



EC-Type Examination Certificate

- (1)
- (2) **Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

- (3) EC-Type Examination Certificate Number:

FTZÚ 03 ATEX 0022

- (4) Equipment or protective system:

Fuel dispenser PHM, type series BMP 5; BMP 20**/E; BMP 20**/V; BMP 30**/T; BMP 30**/S**

- (5) Manufacturer: **TATSUNO – BENČ EUROPE, a.s.**

- (6) Address: **Pražská 68, P.O.Box 49, 678 01 Blansko, Czech Republic**

- (7) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

- (8) The Physical Technical Testing Institute, notified body number 1026 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

03/0022 dated 19 March 2003

- (9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 1127-1:1997; pr EN 13617-1:2001; EN 60204-1:1997; EN 60529+A1:2000

- (10) If the sign „X“ is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

- (11) This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

- (12) The marking of the equipment or protective system shall include following:

Ex II 2G IIA T3

This EC-Type Examination Certificate is valid till: **31 of May 2008**

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body



Date of issue: 5 of May 2003

Number of pages: 8

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(15) Description of Equipment or Protective System:

Fuel dispensers - series BMP 500; BMP 2000; BMP 3000 and its derived variants are intended to be used for dispensing of liquid oil products – petrol or diesel oil (flammable liquids of I. to IV. class (fire severity class)) with accuracy $\pm 0,25$ % for discharge rate from $2 \text{ dm}^3 \cdot \text{min}^{-1}$ to $45 \text{ dm}^3 \cdot \text{min}^{-1}$ and with accuracy $\pm 0,5$ % for discharge rate from $5 \text{ dm}^3 \cdot \text{min}^{-1}$ to $90 \text{ dm}^3 \cdot \text{min}^{-1}$ (high speed discharge).

The construction of of dispenser consists of following basic modules:

- dispenser frame
- module of pumping and metering hydraulics
- hose retraction column (fuel dispenser series BMP 2000)
- module of electronics

Determination of hazardous area inside and outside of dispenser is applied in accordance with prEN 13617-1:2001 (drawings No. 499-1750; 499-1751 for fuel dispensers BMP 500; drawings No. 489-1752, 499-1752 for fuel dispensers BMP 2000 and drawings No. 499-1753, 499-1754 for fuel dispensers BMP 3000).

Inside area of dispenser housing - **zone 1**

Inside area of hose retraction column - **zone 1**

Outside area of dispenser housing and winch column up to 50 mm over upper edge of housing and to 200 mm from upper edge of housing up to the ground is classified to - **zone 2**

Inside area of coaxial dispensing hose and whole petrol vapour recuperation line - **zone 0**

Electronics housing is separated by vertical vapour barrier type 1, housing has a degree of protection with enclosure IP 54 according to EN 60 529

- **inside and outside of housing is a safe area**

(16) Report No. : 03/0022

(17) Special conditions for safe use: none

(18) Essential Health and Safety Requirements:

18.1 According to Directive 94/9/EC (Government Order No. 176/1997 Coll.) Annex 2, clause 1.0.6 and manufacturer instruction for use No. IN 006 CZ, **the dispenser is not allowed to be installed in hazardous area.**

18.2 The others essential safety requirements are covered by standards mentioned in clause (9) of this certificate.

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body



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LIST OF DOCUMENTATION

- ◆ Technical specification BMP 500 No. TP 021.435.010 on 01. 01. 2001
- ◆ Technical specification BMP 2000 No. TP 021.435.002 on 01. 01. 2001
- ◆ Technical specification BMP 3000 No. TP 021.435.007 on 01. 01. 2001
- ◆ Instruction for installation BMP 500,
BMP 2000, BMP 3000 No.IN 004-CZ on 29. 05. 2002
- ◆ Instruction for use and maintenance
BMP 500, BMP 2000, BMP 3000 No. UP 002-CZ on 19. 10. 2001
- ◆ Drawings list BMP 500, BMP 2000, BMP 3000, 1 page

- ◆ Fuel dispenser – type series BMP 500 - approval drawing on 01. 11. 2002
- ◆ Installation of hydraulics BMP 500 - drawing No. 433-1349 on 01. 11. 2002
- ◆ Dispenser inside areas BMP 511/512 - drawing No. 499-1750 on 02. 12. 2002
- ◆ Dispenser inside areas BMP 513/514 - drawing No. 499-1751 on 02. 12. 2002
- ◆ Dispenser inside areas BMP 500 - drawing No. 299-1194 on 10. 01. 2003
- ◆ Hydraulic module of ventilation BMP 500 - drawing No. 299-1194 on 10. 01. 2003
- ◆ Flexible hinge BMP 513, BMP 514 - drawing No. 422-1496 on 11/1999
- ◆ Counter housing BMP 511 - drawing No. 211-1147 on 11/1998
- ◆ Counter housing BMP 512, 513 - drawing No. 211-1146 on 08/1998
- ◆ Counter housing, miniportal BMP 514 - drawing No. 211-1152 on 01/1999
- ◆ Counter housing BMP 511, 512 - drawing No. 333-1147 on 01. 11. 2002
- ◆ Control board cover BMP 500 - drawing No. 308-1371 on 30. 10. 1997
- ◆ List of assembly drawings of electric circuits of dispensers, 1 page
- ◆ List of connection boxes drawings, 1 page
- ◆ Electronic installation BMP 500 - drawing No. 323-1356 on 06. 01. 2003
- ◆ El. assembly diagram BMP 511 - drawing No. 323-1384 on 23. 01. 2003
- ◆ El. assembly diagram BMP 512 - drawing No. 323-1418 on 23. 01. 2003
- ◆ El. assembly diagram BMP 513 - drawing No. 323-1419 on 23. 01. 2003
- ◆ El. assembly diagram BMP 514 - drawing No. 323-1420 on 23. 01. 2003
- ◆ El. assembly diagram BMP 515 - drawing No. 323-1421 on 23. 01. 2003
- ◆ Dispenser manufacturer's plate BMP 500 - drawing No. 420-1715-500 on 07/2002
- ◆ Dispenser description BMP 500 - drawing No. 420-1778 on 10. 01. 2003

- ◆ Fuel dispenser –type series BMP 2000/E - approval drawing on 01. 11. 2002
- ◆ Fuel dispenser –type series BMP 2000/V - approval drawing on 01. 11. 2002
- ◆ Installation of hydraulics BMP 2000, 2000-V - drawing No. 423-1349 on 01. 11. 2002
- ◆ Dispenser inside areas BMP 2000/E - drawing No. 499-1752 on 02. 12. 2002



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(19) **LIST OF DOCUMENTATION-** continue

- ♦ Dispenser inside areas BMP 2000/V - drawing No. 489-1752 on 02. 12. 2002
- ♦ Fuel dispenser, assembly BMP 2024-E - drawing No. 422-1758 on 18. 12. 2002
- ♦ Counter housing BMP 2000 - drawing No. 334-1319 on 01. 11. 2002
- ♦ Counter housing BMP 2000 - drawing No. 333-1319 on 01. 11. 2002
- ♦ Cover of control (Dispenser nozzle) BMP 2000- drawing No. 2/308-1172 on 08/1996
- ♦ Fuel dispenser, ventilation BMP 2000-E - drawing No. 420-1780 on 10. 01. 2003
- ♦ Front column BMP 2000 - drawing No. 211-1084 on 11/1995
- ♦ Back long cover BMP 2000 - drawing No. 311-1137 on 11/1995
- ♦ Front cover BMP 2000 - drawing No. 311-1111 on 08/1995
- ♦ Description of dispenser BMP 2000/E - drawing No. 420-1776 on 10. 01. 2003
- ♦ Electrical installation BMP 2000 - drawing No. 423-1782 on 10. 01. 2003
- ♦ El. assembly diagram BMP 2011 - drawing No. 323-1440 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2012 - drawing No. 323-1441 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2022 - drawing No. 323-1442 on 21. 01. 2003
- ♦ El. assembly diagram BMP 2024 - drawing No. 323-1443 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2033 - drawing No. 323-1444 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2036 - drawing No. 323-1445 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2044 - drawing No. 323-1446 on 24. 01. 2003
- ♦ El. assembly diagram BMP 2048 - drawing No. 323-1393 on 24. 01. 2003

- ♦ Fuel dispenser – type series BMP 3000/S - approval drawing on 01. 11. 2002
- ♦ Fuel dispenser – type series BMP 3000/T - approval drawing on 01. 11. 2002
- ♦ Dispenser inside areas BMP 3000/S - drawing No. 499-1754 on 02. 12. 2002
- ♦ Dispenser inside areas BMP 3000/T - drawing No. 499-1753 on 02. 12. 2002
- ♦ Installation of hydraulics BMP 3000 - drawing No. 443-1349 on 01. 11. 2002
- ♦ Electrical installation BMP 3000 - drawing No. 423-1783 on 10. 01. 2003
- ♦ Flexible hinge BMP 3000/S - drawing No. 409-1636 on 06/2001
- ♦ Connecting piece, bellows - drawing No. 312-1257 on 03. 02. 1998
- ♦ Fuel dispenser, ventilation BMP 3000 - drawing No. 420-1781 on 10. 01. 2003
- ♦ Lower column BMP 3000 - drawing No. 211-1180 on 07/2000
- ♦ Cover of column - drawing No. 311-1267 on 19. 05. 1998
- ♦ Dispenser description - drawing No. 420-1779 on 10. 01. 2003
- ♦ Dispenser plate - drawing No. 420-1715 on 03/2002
- ♦ Fuel dispensers BMP 500, BMP 2000-E, BMP 2000-V, BMP 3000-S, BMP 3000-T - drawing of dimensions, 6 pages



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CODE MARKING OF FUEL DISPENSERS

Fuel dispenser type series BMP 500

Non-public dispensing

- | | |
|--------------|---|
| a) BMP 501 | 1 medium, 1 dispensing stand |
| b) BMP 502 | 1 medium, 2 dispensing stands |
| c) BMP 503 | 1 medium, 1 dispensing stand |
| d) BMP 504 | 2 media, 2 dispensing stands |
| e) BMP 505/H | 1 medium, 1 dispensing stand, high output |

Public dispensing

- | | |
|--------------|---|
| a) BMP 511 | 1 medium, 1 dispensing stand |
| b) BMP 512 | 1 medium, 2 dispensing stands |
| c) BMP 513 | 1 medium, 1 dispensing stand |
| d) BMP 501 | 2 media, 2 dispensing stands |
| e) BMP 515/H | 1 medium, 1 dispensing stand, high output |

Non-public dispensing - credit card automatic dispenser

- | | |
|--------------|---|
| a) BMP 521 | 1 medium, 1 dispensing stand |
| b) BMP 523 | 1 medium, 1 dispensing stand |
| c) BMP 524 | 2 media, 2 dispensing stands |
| d) BMP 525/H | 1 medium, 1 dispensing stand, high output |

Fuel dispenser type series BMP 2000

- | | | |
|--------------------------------|------------|------------------------------|
| Modification BMP 2000-E | - EUROLINE | - hose retraction system |
| BMP 2000-V | - VECTOR | - free hinged delivery hoses |

The line has a modular design. The modular system allows to apply fuel dispenser in several variants:

- | | |
|---------------|---|
| a) BMP 2011 | 1 medium, 1 dispensing stand |
| b) BMP 2011/H | 1 medium, 1 dispensing stand, high output |

These fuel dispenser have a 1 dispensing stand and are intended for dispensing of diesel oil.



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CODE MARKING OF FUEL DISPENSERS - continue

- c) BMP 2022 2 media, 2 dispensing stands
- d) BMP 2033 3 media, 3 dispensing stands
- e) BMP 2044 4 media, 4 dispensing stands
- f) BMP 2055 5 media, 5 dispensing stands

These dispensers are one-sided, and allows dispensing only for one customer.

- g) BMP 2012 1 medium, 2 dispensing stands
- h) BMP 2024 2 media, 4 dispensing stands
- i) BMP 2036 3 media, 6 dispensing stands
- j) BMP 2048 4 media, 8 dispensing stands
- k) BMP 20510 5 media, 10 dispensing stands

These dispensers are double-sided, and allows simultaneous dispensing for two customer.

Various modification can be made by simple connection of basic modules. Series BMP 2000 can be equipped with electronic controlled recuperation devices.

Fuel dispenser type series BMP 3000

Dispenser series BMP 3000 is produced and delivered in following modification:

BMP 3000-S - SPRING - use a flexible hinge of delivery hoses

BMP 3000-T - TOWER - hoses are hinged on a top of dispenser, which is a part of dispenser frame.

The following assemblies with various number of dispensing stand and hoses are possible:

- a) BMP 3011/S 1 medium, 1 dispensing stand
- b) BMP 3011/H/S 1 medium, 1 dispensing stand, high output

These dispensers have 1 dispensing stand and are intended for dispensing of diesel oil.

- c) BMP 3022/S 2 media, 2 dispensing stands
- d) BMP 2033/T 3 media, 3 dispensing stands
- e) BMP 2044/T 4 media, 4 dispensing stands

These dispensers are one-sided, and allows dispensing only for one customer.

- f) BMP 3012/S 1 medium, 2 dispensing stands
- g) BMP 3024/S 2 media, 4 dispensing stands
- h) BMP 3036/T 3 media, 6 dispensing stands
- i) BMP 3048/T 4 media, 8 dispensing stands

These dispensers are double-sided, and allows simultaneous dispensing for two customer.



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ELECTRIC PARAMETERS:

Supply voltage:	- electronics	230 V ± 10 %; 50 Hz
	- lighting	230 V ± 10 %; 50 Hz
	- electric motor	3 x 400/230 V; 50 Hz
	- el. magnetic valve	230 V ± 10 %; 50 Hz
Electric motor	- hydraulic part	0,75 kW
	- recuperation	0,37 kW
Lighting	- displays illumination	15 W

TECHNICAL SPECIFICATION:

Nominal diameter	DN 32
Maximum service pressure	0,18 MPa
Suction level	3 m
Service temperature	-20 °C ... +50 °C

Pump output of dispenser series BMP 500

- a) dispenser BMP 501/H; 511/H; 503/H; 513/H; 504/H; 514/H; 521/H; 523/H; 524/H
- | | | |
|-----------|---------------------------------------|--------|
| Q_{min} | 5 dm ³ .min ⁻¹ | |
| Q_{max} | 90 dm ³ .min ⁻¹ | - 15 % |
- b) dispenser BMP 502/H; 512/H;
- | | | |
|-----------|--|--------|
| Q_{min} | 5 dm ³ .min ⁻¹ | |
| Q_{max} | one dispensing nozzle: 90 dm ³ .min ⁻¹ | - 15 % |
| | two dispensing nozzle: 80 dm ³ .min ⁻¹ | - 15 % |
- c) dispenser BMP 501; 511; 502; 512; 503; 513; 504; 514; 521; 523; 524
- | | | |
|-----------|--|--------|
| Q_{min} | 2 dm ³ .min ⁻¹ | |
| Q_{max} | one dispensing nozzle: 45 dm ³ .min ⁻¹ | - 15 % |
| | two dispensing nozzle: 35 dm ³ .min ⁻¹ | - 15 % |



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TECHNICAL SPECIFICATION - continue:

d) dispenser BMP 505; 515; 525

Q_{\min}	$5 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	$130 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

Pump output of dispenser series BMP 2000

a) dispenser BMP 2011/H

Q_{\min}	$5 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	$90 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

b) dispenser BMP 2012/H

Q_{\min}	$5 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	one dispensing nozzle: $90 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %
	two dispensing nozzle: $80 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

c) dispenser BMP 2012; 2024; 2036; 2048; 20510

Q_{\min}	$2 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	one dispensing nozzle: $45 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %
	two dispensing nozzle: $40 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

Pump output of dispenser series BMP 3000

a) dispenser BMP 3011/H

Q_{\min}	$5 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	$90 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

b) dispenser BMP 3012/H

Q_{\min}	$5 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	one dispensing nozzle: $90 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %
	two dispensing nozzle: $80 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %

c) dispenser BMP 3012; 3024; 3036; 3048

Q_{\min}	$2 \text{ dm}^3 \cdot \text{min}^{-1}$	
Q_{\max}	two dispensing nozzle: $40 \text{ dm}^3 \cdot \text{min}^{-1}$	- 15 %