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A grayscale background image showing a close-up of a hand holding a torch. The torch's nozzle is at the top, and a bright flame is visible, extending downwards and to the left. The image is split into a grid of four quadrants by thin vertical and horizontal lines.

# User manual for **OPTIMA** torches

4th EDITION, FEBRUARY 2017

This user manual is an integral part of the gas torch. Please read it carefully before installation, commissioning and use.

**Please contact us for any further information.**



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## 1. Purpose

- the laying of thermo-weldable roofing paper,
  - the artistic hot bending of metal elements,
  - the defrosting of objects,
  - artistic wood burning,
  - the heating of oil paints, varnish, putty etc.,
  - the welding of thermoplastics,
  - clearing ice off stairs and pavements,
  - the incinerating of animal carcasses,
  - other operations which require concentrated thermal energy
- The hand cyclone burner can be used for soft and hard soldering and brazing of copper installation elements and other soldering works.


## 2. OPTIMA torch components

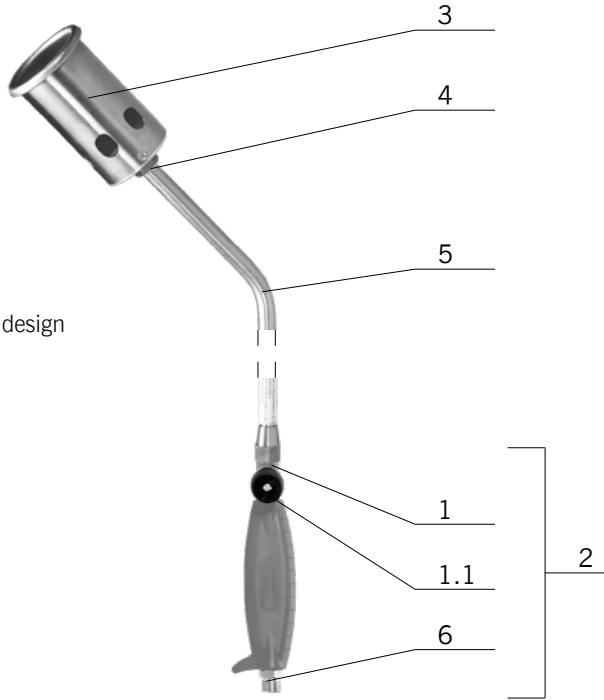
A general view of a torch is presented in picture 1. The names of particular components are outlined in table 1.

**Table 1.** Main OPTIMA torch components

Numbers	Part (unit) name	Index no.
1	body with valve	-
1.1	shut-off valve	-
2 (1+1.1+6)	handle	PP00368
3	diffuser	PP00181
4	torch nozzle	PP00225
5	connector	table 2
6	connector end	PP00025

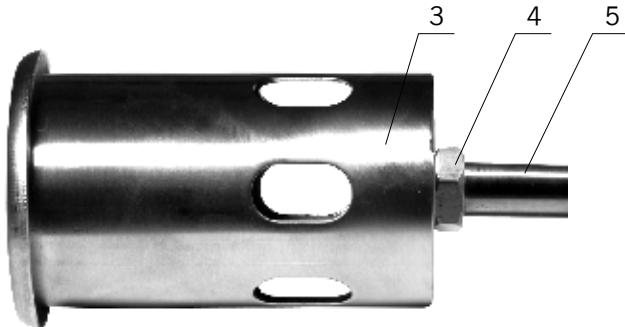
**Table 2.** OPTIMA torch connectors

	Nr indeksu
OPTIMA connector L200	PP00224
OPTIMA connector L500	PP00227
OPTIMA connector L600	PP00229
OPTIMA connector L700	PP00231



Picture 1. OPTIMA torch design

Picture 2. Diffuser (3), torch nozzle (4), connector (5)



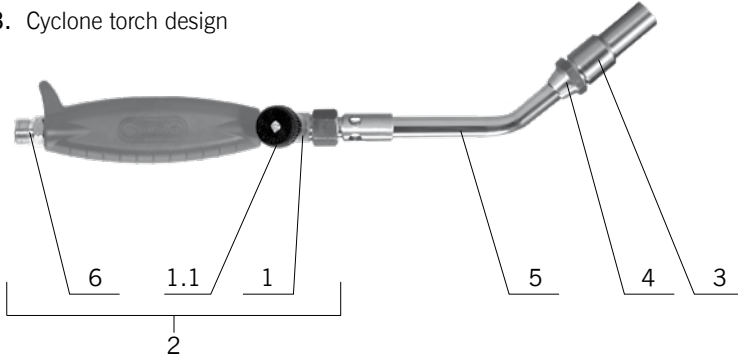
### 3. Cyclone torch components

A general view of a torch is presented in picture 3. The names of particular components are outlined in table 3.





**Table 3.** Main cyclone torch components

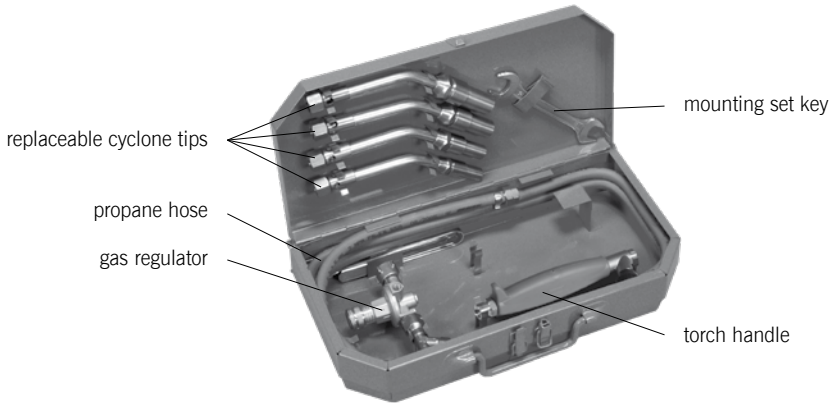
Numbers	nazwa	Nr indeksu
1	body with valve	-
1.1	shut-off valve	-
2 (1+1.1+6)	handle	PP00368
3	torch nozzle	Table 4
4	connection	
5	connector	
6	connector end	PP00025

**Picture 3.** Cyclone torch design



**Table 4.** Replaceable cyclone tips

			
Ø12	Ø14	Ø17	Ø20
PP00192	PP00191	PP00190	PP00189



Rys. 4. Cyclone heating torch set ZLC1

#### 4. Markings explanation

The following markings have been placed on the torch handle:

- KOMA** the manufacturer's logo
- P** a letter code determining the type of flammable gas allowed for use (P = Liquefied Petroleum Gas LPG, propane-butane in the gas form)

#### 5. Safety equipment

No safety equipment is required for the proper operation and safe operation of certain types of OPTIMA torches or cyclone torch.

#### 6. Torch equipment

**rubber hose** - for propane-butane (PN-EN ISO 3821/PN-EN 559), of orange colour, inside diameter of 6,3 mm and length of 3 m, attached to the handle end with G3/8L coupling for supplying gas from cylinders with gas to the torch handle.

#### 7. OPTIMA torch gas consumption

Table 5. Parameters of OPTIMA torch operation

type of diffuser	maximum pressure of propane-butane (Bar)	maximum consumption of propane-butane (kg/h)
Ø50	3	do 4,2

**Warning!** OPTIMA torches are designed to operate at a maximum pressure of up to 3 Bar.

## 8. Preparing torch for operation

Before operation of OPTIMA torch the following actions must be performed:

- 1). Examine the purity of the valve on the propane-butane cylinder.
- 2). Examine the technical condition of the seals. Replace the damage seals with the new ones.
- 3). Connect the rubber hose with the attached connections to the inlet port on the torch handle and to the discharge port on the propane-butane cylinder.
- 4). Close the shut-off valve on the torch handle.
- 5). Slowly unscrew the valve on the propane-butane cylinder.
- 6). Examine connections tightness (the escape of the inflammable gas from the untight connections characterises specific odour).
- 7). Open the valve on the torch handle and ignite the gas.
- 8). Regulate the desired mixture flow from the torch nozzle.

A torch regulated as in point 8 above is ready for operation.

## 9. Torch operation manual

The torches should be operated solely by persons who have read the user manual or by personnel trained by the employer in proper and safe torch operation.

### **Commissioning of torch:**

- preparing torch for operation according to point 8.

### **Breaks in operation:**

- for short breaks in operation, reduce the amount of gas supply, leave torch in a safe place on a stand for a while under constant observation,
- for longer breaks in operation, close the shut-off valve, and place torch in a safe place.

### **Torch shutdown instructions:**

- release the trigger,
- wait for the torch flame to go out,
- close the valve on the torch handle,
- unscrew the nuts of the connections at the end of the rubber hose, curl the hose and place it with the torch in a safe place.

## 10. Safety instructions

- preparing the torch for operation must be done according to point 7 of this manual,
- any operation in enclosed spaces requires an efficient general ventilation system, during torch operation do not direct the flame at the rubber hose supplying the propane-butane gas to the torch handle nor at the propane-butane cylinder present at the workplace,
- using the torch in the vicinity of fuel tanks, flammable materials, explosives etc. is strictly forbidden,
- using the torch in the engine compartment of wheeled motor vehicles etc. is forbidden,
- if a gas leak has been detected on the valves, torch components or their connections, stop the operation and eliminate the cause of the leak,



- the tightness of the torch and the rubber hose must not be checked with the gas flame,
- the torch and the rubber hose must not be exposed to direct sunlight or other heat sources for longer periods of time as it accelerates the ageing process of the rubber components of the torch,
- if the rubber components are found to be mechanically damaged or used, they must immediately be replaced with new ones,
- during breaks in operation the torch must be stored in a place designated by the employer, which meets all the requirements of applicable health and fire safety regulations.

Before each operation, examine the technical condition of the torch (tightness of connections, quality of the hose and its connections).

## 11. Repairs

If any of the torch components is found to be damaged, it is to be replaced with new KOMA - produced ones.

Using self-made spare parts or parts from other suppliers is forbidden (otherwise, the claim shall not be considered).

## 12. Warranty terms and conditions

1. [Warrantor] Warranty is provided by KOMA Sp. Z o.o. located in Wilkanowo ul. Kukuczka 1, 66-008 Świdnica, and it is entered into the Register of Entrepreneurs National Court Register (KRS), which records are kept by district court in Zielona Góra under the KRS number: 0000137191, with the fully paid-up share capital amounting to 50 000,00 PLN, and NIP number: 929-010-08-60 [herein referred to as "Warrantor"].
2. [Warranty] In the scope of principles described in Terms of Warranty: - Warrantor guarantees the proper operations of the equipment produced by Warrantor, used for its intended purpose and the rules of the use specified in the manual. Moreover, Warrantor agrees to remove defects for free arisen for the reasons immanent to the equipment, revealed and reported before the expiry of Warranty [herein referred to as "Warranty"].
3. [Warranty period] Warranty period is 12 or 24 months (see the manual) from the moment of taking over the goods by the Buyer from the Producer or his/her Trade Partner. After the expiry of Warranty, Warrantor shall provide a service charge.
4. [Territorial scope of Warranty] Warranty is valid for and applies only to the equipment purchased in the Republic of Poland.
5. [The basis for using Warranty] Warrantee is the owner of the equipment having the Warranty Card and the proof of purchase which is considered to be the correct filling in of the Warranty Card by the Seller, including: type, serial number of equipment (if any), date of the purchase, seal and signature of the Seller. Warrantor is not bound by any changes made without his/her permission in the content of the Warranty Card, in particular Terms of Warranty. This does not apply to the filling in of the boxes of the Warranty Card with relevant data by the Seller.
6. [Defect notification] The occurrence of any physical defect should be reported by telephone to the Warrantor Service Centre (Phone: 68 327 33 07; 697 722 404) or by sending completed form on Warrantor website: [www.koma.zgora.pl](http://www.koma.zgora.pl), in any case immediately after the disclosure of a physical defect and before the expiry of Warranty. The Warrantor

Service Centre is open from Monday to Friday: 7a.m.-3p.m.

7. [Warrantor's obligation] In case of the occurrence of any physical defect of the equipment which is covered by the Warranty and the notification of this defect before the expiry of the Warranty- Warrantor shall repair the equipment free of charge. If the defect cannot be repaired or the repair costs are disproportionate to the value of the equipment or the repair is particularly difficult, Warrantor shall, at his/her own discretion, replace the equipment or make full or partial refund of the price of the equipment.
8. [Time limit of the performance of the obligations of Warrantor] Warrantor shall perform his/her obligations within 14 days from the day of the delivery of the equipment by the authorised person. In justified cases, in particular due to the need to acquire appropriate components, this time limit may be extended accordingly, but no longer than 30 days. Warrantor shall notify the authorised person of such extension.
9. [Warranty exclusions] In accordance with section 2, Warranty covers only physical defects arisen for the reasons immanent to the equipment. Warranty does not apply in particular to:
  - 1) defects resulting from force majeure, fortuitous events (caused by external causes, not immanent to the equipment), and acts or omissions of the person entitled to Warranty, or people for whom the person entitled to Warranty is responsible;
  - 2) defects resulting from the use of the equipment in a manner inconsistent with the intended use or the manual, including defects caused by: improper storage, installation not in accordance with the manual, failure to meet required reviews, inadequate maintenance, the use of unsuitable consumables;
  - 3) defects resulting from mechanical, thermal and chemical damages, as well as external forces (lightning, voltage surges), and corrosion, in case of operation of the equipment under constant moisture conditions and flooding;
  - 4) defects resulting from arbitrary adaptations, modification, breakage of the seals or other protections of the equipment or its parts, and other arbitrary and inconsistent with the manual interference in the equipment;
  - 5) the natural consumption of the elements of the Product, such as: consumables and other Product's parts having a specified time of operation mentioned in the manual and in the technical documentation, unless otherwise stated in Warranty. Warranty repairs shall not include periodic maintenance and the Products' reviews, in particular cleaning, adjustments, operation check, operator error correction or programming of the settings of the user, and other actions that should be performed by the user, in accordance with the user manual;
  - 6) loss, damage or destruction of the Products resulting from other causes than defects in the Product, and damages caused by defects in the Product.
10. [Replacement of the product for a new one] If defects still occur after having four repairs within the warranty period, Client is entitled to replace the equipment for a new one. Any defective products or parts of this product, which have been replaced under Warranty, become the property of the particular Service.
11. [Refusal of notification] In the event there are no grounds to take account of the notification under Warranty, in particular failing to notice a defect, the occurrence of a case which is not covered by Warranty, the expiry of warranty period, the expiry of Warranty- Warrantor shall inform the Applicant of disregarding of the notification and shall justify his/her stance.
12. [Warranty & Warrant] This Warranty does not exclude, restrict, or withhold any rights of the Buyer related to Warrant law for the defects of the sold product.

13. [Reference] With respect to issues not provided for Terms of Warranty- the provisions of the Act of 23 April 1964- the Civil Code (consolidated text: Journal of Laws of 2014, item 121 with subsequent amendments) and other relevant provisions under Polish Law apply to Warranty.
14. [Protection of personal data] The authorised person gives his/her explicit consent to the processing of personal data in the database, which is administrated by PPUH KOMA SP. z o.o. located in Wilkanowo at ul. Kukułcza 1. Personal data shall be proceeded for maintenance and marketing of KOMA products. The person making personal data available has the right to access data and to amend data. Providing personal data is voluntary. The processing of personal data shall be done on the basis of the provisions of the Act of 29 August 1997 on protection of personal data (consolidated text: Journal of Laws of 2002, no. 101, item 926).

# WARRANTY CARD OPTIMA TORCH

Date of production:

Date of sale:

stamp and signature



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