



**MISSION
RUBBER**



MISSION POCKET GUIDE **PLUMBING**

www.missionrubber.co.uk





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Mission Rubber (UK) Ltd. is part of the worldwide Mission Rubber group of companies; the originators, over 50 years ago, of the flexible rubber coupling for the sewerage, drainage and plumbing industries. Since then Mission Rubber has grown to become the world's No 1 manufacturer of rubber flexible couplings with manufacturing plants in both America and Europe, and distributors worldwide.

Due to working closely with various pipe manufactures, combined with the long-term presence in the European market place a product range has been formed that offers a reliable and life long solution for almost any possible application.



CERTIFIED QUALITY

EUROPEAN STANDARD

BS EN 16397

In January 2015 flexible couplings were standardised for the first time ever in the BS EN 16397. The scope of application has since sizeably extended to the following:

QM-SYSTEM, CE-MARKING

Since 1993 Mission Rubber operates a quality management system according to DIN EN ISO 9001:2015. The compliance of Mission Rubber products with all EU standards and approvals allows Mission Rubber to CE-mark all of its products.

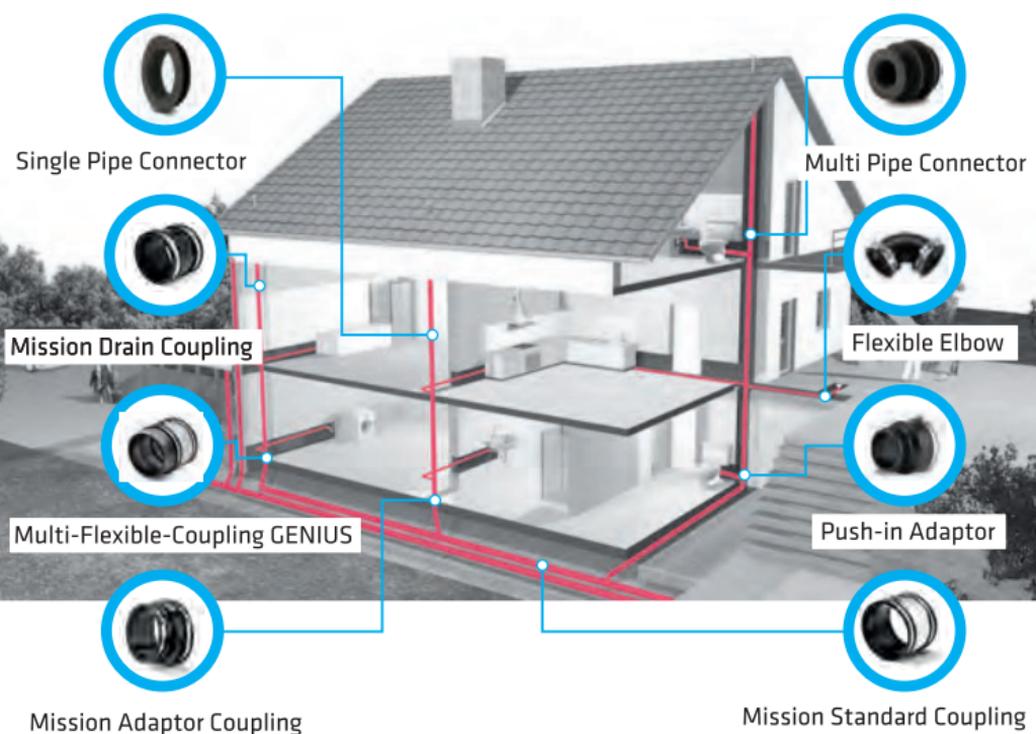


WIS 4-41-01

Standard Couplings and Bushes (up to 620mm diameter) comply with the requirements of Water Industry Specification WIS 4-41-01 "Specification for flexible couplings for gravity sewerage and drainage pipes".

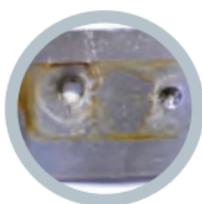
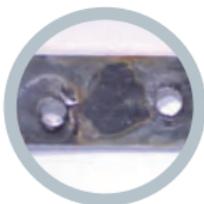
BS EN 681-1

Vulcanised rubber is the standardised pipe seal in the BS EN 681-1. The internal connectors are made from EPDM rubber which shows excellent properties with regards to hot water resistance.



CORROSION TEST

In a salt spray test according to DIN 50 021 SS (neutral) the different corrosion resistances of spot welded and toxed connection were compared.



Test Certificate No. 22000197 MPA NRW

After only a few days a clear corrosion was visible on the spot welded test blocks. The toxed (clinched) stainless steel bands did not show any corrosion after 504 hours (test ended after 3 weeks).



TOX®-TECHNOLOGY

To increase the corrosion resistance for MÜCHER-Couplings, the TOX®-Technology is applied.

The connection of the clamps with the shear band is achieved by a clinching process without damaging or weakening the surface.

Compared to traditional spot welding the TOX®-Technology offers significant advantages. Figure out more and visit www.muecher.com/en/tox



“LOCK IN PLACE” RUBBER PROFILE

Mission Rubber sleeves are fitted with a unique rubber profile. The “lock in place” profile made from EPDM rubber ensures that the clamps and shearband are properly positioned on the sleeve and remain firmly in place during transit, stocking and installation on site.

The necessary compression of the rubber sleeve can only be guaranteed by the proper positioning of the stainless steel components.



STAINLESS STEEL

Mission Rubber (UK) standard products use components manufactured from grade 1.4301 (BS 304) austenitic stainless steel according to BS EN 10088-2.

For conditions requiring higher corrosion resistance then components manufactured from grade 1.4401 (BS 316) austenitic stainless steel to BS EN 10088-2 are available, too. This grade contains 2% molybdenum and is especially suitable for marine environments.

CAOUTCHOUC ELASTOMERS

Elastomers are resistant against many acids, leaches and aromatic hydrocarbons which appear in the private, public and industrial sewage.

For the sealing technology it is important to estimate this resistance, knowing the conditions of the joint such as the concentration of the medium, temperature, pressure as well as the static and dynamic strains.



RESISTANCE OF ELASTOMERS

The following listed values are for guidance only. The values and characteristics cannot generally be transferred to all operating conditions.

PROPERTIES	EPDM	SBR	NBR	NR
Ozone Resistance	1	4	4	4
Oil Resistance	4	5	2	6
Fuel Resistance	5	6	2	6
Acid Resistance	1	3	4	3
Leach Resistance	1	3	4	3
Gas Permeability	4	4	2	5
Electric Resistance	2	2	5	1
Rebound Resilience	3	3	3	2
Tear Strength	3	2	2	1
Temperature Resistance	-40° to +120°C	-40° to +80°C	-30° to +100°C	-40° to +80°C
Temporary max. Temperature	+160°C	+130°C	+130°C	+130°C

1 = excellent 2 = good 3 = satisfactory 4 = sufficient 5 = poor 6 = fail

PUSH IN ADAPTOR

- + For different materials
- + Internal Seal
- + Resistant to 0.5 bar



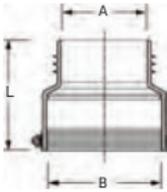
INSTALLATION



Position plain ended pipes.

Push the push in adaptor into the plain end pipe.

Push other plain ended pipe into push in adaptor and tighten clamp.



PRODUCT RANGE

Push-In Adaptor

Reference	A Size Range (mm)	B Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Gewicht (kg)
MPA 75	69 - 75	73 - 85	100	0.5	6	0.2
MPA 100	100 - 105	100 - 116	115	0.5	6	0.3
MPA 125	117 - 125	120 - 141	120	0.5	6	0.5

APPLICATION SCHEDULES

PUSH-IN ADAPTOR

PIA 100 - 105 | 100 - 116

Spigot/Socket	Pipe	DN
Spigot	Cast Iron	100
Spigot	Clay	100
Spigot	Ductile Iron	100
Spigot	Geberit PE	100
Spigot	Geberit Silent PP	100
Spigot	HDPE	100
Spigot	Plastic PVC	100
Spigot	Raupiano Plus	100
Spigot	Twinwall	100
Spigot	Ultra Rib	100

Pipe	DN
ABS	100
Stainless Steel	100
HDPE	100
Geberit PE	100
Geberit Silent PP	100
Plastic PVC	100
Raupiano Plus	100
Ductile Iron	100
Cast Iron	100

SINGLE PIPE CONNECTOR

- + For different dimensions and materials
- + Internal Seal
- + For horizontal and vertical installations
- + Resistant to 0.5 bar



INSTALLATION



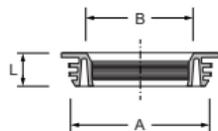
Position pipe ends.



Insert Single Pipe Connector into larger pipe. Apply lubricant to plain ended pipe.



Insert smaller pipe into Single Pipe Connector.



PRODUCT RANGE

SINGLE PIPE CONNECTOR

Reference	A Size Range (mm)	B Size Range (mm)	L Length (mm)	Resistant to (bar)	Weight (kg)
SPC 45 32	45	32	23	0.5	0.02
SPC 45 40	45	40	23	0.5	0.01
SPC 73 50	73	50	23	0.5	0.1
SPC 123 130 102	123-130	102	102	0.5	0.3
SPC 150 110	150	110	36	0.5	0.2

APPLICATION SCHEDULES

SINGLE PIPE CONNECTOR SPC 150 | 110



Spigot/Socket	Pipe	DN
Spigot	Cast Iron	150
Spigot	Clay	150
Spigot	Ductile Iron	150
Spigot	Eternit Fibre Cement	150
Spigot	Geberit PE	150
Spigot	Geberit Silent PP	150
Spigot	Plastic PVC	150
Spigot	Raupiano Plus	150
Spigot	Twinwall	150
Spigot	Ultra Rib	150
Spigot/Socket	Zinc Downpipe	150



Pipe	DN
ABS	100
Cast Iron	100
Geberit PE	100
Geberit Silent PP	100
HDPE	100
Plastic PVC	100
Raupiano Plus	100
Stainless Steel	100

MULTI PIPE CONNECTOR

- + For different dimensions and materials
- + Internal seal
- + For horizontal and vertical installations
- + Resistant to 0.5 bar



INSTALLATIONS



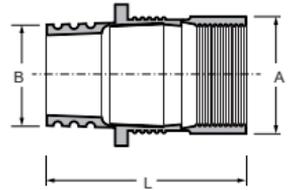
Position pipe ends and cut off Multi Pipe Connector depending on the application.



Fold in Multi Pipe Connector depending on the application.



Insert Multi Pipe Connector into larger pipe, apply lubricant to plain ended pipe and insert small pipe.



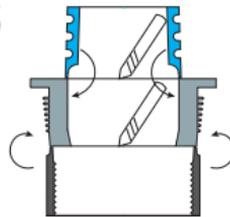
PRODUCT RANGE

MULTI PIPE CONNECTOR

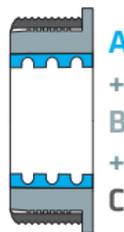
Reference	A Size Range (mm)	B Size Range (mm)	L Length (mm)	Resistant to (bar)	Ge- wicht (kg)
MPC 50 40/32	50	40/32	64	0.5	0.1
MPC 64/58 50/40	64/58	50/40	96	0.5	0.1
MPC 75/70 50/40	75/70	50/40	98	0.5	0.1
MPC 96/83 75/50	96/83	75/50	102	0.5	0.2
MPC 105/100 75/50	105/100	75/50	70	0.5	0.2
MPC 105/100 90/75	105/100	90/75	70	0.5	0.2
MPC 130/123 110/75	130/123	110/75	69	0.5	0.3
MPC 150/125 110	150/125	110	120	0.5	0.4

APPLICATION SCHEDULES

MULTI PIPE CONNECTOR MPC 105/100 | 90/75



Spigot/Socket	Pipe	DN
Socket	Cast Iron	100
Spigot	Clay	100
Spigot	Ductile Iron	100
Spigot	Geberit PE	100
Spigot	Geberit Silent PP	100
Spigot	HDPE	100
Spigot	Plastic PVC	100
Spigot	Raupiano Plus	100
Spigot	Twinwall	100
Spigot	Ultra Rib	100



Pipe	DN
Geberit PE	70
Geberit Silent PP	70
Plastic PVC	70
Raupiano Plus	70
Stainless Steel	75
Zinc Downpipe	76

MULTI PIPE CONNECTOR KIT

The Multi Pipe Connector Kit consists of 6 Multi Pipe Connectors which offer solutions when connecting pipe systems within 32 - 130 mm diameter.



The Multi Pipe Connector Kit is the ideal basic equipment for every workshop van. The right solution always to hand!

KIT RANGE

The Multi Pipe Connector Kit consists of the following 6 Multi Pipe Connectors:



MPC 50 | 40/32



MPC 64/58 | 50/40



MPC 75/70 | 50/40



MPC 100/105 | 90/75



MPC 130/123 | 110/75



Multi-Flexible-Coupling

GENIUS

- + One coupling for all pipe materials
- + For above and below ground
- + With integrated bushes
- + Resistant to 2.5 bar



INSTALLATION



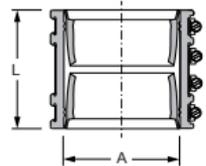
Bush at smaller pipe remains integrated -fold out and remove bush at larger pipe.



Slide GENIUS over larger pipe.



Push smaller pipe into GENIUS and tighten clamps and shearband reciprocally.



PRODUCT RANGE

Multi-Flexible-Coupling					
Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
GENIUS DN 100	108-137	120	2.5	10	1.3
GENIUS DN 125	123-162	120	2.5	10	1.5
GENIUS DN 150	158-192	150	2.5	10	2.4

Larger sizes see MISSION RUBBER Civils

Adaptor Coupling

MISSION ADAPTOR COUPLING

- + Adaptor for different outside diameters
- + For above and below ground
- + External compression seal
- + Resistant to 0.6 bar



INSTALLATION



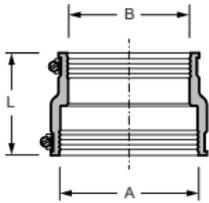
Position plain ended pipes.



Slide adaptor coupling over one plain end.



Push other plain ended pipe into adaptor coupling and tighten clamps.



PRODUCT RANGE

MISSION ADAPTOR COUPLING

Reference	A Size Range (mm)	B Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Gewicht (kg)
MAC 0401	32 - 40	24 - 32	65	0.6	3	0.1
MAC 0501	40 - 50	24 - 32	65	0.6	3	0.1
MAC 0502	40 - 50	32 - 40	65	0.6	3	0.1
MAC 0632	53 - 63	32 - 40	65	0.6	3	0.1
MAC 0633	53 - 63	40 - 50	90	0.6	3	0.2
MAC 0893	75 - 89	40 - 50	100	0.6	3	0.4
MAC 0894	75 - 89	53 - 63	100	0.6	3	0.3
MAC 1153	100 - 115	40 - 50	100	0.6	3	0.5
MAC 1154	100 - 115	53 - 63	100	0.6	3	0.3
MAC 1155	100 - 115	75 - 89	100	0.6	3	0.5
MAC 1251	110 - 125	80 - 95	120	0.6	6	0.6
MAC 1252	110 - 125	100 - 115	120	0.6	6	0.6
MAC 1360	121 - 136	75 - 89	100	0.6	6	0.6
MAC 1361	121 - 136	80 - 95	120	0.6	6	0.7
MAC 1362	121 - 136	100 - 115	120	0.6	6	0.6
MAC 4000	121 - 137	108 - 122	120	0.6	6	0.6
MAC 1363	121 - 136	110 - 125	120	0.6	6	0.6
MAC 1451	130 - 145	95 - 110	100	0.6	6	0.5
MAC 1452	130 - 145	110 - 125	120	0.6	6	0.7
MAC 1501	135 - 150	100 - 115	100	0.6	6	0.5
MAC 1602	144 - 160	110 - 125	120	0.6	6	0.8
MAC 1603	144 - 160	121 - 136	120	0.6	6	0.8
MAC 1701	155 - 170	100 - 115	150	0.6	6	1.0
MAC 1702	155 - 170	110 - 125	120	0.6	6	0.8
MAC 1703	155 - 170	130 - 145	120	0.6	6	0.8
MAC 1801	160 - 180	100 - 115	150	0.6	6	1.0
MAC 1802	160 - 180	110 - 125	150	0.6	6	1.1
MAC 1805	160 - 180	155 - 170	150	0.6	6	1.3
MAC 1922	170 - 192	110 - 125	120	0.6	6	0.9
MAC 1924	170 - 192	144 - 160	120	0.6	6	0.9

Larger Sizes see MISSION RUBBER CIVILS

Drain Coupling

MISSION DRAIN COUPLING

- + Coupling for same outside diameters
- + For above and below ground
- + External compression
- + Resistant to 0.6 bar



MONTAGE



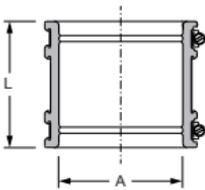
Position plain ended pipes.



Slide coupling over one plain end.



Centre coupling over joint.
Tighten clamps.



PRODUCT RANGE

MISSION DRAIN COUPLING

Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
MDC 32	24 - 32	65	0.6	3	0.1
MDC 40	32 - 40	65	0.6	3	0.1
MDC 50	42 - 50	65	0.6	3	0.1
MDC 56	50 - 56	70	0.6	3	0.1
MDC 65	55 - 65	90	0.6	3	0.2
MDC 75	65 - 75	90	0.6	3	0.3
MDC 85	70 - 85	80	0.6	3	0.2
MDC 89	75 - 89	100	0.6	3	0.4
MDC 95	80 - 95	100	0.6	6	0.4
MDC 100	85 - 100	100	0.6	6	0.4
MDC 115	100 - 115	120	0.6	6	0.5
MDC 116	100 - 116	100	0.6	6	0.4
MDC 120	105 - 120	120	0.6	6	0.4
MDC 125	110 - 125	110	0.6	6	0.4
MDC 137	120 - 137	120	0.6	6	0.4
MDC 150	125 - 150	120	0.6	6	0.5
MDC 162	137 - 162	120	0.6	6	0.5
MDC 165	150 - 165	110	0.6	6	0.5
MDC 175	150 - 175	120	0.6	6	0.6
MDC 190	165 - 190	150	0.6	6	0.6
MDC 200	175 - 200	150	0.6	6	0.6

Larger sizes see MISSION RUBBER CIVILS

Standard Coupling

MISSION STANDARD COUPLING

- + For all pipe materials
- + For above and below ground
- + For usage with bushes
- + Resistant to 2.5 bar



INSTALLATION



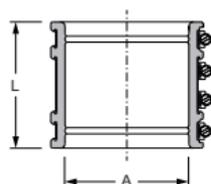
Position plain ended pipes.



Slide coupling over one plain end.



Centre coupling over joint. Tighten clamps and shear band reciprocally.



PRODUCT RANGE

MISSION STANDARD COUPLING

Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
MSC 65	55-65	90	2.5	6	0.3
MSC 75	65-75	90	2.5	6	0.3
MSC 89	75-89	100	2.5	6	0.4
MSC 95	80-95	100	2.5	6	0.5
MSC 100	85-100	100	2.5	6	0.5
MSC 115	100-115	120	2.5	10	0.8
MSC 120	105-120	120	2.5	10	0.8
MSC 137	120-137	120	2.5	10	0.9
MSC 150	125-150	120	2.5	10	1.0
MSC 162	137-162	120	2.5	10	1.1
MSC 175	150-175	120	2.5	10	1.2
MSC 190	165-190	150	2.5	10	1.6
MSC 200	175-200	150	2.5	10	1.7

Larger sizes see MISSION RUBBER CIVILS

FLEXIBLE TEE

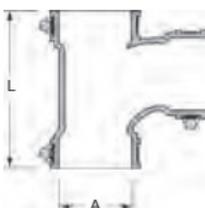
- + 90° Tee Junction to existing drains
- + For horizontal and vertical installations
- + Reliable and durable solution
- + Resistant to 0.5 bar



INSTALLATION



Cut off and remove pipe section. Loosen pipe support.



Position Flexible Tee in between plain ended pipes.



Insert plain ended pipes, tighten clamps and fix pipe support.

PRODUCT RANGE

FLEXIBLE TEE					
Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
MTY 150	40 - 50	125	0.6	6	0.20
MTY 200	50 - 60	125	0.6	6	0.30
MTY 300	78 - 90	200	0.6	6	0.60
MTY 400	106 - 118	245	0.6	6	1.10

FLEXIBLE ELBOW

- + 90° Elbow
- + For horizontal and vertical installations
- + Reliable and durable solution
- + Resistant to 0.5 bar



INSTALLATION



Cut off and remove pipe section. Loosen pipe support.

Position Flexible Elbow in between plain ended pipes.

Insert plain ended pipes, tighten clamps and fix pipe support.



PRODUCT RANGE

FLEXIBLE ELBOW

Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
M90L 150	40 - 50	95	0.6	6	0.10
M90L 200	50 - 60	140	0.6	6	0.20
M90L 300	78 - 90	190	0.6	6	0.50
M90L 400	106 - 118	210	0.6	6	0.80

END CAP

- + Sealing of pipe ends
- + For use inside and outside of buildings
- + Clamps in stainless steel
- + Resistant to 0.6 bar



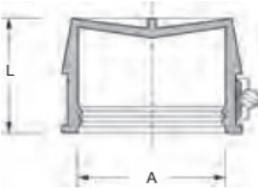
INSTALLATION



Slide End Cap over pipe end.



Tighten clamps.



PRODUCT RANGE

MISSION STANDARD COUPLING

Reference	A Size Range (mm)	L Length (mm)	Resistant to (bar)	Nm	Weight (kg)
MEC 1	45 - 55	40	0.5	6	0.10
MEC 2	56 - 66	40	0.5	6	0.10
MEC 3	80 - 90	40	0.5	6	0.20
MEC 4	105 - 115	40	0.5	6	0.20
MEC 5	130 - 140	40	0.5	6	0.20
MEC 6	155 - 165	40	0.5	6	0.30
MEC 8	205 - 215	40	0.5	6	0.30
MEC 10	250 - 260	40	0.5	6	0.40
MEC 12	315 - 325	40	0.5	6	0.40

PIPE CLASSIFICATION METRIC	NOMINAL SIZES (DN)																								
	32/35		40		50		56		65		70		75		80		82/90		100		125		150		
	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.
ABS/PVC-C	32.1	36.5	38.9	43.1	51.3	56.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aluminium (Sch 40)	-	-	38.1	48.3	50.8	60.3	-	-	-	-	-	-	76.2	88.9	-	-	-	-	101.6	114.3	-	-	-	-	
Cast (Spun) Iron BS1211 (A.B.)	-	-	-	55.9	-	69.1	-	-	-	82.3	-	-	-	-	-	95.5	-	-	-	121.9	-	-	-	-	
Cast (Spun) Iron BS1211 (C.D.)	-	-	-	55.9	-	69.1	-	-	-	82.3	-	-	-	-	-	95.5	-	-	-	121.9	-	-	-	-	
Cast Iron BS416 (Soil)	-	-	-	-	50	63	-	-	-	-	-	-	75	89	-	-	-	100	114	-	-	-	150	165	
Cast Iron BS437 (Drain)	-	-	-	-	-	-	-	-	-	-	-	-	-	92	-	-	-	99	119	-	-	-	150	173	
Cast Iron SMU/Ensign	-	-	40	48	50	58	-	-	-	-	-	-	75	83	-	-	-	100	110	125	135	150	160	160	
Copper	32.6	35	39.6	42	51.6	54	-	-	64.3	66.7	-	-	73.1	76.1	-	-	-	105	108	130	133	155	159	159	
Galvanised Steel BS3868	-	-	-	-	56.3	60.3	-	-	-	-	-	-	-	-	82.3	88.3	-	-	107	114.3	-	-	-	-	
Geberit Silent	-	-	-	-	-	-	50	65	57	63	-	-	68	75	-	-	79	90	98	110	-	-	146	160	
Harmer SML	-	-	-	-	54	60	-	-	-	-	74	80	-	-	-	-	-	106	112	130	137	155	162	162	
HDPE	-	-	34	40	44	50	50	56	57	63	-	-	69	75	-	-	83	90	101.4	110	115	125	147.6	160	
muPVC	32.4	36	39.2	43	52	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Polypropylene	30.4	34.8	36.6	41.2	49.5	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PVCu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75.6	82.8	103	110	-	152.4	160	
Stainless Steel	-	-	38	40	48	50	-	-	-	-	-	-	75	75	-	-	80	82	108	110	124	126	158.5	161	

NOMINAL SIZES (DN)

PIPE CLASSIFICATION IMPERIAL	1.5"		2"		2.5"		3"		3.5"		4"	
	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.
Cast Iron BS416 (Soil)	-	-	-	63/65	-	73	75	89	-	99.2	-	114
Cast Iron BS437 (Drain)	-	-	-	-	-	-	-	92	-	-	-	120
Cast (Spur) Iron BS1211 (A.B.)	-	-	-	-	-	-	76.2	95.5	-	-	102	121.9
Cast (Spur) Iron BS1211 (C.D.)	-	-	-	-	-	-	76	95.5	-	-	101	121.9
Copper	38	41	50	54	64	67	76	79.9	-	-	101.6	104.7



THE MISSION RUBBER COMMITMENT SUMMARISES THE KEY COMPETENCES OF THE COMPANY



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DELIVERY

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INNOVATION

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AVAILABILITY

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SECURITY

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You can trust in us on consulting you with the best solution. It is the highest priority that Mission Rubber consults you with both Technical and Commercial knowledge.

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Next Day deliveries are available.

Timed Deliveries and Same Day Deliveries are also available.

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Our innovations help removing problems on site!

AVAILABILITY

100% availability creates confidence!

SECURITY

We assume a life circle for Mission couplings of 50 years, providing proper packaging, storing and installation.

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