



## Perforated Pipe Technical Catalogue

# Index

|                                        |       |
|----------------------------------------|-------|
| About Us                               | 04-05 |
| Perforated Polyethylene and U-PVC Pipe | 08-09 |
| Technical Draw                         | 10-11 |
| Diamter and Wall Thickness Table       | 12-13 |





AKANSU GROUP founded in 1915 and operates in three different sectors.

AKANSU GROUP started its business life in 1915 with the sale of glass under the brand name of AKANSU GLASS brand.

AKANSU GLASS, the leading company in its sector, has a wide range of products to meet the demands of the market.

In 1996, it started to produce plastic window and door profile systems under the brand of AKANSU PROFILE. It has successfully completed many prestigious housing projects with its dealer networks in Turkey and abroad.

In 2006, it started the production of infrastructure plastic pipes with the AKANSU PIPE brand. AKANSU PIPE, which continues its investments rapidly, completed the investment of a equipped with the latest technology new production facility with an area of 100,000 m<sup>2</sup> in 2017. With the investment it has put into operation, it has become one of the factories with the highest production capacity in Turkey and Europe. In 2018, it started the production of superstructure plastic pipes and fittings.

AKANSU PIPE manufactures infrastructure and superstructure plastic product groups with the latest technology and full automation production techniques. AKANSU PIPE, which has an accredited and independent testing laboratory within its structure, is also a brand that has international quality certificates and is approved by institutions of many countries.

AKANSU PIPE has successfully completed the production and sale of many prestigious infrastructure and superstructure projects at home and abroad.

Its purpose is to put on the market products that provide quality and customer satisfaction by following new technologies in developing and changing world.

perforated pipes





Perforated drainage pipes are utilized for the effective evacuation of excess subsurface water accumulated in soil and underground layers.

Akansu Boru manufactures perforated drainage pipes with customized circular perforations or slotted configurations, precisely engineered to meet specific customer requirements and project dimensions.

Following the perforation processes, a geotextile filter coating can be applied upon request to enhance filtration and prevent soil ingress.

Strict adherence to installation guidelines is paramount during the laying of perforated drainage pipes. To eliminate the risk of clogging and guarantee long-term operational efficiency, precise installation methods must be followed. Proper execution ensures trouble-free pipeline integrity and delivers maximum hydraulic performance.

#### Usage Areas of Perforated Drainage Pipes

- Solid waste landfill storage facilities
- Agricultural land dewatering and drainage systems
- Reclamation and stabilization of muddy or loamy soils
- Mining sites and sub-surface drainage
- Subbase infrastructure for sports complexes and turf fields
- Foundation protection for buildings and civil engineering structures against groundwater
- Highway shoulder drainage systems

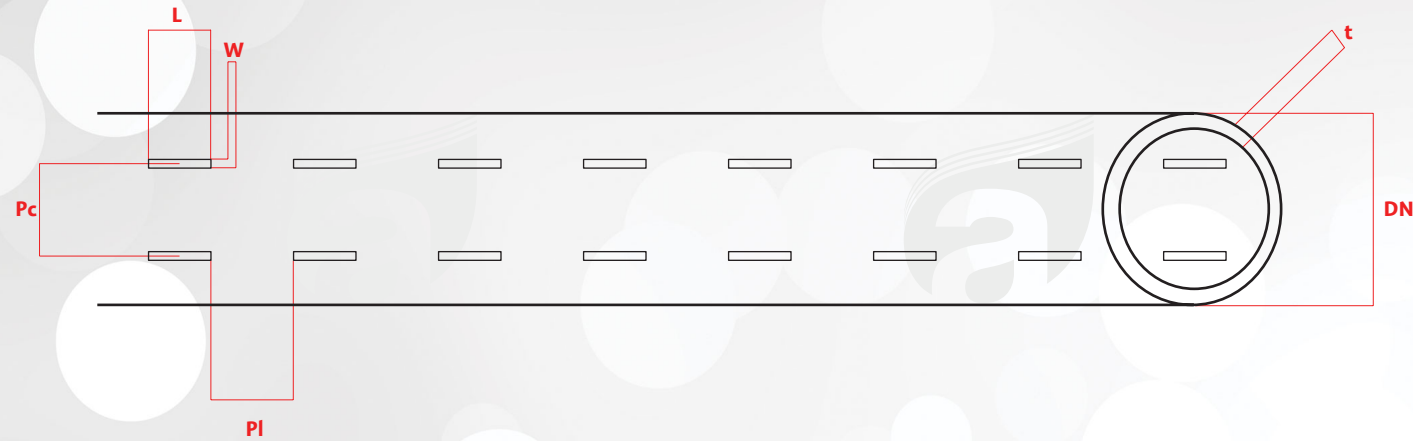
#### Advantages of Perforated Drainage Pipes

- **Easy Installation:** Lightweight structure ensures rapid and cost-effective onsite handling.
- **Superior Mechanical Strength:** Engineered from PE raw materials for high load-bearing capacity and ring stiffness.
- **Chemical Resistance:** Outstanding immunity to corrosive chemicals, acidic soils, and industrial effluents.



Polyethylene and U-PVC “Slotted” Perforated Pipe

Draw 1: Horizontal Slotted



Ordering & Technical Information

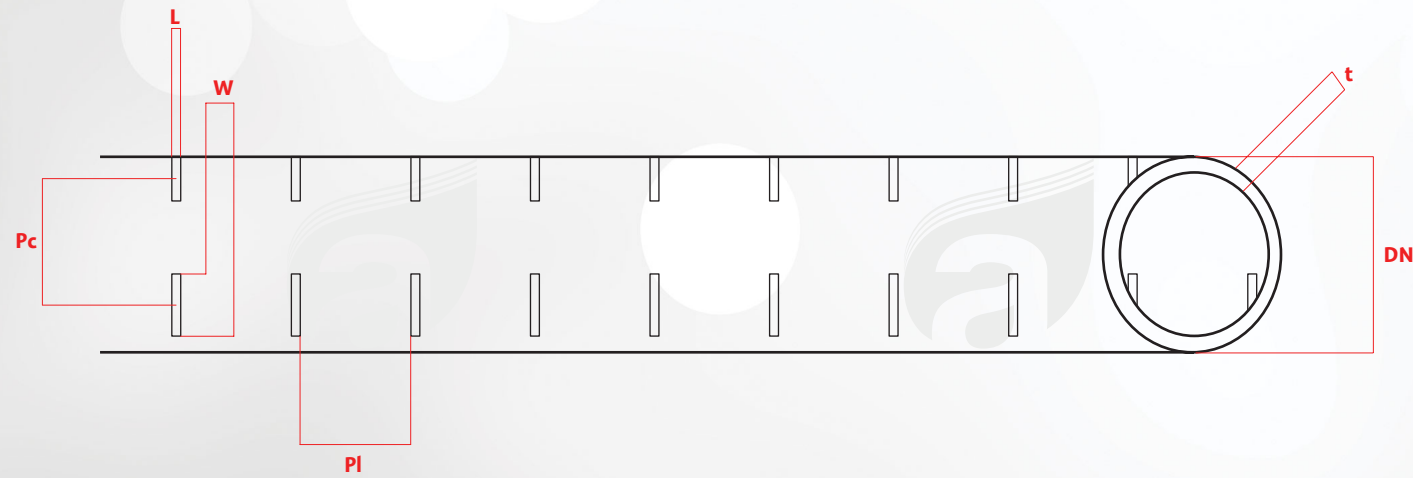
Perforated (slotted) drainage pipes can be produced with different slot dimensions and spacing depending on the application and drainage requirements.

In order to ensure correct production, the following technical details should be specified at the time of order:

- DN: Nominal pipe diameter
- t : Pipe wall thickness
- L : Slot length
- W : Slot width
- Pc : Center-to-center distance between slot rows
- PI : Center-to-center distance between slots in the same row

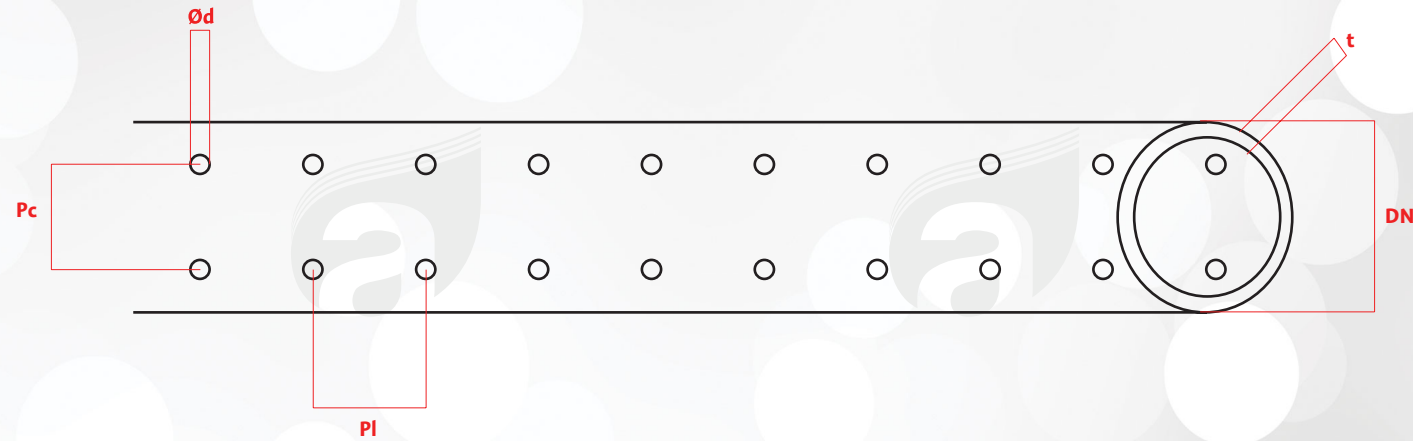
Slot dimensions and layout should be determined according to drainage capacity and soil conditions.  
If not specified, standard production values will be applied.

Draw 2: Vertical Slotted



Polyethylene and U-PVC “Holes” Perforated Pipe

Draw 3



Ordering & Technical Information

Perforated (holes) drainage pipes can be produced with different hole diameters and spacing depending on the application and drainage requirements.

In order to ensure correct production, the following technical details should be specified at the time of order:

- DN : Nominal pipe diameter
- t : Pipe wall thickness
- Ød : Hole diameter
- Pc (holes) : Center-to-center distance between hole rows
- PI (holes) : Center-to-center distance between holes in the same row

Hole diameter and layout should be determined according to drainage capacity and soil conditions.  
If not specified, standard production values will be applied.



Table 1 : Diameter and Wall Thickness of Polyethylene Perforated Pipes

| DN  | Tolerances (+),* |     |      | Wall Thickness |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
|-----|------------------|-----|------|----------------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|---------|------------|--|
|     | A*               | B*  | O*   | S<br>mm        | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm | S<br>mm | Smax<br>mm |  |
| 20  | 0,3              | 0,3 | 1,2  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 25  | 0,3              | 0,3 | 1,2  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 32  | 0,3              | 0,3 | 1,3  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 40  | 0,4              | 0,4 | 1,4  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 50  | 0,5              | 0,4 | 1,4  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 63  | 0,6              | 0,4 | 1,5  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 75  | 0,7              | 0,5 | 1,6  |                |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |         |            |  |
| 90  | 0,9              | 0,6 | 1,8  | 2,2            | 2,4        | 2,7     | 3,0        | 3,3     | 3,7        | 4,2     | 4,9        | 5,4     | 6,1        | 6,7     | 7,5        | 8,2     | 9,2        | 10,1    | 11,1       | 12,3    | 13,7       | 15,1    | 16,8       | 18,3    | 20,2       |         |            |         |            |  |
| 110 | 1,0              | 0,6 | 2,2  | 2,7            | 3,0        | 3,3     | 3,7        | 4,2     | 4,8        | 5,3     | 6,0        | 6,6     | 7,4        | 8,1     | 9,1        | 10,0    | 11,1       | 12,3    | 14,0       | 15,6    | 17,1       | 19,0    | 20,8       | 22,9    |            |         |            |         |            |  |
| 125 | 1,2              | 0,6 | 2,5  | 3,0            | 3,4        | 3,8     | 4,2        | 4,8     | 5,4        | 6,0     | 6,7        | 7,4     | 8,3        | 9,2     | 10,3       | 11,4    | 12,7       | 14,1    | 15,7       | 17,4    | 19,2       | 21,3    | 23,3       | 25,7    |            |         |            |         |            |  |
| 140 | 1,3              | 0,9 | 2,8  | 3,4            | 3,8        | 4,2     | 4,7        | 5,4     | 6,1        | 6,7     | 7,5        | 8,3     | 9,3        | 10,3    | 11,5       | 12,7    | 14,1       | 15,7    | 17,4       | 19,2    | 21,3       | 23,3    | 25,7       |         |            |         |            |         |            |  |
| 160 | 1,5              | 1,0 | 3,2  | 3,9            | 4,3        | 4,8     | 5,3        | 6,2     | 7,0        | 7,7     | 8,6        | 9,5     | 10,6       | 11,8    | 13,1       | 14,6    | 16,2       | 17,9    | 19,8       | 21,9    | 24,2       | 26,7    | 29,3       |         |            |         |            |         |            |  |
| 180 | 1,7              | 1,1 | 3,6  | 4,4            | 4,8        | 5,5     | 6,0        | 6,9     | 7,7        | 8,6     | 9,6        | 10,7    | 11,9       | 13,3    | 14,8       | 16,4    | 18,2       | 20,1    | 22,3       | 24,6    | 27,2       | 30,0    | 33,0       |         |            |         |            |         |            |  |
| 200 | 1,8              | 1,2 | 4,0  | 4,9            | 5,4        | 6,1     | 6,7        | 7,7     | 8,6        | 9,6     | 10,7       | 11,9    | 13,2       | 14,7    | 16,3       | 18,2    | 20,2       | 22,4    | 24,8       | 27,4    | 30,3       | 33,3    | 36,7       |         |            |         |            |         |            |  |
| 225 | 2,1              | 1,4 | 4,5  | 5,5            | 6,0        | 6,8     | 7,5        | 8,6     | 9,6        | 10,8    | 12,0       | 13,4    | 14,9       | 16,6    | 18,4       | 20,5    | 22,7       | 25,2    | 27,9       | 30,8    | 34,0       | 37,5    | 41,3       |         |            |         |            |         |            |  |
| 250 | 2,3              | 1,5 | 5,0  | 6,1            | 6,7        | 7,6     | 8,3        | 9,6     | 10,7       | 11,9    | 13,2       | 14,8    | 16,4       | 18,4    | 20,4       | 22,7    | 25,1       | 27,9    | 30,8       | 34,2    | 37,8       | 41,7    | 45,8       |         |            |         |            |         |            |  |
| 280 | 2,6              | 1,7 | 9,8  | 6,8            | 7,5        | 8,5     | 9,3        | 10,7    | 11,9       | 13,4    | 14,9       | 16,6    | 18,4       | 20,6    | 22,8       | 25,4    | 28,1       | 31,3    | 34,6       | 38,3    | 42,3       | 46,7    | 51,3       |         |            |         |            |         |            |  |
| 315 | 2,9              | 1,9 | 11,1 | 7,7            | 8,6        | 9,7     | 10,8       | 12,1    | 13,5       | 15,0    | 16,6       | 18,7    | 20,7       | 23,2    | 25,7       | 28,6    | 31,6       | 35,2    | 38,9       | 43,1    | 47,6       | 52,5    | 57,8       |         |            |         |            |         |            |  |
| 355 | 3,2              | 2,2 | 12,5 | 8,7            | 9,7        | 10,9    | 12,1       | 13,6    | 15,1       | 16,9    | 18,7       | 21,1    | 23,4       | 26,1    | 28,9       | 32,2    | 35,6       | 39,7    | 43,8       | 48,5    | 53,5       | 59,2    | 65,1       |         |            |         |            |         |            |  |
| 400 | 3,6              | 2,4 | 14,0 | 9,8            | 10,9       | 12,3    | 13,7       | 15,3    | 17,0       | 19,1    | 21,2       | 23,7    | 26,2       | 29,4    | 32,5       | 36,3    | 40,1       | 44,7    | 49,3       | 54,7    | 60,3       | 66,7    | 73,3       |         |            |         |            |         |            |  |
| 450 | 4,1              | 2,7 | 15,6 | 11,0           | 12,2       | 13,8    | 15,3       | 17,2    | 19,1       | 21,5    | 23,8       | 26,7    | 29,5       | 33,1    | 36,6       | 40,9    | 45,1       | 50,3    | 55,5       | 61,5    | 67,8       | 75,0    | 82,5       |         |            |         |            |         |            |  |
| 500 | 4,5              | 3,0 | 17,5 | 12,3           | 13,7       | 15,3    | 17,0       | 19,1    | 21,2       | 23,9    | 26,4       | 29,7    | 32,8       | 36,8    | 40,6       | 45,4    | 50,1       | 55,8    | 61,5       | 67,6    | 74,3       | 83,3    | 91,7       |         |            |         |            |         |            |  |
| 560 | 5,0              | 3,4 | 19,6 | 13,7           | 15,2       | 17,2    | 19,1       | 21,4    | 23,7       | 26,7    | 29,5       | 33,2    | 36,7       | 41,2    | 45,5       | 50,8    | 56,0       | 62,5    | 68,9       | 75,7    | 83,2       | 93,3    | 102,7      |         |            |         |            |         |            |  |
| 630 | 5,7              | 3,8 | 22,1 | 15,4           | 17,1       | 19,3    | 21,4       | 24,1    | 26,7       | 30,0    | 33,1       | 37,4    | 41,3       | 46,5    | 51,1       | 57,2    | 63,1       | 70,3    | 77,5       | 85,1    | 93,6       | 105,0   | 115,5      |         |            |         |            |         |            |  |
| 710 | 6,4              | 4,0 | 24,9 | 17,4           | 19,3       | 21,8    | 24,1       | 27,2    | 30,1       | 33,9    | 37,4       | 42,1    | 46,5       | 52,2    | 57,6       | 64,5    | 71,1       | 79,3    | 87,4       | 95,9    | 105,5      | 118,3   | 130,2      |         |            |         |            |         |            |  |
| 800 | 7,2              | 4,0 | 28,0 | 19,6           | 21,7       | 24,5    | 27,1       | 30,6    | 33,8       | 38,1    | 42,1       | 47,4    | 52,3       | 58,8    | 64,8       | 72,6    | 80,0       | 89,3    | 98,4       | 108,1   | 118,9      | 133,3   | 146,7      |         |            |         |            |         |            |  |

A\* : Normal tolerance pipe outer diameter tolerance, mm. ( as + )      DN : Outer diameter

B\* : Precision tube outer diameter tolerance, mm. ( as + )      S : Wall thickness

O\* : Tube ovality tolerance, mm. ( as + )

Smax : Max Wall thickness, mm. ( as + )

Table 2 : Diameter and Wall Thickness of U-PVC Perforated Pipes

| DN<br>(mm) | Wall Thickness        |                        |            |                       |                        |            |                       |                        |            |                       | Wall Thickness        |                        |            |                       |                        |            |                       |                        |            |                       |
|------------|-----------------------|------------------------|------------|-----------------------|------------------------|------------|-----------------------|------------------------|------------|-----------------------|-----------------------|------------------------|------------|-----------------------|------------------------|------------|-----------------------|------------------------|------------|-----------------------|
|            | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) | S<br>Tolerance<br>(mm) | DN<br>(mm) | S<br>Standard<br>(mm) |
| 32         |                       |                        | 32         | 1,60                  | 0,40                   | 32         |                       | 0,40                   | 32         |                       |                       | 0,50                   | 32         | 2,40                  | 0,50                   |            |                       |                        |            |                       |
| 40         |                       |                        | 40         | 1,90                  | 0,40                   | 40         |                       | 0,40                   | 40         |                       |                       | 0,50                   | 40         | 3,00                  | 0,50                   |            |                       |                        |            |                       |
| 50         | 1,50                  | 0,40                   | 50         | 2,40                  | 0,50                   | 50         |                       | 0,50                   | 50         |                       |                       | 0,60                   | 50         | 3,70                  | 0,60                   |            |                       |                        |            |                       |
| 63         | 1,90                  | 0,40                   | 63         | 3,00                  | 0,60                   | 63         |                       | 0,60                   | 63         |                       |                       | 0,70                   | 63         | 4,70                  | 0,70                   |            |                       |                        |            |                       |
| 75         | 2,20                  | 0,50                   | 75         | 3,60                  | 0,60                   | 75         |                       | 0,60                   | 75         |                       |                       | 0,80                   | 75         | 5,60                  | 0,80                   |            |                       |                        |            |                       |
| 90         | 2,70                  | 0,50                   | 90         | 4,30                  | 0,70                   | 90         |                       | 0,70                   | 90         |                       |                       | 0,90                   | 90         | 6,70                  | 0,90                   |            |                       |                        |            |                       |
| 110        | 2,70                  | 0,50                   | 110        | 4,20                  | 0,70                   | 110        |                       | 0,70                   | 110        |                       |                       | 0,90                   | 110        | 6,60                  | 0,90                   |            |                       |                        |            |                       |
| 125        | 3,10                  | 0,60                   | 125        | 4,80                  | 0,70                   | 125        |                       | 0,70                   | 125        |                       |                       | 1,00                   | 125        | 7,40                  | 1,00                   |            |                       |                        |            |                       |
| 140        | 3,50                  | 0,60                   | 140        | 5,40                  | 0,80                   | 140        |                       | 0,80                   | 140        |                       |                       | 1,10                   | 140        | 8,30                  | 1,10                   |            |                       |                        |            |                       |
| 160        | 4,00                  | 0,70                   | 160        | 6,20                  | 0,90                   | 160        |                       | 0,90                   | 160        |                       |                       | 1,20                   | 160        | 9,50                  | 1,20                   |            |                       |                        |            |                       |
| 200        | 4,90                  | 0,70                   | 200        | 7,70                  | 1,00                   | 200        |                       | 1,00                   | 200        |                       |                       | 1,40                   | 200        | 11,90                 | 1,40                   |            |                       |                        |            |                       |
| 225        | 5,50                  | 0,80                   | 225        | 8,60                  | 1,10                   | 225        |                       | 1,10                   | 225        |                       |                       | 1,60                   | 225        | 13,40                 | 1,60                   |            |                       |                        |            |                       |
| 250        | 6,20                  | 0,90                   | 250        | 9,60                  | 1,20                   | 250        |                       | 1,20                   | 250        |                       |                       | 1,70                   | 250        | 14,80                 | 1,70                   |            |                       |                        |            |                       |
| 280        | 6,90                  | 0,90                   | 280        | 10,70                 | 1,30                   | 280        |                       | 1,30                   | 280        |                       |                       | 1,90                   | 280        | 16,60                 | 1,90                   |            |                       |                        |            |                       |
| 315        | 7,70                  | 1,00                   | 315        | 12,10                 | 1,50                   | 315        |                       | 1,50                   | 315        |                       |                       | 2,10                   | 315        | 18,70                 | 2,10                   |            |                       |                        |            |                       |
| 355        | 8,70                  | 1,10                   | 355        | 13,60                 | 1,60                   | 355        |                       | 1,60                   | 355        |                       |                       | 2,40                   | 355        | 21,10                 | 2,40                   |            |                       |                        |            |                       |
| 400        | 9,80                  | 1,20                   | 400        | 15,30                 | 1,80                   | 400        |                       | 1,80                   | 400        |                       |                       | 2,60                   | 400        | 23,70                 | 2,60                   |            |                       |                        |            |                       |

DN: Diameter Nominal

S: Pipe Thickness



#### **FACTORY**

**address** Organize Sanayi Bölgesi 17. Cad. No:2/2 Melikgazi / Kayseri  
**phone** +90 352 321 36 77 - **fax** +90 352 321 28 87 - **email** info@akansu.com

#### **ISTANBUL OFFICE**

**address** Altunizade Mah. Kısıklı Cad. No: 3 Daire: 8 Üsküdar / İstanbul  
**phone** +90 216 688 10 20 - **fax** +90 216 688 10 20 - **email** export@akansu.com