

# SERTIFIKATAS

LIETUVOS PASTATŲ TVARUMO VERTINIMO SISTEMA



## „August ir Ko“ gamykla

Įvertinimo lygis

Labai gerai ★★★★★

Objekto pasiektas procentinis balas

64,08%

Sertifikato numeris

LPTVS-2016-01

Kategorijos ir pasiektas rezultatas



Objektas

Gamybinės paskirties pastatas. Meiliakalnio k. 1, Širvintų rajonas.

Statytojas

UAB „August ir Ko“

Architektas

UAB „Studija PS“

Vertintojas

Rasita Masalskytė

Sertifikatą išdavė

Lietuvos žaliųjų pastatų taryba, direktorius Evaldas Savickis

Sertifikato išdavimo data

2016 Spalio 17 d.



Sertifikatas išduotas Lietuvos žaliųjų pastatų tarybos pagal užsakovo pateiktą informaciją ir patvirtintą vertinimo metodiką. Sertifikato išdavimo teisės priklauso Lietuvos žaliųjų pastatų tarybai - daugiau informacijos [www.lzpt.lt](http://www.lzpt.lt), [info@lzpt.lt](mailto:info@lzpt.lt).

THE BUREAU OF STANDARDS, METROLOGY AND INSPECTION (BSMI),  
MINISTRY OF ECONOMIC AFFAIRS, TAIWAN, R.O.C.  
QUALITY MANAGEMENT SYSTEM CERTIFICATE



ISO 9001  
BSMI

認可登錄  
REGISTERED

hereby certifies that the firm

**HCP PUMP MANUFACTURER CO., LTD.**

(NO.33, JINGJIAN RD., PEPZ, PINGTUNG CITY 90093, TAIWAN, R.O.C.)

has fulfilled the requirements of Quality Management System  
specified as

**ISO 9001:2008/CNS 12681**

and is granted registration by the Bureau.  
The scope of registration is described below.

THE DESIGN, PRODUCTION AND SERVICING OF:

\* SUBMERSIBLE PUMP FOR CONSTRUCTION

\* LOW-VOLTAGE THREE-PHASE INDUCTION MOTORS FOR CONSTRUCTION  
SUBMERSIBLE PUMPS ---end---

|                        |                    |
|------------------------|--------------------|
| Originally Registered: | January 3, 1997    |
| Date of Approval:      | October 16, 2015   |
| Expiry Date:           | September 22, 2018 |
| Certificate No:        | 7M7Y003-10         |

*Ming-jong Liou*

Ming-Jong Liou, Ph. D.  
Director General, BSMI

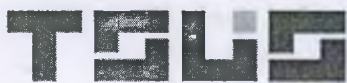


Quality Management  
QC 002



QMS 010

Scopes accredited by the TAF are marked with "TAF"



TECHNICKÝ A SKÚŠOBNÝ ÚSTAV STAVEBNÝ, n. o.  
BUILDING TESTING AND RESEARCH INSTITUTE, Slovak Republic  
Studená 3, 821 04 Bratislava

Certifikačný orgán pre certifikáciu výrobkov - Akreditovaný podľa EN 45011



Reg. No. 004/P-016

## PRODUCT CERTIFICATE

No. 00002/TSUS/Y/2013

from 22 January 2013

Product: **Wastewater treatment systems AT**

Product types: **according to Annex No. 1**

Manufacturer: **AUGUST IR KO**  
**Juodasis kelias 104A, LT – 11307 Vilnius, Lithuania**

Business ID: 440

Manufacture place: **AUGUST IR KO**  
**Juodasis kelias 104A, LT – 11307 Vilnius, Lithuania**

Business ID: 440

This product was the subject of the certification in accordance with the working procedures of TSÚS, as an accredited certification body for product certification and

**declares, that the product characteristics:**

load capacity (shaped tank stability), waterproofing, concentrations of substances in effluent wastewater, durability —

**respond to the following criteria:**

Technical Approval TO – 12/0069 Wastewater treatment systems AT, issued by TSÚS, 27<sup>th</sup> April 2012

**Purpose and conditions of product use:** Wastewater treatment plants AT for 60 up to 1200 EO are used for cleaning of sewage from residential buildings, group homes, small municipalities or parts of municipalities and waste water from sources where it is produced by sewage water. After pre-treatment of industrial wastewater with organic pollution serve as a biological stage of final treatment.

This certificate is issued on the basis of the Report of product certification No. 00002/TSUS/Y/2013 of the 21 January 2013.

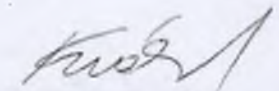
Validity of the certificate from: **22 January 2013 to: 26 April 2017.**

A part of the product certification are surveillance inspections conducted in given periods and performance of control testing in the specified range.

### Note:

The reproduction of the Product Certificate is possible only as whole, or a part of it only with the written approval of the Certification Body. The misuse of the certificate will be by the certification body sanctioned under the provisions of relevant laws.



  
Ing. Daša Kozáková  
Head of certification body

050327



TECHNICKÝ A SKÚŠOBNÝ ÚSTAV STAVEBNÝ, n. o.  
BUILDING TESTING AND RESEARCH INSTITUTE, Slovak Republic  
Studená 3, 821 04 Bratislava

Product Certification Body



Reg. No. 004/P-016

## PRODUCT CERTIFICATE

No. 00032/TSUS/Y/2017

from 12 December 2017

Product: **Wastewater treatment systems AT**

Product types: **according to Annex No. 1**

Manufacturer: **AUGUST IR KO** Business ID: 124600588  
**Juodasis kelias 104A, LT - 11307 Vilnius, Lithuania**

Manufacture place: **AUGUST IR KO** Business ID: 124600588  
**Meiliakalnio k.1, Jauniūnų sen., Širvintų r.**  
**LT - 19154, Lithuania**

This product was the subject of the certification in accordance with the working procedures of TSUS, as an accredited certification body for product certification and

**declares, that the product characteristics:**

Load capacity (shaped tank stability), Waterproofing, Concentrations of substances in effluent wastewater, Durability —

**respond to the following criteria:**

SK Technical Assessment SK TP – 17/0129 Wastewater treatment systems AT, issued by TSUS TP04, 8 December 2017 —

**Purpose and conditions of product use:** Wastewater treatment plants AT for 60 up to 1200 PT are used for cleaning of sewage from residential buildings, group homes, small municipalities or parts of municipalities and waste water from sources where it is produced by sewage water. After pre-treatment of industrial wastewater with organic pollution serve as a biological stage of final treatment. —

This certificate is issued on the basis of the Report of product certification No. 00032/TSUS/Y/2017 of the 12 December 2017.

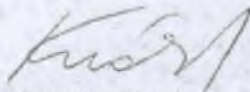
Validity of the certificate from: **12 December 2017 to: without restriction.**

A part of the product certification is the continuous surveillance and the taking of test samples for control testing, once in every 12 months.

**Note:**

The reproduction of the Product Certificate is possible only as whole, or a part of it only with the written approval of the Certification Body. The misuse of the certificate will be by the certification body sanctioned under the provisions of relevant laws.



  
Ing. Daša Kozáková  
Head of certification body

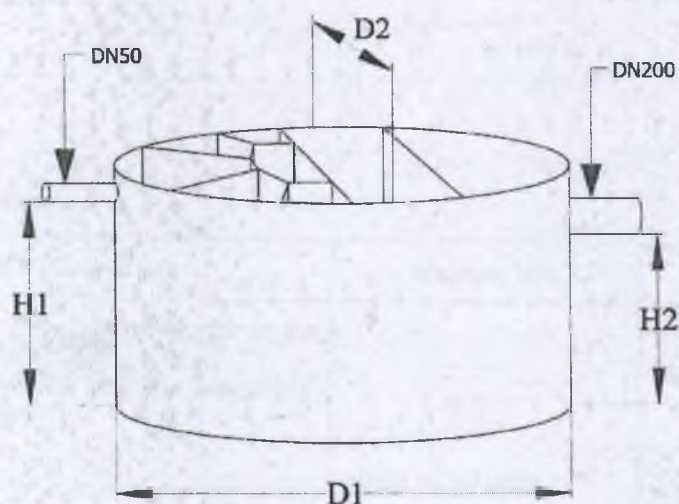
096126

# Annex No. 1 of the Product Certificate No. 00032/TSUS/Y/2017

Product: wastewater treatment biological reactors

- Types: AT-75 oval, AT-100 oval, AT-120 oval, AT-150 oval, AT-175 oval, AT-200 oval, AT-225 oval, AT-300 oval, AT-400 oval, AT-525 oval, AT-600 oval, AT-700 oval, AT-800 oval, AT-900 oval, AT-75 ovalT, AT-100 ovalT, AT-150 ovalT, AT-200 ovalT, AT-250 ovalT, AT-300 ovalT, AT-400 ovalT, AT-500 ovalT, AT-600 ovalT, AT-750 ovalT, AT-900 ovalT, AT-1000 ovalT, AT-1200 ovalT, AT-75, AT-100, AT-120, AT-150, AT-200, AT-250, AT-300, AT-400, AT-500, AT-600, AT-750, AT-800, AT-900.
- aerobic with activated sludge,
  - anaerobic-anoxic and aeration chambers also secondary settling chamber, are integrated in one tank,
  - excess sludge is removed to the sludge stabilizer, which is installed in a separate container,
  - air blower is installed inside or next to the wastewater treatment plant.

General view of the wastewater treatment biological reactor with oval plan view with container dimensions:



Coefficients and their values

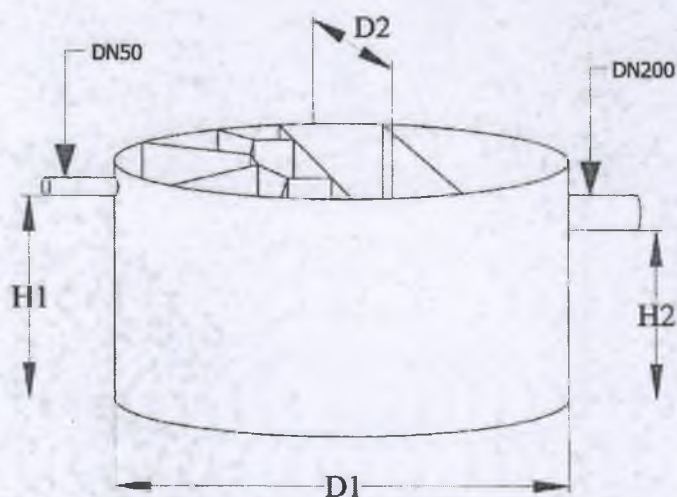
| Name of the coefficient                                                                                                                                                                                                     | Measure unit       | Declared value                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall dimensions: D1- external length of the ellipse; D2- external width of the ellipse / H1 – height of the inlet /H2- height of the outlet / A – number of reactors                                                     |                    |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| AT-75 oval,<br>AT-100 oval,<br>AT-120 oval,<br>AT-150 oval,<br>AT-175 oval,<br>AT-200 oval,<br>AT-225 oval,<br>AT-300 oval,<br>AT-400 oval,<br>AT-525 oval,<br>AT-600 oval,<br>AT-700 oval,<br>AT-800 oval,<br>AT-900 oval. | m/ m/ m/ m/ units. | 5,10/ 2,15/ 2,20/ 1,90/ 1<br>6,35/ 2,20/ 2,20/ 1,90/ 1<br>7,05/ 2,20/ 2,20/ 1,90/ 1<br>8,50/ 2,20/ 2,20/ 1,90/ 1<br>9,70/ 2,20/ 2,20/ 1,90/ 1<br>10,90/ 2,20/ 2,20/ 1,90/ 1<br>12,00/ 2,20/ 2,20/ 1,90/ 1<br>8,50/ 2,20/ 2,20/ 1,90/ 2<br>10,90/ 2,20/ 2,20/ 1,90/ 2<br>9,70/ 2,20/ 2,20/ 1,90/ 3<br>10,90/ 2,20/ 2,20/ 1,90/ 3<br>9,70/ 2,20/ 2,20/ 1,90/ 4<br>10,90/ 2,20/ 2,20/ 1,90/ 4<br>12,00/ 2,20/ 2,20/ 1,90/ 4 |

(continued)



# Annex No. 1 (continued)

General view of the wastewater treatment biological reactor with oval plan view intended for transport on platform of a truck:



Coefficients and their values

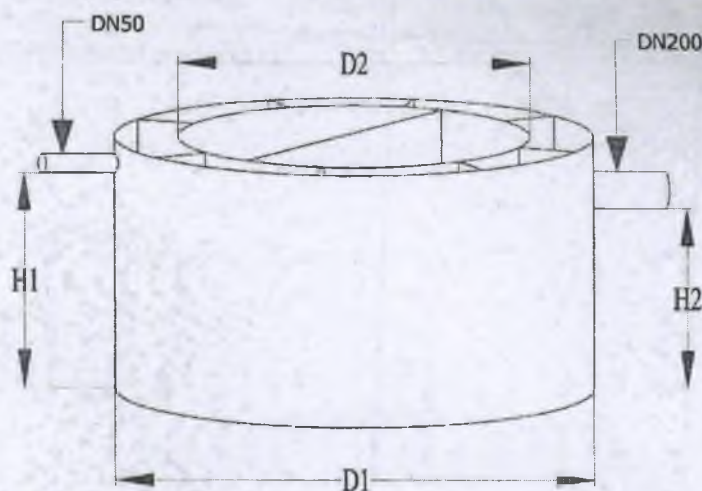
| Name of the coefficient                                                                                                                                                                                                    | Measure unit       | Declared value                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall dimensions: D1- external length of the ellipse; D2- external width of the ellipse /<br>H1 – height of the inlet /H2- height of the outlet /<br>A – number of reactors                                              |                    |                                                                                                                                                                                                                                                                                                                                                                                               |
| AT-75 ovalT,<br>AT-100 ovalT,<br>AT-150 ovalT,<br>AT-200 ovalT,<br>AT-250 ovalT,<br>AT-300 ovalT,<br>AT-400 ovalT,<br>AT-500 ovalT,<br>AT-600 ovalT,<br>AT-750 ovalT,<br>AT-900 ovalT,<br>AT-1000 ovalT,<br>AT-1200 ovalT. | m/ m/ m/ m/ units. | 5,54/ 2,24/ 2,73/ 2,50/ 1<br>5,74/ 2,24/ 2,73/ 2,50/ 1<br>7,24/ 2,24/ 2,73/ 2,50/ 1<br>9,44/ 2,24/ 2,73/ 2,50/ 1<br>11,34/ 2,24/ 2,73/ 2,50/ 1<br>13,34/ 2,24/ 2,73/ 2,50/ 1<br>9,44/ 2,24/ 2,73/ 2,50/ 2<br>11,34/ 2,24/ 2,73/ 2,50/ 2<br>13,34/ 2,24/ 2,73/ 2,50/ 2<br>11,34/ 2,24/ 2,73/ 2,50/ 3<br>13,34/ 2,24/ 2,73/ 2,50/ 3<br>11,34/ 2,24/ 2,73/ 2,50/ 4<br>13,34/ 2,24/ 2,73/ 2,50/ 4 |



(continued)

## Annex No. 1 (continued)

General view of the wastewater treatment biological reactor with circular plan view



Coefficients and their values

| Name of the coefficient                                                                                                                                                    | Measure unit       | Declared value                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall dimensions: D1- the diameter of the outer ring; D2- the diameter of the inner ring / H1 – height of the inlet / H2 - height of the outlet / A – number of reactors |                    |                                                                                                                                                                                                                                                                                                                                                          |
| AT-75,<br>AT-100,<br>AT-120,<br>AT-150,<br>AT-200,<br>AT-250,<br>AT-300,<br>AT-400,<br>AT-500,<br>AT-600,<br>AT-750,<br>AT-900.                                            | m/ m/ m/ m/ units. | 3.30/ 2,25/ 2,90/ 2,60/ 1<br>3,50/ 2,45/ 2,90/ 2,60/ 1<br>4,00/ 2,80/ 2,90/ 2,60/ 1<br>4,50/ 3,10/ 2,90/ 2,60/ 1<br>5,00/ 3,40/ 2,90/ 2,60/ 1<br>5,30/ 3,70/ 2,90/ 2,60/ 1<br>5,50/ 3,95/ 2,90/ 2,60/ 1<br>5,00/ 3,70/ 2,90/ 2,60/ 2<br>5,30/ 3,70/ 2,90/ 2,60/ 2<br>5,50/ 3,70/ 2,90/ 2,60/ 2<br>5,30/ 3,70/ 2,90/ 2,60/ 3<br>5,50/ 3,70/ 2,90/ 2,60/ 3 |



(continued)

**Annex No. 1 (continued)**

Coefficients and their values

| Name of the coefficient                      | Measure unit | Declared value |
|----------------------------------------------|--------------|----------------|
| Nominal daily flow (Nominal marking) $Q_D$ : |              |                |
| AT-75 oval,                                  | $m^3/d$      | 11,3           |
| AT-100 oval,                                 |              | 15,0           |
| AT-120 oval,                                 |              | 18,0           |
| AT-150 oval,                                 |              | 22,5           |
| AT-175 oval,                                 |              | 26,3           |
| AT-200 oval,                                 |              | 30,0           |
| AT-225 oval,                                 |              | 33,8           |
| AT-300 oval,                                 |              | 45,0           |
| AT-400 oval,                                 |              | 60,0           |
| AT-525 oval,                                 |              | 78,8           |
| AT-600 oval,                                 |              | 90,0           |
| AT-700 oval,                                 |              | 105,0          |
| AT-800 oval,                                 |              | 120,0          |
| AT-900 oval,                                 |              | 135,0          |
| AT-75 ovalT,                                 |              | 11,3           |
| AT-100 ovalT,                                |              | 15,0           |
| AT-150 ovalT,                                |              | 22,5           |
| AT-200 ovalT,                                |              | 30,0           |
| AT-250 ovalT,                                |              | 37,5           |
| AT-300 ovalT,                                |              | 45,0           |
| AT-400 ovalT,                                |              | 60,0           |
| AT-500 ovalT,                                |              | 75,0           |
| AT-600 ovalT,                                |              | 90,0           |
| AT-750 ovalT,                                |              | 112,5          |
| AT-900 ovalT,                                |              | 135,0          |
| AT-1000 ovalT,                               |              | 150,0          |
| AT-1200 ovalT,                               |              | 180,0          |
| AT-75,                                       |              | 11,3           |
| AT-100,                                      |              | 15,0           |
| AT-120,                                      |              | 18,0           |
| AT-150,                                      |              | 22,5           |
| AT-200,                                      |              | 30,0           |
| AT-250,                                      |              | 37,5           |
| AT-300,                                      |              | 45,0           |
| AT-400,                                      |              | 60,0           |
| AT-500,                                      |              | 75,0           |
| AT-600,                                      |              | 90,0           |
| AT-750,                                      |              | 112,5          |
| AT-900,                                      |              | 135,0          |
| AT-1200,                                     |              |                |



(continued)

096128

**Annex No. 1 (continued)**

Coefficients and their values

| Name of the coefficient                       | Measure unit | Declared value |
|-----------------------------------------------|--------------|----------------|
| Maximal hourly flow (Nominal marking) $Q_n$ : |              |                |
| AT-75 oval,                                   | $m^3/h$      | 2,95           |
| AT-100 oval,                                  |              | 3,69           |
| AT-120 oval,                                  |              | 4,28           |
| AT-150 oval,                                  |              | 5,06           |
| AT-175 oval,                                  |              | 5,63           |
| AT-200 oval,                                  |              | 6,13           |
| AT-225 oval,                                  |              | 6,62           |
| AT-300 oval,                                  |              | 7,75           |
| AT-400 oval,                                  |              | 8,42           |
| AT-525 oval,                                  |              | 8,47           |
| AT-600 oval,                                  |              | 8,47           |
| AT-700 oval,                                  |              | 10,68          |
| AT-800 oval,                                  |              | 11,80          |
| AT-900 oval,                                  |              | 12,83          |
| AT-75 ovalT,                                  |              | 2,95           |
| AT-100 ovalT,                                 |              | 3,69           |
| AT-150 ovalT,                                 |              | 5,06           |
| AT-200 ovalT,                                 |              | 6,13           |
| AT-250 ovalT,                                 |              | 7,06           |
| AT-300 ovalT,                                 |              | 7,75           |
| AT-400 ovalT,                                 |              | 8,42           |
| AT-500 ovalT,                                 |              | 8,13           |
| AT-600 ovalT,                                 |              | 8,47           |
| AT-750 ovalT,                                 |              | 10,68          |
| AT-900 ovalT,                                 |              | 12,83          |
| AT-1000 ovalT,                                |              | 14,44          |
| AT-1200 ovalT,                                |              | 16,35          |
| AT-75,                                        |              | 2,95           |
| AT-100,                                       |              | 3,69           |
| AT-120,                                       |              | 4,28           |
| AT-150,                                       |              | 5,06           |
| AT-200,                                       |              | 6,13           |
| AT-250,                                       |              | 7,06           |
| AT-300,                                       |              | 7,75           |
| AT-400,                                       |              | 8,42           |
| AT-500,                                       |              | 8,13           |
| AT-600,                                       |              | 8,47           |
| AT-750,                                       |              | 11,25          |
| AT-900,                                       |              | 12,83          |
| AT-1200,                                      |              |                |
| Load of contaminants                          |              |                |
| ChDS                                          | mg/l         | 800            |
| BDS <sub>5</sub>                              | mg/l         | 400            |
| SM                                            | mg/l         | 400            |
| N <sub>total</sub>                            | mg/l         | 100            |
| P <sub>total</sub>                            | mg/l         | 16,7           |



(continued)

**Annex No. 1 (continued)**

**Coefficients and their values**

| Name of the coefficient               | Testing method                                                                                                                                                                    | Measure unit | Declared value  |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
| treatment efficiency:                 | Report from household wastewater treatment plant efficiency test No. 01/2012. Issued by Aquaseco, s.r.o., Ivanka pri Dunaji, Slovak Republic, January 2012.                       | %            | 91.7            |
| ChDS                                  |                                                                                                                                                                                   | %            | 97.0            |
| BDS <sub>5</sub>                      |                                                                                                                                                                                   | %            | 97.0            |
| SM                                    | STN EN 1899-1,                                                                                                                                                                    | %            | 98.6            |
| N-NH <sub>4</sub>                     | STN ISO15705                                                                                                                                                                      | %            | 80.7            |
| N <sub>total</sub>                    | STN EN 872                                                                                                                                                                        | %            | 75.6            |
| P <sub>total</sub>                    |                                                                                                                                                                                   |              |                 |
| Waterproofing                         | Report No. 60-12-0611 (tank waterproofing) Issued by Technický a skúšobný ústav stavebný, n.o., testing laboratory, test site Žilina, Slovak Republic, 07.04.2012. STN EN 12566-3 | -            | tight, no leaks |
| Load capacity (shaped tank stability) | Static calculation. AT 75 oval + AT 225 oval. Issued by doc. Ing. Oldřich Šuba, CSc., October 2017. STN EN 1778                                                                   | -            | ensured         |
| Durability                            | Test report No. 284/2015, Density, VÚSAPL, jsc., June 2015<br>Test report No. 378/2015. MFR, VÚSAPL, jsc., August 2015<br>EN ISO 1133<br>EN ISO 527-2                             | -            | ensured         |





TECHNICKÝ A SKÚŠOBNÝ ÚSTAV STAVEBNÝ, n. o.  
BUILDING TESTING AND RESEARCH INSTITUTE, Slovak Republic  
Slučená 3, 821 04 Bratislava

Product Certification Body

## PRODUCT CERTIFICATE

No. 00003/TSUS/Y/2018

from 25 January 2018

Product: Polypropylene plastic sheets, type: H

Manufacturer: Aquatec VFL s. r. o.

Business ID: 43874355

Továrenská 49/4054, 018 41 Dubnica nad Váhom, Slovak Republic

Manufacture place: Aquatec VFL s. r. o.

Business ID: 43874355

Továrenská 49/4054, 018 41 Dubnica nad Váhom, Slovak Republic

This product was the subject of the certification in accordance with the working procedures of TSÚS, as an certification body for product certification and

declares, that the product characteristics:

Tensile stress at yield ( $\geq 30$  MPa), Tensile stress at break ( $\geq 15$  MPa), Melt mass-flow rate ( $0,5 \pm 0,1$  g/10 min), Density ( $\geq 0,908$  g/cm<sup>3</sup>), Suitability for contact with drinking water (recommendation for contact with drinking water) —

respond to the following criteria:

Business standard PN AQT 0001/2016, Polypropylene plastic sheets - extrusion of PP sheets. Types: H, C, E, elaborated by Aquatec VFL s. r. o., Dubnica nad Váhom, efficiency from June 2016 —

**Purpose and conditions of product use:** Polypropylene plastic sheets, type H, are used for construction purposes, for the manufacture of tanks, manholes, storage systems, wastewater treatment systems, in the chemical engineering, galvanizing (plating) technology and the production of ventilation systems. —

This certificate is issued on the basis of the Report of product certification No. 00003/TSUS/Y/2018 of the 23 January 2018.

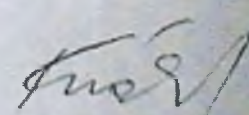
Validity of the certificate from: 25 January 2018 to: without restriction.

A part of the product certification are surveillance inspections conducted in given periods and performance of control testing in the specified range.

**Note:**

The reproduction of the Product Certificate is possible only as whole, or a part of it only with the written approval of the Certification Body. The misuse of the certificate will be by the certification body sanctioned under the provisions of relevant laws.



  
Ing. Daša Kozáková  
Head of certification body



Prüfinstitut für  
Abwassertechnik  
GmbH

## PERFORMANCE RESULTS

"August ir Ko" UAB

Juodasis kelias 104 A, 11307 Vilnius, Lithuania

EN 12566-3, Annex B

Small wastewater treatment systems for up to 50 PT

**Small wastewater treatment system VFL® bioreactor AT with filter**  
Modified continuous activated sludge process with chlorine disinfection

Test report PIA2007-021 (054821)

|                                             |                             |            |            |
|---------------------------------------------|-----------------------------|------------|------------|
| Nominal organic daily load                  | 0.32 kg BOD <sub>5</sub> /d |            |            |
| Nominal hydraulic daily load                | 1.20 m <sup>3</sup> /d      |            |            |
| Material                                    | Polypropylene               |            |            |
| Treatment efficiency<br>(nominal sequences) |                             | Efficiency | Effluent   |
|                                             | COD                         | 91.3 %     | 42 mg/l    |
|                                             | BOD <sub>5</sub>            | 98.1 %     | 5 mg/l     |
|                                             | NH <sub>4</sub> -N          | 96.6 %     | 1.3 mg/l   |
|                                             | SS                          | 98.0 %     | 3 mg/l     |
|                                             | Faecal coliforms            | 99.9997 %  | 2 / 100 ml |
|                                             | Faecal coliforms            | log 7.1    |            |
| Electrical consumption                      | 5.7 kWh/d                   |            |            |

\* determined for temperatures > 12°C at the bioreactor

Performance tested by

**PIA – Prüfinstitut für Abwassertechnik GmbH**

(PIA GmbH)

Hergenrather Weg 30

52074 Aachen, Germany

This document replaces neither the declaration  
of performance nor the CE marking



Notified Body  
No. 1720



Certified according to  
EN 12566-3:2006



Unterzeichnet

January 2012



Prüfinstitut für  
Abwassertechnik  
GmbH

## PERFORMANCE RESULTS

**"August ir Ko" UAB**  
Juodasis kelias 104 A, 11307 Vilnius, Lithuania

**EN 12566-3:2005+A2:2013, Chapter 6.6**

**EN ISO 11925-2:2010 – "Reaction to fire tests – Ignitability of products  
subjected to direct impingement of flame –  
Part 2: Single-flame source test"**

---

|                                                        |                            |
|--------------------------------------------------------|----------------------------|
| Product                                                | Wastewater treatment plant |
| Name                                                   | AT WWTP                    |
| Material                                               | Polypropylene              |
| Flame smaller than 150 mm                              | Yes                        |
| Classification according to<br>EN 13501-1:2007+A1:2009 | Class E                    |

---

Performance tested by:

**PIA – Prüfinstitut für Abwassertechnik GmbH**  
(PIA GmbH)  
Hergenrather Weg 30  
52074 Aachen, Germany

This document replaces neither the declaration  
of performance nor the CE marking.



Notified Body  
No. 1730



Certified according to  
ISO 9001:2008



Daniel Verschitz

January 2018



TECHNICKÝ A SKÚŠOBNÝ ÚSTAV STAVEBNÝ, n. o.  
BUILDING TESTING AND RESEARCH INSTITUTE, Slovak Republic  
Študenta 3, 821 04 Bratislava

Certifikačný orgán pre certifikáciu výrobkov - Akreditovaný podľa EN 45011



Reg. No. 004/P-016

## PRODUCT CERTIFICATE

No. 00005/TSUS/Y/2013

of 15 February 2013

Product: **Small wastewater treatment plant AT**

Manufacturer: **AUGUST IR KO**  
**Juodasis kelias 104A, LT-11307 Vilnius, Lithuania**

Identification number of company: 440

Manufacturing plant: **AUGUST IR KO**  
**Juodasis kelias 104A, LT-11307 Vilnius, Lithuania**

Identification number of company: 440

The certification of the product has been carried out in accordance with procedures of the Accredited Product Certification Body of the Institute. The Certificate hereby

### certifies that the following characteristics of the product:

treatment efficiency (BOD<sub>5</sub>: 97,2 %, COD: 88,1 %, TSS: 94,0 %, NH<sub>4</sub>-N: 96,7 %, N<sub>tot</sub> 61,7 %, P<sub>tot</sub> 47,4 %), treatment efficiency and maximum concentration of phosphorus using technology chemical precipitation (P: min. 92,5 %, concentration - P: max. 1 mg/l), nominal designation, watertightness, crushing resistance and maximum load deformation, durability —

### are in conformity with standards and regulations as follows:

STN EN 12566-3+A1: 2009 Small wastewater treatment plants. Technical specification. Addendum to STN EN 12566-3. AUGUST IR KO, Vilnius, valid since March 2009. —

**Purpose and conditions of the use of the product:** For households wastewater treatment. —

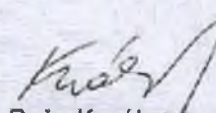
This certificate is issued on the basis of the Report of product certification No. 00005/TSUS/Y/2013 of the 13 February 2013.

The validity of the Certificate is since: **15 February 2013** and the Certificate remains valid for an **unlimited period**, provided the audit testing is carried out by the Certification Body at least once within one year period.

### Note:

The Certificate can be copied solely as a whole, the consent of the Certification Body is required for copying only a part hereof. The misuse of this certificate will the Certification Body affect according to the provisions of relevant laws.



  
Ing. Daša Kozáková  
Head of Certification Body

050243

# Prüfinstitut für Abwassertechnik GmbH

Prüfeinrichtung des Prüf- und Entwicklungsinstituts  
für Abwassertechnik an der RWTH Aachen

**PIA**  
GmbH

PIA GmbH • NB 1739 • Hergenrather Weg 30 • 52074 Aachen • Germany



DIN EN ISO 9001:2000

UAB "AUGUST IR KO"  
Juodasis keltas 104a  
11307 Vilnius  
Litauen

Datum und Zeichen  
Ihres Schreibens

Bei Antwort angeben  
Mein Zeichen

Telefon 0241 / 75082-20  
Telefax 0241 / 75082-29

Datum

lan

+49 - 241 / 75082-21

23.05.2007

## Bestätigung KKA-Erstprüfung

Sehr geehrter Herr Penzes,

hiermit bestätigen wir der Firma UAB "AUGUST IR KO" die Durchführung einer Kleinkläranlagenprüfung gemäß der Europäischen Norm EN 12566-3 Anhang B auf dem Prüffeld des PIA in Aachen.

Die Prüfung der Kleinkläranlage AT 10 für 8 EW begann am 31.07.06 und endete am 22.04.07. Die ermittelten Reinigungsleistungen (Prüfberichts-Nr. PIA2007-06) entnehmen Sie folgender Tabelle

|                                       |      |
|---------------------------------------|------|
| Wirkungsgrad BSIB <sub>5</sub> [%]    | 97,2 |
| Wirkungsgrad CSB [%]                  | 88,1 |
| Wirkungsgrad AFS (SS) [%]             | 94,0 |
| Wirkungsgrad NH <sub>4</sub> -N [%] * | 96,7 |
| Wirkungsgrad Nges [%] *               | 61,7 |
| Wirkungsgrad Pges [%]                 | 47,4 |

\* für Temperaturen  $\geq 12^{\circ}\text{C}$  im Bioreaktor

Mit freundlichen Grüßen

**PIA GmbH**  
Prüfinstitut für Abwassertechnik  
Hergenrather Weg  
52074 Aachen

Dipl.-Ing. Elmar Lancé

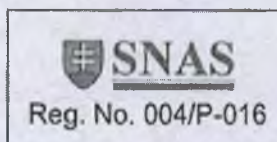


|                                              |                                                                                    |                                                                                         |
|----------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| www.pia-gmbh.com                             | Bankverbindung:<br>Deutsche Bank Aachen<br>(BLZ 390 700 24)<br>Kto-Nr. 199 088 600 | Amtsgericht Aachen:<br>HRB 12841<br>UST-ID: DE 226980614<br>Steuernummer: 201/5915/1852 |
| Geschäftsführung:<br>Dr.-Ing. Elmar Dorgeloh |                                                                                    |                                                                                         |



TECHNICKÝ A SKÚŠOBNÝ ÚSTAV STAVEBNÝ, n. o.  
BUILDING TESTING AND RESEARCH INSTITUTE, Slovak Republic  
Studená 3, 821 04 Bratislava

Product Certification Body – Accredited according to EN 45011



## PRODUCT CERTIFICATE

**No. 00011/TSUS/Y/2013**

of 6 March 2013

**Product:** Wastewater treatment systems

**Product types:** ATC 6, ATC 8, ATC 10, ATC 12

**Manufacturer:** AUGUST IR KO  
Juodasis keltas 104A, LT-11307 Vilnius, Lithuania  
Identification number of company: 440

**Manufacturing plant:** AUGUST IR KO  
Juodasis kelias 104A, LT-11307 Vilnius, Lithuania  
Identification number of company: 440

The certification of the product has been carried out in accordance with procedures of the Accredited Product Certification Body of the Institute. The Certificate hereby

**certifies that the following characteristics of the product:**

Effectiveness of treatment (treatment efficiency) - BOD: 95,8 %, COD: 91,7 %, TSS: 95,5 %, NH<sub>4</sub>-N: 98,1 %, Treatment capacity (nominal designation), Watertightness, Crushing resistance (load bearing capacity), Durability —

**are in conformity with standards and regulations as follows:**

STN EN 12566-3+A1: 2009 Small wastewater treatment systems for up to 50 PT. Part 3: Packaged and/or site assembled domestic wastewater treatment plant —

**Purpose and conditions of the use of the product:** Small wastewater treatment plants ATC are used for the treatment of raw domestic wastewater. —

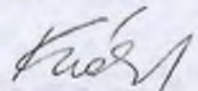
This certificate is issued on the basis of the Report of product certification No. 00011/TSUS/Y/2013 of the 1 March 2013.

The validity of the Certificate is since: 6 March 2013 and the Certificate remains valid for an unlimited period, provided the audit testing is carried out by the Certification Body at least once within one year period.

**Note:**

The Certificate can be copied solely as a whole, the consent of the Certification Body is required for copying only a part hereof. The misuse of this certificate will the Certification Body affect according to the provisions of relevant laws.



  
Ing. Daša Kozáková  
Head of Certification Body

053610



Prüfinstitut für  
Abwassertechnik  
GmbH

## PERFORMANCE RESULTS

**"August ir Ko" UAB**

Juodasis kelias 104A, 11307 Vilnius, Lithuania

**EN 12566-3**

Small wastewater treatment systems for up to 50 PT

**Small wastewater treatment system AT<sup>®</sup>P**

Suspended growth activated sludge process in continuous-flow with  
additional phosphorous precipitation

Test report – No PIA2014-210B08.e.01

|                                                       |                     |                        |
|-------------------------------------------------------|---------------------|------------------------|
| Nominal organic daily load                            | 0.35                | kg BOD <sub>5</sub> /d |
| Nominal hydraulic daily load                          | 0.90                | m <sup>3</sup> /d      |
| Material                                              | polypropylene       |                        |
| Treatment efficiency (nominal sequences)              | COD                 | 96.8 %                 |
|                                                       | BOD <sub>5</sub>    | 98.7 %                 |
|                                                       | SS                  | 97.9 %                 |
|                                                       | NH <sub>4</sub> -N* | 87.6 %                 |
|                                                       | N <sub>tot</sub> *  | 85.2 %                 |
|                                                       | P <sub>tot</sub>    | 97.1 %                 |
| Electrical consumption                                | 1.0                 | kWh/d                  |
| *determined for temperatures ≥ 12°C in the bioreactor |                     |                        |

Performance tested by:

**PIA – Prüfinstitut für Abwassertechnik GmbH**  
(PIA GmbH)  
Hergenrather Weg 30  
52074 Aachen, Germany

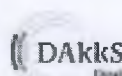
This document replaces neither the declaration  
of performance nor the CE marking



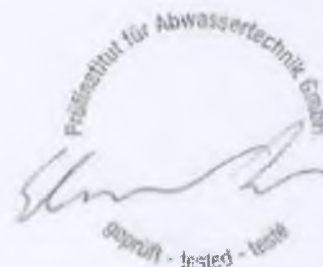
Notified Body  
No. 1739



Certified according to  
ISO 9001:2008



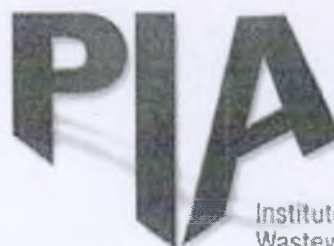
Deutsche  
Akkreditierungsstelle  
DIN EN ISO/IEC 17025:02



Elmar Lancé

June 2014

A réussi avec succès  
LE PROTOCOLE  
en conditions sollicitantes



Institute for  
Wastewater  
Technology

## PERFORMANCE RESULTS

**UAB « August ir Ko »**

Juodasis kelias 104a, 11307 Vilnius, Lithuania

**VEOLIA EAU - Protocole**

"Small wastewater treatment systems for 5 PT"

**Small wastewater treatment system VFL® bioreactor AT 10**

Continuous aerated biological process

|                                          |                     |                        |
|------------------------------------------|---------------------|------------------------|
| Nominal organic daily load               | 0.27                | kg BOD <sub>5</sub> /d |
| Nominal hydraulic daily load             | 0.75 – 1.50         | m <sup>3</sup> /d      |
| Material                                 | polypropylene       |                        |
| Treatment efficiency (nominal sequences) | COD                 | 93.2 %                 |
|                                          | BOD <sub>5</sub>    | 97.8 %                 |
|                                          | SS                  | 95.8 %                 |
|                                          | P <sub>tot</sub>    | 70.1 %                 |
|                                          | NH <sub>4</sub> -N* | 95.5 %                 |
|                                          | N <sub>tot</sub> *  | 78.3 %                 |
| Electrical consumption                   | 1.5                 | kWh/d                  |

\* determined for temperatures  $\geq 10^{\circ}\text{C}$  in the bioreactor.

Performance tested by:

**PIA - Prüfinstitut für Abwassertechnik GmbH**

(PIA GmbH)

Hergenrather Weg 30

D-52074 Aachen

Certified according to  
ISO 9001:2000



Notified Body number: 1739



This document replaces neither the declaration  
of conformity nor the CE marking.



Ramin Salehi

February 2010

A réussi avec succès  
LE PROTOCOLE  
en conditions sollicitantes



Institute for  
Wastewater  
Technology

## PERFORMANCE RESULTS

**"August ir Ko" UAB**  
Juodasis kelias 104a, 11307 Vilnius, Lithuania

**VEOLIA EAU - Protocole**  
"Small wastewater treatment systems for 5 PT"

**Small wastewater treatment system VFL® bioreactor AT 10 with filter**  
continuous aerated biological process

|                              |                    |                        |
|------------------------------|--------------------|------------------------|
| Nominal organic daily load   | 0.27               | kg BOD <sub>5</sub> /d |
| Nominal hydraulic daily load | 0.75 – 1.50        | m <sup>3</sup> /d      |
| Material                     | polypropylene      |                        |
| Treatment efficiency         | COD                | 95.0 %                 |
| (nominal sequences)          | BOD <sub>5</sub>   | 98.5 %                 |
|                              | SS                 | 98.7 %                 |
|                              | P <sub>tot</sub>   | 71.9 %                 |
|                              | N <sub>tot</sub> * | 78.2 %                 |
|                              | Escherichia Coli   | 99.99 %                |
|                              | Coliform bacteria  | 99.99 %                |
| Electrical consumption       | 1.5                | kWh/d                  |

\* determined for temperatures  $\geq 10^{\circ}\text{C}$  in the bioreactor.

Performance tested by:

**PIA - Prüfinstitut für Abwassertechnik GmbH**  
(PIA GmbH)  
Hergenrather Weg 30  
D-52074 Aachen

Certified according to  
ISO 9001:2000



Notified Body number: 1739

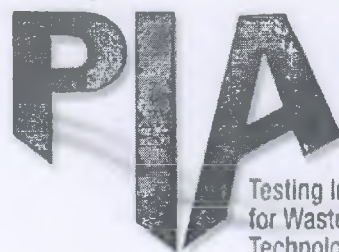


This document replaces neither the declaration  
of conformity nor the CE marking.



Ramin Salehi

February 2010



Testing Institute  
for Wastewater  
Technology

## PERFORMANCE RESULTS

August IR Ko

Juodasis kelias 104a, 11307 Vilnius  
Lithuania

EN 12566-3

Results corresponding to the Irish National Annex for IS EN 12566-3

**Small wastewater treatment system VFL® bioreactor AT**  
Modified continuous activated sludge process (without filter)

|                                                                            |                       |            |          |
|----------------------------------------------------------------------------|-----------------------|------------|----------|
| Nominal organic daily load*                                                | 0.32                  | kg/d       |          |
| Nominal hydraulic daily load                                               | 1.20                  | m³/d       |          |
| Material                                                                   | polypropylene         |            |          |
| Watertightness (water test)                                                | pass                  |            |          |
| Crushing resistance (calculation method)                                   | pass (dry conditions) |            |          |
| Durability                                                                 | pass                  |            |          |
| Treatment efficiency (nominal sequences)                                   |                       | Efficiency | Effluent |
|                                                                            | COD                   | 88.1 %     | 59 mg/l  |
|                                                                            | BOD <sub>5</sub>      | 97.2 %     | 7 mg/l   |
|                                                                            | NH <sub>4</sub> -N**  | 96.7 %     | 1.1 mg/l |
|                                                                            | SS                    | 94.0 %     | 17 mg/l  |
| Electrical consumption                                                     | 1.7                   | kWh/d      |          |
| * at a test influent of $\geq 300$ mg/l BOD <sub>5</sub> (mean)            |                       |            |          |
| ** determined for temperatures $\geq 12^{\circ}\text{C}$ in the bioreactor |                       |            |          |

Performance tested by:

**PIA – Prüfinstitut für Abwassertechnik GmbH**  
(PIA GmbH)  
Hergenrather Weg 30  
D-52074 Aachen

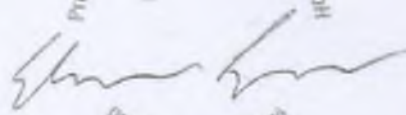
Certified according to  
ISO 9001:2008



Notified Body number: 1739



This document replaces neither the declaration  
of conformity nor the CE marking.

Prüfinstitut für Abwassertechnik GmbH  
  
geprüft - tested - testé

Elmar Lancel

February 2012

## PERFORMANCE RESULTS

"August ir Ko" UAB

Juodasis kelias 104A, 11307 Vilnius, Lithuania

EN 12566-3

Small wastewater treatment systems for up to 50 PT

**Small wastewater treatment system AT**

Suspended growth activated sludge process in continuous-flow in a  
polypropylene tank

Test report – No PIA2014-215B38

|                                                       |                     |                        |           |
|-------------------------------------------------------|---------------------|------------------------|-----------|
| Nominal organic daily load                            | 0.35                | kg BOD <sub>5</sub> /d |           |
| Nominal hydraulic daily load                          | 0.90                | m <sup>3</sup> /d      |           |
| Material                                              | Polypropylene       |                        |           |
| Treatment efficiency (nominal sequences)              |                     | Efficiency             | Effluent  |
|                                                       | COD                 | 94.4 %                 | 45.0 mg/l |
|                                                       | BOD <sub>5</sub>    | 98.2 %                 | 7.0 mg/l  |
|                                                       | SS                  | 97.2 %                 | 12.0 mg/l |
|                                                       | NH <sub>4</sub> -N* | 99.5 %                 | 0.2 mg/l  |
|                                                       | N <sub>tot</sub> *  | 93.2 %                 | 5.0 mg/l  |
|                                                       | P <sub>tot</sub>    | 93.3 %                 | 0.6 mg/l  |
| Electrical consumption                                | 1.0                 | kWh/d                  |           |
| *determined for temperatures ≥ 12°C in the bioreactor |                     |                        |           |

Performance tested by:

**PIA – Prüfinstitut für Abwassertechnik GmbH**  
(PIA GmbH)  
Hergenrather Weg 30  
52074 Aachen, Germany

This document replaces neither the declaration  
of performance nor the CE marking.



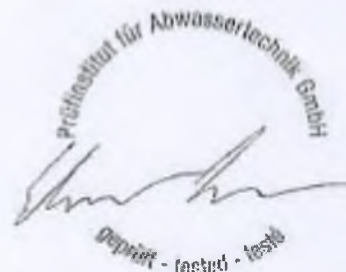
Notified Body  
No. 1739



Certified according to  
ISO 9001:2008



DAKKS  
Deutsche  
Accreditationsstelle  
D-PL-17712-01-00



Elmar Lönge

September 2014