



**PVC**  
PIPES CATALOGUE  
U.PVC & C.PVC



Al-Watania Plastics



بلاستيك الوطنية

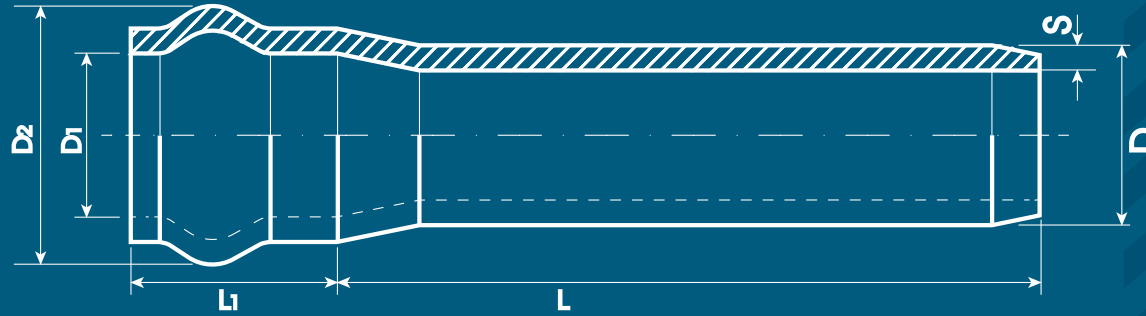


بلاستيك الوطنية  
Al-Watania Plastics

# المواصفات القياسية الألمانية 8061 - 8062

DIN

II



## Manufacturing Range

## الأقطار المنتجة

تنتج بلاستيك الوطنية أنابيب اليوبي في سي وفق المواصفات السعودية وضمن الحدود التالية لأقطار والسماكات والأوزان وفق الأصناف المطابقة للمواصفات السعودية رقم 14 لسنة 1996 م - الألماني دين 8061 - 8062

Al-Watania Plastics U-PVC Pipes are manufactured as per (SASO) 14/ 1996 size range from 16 mm outside diameter upto 800mm. All details, sizes, thicknesses weights and classes are shown in this table accordin to (SASO)14 /1996 and DIN 8062





Working Pressure	Class 2 - 4 Bar		Class 3 - 6 Bar		Class 4 - 10 Bar		Class 5 - 16 Bar	
	Nominal Thickness mm	Weight Kg/m	Nominal Thickness mm	Weight Kg/m	Nominal Thickness mm	Weight Kg/m	Nominal Thickness mm	Weight Kg/m
16	-	-	-	-	-	-	1.2	0.090
20	-	-	-	-	-	-	1.5	0.137
25	-	-	-	-	1.5	0.174	1.9	0.212
32	-	-	-	-	1.8	0.264	2.4	0.342
40	-	-	1.8	0.334	1.9	0.350	3.0	0.525
50	-	-	1.8	0.442	2.4	0.552	3.7	0.809
63	-	-	1.9	0.562	3.0	0.854	4.7	1.289
75	1.8	0.642	2.2	0.782	3.6	1.22	5.6	1.82
90	1.8	0.774	2.7	1.13	4.3	1.75	6.7	2.61
110	2.2	1.16	3.2	1.64	5.3	2.61	8.2	3.90
125	2.5	1.48	3.7	2.13	-	-	-	-
160	3.2	2.41	4.7	3.44	7.7	5.47	11.9	8.17
200	4.0	3.7	5.9	5.37	9.6	8.51	14.9	12.8
225	4.5	4.7	6.6	6.76	10.8	10.8	16.7	16.1
250	4.9	5.65	7.3	8.31	11.9	13.2	18.6	19.9
280	-	-	8.2	10.4	13.4	16.6	20.8	24.9
315	6.2	9.02	9.2	13.1	15.0	20.9	23.8	31.5
400	7.9	14.5	11.7	21.1	19.1	33.7	29.7	50.8
500	9.8	22.4	14.6	32.9	23.9	52.6	0	0
630	12.4	35.7	18.4	52.2	30	83.2	0	0
710	14.0	45.3	20.7	66.10	-	-	-	-
800	15.70	57.2	23.3	83.90	-	-	-	-

## Joints

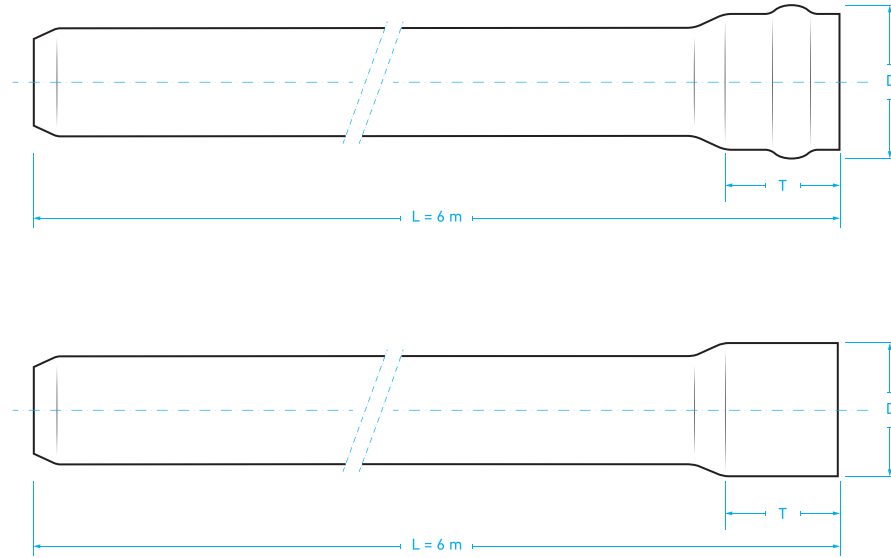
## الوصلات

**Al-Watania Plastics** U-PVC Pipes are manufactured by tow types.

- 1 - Solvent Cement Joint.
- 2 - «A» Rubber Joint.

تنتج بلاستيك الوطنية أنابيب اليو بي في سي بنوعين من الوصلات :

- 1 - وصلة بالغراء ( عادية )
- 2 - وصلة بالحلقة المطاطية ( أ )



T	Socket Depth
D	O.D of Socket
L	Length of Pipe

ط	عمق الوصلة
ق	قطر الوصلة
ل	طول الماسورة

**Al-Watania Plastics** U-PVC Pipes are 6m standard length. Other length can be supplied by arrangement.

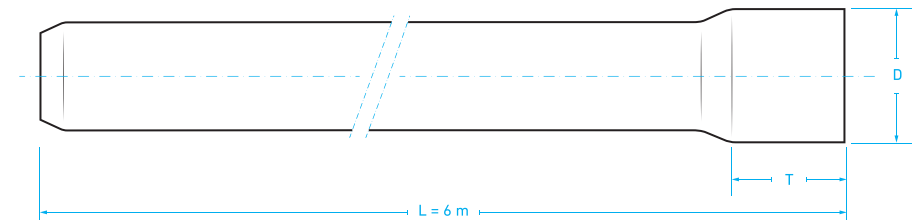
تنتج بلاستيك الوطنية أنابيب اليو بي في سي بطول 6 متر دوماً ، كما يمكن إنتاج أطول اخرى وفق طلب العميل .

## Solvent Cement Joints Dimensions

Size (O.D)	Class	D : O.D of Socket	T: Socket Depth
16	5	19	30
20	5	24	32
25	4	28	33
	5	29	
32	4	36	35
	5	37	
40	3	44	38
	4	45	
	5	47	
50	3	54	48
	4	56	
	5	58	
63	3	67	65
	4	70	
	5	73	
75	3	80	72
	4	83	
	5	87	
90	3	96	85
	4	99	
	5	105	
110	3	117	93
	4	122	
	5	128	

## ابعاد الوصلة العادية ( الغراء )

Size (O.D)	Class	D : O.D of Socket	T: Socket Depth
125	3	131	102
160	2	167	120
	3	170	
	4	176	
	5	185	
200	2	210	145
	3	213	
	4	221	
	5	232	
225	2	235	160
	3	241	
	4	249	
	5	285	
250	2	261	175
	3	266	
	4	276	
	5	289	

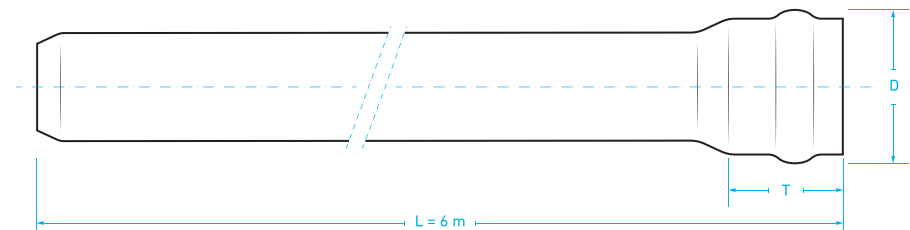


**Rubber Joints Dimensions**

Size (O.D)	Class	D : O.D of Socket	T: Socket Depth
63	3	84	105
	4	86	
	5	90	
75	3	99	108
	4	101	
	5	105	
90	3	116	112
	4	119	
	5	125	
110	3	139	118
	4	143	
	5	150	
160	3	195	135
	4	202	
	5	211	
200	3	242	150
	4	249	
	5	260	
225	3	268	155
	4	227	
	5	291	
250	3	296	166
	4	306	
	5	322	

**أبعاد الوصلة ذات الحلقة المطاطية**

Size (O.D)	Class	D : O.D of Socket	T: Socket Depth
280	3	331	176
	4	342	
	5	361	
315	3	370	190
	4	383	
	5	403	
400	2	460	230
	3	470	
	4	481	
	5	515	





### uPVC Sewer Pipes ( Gravity ) According to DIN 8061 / DIN 8062 Application : Sewer Pipe Gravity

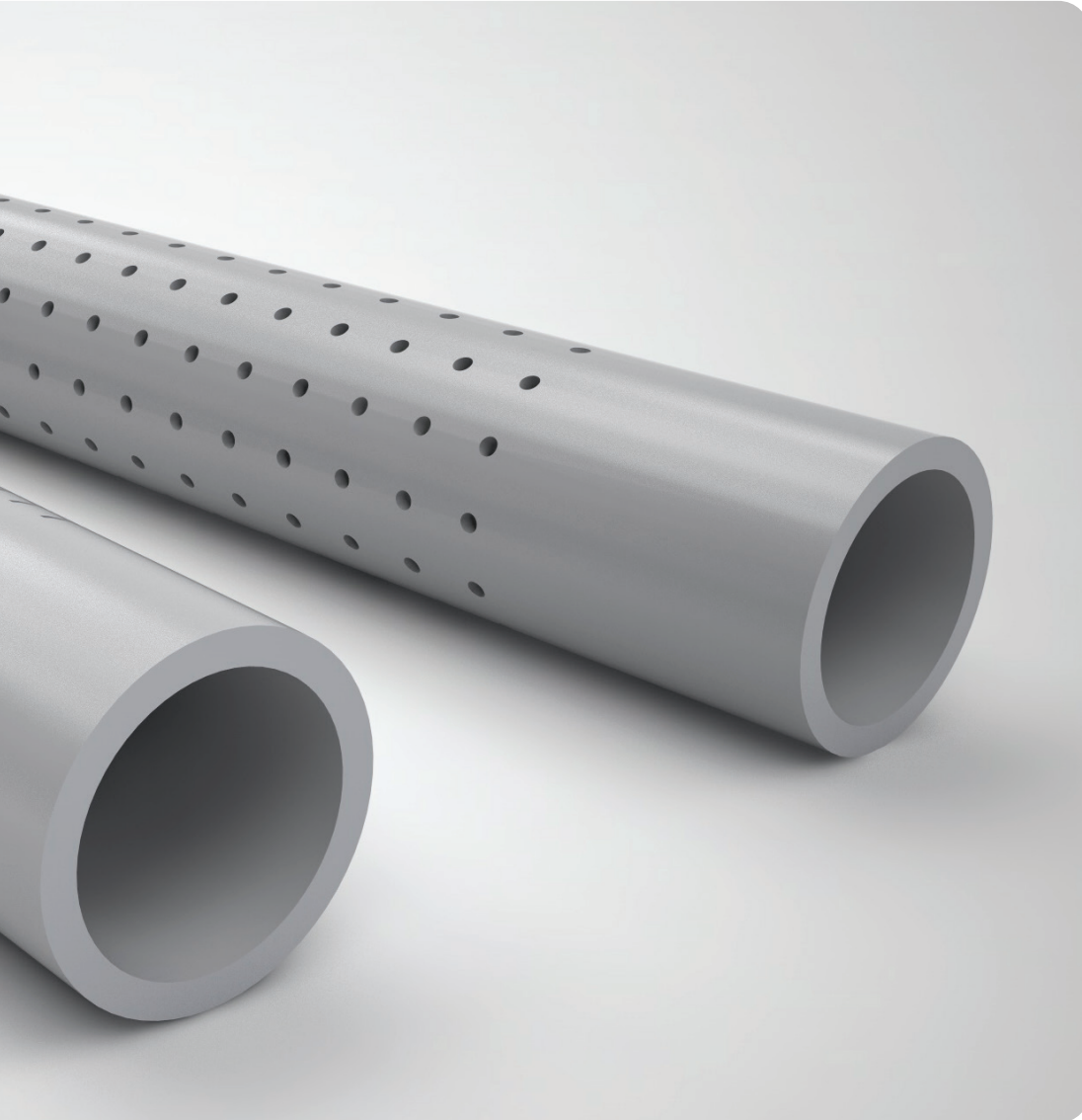
Nominal Size ( mm )	Outside Diameter mm		Wall Thickness mm		Weight Kg/m
	( D )	Tolerance	( S )	Tolerance	
110	110	0.3	3.2	+ 0.6	1.64
160	160	0.4	4.7	+ 0.7	3.440
200	200	0.4	5.9	+ 0.8	5.370
250	250	0.5	7.3	+ 1.0	8.310
315	315	0.6	9.2	+ 1.2	13.2
400	400	0.7	11.7	+ 1.4	21.1
500	500	0.9	14.6	+ 1.7	32.90
630	630	1.1	16.4	+ 2.2	52.2



## Pipes For Underground Drainage and Sewerage Dimensions based on DIN EN 1401 - 1.ISO 4435, BSEN 140 - 1

OD mm	SN2 (SDR 51)	SN4 (SDR 41)	SN8 (SDR 34)
	Wall Thick mm	Wall Thick mm	Wall Thick mm
110	2.7	3.2	3.2
125	2.7	3.2	3.7
140	-	3.5	4.1
160	3.6	4.0	4.7
200	4.0	4.9	5.9
250	4.9	6.2	7.3
315	6.2	7.7	9.2
400	7.7	9.8	11.7
500	-	12.3	14.6
630	-	14.4	18.4
710	-	17.4	-

- The Soil and waste pipes are fitted with rubber joints or solvent cement ( S.C ) Soket. All pipes have a grey color and a 6-meter length.
- The Soil pipe is for soiled water, this type of pipe will carry water and solids into the sewer. this pipe has a apecific quality. first its dimension to allow solid waste to pass and second it is vented in a very spesific way to maintain a safe environment and reduce odors.
- the waste pipe is often a smaller diameter pipe that carries wastewater from your sinks. wahing machine , shower, bath and any other appliance you may have that uses water.
- wastewater does not typically genrate harmful gas so does not need to be vented high above ground level.

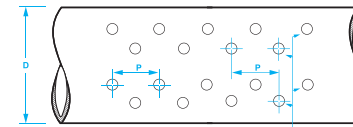


## Perforated Pipes - الأنابيب المثقبة

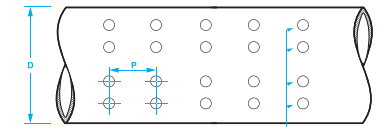
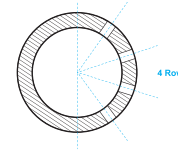
تستعمل أنابيب اليوبي في سي المثقبة لتخفيض منسوب المياه تحت التربة وهي على نوعين: 1 - أنابيب ذات صفوف متناظرة الثقوب . 2 - أنابيب ذات صفوف متناوبة الثقوب .

Perforated pipes used in sub soil drainage systems.

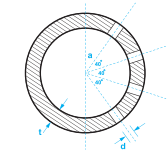
it is manufactured by tow types : 1 - Straight Rows. 2 - Staggered Rows.



Staggered Rows



Straight Rows



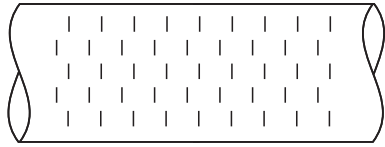
D	Outside Diameter 75mm - 400mm
P	Longitudinal Pitch of Holes 30mm - 200mm
N	Number of Rows 1 - 4
A	Angular Pitch of Holes. a = 40° for 3 or 4 Rows a = 80° or 120° for 2 Rows
R	Holes Diameter : 3mm - 13 mm

Depending on Pipe Diameter and As Per Customer Specifications .

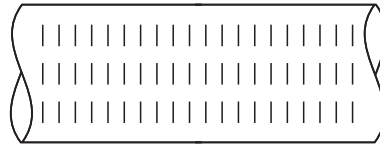
## Slotted Pipes - الأنابيب المشققة

يتم إنتاج أنابيب الفسق المشقوق وفقا للمتطلبات وللإستخدام في خفض منسوب المياه الجوفية.

WP slotted pipes are produced according to requirements and for use in lowering the underground water table.



Staggered Slots



Straight Slots

Depend to the size

1 / 1.1 / 1.5 / 2 mm

4,6 & 8 ( but according to the size)

To be recommended by consultant

Slot Length

Slot Width

Number of Row

Angular Pitch

Depending on Pipe Diameter and As Per Customer Specifications .





**PVC PIPE**  
POLYVINYL CHLORIDE

### PVC Pipes - Electrical Conduits

PVC Conduits Rigid, Light Weight No Combustion, Excellent Electrical  
According to SASO 254/ 1984

OUTSIDE DIAMETER ( mm )	WALL THICKNESS	
	LIGHT GAUGE ( mm )	HEAVY GAUGE ( mm )
16	1.2	1.8
20	1.5	1.9
25	1.5	1.9
32	1.8	2.4
40	1.8	3.0
50	2.4	3.7

### PVC Pipes - Electrical Conduits

PVC Electrical Conduits according to SASO 254/ 1984 Application : Electrical Installations.

Nominal Size ( mm )	Minimum Inside Diameter ( mm )			Maximum Wall Thickness ( mm )			Weight Kg/m		
	Light	Medium	Heavy	Light	Medium	Heavy	Light	Medium	Heavy
	Class 3	Class 4	Class 5	Class 3	Class 4	Class 5	Class 3	Class 4	Class 5
16	13.7	13.0	12.2	1.15	1.5	1.9	0.080	0.100	0.125
20	17.4	16.9	15.8	1.3	1.55	2.1	0.120	0.140	0.180
25	22.1	21.9	20.6	1.45	1.8	2.2	0.165	0.200	0.240
32	28.6	27.8	26.6	1.7	2.1	2.7	0.245	0.296	0.370
40	35.8	35.4	34.4	2.1	2.3	2.8	0.352	0.496	0.485
50	45.1	44.3	43.2	2.45	2.85	3.4	0.540	0.622	0.707
63	57.0	-	-	3.0	-	-	0.830	-	-

**PVC Electrical Conduits according to SASO 14 & DIN 8061**  
**Applications : Electrical Installations.**
**مقاسات انابيب PVC لتمديد الكهرباء**

Nominal OD mm	Class 2		Class 3	
	Wall Thickness (mm)	Weight Kg/m	Wall Thickness (mm)	Weight Kg/m
40	-	-	1.8	0.334
50	-	-	1.8	0.422
63	-	-	1.9	0.562
75	1.8	0.642	2.2	0.782
90	1.8	0.774	2.7	1.13
110	2.2	1.16	3.2	1.64
160	3.2	2.41	4.7	3.44
200	4.0	3.70	5.9	5.37
225	4.5	4.70	6.6	6.76
250	4.9	5.65	7.3	8.31
280	5.5	7.11	8.2	10.4
315	6.2	9.02	9.2	13.2
400	7.9	14.5	11.7	21.1

Nominal Size mm	Inside Diameter mm	Outer Diameter mm	
		Min.	Max
16	13.0	15.7	16
20	16.9	19.7	20
25	21.4	24.6	25
32	27.8	31.6	32



### Quality Control Testing

Al-Watania PVC Factory is equipped with a testing laboratory having a fully trained staff for evaluation of raw materials and finished pipes.

In order to maintain uniform quality level, all our routine control tests are carried out as per SAS, and DIN Standards.



### إختبارات الجودة

لقد زود مصنع بلاستيك الوطنية بمختبرات على أعلى المستويات الفنية تحت إشراف مجموعة من المختصين من ذوي الخبرة ليؤكدوا أفضل مستويات الجودة بدءاً من المواد الأولية وانتهاءً بالأنابيب الجاهزة للاستعمال .

إن هذه المجموعة تعمل وبكل كفاءة لتبقى أنابيب الوطنية بجودتها المميزة و المطابقة بمواصفاتها لنظام المواصفات السعودية المتفق مع نظام المواصفات الألماني .



**intertek**  
Intertek Quality Services

### APPENDIX TO CERTIFICATE OF REGISTRATION

This appendix identifies the locations covered by the management system of:  
**Al Watania Plastics**

This appendix is linked to the Main Certificate # QMS 180125-01 and cannot be shown nor reproduced without it.

**Al Watania Plastics**  
Main Site: New Strategy Industrial Zone, Street 202, Post Box- 10164, Riyadh - 11483, Kingdom of Saudi Arabia  
See appendix for additional sites and additional site scope.  
This has been registered by Intertek as conforming to the requirements of:  
**ISO 9001:2015**

The management system is applicable to:  
Manufacture of Plastic Products including PVC Pipes, PPR Pipes, Flexible Packaging, Blow Film, Cap Irrigation Tape for Extension, Injection Molding, Blow Molding, and Thermo Forming Methods.

Certificate Number: QMS 180125-01  
Initial Certification Date: 06 March 2018  
Date of Certificate Renewal: 06 March 2020  
Issuing Body: Intertek  
Valid Until: 23 October 2020

**Cain Makhadmeh**  
President, Business Assurance  
Intertek Certification Limited, 5th Floor, Park View, Nine Elms Lane, Egham, Surrey, UK  
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# AL WATANIA CERTIFICATES

**CERTIFICATE**  
No. 9660262

This is to certify the Food Safety Management System of:  
**AL WATANIA PLASTICS**  
New Strategy Industrial Zone, Street 202, Post Box- 10164, Riyadh - 11483, Kingdom of Saudi Arabia

has been assessed and found to be in compliance with the Standard  
**ISO 22000:2005**

applicable to:  
**Manufacture of Plastic products for food packaging applications including Flexible Packaging, Blow Film, Injection Molding & Thermo-forming methods.**

The certificate has been issued under no. **9660262** for the registration period from 15 November 2017 to 24 November 2020

Assessed by:   
Printed by:

**CERTIFICATE**  
No. 9660262

This is to certify the Food Safety Management System of:  
**AL WATANIA PLASTICS**  
New Strategy Industrial Zone, Street 202, Post Box- 10164, Riyadh - 11483, Kingdom of Saudi Arabia

has been assessed and found to be in compliance with the Standard  
**ISO 22000:2005**

applicable to:  
**Manufacture of Plastic products for food packaging applications including Flexible Packaging, Blow Film, Injection Molding & Thermo-forming methods.**

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Assessed by:   
Printed by:

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**ISO 22000:2005**

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Printed by:

**CERTIFICATE**  
No. 9660262

This is to certify the Food Safety Management System of:  
**AL WATANIA PLASTICS**  
New Strategy Industrial Zone, Street 202, Post Box- 10164, Riyadh - 11483, Kingdom of Saudi Arabia

has been assessed and found to be in compliance with the Standard  
**ISO 22000:2005**

applicable to:  
**Manufacture of Plastic products for food packaging applications including Flexible Packaging, Blow Film, Injection Molding & Thermo-forming methods.**

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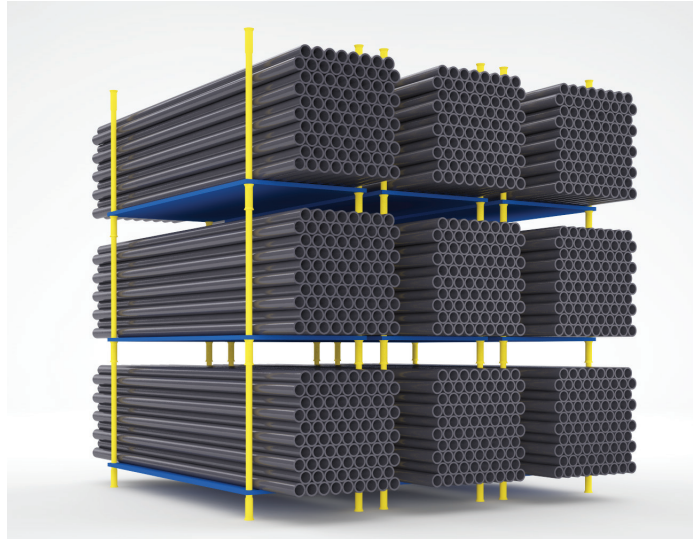
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### التحميل و التخزين

مواسير الوطنية بي في سي ، يجب نقلها وتحميلها وتنزيلها بكل عناية وإهتمام لتجنب حدوث أية أضرار ميكانيكية أثناء ذلك ، ويجب تكديسها على شكل طبقات وبحيث تكون المواسير بعكس بعضها وكما هو موضح بالصور ولا يجب رصها بكميات كبيرة خاصة عند درجات حرارة مرتفعة حتى لا يؤدي ذلك الى اية إنبعاجات أو تلف في الوصلات .  
وفي حال تخزينها في مستودعات ولمدة طويلة يجب وضعها على أرضية مستقيمة أو عوارض أو دعائم مستقيمة لا يقل عرضها عن 75 ملم وأن لا يزيد المسافات بين الدعائم عن متر واحد ويجب أيضاً أن لا يزيد ارتفاع الرصة عن 7 طبقات أو 1,75 متر أيها أقل ، وفي حال رص أصناف مختلفة يجب أن تكون الاصناف من النوع الواحد في نفس الصف و الأصناف ذات السماكة الأعلى في الأسفل .

### Handling & Storage

U-PVC Should be handled with care to avoid mechanical damage before installation. pipes should not be stacked in large pipes especially as under warm temperature condition the bottom pipes may distort, thus giving rise to difficulty in pipe alignment and joining at sites.

Socketed pipes should be stacked in layers with sockets placed at alternate ends of the stack and with sockets protruding so as to avoid lop - sided stacks and the imparting of a permanent set to the pipes.

For long term storage, the pipes should be stored either on flat level floors or pipe racks which provide continuous support. If this is not possible supports of at least 75mm bearing width at spacing not greater than 1 meter centres should be placed beneath the pipes.

In such racks the pipes may be stored not more than seven layers high or max 1.75 meters whichever is lower if different classes of pipes are kept in the same rack then the thickest classes must always be at the bottom.

### التخزين في الموقع

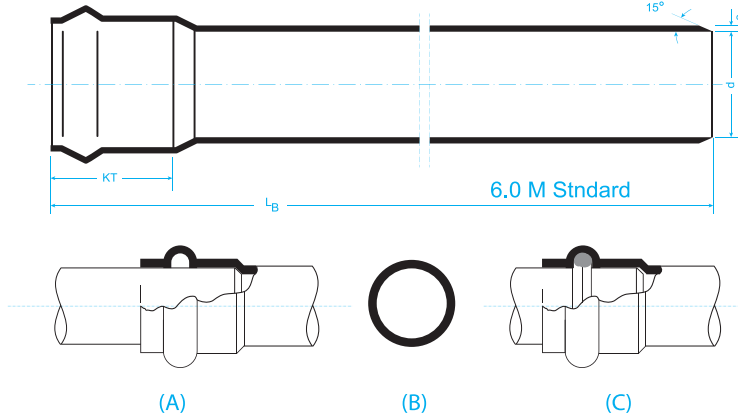
يجب الاهتمام في تخزين المواسير في مواقع العمل والتنفيذ بحيث يتم وضع المواسير على أرضية مستقيمة خالية من الأحجار ولا يجب أن يزيد تكديسها عن ثلاث طبقات ويجب ان تكون المواسير في جميع الأحوال محمية من أشعة الشمس المباشرة ومن درجات الحرارة العالية خاصة في فصل الصيف .

### Field Storage

For temporary storage in the field / site where racks are not provided, care should be taken that the ground is level and free from loose stones.

Pipes stored in the field should not exceed three layers and should be either stored in the shade or covered to prevent excess heating under direct sunlight when the temperature of dark colored UPVC pipes can reach 60oC to 70oC in summer.

uPVC Pipe with wallthickened socket joint ( Rubber Joint)  
of unplasticized Poly vinyl chloride (uPVC) .



- يجب تأكد من أن نهاية الانبوبة والوصله خاليان من الغبار ، وجافة .
- دخل الأنبوبة في الوصله بدون الحلقة المطاطية ثم ضع علامة على الأنبوب عند إدخاله بالكامل.
- ثم ضع الحلقة المطاطية في فتحة التجويف
- يجب ان تكون نهاية الماسورة مشطوفة بحيث يمكنها الدخول في نهاية الماسورة الاخرى بسهولة
- ادخل الأنبوب في الجلبة إلى العلامة التي تم إجراؤها مسبقًا.

- Ensure that the spigot and socket are free from dust, and as dry as possible .
- Insert pipe into the socket without seal ring place and mark pipe when it fully inserted.
- Place seal in groove of socket ensuring that seal is correct way round .
- Must be the end of the pipe chamfered , so be viable to enter into the other end of the pipe easily.
- Push the pipe firmly into the socket up to the insertion mark previously made .

## طرق التركيب

تتوفر أنابيب الوطنية بأطوال قياسية بطول 6 أمتار. ويمكن توفيرها بأطوال أخرى حسب طلب العميل .

### توصيل الأنابيب :

يتم توصيل أنابيب الوطنية بطرق عديدة:

- 1 - أنبوب ذات نهاية عادية (PE) مع وصلات منفصلة.
- 2 - أنبوبة ذات الحلقة المطاطية (RR)
- 3 - أنبوب ذات وصلة غراء (SC)

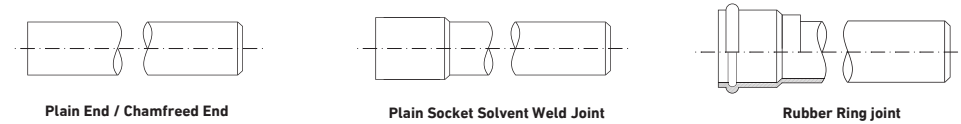
يمكن توفير الأنابيب مع طرفي النهايات مشنفرة (DC) بأطوال 6 أمتار أو أطول مختلفة ، حسب الطلب .

## Installation

Al-Watania pipes are available in nominal standard lengths of 6 meters. Other lengths can be supplied by arrangement customer requiremnt.

Pipe Joint- Al-Watania pipes are supplied with various joint system.

Plain Ended (PE) pipe for use with separate Couplings, Rubber Ring, Solvent (Adhesive) Weld or Special Fittings. Pipe can also be supplied with both ends chamfered (DC) if requested, in lengths of 6 metres ather lengths can be supplied.



توصيل الحلقات المطاطية (RRJ) :

يتم تصنيع الانابيب بنهاية ذات تجويف داخلي لوضع حلقة مطاطية مانعة للتسرب.

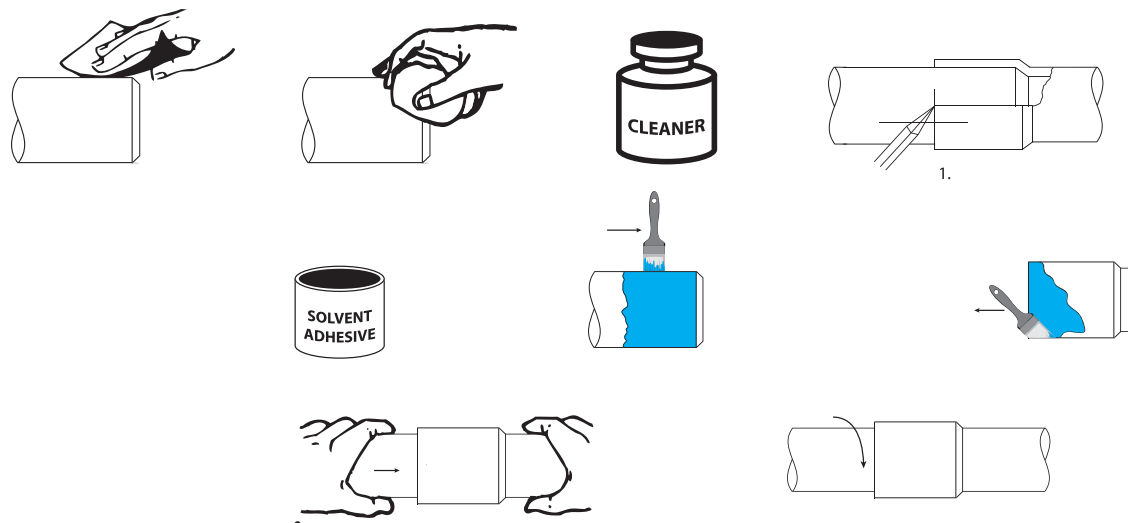
Rubber ring joints (R/J).

Pipes are supplied with integral grooved socket at one end incorporating elastomeric sealing ring.

Pipes up to 110 mm may be jointed easily with solvent adhesives.

Larger sizes require more special techniques and require tow men to make such joints.

- 1- Jointing Procedure. Mark depth of entry of the pipe into the socket and alignment mark.
- 2- Make small chamfer on the edge of the pipe and with medium file.
- 3- Roughen the outside of the pipe and the inside of the socket using sand paper or emery cloth upto the entry mark.
- 4- Clean both surfaces and remove all dust, grease and swaerf using a dry clean cloth and cleaner.
- 5- Stir adhesive thoroughly.
- 6- Apply adhesive without delay after cleaning , using a flat clean brush .



- 7- Immediately insert the pipe into the socket up to the entry mark, align pipe and socket. Hold in position for a few seconds, then wipe off excess cement ( DO NOT TWIST).

يمكن توصيل المواسير حتى 110 مم بسهولة باستخدام المواد اللاصقة المذيبة.

تتطلب الأحجام الأكبر تقنيات أكثر خصوصية وتتطلب من الفنيين سحب هذه الوصلات .

- 1 - إجراءات الربط: ضع علامة على دخول الأنبوب في الجلبة وعلامة المحاذاة.
- 2 - جعل الشطب الصغير على حافة الأنبوب وفي الوسط تماماً .
- 3- قم بتخشين الجزء الخارجي من الأنبوب والجزء الداخلي من المقبس باستخدام ورق الصنفرة حتى علامة الإدخال.
- 4- نظف السطح الخارجي ، و قم بإزالة جميع الأتربة والشحوم باستخدام قطعة قماش نظيفة.
5. تحرك المادة اللاصقة جيداً.
- 6- ضع المادة اللاصقة دون تأخير بعد التنظيف باستخدام فرشاة نظيفة.

- 7 - قم بإدخال نهاية الأنبوب على الفور حتى يصل إلى علامة الإدخال ، قم بمحاذاة الأنبوب والمقبس.
- قم بتثبيتها على هذا الوضع لبضع ثوان ، ثم امسح الغراء الفائض مع مراعاة عدم لف الأنبوب في أي اتجاه .