

FLUE SYSTEMS







Upon a decision made in 2017, **ANT KALIP** which is a leading company in flue sector, started production and installation activities under **TURINOX**Brand as of March 2017.

Our objective is to ensure continuity of our world-renowned name and quality, and to carry **TURINOX** brand forward with our dynamic, determined and young team.

OUR SERVICES

- Single-Walled Products
- Double-Walled Products
- Hermetic Flue Sets and Systems
- Garbage and Laundry Chute Systems
- Free-Standing Flue Systems
- Industrial Special Productions



DEFINITION OF FLUE

Flue is the structural component that ensures the burnt waste gases (flue gas) leaving heat generator to be exhausted in a manner that does not harm the environment, and that provides the natural draught required for hot gases to circulate in the boiler at a desired speed. It is a hollow part of the building constructed from brick, concrete, ferroconcrete or steel material; built cylindrically, in the shape of a square, or as a rectangular prism within or adjacent to the building.

CLASSIFICATION OF FLUES

- Ordinary Flues
- Common (Shunt) Flues
- Separate (Individual) Flues

ORDINARY FLUES

Flues that ascend from the ground to the roof as a single column, which are designed for utilization by multiple units, are called ordinary flues. Gas burner devices cannot be connected to this type of flue.

COMMON (SHUNT) FLUES

Flues that ascend from the ground to the roof and that comprise branch ducts belonging to eachunit are called shunt flues. This type of flue ascends as a separate flue on the top floor. The effective flue height of this floor should be minimum 4 meters. Devices with blown burners cannot be connected to these flues. If natural gas devices will be connected to a shunt flues solid and liquid fuel burning devices cannot be connected to other units. If there are two apartments on every floor and funneled devices in the apartments are connected to the same main flue by means of a branch duct, this flue is called a double shunt flue. Gas burner devices cannot be connected to this type of flue.

SEPARATE FLUES

Flues that ascend from the relevant unit to the roof as a single column, which are designed only according to the utilization of such unit, are called separate flues.

This is the most suitable type of flue for connecting gas burner devices. The most suitable section types are those with circular sections.

FLUE OPERATING PRINCIPLE

The flue can perform its function in a healthy manner; in other words, evacuate waste gases if the air density inside the flue is less than the density of the exterior. This becomes possible when the interior of the flue is hotter than the exterior. Hot air carries waste gases along when it shows a tendency to leave the flue.

CHARACTERISTICS THAT A GOOD FLUE SHOULD POSSESS

- The most important factor of flue draught is the temperature difference between exterior air and interior air.
- Interior surface of the flue should be smooth.
- The flue should be gas-tight and flues of boilers that use natural gas should not leak out condensed water.
- They should not be built on exterior walls to the highest possible extent.
- Flue section calculation should be correctly made and its height should be suitable for the type of boiler.
- The flue should be enduring against factors such as earthquake, precipitation, etc.
- It should be easy to clean. It must have a cleanout port and it should be sealed.
- The flue should be at 50 cm above the ridge of the roof.
- Flue cover should prevent rain water from leaking in.
- Necessary atmospheric air should be provided for burning.

- Flues should be built in a manner that their direction will not change to the highest extent possible, and, if it is obligatory to change the direction, the angle with horizontal plane should not be less than 60°.
- A suitable orifice should be left for flue gas analyses.

FLUE MAINTENANCE AND CLEANING

Flues must be cleaned in order to function in a horizontal plane should not be less than 60°. accumulation of soot in the flue will cause flue blockage, insufficient draught, and flue fires.

Cleaning personnel should receive necessary training and be fully-equipped.

Cleaning periods;

- Twice a year for solid fuel system flues
- Once a year for liquid fuel system flues
- Twice a year for gas fired system flues
- Four times a year for continuously operated system flues

Matters to be taken into consideration at the time of cleaning:

- It should be checked whether the burner device connected the flue to be cleaned is deactivated. If it is operational, it should be deactivated.
- Work tarpaulin should be laid around the cleanout port where the brush will be inserted.
- Dust mask should be used in accordance with the principles of occupational health.
- Soot removed from the flue should be fillede in a container and discarded without harming the environment.
- If the cleaning will be made from the outlet of the flue, maximum safety precautions should be taken
- When the flue outlet is cleaned, cleanout port should be kept closed in order to prevent falling soot from polluting the environment.

BURNING REACTION IN FLUES

In case full combustion does not take place or flame temperature is low, hydrocarbons are formed.

- Many of these are toxic, while some are carcinogenic.
- They reduce the burning efficiency.
- They pollute the environment.

If carbon bonds with oxygen and creates full combustion, carbondioxide (CO₂) is formed.

- Average CO₂ discharge causes changes in climate up to 50%.
- In order to reduce CO₂ emission, burning process should be improved and the use of petroleum-derived fuels should be avoided.

If carbon bonds with oxygen and creates poor combustion, carbonmonoxide (CO) is formed. Carbonmonoxide (CO) is a odorless and toxic gas.

- CO is formed as a result of poor combustion or when flame temperature drops too early
- Other undesired combustion products (such as soot and hydrocarbons) are formed along with CO.
- CO causes a reduction in device efficiency

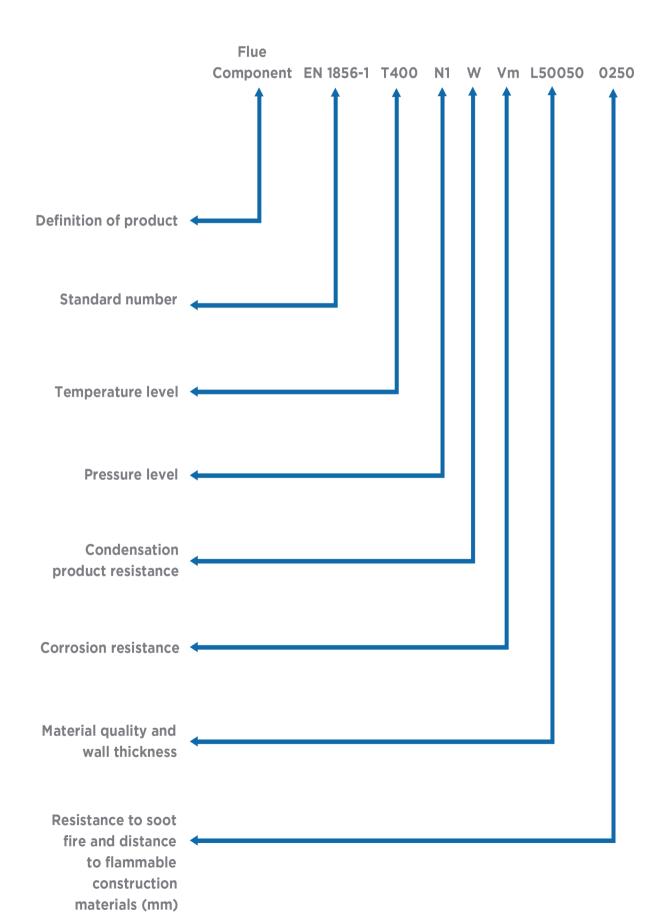
BURNING THEORY

Complete burning reaction of natural gas with oxygen is:

$$CH_4 + 2 O_2 \rightarrow CO_2 + 2 H_2O + energy$$

1 m³ natural has burns with, 2 m³ oxygen and forms 1 m³ carbondioxide and 2 m³ water vapor.

FLUE COMPONENT



PRODUCT SPECIFICATIONS

- Special CNC Welding (Tig & Laser),
- 0.40 mm and 1.50 mm sheet thickness,
- Ease of installation,
- Full sealing,
- 50 mm muff connection
- Special gasket used on joints,
- Production in any desired diameter (80 mm-1200 mm).
- 1. It is manufactured from AISI316 L or 304 grade stainless steel, which is the grade of stainless steel that is most resistant to acids formed by flue gases. It is reliably used or many years.
- 2. Linear connections of the elements of Turinox Flue Systems are made by means of (Continuous Tig&Laser) welding technology. This ensures a perfect connection and maximum resistance against corrosion that might occur at welding points.
- **3.** Elements forming the flue are seamlessly joined due to the muff structure that is prepared in a versatile manner. Tightness of waste gas and condensate is guaranteed.
- **4.** Tightness is guaranteed in high pressure systems up to 200 Pa by means of gasket slots.

SINGLE-WALLED FLUE SYSTEMS

It is a system which is manufactured from AISI 316 L or AISI 304 stainless steel.

Production is made by means of modern machinery and production technologies.

Complete tightness is ensured by special CNC welding and fittings

Special gasket used in connection systems provide the most convenient solution in high pressure boilers.

It provides an ideal solution for liquid and gas fueled combi-boilers and boilers.

Thin wall thickness was implemented for the first time in the industry and it promotes fuel efficiency.







Straight Modules

Diameters	ØA	С
80	80	1000
100	100	1000
130	130	1000
150	150	1000
180	180	1000
200	200	1000
230	230	1000
250	250	1000
300	300	1000
350	350	1000
400	400	1000
450	450	1000
500	500	1000
550	550	1000
600	600	1000
650	650	1000
700	700	1000
750	750	1000
800	800	1000

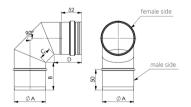


These are the main components of flues. They are generally produced at a length of 1000 mm. Straight modules are be made in different dimensions. Materials vary according to burner devices to be used with flues. 500mm and 250mm lengths are also made available to customers. They are produced in the range of Ø80mm to Ø1200mm.

90° Elbow

Diameters	ØA	В	С	D
80	80	70	30	70
100	100	70	30	70
130	130	70	30	70
150	150	70	30	70
180	180	70	30	70
200	200	70	30	70
230	230	70	30	70
250	250	80	40	70
300	300	80	40	80
350	350	80	40	80
400	400	80	40	80
450	450	80	40	80
500	500	80	40	80
550	550	90	50	90
600	600	90	50	90
650	650	90	50	90
700	700	90	50	90
750	750	90	50	90
800	800	90	50	90



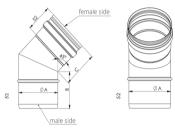


It ensures the connection of each module to one anather during installation of the flue. It provides structural strength and durability to the system. Its material grade is 304 or 430.

45° 30° 15° Elbow

Diameters	ØA	В	С
80	80	70	70
100	100	70	70
130	130	70	70
150	150	70	70
180	180	70	70
200	200	70	70
230	230	80	80
250	250	80	80
300	300	80	80
350	350	80	80
400	400	80	80
450	450	80	80
500	500	80	80
550	550	90	90
600	600	90	90
650	650	90	90
700	700	90	90
750	750	90	90
800	800	90	90





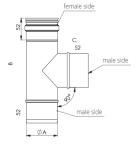
Elbows are used on horizontal and vertical lines. They are used for bypassing deviations on the route determined for flue assembly. It is produced with 45-30-15 degree angles. Its material grade is 304 or 316.

T Connection Parts

Diameters	ØA	В	С
80	80	250	80
100	100	250	80
130	130	300	80
150	150	300	80
180	180	333	80
200	200	360	80
230	230	400	80
250	250	450	80
300	300	500	80
350	350	500	80
400	400	600	100
450	450	650	100
500	500	700	100
550	550	750	100
600	600	800	100
650	650	850	100
700	700	900	100
750	750	950	100
800	800	1000	100







They are used to connect flues to smoke ducts. They are most commonly used as 90° and 87°. They are also produced as 60° or 45° in orde to reduce flue resistance. It can be used at a grade of 304 and 430, particularly 316 L material grade for single-walled products, in consideration of customer request and burner device.



Cleaning Modules

Diameters	ØA	L
80	80	400
100	100	400
130	130	400
150	150	400
180	180	400
200	200	400
230	230	400
250	250	400
300	300	450
350	350	450
400	400	450
450	450	450
500	500	450
550	550	450
600	600	450
650	650	450
700	700	450
750	750	450
800	800	450



They are used at the bottom parts of flue systems. They are used for checking and cleaning flues. One unit is used on each system. They are also horizontally used on flues where horizontal lines are long. Cleaning modules are produced with square or round ports according to the type of pressure.

Adaptor Modules

Diameters	ØA	L
80	80	250
100	100	250
130	130	250
150	150	250
180	180	250
200	200	250
230	230	250
250	250	250
300	300	250
350	350	250
400	400	250
450	450	250
500	500	250
550	550	250
600	600	250
650	650	250
700	700	250
750	750	250
800	800	250



These are products intended for eliminating diameter differences of products. They can be produced from 304 or 430 stainless material.

Module Clamp

	ØA	В	E
80	80	20	90
100	100	20	110
130	130	20	140
150	150	20	160
180	180	20	190
200	200	20	210
230	230	40	240
250	250	40	260
300	300	40	310
350	350	40	360
400	400	40	370
450	450	40	380
500	500	40	390
550	550	40	400
600	600	40	410
650	650	40	420
700	700	40	430
750	750	40	440
800	800	40	450

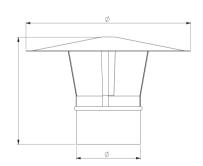


It ensures the connection of each module to one another during installation of the flue. It provides structural strength and durability to the system. Its material grade is 304 or 430.

Cap Modules

	ØA	В
80	80	280
100	100	300
130	130	330
150	150	350
180	180	380
200	200	400
230	230	430
250	250	450
300	300	500
350	350	550
400	400	600
450	450	650
500	500	700
550	550	750
600	600	800
650	650	850
700	700	900
750	750	950
800	800	1000

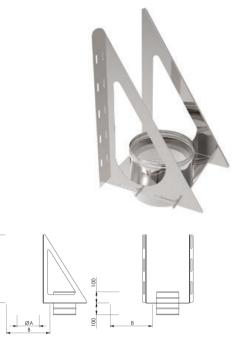






Bearing Platforms

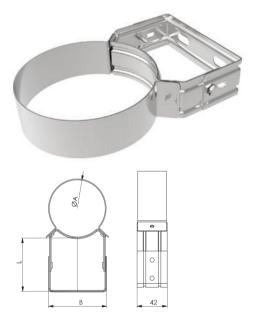
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ØA	В	L
80	350	400
100	350	400
130	350	400
150	400	450
180	400	450
200	400	450
230	450	500
250	450	500
300	450	500
350	500	550



These are the base points of flues. They are used for anchoring the system and construction of products. They are manufactured from stainless material. Wall mounted and free-standing types are produced.

Wall Clamp

ØA	В	L
80	90	50 -190
100	110	50 -190
130	140	50 -190
150	160	50 -190
180	190	50 -190
200	210	50 -190
230	240	50 -190
250	260	50 -190
300	310	50 -190
350	360	50 -190

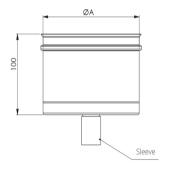


It is the supporting element that fixes flues on vertical and horizontal lines and prevents them from separating. It is installed every three meters. It is produced from stainless products.

Condensation Tank

ØA	В
80	80
100	80
130	80
150	80
180	80
200	80
230	80
250	80
300	80
350	80
400	100
450	150
500	150
550	150
600	150
650	150
700	150
750	150
800	150





It is used for collection and transfer of condensate in flues. It is installed vertically below the inspection cover. It can be used horizontally on cascade systems.

Single Walled Flex

80 100 130 150 180 200 230 250 300	
130 150 180 200 230 250 300	80
150 180 200 230 250 300	100
180 200 230 250 300	130
200 230 250 300	150
230 250 300	180
250 300	200
300	230
	250
	300
350	350



PRODUCT SPECIFICATIONS

- Special CNC Welding (Tig & Laser),
- 0.40 mm and 1.50 mm sheet thickness.
- Ease of installation,
- Full sealing,
- 50 mm muff connection,
- Special gasket used on joints,
- Production in any desired diameter (80 mm-1200 mm).
- 1. It is manufactured from AISI316 L or 304 grade stainless steel, which is the grade of stainless steel that is most resistant to acids formed by flue gases. It is reliably used for many years.
- 2. Linear connections of the elements of Turinox Flue Systems are made by means of (Continuous Tig&Laser) welding technology. This ensures a perfect connection and maximum resistance against corrosion that might occur at welding points.
- **3.** Elements forming the flue are seamlessly joined due to the muff structure that is prepared in a versatile manner. Tightness of waste gas joined due to the muff structure that is prepared and condensate is guaranteed.
- **4.** Tightness is guaranteed in high pressure systems up to 160 Pa by means of gasket slots.
- 5. 340-430 stainless materials are used as exterior wall. Wall thicknesses vary between 0.40 mm and 0.60 mm according to the diameter.
- **6.** Isolation material can be pressurized in the gap between walls by means of a machine breaking rock wool into pieces, and reach a density of 180 kg/m³; thus it provides high levels of heat and sound insulation. Insulation is covered with stainless collars so that it will not cause a thermal bridge.

DOUBLE-WALLED FLUE SYSTEMS

It is a system which is manufactured from AISI 316 L or AISI 304 stainless steel.

Production is made by means of modern machinery and production technologies.

Complete tightness is ensured by special CNC welding and fittings

Special gasket used in connection systems provide the most convenient solution in high pressure boilers.

It provides an ideal solution for liquid and gas fueled combi-boilers and boilers.

Wall thickness varies between 0.40 mm and 1 mm. Standard rock wool is used as insulation material.

Ceramic wool can also be used upon request of the customer.



Straight Modules

	ØA	ØB	С	D
80	80	130	1000	25
100	100	150	1000	25
130	130	180	1000	25
150	150	200	1000	25
180	180	230	1000	25
200	200	250	1000	25
250	250	300	1000	25
300	300	350	1000	25
350	350	400	1000	25
400	400	450	1000	25
450	450	500	1000	25
500	500	550	1000	25
550	550	600	1000	25
600	600	650	1000	25
650	650	700	1000	25
700	700	750	1000	25
750	750	800	1000	25
800	800	850	1000	25

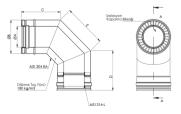


These are the main components of flues. They are generally produced at a length of 1000 mm. Straight modules are produced at a length of 1000 mm. Straight modules are designed in an interlocking manner. Special productions can be made in different dimensions. Materials vary according to burner devices to be used with flues. 500 mm and 250 mm lengths are also made available to customers. They are produced in the range of Ø80 mm to Ø1200 mm. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

90° Elbow

	ØA	ØB	С	D	E
80	80	130	100	60	100
100	100	150	100	60	100
130	130	180	100	60	100
150	150	200	100	60	100
180	180	230	100	60	100
200	200	250	110	70	110
250	250	300	110	70	110
300	300	350	110	70	110
350	350	400	110	70	110
400	400	450	110	70	110
450	450	500	110	70	110
500	500	550	120	80	120
550	550	600	120	80	120
600	600	650	120	80	120
650	650	700	120	80	120
700	700	750	120	80	120
750	750	800	120	80	120
800	800	850	120	80	120





Elbows are used on horizontal and vertical lines. They are used for bypassing deviations on the route determined for flue assembly. It is produced with 90-87 degree angles. Its material grade is 304 or 316. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

45° 30° 15° Elbow

	ØA	ØB	С	D
80	80	130	100	100
100	100	150	100	100
130	130	180	100	100
150	150	200	100	100
180	180	230		
			100	100
200	200	250	110	110
250	250	300	110	110
300	300	350	110	110
350	350	400	110	110
400	400	450	110	110
450	450	500	110	110
500	500	550	120	120
550	550	600	120	120
600	600	650	120	120
650	650	700	120	120
700	700	750	120	120
750	750	800	120	120
800	800	850	120	120



Elbows are used on horizontal and vertical lines. They are used for bypassing deviations on the route determined for flue assembly. It is produced with 45-30-15 degree angles. Its material grade is 304 or 316. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

T Connection Parts

	_		
ØA	В	С	D
80	130	330	100
100	150	350	100
130	180	360	100
150	200	400	100
180	230	450	100
200	250	450	100
250	300	500	100
300	350	650	100
350	400	600	100
400	450	650	100
450	500	700	100
500	550	750	100
550	600	800	100
600	650	850	100
650	700	900	100
700	750	950	100
750	800	1000	100
800	850	1050	100



They are used to connect flues to smoka ducts. They are most commonly used as 90° and 87°. They are also produced as 60° or 45° in order to reduce flue resistance. It can be used at a grade of 304 and 430, particularly 316 L material grade for single-walled products, in consideration of customer request and burner device. 304 and 430 grade material request and burner device. 304 and 430 grade material Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

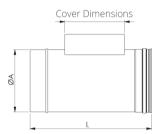




Cleaning Modules

ØA	ØB	L
80	130	400
100	150	400
130	180	400
150	200	400
180	230	400
200	250	400
250	300	450
300	350	500
350	400	500
400	450	500
450	500	500
500	550	500
550	600	500
600	650	500
650	700	500
700	750	500
750	800	500
800	850	500



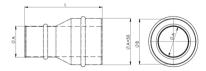


They are used at the bottom parts of flue systems. They are used for checking and cleaning flues. One unit is used on each system. They are also horizontally used on flues where horizontal lines are long. Cleaning modules are produced with square or round ports according to the type of pressure. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

Adaptor Modules

ØA	В	L
80	130	200
100	150	200
130	180	200
150	200	200
180	230	200
200	250	200
230	300	200
250	350	200
300	400	200
350	450	200
400	500	200
450	550	200
500	600	200
550	650	200
600	700	200
650	750	200
700	800	200
750	850	200
800	900	200



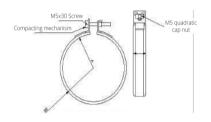


These are products intended for eliminating diameter differences of products. They can be produced from 304 or 430 stainless material. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

Module Clamp

	ØA	В	ØE
130	130	20	140
150	150	20	160
180	180	20	190
200	200	20	210
230	230	20	240
250	250	20	260
300	300	40	310
350	350	40	360
400	400	40	410
450	450	40	460
500	500	40	510
550	550	40	560
600	600	40	610
650	650	40	660
700	700	40	710
750	750	40	760
800	800	40	810



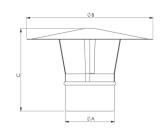


It ensures the connection of each module to one another during installation of the flue. It provides structural strength and durability to the system. Its material grade is 304 or 430. There is no wall option. It is adjusted according to the outer diameter.

Cap Modules

	ØA	В	С
130	130	330	120
150	150	350	150
180	180	380	180
200	200	400	200
230	230	430	230
250	250	450	250
300	300	500	300
350	350	550	350
400	400	600	400
450	450	650	450
500	500	700	500
550	550	750	550
600	600	800	600
650	650	850	650
700	700	900	700
750	750	950	750
800	800	1000	800







Bearing Platforms

ØA	В	L
80	350	400
100	350	400
130	350	400
150	400	450
180	400	450
200	400	450
230	450	500
250	450	500
300	450	500
350	500	550





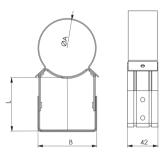


These are the base points of flues. They are used for anchoring the system and construction of products. They are manufactured from stainless material. Wall mounted and free-standing types are produced. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

Wall Clamp

ØA	В	L
130	90	50 - 190
150	110	50 - 190
180	140	50 - 190
200	160	50 - 190
230	190	50 - 190
250	210	50 - 190
300	260	50 - 190
350	310	50 - 190
400	360	50 - 190
450	410	50 - 190
500	460	50 - 190
550	510	50 - 190
600	560	50 - 190
650	610	50 - 190
700	660	50 - 190
750	710	50 - 190
800	760	50 - 190





It is the supporting element that fixes flues on vertical and horizontal lines and prevents them from separating. It is installed every three meters. It is produced from stainless products. There is no wall option. It is produced according to exterior wall measurement.

Condensation Tank

ØA	В
130	80
150	80
180	80
200	80
230	80
250	80
300	80
350	80
400	100
450	150
500	150
550	150
600	150
650	150
700	150
750	150
800	150



It is used for collection and transfer of condensate in flues. It is installed vertically below the inspection cover. It can be used horizontally on cascade systems. 304 and 430 grade material can be used as coating sheet on double walled systems. Insulation thickness is 25 mm as standard. However, it is also produced with special dimensions.

Double Walled Flex

80
100
130
150
180
200
230
250
300
350





Flex adaptor

ØA	В
80	80
100	100
130	130
150	150
180	180
200	200
230	230
250	250
300	300
350	350



Reduction

ØA	В
80	130
100	150
130	180
150	200
180	230
200	250
230	280
250	300
300	350
350	400



ACCESSORY MODULES

Connector

ØA	В
80	80
100	100
130	130
150	150
180	180
200	200
230	230
250	250
300	300
350	350



Roset

	L	D
80	110	180
100	110	200
130	110	230
150	110	250
180	110	280
200	110	300
230	110	330
250	110	350
300	110	400
350	110	450





Guy Braket

	L	Р
80	30	5
100	30	5
130	30	5
150	30	5
180	30	5
200	30	5
230	30	5
250	30	5
300	30	5
350	30	5

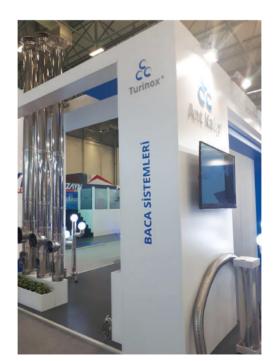








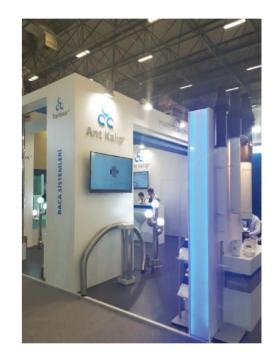






















TÜRK STANDARDLARI ENSTİTÜSÜ TÜRK STANDARDLARINA UYGUNLUK BELGESİ

TURKISH STANDARDS INSTITUTION

CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS



BELGE NUMARASI REFERENCE NUMBER OF LICENCE

BELGENİN İLK VERİLİŞ TARİHİ DATE OF FIRST ISSUE OF LICENCE

BELGENİN SON GEÇERLİLİK TARİHİ LICENCE VALID UNTIL

BELGE SAHİBİ KURULUŞUN ADI

BELGE SAHİBİ KURULUŞUN ADRESİ ADRESS OF THE LICENCE HOLDER

ÜRETİM YERİ ADI NAME OF THE MANUFACTURING PLACE

ÜRETİM YERİ ADRESİ ADRESS OF THE MANUFACTURING PLACE

IPTAL EDILEN BELGE NUMARASI (Varsa)
INDICATION OF SUPERSEDED LICENCE (if any)

TESCILLI TICARI MARKASI REGISTERED TRADE MARK

İLGİLİ TÜRK STANDARDI RELATED TURKISH STANDARD

BELGE KAPSAMI SCOPE OF LICENCE 022710-TSE-01/01

08.02.2018

08.02.2019

ANT KALIP SANAYİ VE TİCARET ANONİM ŞİRKETİ

AYDINLI MAH.BİRLİK ORG.SAN.BÖL. 1 NOLU CAD. NO:29 TUZLA İSTANBUL/TÜRKİYE

ANT KALIP SAN, VE TİC, A.Ş.

BİRLİK ORGANİZE SANAYİ BÖLGESİ, TEM YANYOL, 1. CADDE, NO:29 TUZLA/İSTANBUL İSTANBUL / TÜRKİYE

Turinox

TS EN 1856-1 / Bacalar - Metal bacalar için kurallar - Bölüm 1; Baca sistemi bileşenleri / 05.06.2012

•METAL BACALAR VE METAL BACA BİLEŞENLERİ

Turinox-S Ticari Model Tek Cidarlı, Terminalli Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T200-N1-W-Vm-L50040-Q050 Anma Çapı: Ø351 mm (Dahil)'den Ø450 mm (Dahil)'e kadar TS EN 1856-1 T200-N1-W-Vm-L50050-Q100 Anma Çapı: Ø451 mm (Dahil)'den Ø600 mm (Dahil)'e kadar TS EN 1856-1 T200-N1-W-Vm-L50060-Q150 Anma Çapı: Ø601 mm (Dahil)'en Ø800 mm (Dahil)'e kadar TS EN 1856-1 T200-N1-W-Vm-L500100-Q200

Turino-S Ticari Model Tek Cidarlı, Terminalli

08./02/2018

Belgelendirme Merkezi Başkanı Adına AHMET NÜRSİ KARTAL

TSE ISTANBUL BELGELENDIRME MÜDÜRÜ

*Bu helpe belgetelded pronon, ureim yerinin Ensitumuzun belirledigi şarıfan karşıladığını da gösterir.

*Bu belge hiç bir evrelik tilmil edilemez, kısmen veya okunmasını zorlaşlıracak şekilde çoğalılamaz, kazınlı ve şilinli yapılamaz.

*STSE ISTANBUL BBL GELENDİRME MÜDÜRLÜĞÜ *Adres: Çayırova Tren İstasyonu Yanı ÇAVIROVA/GEBZE *Tel: 2627231273* Foks: 2627231006

*TSE BELÇELENDİŞİDE MERKEZİ BAŞKANLIĞİ, Adres: Necalibey Cad. No.112 05100 Bakanlıklar/ANKARA — Tol: 0 312 416 64 81 / 416 64 27, Faks: 0 312 416 66 17

e-poald *Debligheorg.tr", web : www.tse.org.tr



ÜRKA





TÜRK STANDARDLARI ENSTİTÜSÜ TÜRK STANDARDLARINA UYGUNLUK BELGESİ EKİ

TURKISH STANDARDS INSTITUTION

CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS APPENDIX

BELGE KAPSAMI (022710-TSE-01/01nolu belge devamı) : ANT KALIP SANAYİ VE TİCARET ANONİM ŞİRKETİ İLGİLİ TÜRK STANDARDI(*RELATED TURKISH STANDARD*) TS EN 1856-1 / Bacalar - Metal bacalar için kurallar - Bölüm 1: Baca sistemi bileşenleri / 05.06.2012

Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T200-P1-W-Vm-L50040-0050 Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T200-P1-W-Vm-L50050-0050 Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T200-P1-W-Vm-L50060-0050

Turinox-D Ticari Model Çift Cidarlı, Terminalli Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T200-P1-W-Vm-L50040-0050 TS EN 1856-1 T200-P1-W-Vm-L50050-0050

Turinox-D Ticari Model Çift Cidarlı, Terminalli Anma Çapı: Ø80 mm (Dahil)'den Ø350 mm (Dahil)'e kadar TS EN 1856-1 T400-N1-W-Vm-L50040-O100 Anma Çapı: Ø351 mm (Dahil)'den Ø450 mm (Dahil)'e kadar TS EN 1856-1 T400-N1-W-Vm-L50050-O150 Anma Çapı: Ø451 mm (Dahil)'den Ø600 mm (Dahil)'e kadar TS EN 1856-1 T400-N1-W-Vm-L50060-O200 Anma Çapı: Ø601 mm (Dahil)'den Ø800 mm (Dahil)'e kadar TS EN 1856-1 T400-N1-W-Vm-L50080-O400



Belgelendirme Merkezi Başkanı Adına AHMET NURSI KARTAL

TSE İSTANBUL BELGELENDİRME MÜDÜRÜ

'60 belge het belgelendinlen unnan, ürelim yennin Enstitumuzun belirledigi şarifan karşıfadığını da gösterir.
'60 belge hiç bir süzelle tahrif edilemez, kismen veya okunmasını zorlaştıracak şakilde çoğalıblamaz, kazıntı ve sürti yapılamaz.
'TSE İSTANBUL BELGELENDIRME MÜÜÜRLÜĞÜ 'Adres: Çayırova Tren İstasyonu Yanı ÇAYIROVA/GEBZE * Tel: 2627231273 Faks: 2627231606
'TSE BELGELENDIRME MERKEZI BAŞKANLIĞI; Adres: Necalibey Cad. No:112 06100 Bokonliklar/ANKARA - Tel: 0 312 416 64 81 /416 64 27, Faks: 0 312 416 66 17
e-posta : bmb@tse.org.tr , web : www.ise.org.tr

https://evrukkontrol.tse.org.tr/BelgeDogrulama.aspx?p=pd9py875 adresinden belgenin doğruluğunu ve geçerliliğini sorgulayınız.



2/2



FABRİKA ÜRETİM KONTROLÜ UYGUNLUK BELGESİ 1783-CPR-848

Avrupa Parlementosu ve Konseyi'nin 9 Mart 2011 tarih ve 305/2011/EU sayılı Tüzüğü (Yapı Malzemeleri Tüzüğü veya CPR) uyarınca, bu belge aşağıda belirtilen yapı malzemesine uygulanır.

Kapsamı Ektedir.

ANT KALIP SANAYİ VE TİCARET ANONİM ŞİRKETİ
AYDINLI MAH.BİRLİK ORG.SAN.BÖL. 1 NOLU CAD. NO:29 TUZLA-İSTANBUL/TÜRKİYE

adı altında piyasaya sunulan

ANT KALIP SAN. VE TİC. A.Ş.
BİRLİK ORGANİZE SANAYİ BÖLGESİ, 5. Sok. NO:18 TUZLA/İSTANBUL

ve imalat tesis(ler)inde üretilmiş

Bu belge,

EN 1856-1:2009

standardı'nın ZA Eki'nde tanımlanan performansın değişmezliğinin değerlendirilmesi ve doğrulanması ile ilgili tüm hükümlerin, Sistem 2+ altında uygulandığını ve

fabrika üretim kontrolünün ilgili gereklerle uyum içerisinde olduğunun değerlendirildiğini göstermektedir.

Bu belge ilk olarak 08.06.2018 tarihinde düzenlenmiş olup, uyumlaştırılmış standart, yapı malzemesi, PDDD yöntemleri ya da üretim tesisindeki koşulları önemli ölçüde değiştirilmediği sürece, onaylanmış fabrika üretim kontrolü belgelendirme kuruluşu tarafından askıya alınmaz veya iptal edilmez ise geçerlidir.

Ankara, Rev.0, 08.06.2018



Sezai DOĞAN Direktifler Müdürü





TURKISH STANDARDS INSTITUTION

FABRİKA ÜRETİM KONTROLÜ UYGUNLUK BELGESİ EKİ

-Anma Çapı: Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Tek Duvarlı, Yağmura Karşı Koruyucu Terminalli.

TS EN 1856-1 T200-N1-W-Vm-L50040-O 050 (Turinox-S Model)

-Anma Çapı: Ø351 mm (DAHİL)'den Ø450 mm (DAHİL)'e kadar Tek Duvarlı, Yağmura Karşı Koruyucu Terminalli,

TS EN 1856-1 T200-N1-W-Vm-L50050-O100 (Turinox-S Model)

-Anma Çapı: 0451 mm (DAHİL)'den 0600 mm (DAHİL)'e kadar Tek Duvarlı , Yağmura Karşı Koruyucu Terminalli ,

TS EN 1856-1 T200-N1-W-Vm-L50060-O150 (Turinox-S Model)

- Anma Çapı: Ø601 mm (DAHİL)'den Ø800 mm (DAHİL)'e kadr Tek Duvarlı, Yağmura Karşı Koruyucu Terminalli.

TS EN 1856-1 T200-N1-W-Vm-L50100-O200 (Turinox-S Model)

- Anma Çapı : Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Tek Duvarlı , Yağmura Karşı Koruyucu Terminalli.

TS EN 1856-1 T200-P1-W-Vm-L50040-O050 (Turinox-S Model)

- Anma Çapı :from Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Tek Duvarlı , Yağmura Karşı Koruyucu Terminalli,

TS EN 1856-1 T200-P1-W-Vm-L50050-O050 (Turinox-S Model)

- Anma Çapı : from Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Tek Duvarlı , Yağmura Karşı Koruyucu Terminalli.

TS EN 1856-1 T200-P1-W-Vm-L50060-O050 (Turinox-S Model) -

- Anma Çapı: from Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Çift Duvarlı, Yağmura Karşı Koruyucu Terminalli,

TS EN 1856-1 T200-P1-W-Vm-L50040-O050 (Turinox-D Model)

TS EN 1856-1 T200-P1-W-Vm-L50050-O050 (Turinox-D Model)

- Anma Çapı: Ø80 mm (DAHİL)'den Ø350 mm (DAHİL)'e kadar Çift Duvarlı, Yağmura Karşı Koruyucu Terminalli.,

TS EN 1856-1 T400-N1-W-Vm-L50040-O 100 (Turinox-D Model)

- Anma Çapı:from Ø351 mm (DAHİL)'den Ø450 mm (DAHİL)'e kadar Çift Duvarlı, Yağmura Karşı Koruyucu Terminalli.,

TS EN 1856-1 T400-N1-W-Vm-L50050-O150 (Turinox-D Model)

- Anma Çapı: from Ø451 mm (DAHİL)'den Ø600 mm (DAHİL)'e kadar Çift Duvarlı, Yağmura Karşı Koruyucu Terminalli.,

TS EN 1856-1 T400-N1-W-Vm-L50060-O200 (Turinox-D Model)

- Anma Çapı:from Ø601 mm (DAHİL)'den Ø800 mm (DAHİL)'e kadar Çift Duvarlı, Yağmura Karşı Koruyucu Terminalli,

TS EN 1856-1 T400-N1-W-Vm-L50080-O400 (Turinox-D Model)

METAL BACA BİLESENLERİ

ı Fabrika Üretim Kontrolü Uygunluk Belgesinin ekidir.

Savfa I I



CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL

1783-CPR-848

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation-CPR), this certificate applies to the construction product

Scope is given attached.

placed on the market under the name of

ANT KALIP SANAYİ VE TİCARET ANONİM ŞİRKETİ
AYDINLI MAH.BİRLİK ORG.SAN.BÖL. 1 NOLU CAD. NO:29 TUZLA-İSTANBUL/TÜRKİYE

and produced in the manufacturing plant

ANT KALIP SAN. VE TİC. A.Ş. BİRLİK ORGANİZE SANAYİ BÖLGESİ, 5. Sok. NO:18 TUZLA/İSTANBUL

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard(s)

EN 1856-1:2009

under system 2+ are applied and that

the factory production control is assessed to be in conformity with the applicable requirements.

This certificate was first issued on 08.06.2018 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Ankara, Rev.0, 08.06.2018









TURKISH STANDARDS INSTITUTION

ANNEX OF CERTIFICATE OF COMFORMITY OF FACTORY PRODUCTION CONTROL

- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-N1-W-Vm-L50040-O 050 (Turinox-S Model)
- Nominal Diameter : from Ø351 mm (included) to Ø450 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-N1-W-Vm-L50050-O100 (Turinox-S Model)
- Nominal Diameter : from Ø451 mm (included) to Ø600 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-N1-W-Vm-L50060-O150 (Turinox-S Model)
- Nominal Diameter : from Ø600 mm (included) to Ø800 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-N1-W-Vm-L50100-O200 (Turinox-S Model)
- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-P1-W-Vm-L50040-O050 (Turinox-S Model)
- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-P1-W-Vm-L50050-O050 (Turinox-S Model)
- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Single Wall, Rain Protection Terminals, TS EN 1856-1 T200-P1-W-Vm-L50060-O050 (Turinox-S Model)
- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Double Wall, Rain Protection Terminals, TS EN 1856-1 T200-P1-W-Vm-L50040-O050 (Turinox-D Model)
 TS EN 1856-1 T200-P1-W-Vm-L50050-O050 (Turinox-D Model)
- Nominal Diameter : from Ø80 mm (included) to Ø350 mm (included) Double Wall, Rain Protection Terminals, TS EN 1856-1 T400-N1-W-Vm-L50040-O 100 (Turinox-D Model)
- Nominal Diameter :from Ø351 mm (included) to Ø450 mm (included) Double Wall, Rain Protection Terminals, TS EN 1856-1 T400-N1-W-Vm-L50050-O150 (Turinox-D Model)
- Nominal Diameter :from Ø451 mm (included) to Ø600 mm (included) Double Wall, Rain Protection Terminals, TS EN 1856-1 T400-N1-W-Vm-L50060-O200 (Turinox-D Model)
- Nominal Diameter :from Ø601 mm (included) to Ø800 mm (included) Double Wall, Rain Protection Terminals, TS EN 1856-1 T400-N1-W-Vm-L50080-O400 (Turinox-D Model)

METAL CHIMNEY PRODUCTS

Annex of 1783-CPR-848 numbered Comformity of Factory Production Control Certificate.





Materialpruefungsamt Nordrhein-Westfalen

Marsbruchstrasse 186

44287 Dortmund, Deutschland/Germany

Tel.: +49 (0)231-4502-0 Fax: +49 (0)231-458549

MPA NRW - Brandpruefzentrum Erwitte MPA NRW - Fire Testing Centre Erwitte

Auf den Thraenen 2

59597 Erwitte, Deutschland/Germany

Tel.: +49 (0)2943-897-0 Fax: +49 (0)2943-897-33

E-Mail: <u>info@mpanrw.de</u> Internet: <u>www.mpanrw.de</u>

USt.-IdNr./VAT-No.: DE 124 728 648

- Notifizierte Stelle Nr. 0432
- · Bauaufsichtlich anerkannte PÜZ-Stelle
- · Akkreditierungen:
 - ► ISO/IEC 17025 Prüf- und Kalibrierlabor
 - > ISO/IEC 17065 Produktzertifizierungsstelle
 - > ISO/IEC 17021 Zertifizierungsstelle für QM-Systeme
- · Notified Body No. 0432
- Recognized Testing, Inspection and Certification Body (German PUEZ Body)
- · Accreditations:
 - > ISO/IEC 17025 Testing and Calibration Lab
 - > ISO/IEC 17065 Product Certification Body
 - ▶ ISO/IEC 17021 Certification Body for QM-Systems



Birlik Organize Sanayi Bölgesi Tem Yanyol 1. Cadde No: 29 Posta K. 34953 Tuzla, Istanbul, TR

T: 0 216 593 24 30 **F:** 0 216 593 24 35 **E:** info@antkalip.com.tr

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