



**GRIDIRON**  
GRIGLIATI TECNICI

**STAINLESS STEEL SPECIAL PRODUCTS**

**LANGANDFULTON**

**DRAINAGE CHANNELS**

t: 0131 441 1255

sales@langandfulton.co.uk

www.langandfulton.co.uk



**LANG+FULTON IN PARTNERSHIP WITH GRIDRON,  
A LEADING ITALIAN MANUFACTURER OF DRAINAGE  
SYSTEMS, OFFERS A RANGE OF STAINLESS STEEL  
CHANNELS MADE TO THE HIGHEST QUALITY**

The Company provides a full design service or will assist with technical support during the development of a project.

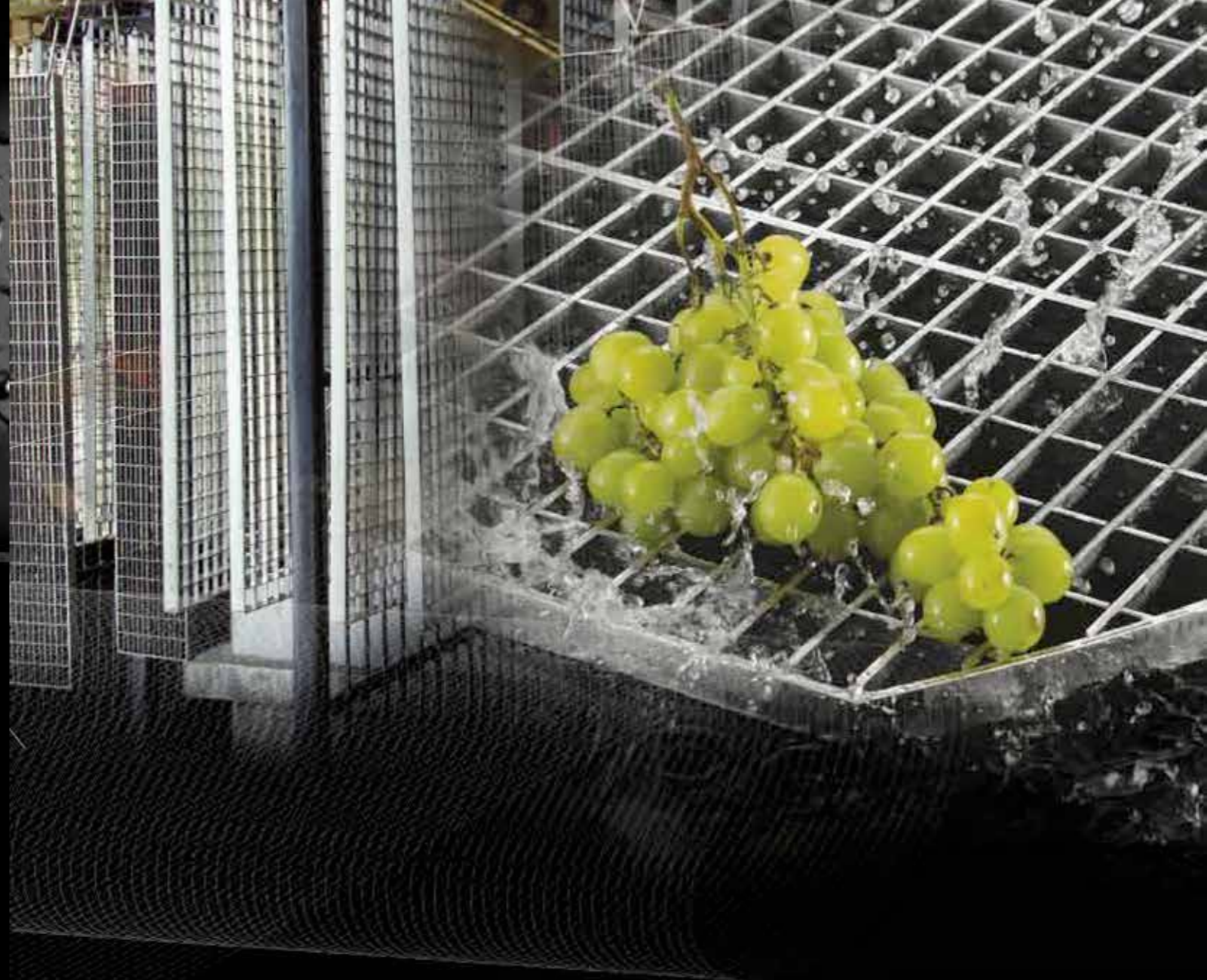
Standard sizes are available promptly from stock; custom sizes to order.

• **STAINLESS STEEL FISSURE DRAIN CHANNELS**

- standard
- custom sized

• **STAINLESS STEEL BOX DRAIN CHANNELS WITH SLOPE**

- rectangular stainless steel box drain channels
- stainless steel square box drain channels
- stainless steel rectangular box drain channels



**10 GOOD REASONS FOR CHOOSING OUR STAINLESS STEEL PRODUCTS**

- corrosion resistant
- high mechanical resistance
- easy to polish thanks to reduced surface roughness
- highly hygienic
- due to their inert material they do not change the colour, flavour or odour of what they contain
- they keep their features at a wide range of temperatures
- they have and maintain an outward appearance that is modern, bright and attractive
- they are good value for money given their long duration over time
- maintenance costs practically nil.
- eco-friendly as they are 100% recyclable



## TREATMENTS FOR STAINLESS STEEL

### CORROSION

Austenitic stainless steels have a characteristic layer of chrome oxide on the surface (created by air or produced artificially) which is very thin and invisible and which protects the material from environmental damage; this resistance mainly depends on the percentage of chrome and nickel.

When the formation of this layer of chrome oxide is prevented, or when this layer is continually destroyed, austenitic stainless steels corrode.

To achieve good resistance to corrosion it is necessary to know the types of corrosion possible and their causes, choose the suitable alloys for each application and carefully produce a design. Lastly, appropriate surface treatments need to be performed, such as de-greasing, pickling and polishing.

## SURFACE TREATMENT STAGES OF AUSTENITIC STAINLESS STEELS

### DE-GREASING

De-greasing is an operation of extreme importance for removing any trace of grease and dirt from the surfaces of stainless steel elements before giving them any heat treatment or surface finishes (such as PICKLING or ELECTRO-POLISHING). If any marks or traces of dirt or grease are on the surface, damage could be caused to the material itself or it could lead to spotting. De-greasing is normally done by immersion or by spraying a de-greasing agent like FS10. Once the treatment has been completed, the items are thoroughly rinsed by cold water under high pressure, which also provides a mechanical cleaning action.

DE-GREASING



### PICKLING

Pickling of the surfaces is usually done to eliminate oxidised crusts that form on the surface of an element or manufactured item during, for instance, hot rolling, annealing, welding, etc. This treatment is always carried out prior to electro-polishing or passivation, usually by immersion in a chemical bath consisting of sulphuric acid (20-25%), hydrofluoric acid (2-4%) and phosphoric acid (1-4%). The pickling is normally done by immersion or by the application of a pickling gel once the piece has been prepared. Once the treatment has been completed, the items are thoroughly rinsed by cold water under high pressure, which also provides a mechanical cleaning action.

PICKLING



### ELECTROLYTIC POLISHING

Electro-chemical polishing – or electro-polishing or just polishing – according to DIN 8590 regulations, forms part of the finishing procedures that remove material by passing through electricity. Electrolytic polishing consists of a bath of electrolyte solution comprising solutions of phosphoric acid (30-50%) and sulphuric acid (30-50%).

The manufactured item to electro-polish forms the anode of an electrolytic cell, while the cathode is usually formed by a plate in stainless steel AISI 304. The principle of electro-polishing is to remove material by selectively dissolving the surfaces to be treated (anode) in an electrolytic bath, under the action of the appropriate electrical equipment able to supply direct current at a voltage of 5 -15V with a current density usually between 0.2 and 0.5 A/cm<sup>2</sup>

ELECTROLYTIC POLISHING



### Benefits of electrolytic polishing:

- reduction of surface roughness on the manufactured item
- elimination of burrs from processing
- increase of the resistance to corrosion
- greater ease of removing bacteria and therefore improved hygiene properties of the item

## STAINLESS STEEL SPECIAL PRODUCTS

# STAINLESS STEEL FISSURE DRAIN CHANNELS

### STANDARD OR MADE TO MEASURE

The range of Gridiron's stainless steel AISI 304 products extends to include the exceptionally useful fissure drain channel, made with or without incorporated slope. Particularly indicated in spaces with vehicles in transit, it is extremely strong, easy to install and attractive. The fissure drain channels are available up to a maximum length of 6 m. Longer stretches can be made by using special coupling collars.





## STANDARD STAINLESS STEEL DRAIN CHANNELS

Gridiron offers a wide range of standard stainless steel drain channels for the most urgent needs, to guarantee excellent service.

### FISSURE CHANNELS WITH DRAIN SUMP

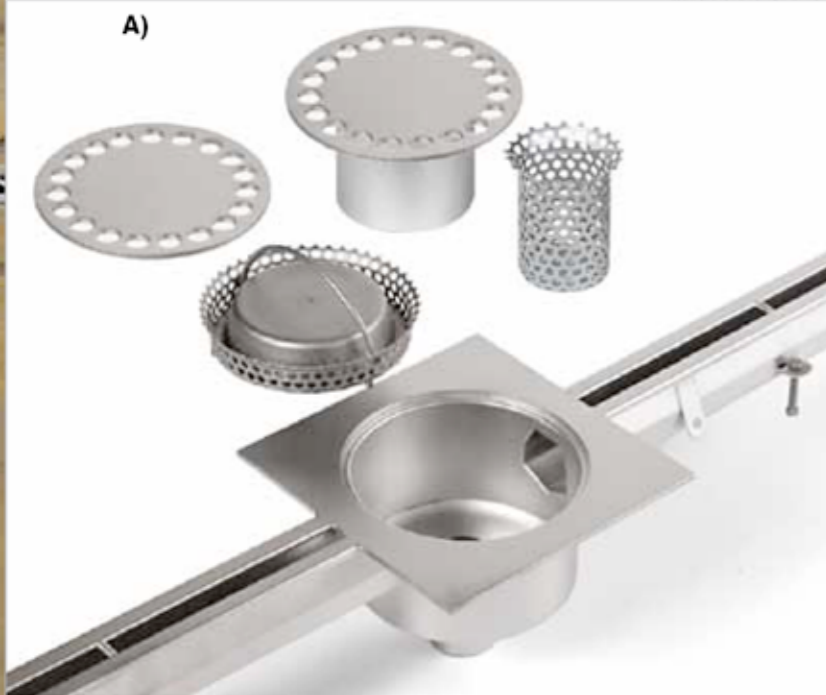
**A)** Fissure channels with vertical drain, complete with drilled plate, filter up and down-stream from the trap, entirely made in AISI 304 stainless steel.

**B)** Fissure channels with horizontal drain trap complete with cover, filter and inspection cover entirely made in AISI 304 stainless steel.

### FOUR VERSIONS AVAILABLE:

- HORIZONTAL CENTRAL DRAIN
- HORIZONTAL HEAD DRAIN
- VERTICAL CENTRAL DRAIN
- VERTICAL HEAD DRAIN

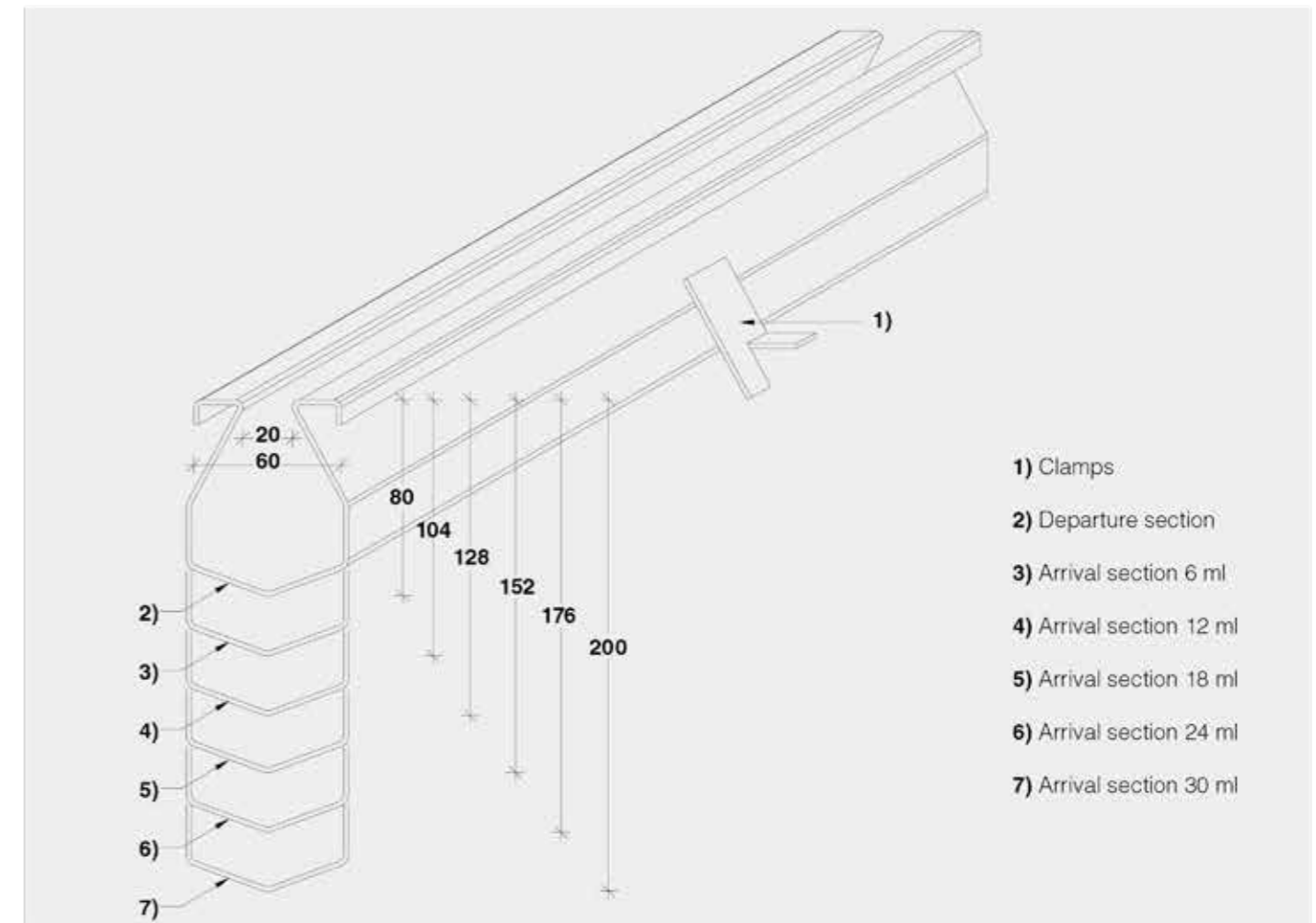
A)



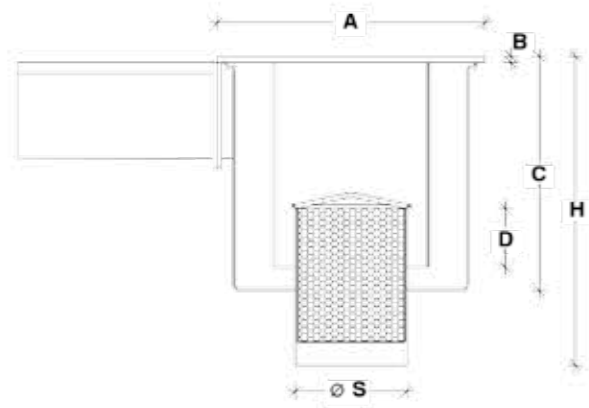
B)



## DRAWINGS AND TECHNICAL DATA STAINLESS STEEL FISSURE DRAIN CHANNELS MADE TO MEASURE

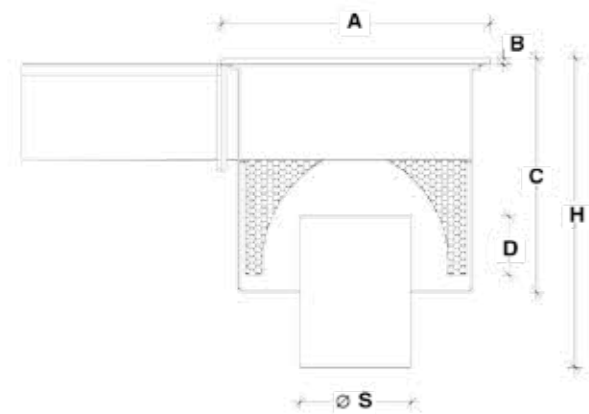


### VERTICAL DRAIN SUMP WITH DRUM AFTER THE TRAP FILTER



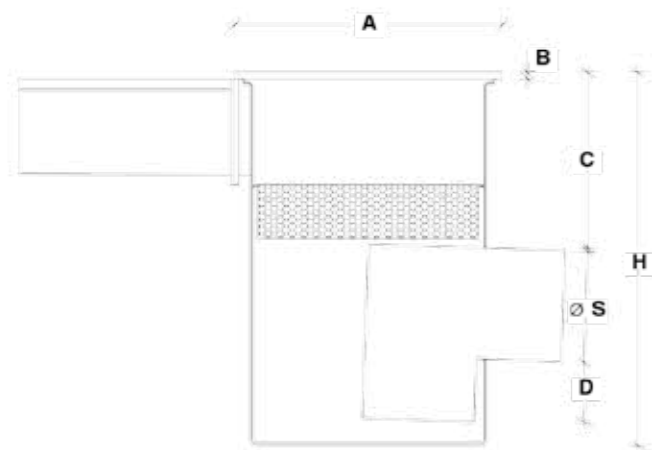
A	B	C	H	ØS	D
250	6	220	290	104	55
300	6	220	290	104	55

### VERTICAL DRAIN SUMP WITH DRUM BEFORE THE TRAP FILTER



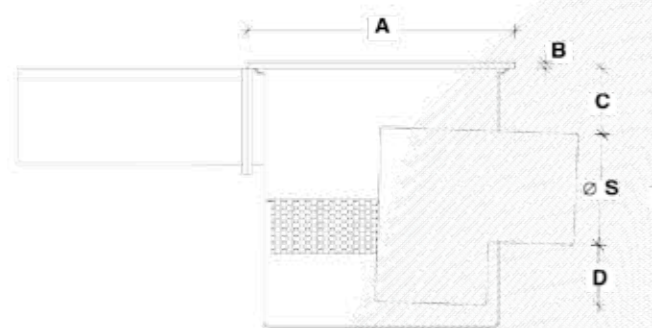
A	B	C	H	ØS	D
250	6	220	290	104	55
300	6	220	290	104	55

### HORIZONTAL DRAIN SUMP



A	B	C	H	ØS	D
250	6	165	350	104	57
300	6	165	350	104	57

### LOWERED HORIZONTAL DRAIN SUMP



A	B	C	H	ØS	D
250	6	61	250	104	57
300	6	61	250	104	57



1)



2)



3)



4)



5)



6)

## ACCESSORIES for made to measure stainless steel drain channels

Gridiron's flexibility allows custom sized fissure drain channels thanks to a set of usefull accessories for cleaning, installing and maintenance in whatever context.

- 1) Adjustable feet
- 2) Resin reinforced edges
- 3) Channel prepared for internal washing
- 4) Coupling and joint collar
- 5) 90° bend
- 6) Disposable clamps

## SPECIAL STAINLESS STEEL PRODUCTS

# STAINLESS STEEL BOX DRAIN CHANNELS WITH SLOPE

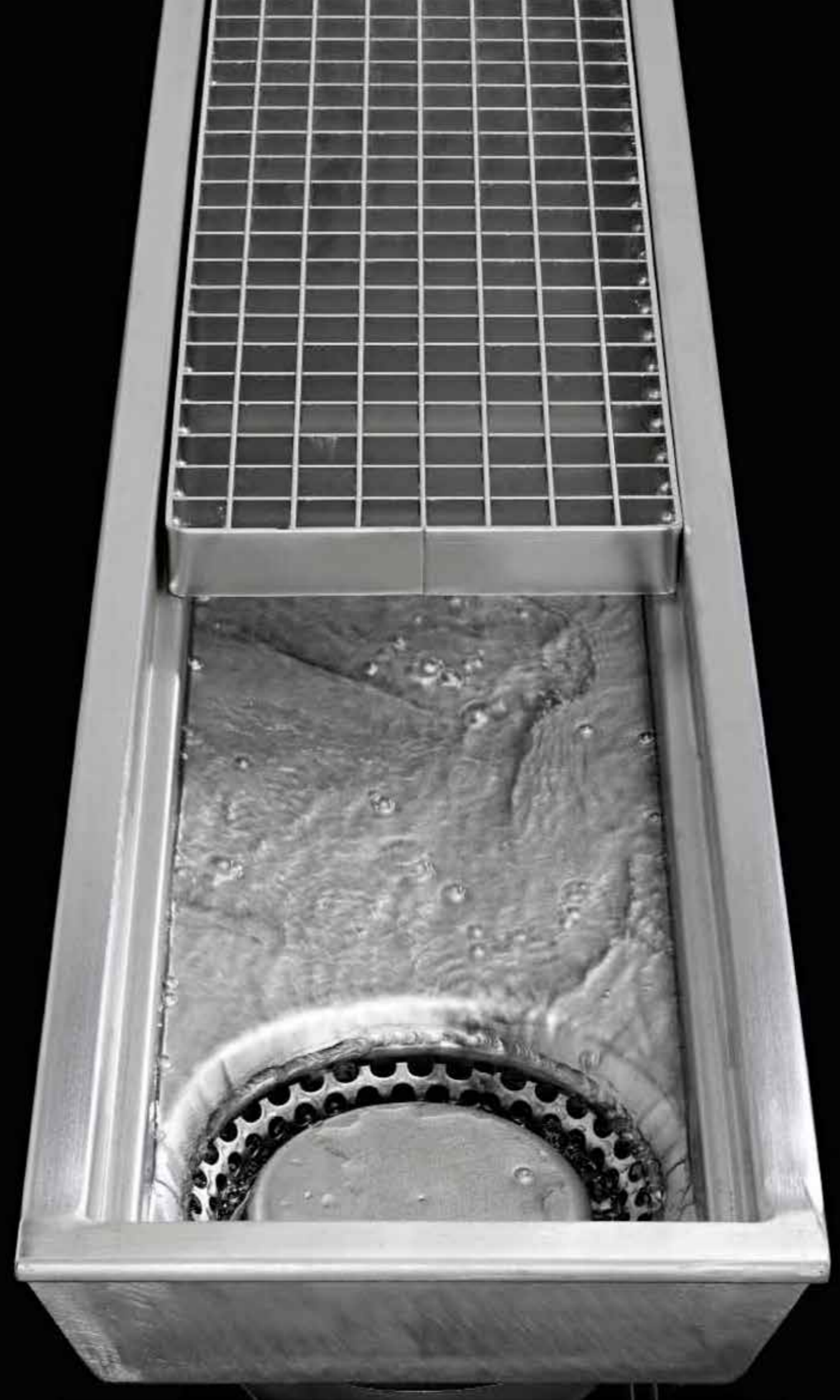
- STANDARD LOWERED STAINLESS STEEL RECTANGULAR BOX DRAIN CHANNELS
- STAINLESS STEEL SQUARE BOX DRAIN CHANNELS
- MADE TO MEASURE RECTANGULAR STAINLESS STEEL BOX DRAIN CHANNELS

The stainless steel box drain channels with slope are prefabricated elements ready for installing and inserting Gridiron grids.

Made in stainless steel AISI 304 at a thickness of 1.5 or 2 mm, they are provided with lugs at the sides for anchoring in the concrete.

They are available in lengths up to 6 m and provide perfect drain channels for the food and chemical sectors.

The central drain for liquids is complete with a filter trap to help the removal of refuse and to prevent bad smells being issued.





## STANDARD LOWERED STAINLESS STEEL RECTANGULAR BOX DRAIN CHANNELS

Gridiron offers a wide range of standard stainless steel lowered rectangular drains for the most urgent requests, to always guarantee excellent performance.

### FOR VERSIONS AVAILABLE:

- central HORIZONTAL drain
- HORIZONTAL head drain
- central VERTICAL drain
- VERTICAL head drain



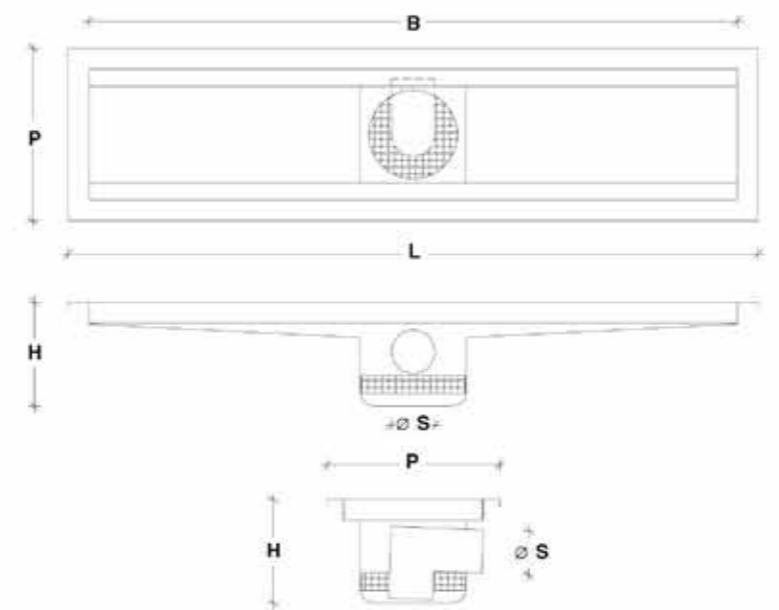
Vertical drain channel complete with filter upstream from the trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.



Horizontal drain channel complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.



### CENTRAL HORIZONTAL DRAIN for standard lowered stainless steel rectangular drain channels



Rectangular lowered drain in AISI 304 stainless steel with grid, filter trap, drum and central horizontal drain.

**Type of material:** AISI 304 stainless steel

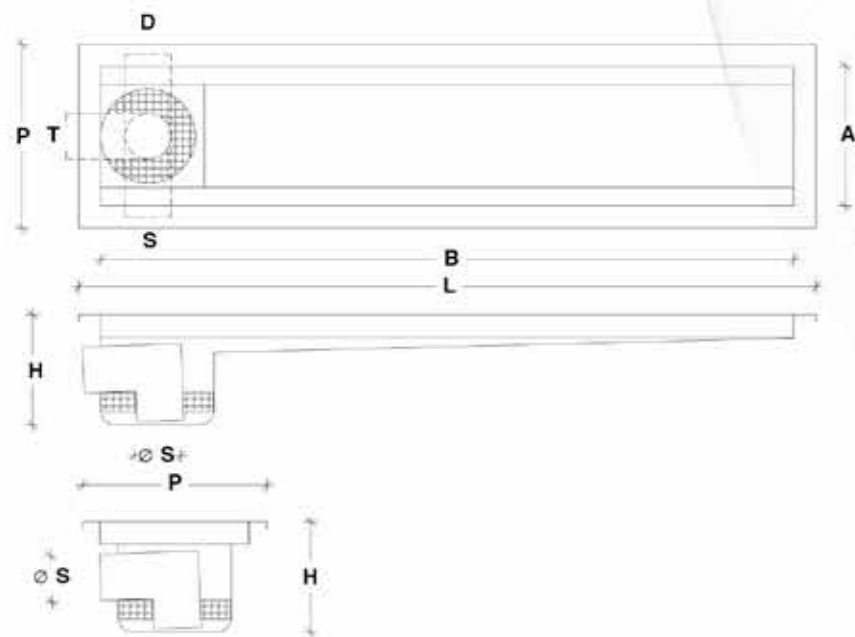
**Material thickness:** 20/10

CODE	L	B	P	A	∅ S	H
6V10ZC	1050	1000	200	150	63	160
6V11ZC	1050	1000	250	200	63	160
6V12ZC	1050	1000	300	250	63	160
6V13ZC	1050	1000	350	300	63	160
6V14ZC	1050	1000	400	350	63	160
6V15ZC	1050	1000	450	400	63	160
6V16ZC	1050	1000	500	450	63	160
6V20ZC	2050	2000	200	150	63	160
6V21ZC	2050	2000	250	200	63	160
6V22ZC	2050	2000	300	250	63	160
6V23ZC	2050	2000	350	300	63	160
6V24ZC	2050	2000	400	350	63	160
6V25ZC	2050	2000	450	400	63	160
6V26ZC	2050	2000	500	450	63	160
6V30ZC	3050	3000	200	150	63	160
6V31ZC	3050	3000	250	200	63	160
6V32ZC	3050	3000	300	250	63	160
6V33ZC	3050	3000	350	300	63	160
6V34ZC	3050	3000	400	350	63	160
6V35ZC	3050	3000	450	400	63	160
6V36ZC	3050	3000	500	450	63	160





**HORIZONTAL HEAD DRAIN**  
for standard lowered stainless steel rectangular drain channels



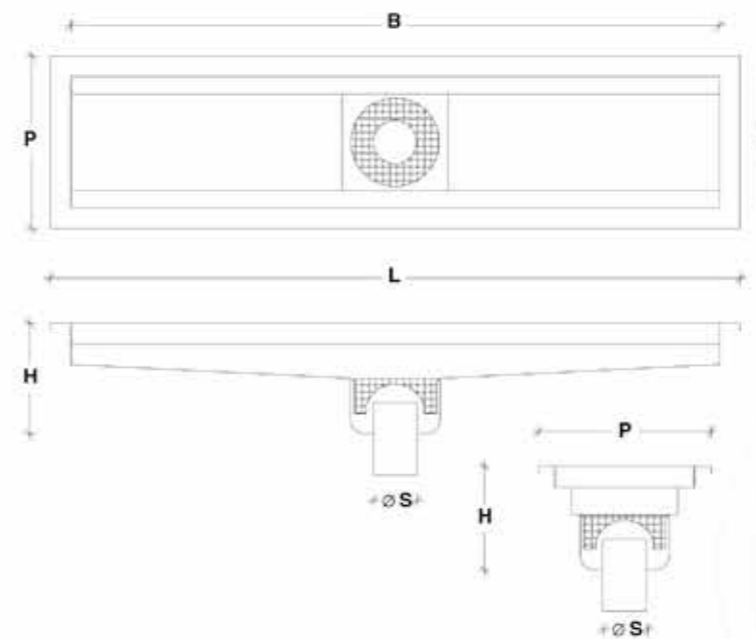
AISI 304 stainless steel rectangular lowered drain with grid, filter trap, drum and horizontal head drain.

**Type of material:** AISI 304 stainless steel

**Material thickness:** 20/10

CODE	L	B	P	A	∅ S	H
6V10ZT	1050	1000	200	150	63	160
6V11ZT	1050	1000	250	200	63	160
6V12ZT	1050	1000	300	250	63	160
6V13ZT	1050	1000	350	300	63	160
6V14ZT	1050	1000	400	350	63	160
6V15ZT	1050	1000	450	400	63	160
6V16ZT	1050	1000	500	450	63	160
6V20ZT	2050	2000	200	150	63	160
6V21ZT	2050	2000	250	200	63	160
6V22ZT	2050	2000	300	250	63	160
6V23ZT	2050	2000	350	300	63	160
6V24ZT	2050	2000	400	350	63	160
6V25ZT	2050	2000	450	400	63	160
6V26ZT	2050	2000	500	450	63	160
6V30ZT	3050	3000	200	150	63	160
6V31ZT	3050	3000	250	200	63	160
6V32ZT	3050	3000	300	250	63	160
6V33ZT	3050	3000	350	300	63	160
6V34ZT	3050	3000	400	350	63	160
6V35ZT	3050	3000	450	400	63	160
6V36ZT	3050	3000	500	450	63	160

**CENTRAL VERTICAL DRAIN**  
for standard lowered stainless steel rectangular drain channels



AISI 304 stainless steel rectangular lowered drain with grid, filter trap, drum and central vertical drain.

**Type of material:** AISI 304 stainless steel

**Material thickness:** 20/10

CODE	L	B	P	A	∅ S	H
6V10VC	1050	1000	200	150	63	130
6V11VC	1050	1000	250	200	63	130
6V12VC	1050	1000	300	250	63	130
6V13VC	1050	1000	350	300	63	130
6V14VC	1050	1000	400	350	63	130
6V15VC	1050	1000	450	400	63	130
6V16VC	1050	1000	500	450	63	130
6V20VC	2050	2000	200	150	63	130
6V21VC	2050	2000	250	200	63	130
6V22VC	2050	2000	300	250	63	130
6V23VC	2050	2000	350	300	63	130
6V24VC	2050	2000	400	350	63	130
6V25VC	2050	2000	450	400	63	130
6V26VC	2050	2000	500	450	63	130
6V30VC	3050	3000	200	150	63	130
6V31VC	3050	3000	250	200	63	130
6V32VC	3050	3000	300	250	63	130
6V33VC	3050	3000	350	300	63	130
6V34VC	3050	3000	400	350	63	130
6V35VC	3050	3000	450	400	63	130
6V36VC	3050	3000	500	450	63	130



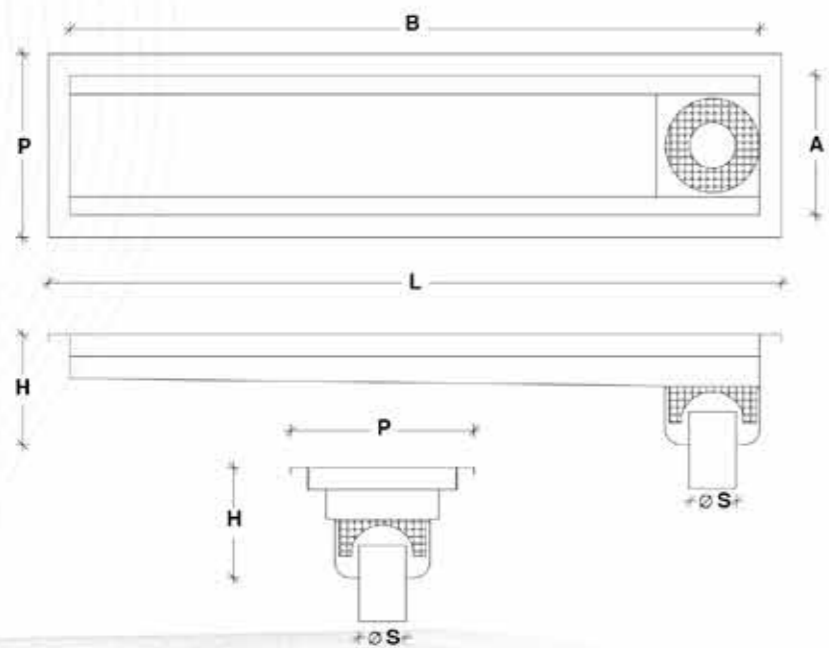
## STAINLESS STEEL SQUARE BOX DRAIN CHANNELS STANDARD LOWERED

**Square box vertical drain** complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.

**Square box horizontal drain** complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.

### VERTICAL HEAD DRAIN

for standard lowered stainless steel rectangular drain channels



AISI 304 stainless steel rectangular lowered drain with grid, filter trap, drum and vertical head drain.

**Type of material:** AISI 304 stainless steel

**Material thickness:** 20/10

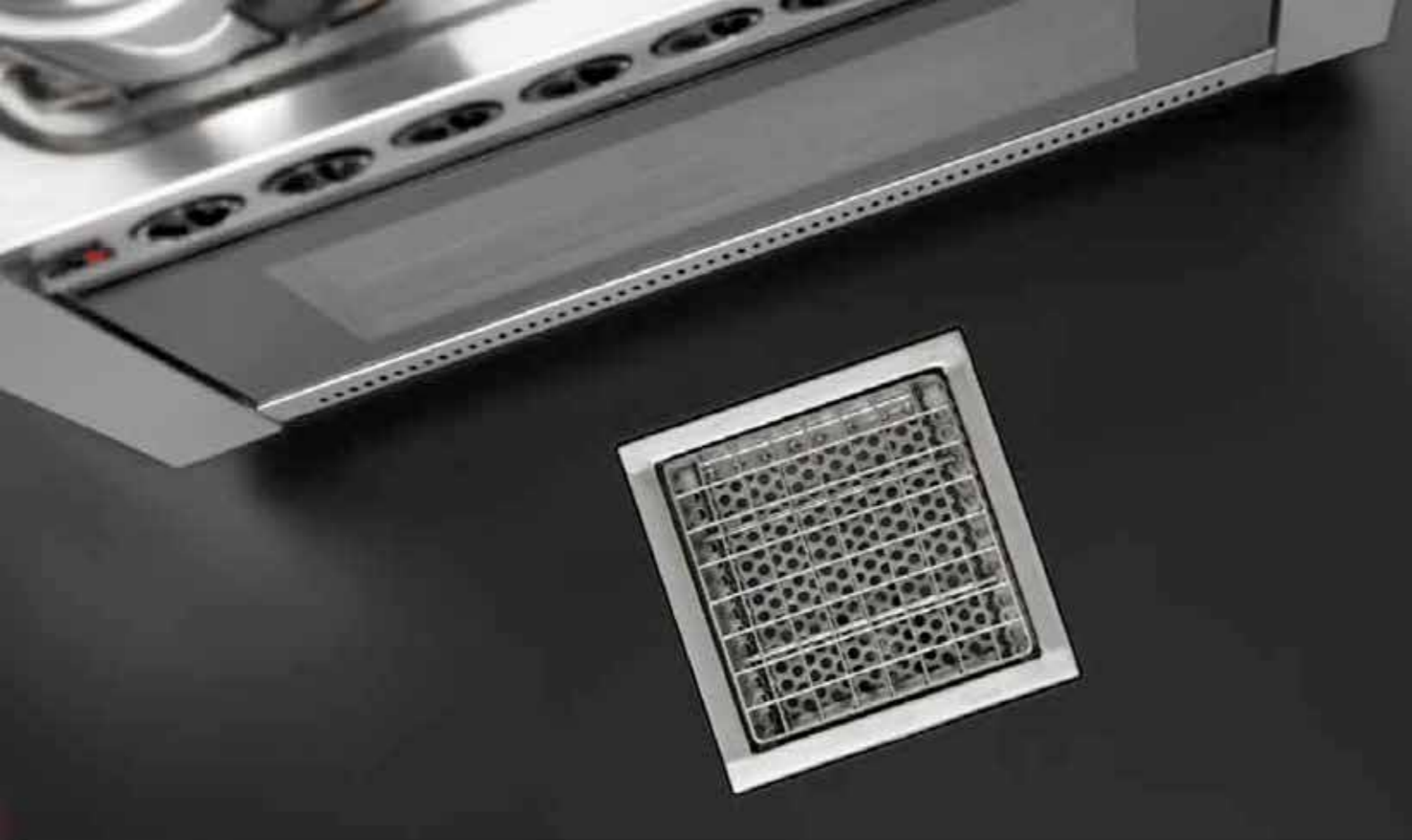
CODE	L	B	P	A	∅ S	H
6V10VT	1050	1000	200	150	63	130
6V11VT	1050	1000	250	200	63	130
6V12VT	1050	1000	300	250	63	130
6V13VT	1050	1000	350	300	63	130
6V14VT	1050	1000	400	350	63	130
6V15VT	1050	1000	450	400	63	130
6V16VT	1050	1000	500	450	63	130
6V20VT	2050	2000	200	150	63	130
6V21VT	2050	2000	250	200	63	130
6V22VT	2050	2000	300	250	63	130
6V23VT	2050	2000	350	300	63	130
6V24VT	2050	2000	400	350	63	130
6V25VT	2050	2000	450	400	63	130
6V26VT	2050	2000	500	450	63	130
6V30VT	3050	3000	200	150	63	130
6V31VT	3050	3000	250	200	63	130
6V32VT	3050	3000	300	250	63	130
6V33VT	3050	3000	350	300	63	130
6V34VT	3050	3000	400	350	63	130
6V35VT	3050	3000	450	400	63	130
6V36VT	3050	3000	500	450	63	130



**Square box vertical drain** complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.

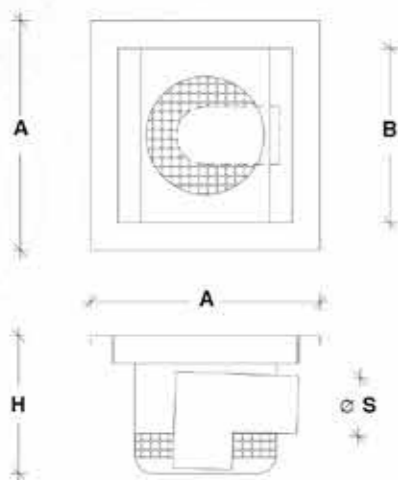


**Square box horizontal drain** complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.



### HORIZONTAL DRAIN

for standard lowered stainless steel square box drain channels



Square lowered box drain in AISI 304 stainless steel, with filter trap and grid, with drum and horizontal drain.

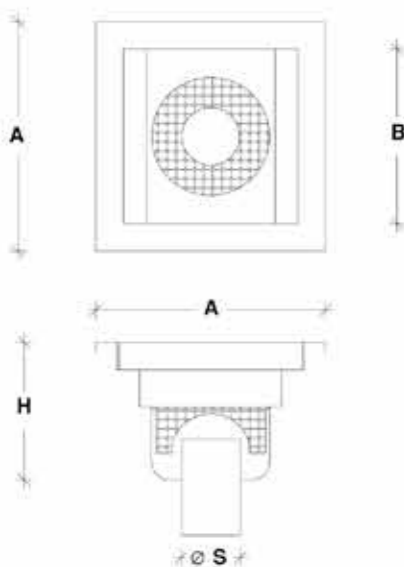
**Type of material:** AISI 304 stainless steel

**Material thickness:** 20/10

CODE	SIZE mm	A	B	Ø S	H
6970L	200X200	200	150	63	150
6971L	250X250	250	200	63	150
6972L	300X300	300	250	63	150
6973L	350X350	350	300	63	150
6974L	400X400	400	350	63	150
6975L	450X450	450	400	63	150
6976L	500X500	500	450	63	150

### VERTICAL DRAIN

for standard lowered stainless steel square box drain channels



Square lowered box drain in AISI 304 stainless steel, with filter trap and grid, with drum and horizontal drain.

**Type of material:** AISI 304 stainless steel

**Material thickness:** 20/10

CODE	SIZE mm	A	B	Ø S	H
6970V	200X200	200	150	63	150
6971V	250X250	250	200	63	150
6972V	300X300	300	250	63	150
6973V	350X350	350	300	63	150
6974V	400X400	400	350	63	150
6975V	450X450	450	400	63	150
6976V	500X500	500	450	63	150





## MADE TO MEASURE RECTANGULAR STAINLESS STEEL BOX DRAIN CHANNELS

Available with lengths up to 6 m, giving excellent drainage for the food and chemical industries. Longer stretches can be made using the special coupling collars.

The central drain is complete with filter trap which makes it easy to remove the waste and prevent unpleasant smells being formed.

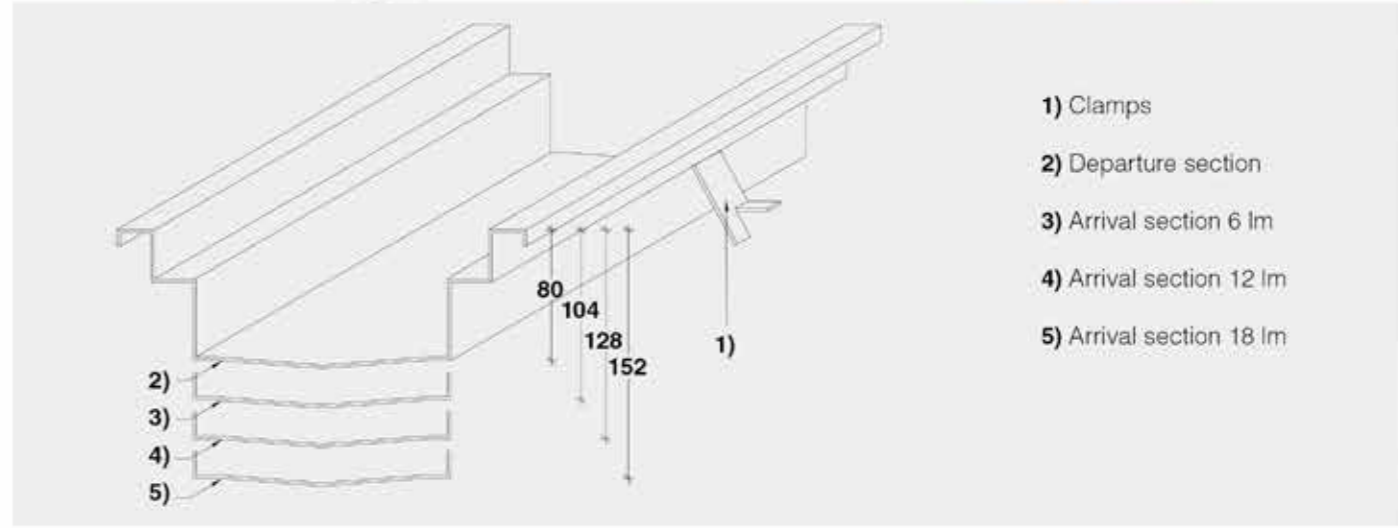


Vertical drain channel complete with filter upstream from the trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.

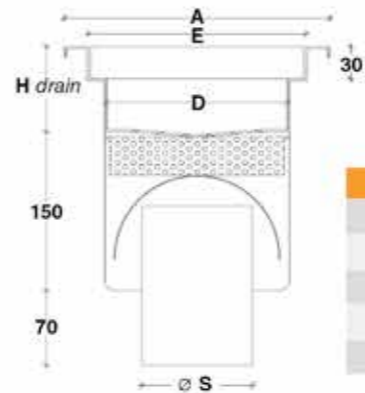


Horizontal drain channel complete with filter trap, pressure-locked pickled and polished grid, entirely made in AISI 304 stainless steel.

### DRAWINGS AND TECHNICAL DATA RECTANGULAR STAINLESS STEEL BOX DRAIN CHANNELS, MADE TO MEASURE

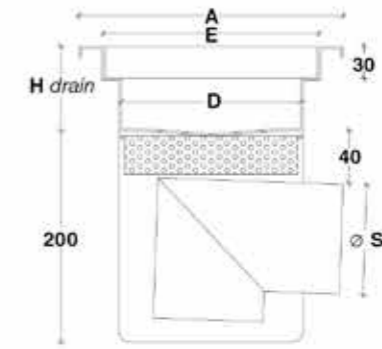


### STANDARD STAINLESS STEEL DRAIN SUMP WITH VERTICAL DRAIN



A	S	D	E
150	63	70	104
200	104	120	154
250	104	170	204
300	104	220	254
350	104	270	304

### STANDARD STAINLESS STEEL DRAIN SUMP WITH HORIZONTAL DRAIN

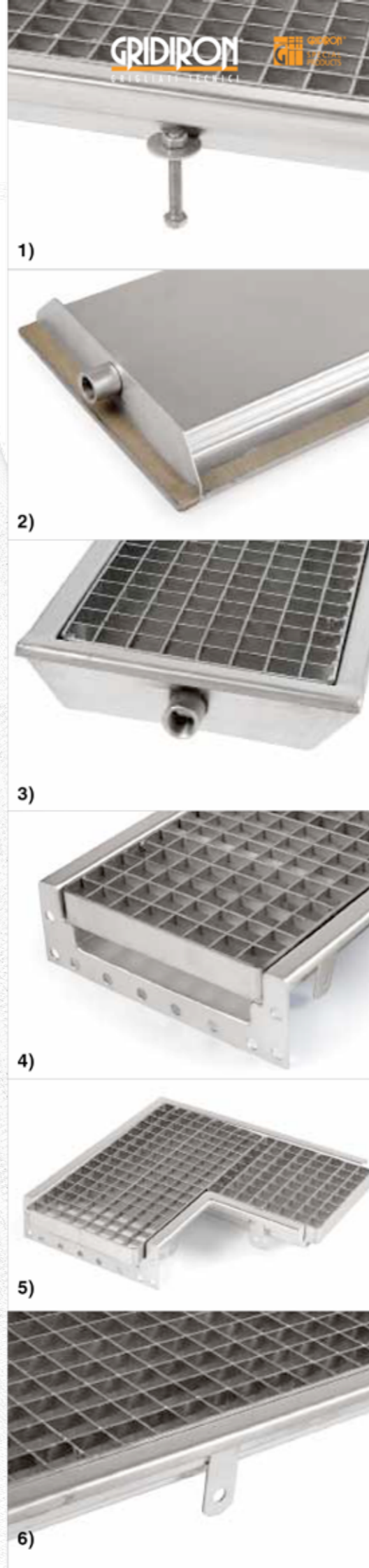


A	S	D	E
150	63	70	104
200	104	120	154
250	104	170	204
300	104	220	254
350	104	270	304

## ACCESSORIES FOR RECTANGULAR STAINLESS STEEL MADE TO MEASURE BOX DRAIN CHANNELS

Stainless steel box drains are complete with filter trap which makes it easy to remove the waste and prevent unpleasant smells being formed.

- 1) Adjustable feet
- 2) Resin reinforced edges
- 3) Prepared for the internal washing channel
- 4) Coupling and joining collar
- 5) 90° bend
- 6) Disposable clamps



## INSTALLATION EXAMPLES for stainless steels drains and channels

- 1) Flush installation and anchoring the drains to the ground
- 2) Laying the foundations reinforced with electro-welded mesh
- 3) Building the flattened foundations and laying or construction of the floor on site

