

Amendment 2 of answer to the Mandate M118/work programme of CEN/TC 165

Note: There are currently no other active WIs in the CEN/TC 165 Work Programme for hENs under Mandate M118 as amended (see end Note)

Document identification: CEN/TC 165 N 2344

Technical Committee CEN/TC 165 "Wastewater engineering"

Date: 2013-11-08

Documents	Reference Number	Date of issue
Mandate number	M118	1997-11-14
Addendum to mandate	M118	2010-09-01
Original answer to the Mandate	CEN letter	1998-01-06 CEN/TC 165 Doc N_0748rev dated 1998-12-08
Commission's acceptance	GE/si D(99)	1999-02-09 CEN/TC 165 Doc N_0800
1 st Amendment of the answer to the Mandate	CEN/TC 165 Doc N 2007	2010-12-09 to CCMC
2 nd Amendment of the answer to the Mandate	CEN/TC 165 Doc N 2344	2013-11-25

List of changes against the original Answer and the 1st amendment:

The proposed amendments are shown in yellow marking.

Clause of the original document	Reason for the change (short description)	Supporting information (if relevant)
Contents		
Clause 0 General comments	Regulation (EU) No 305/2011	hENs adapted to the works basic requirements of the Regulation (EU) No 305/2011
I.A.1 Anti-flooding devices EN 13564:2002	No change under this 2 nd answer to M118	revision planned under the future work programme of CEN/TC 165 taking into account the new provisions of the CPR 305/2011
I.A.2 Air admittance valves EN 12380:2002	No change under this 2nd answer to M118	revision planned under the future work programme of CEN/TC 165 taking into account the new provisions of the CPR

<p>I.B.1 Lifting plants for wastewater containing faecal matter</p>	<p>Revision of EN 12050-1:2001 to update the state of the art and to adapt the standard to the new templates for Annex ZA and the AVCP under Regulation (EU) No 305/2011</p>	<ul style="list-style-type: none"> • Title, scope and intended use were made more precisely as shown in the Annex for the products under I.B • Reaction to fire added
<p>I.B.2 Lifting plants for faecal-free wastewater</p>	<p>Revision of EN 12050-2:2000 to update the state of the art and to adapt the standard to the new templates for Annex ZA and the AVCP under Regulation (EU) No 305/2011</p>	<ul style="list-style-type: none"> • Noise level added • Performance characteristics according to the mandate to be dealt with refined
<p>I.B.3 Lifting plants for limited applications</p>	<p>Revision of EN 12050-3:2000 to update the state of the art and to adapt the standard to the new templates for Annex ZA and the AVCP under Regulation (EU) No 305/2011</p>	<ul style="list-style-type: none"> • Durability addressed to the durability of the ER • AoC changed to AVCP • List of supporting standards refined and extended to supporting standards for reaction to fire and determination of the noise level
<p>I.B.4 Non-return valves for faecal-free wastewater and wastewater containing faecal matter</p>	<p>Revision of EN 12050-4:2000 to update the state of the art and to adapt the standard to the new templates for Annex ZA and the AVCP under Regulation (EU) No 305/2011</p>	<ul style="list-style-type: none"> • Additional information extended to provide more information for clarification of the content of the hEN and the relation to other directives
<p>II.B.1 Drainage channels for vehicular and pedestrian areas EN 1433:2002+A1:2005 (+AC:2004)</p>	<p>revision planned under the future work programme of CEN/TC 165 taking into account the new provisions of the CPR 305/2011</p>	<p>CEN/TC 165 Decision 490</p>
<p>II.C.1 Manholes and inspection chambers from vitrified clay (according to EN 295-6:2012)</p>	<p>EN 295-6:2012 was revised according to the templates following the provisions required by the CPD 89/106. Due to the replacement of the CPD by the CPR 305/2011 and the new templates provided by CEN for Annex ZA and clauses on AVCP an amendment of EN 295-6:2011 is necessary to adapt the hEN to the CPR provisions as DoP for example.</p> <p>Together with the amendment of EN 295-6:2011 the supporting standard EN 295-2:2012, "Vitrified clay pipe systems for drains and sewers – Part 2: Evaluation of conformity and sampling" will be amended to change the title to "Vitrified clay pipe systems for drains and sewers – Part 2: Assessment and verification of constancy of performance – AVCP" and to adapt the content to the new template.</p>	<p>CEN/TC 165 Decision 498</p> <p>An amendment will be drafted to the harmonized EN 295-6:2013</p> <p>UAP procedure proposed for the amendment</p>

<p>II.D.1.1</p> <p>Gully tops and manhole tops for vehicular and pedestrian areas, Part 2: Gully tops and manhole tops made from cast iron (EN 124-2)</p>	<p>EN 124:1994 has been split into 6 material related parts to address more specific products made from different materials and for different intended uses. It also facilitates the use of the standard for SMEs.</p> <p>EN 124-1, Gully tops and manhole tops for vehicular and pedestrian areas – Part 1: Classification, common design, performance and testing requirements, test methods and assessment and verification of constancy of performance) serves as supporting standard</p>	<p>CEN/TC 165 Resolution 454/2011</p> <p>According to Commission Decision 2004/663/EC on the AoC for manhole tops and gully tops, the standard covers System 1.</p> <p>A detailed amendment of the answer to M118 will be given after discussion of the comments received after CEN enquiry</p> <p>Concerning the reaction to fire classification of gully tops and manhole tops a corrected Commission Decision is expected.</p>
<p>II.D.1.2</p> <p>Gully tops and manhole tops for vehicular and pedestrian areas – Part 3: Gully tops and manhole tops made from steel, aluminium alloy (EN 124-3)</p>	<p>EN 124:1994 has been split into 6 material related parts to address more specific products made from different materials and for different intended uses. It also facilitates the use of the standard for SMEs</p> <p>EN 124-1, Gully tops and manhole tops for vehicular and pedestrian areas – Part 1: Classification, common design, performance and testing requirements, test methods and assessment and verification of constancy of performance) serves as supporting standard</p>	<p>CEN/TC 165 Resolution 455/2011</p> <p>According to Commission Decision 2004/663/EC on the AoC for manhole tops and gully tops, the standard covers System 1.</p> <p>A detailed amendment of the answer to M118 will be given after discussion of the comments received after CEN enquiry.</p> <p>Concerning the reaction to fire classification of gully tops and manhole tops a corrected Commission Decision is expected.</p>
<p>II.D.1.3</p> <p>Gully tops and manhole tops for vehicular and pedestrian areas – Part 4: Gully tops and manhole tops made from steel reinforced concrete (EN 124-4)</p>	<p>EN 124:1994 has been split into 6 material related parts to address more specific products made from different materials and for different intended uses. It also facilitates the use of the standard for SMEs</p> <p>EN 124-1, Gully tops and manhole tops for vehicular and pedestrian areas – Part 1: Classification, common design, performance and testing requirements, test methods and assessment and verification of constancy of performance) serves as supporting standard</p>	<p>CEN/TC 165 Resolution 456/2011</p> <p>According to Commission Decision 2004/663/EC on the AoC for manhole tops and gully tops, the standard covers System 1.</p> <p>A detailed amendment of the answer to M118 will be given after discussion of the comments received after CEN enquiry.</p> <p>Concerning the reaction to fire classification of gully tops and manhole tops a corrected Commission Decision is expected.</p>

<p>II.D.1.4</p> <p>Gully tops and manhole tops for vehicular and pedestrian areas – Part 5: Gully tops and manhole tops made from composite materials (EN 124-5)</p>	<p>EN 124:1994 has been split into 6 material related parts to address more specific products made from different materials and for different intended uses. It also facilitates the use of the standard for SMEs</p> <p>EN 124-1, Gully tops and manhole tops for vehicular and pedestrian areas – Part 1: Classification, common design, performance and testing requirements, test methods and assessment and verification of constancy of performance) serves as supporting standard</p>	<p>CEN/TC 165 Resolution 457/2011</p> <p>According to Commission Decision 2004/663/EC on the AoC for manhole tops and gully tops, the standard covers System 1.</p> <p>A detailed amendment of the answer to M118 will be given after discussion of the comments received after CEN enquiry.</p> <p>Concerning the reaction to fire classification of gully tops and manhole tops a corrected Commission Decision is expected.</p>
<p>II.D.1.5</p> <p>Gully tops and manhole tops for vehicular and pedestrian areas – Part 6: Gully tops and manhole tops made from Polypropylene (PP) or Polyvinyl-chloride (PVC-U) (EN 124-6)</p>	<p>EN 124:1994 has been split into 6 material related parts to address more specific products made from different materials and for different intended uses. It also facilitates the use of the standard for SMEs</p> <p>EN 124-1, Gully tops and manhole tops for vehicular and pedestrian areas – Part 1: Classification, common design, performance and testing requirements, test methods and assessment and verification of constancy of performance) serves as supporting standard</p>	<p>CEN/TC 165 Resolution 458/2011</p> <p>According to Commission Decision 2004/663/EC on the AoC for manhole tops and gully tops, the standard covers System 1.</p> <p>A detailed amendment of the answer to M118 will be given after discussion of the comments received after CEN enquiry.</p> <p>Concerning the reaction to fire classification of gully tops and manhole tops a corrected Commission Decision is expected.</p>
<p>II.D.2</p> <p>Manhole steps</p> <p>EN 13101:2002</p>	<p>revision planned under the future work programme of CEN/TC 165 taking into account the new provisions of the CPR 305/2011</p>	<p>CEN/TC 165 Decision 492</p>
<p>II.D.3</p> <p>Fixed ladders for manholes</p> <p>EN 14396:2004</p>	<p>revision planned under the future work programme of CEN/TC 165 taking into account the new provisions of the CPR 305/2011</p>	<p>CEN/TC 165 Decision 490</p>
<p>II.E.1</p> <p>Grease separators</p>	<p>no change at the moment</p>	<p>EN 1825-1:2004 (+AC:2006)</p>
<p>II.E.2</p> <p>Separators for light liquids</p>	<p>no change at the moment</p>	<p>EN 858-1:2002+A1:2004</p>

**MANDATE on “Wastewater engineering products” (M118 as amended) –
2nd Amendment to the reply from CEN/TC 165 “Wastewater engineering”**

0) General comments from CEN/TC 165 related to the 2nd amendment to the answer to the mandate

0.1) Requests for clarification on the scope of the mandate concerning the products and allocation of work:

None

0.2) Requests for clarification on the intended use:

None

0.3) Information on products under the scope of the mandate which are the subject of other CEN/TCs -
Information on the organisation of the work between TCs:

None

0.4) Information on issues concerning the scope and intended uses included in the mandate, for work has
yet been started in the TC, or for which the TC cannot provide a standard:

see table above

0.5) Specific requests for additions to the mandate of products, materials, intended uses, essential
characteristics, etc.:

See the relevant individual items.

0.6) Liaison with other TCs for certain horizontal tests - Information on the organisation of the work between
the TCs:

see Amendment 1

0.7) Other issues which the TC considers necessary for the comprehension of the answer to the mandate:

see Amendment 1

I.B Kits and elements for wastewater pumping stations and effluent lifting plants inside buildings

Products for consideration

- 1 Lifting plants for wastewater containing faecal matter
- 2 Lifting plants for faecal-free wastewater
- 3 Lifting plants for wastewater containing faecal matter for limited applications
- 4 Non-return valves for faecal-free wastewater and wastewater containing faecal matter

I.B.1 Lifting plants for wastewater containing faecal matter

I.B.1.1 Harmonized product standard

Availability: Stage 20.60: available
 Stage 30.99: available
 Stage 45.99: 2014-07

Number: EN 12050-1rev (WI00165195)

(i) **Title:** *Wastewater lifting plants for building and sites - Part 1: Lifting plants for wastewater containing faecal matter*

(ii) **Scope:** *This European Standard applies to lifting plants for wastewater containing faecal matter (referred to as "faecal lifting plants" in this Standard), for drainage of locations below flood level in buildings and sites to prevent any backflow of wastewater into the building. These lifting plants may be prefabricated or delivered as prefabricated kits and assembled on site. This standard specifies general requirements, basic construction and testing principles, together with information on materials and assessment and verification of constancy of performance.*

Construction and testing requirements for non-return valves used in wastewater lifting plants are given in EN 12050-4.

This standard does not apply for pumping installations for drain and sewer systems outside buildings for pumping of municipal wastewater according to EN 752:2008, Annex F.

NOTE 1 *Lifting plants for wastewater containing faecal matter can also be used for surface water and wastewater that does not contain faecal matter.*

This European Standard also applies to lifting plants for wastewater containing faecal matter which are not prefabricated but composed of individual components purchased from different suppliers and put together on site.

(iii) **Intended uses:**

Drainage of locations below flood level in buildings and sites to prevent any backflow of wastewater into the building.

(iv) **The performance characteristics according to the mandate which will be dealt with in the above standard will be:**

ER	Mandate	The performance characteristics according to the mandate which will be dealt with in the above standard by:
<u>ER 2/1</u>	<u>Reaction to fire</u>	<u>Reaction to fire (see 0.7.1)</u>
<u>ER 3/1</u>	<u>Watertightness</u>	<u>– watertightness</u>
<u>ER 3/2</u>	<u>Airtightness</u>	<u>– odourtightness</u>
<u>ER 3/3</u>	<u>Effectiveness (for kits)</u>	<u>Lifting effectiveness</u> – <u>pumping of solids</u> – <u>pipe connections</u> – <u>minimum dimension of ventilating pipe system</u> – <u>minimum flow velocity (calculated from the result of the flow rate test and the pipe diameter)</u> – <u>minimum free ball passage of the plant</u> – <u>useful volume</u>
<u>ER 4</u>	<u>Mechanical resistance</u>	<u>– load bearing capacity of collection tank (where loads on the tank are expected)</u>

		– <u>structural stability of collection tank</u>
<u>ER 5</u>	<u>Noise level</u>	<u>Noise level</u>

(v) Durability aspects

Lifting plants for wastewater containing faecal matter are products of known and stable performance for defined end use applications with respect to their established durability for which experience has been accumulated over a long period of time. Durability is ensured by meeting the requirements of this standard, which represents the state of the art.

For new materials the manufacturer has to take appropriate measures to verify that the lifting plant made of the new material is in accordance with the performance characteristics required by this standard.

- Durability of watertightness and odourtightness, is ensured by passing a water overpressure test of 50 kPa without any leakage.
- Durability of lifting effectiveness is ensured by meeting the requirements and tests specified in the standard for
 - pumping of solids
 - the pipe connections
 - minimum dimensions of ventilating pipe system;
 - minimum flow velocity;
 - minimum free ball passage of the plant
 - useful volume
- Durability of mechanical resistance is ensured by meeting the requirements for
 - structural stability of collection tank passing a hot water test
 - structural stability of collection tank (where loads on the tank are expected) passing the test in accordance with EN 12566-1:2000+A1:2003.

(vi) Other aspects

The harmonized product standard will also contain:

- a reference of the Commission's decision on AoC, as amended
- clauses on assessment and verification of constancy of performance - AVCP
- guidance on performance characteristics to be stated in the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics

I.B.1.2 Supporting standards (see 0.7.2)

The following work items, prENs or ENs and other CEN deliverables, including European Commission Decision on CWT, are referred as test or calculation methods for the determination and classification of the performance of the essential characteristics required by the mandate and indicated in I.B.1.1 (iv) and (v) above:

ER	Mandate	
ER 2/1	– Commission Decision 96/603/EC, as amended – EN 13501-1, Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests – EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item	Available Available Available
ER 3/1	Test procedure to be covered in standard for the product under I.B.1.1	–
ER 3/2	Test procedure to be covered in standard for the product under I.B.1.1	–
ER 3/3	Test procedure to be covered in standard for the product under I.B.1.1	–
ER 4	Test procedure to be covered in standard for the product under I.B.1.1 and – EN 12566-1:2000+A1:2003, Small wastewater treatment systems for up to 50 PT — Part 1: Prefabricated septic tanks	Available
<u>ER 5</u>	<u>EN ISO 20361, Liquid pumps and pump units — Noise test code - Grades 2 and 3 of accuracy (ISO 20361:2007)</u>	Available

I.B.1.3 Additional information, comments and remarks

3.1 Deviations from a performance approach in the product standard:

None

3.2 Requests for clarification on the scope of the mandate concerning the product in I.B.1.1:

- Lifting plants for wastewater containing faecal matter are used in both areas, within buildings and on sites outside in the proximity of a building as defined in EN 12056-4, Gravity drainage systems inside buildings - Part 4: Wastewater lifting plants, layout and calculation. Although not expressively stated in the mandate the harmonized standard will cover the application area outside in the proximity of a building.
The currently published Standard-series EN 12050-1 to -4, which has been valid for more than ten years, also already covers wastewater lifting plants on site within the proximity of the building. On the principle of legal certainty – as both users, planners, plumbers and manufacturers used the standards and the products for buildings **and sites** for many years and on the principle that products must not be excluded from existing markets – the scope and the mandate should be altered and be extended for buildings **and sites**.
- Pumping installations for drain and sewer systems outside buildings for pumping of municipal wastewater according to EN 752:2008, Annex F are not under the scope of the hEN for the product in I.B.1.1
- Lifting plants can be considered a kit as well (e.g. assembled on site from big concrete rings). These lifting plants can be prefabricated or delivered as kits and assembled on site.
- This European Standard can be applied for lifting wastewater containing faecal matter which are not prefabricated but assembled from individual components and put together on site by an installer. Annex ZA is not applicable in this case;

3.3 Requests for clarification on the intended uses concerning the product in I.B.1.1:

None

3.4 Requests for clarification on the essential characteristics for the intended uses included in the mandate concerning the product in I.B.1.1:

None

3.5 Information on essential characteristics required by the mandate concerning the product in I.B.1.1:

None

3.6 Explanation of the state of the art concerning durability issues:

The durability of all characteristics under (iv) is ensured by the product passing the relevant test method for each characteristic as well as the durability characteristics of material used. There is no specific testing for durability and thus durability aspects are either covered in a descriptive way or by the product passing the relevant test method for each characteristic.

3.7 Information on other Directives under which the product in I.B.1.1 falls, and compliance conditions:

CEN/TC 165 considers that the Low Voltage Directive (LVD), Machinery Directive and Electromagnetic Compatibility Directive (EMC) are not applicable to the wastewater lifting plants under the Mandate M118.

Justification:

- According to its scope, the standard provides general requirements and does not address safety issues and therefore must not be harmonized under the Machinery Directive 2006/42/EC;
- The series EN 12050 has been only drawn up for the conformity to the requirements initially to the Construction Products Directive (CPD) and now in their revision to the requirements to the Construction Products Regulation (CPR);
- The Mandate M118, does not mention to consider the LVD, MD or EMC;

- There are already other standards which cover the conformity to these other directives e.g. EN ISO 12100 (MD) or EN 60204-1 (LVD, electrical & electronic equipment for machinery), etc.

For the ER 5, noise level, CEN/TC 165 follows the requirements on noise declaration of the Machinery Directive 2006/42/EC. For the measurement of the emission sound pressure level and the emission sound power level, reference is made to EN ISO 20361.

3.8 Specific requests for additions to the mandate of materials, intended uses or essential characteristics concerning the product in I.B.1.1:

None

3.9 Other issues which the TC considers necessary for comprehension of the answer to the mandate:

None

I.B.2 Lifting plants for faecal-free wastewater

I.B.2.1 Harmonized product standard

Availability: Stage 20.60: available
 Stage 30.99: available
 Stage 45.99: 2014-07

Number: EN 12050-2rev (WI 00165196)

(i) **Title:** Wastewater lifting plants for buildings and sites – Part 2: Lifting plants for faecal-free wastewater

(ii) **Scope:** This European Standard applies to lifting plants for faecal-free wastewater for drainage of locations below flood level in buildings and sites to prevent any backflow of wastewater into the building. These lifting plants may be prefabricated or delivered as prefabricated kits and assembled on site. This European Standard specifies general requirements, basic construction and testing principles, together with information on materials and assessment and verification of constancy of performance.

Construction and testing requirements for non-return valves used in wastewater lifting plants are given in EN 12050-4.

This standard does not apply for pumping installations for drain and sewer systems outside buildings for pumping of municipal wastewater according to EN 752:2008, Annex F.

This European Standard applies also to lifting plants for faecal-free wastewater which are not prefabricated but composed of individual components purchased from different suppliers and put together on site.

(iii) **Intended uses:**

Drainage of locations below flood level in buildings and sites to prevent any backflow of faecal-free wastewater into the building.

(iv) **The essential characteristics according to the mandate which will be dealt with in the above standard will be:**

ER	Mandate	The performance characteristics according to the mandate which will be dealt with in the above standard by:
ER 2/1	Reaction to fire	Reaction to fire (see 0.7.1)
ER 3/1	Watertightness	watertightness
ER 3/2	Airtightness	not relevant for faecal free lifting plants
ER 3/3	Effectiveness (for kits)	Lifting effectiveness <ul style="list-style-type: none"> – pumping of solids – pipe connections – ventilation – minimum flow velocity (calculated from the results of the flow rate test and the pipe diameter) – minimum solids passage of the plant – minimum useful volume
ER 4	Mechanical resistance	<ul style="list-style-type: none"> – load bearing capacity of collection tank (where loads on the tank are expected) – structural stability of collection tank
ER 5	Noise level	Noise level

(v) **Durability aspects**

Lifting plants for faecal free wastewater matter are products of known and stable performance for defined end use applications with respect to their established durability for which experience has been accumulated over a long period of time. Durability is ensured by meeting the requirements of this standard, which represents the state of the art.

For new materials the manufacturer has to take appropriate measures to verify that the lifting plant made of the new material is in accordance with the performance characteristics required by this standard.

Durability of watertightness is ensured by passing a water overpressure test of 50 kPa without any leakage.

Durability of lifting effectiveness is ensured by meeting the requirements and tests specified in the standard for

- pumping of solids;
- the pipe connections;
- minimum dimensions of ventilating pipe system;
- minimum flow velocity;
- minimum solids passage of the plant;
- minimum useful volume.

Durability of mechanical resistance is ensured by meeting the requirements and tests specified in the standard for

- structural stability of collection tank passing a water pressure test;
- structural stability of collection tank (where loads on the tank are expected) passing the test in accordance with EN 12566-1:2000+A1:2003.

(vi) Other aspects

The harmonized product standard will also contain:

- a reference of the Commission's decision on AoC, as amended
- clauses on assessment and verification of constancy of performance - AVCP
- guidance on performance characteristics to be stated in the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics

I.B.2.2 Supporting standards (see 0.7.2)

The following work items, prENs or ENs and other CEN deliverables, including European Commission Decision on CWT, are referred as test or calculation methods for the determination and classification of the performance of the essential characteristics required by the mandate and indicated in I.B.2.1 (iv) and (v) above:

ER	Mandate	
ER 2/1	<ul style="list-style-type: none"> – Commission Decision 96/603/EC, as amended – EN 13501-1, Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests – EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item 	Available Available Available
ER 3/1	Test procedure to be covered in standard for the product under I.B.2.1	–
ER 3/2	Test procedure to be covered in standard for the product under I.B.2.1	–
ER 3/3	Test procedure to be covered in standard for the product under I.B.2.1	–
ER 4	Test procedure to be covered in standard for the product under I.B.2.1 and <ul style="list-style-type: none"> – EN 12566-1:2000+A1:2003, Small wastewater treatment systems for up to 50 PT — Part 1: Prefabricated septic tanks 	Available
ER 5	EN ISO 20361, Liquid pumps and pump units — Noise test code - Grades 2 and 3 of accuracy (ISO 20361:2007)	Available

I.B.2.3 Additional information, comments and remarks

3.1 Deviations from a performance approach in the product standard:

None

3.2 Requests for clarification on the scope of the mandate concerning the product in I.B.2.1:

- lifting plants for faecal-free wastewater are used in both areas, within buildings and on sites outside in the proximity of a building as defined in EN 12056-4, Gravity drainage systems inside buildings - Part 4:

Wastewater lifting plants, layout and calculation. Although not expressly stated in the mandate the harmonized standard will cover the application area outside in the proximity of a building.

- The currently published Standard-series EN 12050-1 to -4, which has been valid for more than ten years, also already covers wastewater lifting plants on site within the proximity of the building. On the principle of legal certainty – as both users, planners, plumbers and manufacturers used the standards and the products for buildings **and sites** for many years and on the principle that products must not be excluded from existing markets – the scope and the mandate should be altered and be extended for buildings **and sites**.
- pumping installations for drain and sewer systems outside buildings for pumping of municipal wastewater according to EN 752:2008, Annex F are not under the scope of the hEN for the product in I.B.2.1
- lifting plants for faecal-free wastewater can be considered as kit as well (e.g. assembled on site from big concrete rings). These lifting plants can be prefabricated or delivered as kits and assembled on site.
- lifting for faecal-free wastewater which are not prefabricated but assembled from individual components and put together on site by an installer are not considered as construction product to be placed on the market. Annex ZA is not applicable in this case;

3.3 Requests for clarification on the intended uses concerning the product in I.B.2.1:

None

3.4 Requests for clarification on the essential characteristics for the intended uses included in the mandate concerning the product in I.B.2.1:

None

3.5 Information on essential characteristics required by the mandate concerning the product in I.B.2.1:

See I.B.2.1 (iv)

3.6 Explanation of the state of the art concerning durability issues:

The durability of all characteristics under (iv) is ensured by the product passing the relevant test method for each characteristic as well as the durability characteristics of material used. There is no specific testing for durability and thus durability aspects are either covered in a descriptive way or by the product passing the relevant test method for each characteristic. (see I.B.2.1 (v)).

3.7 Information on other Directives under which the product in I.B.2.1 falls, and compliance conditions:

CEN/TC 165 considers that the Low Voltage Directive (LVD), Machinery Directive and Electromagnetic Compatibility Directive (EMC) are not applicable to the wastewater lifting plants under the Mandate M118.

Justification:

- According to its scope, the standard provides general requirements and does not address safety issues and therefore must not be harmonized under the Machinery Directive 2006/42/EC;
- The series EN 12050 has been only drawn up for the conformity to the requirements initially to the Construction Products Directive (CPD) and now in their revision to the requirements to the Construction Products Regulation (CPR);
- The Mandate M118, does not mention to consider the LVD, MD or EMC;
- There are already other standards which cover the conformity to these other directives e.g. EN ISO 12100 (MD) or EN 60204-1 (LVD, electrical & electronic equipment for machinery), etc.

For the ER 5, noise level, CEN/TC 165 follows the requirements on noise declaration of the Machinery Directive 2006/42/EC. For the measurement of the emission sound pressure level and the emission sound power level, reference is made to EN ISO 20361.

3.8 Specific requests for additions to the mandate of materials, intended uses or essential characteristics concerning the product in I.B.2.1:

None

3.9 *Other issues which the TC considers necessary for comprehension of the answer to the mandate:*

None

I.B.3 Lifting plants for limited applications

I.B.3.1 Harmonized product standard

Availability: Stage 32: Available
 Stage 40: Available
 Stage 49: 2014-07

Number: EN 12050-3rev (WI00165197)

(i) **Title:** Wastewater lifting plants for buildings and sites - Part 3: Lifting plants for limited applications

(ii) **Scope:** This European Standard applies to lifting plants for limited applications for domestic, non-commercial wastewater containing or not containing faecal matter and located below flood level.

Note: Limited application means that the number of users is small and the plant is located in the same room as the sanitary appliance(s) served by it¹⁾ which are installed in accordance with EN 12056-1 and the layout and calculation are in accordance with EN 12056-4.

This Standard applies to lifting plants for limited applications designed for wastewater containing faecal matter, where there is another WC available above flood level, and the plants serve no more than a single WC to which it is directly connected (at a distance of max. 0,5 m) and one hand washbasin, one shower and one bidet provided no other sanitary appliance is directly or indirectly connected.

This Standard also applies to lifting plants for limited applications designed for faecal free wastewater, where a maximum of one hand washbasin or kitchen sink plus one further appliance such as a bathtub or a washing machine or a shower or a dish washer or an urinal are connected. No other sanitary appliance shall be directly or indirectly connected.

This Standard contains general requirements, basic construction and testing principles, together with information on materials.

Construction and testing requirements for non-return valves used in wastewater lifting plants for limited applications are given in EN 12050-4.

This Standard does not apply for lifting plants for limited applications for wastewater containing faecal matter where WC flushing is carried out by pressure flush valve.

(iii) **Intended uses:**

Automatic lifting of wastewater which may or may not contain faecal matter to a height above flood level for limited application.

(iv) **The essential characteristics according to the mandate which will be dealt with in the above standard will be:**

ER	Mandate	The performance characteristics according to the mandate which will be dealt with in the above standard by:
ER 2/1	Reaction to fire	Reaction to fire (see 0.7.1)
ER 3/1	Watertightness	watertightness
ER 3/2	Airtightness	odourtightness
ER 3/3	Effectiveness	Lifting effectiveness <ul style="list-style-type: none"> - pumping of solids (for wastewater containing faecal matter and faecal free matter) - pipe connections - ventilation - minimum flow velocity (calculated from the results of the flow rate test and the pipe diameter) - minimum free ball passage of the plant
ER 4	Mechanical	Mechanical resistance of tank is covered by testing the water- and

	<i>resistance</i>	<i>odourtightness of the tank to be carried out in a water –pressure test unit</i>
<i>ER 5</i>	<i>Noise level</i>	<i>Noise level</i>

(v) Durability aspects

Lifting plants for faecal-free wastewater are products of known and stable performance for defined end use applications with respect to their established durability for which experience has been accumulated over a long period of time. Durability is ensured by meeting the requirements of this standard, which represent the state of the art.

For new materials the manufacturer has to take appropriate measures to verify that the lifting plant made of the new material is in accordance with the performance characteristics required by this standard.

- Durability of watertightness is ensured by passing a water overpressure test of 50 kPa without any leakage.
- Durability of lifting effectiveness is ensured by meeting the requirements and tests specified in the standard for
 - pumping of solids;
 - the pipe connections;
 - minimum dimensions of ventilating pipe system;
 - minimum flow velocity;
 - minimum free ball passage of the plant;
- Durability of mechanical resistance is ensured by meeting the requirements and tests specified in the standard for structural stability of collection tank passing a water pressure test;

(vi) Other aspects

The harmonized product standard will also contain:

- a reference of the Commission's decision on AoC, as amended
- clauses on assessment and verification of constancy of performance - AVCP
- guidance on performance characteristics to be stated in the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics

I.B.3.2 Supporting standards (see 0.7.2)

The following work items, prENs or ENs and other CEN deliverables, including European Commission Decision on CWT, are referred as test or calculation methods for the determination and classification of the performance of the essential characteristics required by the mandate and indicated in I.B.2.1 (iv) and (v) above:

ER	Mandate	
<i>ER 2/1</i>	– Commission Decision 96/603/EC, as amended	Available
	– EN 13501-1, Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests	Available
	– EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item	Available
<i>ER 3/1</i>	<i>Test procedure to be covered in standard for the product under I.B.3.1</i>	–
<i>ER 3/2</i>	<i>Test procedure to be covered in standard for the product under I.B.3.1</i>	–
<i>ER 3/3</i>	<i>Test procedure to be covered in standard for the product under I.B.3.1</i>	–
<i>ER 4</i>	<i>Test procedure to be covered in standard for the product under I.B.2.1</i>	–
<i>ER 5</i>	<i>EN ISO 20361, Liquid pumps and pump units — Noise test code - Grades 2 and 3 of accuracy (ISO 20361:2007)</i>	Available

I.B.3.3 Additional information, comments and remarks

3.1 Deviations from a performance approach in the product standard:

None

3.2 Requests for clarification on the scope of the mandate concerning the product in I.B.2.1:

None

3.3 Requests for clarification on the intended uses concerning the product in I.B.2.1:

None

3.4 Requests for clarification on the essential characteristics for the intended uses included in the mandate concerning the product in I.B.2.1:

None

3.5 Information on essential characteristics required by the mandate concerning the product in I.B.2.1:

See I.B.2.1 (iv)

3.6 Explanation of the state of the art concerning durability issues:

The durability of all characteristics under (iv) is ensured by the product passing the relevant test method for each characteristic as well as the durability characteristics of material used. There is no specific testing for durability and thus durability aspects are covered in a descriptive way. In the next revision of the Standard the issue will be reconsidered.
(see I.B.2.1 (v))

3.7 Information on other Directives under which the product in I.B.2.1 falls, and compliance conditions:

CEN/TC 165 considers that the Low Voltage Directive (LVD), Machinery Directive and Electromagnetic Compatibility Directive (EMC) are not applicable to the wastewater lifting plants under the Mandate M118.

Justification:

- According to its scope, the standard provides general requirements and does not address safety issues and therefore must not be harmonized under the Machinery Directive 2006/42/EC;
- The series EN 12050 has been only drawn up for the conformity to the requirements initially to the Construction Products Directive (CPD) and now in their revision to the requirements to the Construction Products Regulation (CPR);
- The Mandate M118, does not mention to consider the LVD, MD or EMCD;
- There are already other standards which cover the conformity to these other directives e.g. EN ISO 12100 (MD) or EN 60204-1 (LVD, electrical & electronic equipment for machinery), etc.

For the ER 5, noise level, CEN/TC 165 follows the requirements on noise declaration of the Machinery Directive 2006/42/EC. For the measurement of the emission sound pressure level and the emission sound power level, reference is made to EN ISO 20361.

3.8 Specific requests for additions to the mandate of materials, intended uses or essential characteristics concerning the product in I.B.2.1:

None

3.9 Other issues which the TC considers necessary for comprehension of the answer to the mandate:

None

I.B.4 Non-return valves for faecal-free wastewater and wastewater containing faecal matter

I.B.4.1 Harmonized product standard

Availability: Stage 32: Available
 Stage 40: Available
 Stage 49: 2014-07

Number: EN 12050-4rev (WI 00165198)

(i) Title: Wastewater lifting plants for buildings and sites - Part 4: Non-return valves for faecal-free wastewater and wastewater containing faecal matter

(ii) Scope: This European standard applies to non-return valves used for faecal and faecal-free wastewater lifting plants. This Standard specifies general requirements, basic construction and testing principles together with information on materials and the relevant assessment and verification of constancy of performance.

(iii) Intended uses:

Automatic prevention of backflow of wastewater from the discharge pipe system when the pumping operation stops

(iv) The essential characteristics according to the mandate which will be dealt with in the above standard will be:

ER	Mandate	The performance characteristics according to the mandate will be dealt with in the above standard by:
ER 2/1	Reaction to fire	Reaction to fire (see 0.7.1)
ER 3/1	Watertightness	Internal leakage
ER 3/2	Airtightness	Not relevant
ER 3/3	Effectiveness	Function of connections, solid passages at nominal pump pressure
ER 4	Mechanical resistance	Withstanding the maximum pump pressure
ER 5	Noise level	Noise level

(v) Durability aspects

Non-return valves for lifting plants for faecal-free wastewater are products of known and stable performance for defined end use applications with respect to their established durability for which experience has been accumulated over a long period of time.

The durability of the characteristics watertightness, lifting effectiveness and mechanical resistance is ensured by the product passing the relevant test method given in the standard.

(vi) Other aspects

The harmonized product standard will also contain:

- a reference of the Commission's decision on AoC, as amended
- clauses on assessment and verification of constancy of performance - AVCP
- guidance on performance characteristics to be stated in theDoP and the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics

I.B.4.2 Supporting standards (see 0.7.2)

The following work items, prENs or ENs and other CEN deliverables, including European Commission Decision on CWT, are referred as test or calculation methods for the determination and classification of the performance of the essential characteristics required by the mandate and indicated in I.B.4.1 (iv) and (v) above:

ER	Mandate	

ER 2/1	<ul style="list-style-type: none"> – Commission Decision 96/603/EC, as amended – EN 13501-1, Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests – EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item 	Available Available Available
ER 3/1	Test procedure to be covered in standard for the product under I.B.4.1	–
ER 3/2	Test procedure to be covered in standard for the product under I.B.4.1	–
ER 3/3	Test procedure to be covered in standard for the product under I.B.4.1	–
ER 4	Test procedure to be covered in standard for the product under I.B.4.1	–
ER 5	EN ISO 20361, Liquid pumps and pump units — Noise test code - Grades 2 and 3 of accuracy (ISO 20361:2007)	Available

I.B.3.3 Additional information, comments and remarks

3.1 Deviations from a performance approach in the product standard:

None

3.2 Requests for clarification on the scope of the mandate concerning the product in I.B.4.1:

This Standard applies to non-return valves that are put on the market as a separate component and to non-return valves that are integrated into the wastewater lifting plant by the manufacturer. Since these integrated non-return valves are not separately put on the market, Annex ZA does not apply in this case.

3.3 Requests for clarification on the intended uses concerning the product in I.B.4.1:

Automatic prevention of backflow of wastewater from the discharge pipe system when the pumping operation of the wastewater lifting plants for faecal-free wastewater (see EN 12050-2) and wastewater containing faecal matter (see EN 12050-1 and EN 12050-3) stops.

3.4 Requests for clarification on the essential characteristics for the intended uses included in the mandate concerning the product in I.B.4.1:

The mandate addressed the use “inside buildings” only. Products according to I.B.4.1 however, as part of wastewater lifting plants for faecal-free wastewater (see EN 12050-2) and wastewater containing faecal matter (see EN 12050-1 and EN 12050-3) are used for the drainage of locations below flood level in buildings and sites to prevent backflow into the building.

3.5 Information on essential characteristics required by the mandate concerning the product in I.B.4.1:

See I.B.4.1 (iv)

3.6 Explanation of the state of the art concerning durability issues:

The durability of all characteristics under (iv) is ensured by the product passing the relevant test method for each characteristic as well as the durability characteristics of material used. The durability of the characteristics watertightness, lifting effectiveness and mechanical resistance is ensured by the product passing the relevant test method given in the standard

3.7 Information on other Directives under which the product in I.B.4.1 falls, and compliance conditions:

None

3.8 Specific requests for additions to the mandate of materials, intended uses or essential characteristics concerning the product in I.B.2.1:

None

3.9 Other issues which the TC considers necessary for comprehension of the answer to the mandate:

None

II.C.1 Manholes and inspection chambers made from vitrified clay

II.C.1.1 Harmonized product standard: EN 295-6:2012

Amendment EN 295-6:2012/prA1, (WI 00165263)

Availability:

Stage 20.60: available

Stage 30.99: available

Stage 45.99: 2014-08

(i) **Title:** Vitrified clay pipe systems for drains and sewers - Part 6: Requirements for vitrified clay manholes

(ii) **Scope:**

This Standard specifies requirements and test methods for vitrified clay and other components according to EN 295-1 for manholes and inspection chambers. It also specifies tightness testing of complete assemblies.

MATERIALS included in the standard: vitrified clay, rubber, polyurethane, polypropylene (see II.C.1.3.9.2).

(iii) **Intended uses:**

Access to drain or sewer systems for the conveyance of sewage and surface water (including rainwater) under gravity or occasionally at low head of pressure, installed in areas subjected to pedestrian and/or vehicular traffic, by which personnel have access and/or equipment can be brought in.

(iv) **The essential characteristics according to the mandate which will be dealt with in the above standard will be:**

<u>ER</u>	<u>Mandate</u>	<u>The essential characteristics according to the mandate which will be dealt with in the above standard by:</u>
<u>ER 2/1</u>	<u>Reaction to fire</u>	<u>Relevant (see 0.7.1 and II.C.1.3.9.3)</u>
<u>ER 3</u>	<u>Watertightness</u>	<u>Watertightness</u>
<u>ER 4/1</u>	<u>Mechanical resistance</u>	<u>Crushing strength</u>
<u>ER 4/2</u>	<u>Opening size</u>	<u>Covered by minimum internal diameter under ER 4/3</u>
<u>ER 4/3</u>	<u>Dimensional tolerances (see II.C.1.3.8)</u>	<ul style="list-style-type: none">- <u>minimum internal diameter;</u>- <u>height;</u>- <u>angle of curvature and radius of channel bends; and</u>- <u>branch angle of junctions</u>

(v) **Durability:**

The durability of all characteristics under (iv) is ensured by the product passing the relevant test method for each characteristic as well as the durability characteristic of the material used (see II.C.1.3.6). In addition, durability of crushing strength is ensured by meeting the requirements for the material and the determination of the chemical resistance.

Durability of tightness is covered by testing the

- chemical and physical resistance to effluent of joint assemblies,
- thermal cycling stability of joint assemblies,
- long-term thermal stability of joint assemblies.

For the sealing material reference is made to EN 681-1 and EN 681-4.

(vi) **Other aspects:**

- a reference of the Commission's decision on AoC, as amended;
- clauses on assessment and verification of constancy of performance - AVCP guidance on performance characteristics to be stated in the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics;
- guidance on the essential characteristics to be stated in the labelling accompanying the CE marking and on the way of expressing the declared values of these characteristics.

II.C. 1.2 Supporting standards (see 0.7.2)

The following work items, prENs or ENs and other CEN deliverables, including European Commission Decision on CWT, are referred as test or calculation methods for the determination and classification of the performance of the essential characteristics required by the mandate and indicated in II.C.1.1 (iv) and (v) above:

<u>ER</u>	<u>Mandate</u>	
<u>ER 2/1</u>	<ul style="list-style-type: none"> – Commission Decision 96/603/EC, as amended – EN 13501-1, Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests 	Available Available
<u>ER 3</u>	EN 295-3, Vitrified clay pipes and fittings and pipe joints for drains and sewers – Part 3: Test methods	Available
<u>ER 4/1</u>		
<u>ER 4/2</u>		
<u>ER 4/3</u>		
<u>Durability</u>	EN 681-1, Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanized rubber EN 681-4, Elastomeric seals — Material requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements	Available

II.C. 1.3 Additional information, comments and remarks

3.1 Deviations from a performance approach in the product standard:

None

3.2 Requests for clarification on the scope of the mandate concerning the product in II.C.1.1:

None

3.3 Requests for clarification on the intended uses concerning the product in II.C.1.1:

None

3.4 Requests for clarification on the essential characteristics for the intended uses included in the mandate concerning the product in II.C.1.1:

None

3.5 Information on essential characteristics required by the mandate concerning the product in II.C.1.1:

None

3.6 Explanation of the state of the art concerning durability issues:

Vitrified clay pipes, fittings and joints for drains and sewers are products of known and stable performance for defined end use applications with respect to their established durability for which experience has been accumulated over a long period of time.
 Durability of crushing strength is ensured by meeting the requirements of chemical resistance.
 Durability of tightness is ensured by meeting the requirements of chemical and physical resistance to effluent of joint assemblies, thermal cycling stability of joint assemblies and long-term thermal stability of joint assemblies.

3.7 Information on other Directives under which the product in II.C.1.1 falls, and compliance conditions:

None

3.8 Specific requests for additions to the mandate of materials, intended uses or essential characteristics concerning the product in II.C.1.1:

CEN/TC 165 proposes to add dimensional tolerances to ER 4 as requested and approved for pipes in response to Mandate M131.

3.9 Other issues which the TC considers necessary for comprehension of the answer to the mandate:

3.9.1 *EN 295-6:2012 was drafted as a harmonised standard in accordance with the templates following the provisions required by the CPD 89/106. Due to the replacement of the CPD by the CPR 305/2011 and the new templates provided by CEN for Annex ZA and clauses on AVCP an amendment EN 295-6:2012/prA1 became necessary to adopt the hEN to the CPR provisions as DoP for example.*

Together with the amendment of EN 295-6:2011 the supporting standard EN 295-2:2012, Vitrified clay pipe systems for drains and sewers – Part 2: Evaluation of conformity and sampling will be amended to change the title to “Vitrified clay pipe systems for drains and sewers - Part 2: Assessment and verification of constancy of performance – AVCP” and to adopt the content to the new template.

3.9.2 *Standards for sealing materials (EN 681-1 and EN 681-4), used with the products under II.C.1.1, are prepared by CEN/TC 208.*

3.9.3 *Non-vitrified clay components used for joints are considered not to have a significant impact on the reaction to fire performance because they comprise only a small proportion of the pipe system and have an even smaller exposure to the fire. Thus, only Class A1 (CWT) is proposed to be used.*