# Catalogue

# special PIPE & FITTINGS

SPRINKLER IRRIGATION SYSTEMS U-PVC DEEP WELL COLUMN PIPES U-PVC DEEP WELL CASING & SCREEN PIPES









## professional water handling





# *Our first principle is: "Absolute Quality"*

It is always a part of our service policy to maximize customer satisfaction.

We know very well that being a trusted partner is not an easy process.

Our quality standards for our manufacturing, sales and after-sales services have been audited in accordance with the requirements and certified by authorized institutions. For this reason, Tork has the required ISO 9001:2015 Quality Management Sytems Certifications and CE Attestation of Conformity Certifications. SPRINKLER IRRIGATION SYSTEMS

U-PVC DEEP WELL COLUMN PIPES

#### U-PVC DEEP WELL CASING & SCREEN PIPES

# **PIPE&FITTINGS**



## **Professional Sprinkler Irrigation System**

#### Vertical and Undulating Terrains Irrigation

Vertical and undulating terrains which cannot irrigated with the surface irrigation methods can irrigated with the sprinkler irrigation system without requiring any leveling.

#### Land Leveling is Not Required

During the sprinkler irrigation there is no need to detailed land leveling. In some cases, a slight leveling can be useful to effective functioning of the system. On the other hand, surface irrigation has required intensive land leveling. During the leveling, fertile topsoil moves as a result of cutting and filling works, so the yield of production significantly decreases.

#### Increase Water Efficiency

With the sprinkler irrigation there is no leakage to deep and no loss of water during the using irrigation water to the field. So using water efficiency increases. Accordingly, with the system especially in the areas where the irrigation water is insufficient is provided to irrigate large areas.

#### Doesn't Create Drainage Problems

With the sparkling, water can be controlled, so there is a possibility slight watering. Thus, in the areas where have a drainage problem, the increases of the ground water level and loss of water at sandy and gravelly soils are prevented.

#### Doesn't Create Danger of Erosion

Surface irrigation methods lead to serious erosion



problems at high oblique cultivated areas. And it is also faced numerous challenges during erosion control. Sprinkler irrigation can be applied with success in the qualified areas without creating erosion problems.

#### Doesn't Required Special Training

Surface irrigation systems are required well educated irrigation masters, but the sprinkler irrigation systems are not required well educated irrigation masters during the process of installation, operation and reveling.

#### **Provides Full Production at the First Year**

The efficiency of the yields reaches the previous level after many years later with the surface irrigation systems. And they are required medium and heavy leveling. But the sprinkler irrigation systems are not required any leveling, and from the first year full production is provided.

#### Provides Less and Uniform Water Applications

Sprinkler is the most suitable method that is used for germination, diluting and displacements of seeds. In this method, water is applied constantly and in small quantities. This qualified water treatment has a great importance about the production of smallseeded plants such as clover and sugar beet. Also, germination difficulties seen especially in the Cukurova region because of drought are removed with the sprinkler irrigation system.

#### **Enables More Land Cultivation**

Irrigation canals and flumes are not necessary at the sprinkler irrigation system. Since cultivated lands increase, there is an increase in productions. Also the problems such as weed cleaning and spread of weeds aren't arise at the channels.

#### Enables Fertilization with the Irrigation Water

Fusible fertilizers can be given to plants with the irrigation waters without requiring a second cost.





#### Protects Plants from Frost and Hot

Vegetables, citrus fruits, vineyards and the other orchards can be protected easily and safely from the frost that is seen in winter and in spring. Also, the drying that is seen in some parts of our country from time to time can be protected with our sprinkler irrigation system.

#### Make Easier the Soil Preparation

The temper water that is required for sowing and planting is carried out with our Irrigation System.

#### Enables Smooth Functioning during Agricultural Operations

Sprinkler irrigation system ensures flexibility and reduces the number of operations. Also there are no needs any operations such as furrow opening.

#### Makes Easier the Process of Land Equipment's

In the sprinkler irrigation systems there are no obstacles to make difficult the land equipment's' works.

#### Irrigation can be done in Exposed Soil

Sprinkler irrigation is the most convenient method in the exposed soils which are not suitable for leveling.

#### Enables Continuously Salt Washing in the Soils

Accumulated salts in the soil profile can be washed effectively with the system of sprinkler irrigation. The water which is applied at the low sprinkling speed washes more salt than the other classic ponding methods. Also there is no need to embankment providing ponding of water and it is possible to wash the salt at sloping lands.



#### **Prevents Accumulation of Salts at Leaves**

Especially in the areas close to the sea, the salt particles at the leaves which are carried by the wind and the accumulated dust at the leaves can be easily washed without damaging plants.

#### **Minimizes Irrigation Works**

Sprinkler irrigation system cannot be compared with the other surface irrigation system in terms of the labor savings.







## **U-PVC Deep Well Column Pipes**

The internal-flanged Column Pipes (Column Pipes For Borehole / U-PVC Riser Pipes / U-PVC Discharge Pipes) whose resistance and pulling force have been increased by special raw materials and special production system are now offered for our customers' needs.

Our internal-flanged column pipes are put in the market after testing in certified laboratories with high quality and accuracy and producing with special care and quality.

Thread connection system of our pipes is produced in different ways as square thread or trapeze thread in order to satisfy different preferences of the market.



#### ADVANTAGES:

- Light, easy to carry and install.
- No corrosive, requires no maintenance
- Provide power saving. Save energy on the pumps. Provide plus minus %30 efficiency increase.
- Non conductive, insulating
- Long life span. (Life span of PVC pipes is minimum 50 years if they are used, stored, transported, and protected against sunlight properly)
- Endurable against oxidation and corrosion. Strong against corrosion caused by chemical substances.
- Have no harm against human health. (a certificate has been received from the institution of sanitation that it does not negatively affect water.)
- Frictional loose is smaller compared to metal.
- *Resist against pounds*
- Leakage rate compared to other pipes is very high with double o-ring
- Endurable against sudden pressure rises and shocks.
- Patented special design
- Pumps can be pulled and placed fast without a pause.
- Not affected by weather conditions.





#### **INSTRUCTION MANUAL**

- For the installation of internal-flanged column pipes, surface must be clean and dry.
- Make sure that the flange is placed.
- If the flange is broken or damaged, replace it.
- Do not use lubricating material like Grease. Use only water.
- Pipes should be installed each other with hand or a belt wrench. Do not use a chain key or any metal tools.
- Our pipes are manufactured to be resist againts 16 bar or 20 bar inlet pressures









## **U-PVC Deep Well Casing & Screen Pipes**

In the deep wells that are dig to benefit from underground waters, deep well pipes are used. All over the world instead of steel pipes, after the widespread of the usage of filter and closed deep well pipes that are produced from PVC, specific standards that are determined physical properties of the pipes and filter slots are issued.

Our pipes are manufactured according to TS 11794 standard. Reduction, the spur that is installed to the end of the pipe, centering spring, belted pipe clamping switch, swivel maneuver head, and pipe holders that will hold the pipes at the well head are produced by International quality standarts. In case of failure of deep well pipes, it is hard to reach defective area, it is even impossible.

With years of experience and the notion of work which gives priority to meticulous and superior quality of all production provide opportunities the filter and closed pipes to be used safely both in domestic and foreign. The filter slots have a width of 2mm according to TS11794 standard.



#### **Connection Method And Thread Properties**

Our PVC deep well filter and closed pipes are produced with a male pipe thread at a spigot end and a female pipe thread at the socket end. As



seen figure; the pipes' threads are trapeze so they enable safe and easy connection. Also, there is no need to any additional materials. This feature is both economic and time-saving. Because during the installation, there is no need some labors welding operations.etc

#### **Other Properties**

During the landing to wells, even the pipes weight create axial tension, both the pipe and the thread system has a power to meet these loads. Our deep well pipes is very lighter than steel pipes.

This feature provides much convenience in handling and installation. With the effect of rust and corrosion, steel deep well pipes spoil within 15 years depending on the structure of soil and water. In this case, it is necessary to be opened a new well. Our deep well pipes resist to corrosion and chemicals such as acids and bases because they were made of PVC and they also last at least 50 years. And it can leads continuity and economy.

While the well is hammered, in case of the gravels collocate to each other and become a square (figure a), the ratio of the area that the water passes through them is 21.46%. However it is not possible that the gravels stay as square, they stay as triangle. (Figure b) In this case, the proportion of the area that the water passes through does not exceed 9.31%. This area varies according to the pipe's diameter and wall thickness in the PVC deep well pipes and they are between 9.5% -11.





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#### Points To Consider

- While loading and carrying, don't hit the ground and especially protect the threads which are at the ends.
- If the pipes have to be held for a while before used, they should be stored on chock and covered with a fabric to protect them against sunlight.
- The protective caps on the male ends should never be removed until the pipes are ready to be used.
- Use and filter pipes according to written depth (until 100 m 0-100; until 300 m 101-300).
- The diameter of the pump used must match the internal diameter of the pipe.
- No liquid substance, such as lubricating grease should be used in order to create an easy pipe installation.
- An adhesive material should never be applied to the surface of the pipe' thread because it melts the pipe and deforms the pipe' thread.
- In installation, appropriate tools must be utilized such as a belt wrench. Don't use chain wrench or pipe key.
- For vertical position in the well, maximum every 8 m centering spring should be used
- Especially make sure that there is one closed pipe at the bottom.
- If the pipe resists to moves freely down into the well, well mud should be inserted inside the pipe with a gun or bucket. While doing this, the pipe must not be damaged.
- If the pipe is stuck in the well, the pipe shouldn't be hammered. It should be taken out and lowered back into the well. In spite of all these, if the pipe does not move down, the well should be hollowed out once again with a drill and then the pipe is pushed down the well.
- Once the pipe touches the bottom of the well, it should be pulled up at least 10cm from the ground and suspended. Until the process of paving with pebbles finishes, the pipe must be held straight in vertical position.
- A sheet iron pipe must be installed on top of the well and outside the furnished drilling PVC pipe and the pump must be positioned on the sheet iron pipe.
- Pebbles should be shovel evenly, continuously, and orderly along the perimeter of the furnished pipe. This way, the pipe can stay vertical.
- Especially in silt land, pebbles must be prevented from creating a bridge. If the silt comes from the well continuously, but the level of pebble does not decrease then there can be a bridge. Take emergency precautions rub in pebble, otherwise your well collapses.





## Deep Well Pipes Dimensions and Tolerancing

#### Up to 100 m Depth (On pipes articles **BLACK**) Outer Diameter Weight (Kg) Inner External Thickness (Closed) Pipe Mufin Diameter Dimensions Tolerans (mm) (Min) mm inch mm (max) mm x m 2 mt 3 mt 4 mt mт mт 4" +0,70/-0,00 113 123 5,0 101,6 TR 113X6 5,25 7,75 12,33 5" +0,80 / -0,00 125 136 5,5 111,4 TR 125X6 6,55 9,60 12,65 +0,90 / -0,00 TR 140X6 140 5 1/2" 153 6,5 125,3 8,40 12,45 16,50 +1,00 / -0,00 175 6 5/8" 192 8,0 157,0 TR 175X6 12,85 19,05 25,25 5" 220 9,0 +1,20/-0,00 179,6 TR 200X6 16,50 24,50 32,50 200 225 8 5/8" 247 10,0 +1,20 / -0,00 202,6 TR 225X6 20,70 30,70 40,70 9" 250 274 11,0 +1,25 / -0,00 228,0 TR 250X6 26,53 39,3 52,65 280 10 3/4" 301 12,5 +1,40 / -0,00 252,2 TR 280X12 32,37 47,90 63,43 330 12 3/4" 356 14,5 +1,70/-0,00 297,6 TR 330X12 44,30 65,55 86,80 +2,00 / -0,00 TR 400X12 400 15 1/2" 434 18,0 360,0 64,74 95,79 126,80

#### Up to 300 m Depth

#### (On pipes articles **RED**)

Outer Diameter			Thickson		Inner	External	Weight (Kg)			
Pipe		Mufin	INICKNESS		Diameter	Dimensions	(Closed)			
mm	inch	mm (max)	тт	Tolerans (mm)	(Min) mm	mm x m	2 mt	3 mt	4 mt	
140	5 1/2"	157	8,0	+1,00/-0,00	125,3	TR 140X6	10,15	15,05	19,95	
175	6 5/8"	197	10,8	+1,20/-0,00	157,0	TR 175X6	15,80	23,50	31,20	
200	5"	225	11,5	+1,40/-0,00	179,6	TR 200X6	20,88	31,48	41,28	
225	8 5/8"	254	13,0	+1,50 / -0,00	202,6	TR 225X6	26,36	39,10	51,84	
250	9"	274	14,5	+1,25 / -0,00	221,0	TR 250X6	35,58	49,73	65,87	
280	10 3/4"	310	16,0	+1,80/-0,00	252,2	TR 280X12	40,80	60,35	79,90	
330	12 3/4"	366	19,0	+2,20/-0,00	297,6	TR 330X12	56,85	84,15	111,45	
400	15 5/8"	445	22,7	+2,20/-0,00	360,0	TR 400X12	82,80	122,08	161,66	

#### Up to 500 m Depth

#### (On pipes articles **GREEN**)

Outer Diameter			Thickness		Inner	External	Weight (Kg)			
Pipe		Mufin			Diameter	Dimensions	(Closed)			
mm	inch	mm (max)	mm	Tolerans (mm)	(Min) mm	mm x m	2 mt	3 mt	4 mt	
140	5 1/2"	163	10,4	+1,25 / -0,00	116,7	TR 140X6	12,90	19,15	25,40	
175	6 5/8"	204	13,0	+1,40 / -0,00	148,2	TR 175X6	20,20	29,73	39,44	
200	8"	234	14,5	+1,60 / -0,00	171,0	TR 200X6	28,00	42,00	56,00	



# Take care of life



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