

Drainage Systems















Individual. Reliable. Dependable. As one of the leading manufacturers of channel systems in Europe, BIRCO develops and designs innovative drainage solutions.

BIRCO develops comprehensive drainage concepts for all fields of application, offering customer support through all stages of a project, from specification to realisation.

Heavy-Duty

BIRCO channel systems are produced from high-grade concrete and reinforced concrete, thus maintaining permanent position stability and reliability. Optimum hydraulic performance combined with unvarying high quality.

Environment

For the discharge of less aggressive and highly aggressive liquids in areas where environmental safety is a key issue, BIRCO has developed a drainage concept with a safety margin guaranteed to cope with specific requirements. The system has German Technical Approval.

Landscaping

From the designing of town centres to intelligent storm water management to drainage of roof terraces, the BIRCO drainage systems cover a wide range of applications. Matched to individual requirements and uncompromisingly efficiency-oriented.

Design

All drainage systems are supplemented by different types of gratings. Slotted cast iron gratings, cast iron mesh gratings, galvanised steel mesh gratings with different mesh widths, as well as slotted and perforated gratings. In addition, BIRCO offers a selection of aesthetic design gratings and with BIRCOlux, innovative illuminated channel systems.

Project Management

A comprehensive project management completes the BIRCO system. Our experts both in the office and in the field offer advise all along the stages of designing, specification and on-site realisation of a drainage scheme.



Heavy-Duty

Drainage solutions for areas exposed to heavy loading

BIRCO drainage systems – continued position stability and reliability









Heavy-Duty System







BIRCOsir

For the drainage of heavy-duty areas, also where demands on flexibility and aesthetics are high.

- + NW 100 1000
- + Anchorage system NW 200, 300
- + Constructional lengths: 0.5, 1.0, 1.5 and 2.0 m
- + Load class: A 15 F 900

BIRCOmassiv

Reinforced concrete channel for the drainage of areas where high dynamic horizontal forces occur.

- + NW 150 and 200
- + With or without surface protection
- + Constructional lengths: 1.0 and 2.0 m
- + Load class: A 15 F 900

BIRCObeany®block

The two-part kerb and drainage system for residential areas and industrial estates.

- + Top units, base units
- + Optimum discharge and storage capacities
- + Load class: A 15 D 400

BIRCOcanal

For the safe installation of cables and pipes in much-frequented industrial areas and public places.

- + NW 100 1000
- + Integrated mounting rails
- + Constructional lengths: 1.0, 1.5 and 2.0 m
- + Load class: A 15 E 600

Gratings and covers up to load class F 900, outfall units with optimum discharge capacities, and auxiliaries for ease of installation.



Environment

Drainage solutions for areas where water regulations apply

BIRCO drainage systems – the comprehensive scheme for areas where environmental compliance requires special attention.











BIRCOprotect

Where water-hazardous substances such as fuels and weak bases and acids are handled, and heavy traffic loads are imposed.

- + NW 100 400
- + With German Technical Approval (certificate no Z-74.4-34)
- + Constructional lengths: 1.0, 1.5 and 2.0 m
- + Load class: A 15 F 900

BIRCOsolid grid system

Reinforced concrete channel with solid steel edge angle, for the discharge of less aggressive substances.

- + Grid unit NW 150, 200, 300
- + With German Technical Approval (certificate no Z-74.4-33)
- + Constructional lengths: 1.0, 1.5 and 4.0 m
- + Load class: A 15 F 900

BIRCOsolid slot system

Reinforced concrete channel for the discharge of less aggressive substances.

- + Slot channel cross-section 200/300
- + With German Technical Approval (certificate no Z-74.4-62, no Z-74.4-46)
- + Constructional length: 4.0 m
- + Load class: A 15 F 900

BIRCOdicht

Channel with PEHD lining. For the reliable drainage of aggressive substances.

- + NW 150 300
- + With German Technical Approval (certificate no Z-74.4-52)
- + Constructional lengths: up to 2.0 m
- + Load class: A 15 F 900

BIRCOplan

Customised drainage system for areas subject to hygiene regulations, and for foodstuffs premises.

- + Project-related design
- + Stainless steel (V2A/V4A)
- + Individual structural lengths of up to 6.0 m
- + Load class: A 15 B 125 (E 600)



Landscaping

Drainage solutions for landscape designing

BIRCO drainage systems for application flexibility



BIRCOlight

Aesthetic surface drainage.

- + NW 100 and 150 AS
- + Available with illumination (BIRCOlux)
- + Constructional lengths: 0.5 and 1.0 m
- + Load class: A 15 E 600

BIRCOplus

Easy installation – reliable function.

- + NW 100
- + Very low weight
- + Constructional lengths: 0.5 and 1.0 m
- + Load class: A 15 C 250 (E 600)

BIRCOeco

The sturdy plastic channel.

- + NW 100
- + Predetermined breaking points for insertion of outlets
- + Constructional length: 1.0 m
- + Load class: A 15 B 125

BIRCOslot steel covers

"Invisible" drainage.

- + For channels NW 100 and 150 AS
- + Stainless steel (V2A) or galvanised steel (4.0 mm / 1.5 mm)
- + Constructional lengths: 0.5 and 1.0 m
- + Load class: A 15 E 600

BIRCOtop F, V, S

Accessible habitation, façade drainage.

- + Slot system (S) and grid system
- + Fixed (F) and variable (V) overall heights
- + Stainless steel (V2A) or galvanised steel
- + Load class: walkable

BIRCOprofil

For shallow depths of construction.

- + Constructional width 160 and 196 mm
- + Stainless steel or galvanised steel
- + Constructional lengths: 0.5, 1.0 and 3.0 m
- + Constructional heights: 50 and 75 mm
- + Load class: A 15 C 250 (E 600)





Gratings made of cast iron, galvanised steel and stainless steel for the safe and attractive designing of squares and other public spaces.



Design

Attractive drainage for domestic and commercial projects

BIRCO drainage systems – a perfect match of aesthetics and functionality



Cast iron gratings

Cast iron gratings with loading stability and optimum hydraulic capacities.

- + Various widths and lengths
- + Up to 8-point bolt connection per metre, alternatively Easylock fastening
- + Various designs
- + Load classes: A 15 F 900



Galvanised metal gratings

Long-lasting corrosion protection combined with high loading stability. Hot-dip galvanised.

- + Various widths and lengths
- Up to 4-point bolt connection or Easylock fastening per metre
- Various designs
- + Load classes: A 15 E 600



Stainless steel gratings

Elegant stainless steel gratings for use in façade drainage and terraces.

- Various widths and lengths
- + Stainless steel V2A
- Various designs
- + Load classes: A 15 E 600



BIRCOlux / BIRCOlux Premium

Illuminated channel systems with which to add highlights to surfaces and façades.

- + Integral LED technique or rope lights
- Various colours
- + Also suitable for retrofitting

Design System





Illuminated channel and grating systems, cutting to customised lengths, radial and polygonal installation.



Project Management

Designing, technical assistance and calculations tailored to your project

BIRCO drainage systems – bespoke designing, project-related assistance



Designing and technical assistance

The BIRCO experts put their long-standing experience at the disposal of specifiers and architects to assist them in designing innovative drainage systems.



Hydraulic design

BIRCO provides the hydraulic design for your building project, making it easier for you to choose the right drainage system.



Specifications and installation

Specifications and extensive installation instructions are available for download for all standard programmes on our homepage.

www.birco.de



On the site

Project-related cutting and special solutions are a matter of course for BIRCO – as is on-site attendance in order to answer remaining questions and discuss potential modifications.

BIRCO is one of the leading suppliers of channel systems in Europe. With sales agencies in Germany, France, Belgium, the Netherlands, and Luxembourg, as well as sales partners in numerous other countries, BIRCO the name represents quality, reliability, and competence.

Technical Overview

Heavy Duty

								1		
Channel system BIRCO	sir	sir	sir	sir	sir	sir	sir	beany® block	canal	canal
Nominal width (min.)	100	150	200 AS	300 AS	400	500	1000	DIOCK	with angles	without angles
Nominal width (max.)	100	100	200 A3	300 A3	400	300	1000		500	1000
Load class max*	F 900	F 900	F 900	F 900	F 900	F 900	F 900	D 400	F 900	E 600
Length [mm]	500	500	500	1000	1000	1000	2000	500	1000	1000
	1000	1000	1000	2000	2000	2000			2000	2000
Ext. width at top [mm]	200	250	300	430	550	650	1200	300	200-650	300-1200
Height min. [mm]	180	230	310	410	480	655	650	205	80	270
Height max. [mm]	330	330	360	550	480	655	650	295	655	600
Channels with internal gradient	x	х	х							
Channels without internal gradient	x	х	х	х	х	х	х	х	x	x
Shallow channels	x	х	X	x						
Easylock fastening **	Х	х	х	х	х	х			х	
Slotted cast gratings	х	х	x	Х	х	Х	х			
Design cast gratings	х	х								
Cast mesh gratings	x	х	x	х	х					
Cast honeycomb grating		х	x							
Mesh gratings	x	х	x							
Reinforced concrete covers										x
Solid covers								х	х	
Ancillaries (end caps etc.)	Х	х	х	х	х	Х	х	Х		

Environment

Channel system BIRCO	protect	protect	protect	protect	protect	solid	solid	solid	solid	dicht
Nominal width (min.) Nominal width (max.)	100	150	200	300	400	grid system 150	grid system 200	grid system 300	slot system	150 300
Load class max*	F 900	F 900	F 900	F 900	F 900	F 900	F 900	F 900	F 900	F 900
Length [mm]	500 1000	500 1000	500 1000	1000 2000	1000 2000	1000 1500 4000	1000 1500 4000	1000 2000	4000	2000
Ext. width at top [mm]	200	250	330	450	550	450	550	700	540	270-470
Height min. [mm]	180	230	310	470	480	405	415	660	550	235
Height max. [mm]	280	280	360	470	480	405	415	830	550	575
Channels with internal gradient	х	х	х							х
Channels without internal gradient	х	х	х	х	х	х	х	х	х	х
Shallow channels										
Easylock fastening **	х	х	х	х	Х	х	Х	Х		
Slotted cast gratings	х	Х	х	х	Х	х	Х	Х	х	х
Cast mesh gratings	x	x	х	x	x	x	x	x		х
Cast honeycomb grating		х				х				x (DN 150)
Mesh gratings	х	х	х							х
Sealant products etc.	x	Х	х	х	Х	х	Х	Х	х	х
Ancillaries (end caps etc.)	x	x	x	х	x	х	x	x	x	х

Load class as defined by DIN EN 1433
 Easylock fastening not available for load class F 900

Landscaping

Channel system BIRCO	light	light	plus	eco	slot steel covers	slot steel covers	top F Series	top V Series	top S Series	profil
Nominal/constuction width (min.) Nominal/constuction	100	150 AS	100	100	100	150 AS	100 160	100 130		160 196
width (max.)										
Load class max*	E 600	E 600	C 250	B 125	E 600*	E 600*	walkable	walkable	walkable	E 600
Length [mm]	500 1000	500 1000	500 1000	1000	500 1000	500 1000	500 1000 3000	500 1000 3000	3000	500 1000 3000
Ext. width at top [mm]	163	210	160	154	21/26	21/26	100- 160	100- 130	20	160- 196
Height min. [mm]	155	230	165	131	121,5**	151,5**	50	59	150	50
Height max. [mm]	255	325	215	131	144**	174**	100	170	150	75
Channels with internal gradient	х	х	х							
Channels without internal gradient	х	х	х	х	х	х	х	х	x	х
Shallow channels	х									
Easylock fastening**	х	х	x				I	I		
Slotted cast gratings	x	x	x				x			х
Design cast gratings	х									
Cast mesh gratings	х	х	х							Х
Solid cover	х	0								
Perforated gratings	х			_	<u> </u>		х	х		
Slotted gratings	х		х	х			x			
Mesh gratings	х	х	х	х			x			х
Longitudinal bar gratings	x						х			
Cover made of recycled plastic				Х						
Ancillaries (end caps etc.)	х	х	x	х	х	х	х	х	x	х

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Material thickness 4 mm, please follow installation instructions. Slot inlet 18 mm. Total width 21 mm for material thickness 1.5 mm, 26 mm for material thickness 4 mm.

** Height without channel or outfall unit

We are glad to be of service to you.

BIRCO Baustoffwerk GmbH

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