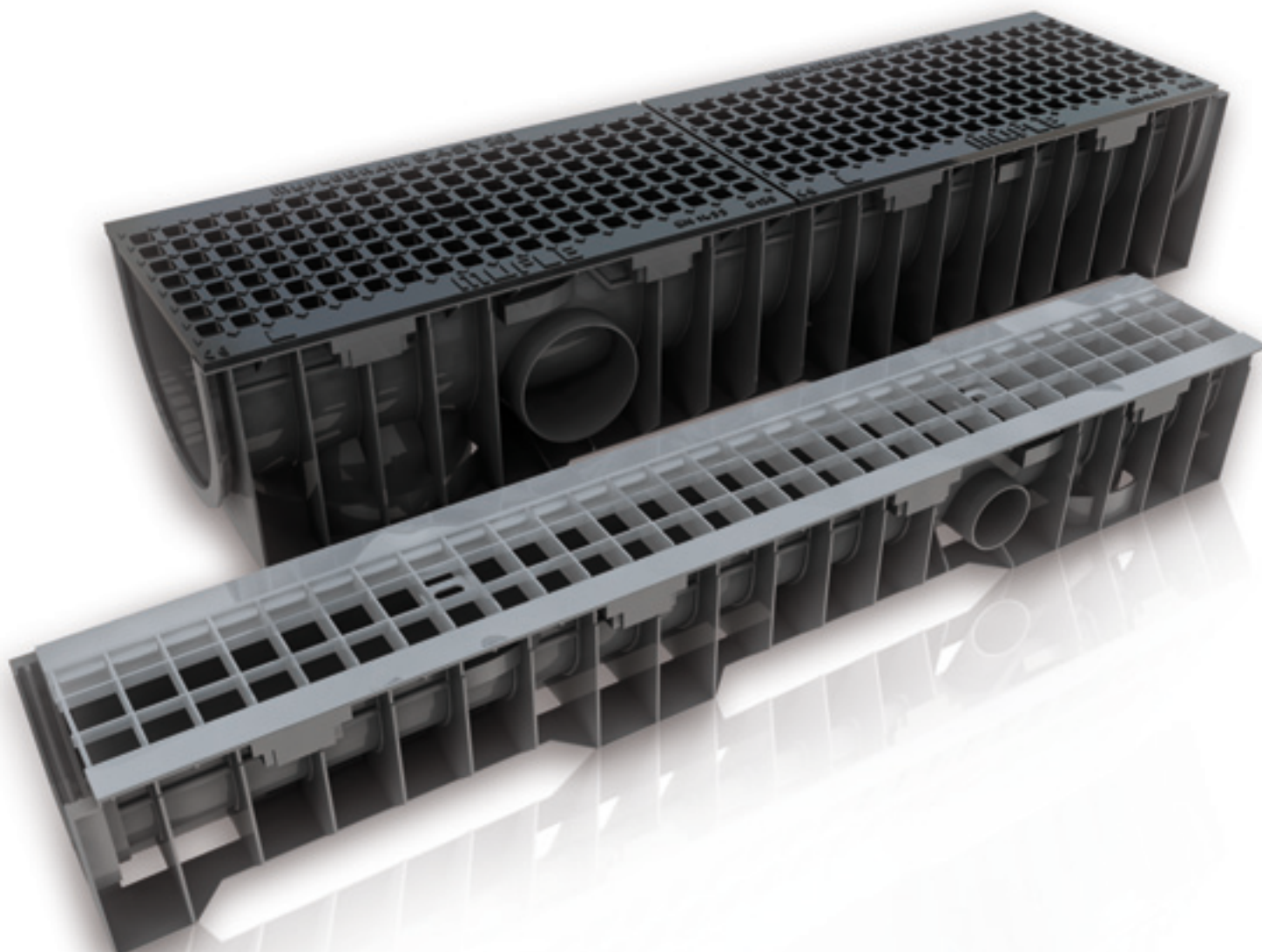




The system:

- it supports 3 load classes (A15, B125, C250) in compliance with Standard EN 1433
- it is made up of a channel - entirely made from HD-PE - which needs no strengthening frame
- it comprises 4 different types of gratings (with rungs, slots, square mesh, anti-heel mesh) made from galvanised steel, stainless steel and ductile iron
- it is supplemented with a whole series of L-shaped longitudinal- slot gratings in class C250 equipped also with drain boxes
- it comes equipped with a classic tie-rod fixing system
- it is ideal for household and civil uses, pedestrian areas, private car parks, footways, canalisation systems in roads and parking areas
- is ideal whenever high-quality aesthetic finishes are to be achieved, since the gratings rest directly on the channel's contact surface, thus covering it completely
- it comes complete with drain boxes with siphon
- the range is made up of 10 channels with 3 widths and 5 heights (100/55, 100/80, 100/100, 100/160, 150/40, 150/100, 150/160, 200/40, 200/100, 200/160, 200/250)



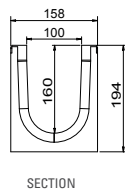
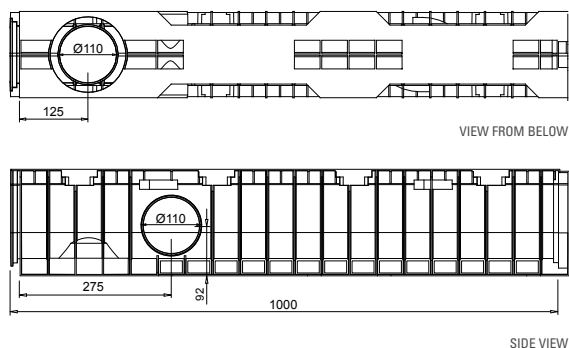


100

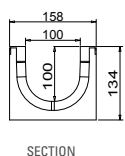
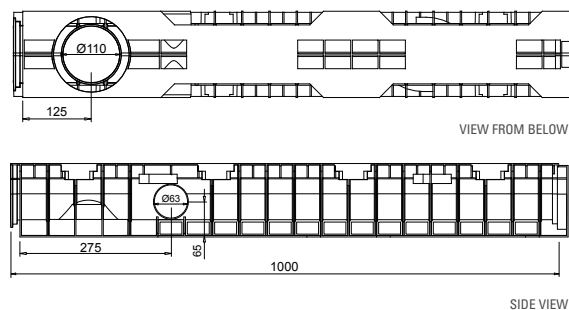


CHANNELS

**easy
100**



EASY 100/160								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SECTION	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	cm ²	dm ³	mm
700000		PE-HD	1000 x 158 x 194	1000 x 100 x 160	2,40	145,28	14,52	side 2 x Ø 110 bottom 1 x Ø 110



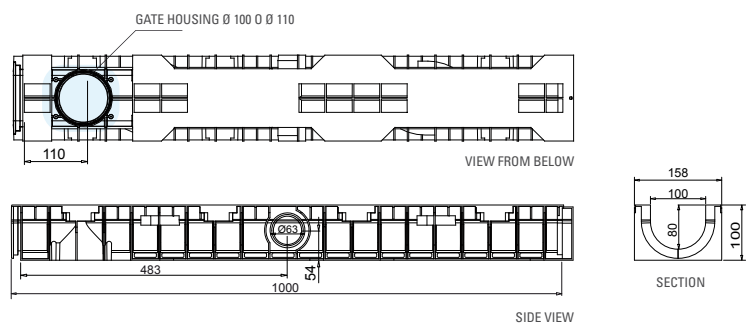
EASY 100/100								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SECTION	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	cm ²	dm ³	mm
700001		PE-HD	1000 x 158 x 134	1000 x 100 x 100	1,90	89,56	8,95	side 2 x Ø 63 bottom 1 x Ø 110

N.B. Waterproofing: in order to ensure the channels are waterproof, a bituminous adhesive sealant should be used. Heat-sealing the channel joints makes sure there will be no leakages through said joints for a very long time. For further information please contact MufleSystem's Technical Department.
N.B. Sizes and weights are subject to usual manufacturing tolerance values.

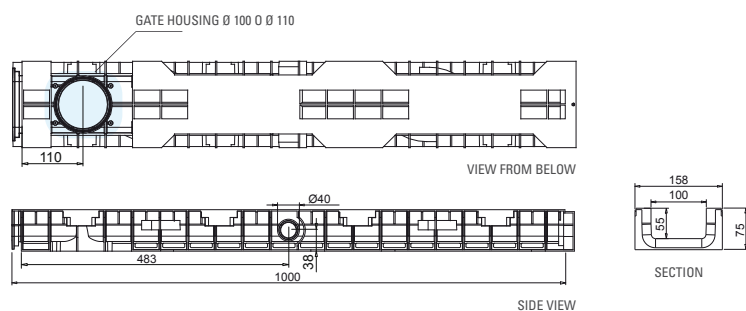


CHANNELS

**easy
100**



EASY 100/80								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SECTION	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	cm ²	dm ³	mm
700006		PE-HD	1000 x 158 x 100	1000 x 100 x 80	1,60	69,28	6,7	side 2 x Ø 63 bottom ¹ 1 x Ø 100; 1 x Ø 110



EASY 100/55								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SECTION	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	cm ²	dm ³	mm
700007		PE-HD	1000 x 158 x 75	1000 x 100 x 55	1,40	54,44	5,50	side 2 x Ø 63 bottom ¹ 1 x Ø 100; 1 x Ø 110

1- For drainage purposes use the drain gate with outlet kit (available in two versions Ø100 and Ø110).

N.B. Waterproofing: in order to ensure the channels are waterproof, a bituminous adhesive sealant should be used. Heat-sealing the channel joints makes sure there will be no leakages through said joints for a very long time. For further information please contact MufleSystem's Technical Department.

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS



A 15

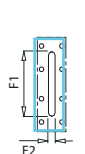
**easy
100**

APPLICATIONS OF GALVANISED STEEL

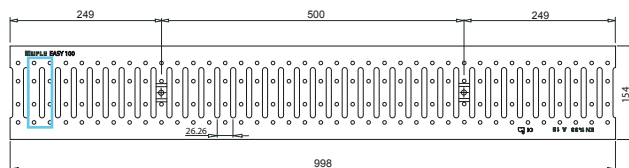
Green areas and parks
Pedestrian areas and/or cycle lanes
Sports facilities
Terraces

APPLICATIONS OF STAINLESS STEEL

Green areas and parks
Pedestrian areas and/or cycle lanes
Sports facilities
Terraces
Kitchens in hospitals, restaurants and similar facilities



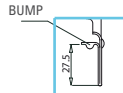
SLOT DETAIL



VIEW FROM ABOVE



SIDE VIEW


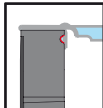


BUMP DETAIL



SLOTTED GRATING



CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	bugna
500109		galvanised steel DX51D³	998 x 154 x 2,5	1,80	2,68	83,0 x 8,5		
500111		pickled stainless steel AISI 304²						
500170		galvanided steel DX51D³	498 x 154 x 2,5	0,90	1,34			
500172		pickled stainless steel AISI 304²						

2- Classification according to American Standard ASTM.

3- Classification according to Standard EN 10142 (2002) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS



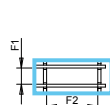
**easy
100**

APPLICATIONS OF GALVANISED STEEL

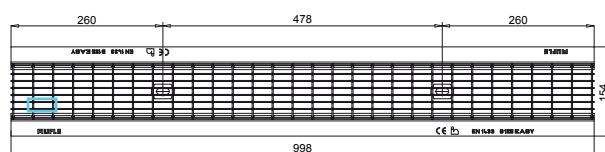
Pavements
Lay-bys and private car parks

APPLICATIONS OF STAINLESS STEEL

Pavements
Lay-bys and private car parks
Food factories
Chemically aggressive environments



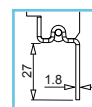
DETAIL OF
HOOKING
SYSTEM



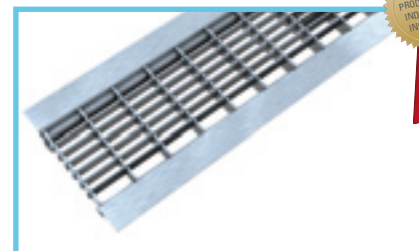
VIEW FROM ABOVE



SIDE
VIEW




DETAIL OF
UPRIGHT
BEND



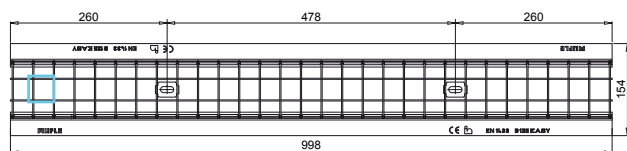
ANTI-HEEL MESH GRATING



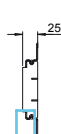
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500105		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 154 x 1,8	3,90	6,66	10,2 x 32,2		up to Class C250 as per Standard EN 1433
500104		pickled stainless steel AISI 304 ²						
500166		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 154 x 1,8	1,95	3,33			
500165		pickled stainless steel AISI 304 ²						



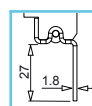
DETAIL OF
SQUARE
MESH



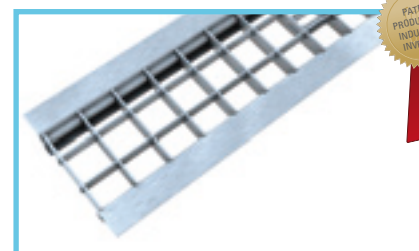
VIEW FROM ABOVE



SIDE
VIEW





BEND DETAIL
MONTANTE



SQUARE MESH GRATING



SQUARE MESH GRATING								
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod no fixing	
500106		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 154 x 1,8	3,30	9,50	34,2 x 32,2		up to Class C250 as per Standard EN 1433
500108		pickled stainless steel AISI 304 ²						
500167		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 154 x 1,8	1,65	4,75			
500169		pickled stainless steel AISI 304 ²						

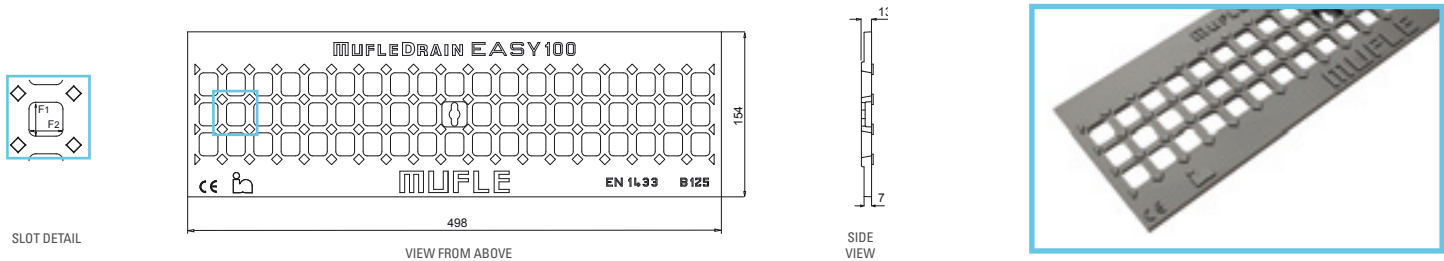
2- Classification according to American Standard ASTM.



5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

APPLICATIONS OF DUCTILE IRON

Pavements
Lay-bys and private car parks



MESH GRATING								
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500143		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 154 x 7	3,00	2,15	21,5 x 17,5		up to class C250 as per Standard EN 1433

6- Classification according to Standard EN 1653 (2009).



SLOTTED GRATING T

TYPE C 250
MIDDLE
DRIVEWAY

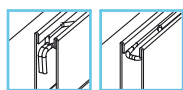
**easy
100**

APPLICATIONS OF GALVANISED STEEL

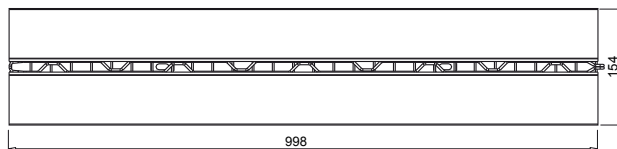
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements

APPLICATIONS OF STAINLESS STEEL

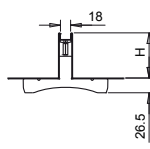
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements



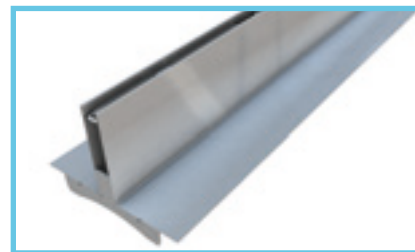
DETAIL OF HOOKING
SYSTEM⁸



VIEW FROM ABOVE



SIDE VIEW



T-SHAPED GRATING

CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	HEIGHT OF SLOTS H	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 x F2
	€		mm	mm	kg	dm²	mm
500206		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 154 x 106,5	80	4,80	1,80	998 x 18
500218		pickles stainless steel AISI 304 ²					
500207		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 154 x 146,5	120	5,90	1,80	
500243		pickles stainless steel AISI 304 ²					

2- Classification according to American Standard ASTM.

5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

8- Hooking System between the gratings through hooks and holes.

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

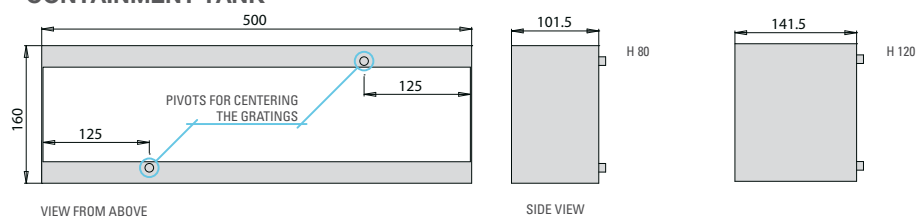


INSPECTION ELEMENT FOR T-SHAPED GRATING

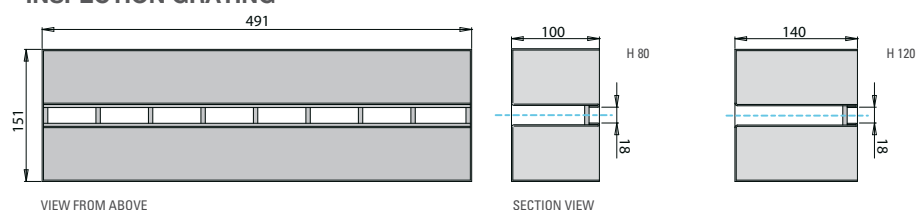
TYPE C 250
MIDDLE
DRIVEWAY

**easy
100**

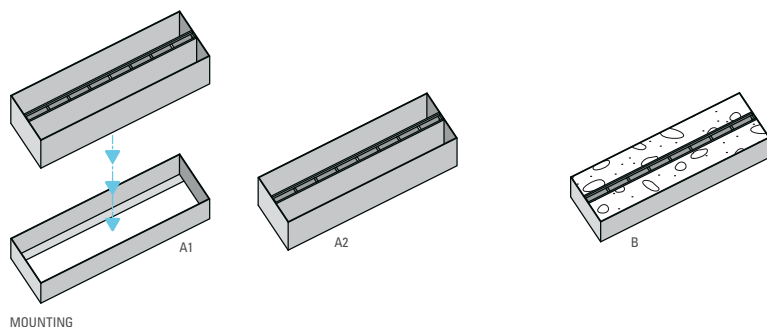
CONTAINMENT TANK



INSPECTION GRATING



The inspection element for the T-shaped gratings shall be assembled together with the drain box with siphon EASY in HD-PE as showed in the picture. Please see page 44 for the details of the drain box with siphon.



INSPECTION ELEMENT FOR T-SHAPED GRATING - EASY 100

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500219		hot galvanised steel DD11 (1.0332) ⁵	H80 500 x 160 x 101,5	491 x 18	1,8	5,70
500231		pickled stainless steel AISI 304 ²	H80 500 x 160 x 101,5	491 x 18	1,8	5,30
500220		hot galvanised steel DD11 (1.0332) ⁵	H120 500 x 160 x 141,5	491 x 18	1,8	7,70
500232		pickled stainless steel AISI 304 ²	H120 500 x 160 x 141,5	491 x 18	1,8	7,10

HOOK FOR TAKING OFF THE GRATING INSPECTION ELEMENT

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500254		hot galvanised steel DD11 (1.0332) ⁵	710 x 180	—	—	0,65

2- Classification according to American Standard ASTM.

5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



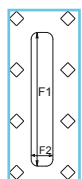
GRATINGS



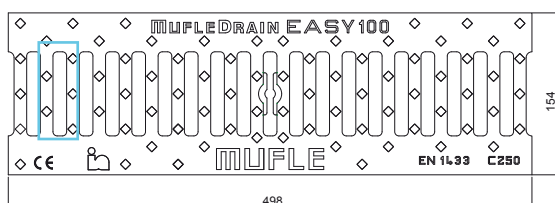
**easy
100**

APPLICATIONS OF DUCTILE IRON

Kerbs
Historical town centres (slow traffic)
Parking areas
Parking decks



SLOT DETAIL


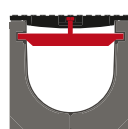


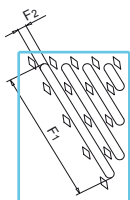
VIEW FROM ABOVE



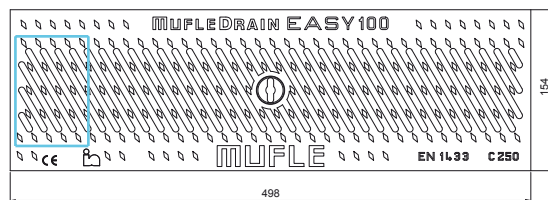
SIDE VIEW



SLOTTED GRATING 13 mm							 15 mm	
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500144		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 154 x 7	4,20	2,10	80,0 x 13,0		up to Class C250 as per Standard EN 1433



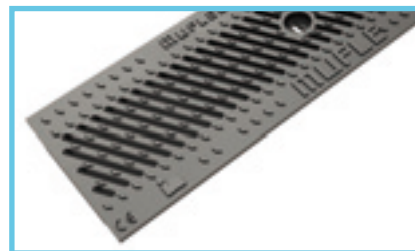
SLOT
DETAIL





VIEW FROM ABOVE



SIDE
VIEW



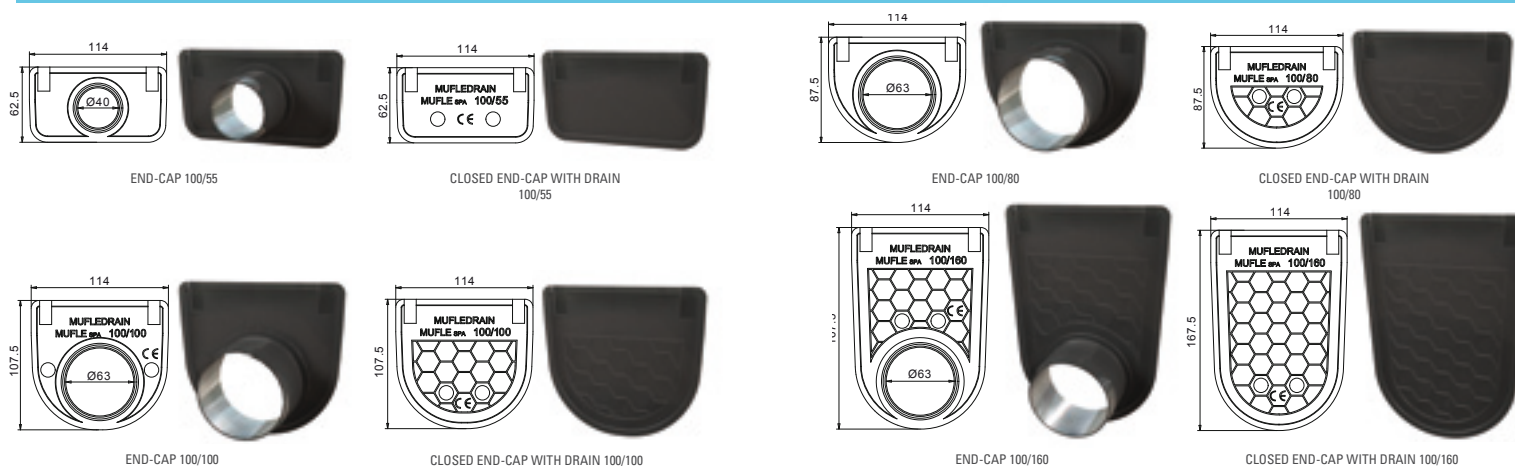
SLOTTED GRATING 6 mm							 14 mm	
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod no fixing	
500146		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 154 x 7	3,90	1,90	91,5 x 6,0		up to Class C250 as per Standard EN 1433

6- Classification according to Standard EN 1563 (2009).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



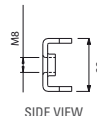
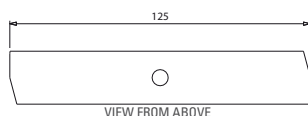
ACCESSORIES

**EASY
100**



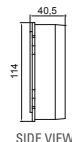
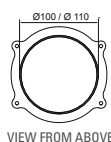
END CAPS

CODE	PRICE	TYPE	MATERIAL	VALID FOR CHANNELS	PREINSTALLED DRAIN
€					
700500		end-cap with drain	PE-HD	100/55	1 x Ø 40
700508		closed end-cap	PE-HD	100/55	-
700501		end-cap with drain	PE-HD	100/80	1 x Ø 63
700509		closed end-cap	PE-HD	100/80	-
700502		end-cap with drain	PE-HD	100/100	1 x Ø 63
700510		closed end-cap	PE-HD	100/100	-
700503		end-cap with drain	PE-HD	100/160	1 x Ø 63
700511		closed end-cap	PE-HD	100/160	-



KIT TIE-ROD + SCREWS

CODE	PRICE	MATERIAL	VALID FOR GRATINGS	SCREW	KIT FOR 1ml
€					
500412		galvanised steel	EASY galvanised steel	M8 x 40 TBL combi	2 tie-rods + 2 screws
500413		stainless steel	EASY stainless steel	M8 x 40 TBL combi stainless steel	2 tie-rods + 2 screws
500414		black galvanised steel	EASY ductile iron	M8 x 40 black with hexagonal head	2 tie-rods + 2 screws



KIT OUTLET + SCREWS

CODE	PRICE	MATERIAL	VALID FOR CHANNELS	DIAMETER	KIT FOR 1 ml
€					
				mm	
506114		PE-HD	100/55 - 100/80	Ø 100	1 outlet Ø 100 + 4 screws
506115		PE-HD	100/55 - 100/80	Ø 110	1 outlet Ø 110 + 4 screws

CONNECTOR FOR STEP-SLOPE

CODE	PRICE	VALID FOR CHANNELS	FAMILIES
€			
700526		from 100/100 to 100/160	EASY - VIP - SMART - SLOPE - WING - PLUS

Utilising Mufle's distinctive step connector system, it is possible to connect drainage channels of differing heights to create greater efficiencies in hydraulic velocity and channel capacity. These efficiencies create benefits in increased drainage performance, outlet number reduction for longer continuous drainage runs, increased self cleansing ability and lower installation costs. Stepped channel are typically recognised by structured increases in neutral channel depths towards a nominated outlet along a specific drainage channel run/length.



N.B. Sizes and weights are subject to usual manufacturing tolerance values.

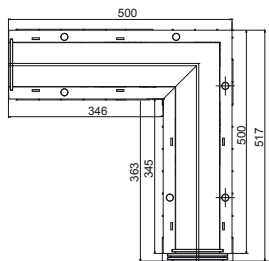


SPECIAL PIECES AND DRAIN BOX WITH SYPHON

**easy
100**

LEFT CORNER

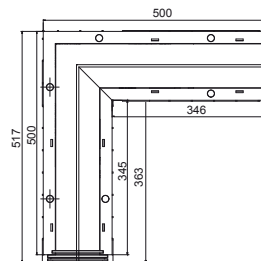
EASY 100



CODE	PRICE €	MODEL
700100		100/160
700101		100/100
700143		100/80
700144		100/55

RIGHT CORNER

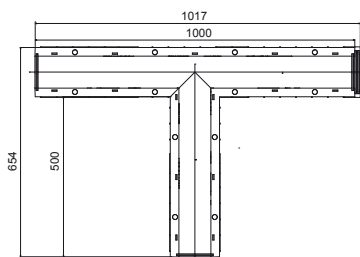
EASY 100



CODE	PRICE €	MODEL
700106		100/160
700107		100/100
700145		100/80
700146		100/55

LEFT TI

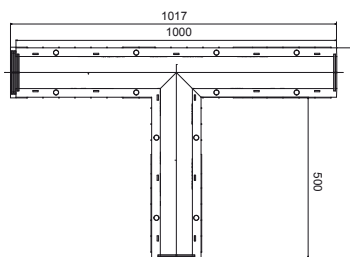
EASY 100



CODE	PRICE €	MODEL
700112		100/160
700113		100/100
700147		100/80
700148		100/55

RIGHT TI

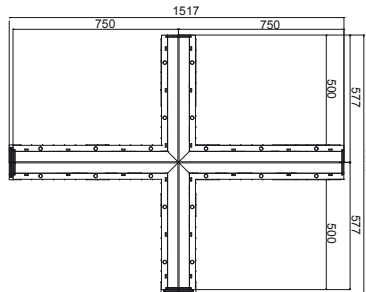
EASY 100



CODE	PRICE €	MODEL
700118		100/160
700119		100/100
700149		100/80
700150		100/55

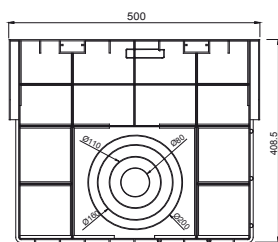
CROSS

EASY 100

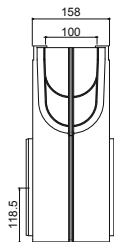


CODE	PRICE €	MODEL
700124		100/160
700125		100/100
700151		100/80
700152		100/55

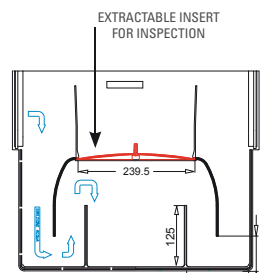
DRAIN BOX WITH SYPHON



FRONT VIEW



SIDE VIEW



SECTION

EASY 100

CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	MAXIMUM LARGE mm	HEIGHT OF OUTLETS mm	WEIGHT kg	PREINSTALLED DRAIN mm
700008		PE-HD	500 x 158 x 407	500 x 100 x 400	185	118,5	2,50	2 x Ø 110; 2 x Ø 160; 2 x Ø 200

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

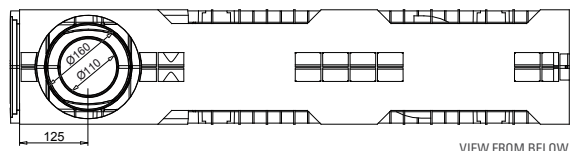


150

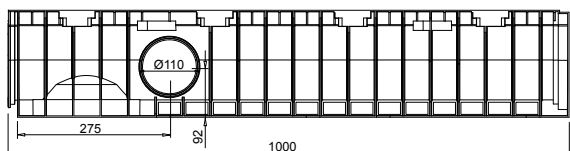


CHANNELS

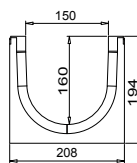
**easy
150**



VIEW FROM BELOW



SIDE VIEW

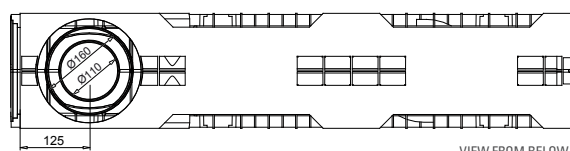


SECTION

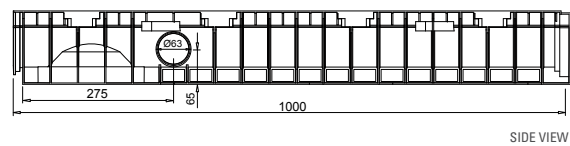


EASY 150/160

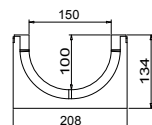
CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SECTION cm ²	CAPACITY dm ³	PREINSTALLED DRAIN mm
700002		PE-HD	1000 x 208 x 194	1000 x 150 x 160	2,85	213,04	21,30	side 2 x Ø 110 bottom 1 x Ø 110; 1 x Ø 160



VIEW FROM BELOW



SIDE VIEW

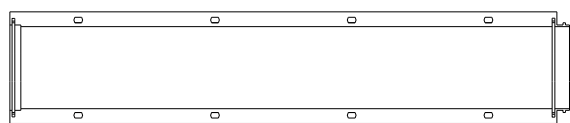


SECTION

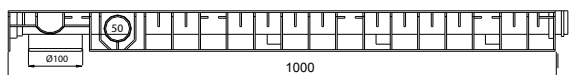


EASY 150/100

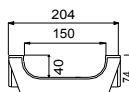
CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SECTION cm ²	CAPACITY dm ³	PREINSTALLED DRAIN mm
700003		PE-HD	1000 x 208 x 134	1000 x 150 x 100	2,30	127,32	12,73	side 2 x Ø 63 bottom 1 x Ø 110; 1 x Ø 160



VIEW FROM BELOW



SIDE VIEW



SECTION



EASY 150/40¹⁶

CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SECTION cm ²	CAPACITY dm ³	PREINSTALLED DRAIN mm
500004		PE-HD	1000 x 204 x 74	1000 x 150 x 40	1,90	56,50	5,65	side 2 x Ø 50 bottom 1 x Ø 100

16- For the channels 150/40 and 200/40 the grating will be supplied already with holes and the fixing system will be through kit angles. For the item codes please see the price list.
N.B. Waterproofing: in order to ensure the channels are waterproof, a bituminous adhesive sealant should be used. Heat-sealing the channel joints makes sure there will be no leakages through said joints for a very long time. For further information please contact MufleSystem's Technical Department.
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS



A 15

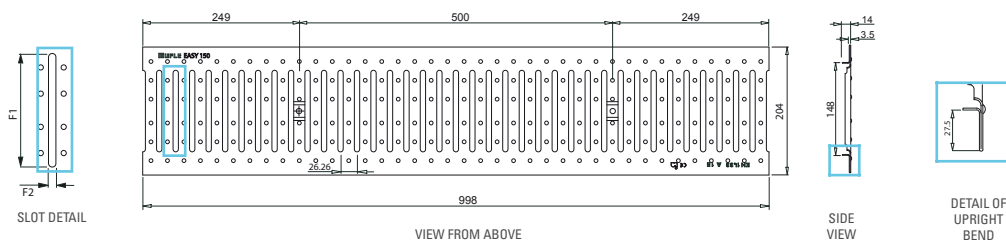
easy
150



APPLICATIONS OF GALVANISED STEEL

Green areas and parks
Pedestrian areas and/or cycle lanes
Sports facilities
Terraces

APPLICATIONS OF STAINLESS STEEL

Green areas and parks
Pedestrian areas and/or cycle lanes
Sports facilities
Terraces
Kitchens in hospitals, restaurants and similar facilities



SLOTTED GRATING								
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500123		galvanised steel DX51D³	998 x 204 x 3,5	3,30	4,20	130,0 x 8,5		up to Class C250 as per Standard EN 1433
500124		pickled stainless steel AISI 304²						
500184		galvanised steel DX51D³	498 x 204 x 3,5	1,65	2,10			
500185		pickled stainless steel AISI 304²						

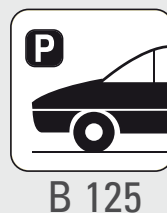
2- Classification according to American Standard ASTM.

3- Classification according to Standard EN 10142 (2002) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS



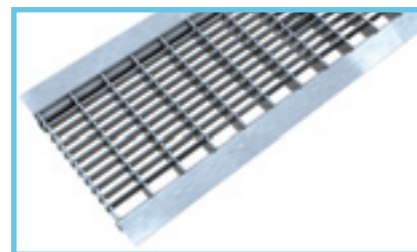
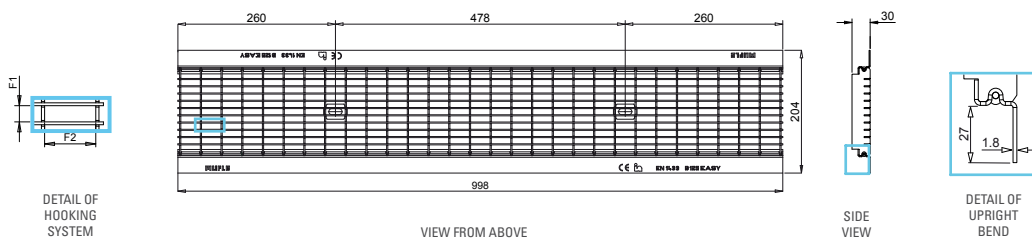
**easy
150**

APPLICATIONS OF GALVANISED STEEL

Pavements
Lay-bys and private car parks


APPLICATIONS OF STAINLESS STEEL

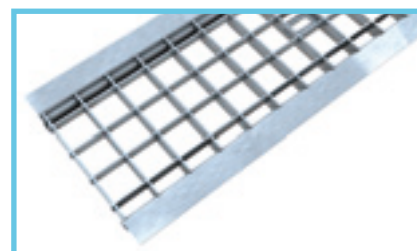
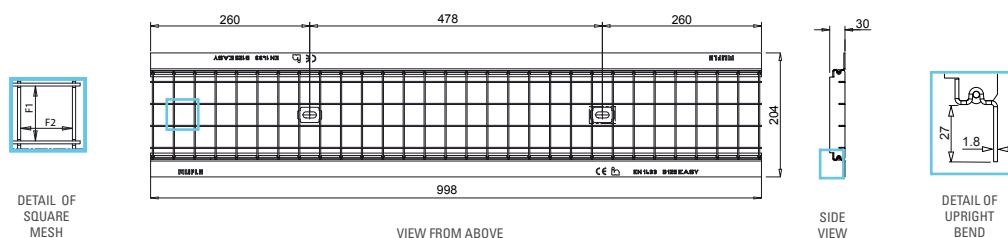
Pavements
Lay-bys and private car parks
Food factories
Chemically aggressive environments



ANTI-HEEL MESH GRATING


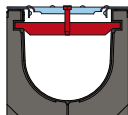


CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500117		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 204 x 1,8	5,40	10,50	10,2 x 32,2		up to Class C250 as per Standard EN 1433
500119		pickled stainless steel AISI 304 ²						
500178		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 204 x 1,8	2,70	5,25			
500180		pickled stainless steel AISI 304 ²						



SQUARE MESH GRATING



SQUARE MESH GRATING								
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod no fixing	
500120		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 204 x 1,8	4,60	12,77	34,2 x 32,2		up to Class C250 as per Standard EN 1433
500122		pickled stainless steel AISI 304 ²						
500181		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 204 x 1,8	2,30	6,38			
500183		pickled stainless steel AISI 304 ²						

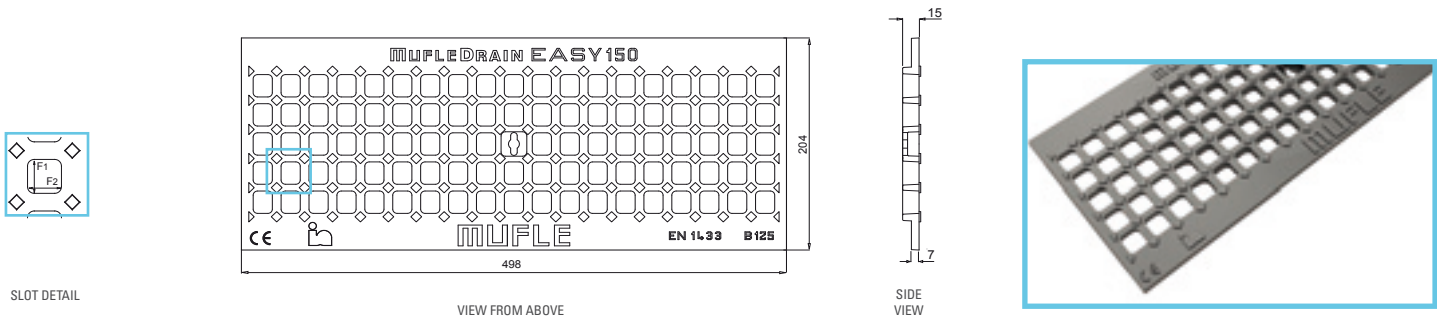
2- Classification according to American Standard ASTM.


5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

APPLICATIONS OF DUCTILE IRON

Pavements
Lay-bys and private car parks



MESH GRATING								
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SURFACE dm²	OPENINGS F1 x F2 mm	FIXING SYSTEM	
	€						tie-tod	no fixing
500149		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 204 x 7	4,70	3,58	21,5 x 17,5		up to Class C250 as per Standard EN 1433

6- Classification according to Standard EN 1563 (2009).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



SLOTTED GRATINGS T

TYPE C 250
MIDDLE
DRIVEWAY

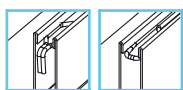
**easy
150**

APPLICATIONS OF GALVANISED STEEL

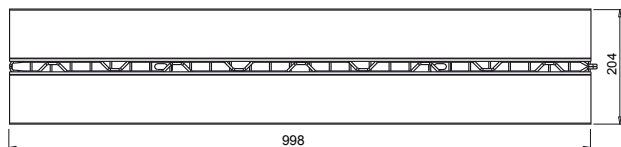
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements

APPLICATIONS OF STAINLESS STEEL

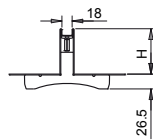
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements



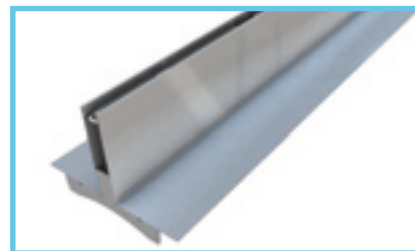
DETAIL OF
HOOKING
SYSTEM⁸



VIEW FROM ABOVE



SIDE VIEW



T-SHAPED GRATING

CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	HEIGHT OF SLOTS H	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 x F2
	€		mm	mm	kg	dm²	mm
500208		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 204 x 106,5	80	5,60	1,80	998 x 18
500244		pickled stainless steel AISI 304 ²					
500209		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 204 x 146,5	120	6,60	1,80	
500245		pickled stainless steel AISI 304 ²					

2- Classification according to American Standard ASTM.

5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

8- Hooking System between the gratings through hooks and holes.

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

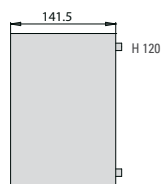
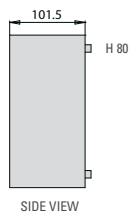
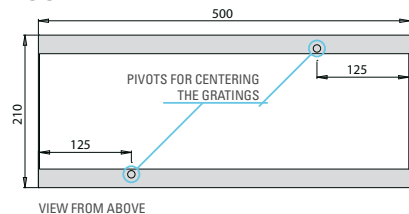


INSPECTION ELEMENT FOR T-SHAPED GRATING

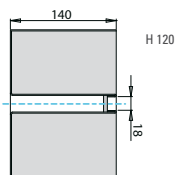
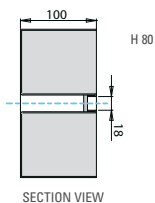
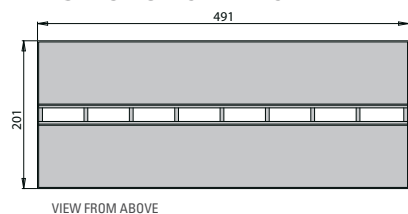
TYPE C 250
MIDDLE
DRIVEWAY

**easy
150**

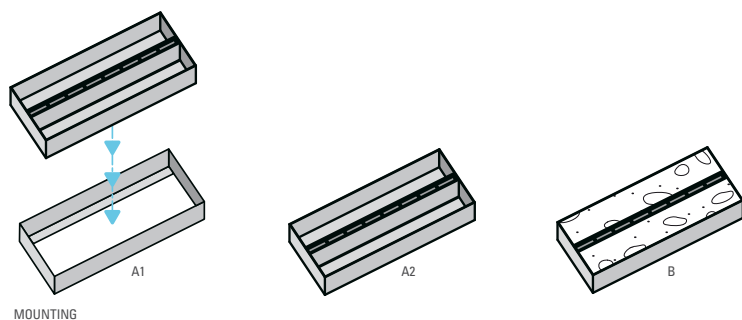
CONTAINMENT TANK



INSPECTION GRATING



The inspection element for the T-shaped gratings shall be assembled together with the drain box with siphon EASY in HD-PE as showed in the picture. Please see page 54 for the details of the drain box with siphon.



INSPECTION ELEMENT FOR T-SHAPED GRATING - EASY 150

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500221		hot dip galvanised steel DD11 (1.0332) ⁵	H80 500 x 210 x 101,5	491 x 18	1,8	6,40
500233		pickled stainless steel AISI 304 ²	H80 500 x 210 x 101,5	491 x 18	1,8	5,90
500222		hot dip galvanised steel DD11 (1.0332) ⁵	H120 500 x 210 x 141,5	491 x 18	1,8	8,20
500234		pickled stainless steel AISI 304 ²	H120 500 x 210 x 141,5	491 x 18	1,8	7,70

HOOK FOR TAKING OFF THE GRATING INSPECTION ELEMENT

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500254		hot dip galvanised steel DD11 (1.0332) ⁵	710 x 180	—	—	0,65

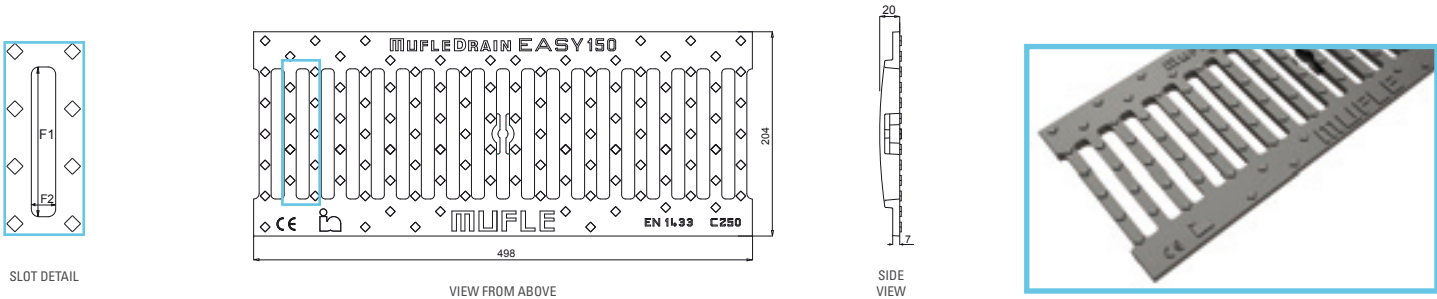
2- Classification according to American Standard ASTM.



5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

APPLICATIONS OF DUCTILE IRON

Kerbs
Historical town centres (slow traffic)
Parking areas
Parking decks



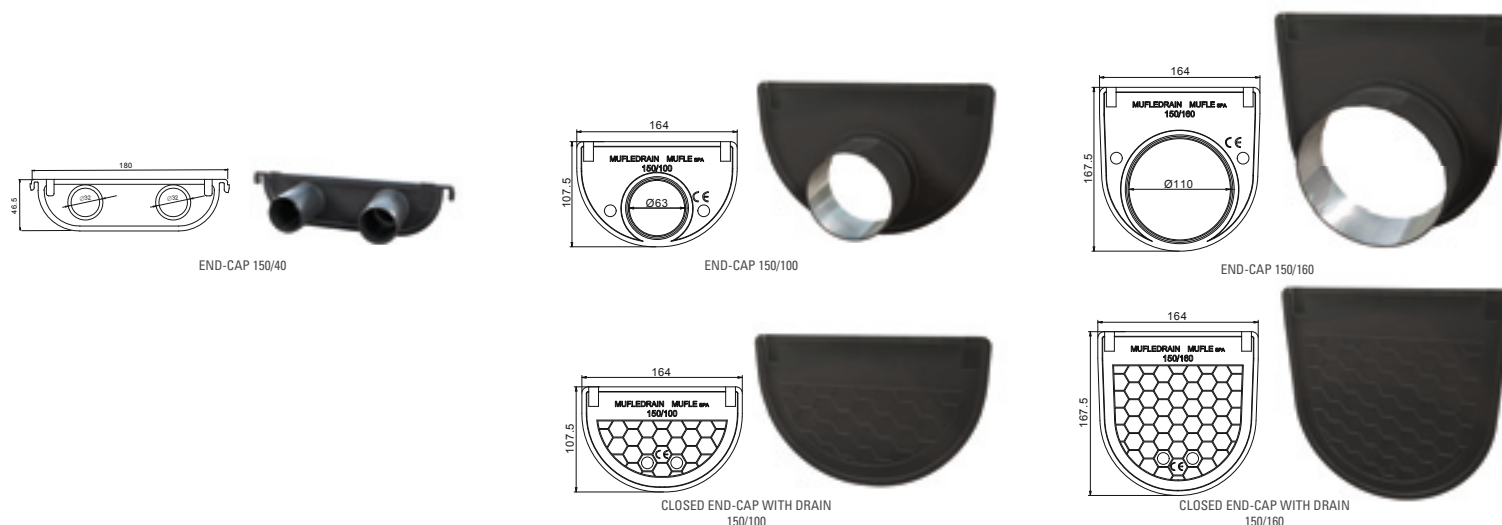
SLOTTED GRATING 13 mm							 20 mm	
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500151		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 204 x 7	5,50	3,38	130,0 x 13,0		up to Class C250 as per Standard EN 1433

6- Classification according to Standard EN 1563 (2009).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



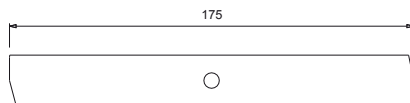
ACCESSORIES

easy
150

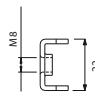


END CAPS

CODE	PRICE €	TYPE	MATERIAL	VALID FOR CHANNELS	PREINSTALLED DRAINS mm
500518		closed end-cap with preinstalled drain	PE-HD	150/40	2 x Ø 32
700504		end-cap with drain	PE-HD	150/100	1 x Ø 63
700512		closed end-cap	PE-HD	150/100	-
700505		end-cap with drain	PE-HD	150/160	1 x Ø 110
700513		closed end-cap	PE-HD	150/160	-



VIEW FROM ABOVE

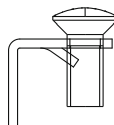


SIDE VIEW



KIT TIE-ROD + SCREWS

CODE	PRICE €	MATERIAL	VALID FOR GRATINGS	SCREW	KIT FOR 1ml
500415		galvanised steel	EASY galvanised steel	M8 x 40 TBL combi	2 tie-rods + 2 screws
500416		stainless steel	EASY stainless steel	M8 x 40 TBL combi	2 tie-rods + 2 screws
500417		black galvanised steel	EASY ductile iron	M8 x 40 black with hexagonal head	2 tie-rods + 2 screws



KIT ANGLE + SCREWS

CODE	PRICE €	MATERIAL	VALID FOR GRATINGS	VALID FOR CHANNELS	KIT FOR 1ml
500400		galvanised steel	EASY galvanised steel	EASY 100/40	4 angle + 4 screws
500401		stainless steel	EASY stainless steel		4 angle + 4 screws
500402		black galvanised steel	EASY ductile iron		8 angle + 8 screws

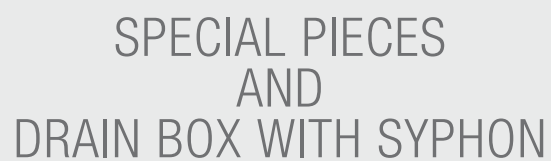
CONNECTOR FOR STEP-SLOPE

CODE	PRICE €	VALID FOR CHANNELS	FAMILIES
700517		from 150/100 to 150/160	EASY - VIP - SMART - SLOPE - WING - PLUS

Utilising Mufle's distinctive step connector system, it is possible to connect drainage channels of differing heights to create greater efficiencies in hydraulic velocity and channel capacity. These efficiencies create benefits in increased drainage performance, outlet number reduction for longer continuous drainage runs, increased self cleansing ability and lower installation costs. Stepped channel are typically recognised by structured increases in neutral channel depths towards a nominated outlet along a specific drainage channel run/length.



N.B. Sizes and weights are subject to usual manufacturing tolerance values.



**easy
ISO**

EASY 150



EASY 150



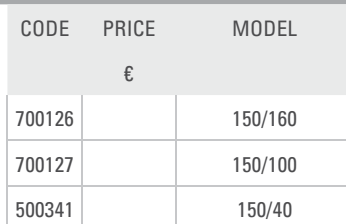
EASY 150



EASY 150



EASY 150



DRAIN BOX WITH SYPHON⁹



EASY 150

9- The drain box Easy, Vip and Wing 150 and 200 are not prearranged to be connected to the correspondent channels Easy, Wing and Vip 150/40, 200/40
N.B. Sizes and weights are subject to usual manufacturing tolerance values.

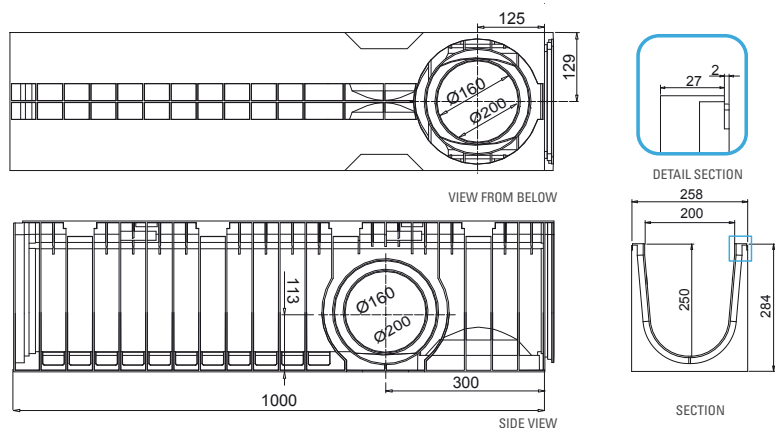


nm

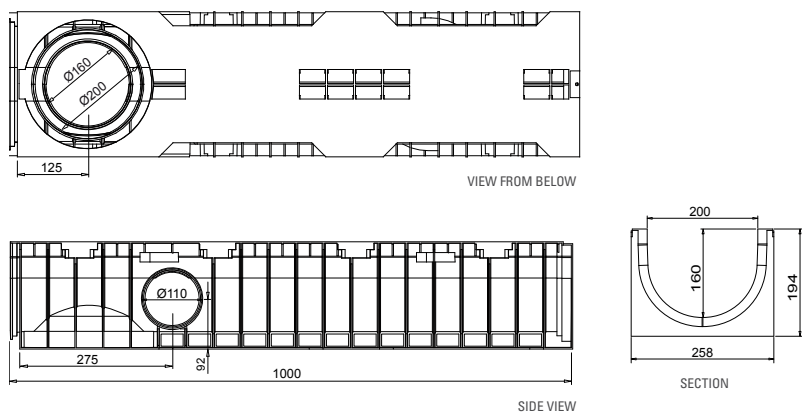


CHANNELS

**easy
200**



EASY 200/250								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	dm ²	dm ³	mm
500013		PE-HD	1000 x 258 x 284	1000 x 200 x 250	4,60	430,00	43,00	side 2 x Ø 160; 2 Ø 200 bottom 1 x Ø 160; 1 x Ø 200



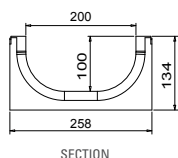
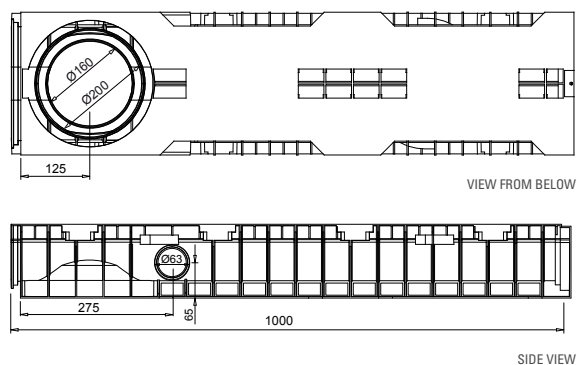
EASY 200/160								
CODE	PRICE	MATERIAL	EXTERNAL DIMENSIONS L x l x h	INTERNAL DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	CAPACITY	PREINSTALLED DRAIN
	€		mm	mm	kg	dm ²	dm ³	mm
700004		PE-HD	1000 x 258 x 194	1000 x 200 x 160	3,25	275,87	27,58	side 2 x Ø 110 bottom 1 x Ø 200; 1 x Ø 160

16- For the channels 150/40 and 200/40 the grating will be supplied already with holes and the fixing system will be through kit angles. For the item codes please see the price list.
N.B. Waterproofing: in order to ensure the channels are waterproof, a bituminous adhesive sealant should be used. Heat-sealing the channel joints makes sure there will be no leakages through said joints for a very long time. For further information please contact MufleSystem's Technical Department.
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



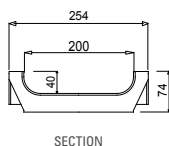
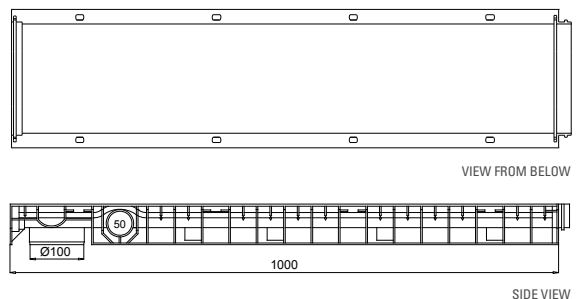
CHANNELS

**easy
200**



EASY 200/100

CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SECTION cm ²	CAPACITY dm ³	PREINSTALLED DRAIN mm
700005		PE-HD	1000 x 258 x 134	1000 x 200 x 100	2,65	178,73	17,87	side 2 x Ø 63 bottom 1 x Ø 200; 1 x Ø 160



EASY 200/40¹⁶

CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	WEIGHT kg	DRAINAGE SECTION cm ²	CAPACITY dm ³	PREINSTALLED DRAIN mm
500007		PE-HD	1000 x 254 x 74	1000 x 200 x 40	2,10	76,50	7,65	side 2 x Ø 50 bottom 1 x Ø 100

16- For the channels 150/40 and 200/40 the grating will be supplied already with holes and the fixing system will be through kit angles. For the item codes please see the price list.
N.B. Waterproofing: in order to ensure the channels are waterproof, a bituminous adhesive sealant should be used. Heat-sealing the channel joints makes sure there will be no leakages through said joints for a very long time. For further information please contact MufleSystem's Technical Department.
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS

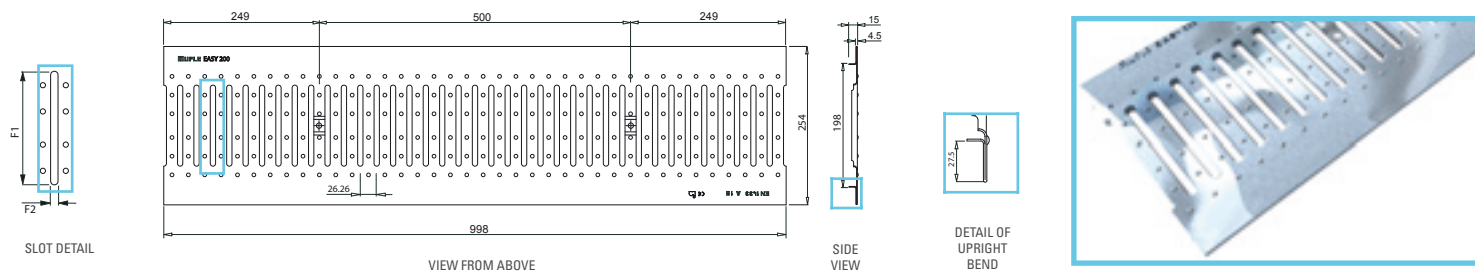



A 15

easy
200

APPLICATIONS OF GALVANISED STEEL

Green areas and parks
Pedestrian areas and/or cycle lanes
Sports facilities
Terraces



SLOTTED GRATING							
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM
	€		mm	kg	dm ²	mm	tie-tod no fixing
500135		galvanised steel DX51D ³	998 x 254 x 4,5	5,20	4,20	130,0 x 8,5	
500196		galvanised steel DX51D ³	498 x 254 x 4,5	2,60	2,10		

3- Classification according to Standard EN 10142 (2002) and symbolic designation according to EN 10027-1 (-2) (2006).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



GRATINGS



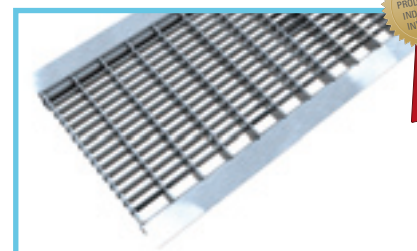
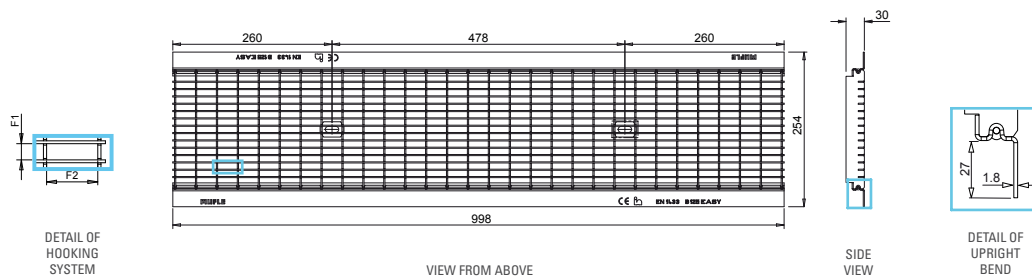
**easy
200**

APPLICATIONS OF GALVANISED STEEL

Pavements
Lay-bys and private car parks


APPLICATIONS OF STAINLESS STEEL

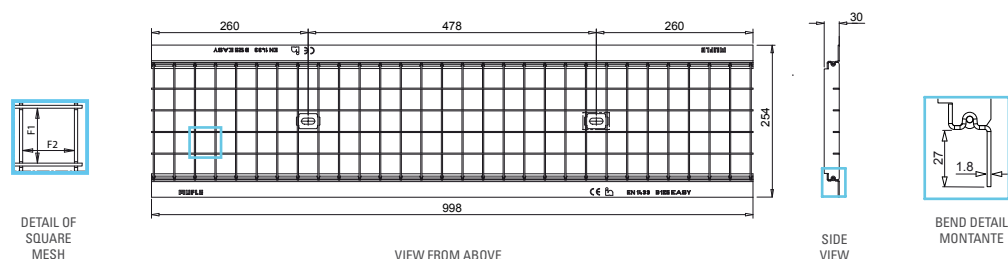
Pavements
Lay-bys and private car parks
Food factories
Chemically aggressive environments



ANTI-HELL MESH GRATING




CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500131		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 254 x 1,8	6,60	14,00	10,2 x 32,2		up to Class C250 as per Standard EN 1433
500132		pickled stainless stee AISI 304 ²						
500192		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 254 x 1,8	3,30	7,00			
500193		pickled stainless stee AISI 304 ²						



SQUARE MESH GRATING



CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500133		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 254 x 1,8	5,20	16,00	34,2 x 32,2		up to Class C250 as per Standard EN 1433
500134		pickled stainless stee AISI 304 ²						
500194		hot dip galvanised steel DD11 (1.0332) ⁵	498 x 254 x 1,8	2,60	8,00			
500195		pickled stainless stee AISI 304 ²						

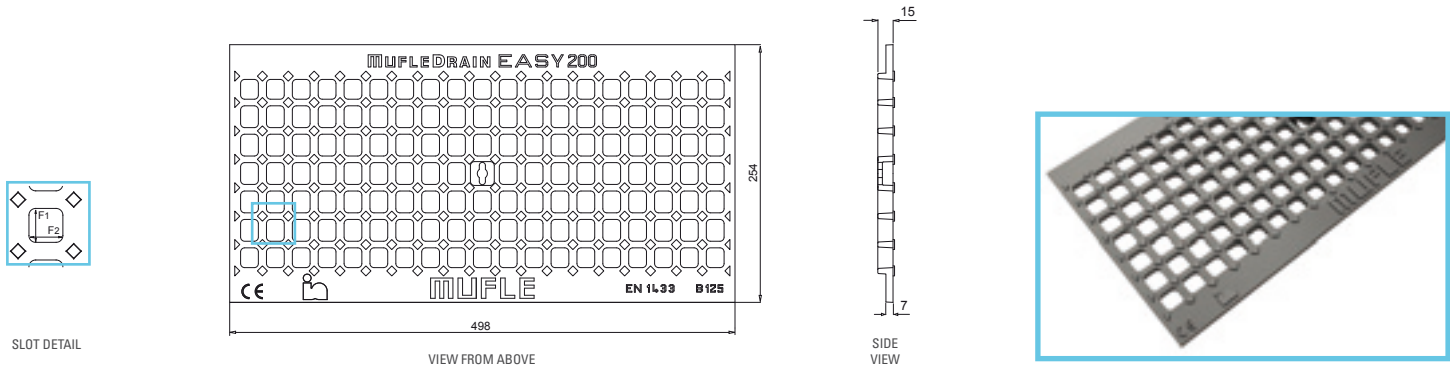
2- Classification according to American Standard ASTM.



5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

APPLICATIONS OF DUCTILE IRON

Pavements
Lay-bys and private car parks



MESH GRATING								 15 mm
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500154		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 254 x 7	5,85	5,00	21,5 x 17,5		up to Class C250 as per Standard EN 1433

6- Classification according to Standard EN 1563 (2009).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



SLOTTED GRATINGS T

TYPE C 250
MIDDLE
DRIVEWAY

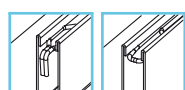
**easy
200**

APPLICATIONS OF GALVANISED STEEL

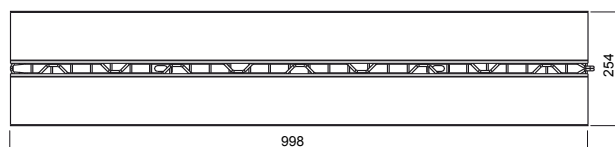
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements

APPLICATIONS OF STAINLESS STEEL

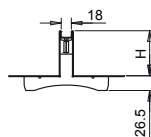
Low visual impact drainage in public and private places:
Pedestrian areas
Private car parks or multi-level car parks
Roads subjected to middle loads (urban speed ≤ 40 km/h)
Areas not subjected to dock movements



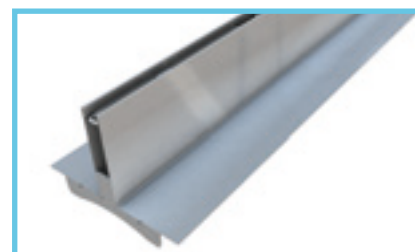
DETAIL OF
HOOKING
SYSTEM 8⁸



VIEW FROM ABOVE



SIDE VIEW



T-SHAPED GRATING

CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	HEIGHT OF SLOTS H	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 x F2
	€		mm	mm	kg	dm²	mm
500210		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 254 x 106,5	80	6,30	1,80	998 x 18
500246		pickled stainless steel AISI 304 ²					
500211		hot dip galvanised steel DD11 (1.0332) ⁵	998 x 254 x 146,5	120	7,40	1,80	
500247		pickled stainless steel AISI 304 ²					

2- Classification according to American Standard ASTM.

5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

8- Hooking System between the gratings through hooks and holes.

N.B. Sizes and weights are subject to usual manufacturing tolerance values.

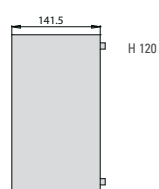
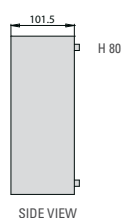
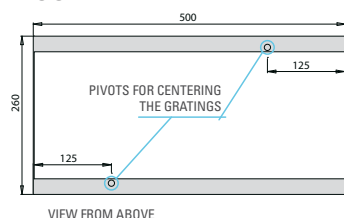


INSPECTION ELEMENT FOR T-SHAPED GRATING

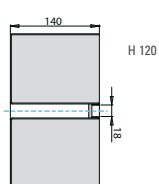
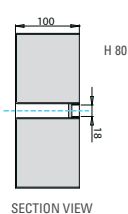
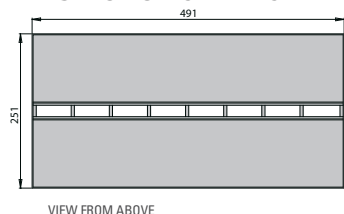
TYPE C 250
MIDDLE
DRIVEWAY

**easy
200**

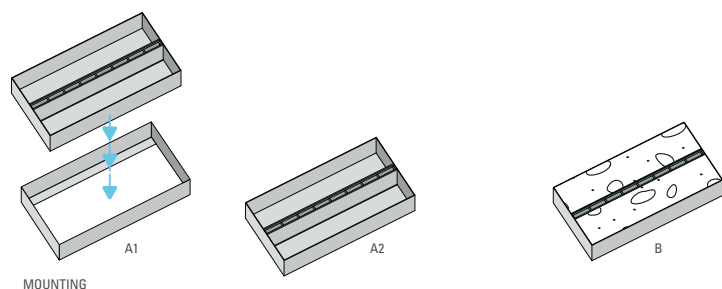
CONTAINMENT TANK



INSPECTION GRATING



The inspection element for the T-shaped gratings shall be assembled together with the drain box with siphon EASY in HD-PE as showed in the picture. Please see page 64 for the details of the drain box with siphon.



INSPECTION ELEMENT FOR T-SHAPED GRATING - EASY 200

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500223		hot dip galvanised steel DD11 (1.0332) ⁵	H80 500 x 260 x 101,5	491 x 18	1,8	6,90
500235		pickled stainless steel AISI 304 ²	H80 500 x 260 x 101,5	491 x 18	1,8	6,40
500224		hot dip galvanised steel DD11 (1.0332) ⁵	H120 500 x 260 x 141,5	491 x 18	1,8	9,00
500236		pickled stainless steel AISI 304 ²	H120 500 x 260 x 141,5	491 x 18	1,8	8,30

HOOK FOR TAKING OFF THE GRATING INSPECTION ELEMENT

CODE	PRICE €	MATERIAL	VOLUME L x l x h mm	SLOT DIMENSIONS mm	DRAINAGE SURFACE mm	WEIGHT TOTALE kg
500254		hot dip galvanised steel DD11 (1.0332) ⁵	710 x 180	—	—	0,65

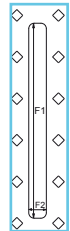
2- Classification according to American Standard ASTM.

5- Classification according to Standard EN 10111 (2008) and symbolic designation according to EN 10027-1 (-2) (2006).

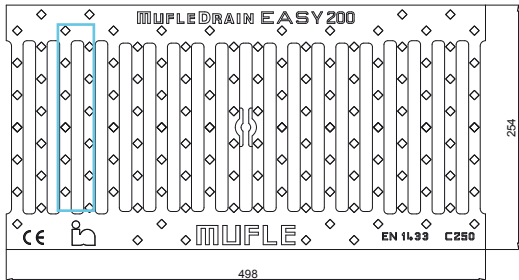
N.B. Sizes and weights are subject to usual manufacturing tolerance values.

APPLICATIONS OF DUCTILE IRON

- Kerbs
- Historical town centres (slow traffic)
- Parking areas
- Parking decks



SLOT DETAIL





VIEW FROM ABOVE



SIDE VIEW



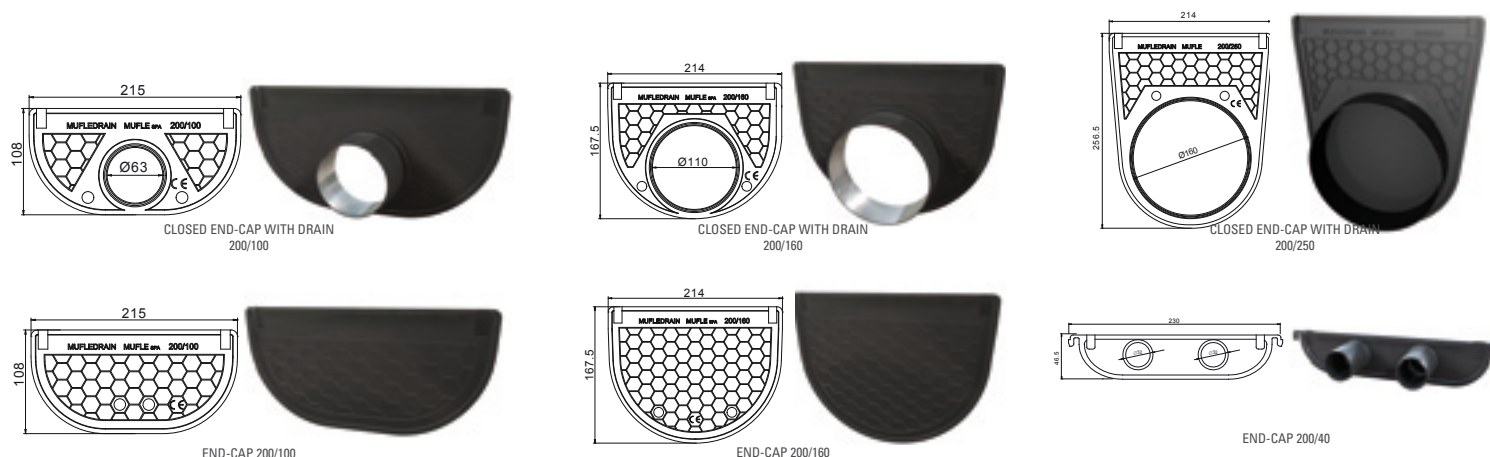
SLOTTED GRATING 13 mm							 30 mm	
CODE	PRICE	MATERIAL	DIMENSIONS L x l x h	WEIGHT	DRAINAGE SURFACE	OPENINGS F1 X F2	FIXING SYSTEM	
	€		mm	kg	dm²	mm	tie-tod	no fixing
500155		GJS 500/7 ⁶ ductile iron water based paint coated	498 x 254 x 7	7,20	4,68	180,0 x 13,0		up to Class C250 as per Standard EN 1433

6- Classification according to Standard EN 1563 (2009).
N.B. Sizes and weights are subject to usual manufacturing tolerance values.



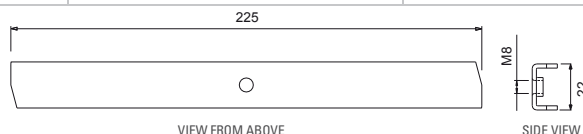
ACCESSORIES

**easy
200**



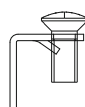
END CAPS

CODE	PRICE €	TYPE	MATERIAL	VALID FOR CHANNELS	PREINSTALLED DRAIN
500521		end-cap with drain	PE-HD	200/40	2 x Ø 32
700506		end-cap with drain	PE-HD	200/100	1 x Ø 63
700514		closed end-cap	PE-HD	200/100	-
700507		end-cap with drain	PE-HD	200/160	1 x Ø 110
700515		closed end-cap	PE-HD	200/160	-
502416		closed end cap with preformed outlet	PE-HD	200/250	1 x Ø 160



KIT TIE-ROD + SCREWS

CODE	PRICE €	MATERIAL	VALID FOR GRATINGS	SCREW	KIT FOR 1 ml
500418		galvanised steel	EASY galvanised steel	M8 x 40 TBL combi	2 tie-rods + 2 screws
500419		stainless steel	EASY stainless steel	M8 x 40 TBL combi	2 tie-rods + 2 screws
500420		black galvanised steel	EASY ductile iron	M8 x 40 black with hexagonal head	2 tie-rods + 2 screws



CORNER KIT + SCREWS

CODE	PRICE €	MATERIAL	VALID FOR GRATINGS	VALID FOR CHANNELS	KIT FOR 1ml
500400		galvanised steel	EASY galvanised steel	EASY 100/40	4 angle + 4 screws
500401		stainless steel	EASY stainless steel		4 angle + 4 screws
500402		black galvanised steel	EASY ductile iron		8 angle + 8 screws

CONNECTOR FOR STEP-SLOPE

CODE	PRICE €	VALID FOR CHANNELS	FAMILIES
700518		from 200/160 to 200/250	VIP - SLOPE - WING
700519		from 200/100 to 200/160	EASY - VIP - SMART - SLOPE - WING - PLUS

Utilising Mufle's distinctive step connector system, it is possible to connect drainage channels of differing heights to create greater efficiencies in hydraulic velocity and channel capacity. These efficiencies create benefits in increased drainage performance, outlet number reduction for longer continuous drainage runs, increased self cleansing ability and lower installation costs. Stepped channel are typically recognised by structured increases in neutral channel depths towards a nominated outlet along a specific drainage channel run/length.



N.B. Sizes and weights are subject to usual manufacturing tolerance values.

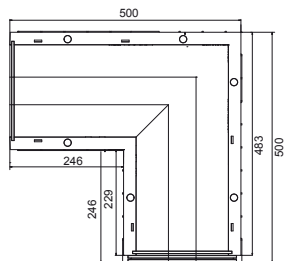


SPECIAL PIECES AND DRAIN BOX WITH SYPHON

**easy
200**

LEFT CORNER

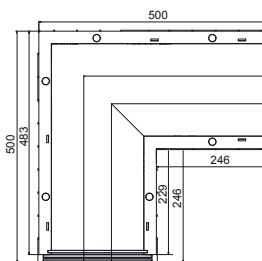
EASY 200



CODE	PRICE €	MODEL
700153		200/250
700104		200/160
700105		200/100
500308		200/40

RIGHT CORNER

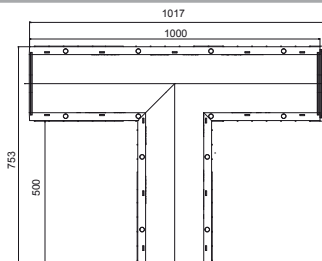
EASY 200



CODE	PRICE €	MODEL
700154		200/250
700110		200/160
700111		200/100
500317		200/40

LEFT TI

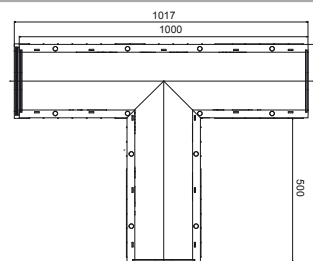
EASY 200



CODE	PRICE €	MODEL
700155		200/250
700116		200/160
700117		200/100
500326		200/40

RIGHT TI

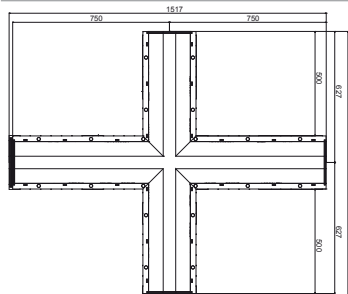
EASY 200



CODE	PRICE €	MODEL
700156		200/250
700122		200/160
700123		200/100
500335		200/40

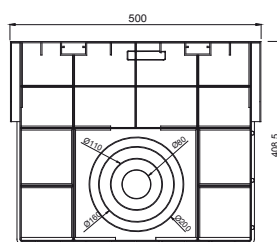
CROSS

EASY 200

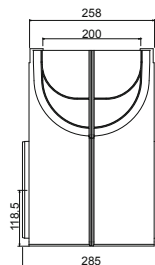


CODE	PRICE €	MODEL
700157		200/250
700128		200/160
700129		200/100
500344		200/40

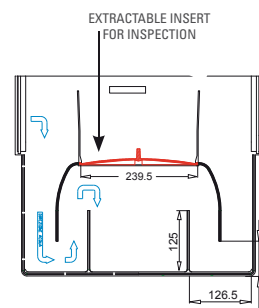
DRAIN BOX WITH SYPHON^{9 - 17}



FRONT VIEW



SIDE VIEW



SECTION

EASY 200

CODE	PRICE €	MATERIAL	EXTERNAL DIMENSIONS L x l x h mm	INTERNAL DIMENSIONS L x l x h mm	MAXIMUM LARGE mm	HEIGHT OF OUTLETS mm	WEIGHT kg	PREINSTALLED DRAIN mm
700010		PE-HD	500 x 258 x 407	500 x 200 x 400	285	118,5	3	2 x Ø 110; 2 x Ø 160; 2 x Ø 200

9- The drain box Easy, Vip and Wing 150 and 200 are not prearranged to be connected to the correspondent channels Easy, Wing and Vip 150/40, 200/40

17- The drain box Easy, Vip, Smart, Slope and Wing 200 are not prearranged to be connected to the correspondent channels EASY, VIP, SMART, SLOPE and WING 200/250

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



INSTALLATION

easy

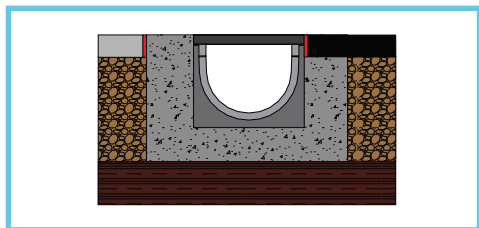
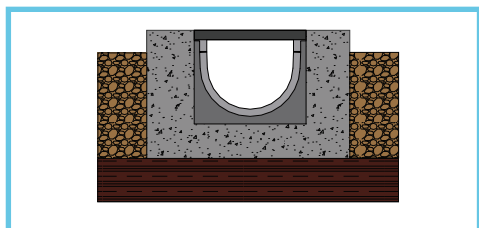
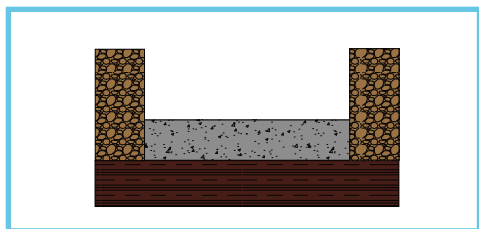
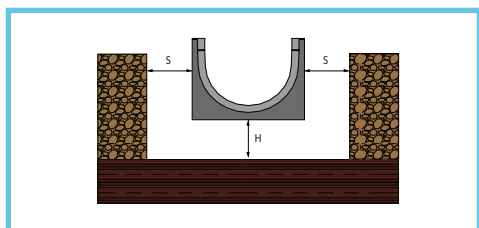
“For all the drainage channels the manufacturer shall supply written instructions for general installation” (Ref. § 7.17 EN 1433)

The installation instructions enclosed in the present technical section are given only as an example in order to supply the main guide lines to the final fitter.

Any particular installation must be evaluated/ agreed between MufleSystem srl and the project maker.

The correct installation is necessary to guarantee the proper loads resistance of the drainage system (channel and grating) to static and dynamical traffic which is subjected to.

The correct installation involves a longer operational length of the drainage system itself as well as its better hydraulic function.



NEW FEATURE:
The channels can
be installed with
preassembled
gratings.

Step 1

HOLE SIZE

The hole needed to lay the MufleDrain channel must allow not only for the size of the channel and the drain piping but also for adequate space for the base H and the side concrete props S. The dimensions to be followed are shown in the Summary Table. In this step make sure the underlying layer is suitable to the load it is expected to support.

Step 2

CONCRETE BASE

Cast the concrete base H up to the height specified, allowing for any inclination in the drainage line. In case that cycles of loading and unloading are often (for example: periodic transit of vehicles) or the loads are particular heavy (E600 - F900), we recommended to reinforce the concrete base with a electro-welded net or with or beaded mouldings Ø 8 with mesh 15x15 cm. At this stage it is needed to arrange possible slopes of the drainage line.

Step 3

CHANNEL ARRANGEMENT

Lay the channels starting from the flow outlet and block them at basis in order to avoid any floating or misalignment during the concrete casting for the side prop.

Allow for the drains required and build the side prop S up to the maximum height allowed by the final coating. Shape it according to the needs based on the drawing. Introduce and fix the grating required beforehand in order to prevent any deformation of the channel due to the thrust of concrete and to speed up installation.

As well as the step 2, also for the side prop concrete arrange the reinforcement.

Step 4

FINAL COATING

When applying the final coating, make sure its upper profile reaches up to minimum 3/5 mm above the grating's flow plane.

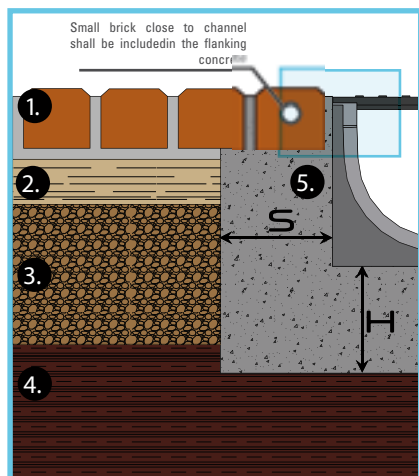
Recommendations for installation

1. In case that channels watertightness is requested, MufleSystem is purposely recommending the use of a bituminous silicone sealant “SHELL TIXOPHALTE”: after carrying out the side prop, apply a thin and homogeneous sealant strip on each slot between the channels and the following one (clean the eventual exceeding sealant). It is strongly advised not to apply the strips of “SHELL TIXOPHALTE” inside the slots in the female joint of the channels before coupling them. Eventually a through and long- lasting guarantees to avoid any leakages can be obtained by welding the joints; this requires welding machines and experienced technicians.
2. While carrying out the phase 2 and 3, protect the gratings with a PVC film so that no final cleaning must be carried out to remove any concrete residues.
3. In case the drainage line is subjected to horizontal loads (for example concrete casting for industrial paving, private car parks and parking decks), it is necessary to arrange effective expansion joints for both direction, parallel and perpendicular to the channels. These joints shall be placed according to the norm standards in force and shall not be placed close to drainage line.
4. In case the drainage line shall be installed on roofs or terraces, it is obligatory to arrange a waterproof sheet according to specific projects.



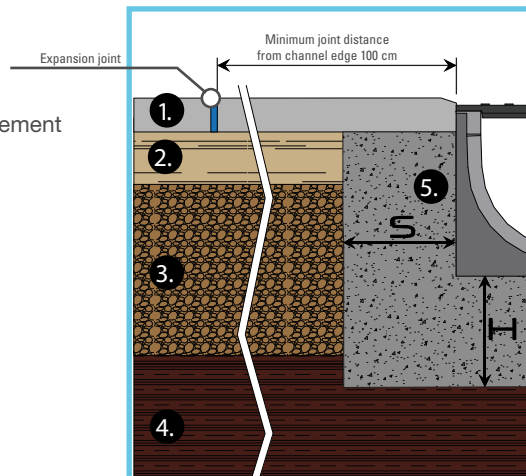
N.B. MufleSystem srl reserves the right to change the technical characteristics herein specified without prior notice. Said technical characteristics are given for information purposes only and are subject to changes as our products are developed.

Case 1 Flooring (A15-B125-C250)



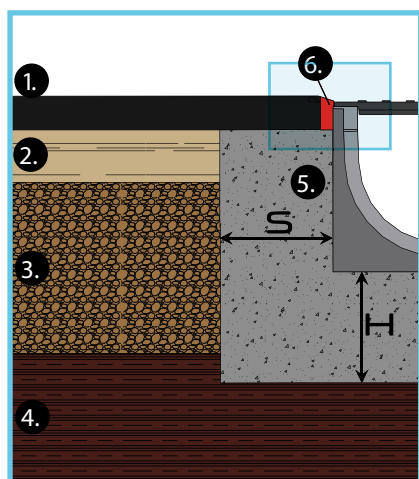
1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer

Case 2 Concrete flooring (A15-B125-C250)

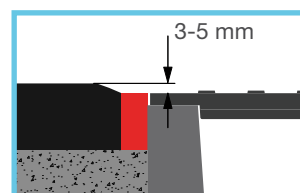


1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer
6. Expansion joint

Case 3 Asphalt (A15-B125-C250)



1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer
6. Safety joint (if required)



This Sheet is only aimed to give advice on the installation of channels mod. MufleDrain. In any case, always:

- check the carrying capacity characteristics of the underlying layer
- we recommend using Class S4 concrete (EN 206-1) and stone aggregate with maximum diameter 8 mm.
- comply with the height of the installation surface and the thickness of the prop as specified according to the load classes

SUMMARY TABLE

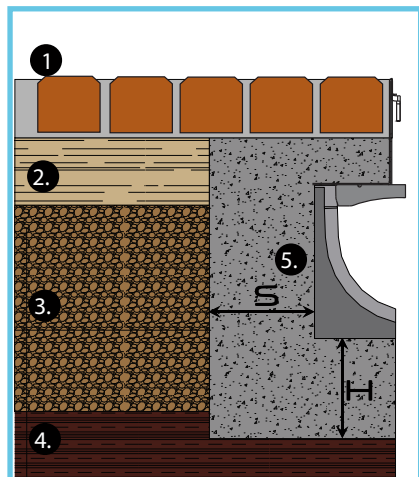
Load class (EN 1433)		A 15	B 125	C 250
Applicable load (EN 1433)	kN	15	125	250
Minimum height H of concrete laying bed	mm	100	100	150
Minimum thickness S of the concrete flanking	mm	100	100	150
Concrete compression strength class (EN 206-1)		C 20/25	C 25/30	C 25/30
Concrete compression strength class (EN 206-1)		C 30/37 XF4	C 30/37 XF4	C 30/37 XF4

7- If concrete can be affected by frost and thaw cycles.

N.B. MufleSystem srl reserves the right to change the technical characteristics herein specified without prior notice. Said technical characteristics are given for information purposes only and are subject to changes as our products are developed.

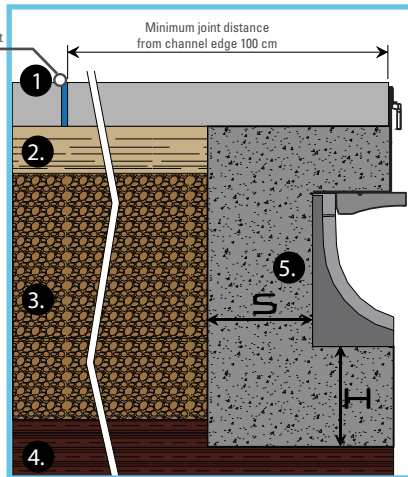
N.B. Sizes and weights are subject to usual manufacturing tolerance values.

Case 1 Flooring (A15-B125-C250)



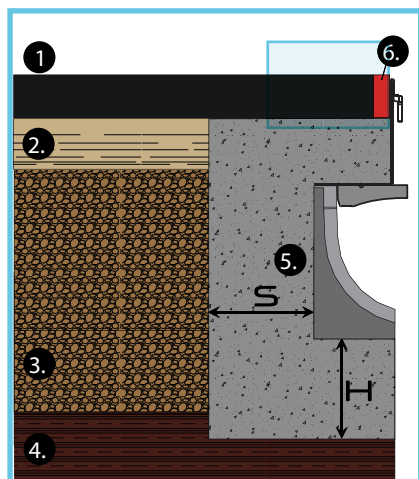
1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer

Case 2 Concrete flooring (A15-B125-C250)



1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer
6. Expansion joint

Case 3 Asphalt (A15-B125-C250)



1. Flooring
2. Lower bed layer
3. Bearing layer
4. Subfloor
5. Concrete reinforcement layer
6. Safety joint (if required)

This Sheet is only aimed to give advice on the installation of channels mod. MufleDrain. In any case, always:

- check the carrying capacity characteristics of the underlying layer
- we recommend using Class S4 concrete (EN 206-1) and stone aggregate with maximum diameter 8 mm.
- comply with the height of the installation surface and the thickness of the prop as specified according to the load classes.

SUMMARY TABLE

Load class (EN 1433)		A 15	B 125	C 250
Applicable load (EN 1433)	kN	15	125	250
Minimum height H of concrete laying bed	mm	100	100	150
Minimum thickness S of the concrete flanking	mm	100	100	150
Concrete compression strength class (EN 206-1)		C 20/25	C 25/30	C 25/30
Concrete compression strength class (EN 206-1)		C 30/37 XF4	C 30/37 XF4	C 30/37 XF4

7- If concrete can be affected by frost and thaw cycles.

N.B. MufleSystem srl reserves the right to change the technical characteristics herein specified without prior notice. Said technical characteristics are given for information purposes only and are subject to changes as our products are developed.

N.B. Sizes and weights are subject to usual manufacturing tolerance values.



SPECIFICATIONS

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1. Supply and installation of MufleDrain EASY type HD-PE drainage channel with external stiffening ribs and male-female coupling system allowing the assembly between one channel and the next with the relevant pre-assembled gratings. The channel will have 3/4 drainage diaphragms at pre-determined points. The channel surface will be perfectly smooth and have a low roughness coefficient to allow the best water flow. It will also be perfectly water-tight and devoid of any connection points with the outside. The channel will have the following dimensions: length 1,000 mm, internal net gap ____mm, internal height ____ mm.
2. Supply and installation of MufleDrain EASY type HD-PE drainage channel with external stiffening ribs and male- female coupling system allowing the assembly between one channel and the next with the relevant pre- assembled gratings. The channel will have 2 side drainage diaphragms at pre- determined points and a prearranged 100 (110) mm diameter bottom outlet that can be fixed through 4 screws. . The channel surface will be perfectly smooth and have a low roughness coefficient to allow the best water flow. It will also be perfectly water-tight and devoid of any connection points with the outside. The channel will have the following dimensions: length 1000 mm, internal net gap 100 mm, internal height ____ mm.
3. Supply and installation of ductile iron GJS 500/7 covering gratings according to EN 1563-2004 for MufleDrain EASY drainage channels with bar fixing system, load class C250 according to EN 1433-2004, slot width 13mm, length 498mm, width ____mm.
4. Supply and installation of ductile iron GJS 500/7 covering gratings according to EN 1563-2004 for MufleDrain EASY drainage channels with bar fixing system, load class C250 according to EN 1433-2004, slot inclined 30° to the longitudinal axis, width 6mm, length 498mm, width 154 mm.
5. Supply and installation of ductile iron GJS 500/7 covering gratings according to EN 1563-2004 with mesh for MufleDrain EASY drainage channels with bar fixing system, load class B125 according to EN 1433-2004, length 498 mm, width ____mm.
6. Supply and installation of galvanised (stainless) steel square-mesh or anti-heel covering gratings for MufleDrain EASY drainage channels with bar fixing system, load class B125 according to EN 1433-2004, length 998 mm, width ____mm. A similar grating will be available upon request with length 498mm. The dimensions will be 33 x 33 mm in the square mesh and 33 x 11 mm in the anti-heel mesh.
7. Supply and installation of galvanised (stainless) steel rung covering gratings for MufleDrain FLAT drainage channels with bar fixing system, load class A15 according to EN 1433- 2004, length 998 mm, width ____mm. A similar grating will be available upon request with length 498mm.
8. Supply and installation of T-shaped longitudinal-slot gratings made from galvanised (stainless) steel for MufleDrain EASY drainage channels with male-female coupling system between one grating and the next, load class A15 according to EN 1433-2004, length 998mm, width ____ mm, height of "T" ____mm.
9. Supply and installation of HD-PE end caps for MufleDrain drainage channel with coupling system into the special channel housing.
10. Supply and installation of HD-PE open cap with drainage hole diameter ____mm for MufleDrain drainage channel with coupling system into the special channel housing.
11. Supply and installation of HD-PE boxes with siphon for MufleDrain EASY drainage channels with external stiffening ribs and coupling system. The upper section of the siphon built in the gully may be removed in order to allow inspection and cleaning work. The gully will have preformed drains on both sides with diameter up to 200 mm. The gully dimensions will be as follows: length 542mm, net gap ____ mm, internal height 400 mm.
12. Supply and installation of inspection elements for MufleDrain EASY T-shaped gratings in galvanized (stainless) steel for MufleDrain EASY drain boxes with siphon. Every inspection element will be made of an external containment tank self- centered on bottom drain box with siphon and of an inspection element to be placed inside the containment tank that can be also pulled out after installation. Load classes until C250. The sizes of drain boxes shall be length 500 mm, width ____ mm, height ____ mm.