	M-3J-219076G
219,1	x	88,9	500	89	123	154	155	328	M20X115	5,13	M-3J-219089P	M-3J-219089G
219,1	x	114,3	500	114	123	154	--	328	M20X115	--	M-3J-219114P	M-3J-219114G

Installation

INSTALLATION OF THE ELBOW WITH A GROOVED CONNECTION REQUIRES A GROOVED COUPLING. SEE THE INSTRUCTIONS FOR INSTALLING RIGID AND FLEXIBLE COUPLINGS BELOW.



1. Pipe preparation

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Lubricate gasket

Check gasket to be sure it's compatible for the intended service. Apply thin lubricant to the outside and sealing lips of the gasket.



3. Gasket installation

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Alignment

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Housing installation

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Tighten nuts

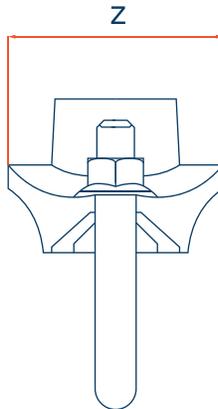
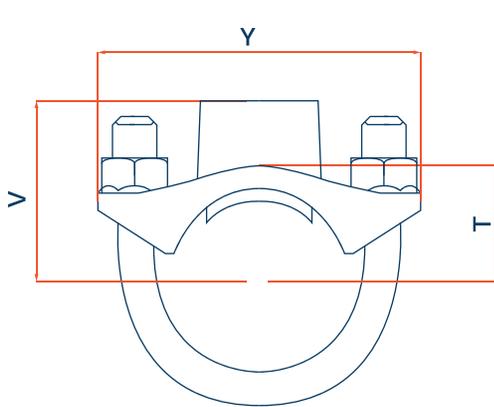
Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7. Assembly Completed Rigid Coupling

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.

MECHANICAL SPRINKLER TEE U-BOLT 3L



Size Range:

DN50 X DN25 through DN300 X DN250
(60.3 mm x 33.7 mm through 219.1 mm x 114,3 mm)

Approvals:

FM, UL, PAVUS, CNBOP

Working pressure:

Up to 24 bar (350 psi)
(depending on size and approval)

Ambient temperature:

-34 °C to 110 °C (-29.2 °F to 230 °F)

Material:

- Coupling: Ductile cast iron
(ASTM A536 Grade 65-45-12)
- Gasket: EPDM

Bolts and Nuts:

Heat treated and electro galvanized bolts with oval neck, and heavy duty hexagon nuts. Track head meeting the physical and chemical requirements of ASTM A-449 and physical requirements of ASTM A-183.

Coating:

Painted red, Galvanised

Application:

Water based fire-suppression systems

Installation:

Refer to "Installation Manual"

Maintenance:

Visual check

PART NUMBERS & DIMENSION

Size			Max. Work Pressure	Hole Size	Dimensions				Bolt / Nut Size	Approx. Wgt. Each	Ref.No	
Run Pipe	X	Branch Pipe			Y	Z	V	T			Painted red	Galvanised
mm	X	mm	PSI	mm	mm	mm	mm	mm	kg			
42,4	x	21,3	350	30,5	88	57	46	28	M10X68X38	0,32	M-3L-042021P	M-3L-042021G
42,4	x	26,9	350	30,5	88	57	46	30	M10X68X38	0,34	M-3L-042027P	M-3L-042027G
42,4	x	33,4	350	30,5	88	57	52	34	M10X68X38	0,40	M-3L-042033P	M-3L-042033G
48,3	x	21,3	350	30,5	88	57	45	31	M10X68X38	0,32	M-3L-048021P	M-3L-048021G
48,3	x	26,9	350	30,5	88	57	48	33	M10X68X38	0,34	M-3L-048027P	M-3L-048027G
48,4	x	33,4	350	30,5	88	57	55	37	M10X68X38	0,40	M-3L-048033P	M-3L-048033G
60,3	x	21,3	350	30,5	94	57	51	37	M10X74X47	0,33	M-3L-060021P	M-3L-060021G
60,3	x	26,9	350	30,5	94	57	54	39	M10X68X38	0,35	M-3L-060027P	M-3L-060027G
60,3	x	33,4	350	30,5	94	57	61	43	M10X74X47	0,41	M-3L-060033P	M-3L-060033G
76,1	x	21,3	350	30,5	108	57	59	45	M10X89X57	0,33	M-3L-076021P	M-3L-076021G
76,1	x	26,9	350	30,5	108	57	62	47	M10X89X57	0,35	M-3L-076027P	M-3L-060027G
76,1	x	33,4	350	30,5	108	57	69	51	M10X89X57	0,41	M-3L-076033P	M-3L-060033G

Note: This document provides general product information only. The data, illustrations and diagrams are for reference and are not contractually binding. In the event of any discrepancies, the manufacturer's official technical documentation shall prevail. Please note that certificates, test reports and approvals may be issued in the name of the OEM manufacturer. The content of this document is subject to change without notice. All rights reserved.

Installation

PROPER TORQUING OF BOLTS IS REQUIRED TO OBTAIN SPECIFIED PERFORMANCE.

- OVER TORQUING THE BOLTS MAY RESULT IN DAMAGE TO THE BOLT AND/OR CASTING WHICH COULD RESULT IN PIPE JOINT SEPARATION
- UNDER TORQUING THE BOLTS MAY RESULT IN LOWER PRESSURE RETENTION CAPABILITIES, LOWER BEND LOAD CAPABILITIES, JOINT LEAKAGE AND PIPE JOINT SEPARATION. PIPE JOINT SEPARATION MAY RESULT IN SIGNIFICANT PROPERTY DAMAGE AND SERIOUS INJURY.



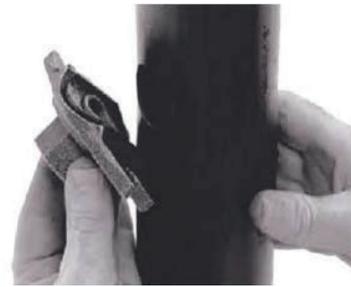
1. Pipe preparation

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don't drill the hole on weld line.



2. Remove burrs

If any burrs or slug exists at the pipe hole, please remove them before assembly, to protect the gasket and avoid leakage.



3. Gasket installation

Insert the gasket into outlet housing properly. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.



4. Alignment

Attach the U-bolt from the other side and tighten the nuts finger-tight.



6. Tighten nuts

Alternatively and evenly tighten the nuts to the specified bolt torque.



7. Assembly Completed

There should be even gaps on two sides between upper and lower housings.

