

# GENERAL TERMS AND CONDITIONS OF CONNECTION AND WARRANTY

## Layer-buffer storage tanks

**PZ**  
**PZR**  
**PZRR**

Please pass on to the user!

DEAR CUSTOMER!

You have decided to use one of our buffer tanks!

**We thank you for your trust.**

You will receive an attractive device, built to the latest state of the art and which complies with the applicable regulations. Continuous research and permanent quality checking during production give our products technical properties which you will always appreciate.

The installation and first commissioning must be performed by a licensed plumber and in accordance with these instructions only.

You will find all important information for a correct assembly and operation in this small brochure. Nevertheless, let your concessionary explain to you how the device functions and demonstrate its operation. Of course, our customer service and sales department are at your service to support you in case you need any advice.

Please read through all the information provided in these instructions carefully. Keep these instructions in a safe place and pass them on to subsequent owners, if applicable.

**Enjoy the use of your buffer tank.**

## SAFETY INSTRUCTIONS

### General

- This tank can be used by children eight years old and older as well as by persons with reduced physical, sensory or mental capabilities or who lack experience and knowledge if they are supervised or if they have been trained with regard to the safe use of the tank and understand the resulting risks. Children may not play with the tank or its packaging. Cleaning and user maintenance may not be performed by children without supervision.
- The tank may only be installed and operated as described in this manual or the associated technical information. Any other use is not proper and is therefore impermissible.
- A defective tank may not continue to be operated.
- There is a risk of scalding from hot water or hot components (e.g. fittings, hot water outlet pipe, etc.).
- Only use original accessories or original spare parts from the manufacturer.

### Installation and commissioning

- Installation and commissioning may only be performed by qualified specialised personnel who therefore assume the responsibility for the proper assembly according to the applicable laws, standards and guidelines.
- The tank is mounted to a sufficient load-bearing wall using a wall mount (note the total weight of the filled tank) or is placed on a flat horizontal surface after mounting the included adjustable feet. Ensure that the subsurface at the installation location has a sufficient load-bearing capacity.
- The tank may only be set up in dry, freeze-protected spaces. The tank is to be completely emptied if there is a risk of freezing.
- The rated pressure specified on the nameplate may not be exceeded.
- When installing the tank, a possible water leak is to be considered and a corresponding collection container (including drain) is to be installed in a drainage object.
- Following the commissioning, the tank and all connections are to be checked for leak tightness.

### Electrical Connection

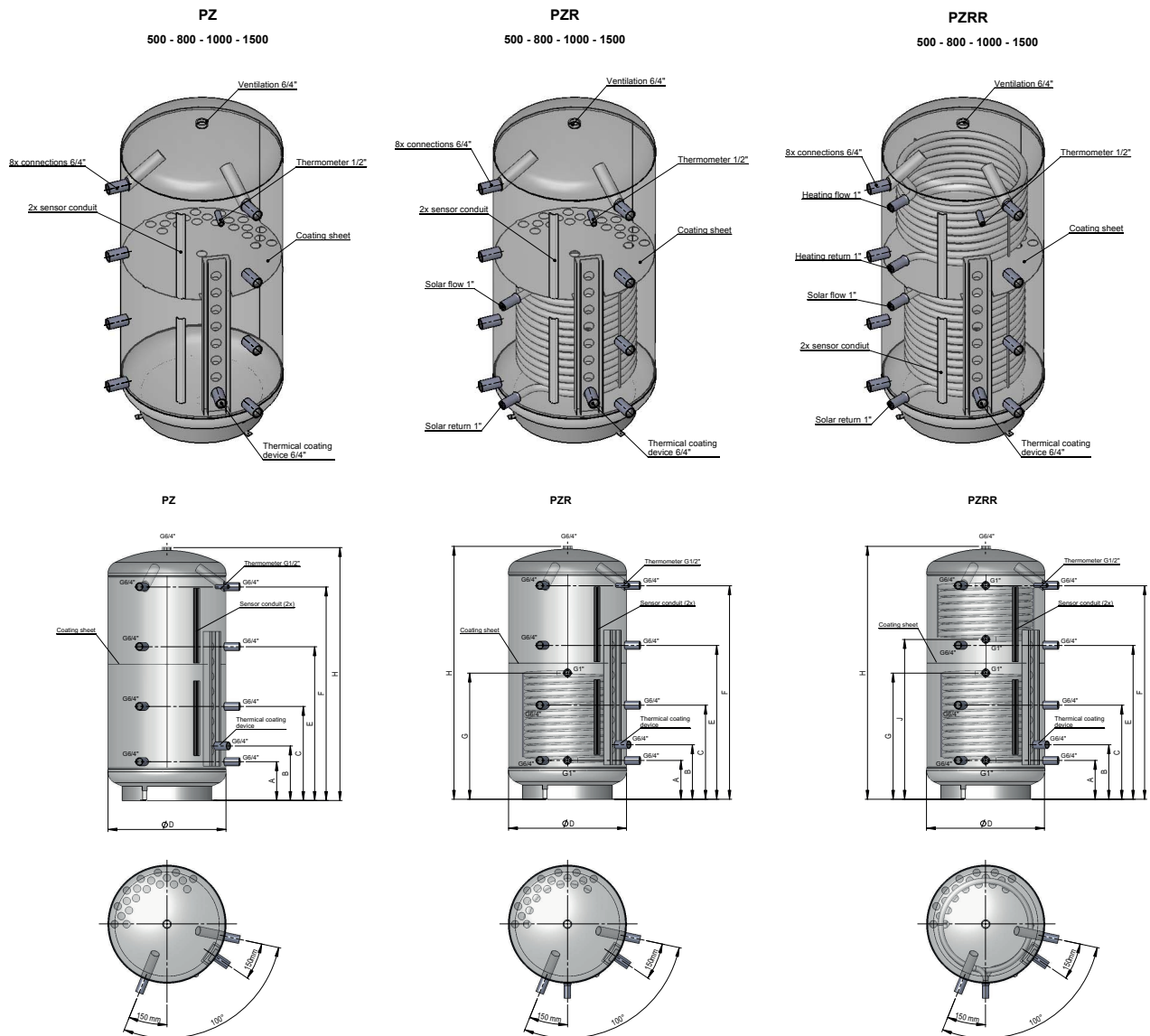
- Only qualified specialised personnel may connect the tank to fixed lines while observing the relevant professional standards and laws.
- A ground fault circuit interrupter with a trip current of  $I_{\Delta n} \leq 30\text{mA}$  must be installed upstream from the electrical circuit.
- Before working on the tank, this is to be de-energised, checked for the absence of voltage and secured against being switched on again.
- If a connection cable is damaged, immediately disconnect the power supply (circuit breaker) and call a professional!
- Connection cables may not be extended or cut through in any way.
- ATTENTION: The factory wiring must not be altered!

### Servicing

- Maintenance, cleaning and any necessary repair or service work may only be performed by specialised personnel who are qualified for this purpose.
- Never try to fix errors and faults yourself.
- Necessary service and maintenance intervals are to be observed in accordance with these operating and assembly instructions.

# TECHNICAL DATA

For technical production reasons, the floor and hood designs may vary from the illustration.



Type	Capacity l	Dimensions in mm											Tipping height mm	Heating register			
		H	H with insulation	ØD	ØD with insulation	A	B	C	E	F	G	J		Surface m <sup>2</sup>		Capacity l	
														bot- tom	top	bot- tom	top
PZ 500	500	1640	1725	650	850	220	320	620	1010	1390	-	-	1670	-	-	-	-
PZR 500	500	1640	1725	650	850	220	320	620	1010	1390	715	-	1670	1,9	-	12,3	-
PZRR 500	500	1640	1725	650	850	220	320	620	1010	1390	715	1040	1670	1,9	1,2	12,3	7,9
PZ 800	780	1700	1785	790	990	260	365	630	1030	1430	-	-	1750	-	-	-	-
PZR 800	780	1700	1785	790	990	260	365	630	1030	1430	845	-	1750	2,4	-	15,6	-
PZRR 800	780	1700	1785	790	990	260	365	630	1030	1430	845	1070	1750	2,4	1,6	15,6	10,6
PZ 1000	960	2050	2135	790	990	310	415	745	1250	1710	-	-	2090	-	-	-	-
PZR 1000	960	2050	2135	790	990	310	415	745	1250	1710	1030	-	2090	3,0	-	19,2	-
PZRR 1000	960	2050	2135	790	990	310	415	745	1250	1710	1030	1160	2090	3,0	2,4	19,2	15,5
PZ 1500	1500	2150	2235	1000	1200	380	480	825	1350	1760	-	-	2270	-	-	-	-
PZR 1500	1500	2150	2235	1000	1200	380	480	825	1350	1760	1175	-	2270	3,6	-	23,5	-
PZRR 1500	1500	2150	2235	1000	1200	380	480	825	1350	1760	1175	1265	2270	3,6	2,4	23,5	15,5

## OPERATIONAL CONDITIONS AND IMPORTANT INFORMATION

The device is only suitable for heating water production inside closed rooms and may only be installed by authorised specialists (taking the applicable standards into account, e.g. ÖNORM B2531-1, DIN 1988). Buffer tanks are suitable for all hot water central heating systems, no matter whether solid fuel or oil-fired boilers, heat pump, solar plant, gas or electric circulator. In addition, multiple buffer tanks can be connected to groups. This way, the storage volume can be adjusted individually, depending on requirement. Furthermore, the buffer tanks can be used also as cold water storage for cooling processes or heat recovery in industrial plants.

The buffer tanks are only designed to operate under the conditions shown on the rating plate and with a maximum operating pressure of 4 bar, they are also only designed for the storage of heating water.

Aside from the legally approved national regulations and standards (Austria: ÖVE, ÖNORM, etc.), the terms and conditions of connection of the local power company and water works must be complied with, as well as the mounting and operating instructions. The water heating must be performed in accordance with the applicable standards (for example: ÖNORM H 5195).

The room in which the device is operated must be free of frost. The mounting of the device must be performed at a location that would justifiably be taken for granted, i.e. the device must be easily accessible in the case of any necessary maintenance, repairs or possible replacement. This means that all structural installations impairing trouble-free work must be removed by the end user. In the case of an assembly, mounting and operation of the water heater at unusual locations (e.g.: attics, living quarters with floors susceptible to water, store rooms, etc.), a possible penetration of water must be taken into account, and thus a device with an appropriate drain must be provided to collect any penetrating water, in order to prevent secondary damages this way. The device must be assembled and operated in an arrangement that is in accordance with the purpose and on a level surface that is suitable for the weight of the filled water heater.

Should a device, at the point of delivery, clearly display a malfunction, damage or other defect, this must not be fitted, installed or used in the system. Subsequent complaints regarding devices with an obvious defect which have been connected and installed are expressly excluded under the warranty and guarantee.

**Caution: the buffer tank is not suitable for heating of drinking water!**

## SCREWED HEATING ELEMENT

In the case of some buffer tanks, a 1½" sleeve is installed, which can be used for the installation of an electric screw-in heating element serving for additional heating or coasting of temperature. Except: Type PZRR 1000 and 1500.

The technical concept of screwed heating elements is designed as so-called auxiliary heating, and must not be used as permanent heating.

## TANK WITH TUBE REGISTER (PZR/PZRR TYPES)

Before bringing into use, the pipe registers must be flushed to remove any impurities from the heating circuit. The heating water must be treated in accordance with the national regulations and standards (e.g. ÖNORM H5195-1) during commissioning and comply with the regulations.

If the water heater is heated by its heat exchanger, then it must be ensured that in no case the hot water temperature exceeds 85 °C, as otherwise the safety temperature limiter of the electric heater can trigger and render it inoperable.

The tube registers (heat exchangers) installed in the tank are suitable for the connection to a hot-water heating at the pressure and temperature that is indicated on the rating plate of the buffer tank. Forced circulation by means of a pump is required.

A shutoff device should be installed in the flow in the case that a buffer tank with a tube register is installed, so that backheating into the heating circuit is prevented in the case of switched off central heating and heat pumping or electric operation.

However, under no circumstances must the flow and the return be shut off, as otherwise the water contained in the register cannot expand and a risk of damage to the heat exchanger exists.

The tube register must be rinsed through before being put into operation for the first time.

## IMPORTANT MOUNTING INFORMATION

The dimensioned sketches and any possible labels included in the packaging must be observed for mounting of the device.

**CAUTION:** the weight of the water heater including the weight of the water content (the nominal capacity) must be taken into account for the technical load-bearing and strength-related arrangement of the mounting surface of the device resp. for selection of the mounting location.

The distance to the boiler systems can be found in the manufacturer's documentation and in the relevant regulations.

If a buffer tank with additions (cladding) is designed to be installed in small, tight spaces, it is important to ensure that the connection block of the device (water connections, electrical connection space or heating installation space) is freely accessible and that there is no build-up of heat. There must be sufficient free space to allow a heating flange to be removed. To avoid corrosion, only prepared heating water should be used for filling (e.g. ÖNORM H5195).

Failure to observe these rules constitutes improper use in the event of any damage and thereby excludes the terms of the warranty.

Devices with electrically powered built-in heaters are equipped with a safety temperature limiter, which switches off further heating of the device at a temperature of max. 110°C (EN 60335-2-21; ÖVE-EW41, part 2 (500)/1971). Therefore, the selection of the connector components (connecting pipes, circulation, safety valve combination, etc.) must be planned in such a way that the connector components resist temperatures of 110°C in the case of a possible malfunction of the temperature controller, and that possible consequential damages are avoided.

Mounting and installation must be performed exclusively by authorised professionals.

The system operator must ensure that there is no risk caused by use of the system by untrained personnel.

In order to allow for a trouble-free repair, a removal or exchange of the device, it is necessary to establish the connection of the tank by means of a detachable connection (Dutch). Tank leaks as a result of an improper connection and resulting damage and consequential damage are excluded from the warranty and product liability.

**Warning: The safety valve of the heating circuit must be provided with a suitable drain to remove any heating water which may be produced.**

We recommend that the connections and connection lines are properly insulated to improve the energy efficiency.

## TEMPERATURE DISPLAY, TEMPERATURE CONTROL FOR CHARGE PUMP

In the case that external controls are installed, it must be ensured that the boiler temperature cannot exceed 95°C during practical operation.

### FIRST COMMISSIONING

The room where the device is used must be frost-free.

Initial commissioning and heating must be monitored by a specialist.

Before initial commissioning, the buffer tank must be filled with prepared heating water and bled.

After heating, the set temperature and the actual temperature should be checked to ensure that they correspond.

The volume of the water contained in the tank changes, if it is heated.

The expansion water created in the internal boiler during the heating process must be absorbed up by an appropriate expansion vessel. Please take the size of the expansion vessel from the Manufacturer's documentation.

On buffer tanks with electrical components, all nationally and internationally valid standards and regulations must be observed and put into practice. All work may only be performed by a licensed professional.

The independent switching off of any possible electric heating element mounted resp. of the boiler by the system must be checked.

This tank can be used by children eight years old and older as well as by persons with reduced physical, sensory or mental capabilities or who lack experience and knowledge if they are supervised or if they have been trained with regard to the safe use of the tank and understand the resulting risks. Children may not play with the tank or its packaging. Cleaning and user maintenance may not be performed by children without supervision.

### DECOMMISSIONING, EMPTYING

If the storage tank is taken out of operation or not used for a longer period, then it must be disconnected all-pole from the electric power grid in the case of electric heating. Turn off the lead switch or the automatic cutout.

In frost-prone rooms, the buffer tank must be drained before the start of the winter period or it must be prepared accordingly with anti-freeze.

#### **Caution: hot water may exit during emptying!**

In addition, where there is a risk of frost, it is important to note that not only the water in the buffer tank and warm water pipes can freeze, rather that all the pipes to the heating body and to the device can freeze too. It is therefore advisable to drain all water-bearing fittings and pipes in the heating circuit.

## CHECK, MAINTENANCE, CARE

Do not use any abrasive cleaning agents or paint thinners (e.g. nitro, trichloroethylene, etc.) to clean the device or the insulation. The best cleaning is to use a damp cloth adding a few drops of a liquid household cleaner. In hospitals and other public buildings, the prevailing regulations for cleaning and disinfection must be observed.

The bare-tube heat exchanger must be rinsed professionally before performing the initial installation (we additionally recommend the installation of a dirt filter). If the straight-tube heat exchanger is not used for the operation of the buffer tank (e.g. only electric heater), this must be closed to prevent corrosion caused by the condensate produced.

The heating water expansion vessel must be checked regularly to ensure it is functioning correctly.

It is recommended to compare the set temperature with the actual temperature present.

On the PZR/PZRR models, the temperature resistance (below-zero temperatures) of the solar circuit should be checked at regular intervals.

## ELECTRICAL CONNECTION OPTION

### General Information:

The connection with the power grid must be implemented in conformity with the applicable national regulations and standards, the relevant connecting requirements of the local power company and waterworks, as well as the standards of the Mounting and Operating Instructions, and must be performed exclusively by a licensed electrician. The stipulated protective measures must be executed carefully, so that no other power-supplied devices are affected thereby in the event of a malfunction or failure of the hot water tank's power supply (e.g. freezer, rooms used for medical purposes, units for intensive care, etc.).

The technical connecting requirements (TAB) of the relevant energy supply company must absolutely be observed.

A residual current circuit breaker with a tripping current  $I_{\Delta n} \leq 30\text{mA}$  must be connected in series before the electric circuit.

The device must only be connected with permanently laid lines.

An all-pole disconnecting unit with at least 3mm contact clearance must be connected in series before the device. This requirement is fulfilled e.g. by an automatic cutout.

Before the electrical commissioning, the buffer tank must be filled with water.

In line with the safety regulations, before anything is done to the buffer tank, it must be switched off and secured to prevent it being switched on again. You should also check to ensure that it is not live. Actions on the electrical system of the device may only be performed by a licensed electrician.

The electrical connection must always be made in accordance with the switching diagram of the built-in heating used.

## WARRANTY, GUARANTEE AND PRODUCT LIABILITY

Warranty is made according to the legal provisions of the Republic of Austria and the EU.

1. The prerequisite for honoring of warranty terms on the part of the manufacturer is presentation of a paid invoice for the purchase of the appliance in question, whereby the identity of the appliance including model and fabrication number must be indicated on the invoice and presented by the claim applicant. The General Terms and Conditions, Terms and Conditions of Sale and Delivery of the manufacturer shall apply exclusively.
2. The assembly, installation, wiring and startup of the appliance in question must, to the extent that this is prescribed legally or in the installation and operation guide, have been performed by an authorized electrical technician or installer who has followed all the required regulations. The buffer tank with applied insulation must be protected from direct sunlight to prevent discolouration of the PU foam and the possibility of plastic parts being deformed.
3. The area in which the appliance is operated must be kept from freezing. The unit must be installed in a location where it can be easily accessed for maintenance, repair and possible replacement. The costs for any necessary changes to the structural conditions (e.g. doors and passages too narrow) are not governed by the guarantee and warranty declaration and therefore shall be rejected on the side of manufacturer. When erecting, installing and operating the water heater in unusual locations (e.g. attics, interior rooms with water-sensitive floors, closets, etc.), provision must be made for possible water leakage and means provided for catching the water with a corresponding drain to avoid secondary damage in the context of product liability.
4. The warranty shall not apply in the following cases:  
Improper transport, normal wear and tear, wilful or negligent damage, violence of any kind, mechanical damage, damage due to frost or if the operating pressure on the rating plate is exceeded even just once, use of components and parts not complying with the standard, glass or plastic part breakage, eventual colour differences, damage through improper use, particularly by failing to observe the assembly and operating instructions (operating and installation instructions), damage caused by external influences, connection to the wrong voltage, corrosion damage resulting from the use of improperly prepared heating water, deviations between the actual and the set water temperature, continued use even if faults are present, unauthorised modifications to the device, installation of additional components which have not been tested with the device, improper maintenance, water loss, fire, flood, flooding and inundation, lightning strikes, voltage spikes, power cuts or other acts of God, use of non-original third party components, e.g. heating elements, thermostat, thermometer, finned tube heat exchanger, etc., foreign bodies being introduced or electrochemical influences, failure to observe the planning documents, improper cleaning and operation, or lack of it, as well as such deviations from the standard which only minimally affect the value or the functionality of the device. All relevant national regulations and laws must be observed.
5. A justified claim must be reported to the closest customer service location of the manufacturer. The latter reserves the right to replace or repair a defective part or to decide whether a defective appliance shall be replaced with a working one of equal value. The manufacturer furthermore expressly reserves the right to require that the purchaser return the appliance in question. The time of a repair or a replacement is determined by the production.
6. Repairs made under warranty are to be performed only by persons authorized by the manufacturer. Replaced parts become the property of the manufacturer. If any repairs to the water heater become necessary as part of necessary service work, these are charged at the cost of repair and prorated material cost.
7. Any work performed without our express order, even this is done by an authorized installer, will void the warranty. Assumption of the costs for repairs performed by third parties presumes that the manufacturer was requested to eliminate the defect and did not or did not in timely fashion meet his obligation for replacement or repair.
8. The warranty period will not be renewed or extended as a result of a guarantee and warranty claim, service or maintenance work.
9. Transport damage will only be inspected and if appropriate recognized if it has been reported in writing to the manufacturer no later than the weekday following delivery.
10. Claims exceeding the terms of the warranty, in particular those for damage and consequential damages, are precluded insofar as these are legally permissible. Pro rata work times for repairs as well as the costs for restoring the equipment to its original condition must be paid in full by the purchaser. The guarantee provided extends according to this guarantee declaration only to the repair or replacement of the appliance. The provisions of the Terms of Sales and Delivery of the manufacturer remain, insofar as they are not altered by these guarantee conditions, fully in effect.



11. There is a charge for services provided outside of the context of these guarantee conditions.
12. In order for a warranty claim to be honored by the manufacturer, the appliance must be paid for in full to the manufacturer and the claimant must have met all his obligations to his vendor in full.
13. To make claims under the applicable Austrian Product Liability Act, the following must be noted:  
Any possible claims from the product liability stated above which deal with damage caused by a failure of a product (e.g. a person receives bodily injury, health is damaged or some other bodily part is damaged by the product), are only justified when all the prescribed measures and requirements which are needed for error-free and standard compliant operation of the device have been fulfilled. These include, for example, the connection to the correct operating voltage, damage caused by improper use must be avoided, etc. These requirements are all derived from the fact that, if all regulations (standards, installation and operating instructions, general guidelines, etc.) are observed, then the secondary damage would not occur from a casual error on the device or the product. In addition, it is essential for the completion of the required documentation that, e.g. the description and manufacturing number of the buffer tank, the sales receipt and the concessionaire who performed the sale as well as a description of the malfunction, about the examination in a laboratory of the buffer tank in question (absolutely necessary that an expert examines the buffer tank and analyses the cause of the fault) must be supplied. To avoid any mix-up of the buffer tank during transportation, the buffer tank must be marked with an easily legible, water-proof marking (best with the address and signature of the end customer). Appropriate photographic documentation of the extent of the damage, the installation itself as well as the fault location of the buffer tank is required. In addition, the manufacturer reserves the right to require the submission of the required documents and devices or parts of devices from the purchaser. A prerequisite for the provision of services resulting from product liability is that the victim must prove that the damage was caused by the product from the product manufacturer. Claims made in line with the Austrian Product Liability Act are only valid for the sums above the first 500 Euro part (excess). Until all the facts and circumstances have been determined and the causal error-triggering reason has been identified, the possible fault of the producer is expressly excluded. Failure to observe the operating and installation instructions as well as the relevant standards is considered negligence and leads to a disclaimer of liability in the area of compensation.

The illustrations and data are not binding and may be modified without notice when technical improvements are made. Subject to printing errors and technical changes.

## PRODUCT FICHE ERP

Type	Tank capacity L	Energy efficiency class	Standing loss W
PZ 500	500	C	85
PZ 800	800		108
PZ 1000	1000		126
PZ 1500	1500		153
PZR 500	500	C	85
PZR 800	800		108
PZR 1000	1000		126
PZR 1500	1500		153
PZRR 500	500		85
PZRR 800	800		108
PZRR 1000	1000		126
PZRR 1500	1500		153





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