Düzgünler®
Plastik

We are giving way to water ! for 38 years.

Duzgunler, which took its first steps in the buiness world with its objectives inclined towards the future in 1975, hold on production activities with innovative approach. New production activities have been added to this succes story starting with producing agriculturel machines and spare parts and the modern and extroverted structure of today was reached. Having extended its range of operations started from 100 m^2 closed area. It is 30 000 m^2 closed of 80 000 m^2 open area after investment at since two years.

Being aware of the importance of getting and applying new technologies, Duzgunler manufacture machines itself for its production activities by designed and projected own research and development department. Duzgunler produce high quality product serial and order request according to international norms as TS, EN and ISO with applying ISO 9001:2008 Quality managment system. Main production activities are;

PVC deep well casing and Screen pipes and fittings,
PE and PVC pressure water pipes and fittings,
PE Infrastructure Pipes Systems (corrugated pipes),
PVC Column Pipes (submersible pumps),
Irrigation pipes (sprinkling-dripping) and fittings,
Plastic processing and complemantary machines and equipments.

Duzgunler mission is to improve its knowledge and experience for the future by preserving the good image Quality and Services and to maintain its contributions to the country's economy in the sectors it is involved.

Duzgunler has adopted working with creativity and in a team sprit without making concessions about its trusted values so as to be the best, following new technologies and the agenda in the sectors, improving itself and being integrated with the world as its vision.

Duzgunler has ever aimed to the works undertaken by it in the best way by inspiring confidence in the international arena, thinking globally, keeping its promises till the end. Duzgunler Group has adopted providing the best service and quality to its customers in all of the sectors as a principle since it was first established with its specialized , experinced and disciplined staff.

Contents

TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile

DÜZGÜNLER PLASTİK MAKİNE METAL NAKL
LTD. ŞTİ.
3 ORGANİZE SANAYİ BÖLG. EVRENKÖY CAD. 3
SELÇUKLU -
KONYA / TÜRKİYE

kuruluşunun TS EN ISO 9001:2008 şartlarına uyg
YÖNETİM SİSTEMİNE sahip olduğunu onaylar.

Belge kapsamı Ek'te verilmiştir

Production & Quality Certificates






IQNet
THE INTERNATIONAL CERTIFICATION NETWORK

Annex to IQNET Certificate Number :TR-KY-4514-06/09-R

Name and Address of the certified organization

DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SAN. VE TİC. LTD. ŞTİ.

3.ORGANİZE SANAYİ BÖLG. EVRENKÖY CAD. 3.SOK. NO:12 SELÇUKLU - KONYA / TÜRKİYE

Scope of the Certificate

DESIGN AND PRODUCTION OF

- PLASTIC PIPES

This annex is only valid in connection with the above-mentioned certificate.

TURKISH STANDARDS INSTITUTION

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

Markanın Tanımı — Description of the Mark

TSE

BELGE NUMARASI / REFERENCE NUMBER OF LICENCE	14.11.4DTSE-078
BELGENİN İLK VERİLİŞ TARİHİ / DATE OF FIRST ISSUE OF LICENCE	03.01.2008
BELGENİN SON GEÇERLİLİK TARİHİ / LICENCE VALID UNTIL	03.01.2013
BELGE SAHİBİ KURULUŞUN ADI / NAME OF THE LICENCE HOLDER	DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SANAYİ VE TİCARET LTD.ŞTİ.
BELGE SAHİBİ KURULUŞUN ADRESİ / ADRESS OF THE LICENCE HOLDER	KONYA ORGANİZE SANAYİ BÖLGESİ EVRENKÖY CADDESİ 3.SOKAK NO:12 SELÇUKLU KONYA
ÜRETİM YERİ ADI / NAME OF THE MANUFACTURING PLACE	DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SANAYİ VE TİCARET LTD.ŞTİ.
ÜRETİM YERİ ADRESİ / ADRESS OF THE MANUFACTURING PLACE	KONYA ORGANİZE SANAYİ BÖLGESİ EVRENKÖY CADDESİ 3.SOKAK NO:12 SELÇUKLU KONYA
İPTAL EDİLEN BELGE NUMARASI (Varsa) / INDICATION OF SUPERSEDED LICENCE (if any)	
TESCİLLİ TİCARİ MARKASI / REGISTERED TRADE MARK	DÜZGÜNLER
İLGİLİ TÜRK STANDARDI / RELATED TURKISH STANDARD	TS EN 13476-3+A1 / 29.05.2009
BELGE KAPSAMI / SCOPE OF LICENCE	PLASTİK BORU SİSTEMLERİ – BASINÇSIZ, YER ALTI DRENAJ VE FIS SU İÇİN – POLİETİLENDEN (PE) CIDARLARI PROFİLLİ BORU SİSTEMLERİ - İÇ YÜZEYLERİ DÜZGÜN VE DIŞ YÜZEYLERİ PROFİLLİ TİP B BORULAR İÇİN ÖZELLİKLER - Ø150 (DAHİLİDEN Ø 400 DAHİLİYE KADAR - UYGULAMA SINIFI : U BİNA DIŞINDA KULLANILAN - SIKILIK SINIFI : SN 4 ve SN 8.

02/03/2012

GÜNAY AYŞİN YILMAZ
KONYA ÜRÜN BELGELENDİRME MÜDÜRÜ

14577

KALİTE YÖNETİM SİSTEMİ BELGESİ
QUALITY MANAGEMENT SYSTEM CERTIFICATE

Partner of IQNet

TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SAN. VE TİC. LTD. ŞTİ.
3.ORGANİZE SANAYİ BÖLG. EVRENKÖY CAD. 3.SOK. NO:12
SELÇUKLU - KONYA/TÜRKİYE

has a QUALITY MANAGEMENT SYSTEM which fulfills the requirements of the TS EN ISO 9001:2008

K - Q
TSE-ISO-EN
9000

Scope of the certificate is given in annex

TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

Mustafa ÖLÇER — System Certification Director
Aykut KIRBAŞ — Personel ve Sistem Belgelendirme Merkezi Başkanı / Head of Personnel and System Certification Center

Belge No /Certificate No KY-4514-06/09-R
Belge Tarihi / Date of Certificate 08.05.2012
Geçerlilik Tarihi / Valid Until 08.05.2015
Revizyon Tarihi / Date of Revision 08.05.2012

Türk Standardları Enstitüsü Türk Akreditasyon Kurumu TÜRKAK tarafından akredite edilmiştir.
Turkish Standards Institution, has been accredited by the Turkish Accreditation Agency TÜRKAK.

Bu belge belgelendirme şartlarına uygunluk sağlandığı sürece geçerlidir.This certificate is valid provided that compliance with the certification requirement is maintained.

IQNet
THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and
TSE
hereby certify that the organization

DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SAN. VE TİC. LTD. ŞTİ.

3.ORGANİZE SANAYİ BÖLG. EVRENKÖY CAD. 3.SOK. NO:12
SELÇUKLU - KONYA / TÜRKİYE

has implemented and maintains a
QUALITY MANAGEMENT SYSTEM
which fulfils the requirements of the following standard

TS EN ISO 9001:2008

Scope of the certificate is given in annex.
Date of Revision: 08-05-2012
Date of Certificate: 08-05-2012
Valid Until: 08-05-2015

Registration Number : TR-KY-4514-06/09-R

Michael Drechsel
President of IQNet

Aykut KIRBAŞ
Head of Personnel and System Certification Center

14917

KALİTE YÖNETİM SİSTEMİ BELGESİ
QUALITY MANAGEMENT SYSTEM CERTIFICATE
EK / ANNEX

Partner of IQNet

K - Q
TSE-ISO-EN
9000

T.C.
GIDA TARIM ve HAYVANCILIK BAKANLIĞI
Bitkisel Üretim Genel Müdürlüğü

Belge No:767/2012-117

ZİRAİ KREDİLENDİRME BELGESİ

DÜZGÜNLER PLASTİK MAKİNE METAL NAKLİYAT SANAYİ VE TİCARET LTD.ŞTİ (3.Organize sanayi Bölgesi 3.sok. no:12 KONYA) tarafından imal edilen ve aşağıda miktarları, deney raporu tarih ve numarası belirtilen tarımsal mekanizasyon aracının deney raporuna istinaden düzenlenmiş bu belge, 11 Ekim 2000 tarih ve 24197 sayılı Resmi Gazete'de yayımlanarak yürürlüğe giren "Tarımsal Mekanizasyon Araçlarının Kredili Satışına Esas Deney ve Denetimlerle İlgili Tebliğ" (Tebliğ No:2000/37) hükümleri gereğince, söz konusu aracın ziraî kredili satışına esas olmak üzere verilmiştir. İşbu belge, Deney Raporunun düzenlenme tarihinden itibaren 3 (Beş) yıl süre ile geçerlidir.

Mehmet ARALGÜN
Genel Müdür Yardımcısı a.
Daire Başkan V.

Aracın Cinsi, Markası ve Modeli	Deney Yapan Kuruluş	Deney Raporu Tarih ve No'su
DÜZGÜNLER ve TURBOR Marka Sert PVC-U Basınçlı Derin Kuyu Sondaj Boruları Ve Ek Parçaları (Kapaklı ve Filtreli Ø 113, Ø 125, Ø 140, Ø 175, Ø 200, Ø 225, Ø 250, Ø 280 ve Ø 350 mm dış çaplarda.)	*Ege Üniversitesi Ziraat Fakültesi Dekanlığı*	*10.05.2011 2153*

T.C.
EGE ÜNİVERSİTESİ
ZİRAAT FAKÜLTESİ
TARIM MAKİNALARI BÖLÜMÜ

DENEY RAPORU

RAPOR NO : **2319**

DÜZGÜNLER

Sert Polietilen (VYPE) Yağmurlama Sulama Boruları ve Ek Parçaları (Mandallı)

2009
İZMİR

Well Casing and Screen Pipes and Fittings

Well Casing and Screen Pipes and Fittings

Duzgunler Plastic produces a high quality range of PVC-U well casings and screens strictly in accordance with the Standard TS 11794 and ISO standarts, class I, II and III. The standards TS, EN and ISO applies as well for raw materials and workmanship of pipes used in the manufacture of the casing and screen.
There are three basic ranges - a standard range for shallow, medium well depth and a heavy duty, thick walled range for greater well depths.

The casing and screens are made from 100% virgin unplasticized poly vinyl chloride compound and are coloured grey. They are supplied with a male pipe thread at the spigot end and a female pipe thread at the socket end. No re-worked material is used.

The pipe is produced under ISO 9001:2008 Quality Management System.

Screens can be supplied with either a plain or filtered surface. Slots are arranged vertically to improve the mechanical strenght of the screens and are designed to give open areas ranging from 6% to 12% depending on the size and slot width.


Materials	***PVC - U***
Lengths	Normally supplied in 2m.- 3m and 4m. Lengths. Other lengths available on request.
Slot Sizes	Available slot width 2.0 mm.
Thread Style	Mechanical jointing by threaded connection to TS 11794 with Trapezoidal threads.
Joints	Each length is supplied with a Male/Female socketed joint as standard.
Marking	Standard marking is applied to all PVC well casing and screen.

Dimensions of well casing and screens

100 m depth

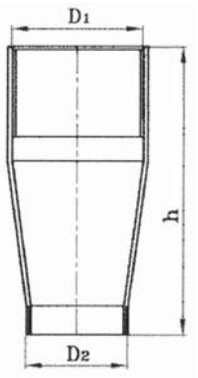
Ext. Dia. Tube		Thickness			Int. Dia. mm	Screw	Weight (plain)		
mm	inch	mm	Tolerance mm				2 mt	3 mt	4 mt
113	4 1/2"	5.0	+0.70	-0.00	101.6	TR 113x6	5.250	7.750	10.250
125	5"	5.5	+0.80	-0.00	111.4	TR 125x6	6.550	9.600	12.650
140	5 1/2"	6.5	+0.90	-0.00	125.3	TR 140x6	8.400	12.450	16.500
175	6 5/8"	8.0	+1.00	-0.00	157.0	TR 175x6	12.850	19.050	25.250
200	8"	9.0	+1.20	-0.00	179.6	TR 200x6	16.500	24.500	32.500
225	8 5/8"	10.0	+1.20	-0.00	202.6	TR 225x6	20.700	30.700	40.700
250	9 1/2"	10.5	+1.30	-0.00	226.4	TR 250x6	24.500	36.430	48.300
280	10 3/4"	12.5	+1.40	-0.00	252.2	TR 280x12	32.370	47.900	63.430
330	12 3/4"	14.5	+1.70	-0.00	297.6	TR 330x12	44.300	65.550	86.800
400	16"	18.0	+2.00	-0.00	360.0	TR 400x12	64.740	95.790	126.830

300 m depth

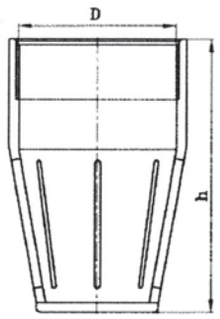
Ext. Dia. Tube		Thickness			Int. Dia. mm	Screw	Weight (plain)		
mm	inch	mm	Tolerance mm				2 mt	3 mt	4 mt
113	4 1/2"	6.5	+0.85	-0.00	97.3	TR 113x6	6.300	9.350	12.400
125	5"	7.1	+0.95	-0.00	108.9	TR 125x6	7.750	11.400	15.050
140	5 1/2"	8.0	+1.00	-0.00	122.0	TR 140x6	10.150	15.050	19.950
175	6 5/8"	10.0	+1.20	-0.00	152.6	TR 175x6	15.800	23.500	31.200
200	8"	11.5	+1.40	-0.00	173.2	TR 200x6	20.880	31.480	41.080
225	8 5/8"	13.0	+1.50	-0.00	196.0	TR 225x6	26.360	39.100	51.840
250	9 1/2"	14.0	+1.65	-0.00	218.7	TR 250x6	32.250	47.820	63.400
280	10 3/4"	16.0	+1.80	-0.00	244.4	TR 280x12	40.800	60.350	79.900
330	12 3/4"	19.0	+2.20	-0.00	287.6	TR 330x12	56.850	84.150	111.450
400	16"	22.7	+2.20	-0.00	350.2	TR 400x12	82.800	122.080	161.660

500 m depth

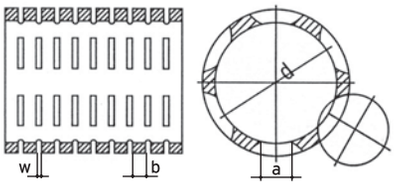
Ext. Dia. Tube		Thickness			Int. Dia. mm	Screw	Weight (plain)		
mm	inch	mm	Tolerance mm				2 mt	3 mt	4 mt
113	4"	8.5	+1.00	-0.00	95.0	TR 113x6	8.480	12.600	16.730
125	5"	9.3	+1.15	-0.00	104.1	TR 125x6	10.500	15.500	20.500
140	5 1/2"	10.4	+1.25	-0.00	116.7	TR 140x6	12.900	19.150	25.400
175	6 5/8"	13.0	+1.40	-0.00	148.2	TR 175x6	20.020	29.730	39.440



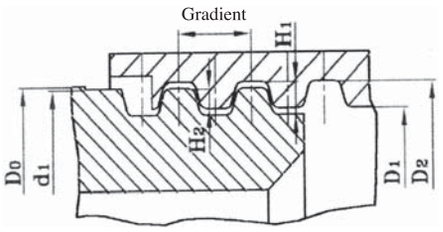
Reduction Dimensions		
D1	D2	h (±25)
125	113	225
140	125	260
175	140	375
200	175	400
225	200	560
280	225	575
280	250	660
330	280	590
400	330	750



Spur Dimensions	
D	h (±25)
113	227
125	240
140	257
175	295
200	322
225	348
250	370
280	410
330	464
400	541



Size Of The Filter Slots				
Ext. Dia.		Unit of slit	Width of slit	Slit area
mm	inch			
113	4"	5	2	12
125	4 1/2"	5	2	12
140	5 1/2"	5	2	12
175	6 5/8"	5	2	11
200	8"	5	2	11
225	8 5/8"	6	2	11
250	9 1/2"	6	2	11
280	10 3/4"	6	2	10
330	12 3/4"	6	2	10
400	16"	6	2	10



Size Of The Trapezoidal Threaded							
Ext. Dia.		D1	D2	d1	H1	H2	Gradient
mm	inch						
113	4"	109.5	113.5	112.5	2.5	1.5	6
125	4 1/2"	121.5	125.5	124.5	3.1	2.1	6
140	5 1/2"	135.3	140.5	139.5	3.1	2.1	6
175	6 5/8"	170.3	175.5	174.5	3.1	2.1	6
200	8"	195.3	200.5	199.5	3.1	2.1	6
225	8 5/8"	220.3	225.5	224.5	3.1	2.1	6
250	9 1/2"	249.5	254.7	253.7	3.1	2.1	6
280	10 3/4"	270	279	278	5	4	12
330	12 3/4"	319	328	327	5	4	12
400	16"	389	398	397	5	4	12

Pressure Water Pipes

Pressure Water Pipes

PVC-U PIPES FOR COLD POTABLE WATER CLASS 4, 6, 10 and 16 BAR
Duzgunler Plastic produce a range of PVC-U pipes strictly in accordance with TS EN ISO 1452-2-3 and ISO standards on dimensions, materials and workmanship. The pipe is manufactured from 100% virgin unplasticized polyvinyl chloride compound (PVC-U).
No re-worked material is used. The pipe is produced under an ISO 9001:2008 Quality System.

Duzgunler Plastic pipes are produced in a range of pressure ratings 4, 6, 10 and 16 Bar. Duzgunler Plastic pipes are produced in a range of nominal pressure (PN) at 20°C. The appropriate derating factors should be applied for working pressures when subjected to higher temperatures. The nominal outside diameters and nominal wall tickness are based on an overall service (design) coefficient C=2,5 from 50 mm.to 90 mm. and C= 2 from 110 mm to 400 mm.

Features of Duzgunler Plastic PVC-U pipes;

1. Fully compliant with TS EN ISO 1452-2-3.
2. Resistant to a wide range of chemicals and corrosion.
3. High Impact Resistance
4. Quality assured and tested to the strict specifications of the standard for dimension compliance, impact resistance, burst pressure, flattening and joint tightness.
5. Smooth internal bore for low friction losses.
6. Compatible with the full range of PVC-U Pressure fittings.
7. Long service life under a wide range of conditions.
8. Will not support combustion.

Duzgunler Plastic pipe is used in a wide range of applications, such as:

1. Irrigation systems main/sub-mains.
2. Chemical industrial processes.
3. Pressurized water supply (city town, industrial, home, commercial.)
4. Drainage/sewage applications.
5. General services, domestic water, A/C drainage.
6. Ducting, electrical, telecommunication.
7. Industrial process plants oil/gas/petrochemical.
8. Desalination processes, brine disposal, mineral water

Specifications of pressure pipes of Duzgunler Plastic

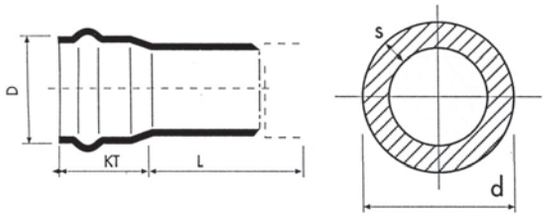
Raw material	:	PVC-U
Standarts	:	TS EN ISO 1452-2-3
Color	:	Grey
Dimensions	:	Pipes produced in ranging from Ø 50 mm. Up to Ø 400 mm diameter. Normally supplied in 6 m length Others can be supplied on request.
Connection	:	Pipes are supplied in plain end solvent weld or rubber ring joint for all size

Tests	*Results*
Density	: 1350 ≤ P ≤ 1460 kg/m³
Opacity	: Max. % 0,2
Vicot softening temperature	: ≥ 80°C
Resistance to dichloromethane	: Resistant
Quantity of vinilcloridmonomer	: < 1 ppm
Resistance of int. pressure	: Two times of nominal pressure
Impact strength	: TIR < %10

Jointed Pipe G-M

Ext. Dia. mm	Belling length KT (mm)	(S 16) (SDR 33) PN 6 s (mm)	(S 10) (SDR 21) PN 10 s (mm)	(S 6.3) (SDR 13.6) PN 16 s (mm)
Service (design) coefficent based as C=2.5 for PN				
ø50	86	1.6	2.4	3.7
ø63	90	2.0	3.0	4.7
ø75	94	2.3	3.6	5.6
ø90	97	2.8	4.3	6.7

Ext. Dia. mm	Belling length KT (mm)	(S 20) (SDR 41) PN 6 s (mm)	(S 12.5) (SDR 26) PN 10 s (mm)	(S 8) (SDR 17) PN 16 s (mm)
Service (design) coefficent based as C=2.0 for PN				
ø110	104	2.7	4.2	6.6
ø125	108	3.1	4.8	7.4
ø140	112	3.5	5.4	8.3
ø160	119	4.0	6.2	9.5
ø200	129	4.9	7.7	11.9
ø225	136	5.5	8.6	13.4
ø250	143	6.2	9.6	14.8
ø280	152	6.9	10.7	16.6
ø315	160	7.7	12.1	18.7
ø355	169	8.7	13.6	21.1
ø400	178	9.8	15.3	23.7

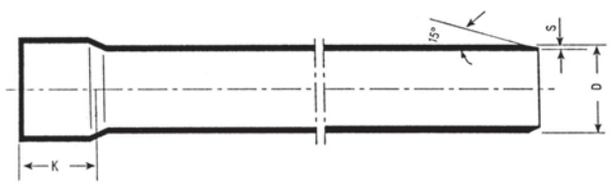


Raw Material : U PVC
Pressure : 6-10-16 Atm
Color : Grey

Solvent Cement Socketed Pipe Y-MU-PVC

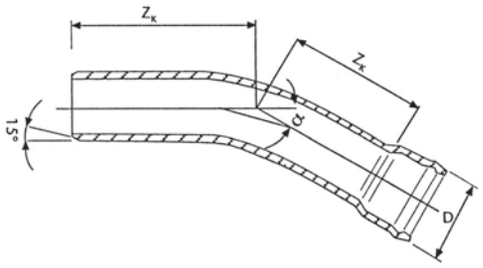
Ext. Dia. mm	Belling length KT (mm)	(S 16.7) (SDR 34.4) PN 6 s (mm)	(S 10) (SDR 21) PN 10 s (mm)	(S 6.3) (SDR 13.6) PN 16 s (mm)
Service (design) coefficent based as C=2.5 for PN				
ø50	31.0	1.6	2.4	3.7
ø63	37.5	2.0	3.0	4.7
ø75	43.5	2.3	3.6	5.6
ø90	51.0	2.8	4.3	6.7

Ext. Dia. mm	Belling length KT (mm)	(S 20) (SDR 41) PN 6 s (mm)	(S 12.5) (SDR 26) PN 10 s (mm)	(S 8) (SDR 17) PN 16 s (mm)
Service (design) coefficent based as C=2.0 for PN				
ø110	61.0	2.7	4.2	6.6
ø125	68.5	3.1	4.8	7.4
ø140	76.0	3.5	5.4	8.3
ø160	86.0	4.0	6.2	9.5
ø200	106.0	4.9	7.7	11.9
ø225	118.5	5.5	8.6	13.4
ø250	131.0	6.2	9.6	14.8
ø280	146.0	6.9	10.7	16.6
ø315	163.5	7.7	12.1	18.7
ø355	183.5	8.7	13.6	21.1
ø400	206.0	9.8	15.3	23.7



Raw Material : U PVC
Pressure : 6-10-16 Atm
Color : Grey

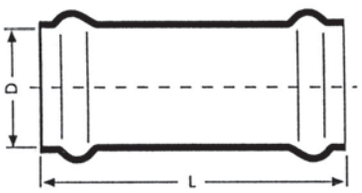
Bends Joint Socked Type G-MK - G-MQ



Raw Material : U PVC
Pressure : 6-10-16 Atm
Color : *Grey*

PN 10 ATM PN 16 ATM		α =11°	α =22°	α =30°	α =45°	α =60°	α =90°
Ext. Dia. d (mm)	Arc Radius (mm)	Zk	Zk	Zk	Zk	Zk	Zk
63	221	46	68	84	117	153	246
75	263	55	81	100	139	182	293
90	315	66	97	120	166	218	351
110	385	81	119	147	203	266	429
125	438	92	135	167	231	303	488
140	490	103	151	187	259	339	546
160	560	118	173	214	296	387	624
200	700	147	216	268	370	484	780
225	788	166	243	301	416	545	878
250	875	184	270	334	462	605	975
280	980	206	302	375	518	678	1092
315	1103	232	340	421	583	763	1229
355	1243	262	384	475	656	859	1385

Double socketed sleeves G-MMU



Raw Material : U PVC
Pressure : 6-10-16 Atm
Color : *Grey*

Ext. Dia. (mm)	L (mm)
63	220
75	240
90	260
110	280
125	290
140	300
160	310
200	370
225	400
250	430
280	470
315	500
355	530

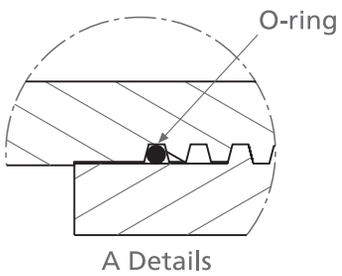
DCP Column Pipes

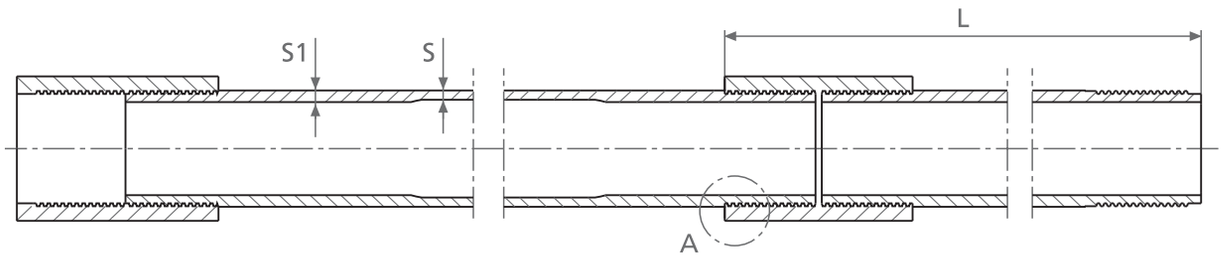
DCP Column Pipes

Düzgünler Plastic has expertise in the pipe production especially PVC pipe processing more than 20 years. Düzgünler Plastic manage to produce PVC column pipes with DCP brand in place of steel pipes by result of innovation and development of its AR-GE department research. DCP column pipes produced from % 100 uPVC compound by using special production techniques as one piece and seamless. DCP Column Pipes also supplied square type thearaded with a male pipe thread at the spigot end and a female pipe thread at the socket end as 3 meters length. Other length can produce upon request. DCP Column Pipes have long life, saving on power, money and handling time. Also DCP column Pipes get yield up to % 10 and % 30 which means get more water.

Advantages

- Low cost, cheapest
- Long life under usage and storage conditions
- Corrosion proof
- Resistance to wide range chemicals
- Hygienic
- Non-Toksic
- High impact and tensile strength
- Max. temperature 70°C
- Low hydraulic friction
- Save energy
- "O" rings provides leak proof and vibrations
- Low weight
- Easy installation
- Low maintanence
- Dielectric
- Up to % 10 and % 30 yield.





Ext. Dia.		Int. Dia.	L	S	S1	Taking a safe load	Pipe weight	Water weight
mm	inch	mm	mm	mm	mm	kg	kg/200 mt	kg/200 mt
42	1 1/4"	33	3000	4.50	5.00	1325	140	170
50	1 1/2"	40	3000	5.00	5.80	1765	214	251
63	2"	50.6	3000	6.20	7.80	2685	333	408
75	2 1/2"	60.2	3000	7.40	8.80	3735	467	584
90	3"	73	3000	8.50	10.20	5320	647	836
115	4"	97	3000	9.00	11.30	7105	867	1508
150	5"	127	3000	11.50	14.00	11600	1453	2572
180	6"	152	3050	14.00	16.30	18000	2153	3626

Safety coefficient : 2
Threaded area thicken (S1)

Resistance to instan pressure and shocks
produced according to PN20 working pressue

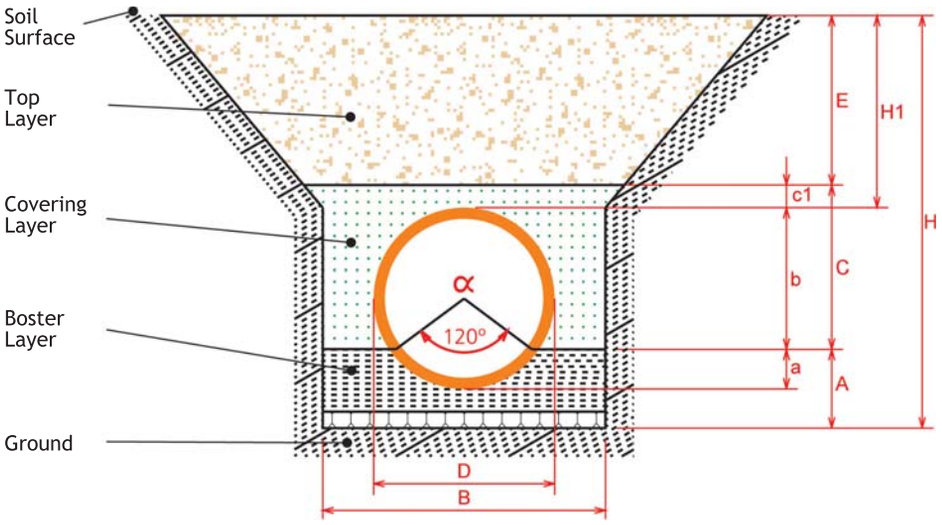
Double Wall Corrugated Pipes

Double Wall Corrugated Pipes

Düzgünler Corrugated HDPE pipes are starting to use on infrastructurel systems for removing and carrying waste water and liquids. Corrugated pipes have superior resistance against waste waters, chemical materials, corrosion and bad environmental conditions.

Düzgünler Corrugated pipes are also resistant to heavy traffic and soil loads because of their special designs. Corrugated pipes don't affected from seismic movements because of their flexible structures. They provide great fludity speed and can't hang on any dreg and conglomeration due to their inner surfaces' smooth structure and low adhesion coefficient. They are completely hygienic and don't include toxic materials.

Other pipe types left rapidly because of their low resistance and high cost. HDPE corrugated pipes are have service life at least 50 years. Düzgünler Corrugated pipes and pieces produced from high density polyethylene as two wall according to TS EN 13476-3+A1 standards.



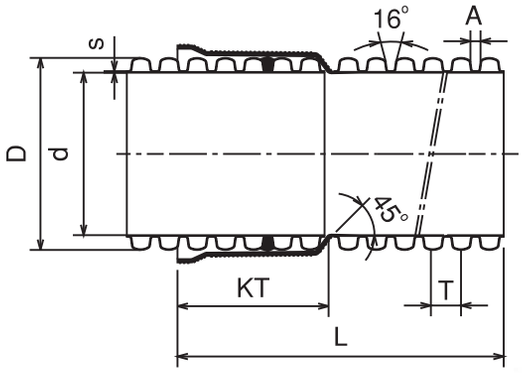
A : Bolster layer (cement or max. 100 mm. Gravel)
B : Ditch width(d+400 mm)
C : Covering layer
øD : Pipe diameters
c1 : Top layer (min.300 mm)
a : 0.25xD
b : 0.75xD
E : Top layer (min. 500 mm)
H1 : Ditch depth
α : Bearing angle

Main Usage areas are;

Sewer systems for municipal waste liquids,
Rain water carrying systems,
Drainage systems,
Water transportig systems with gravity,
Industrial waste-water and liquids installations systems,
Cable Protection for energy and comminications systems.

Advantages of Duzgunler

Corrugated pipes;
Economic and low cost,
Friendly for environment,
Light weight and flexible,
Easy installation and low maintenance,
High fluidty and low friction coefficient,
Durable and long life.



Ext. Dia. d (mm)	Outside Dia. D (mm)	Pipe Length L (mm)	Belling Length KT (mm)	Step T (mm)	A (mm)	SN 4 s (mm)	SN 8 s (mm)
ø 100	ø 115	6.00	114	10.00	3.50	-	1.0
ø 150	ø 178	6.08	140	26.17	7.00	1.4	1.7
ø 200	ø 235	6.13	170	31.40	8.00	1.9	2.4
ø 250	ø 287	6.14	170	31.40	8.50	2.0	2.4
ø 300	ø 347	6.14	185	39.25	10.50	2.5	3.0
ø 400	ø 468	6.11	245	52.33	12.60	3.2	3.8

PE 100 Pipes

PE 100 Pipes

PE 100 is strongest and durable pipe raw material against pressure. PE 100 resists to high pressure then the previous and conventional PE materials. PE 100 pipes have thinner wall thickness according to other PE pipes at the same operating pressure. Thus, at the same diameters with thinner wall thickness gets larger inner diameters and provides energy savings by reducing friction. PE 100 pipes use safely for transporting chemical substances and pressure potable water networks because of its high strength and high design tension. The color of PE 100 pipes for clean water applications blue and black (with blue strips).

Düzgünler PE 100 pipes produce and deliver in best quality under the quality assurance of ISO 9001:2008 quality managment system and according to TS EN 12201-2 standarts as coils - rolls in diameters 20 mm up to 110 mm and as straight pipes 6 meters or 12 meters for larger diameters.

Main usage areas of pe 100 pipes;

- Underground and surface water and liquid transfer networks,
- Agricultural irrigation systems,
- Sewer and drainage systems,
- Marinas and fish culture farms,
- Sea discharging systems,
- Geothermal facilities and systems,
- Hydroelectric power plants and systems,
- Refinement facilities and systems,
- Compressed air and gas facilities,
- Cable protection systems.

Advantages pe 100 pipes

- PE 100 pipes are long-lasting (at least 50 years)
- Any corrosion, rustproof, incorruptible,
- PE 100 pipes aren't affected ground movements due to their flexible structure,
- Resistant to abrasive materials in the soil and sea water,
- Energy savings due to smooth surface and low friction,
- High resistant to sun's rays(UV). Any dirt, moss and bacteria created.
- High resistant to chemicals,
- Lighweight. Easy handle, transportation and installation.
- Any wastage because of merge-add methods(butt welding and electrofusion)

Technical Specifications	Value	Unit	Test Method
Color	Blue or Black(on blue strip)	Physical control	
Density (23°C)	> 0.94	g/cm^3	ISO 1183
Melt Flow Rate 190°C-5 kg.	0.2 - 0.7	g/10 min.	ISO 1133
Elongation Break	≥ 350	%	EN ISO 6259-1-3
* Carbon Black amount	> 2	%	ISO 6964
* Distribution of Carbon Black	Degree	Max 3	TS ISO 11420

Irrigation Pipes

Irrigation Pipes

In sprinkler or overhead irrigation, water is piped to one or more central locations within the field and distributed by overhead high-pressure sprinklers or guns. The water travels through pipes from the water source through the valves to the sprinklers.

The pipes from the water source up to the irrigation valves are called "mainlines" and the lines from the valves to the sprinklers are called "lateral lines". Sprinkler guns mounted overhead on permanently installed risers and rotate in a full or partial circle with high pressure in field. Most piping used in irrigation systems today are HDPE.

Düzgünler sprinkler irrigation system pipes produced as 5 meters and 6 meters length for required working pressure. Under assurance of ISO 9001:2008 quality management systems and according to TS EN 12201-2 Other lengths can produced upon request.



Düzgünler sprinkler irrigation system pipes are;

- Durable, non-corrosion and long life,
- Resistance for chemicals and sun lights,
- Light weight, Flexible and unbreakable ,
- Easy installation and handling in fields,
- Stop soil erosion,
- Low labor cost and operation cost,
- Soluble fertilizers can be added without workmanship during the irrigaton,
- High productivity, more crops. (at least % 50)
- Water saves, provides efficient water usage.

Paying attention to installation sprinkler irrigation systems;

- The main pipe line should be installed in accordance with the dominant inclination.
- Sprinkler laterals should be installed vertical to dominant inclination and to the possible extent parallel to the contour lines.
- In places where wind forces are high laterals should be so installed as to meet the winds vertically.
- Use of very long laterals should be discouraged. Shorter laterals generally ensure homogenous water distribution and saving workmanship.
- In order to ensure minmum lateral movement and changes in the quantity of the sprinklers which operate jointly and harmoniously, the area to be served must be arranged in square or regtangle to the possible extent.
- In case where more than one lateral must operate simultaneously diameters of the laterals should preferably be equal or two different sizes maximum.

Irrigation Pipes

Pipe		
Dia mm	5 meter	6 meter
63	✓	✓
75	✓	✓
90	✓	✓
110	✓	✓
125	✓	✓
140	✓	✓
160	✓	✓

Male and cap	
Dia mm	
63	✓
75	✓
90	✓
110	✓
125	✓
140	✓
160	✓

Pipe head (female)	
Dia mm	
63	✓
75	✓
90	✓
110	✓
125	✓
140	✓
160	✓

Pipe head (male)	
Dia mm	
63	✓
75	✓
90	✓
110	✓
125	✓
140	✓
160	✓

Elbow	
Dia mm	
63	✓
75	✓
90	✓
110	✓
125	✓
140	✓
160	✓

Main line valve	
Dia mm	
63	✓
75	✓
90	✓
110	✓

Spherical Valve

Sprinkler

Sprinkler stand	
Dia mm	
63	✓
75	✓
90	✓
110	✓

Irrigation Pipes

Gasket
Dia mm
63 ✓
75 ✓
90 ✓
110 ✓
125 ✓
140 ✓
160 ✓

Tee
Dia mm
63 x 63 ✓
75 x 63 ✓
75 x 75 ✓
90 x 63 ✓
90 x 75 ✓
90 x 90 ✓
110 x 63 ✓
110 x 75 ✓
110 x 90 ✓
110 x 110 ✓
125 x 63 ✓
125 x 75 ✓
125 x 90 ✓
125 x110 ✓
125 x125 ✓
140 x 75 ✓
140 x 90 ✓
140 x 110 ✓
140 x 125 ✓
140 x 140 ✓
160 x 75 ✓
160 x 90 ✓
160 x 110 ✓
160 x 125 ✓
160 x 140 ✓
160 x160 ✓

Cross
Dia mm
63 x 63 ✓
75 x 63 ✓
75 x 75 ✓
90 x 63 ✓
90 x 75 ✓
90 x 90 ✓
110 x 63 ✓
110 x 75 ✓
110 x 90 ✓
110 x 110 ✓
125 x 63 ✓
125 x 75 ✓
125 x 90 ✓
125 x110 ✓
125 x125 ✓
140 x 75 ✓
140 x 90 ✓
140 x 110 ✓
140 x 125 ✓
140 x 140 ✓
160 x 75 ✓
160 x 90 ✓
160 x 110 ✓
160 x 125 ✓
160 x 140 ✓
160 x160 ✓

Reduction
Dia mm
75 x 63 ✓
90 x 63 ✓
90x75 ✓
110x75 ✓
110x90 ✓
125x110 ✓
140x110 ✓
140x125 ✓
160x125 ✓
160x140 ✓

Riser Pipe	
Lenght cm	Lenght cm
25 ✓	60 ✓
32 ✓	80 ✓
50 ✓	100 ✓

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