



MODERN PLASTIC INDUSTRY L.L.C.



**PP COMPRESSION
FITTINGS**

Reliability, Quality and Value



PROFILE



Introduction

Modern Plastic Industry LLC is a part of AL SHIRAWI GROUP OF COMPANIES which is one of the largest and most diversified business conglomerates in the Arabian Gulf. From its inception in 1971 as a trading and contracting company, the Group has broadened its scope to encompass a cross section of products, services and industries ranging from printing, heavy fabrication, engineering, electromechanical, electronics, trucks and logistics.

Established in 1987, Modern Plastic Industry (MPI) has pioneered the manufacturing of PP compression fittings in the UAE. Today Modern Plastic has a wide range of PP Compression fittings, SWR Drainage, High Pressure UPVC & CPVC Pipes & Fittings.

MPI Products have been used extensively in the irrigation, construction, plumbing and landscaping industry and are playing a significant role in the development of the Gulf region and Middle East.

State-of-the-art facility

MPI's PP Compression Fittings are manufactured in a state-of-the-art facility at Dubai Investment Park with the state-of-the-art Microprocessor based Injection Moulding Machines and High Quality Precision Moulds.

Technology is the backbone of ongoing development and the right design selection headed by a team of experienced and well-trained professionals complements the development process.

MPI has established an in-house tool room with the latest CNC and EDM machines, which are used to manufacture moulds as per the needs of the market.

Quality Control

Our PP Compression Fitting systems are specially designed to meet the harsh climate conditions of the Gulf region, MPI places emphasis on Quality, Reliability and Economy. Strict-in-house Quality Control is backed by testing through independent laboratories of international repute to certify the quality of the fittings. MPI places great emphasis on customer satisfaction through quality products. The company's operational excellence is evident through its established Quality Management Systems, which complies with the ISO 9001:2008 standard, certified by British Standards Institute (BSI) UK. Also MPI is in the process of achieving the prestigious KIWA Mark Certification from KIWA, Netherlands for our PP Compression Fittings.



In-House Quality Control

MPI's products are tested to maintain the quality level in the permissible standard tolerances. We perform the tests as per relevant international standards (DIN, ISO) and acceptance sampling procedures for production quality control and lot testing are done during all production operations.

The following quality control tests are performed in our in-house lab.

- Physical Test
- Dimensional Check
- Bending Test
- Water Tightness of connection after freezing
- Oven Test
- Pressure Test
- Leak Tightness Test
- Pull out Test

Apart from this, our products are being tested / assessed by BSI / other certification bodies on a regular basis.

A Complete Solution

MPI has now introduced a complete range of PP Compression Fittings with sizes from 20mm to 110mm conforming to ISO 14236, DIN 8076 - 3, UNI 9562, UNI 9561.

MPI's products are manufactured par excellence to the international standards and ensure a complete solution of Piping systems.

Global Presence

MPI has been the leader in the Gulf market mainly and it can offer the widest range of PP Compression Fittings which are specially designed to meet the harsh climatic conditions with emphasis on Quality, Reliability and Economy. MPI is managed by a team of experienced and well trained professionals, and market its range of products in the GCC region, the Middle East, Africa, Europe and the Asian subcontinent.





TECHNICAL SPECIFICATION

Description

"ATLAS" PP Compression Fittings and Clamp Saddles are designed particularly for connecting Polyethylene pipes used to convey fluids for drinking water and irrigation systems.

Brand & Marking

"ATLAS" is a registered brand name of "Modern Plastic Industry LLC" within United Arab Emirates for all PP Compression Fittings and clamp saddles manufactured by MPI. All Fittings are marked / engraved with brand name, size and category.

Standards

Fittings and Saddles : ISO 14236, DIN 8076-3, UNI 9562, UNI 9561.
Threaded joints : ISO 7 - 1.

Pressure Rating at 20°C

D 20 mm to D 63 mm - 16 bar
D 75 mm to D 110mm - 10 bar.

Raw Material

Body, Thrust Bush and Nut in Polypropylene Co-Polymer, Clinching Ring in White Acetal Resin, O-Ring Gasket in NBR, Reinforcement ring in AISI 430.

Appearance

The internal and external surface of the Fittings are smooth, clean and free from surface defects.

Colour

The colour of the Fitting Body, Thrust Bush and Nut are generally Black; Clinching Ring in White.

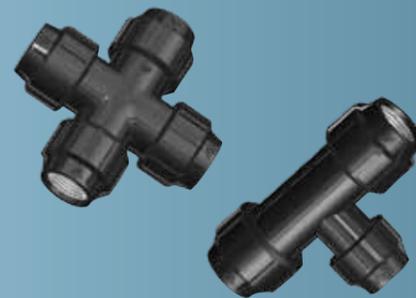
Components Description



- 1. Nut
- 2. Clinching Ring
- 3. Thrust Bushing
- 4. O-Ring
- 5. Body

Water is precious! So are "ATLAS" Fittings!!!





ASSEMBLY INSTRUCTION



1 Cut the pipe squarely using special pipe cutting tools or circular or band saw. it would be better to use a sawing guide to obtain a square cut.



2 Disassemble all the fitting components. Make the nut, the black bush and the O-ring slide onto the pipe setting them near the pipe's end. Do not use the white clamping ring at this stage. It is helpful to lubricate the pipe's end and the O-ring with a suitable lubricant that does not affect the drinking water properties.



3 Thrust the pipe into fitting body and set the black bush and the O-ring against the body. Tighten the blue nut as far as the O-ring and the back bush go completely into the fitting body.



4 Unscrew the nut and put the white clamping ring onto the pipe.



5 Push the white clamping ring against the body. Make sure that the clamping ring taper is in the right direction, i.e. the large part of the clamping ring must be against the body.



6 Tighten the nut manually: then tighten it further with a special wrench. It is not necessary for the blue nut to be in contact with the external stop of the body.





BENEFITS

Fast and easy installation

Simple Assembly: No pipe preparation is required and no force is needed to push the pipe past the seal, so installation couldn't be faster or easier. Simply insert the pipe into the fitting until the top is felt, and then push the cling ring and tighten the nut. It is so easy to assemble and it can even be done under live conditions. No special tools are required, and there is no need to disassemble the fitting before use because ATLAS compression fitting is supplied pre-assembled and ready to use.

Compact design: ATLAS compression fitting has been kept to a minimum, making the fitting ideal to use in confined areas. The design and size of the fitting means that in installations taking place between two fixed points, the manipulation of the pipe into the fitting becomes easy.

Easy disassembly: ATLAS fitting has been designed so the cling ring is released as soon as the nut is backed off, making disassembly easy.

Complete security

Thrust sealing method: The mechanical advantage of the thrust bushing compresses the ring seal into position.

Never lose components: When the nut is removed there is no danger of losing components, as the cling ring stays on the pipes and the ring seal is retained in the body of the fitting with the aid of the thrust bushing. Losing components in the trench becomes a thing of the past.

No more pipe twist:

ATLAS fitting has been designed to minimise pipe twist as the nut is tightened. Maximum pipe twist is approximately a quarter turn compared to one and a half turns with many other fittings. Pipe twist can impact on not only the connection you have just made but also on the connection at the other end of the line.

High performance

Manufactured with advanced thermoplastic materials: ATLAS fitting is manufactured from lightweight high performance thermoplastic materials with outstanding impact, UV, chemical and corrosion resistance. The material is non-toxic and taint-free.

Design lifetime: ATLAS fitting is designed for a lifetime of 50+ years to withstand the toughest conditions, to ensure longevity and durability.

Range: There are generally two types of PE pipe fittings:

Mechanical

Thermofusion.

ATLAS is a range of mechanical fittings that offers three distinct advantages over thermofusion fittings;

More economical

Easy & Quick installation

Easy & Quick revision to installation / repairs

50+ years design lifetime of Compression fittings: Whilst ATLAS conforms to institutionalized specifications written to have a minimum life of 50 years, its compression fittings are designed to exceed the expectations of these specifications.

Head losses: The following table offers a guide in estimating the head losses in PE pipe systems conveying water. The following formula shall be used as a guide to estimate this head loss:

$$L = F \times D$$

Where: F = fitting constant

D = pipe inner diameter (m)

L = head loss based on equivalent pipe length (m)

HEAD LOSS

FITTING	FITTING CONSTANT
Elbow	30
Tee - Straight	12
Tee - Side branch	60
90	136

Resistance to Impact: The thermoplastic materials used in ATLAS fitting have excellent impact properties.

Abrasion Resistance: ATLAS fitting is suitable to transport abrasive slurries and will withstand normal conditions found in urban, mining, industrial, rural water and waste water systems.

Applications: Polypropylene compression fitting is an extremely versatile material which is used for a number of applications. Accordingly, we provide the optimal means of connecting to PE pipes. ATLAS fitting is designed to serve a vast number of industries. Here are some examples of its uses:

Mining: Water Conveyance, compressed air, chemical solutions and slurries in mines & processing plants.

Plumbing: House connections, and water supply

Municipal Water Supply: Water treatment plants, distribution lines and mains-to-meter line

Landfill:

Conveyance of gaseous fuels

Agriculture, Horticulture & Turf: Main pressure irrigation systems, golf course irrigation and pump manifolds.

Manufacturing / Plants: Conveyance of compressed air, water and chemical solutions

Weathering: The materials used contain pigments that provide excellent protection against degradation due to ultra-violet radiation. Continuous use of ATLAS fitting in above ground systems is therefore permissible without additional protection.

Electrolytic Corrosion:

ATLAS fitting is non magnetizing and does not cause electrolytic deterioration.

Thermal Insulation:

Polypropylene has natural thermal insulation of 2000 times over copper and 200 times over steel.

Light Transmission:

The all black ATLAS fitting does not transmit light, thus protecting the water quality in potable water pipelines from growth of micro organisms.



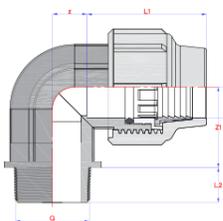
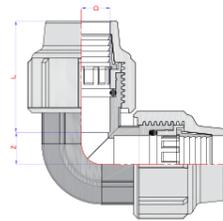


FITTING DIMENSION

Effect on Water: ATLAS fitting does not impart to water any odor, taste, color, or any constituents in concentrations that could be injurious to health. Fluids other than Water ATLAS fitting may convey a wide variety of fluids. The following table is provided as a guide only for the compatibility of various chemicals to **ATLAS fittings**. Please contact our technical team for advice on specific applications not listed in the table.

Chemical	Compatability
Air	Satisfactory
Ammonium Hydroxide	Satisfactory
Alcohol	Satisfactory
Acetone	Not Satisfactory
Auto Transmission Fluid	Satisfactory
Antifreeze	Satisfactory
Benzene	Not Satisfactory
Butane	Satisfactory
Calcium Salts	Satisfactory
Caustic Soda (40% aqueous)	Satisfactory
Cresol	Not Satisfactory
Citric Acid (10% aqueous)	Satisfactory
Copper Salts	Satisfactory
Ethylene Alcohol	Satisfactory
Ethyl Glycol	Satisfactory
Diesel	Satisfactory
Formic Acid	Not Satisfactory
Gasoline	Not Satisfactory
Hydrochloric Acid	Not Satisfactory
Kerosene	Not Satisfactory
Mineral Oils	Satisfactory
Methane	Satisfactory
Methylene Chloride	Not Satisfactory
Nitric Acid	Not Satisfactory
Petroleum Oils	Satisfactory
Sewerage	Satisfactory
Sodium Cyanide	Satisfactory
Sulphuric Acid	Not Satisfactory
Toluene	Not Satisfactory
Turpentine	Not Satisfactory
Transformer Oil	Satisfactory
Zinc Salt Solution	Satisfactory

Note: Fluid Temperature =20°C



ELBOW

D x D	L	Z
20 x 20	50	12.5
25 x 25	54	15
32 x 32	59	19
40 x 40	70	26
50 x 50	105	32
63 x 63	98	35
75 x 75	129	47
90 x 90	135	48
110 x 110	190	66.5

ELBOW MALE THREADED

D x G	L1	L2	Z	Z1
20 x 1/2"	50	17	12.5	28
25 x 1/2"	61	17	14	30
25 x 3/4"	54	17	15	30
25 x 1"	61	20	14	30
32 x 1/2"	63	17	20	37
32 x 3/4"	63	17	20	37
32 x 1"	63	20	20	37
40 x 1 1/4"	78	23	26	45
40 x 1 1/2"	78	23	26	45
50 x 1 1/4"	105	23	29	54
50 x 1 1/2"	105	23	29	54
50 x 2"	105	28	29	54
63 x 1 1/2"	103	23	37	60
63 x 2"	103	28	37	60
75 x 2 1/2"	129	33	48	70
75 x 3"	129	35	48	70
90 x 3"	135	35	61	79
90 x 4"	135	38	61	79
110 x 3"	190	35	66.5	98
110 x 4"	190	38	66.5	98
110 x 4"	190	38	66.5	98



MPI ATLAS

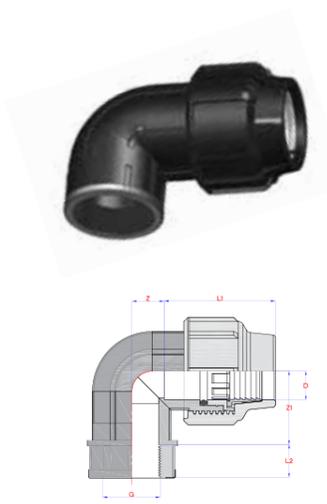


MPI ATLAS



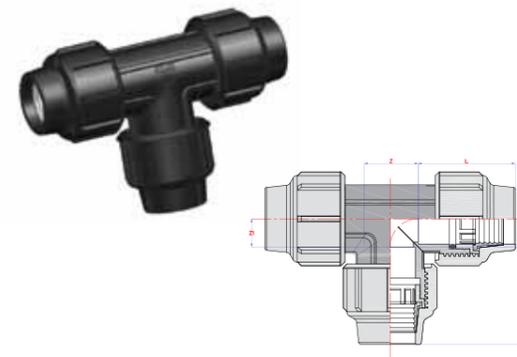
ELBOW FEMALE THREADED

D x G	L1	L2	Z	Z1
20 x 1/2"	50	17	12.5	28
25 x 3/4"	54	17	15	30
32 x 1/2"	63	20	20	37
32 x 3/4"	63	20	20	37
32 x 1"	63	22	20	37
40 x 1"	78	22	26	45
40 x 1 1/4"	78	25	26	45
40 x 1 1/2"	78	25	26	45
50 x 1 1/4"	105	25	29	54
50 x 1 1/2"	105	25	29	54
50 x 2"	105	30	29	54
63 x 1 1/2"	103	25	37	60
63 x 2"	103	30	37	60
63 x 2 1/2"	103	35	37	60
75 x 2 1/2"	129	35	47	70
75 x 3"	129	36	47	79
90 x 3"	135	36	61	79
90 x 4"	135	41	61	79
110 x 3"	135	36	66.5	98
110 x 4"	135	41	66.5	98



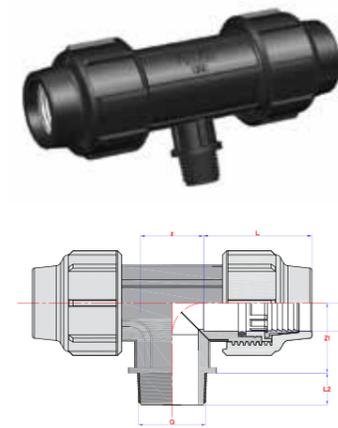
TEE

D x D x D	L	Z	Z1
20 x 20 x 20	50	25	12.5
25 x 25 x 25	54	25	15
32 x 32 x 32	59	38	19
40 x 40 x 40	78	52	26
50 x 50 x 50	105	64	32
63 x 63 x 63	98	70	35
75 x 75 x 75	129	94	47
90 x 90 x 90	135	96	48
110 x 110 x 110	190	133	66.5



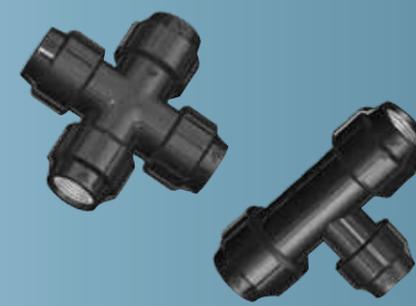
TEE MALE THREADED

D x G	L1	L2	Z	Z1
20 x 1/2"	50	17	25	28
25 x 3/4"	54	17	30	30
32 x 1/2"	63	17	29	37
32 x 3/4"	63	17	34	37
32 x 1"	63	20	34	37
40 x 1"	78	20	38	45
40 x 1 1/4"	78	23	48	45
40 x 1 1/2"	78	23	52	45
50 x 1 1/4"	105	23	48	54
50 x 1 1/2"	105	23	53	54
50 x 2"	105	28	58	54
63 x 1 1/2"	103	23	59	60
63 x 2"	103	28	65	60
75 x 2 1/2"	129	33	84	70
75 x 3"	129	35	107	70
90 x 3"	135	35	107	79
90 x 4"	135	38	128	79
110 x 3"	190	35	113	98
110 x 4"	190	38	133	98





MPI ATLAS

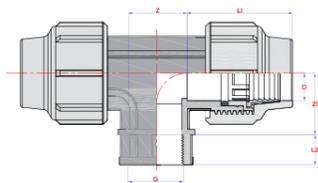


MPI ATLAS



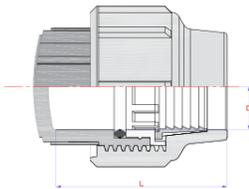
TEE FEMALE THREADED

D x G	L1	L2	Z	Z1
20 x 1/2"	50	17	25	28
25 x 3/4"	54	17	30	30
32 x 1/2"	63	17	29	37
32 x 3/4"	63	17	34	37
32 x 1"	63	20	34	37
40x1"	78	20	48	45
40 x 1 1/4"	78	23	48	45
40 x 1 1/2"	78	23	52	45
50 x 1 1/4"	105	23	48	54
50 x 1 1/2"	105	23	53	54
50 x 2"	105	28	58	54
63 x 1"	103	20	59	60
63 x 1 1/2"	103	23	59	60
63 x 2"	103	28	65	60
75 x 2 1/2"	129	33	84	70
75 x 3"	129	35	107	70
90 x 3"	135	35	107	79
90 x 4"	135	38	128	79
110 x 3"	190	35	113	98
110 x 4"	190	38	133	98



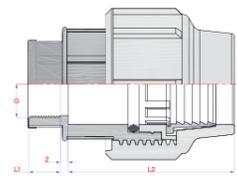
END PLUG

D	L
20	50
25	54
32	59
40	78
50	105
63	98
75	129
90	135
110	190



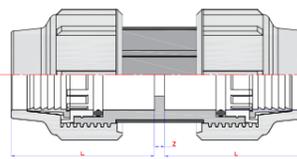
FEMALE SOCKET ADAPTOR

D x G	L1	L2	Z
20 x 1/2"	17	50	3.0
25 x 1/2"	20	61	4.5
25 x 3/4"	22	61	4.5
25 x 1"	22	61	4.5
32 x 3/4"	22	63	6.5
32 x 1"	22	63	7
32 x 1 1/4"	23	63	9
40 x 1"	22	78	9
40 x 1 1/4"	23	78	10
40 x 1 1/2"	23	78	12.5
50 x 1 1/4"	23	105	15.5
50 x 1 1/2"	23	105	17.5
50 x 2"	28	105	12.5
63 x 1 1/2"	23	103	8
63 x 2"	28	103	8
75 x 2"	28	129	6
75 x 2 1/2"	33	129	6
75 x 3"	35	129	6
90 x 3"	35	135	10
110 x 3"	35	190	10.5
110 x 4"	42	190	10.5



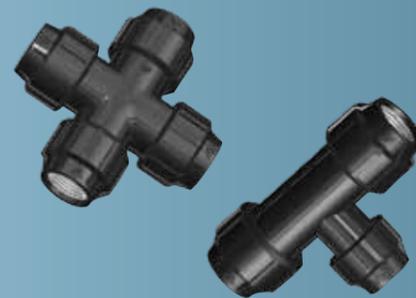
COUPLER

D x D	L	Z
20 x 20	50	3.0
25 x 25	54	3.5
32 x 32	59	5
40 x 40	79	9
50 x 50	105	10
63 x 63	98	5
75 x 75	129	5
90 x 90	135	5
110 x 110	190	15





MPI ATLAS

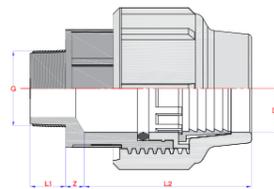


MPI ATLAS



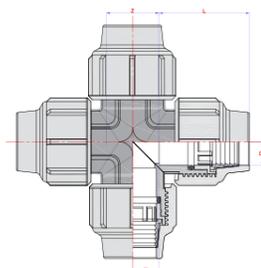
MALE ADAPTOR

T	L1	L2	Z
20 x 1/2"	17	50	3.0
25 x 1/2"	20	54	4.5
25 x 3/4"	22	54	4.5
25 x 1"	22	54	4.5
32 x 3/4"	22	59	6.5
32 x 1"	22	59	7
40 x 1 1/4"	23	78	10
40 x 1 1/2"	23	78	12.5
40 x 2"	28	78	7.5
50 x 1 1/4"	23	105	15.5
50 x 1 1/2"	23	105	17.5
50 x 2"	28	105	12.5
63 x 2"	28	98	4.5
75 x 2"	28	129	6
75 x 2 1/2"	33	129	6
75 x 3"	35	129	6
90 x 2"	30	135	7
90 x 3"	32	135	10
90 x 4"	32	135	10
110 x 3"	35	190	10.5
110 x 4"	42	190	10.5



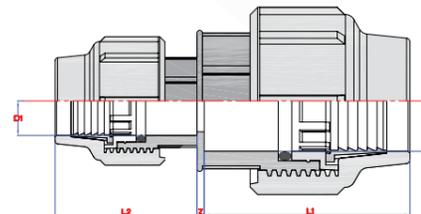
CROSS TEE

D x D x D x D	L	Z	Z1
32 x 32 x 32 x 32	63	51	25
50 x 50 x 50 x 50	105	74	37
63 x 63 x 63 x 63	103	74	37



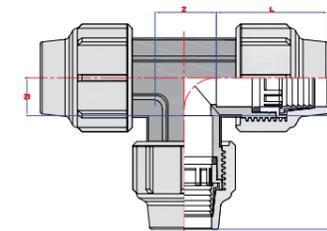
REDUCER COUPLER

D x D x D	L	Z	L2
25 x 25 x 20	61	3.5	51
32 x 32 x 20	63	4	51
32 x 32 x 25	63	4	61
40 x 40 x 25	78	5	61
40 x 40 x 32	78	5	63
50 x 50 x 25	105	6	61
50 x 50 x 32	105	6	63
50 x 50 x 40	105	6	78
63 x 63 x 32	98	6.5	63
63 x 63 x 40	98	6.5	78
63 x 63 x 50	98	6.5	105
75 x 75 x 50	129	7	105
75 x 75 x 63	129	7	102
90 x 90 x 63	135	8	102
90 x 90 x 75	135	8	129
110 x 110 x 63	190	10	102
110 x 110 x 75	190	10	129
110 x 110 x 90	190	10	135



REDUCER TEE

D x D x D	L	Z	Z1	L1
25 x 25 x 20	61	31	17	51
32 x 32 x 25	63	39.5	20	61
40 x 40 x 25	78	40	25	61
40 x 40 x 32	78	52	25	63
50 x 50 x 32	105	58	32	61
50 x 50 x 40	105	58	29	78
63 x 63 x 32	103	54	42	63
63 x 63 x 40	103	64	39	78
63 x 63 x 50	103	74	39	105
75 x 75 x 50	129	94	44	105
75 x 75 x 63	129	94	47	102
90 x 90 x 63	135	102	54	102
90 x 90 x 75	135	102	52	129
110 x 110 x 90	190	113	69	135



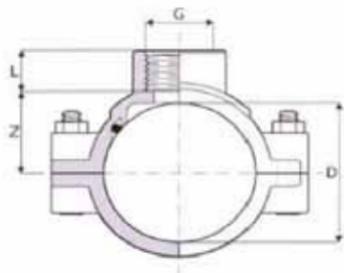


MPI ATLAS



CLAMP SADDLE

D x G	L	Z
25X1/2"	17	16
25X3/4"	20	16
32X1/2"	17	20
32X3/4"	20	20
32 x 1"	22	20
40X1/2"	17	25
40X3/4"	20	25
40 x 1"	22	25
50X1/2"	17	31
50X3/4"	20	31
50X1"	22	31
50X1 1/4"	23	31
63 x 1/2"	17	40
63 x 3/4"	20	40
63 x 1"	22	40
63X 1 1/4"	23	40
63 x 1 1/2"	24	40
75 x 1/2"	17	44.5
75 x 3/4"	20	44.5
75 x 1"	22	44.5
75X1 1/4"	23	44.5
75 x 1 1/2"	24	44.5
75 x 2"	28	44.5
90 x 1/2"	17	52
90 x 3/4"	20	52
90 x 1"	22	52
90X1 1/4"	23	52
90 x 1 1/2"	24	52
90 x 2"	28	52
90X2 1/2"	33	52
110X1/2"	17	87
110X3/4"	20	87
110X 1"	22	87
110X1 1/4"	23	87
110X1 1/2"	24	87
110X2"	28	87



bsi.



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that: Modern Plastics Industry LLC
Dubai Investment Park 1
Jebel Ali
PO Box 31550
Dubai
UAE

Holds Certificate No: FM 51169

and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:

The manufacture of PVC/CPVC Pipe and Fittings, PP Compression Fittings, Injection Moulded Products to company and customer required specifications.

For and on behalf of BSI: Gary Fenton, Global Assurance Director
Originally registered: 07/07/1999 Latest Issue: 31/10/2012 Expiry Date: 30/10/2015



Page: 1 of 1

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated at www.bsi-global.com/ClientDirectory or telephone +971 (4) 334917. Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +971 (4) 334917.
Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP, UK. Tel: +44 (0)145 000 3000
BSI Assurance UK Limited, registered in England under number 1901121 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.



WHY CHOOSE MODERN PLASTIC INDUSTRY LLC ?

- Proven research capability and ability to provide products to suit customer application needs.
- Pipes & fittings at a competitive price.
- Technical service and installation backup.
- One stop facility - wide range of pipes & fittings in UPVC (SWR Drainage), UPVC high pressure, CPVC & PP Compression.
- Prompt deliveries - inhouse manufacturing facilities for all the pipes and fittings in UAE.
- Quality and reliability - according to international standards, Quality management system (ISO 9001 & kitemark).
- Operational excellence - precision manufacturing according to the standards using state of the art machinery.
- Duty exemption in GCC countries.
- Service - 24 hours customer service.

Means customer satisfaction and operational excellence....



صناعة البلاستيك الحديثة (ش.ذ.م.م.)

MODERN PLASTIC INDUSTRY (L.L.C.)

(A Member of Al Shirawi Group of Companies)

ص.ب: 31550، دبي - ا.ع.م، تليفون: +971-4-8851300، فاكس: +971-4-8851301، عنوان الانترنت

P.O. Box: 31550, Dubai - U.A.E., Tel.: +971-4-8851300, Fax: +971-4-8851301

E-mail: marketing@mpi.ae Web Location: <http://www.mpi.ae>



FM 51169



003