Deutsches Institut für Bautechnik
Zulassungsstelle für Bauprodukte und Bauarten
Bautechnisches Prüfamt
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Authorised and notified according to Article 10 of the Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products (89/106/EEC)

Deutsches Institut für Bautechnik

DIBt

Mitglied der EOTA
Member of EOTA

European Technical Approval ETA-12/0429

English translation prepared by DIBt - Original version in German language

Handelsbezeichnung *Trade name*	BAUER-Auffangwanne *BAUER-Collecting basin*
Zulassungsinhaber *Holder of approval*	Bauer GmbH Eichendorffstraße 62 46354 Südlohn DEUTSCHLAND
Zulassungsgegenstand und Verwendungszweck *Generic type and use of construction product*	Auffangwanne aus Stahl *Collecting Basins Made of Steel*
Geltungsdauer: *Validity:* vom *from* bis *to*	13 December 2012 13 December 2017
Herstellwerk *Manufacturing plant*	Bauer GmbH Eichendorffstraße 62 46354 Südlohn DEUTSCHLAND

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Diese Zulassung umfasst *This Approval contains*	13 Seiten einschließlich 1 Anhang mit 4 Seiten *13 pages including 1 annex with 4 sheets*

I LEGAL BASES AND GENERAL CONDITIONS

1 This European technical approval is issued by Deutsches Institut für Bautechnik in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products[1], modified by Council Directive 93/68/EEC[2] and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council[3];
- *Gesetz über das In-Verkehr-Bringen von und den freien Warenverkehr mit Bauprodukten zur Umsetzung der Richtlinie 89/106/EWG des Rates vom 21. Dezember 1988 zur Angleichung der Rechts- und Verwaltungsvorschriften der Mitgliedstaaten über Bauprodukte und anderer Rechtsakte der Europäischen Gemeinschaften (Bauproduktengesetz - BauPG) vom 28. April 1998[4], as amended by law of 31 October 2006[5];*
- Common Procedural Rules for Requesting, Preparing and the Granting of European technical approvals set out in the Annex to Commission Decision 94/23/EC[6].

2 Deutsches Institut für Bautechnik is authorized to check whether the provisions of this European technical approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European technical approval and for their fitness for the intended use remains with the holder of the European technical approval.

3 This European technical approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1 of this European technical approval.

4 This European technical approval may be withdrawn by Deutsches Institut für Bautechnik, in particular pursuant to information by the Commission according to Article 5 (1) of Council Directive 89/106/EEC.

5 Reproduction of this European technical approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of Deutsches Institut für Bautechnik. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European technical approval.

6 The European technical approval is issued by the approval body in its official language. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

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1 Official Journal of the European Communities L 40, 11 February 1989, p. 12
2 Official Journal of the European Communities L 220, 30 August 1993, p. 1
3 Official Journal of the European Union L 284, 31 October 2003, p. 25
4 *Bundesgesetzblatt Teil I 1998*, p. 812
5 *Bundesgesetzblatt Teil I 2006*, p. 2407, 2416
6 Official Journal of the European Communities L 17, 20 January 1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of the product and intended use

1.1 Definition of the construction product

The collecting basins are made of steel and have a rectangular base area. They stand on feet or with the bottom surface directly on the ground or on the floor. The height of the walls of the collecting basins is at least 5 cm (without feet). The corners are folded or welded. Bolted connections below the maximum possible liquid level in the collecting basins are inadmissible. The collecting basins are liquid-proof and have no outlets. The collecting volume of the collecting basins amounts to a maximum of 39 880 l.

1.2 Intended use

(1) The collecting basins are used for setting up containers containing liquids hazardous to water. The containers shall correspond to the traffic law regulations for the transportation of dangerous goods. The containers are placed on a grid made of steel resting on the collecting basins or in case the bottom surface of the collecting basins stands directly on the ground the containers can set directly into the collecting basin. In case of a leaky container the liquid will be collected in the collecting basin.

(2) The provisions made in this European technical approval are based on an assumed working life of the collecting basins of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2 Characteristics of the product and methods of verification

2.1 Material

The collecting basins are produced according to annex 1 and 1.1 to 1.3 from the following steels:

Standard	Designation of the steel	Material number according to EN 10027-2[7]	Verification
EN 10025-1[8], EN 10025-2[9]	S235JR	1.0038	CE Test report 2.2 according to EN 10204[10]
	S275J2	1.0145	CE 3.1 Inspection certificate according to EN 10204

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7 EN 10027-2:1992 Designation systems for steel; numerical system
8 EN 10025-1:2004 Hot rolled products of structural steels - Part 1: General technical delivery conditions
9 EN 10025-2:2004 Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels, +AC:2005
10 EN 10204:2004 Metallic products – Types of inspection documents

Standard	Designation of the steel	Material number according to EN 10027-2[7]	Verification
EN 10028-1[11], EN 10028-2[12]	P235GH	1.0345	3.1 Inspection certificate according to EN 10204
	P265GH	1.0425	
	P295GH	1.0481	
EN 10088-1[13], EN 10088-4[14],	X6CrNiMoTi17-12-2	1.4571	CE 3.1 Inspection certificate according to EN 10204
	X5CrNiMo17-12-2	1.4401	
	X2CrNiMo17-12-2	1.4404	
EN 10028-7[15]	X2CrNiMo18-14-3	1.4435	3.1 Inspection certificate according to EN 10204

The steel should show a Charpy V-notch energy of 27 joule at the lowest temperature occurring in use.

2.2 Reaction to fire

The collecting basins made of steel are considered to satisfy the requirements for performance class A1 of the characteristic reaction to fire, in accordance with the provisions of EC decision 96/603/EC (as amended) without the need for testing on the basis of its listing in that decision.

2.3 Density

Material and welding seams of the collecting basins are impervious and chemically resistant to fluids. On each collecting basin the welding seams are tested with the vacuum method or the penetrant testing according to EN 571-1[16].

2.4 Content and/or release of dangerous substances

No dangerous substances are emitted by the material of the collecting basins. The hot dip galvanized coatings are according to EN ISO 1461[17]. The content of the contained cadmium in the zinc coating is 0,05 % per weight (tramp elements for molten zinc according to EN 1179, EN 13283).

See also section 4.2 (2).

Note: In addition to the specific clauses relating to dangerous substances contained in this European technical approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Directive, these requirements need also to be complied with, when and where they apply.

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11	EN 10028-1:2007	Flat products made of steels for pressure purposes - Part 1: General requirements
12	EN 10028-2:2003	Flat products made of steels for pressure purposes - Part 2: Non-alloy and alloy steels with specified elevated temperature properties, +AC:2005
13	EN 10088-1:2005	Stainless steels - Part 1: List of stainless steels
14	EN 10088-4:2010	Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes
15	EN 10028-7:2007	Flat products made of steels for pressure purposes - Part 7: Stainless steels
16	EN 571-1:1997	Non-destructive testing – Penetrant testing – Part 1: General principles
17	EN ISO:2009	Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods

2.5 Stability for the load case hydrostatic pressure and for the load case of the mounted containers

The collecting basins made of the steels stated in section 2.1 and the constructions and measurements given in Annexes 1 and 1.1 to 1.3 are stable for the following conditions:

- Maximum load from setting up the containers: 10 kN/m²
- Maximum tightness of the storage liquid: 1.9 kg/dm³

2.6 Minimum wall thickness

The collecting basins shall have the following minimum wall thicknesses:

- 3 mm when setting up on feet, for all aforementioned steels,
- 3 mm on direct placing on the ground for the steels stated in section 2.1 according to EN 10088,
- 5 mm on direct placing on the ground for the steels stated in section 2.1 according to EN 10025, EN 10018.

3 Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the communication of the European Commission[18] system 3 of the attestation of conformity laid down in the decision 1999/472/EC as amended by 2001/596/EC of the European Commission[19] for pipes, tanks and ancillaries not in contact with water intended for human consumption applies.

This system of attestation of conformity is defined as follows:

System 3: Declaration of conformity of the product by the manufacturer on the basis of:

(a) Tasks for the manufacturer:
  (1) factory production control;

(b) Tasks for the approved body:
  (2) initial type-testing of the product.

Note: Approved bodies are also referred to as "notified bodies".

3.2 Responsibilities

3.2.1 Tasks for the manufacturer

3.2.1.1 Factory production control

(1) The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall insure that the product is in conformity with this European technical approval.

(2) The manufacturer may only use initial materials stated in the technical documentation of this European technical approval.

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[18] Letter of the European Commission of 18/09/2006 to EOTA

[19] Official Journal of the European Communities L 184 of 17/07/99 and L 209 of 02/08/2001

(3) The factory production control shall be in accordance with the control plan which is part of the technical documentation of this European technical approval. The control plan is laid down in the context of the factory production control system operated by the manufacturer and deposited with Deutsches Institut für Bautechnik.[20]

(4) The results of factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

3.2.1.2 Other tasks for the manufacturer

(1) The manufacturer shall, on the basis of a contract, involve a body which is approved for the tasks referred to in section 3.1 in the field of collecting basins made of steel in order to undertake the actions laid down in section 3.2.2. For this purpose, the control plan referred to in sections 3.2.1.1 and 3.2.2 shall be handed over by the manufacturer to the approved body involved.

(2) The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European technical approval ETA.

3.2.2 Tasks for the approved bodies

The approved body shall perform the

- initial type-testing of the product

in accordance with the provisions laid down in the control plan.

The approved body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report.

3.3 CE marking

The CE marking shall be affixed visibly to the collecting basin. The letters ”CE” shall be followed by the identification number of the approved certification body, where relevant, and be accompanied by the following additional information:

- the name and address of the producer (legal entity responsible for the manufacture),
- year of manufacture,
- the number of the European technical approval,
- designation of the steel,
- admissible load from the stored containers (see section 2.5),
- collecting volume,
- maximum density of the storage liquid (see section 2.5).

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[20] The control plan is a confidential part of the European technical approval and only handed over to the approved body involved in the procedure of attestation of conformity. See section 3.2.2.

4 Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

4.1.1 General

(1) EN 1090-2[21] and the following provisions shall apply for the manufacture of collecting basins:

- When manufacturing collecting basins procedures shall be applied which are demonstrably controlled by the manufacturer and which make sure that the collecting basins correspond to the requirements of the European technical approval. Verification shall be furnished according to the standard quality requirements in accordance with EN ISO 3834-3[22].
- If the individual components of the collecting basin walls are produced by cold forming, no harmful alterations of the material may occur for the production and use of the collecting basins. In case of folding of parts of the collecting basins the bending radius shall be chosen equal to or larger than the wall thickness.
- Collecting basins which are not made of stainless steel shall be protected from ambient corrosion by paint coating or galvanizing. The steel applied shall be chemically resistant to the storage liquid; see section 5.2.1 (3) and (4). The resistance to the liquid must not be achieved by a protective layer (e.g. galvanize).

(2) The European technical approval is issued for the product on the basis of agreed data/information, deposited with Deutsches Institut für Bautechnik, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to Deutsches Institut für Bautechnik before the changes are introduced. Deutsches Institut für Bautechnik will decide whether or not such changes affect the approval and consequently the validity of the CE marking on the basis of the approval and if so whether further assessment or alterations to the approval shall be necessary.

4.1.2 Welding

(1) For welding, a manufacturer qualification according to EN 1090-2, execution class EXC 2, is required.

(2) The assembly of the individual components of the collecting basins shall be performed by welding by means of a recognized welding procedure specification (WPS).

(3) By means of appropriate work equipment and filler metals the welding seams on the collecting basins shall be carried out and after careful preparation of the individual components manufactured such that a properly welded connection is ensured and inherent stresses restricted to a minimum size. Filler materials shall be adapted to the material of the collecting basins.

(4) The welding seams shall be root penetrated over the entire cross section. They must not show any cracks, incomplete fusions and slag inclusions. The welding seams at the collecting basin walls shall be carried out as double sided butt welds without major edge misalignment. Angle joints shall be carried out as double sided fillet welds, unilaterally butt-welded corner welds or double-sided corner welds. Cruciform joints shall be avoided.

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21	EN 1090-2:2008	Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures
22	EN ISO 3834-3:2005	Quality requirements for fusion welding for metallic materials - Part 3: Standard quality requirements

(5) Mechanized welding procedures, for prefabricated parts for example, are admissible if their equivalence with the double-sided manual welding has been verified by the notified body on the basis of an auditing of procedures.

4.2 Installation

(1) The collecting basins may only be set up on even, horizontal, steady, firm surfaces being able to carry the load (e.g. asphalt, concrete).

(2) The collecting basins should be set up in buildings like storages or factories. If installed outdoors they shall be sufficiently roofed. Precipitation must not get into the collecting basins. Besides, they shall be set up such that they are protected from wind.

(3) The collecting basins shall be sufficiently protected from possible damage from the outside. Protection can be performed, for example, by

- secured setup within internal route of transport,
- collision guards.

5 Indications to transport, use and maintenance

5.1 Transport

Transportation of the collecting basins shall only be performed by firms which have the technical experience, adequate devices, equipment, and means of transport as well as sufficiently trained personnel.

5.2 Use, maintenance, repair

5.2.1 Requirements for use

(1) The necessary retention volume required is defined by national requirements of the relevant Member State.

(2) The collecting basins shall show a freeboard of at least 3 cm. For example, in Germany concerning collecting basins which are provided with a flat grill, the collecting volume may be considered only up to the bottom edge of the grate.

(3) In Germany the resistance of materials of steel against storing liquids is deemed to be verified provided the storing liquids are listed in DIN 6601[23] and the boundary conditions contained therein are being observed or the suitability has been verified according to clause 3 of DIN 6601, with the combinations liquid/material to be considered suitable, if the wall removal by surface corrosion amounts to 0.5 mm/year at the most.

The resistance is for Germany also deemed to be verified

- if the storage media of the "BAM List" contains "Requirements for tanks for the transportation of dangerous goods" (published by the Federal Institute for Materials Research and Testing (BAM), Unter den Eichen 87, 12205 Berlin) or
- by the approval under traffic law or the *allgemeine bauaufsichtliche Zulassung* ('national technical approval') for the container if the collecting basin consists of the same material as the tank.

The national rules of the relevant Member State shall be observed.

(4) Galvanized collecting basins must not be used for storing the following liquids: organic and inorganic acids, caustic lye of soda, caustic potash lye as well as other alkali hydroxides, chlorinated hydrocarbons, amines, nitro compounds, acid chlorides and other chlorides, phenol, aqueous alkali solutions, nitriles.

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[23] DIN 6601:2007-04 Resistance of materials of steel tanks against liquids

(5) Containers of different materials and conditions holding different kinds of liquids hazardous to water may only be placed in/on a collecting basin, if it is certain or can be verified that these materials do not cause any dangerous reaction with each other in the case of their escape. The material of another container must not be attacked by the storage medium.

(6) When storing liquids which present a particular risk (for example flash points ≤ 55 °C) the corresponding national provisions of the relevant Member State shall be paid attention to (for example ventilation requirements).

(7) Setting up the containers in or on the collecting basin shall be carried out such that at least at one spot one can see into the collecting basin in order to detect leakages. Otherwise a leakage probe shall be used for the detection of leakage.

(8) Nothing on the top of the collecting basin shall protrude from the collecting basin area, so that the collecting basin will catch all leakage and spill, if any.

(9) The steel grids used as storage space shall be designed and executed for the given live load according to the acknowledged rules of design of steel structures, e.g. Eurocode 3 (EN 1993[24]), RAL-GZ 638[25] and be verifiably chemically resistant to storage media.

5.2.2 Maintenance, repair

(1) The user of the collecting basin shall perform regular controls, at least once a week by visual examination to find out whether liquid has leaked into the collecting basin from the tanks. Leaked liquid shall be removed immediately free of damage.

(2) Damages on the corrosion protection of the collecting basins shall be promptly repaired.

(3) If a collecting basin has been repaired after the damage, which adversely affected the mode of operation considerably, it shall be subject to a tightness test. Repair and tightness test shall either be performed by the manufacturer or by another firm, which meets the requirements according to section 4.1. In addition national requirements of the relevant Member State shall apply here.

(4) The condition of the collecting basin should be checked with an interval according to national regulations of the relevant Member State or an interval of 2 years.

Uwe Bender
Head of Department

beglaubigt:
Schönemann

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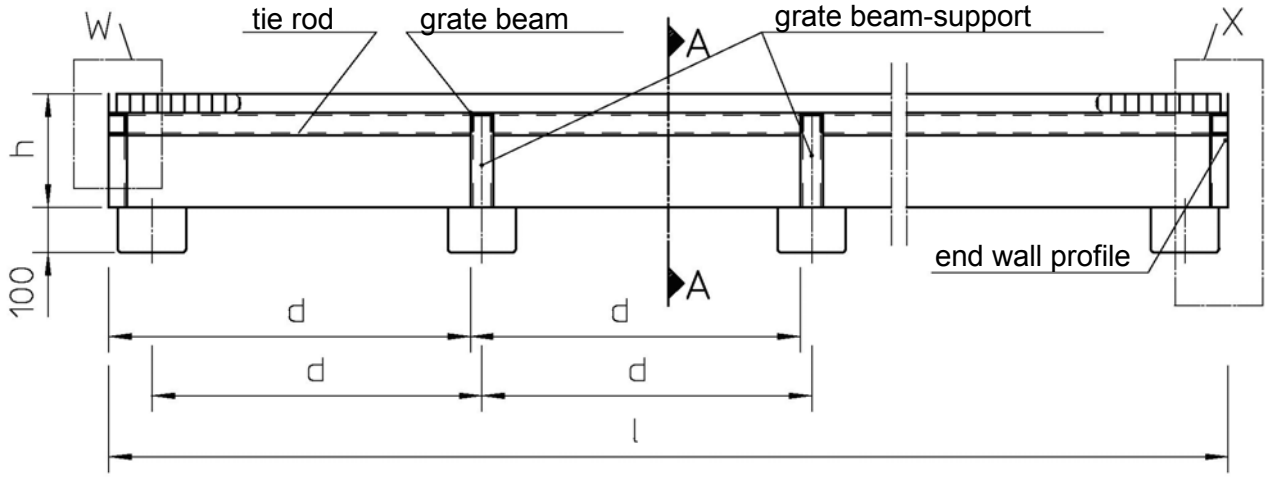
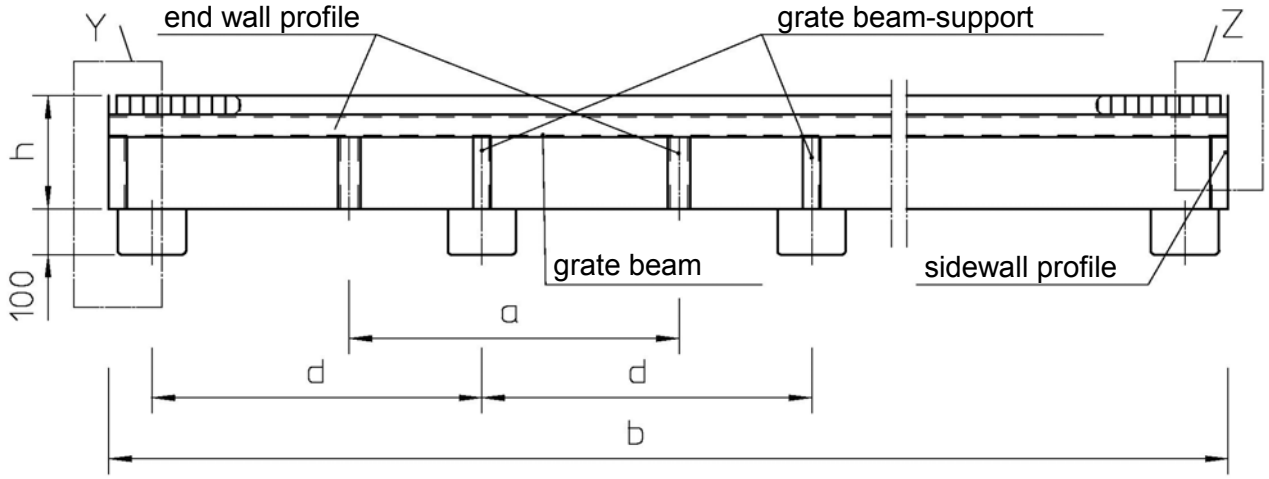
[24] EN 1993:2005 Eurocode 3: Design of steel structures – Part 1-1: General rules and rules for buildings; + AC:2009

[25] RAL-GZ 638:2008-09 Gitterroste – Gütesicherung



Section A-A



Execution variants:
Stationary collecting basins with smooth ground
Stationary collecting basins with feet

length l mm	width b mm	height h mm	spacing of the struts d mm
from 500 to 10.000	from 500 to 4.000	from 50 to 1.000	According to the tested static calculation N° 214/20429408

BAUER-Collecting basin	Annex 1
Overview	

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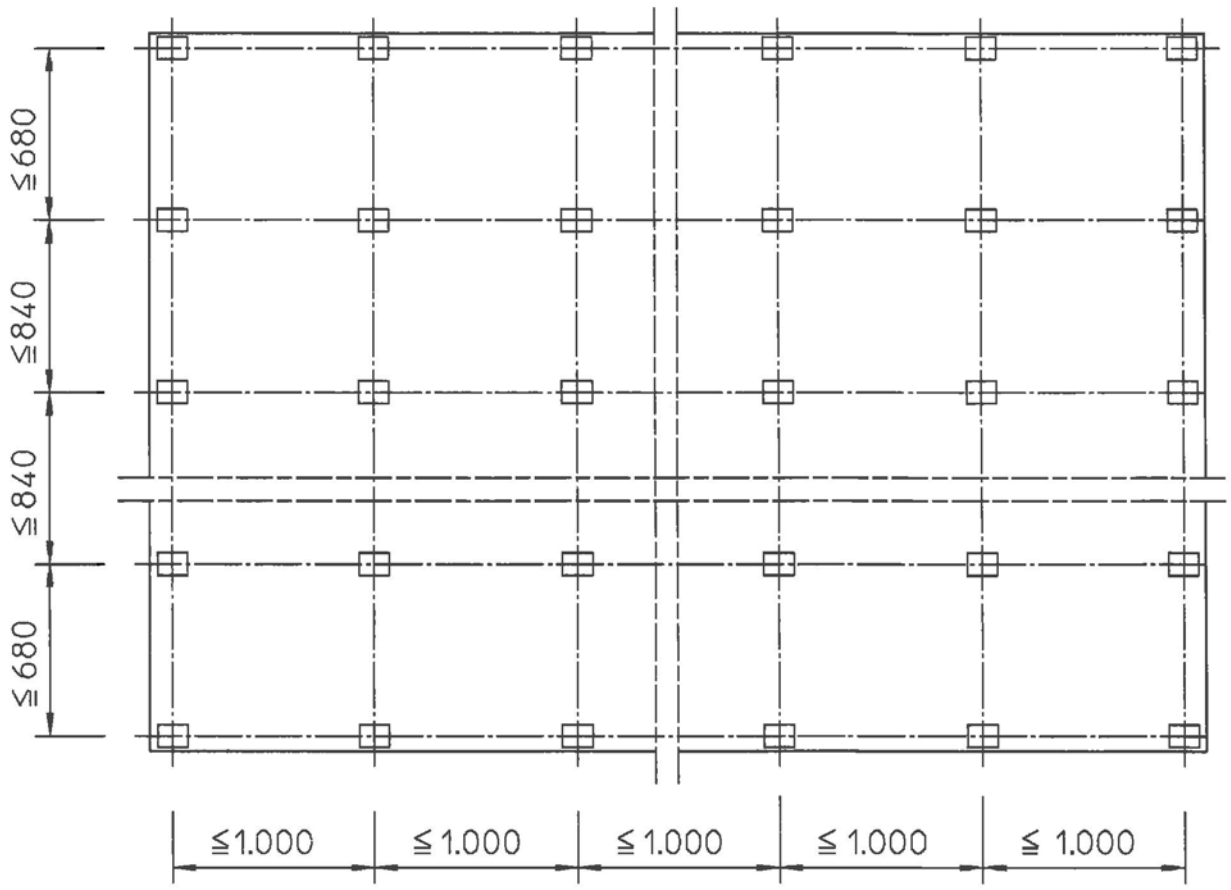

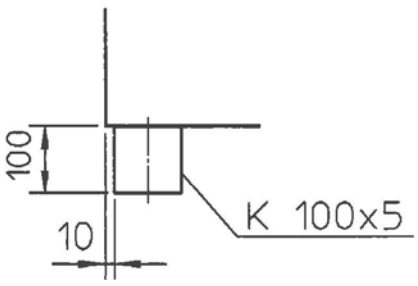

Grid dimension for supports see Annex 1.2

BAUER-Collecting basin	Annex 1.1
Feet and grate beam-support	

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up to H[2)] [mm]	Grid variants [mm x mm]		
370	-	840 x 1000	-
420	680 x 1000	840 x 840	-
470	600 x 1000	810 x 810	-
520	500 x 1000	770 x 770	-
570	350 x 1000	740 x 740	500 x 840
620	200 x 1000	720 x 720	500 x 840
670	840 x 500	680 x 680	470 x 840
720	790 x 500	660 x 660	420x 840
770	750 x 500	640 x 640	350 x 840
820	770 x 420	620 x 620	250 x 840
870	740 x 420	600 x 600	500 x 690
920	730 x 420	580 x 580	500 x 660
970	700 x 420	565 x 565	500 x 640

Grid dimensions "d" for single feet[1)] and grate beam supports[1)]
For sheek thickness ≥ 3 mm

[1)] Grate beam supports shall always be positioned on single feet
[2)] Height of the collecting basins without grate, i.e. H = h – 30 mm

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BAUER-Collecting basin	Annex 1.2
Grid demensions	

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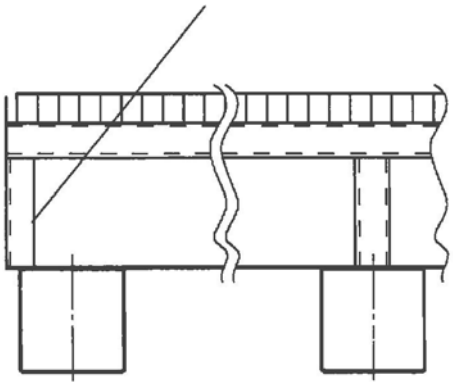
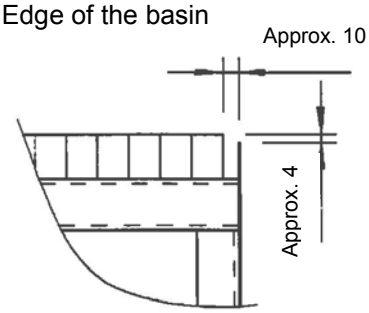
Detail "Y"

Sidewall profile under grate beam
for h ≥ 500 mm (U50x38) only



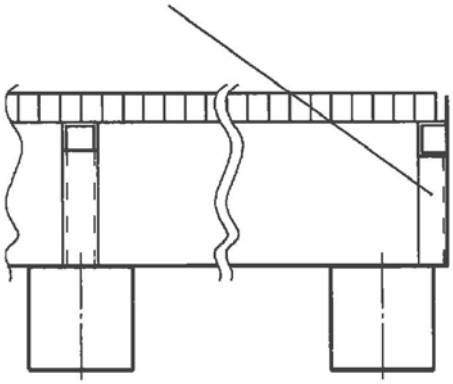
Detail "Z"

Edge of the basin



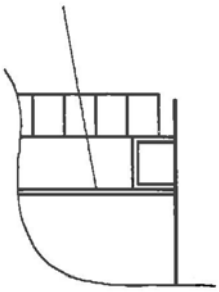
Detail "X"

Endwall profile a 800 mm
for h ≥ 750 mm (U50x38) only



Detail "W"

Tie rod for end wall profile
for l ≤ 1.700 mm (Fl20x5) only



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BAUER-Collecting basin	Annex 1.3
Details	