



## TECHNICAL PASSPORT OF THE PRODUCT

### PEX tension fittings

#### 1. Purpose and scope

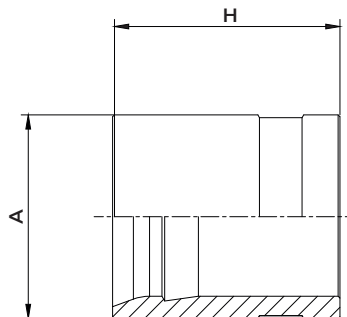
Raftec fittings - brass axial type fittings with a sliding sleeve (tension fittings). Designed for connecting Raftec PEX-a pipes with an oxygen barrier. Recommended for use in high-temperature and low-temperature heating, cooling, hot and cold (drinking) pressure water supply systems.

#### 2. Technical specifications

№	Characteristic	Value			
		16	20	25	32
	Dimensions (diameter), mm.	16	20	25	32
1	Fitting material	Hot-pressed brass CW617N			
2	Maximum operating temperature of the coolant, °C	90			
3	Working pressure, bar	10			
4	Average full service life, years	50			

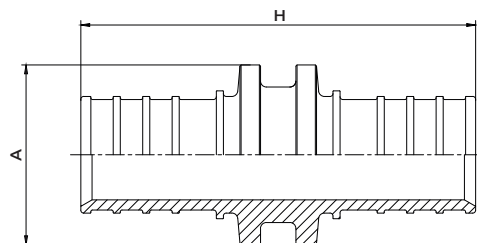
#### 2. Nomenclature and overall dimensions

##### 2.1 Compression sleeves



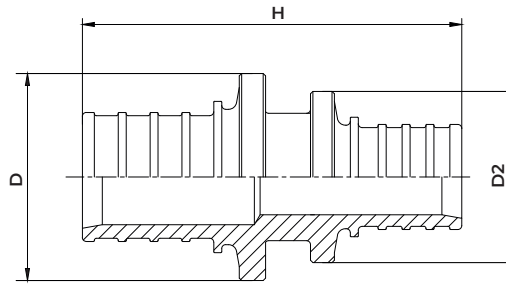
№	Code	Diameter, mm	H, mm	A, mm	Weight, g	Package, pcs.
1	PG16	16	24	21,5	26	20
2	PG20	20	25	25,2	30	20
3	PG25	25	27	30,5	45	10
4	PG32	32	34	39	96	5

##### 2.2 Coupling



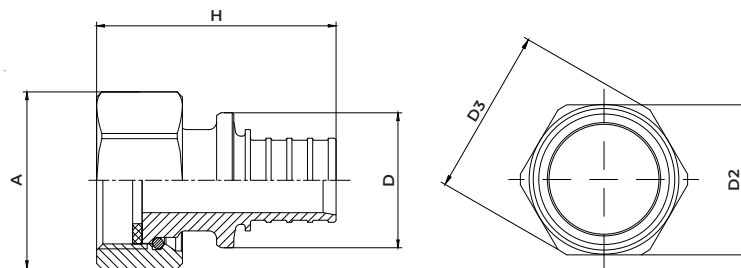
№	Code	Diameter, mm	H, mm	A, mm	Weight, g	Package, pcs.
1	PM1616	16x16	43	21,5	35	10
2	PM2020	20x20	52	25,3	56	10
3	PM2525	25x25	67	30,5	94	5
4	PM3232	32x32	80	39	178	1

### 2.3 Reducer



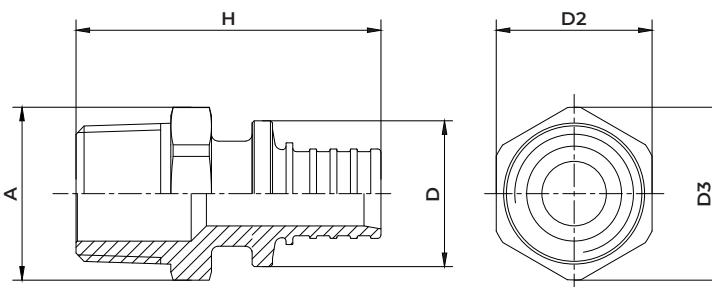
Nº	Code	Diameter, mm	H, mm	D, mm	D2, mm	Weight, g	Package, pcs.
1	PS1620	16x20	47,5	25,3	21,5	45	10
2	PS2025	20x25	60	30,5	23,5	65	5
3	PS3225	25x32	74	39	30,5	138	1

### 2.4 Straight with female-swivel nut



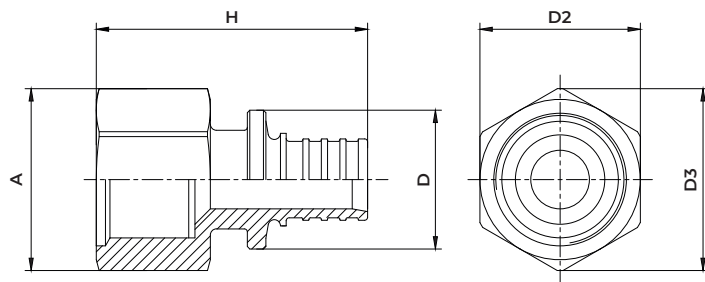
Nº	Code	Diameter	H, mm	A, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	PNG1601	16x1/2"	42,5	24,5	21,5	25	28	56,7	1
2	PNG1602	16x3/4"	43	30,5	21,5	31	34	72,7	1
3	PNG2001	20x1/2"	46,5	24,5	25,3	25	28	68	1
4	PNG2002	20x3/4"	48	30,5	25,3	31	34	83	1

### 2.5 Adapter with male thread



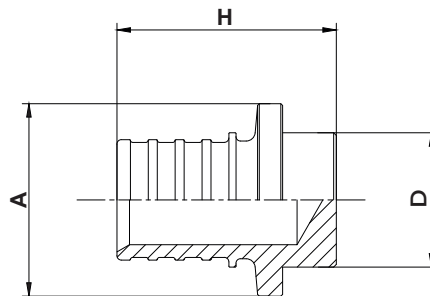
Nº	Code	Diameter	A, mm	H, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	PSN1601	16x1/2"	21,8	45,5	21,5	22	24,5	51	10
2	PSN1602	16x3/4"	26	45,5	21,5	27	30	72	10
3	PSN2001	20x1/2"	21,5	50	25,3	22	24,5	64	10
4	PSN2002	20x3/4"	26,5	51,5	25,3	27	30	86	10
5	PSN2503	25x1"	34	63	30,5	34	38	160	5
6	PSN3203	32x1"	34	63	39	34	38	218	1

## 2.6 Adapter with female thread



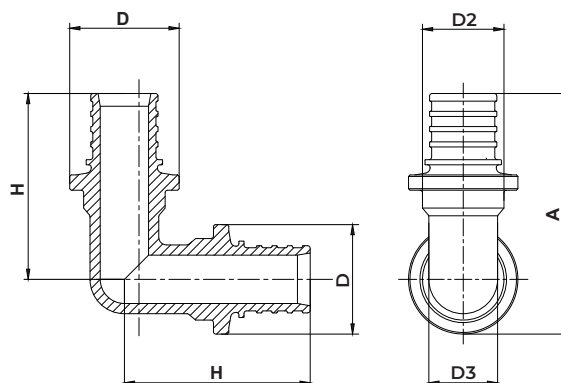
Nº	Code	Diameter	A, mm	H, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	PSV1601	1/2"	24,5	42,5	21,5	25	28	59	10
2	PSV1602	3/4"	30,5	43	21,5	31	34	72,7	10
3	PSV2001	1/2"	24,5	46,5	25,3	25	28	69	10
4	PSV2002	3/4"	30,5	48	25,3	31	34	84	10
5	PSV2501	1"	34	60,5	30,5	34	38	83	5
6	PSV3203	1"	44	68	39	34	38	210	1

## 2.7 Stopper plug



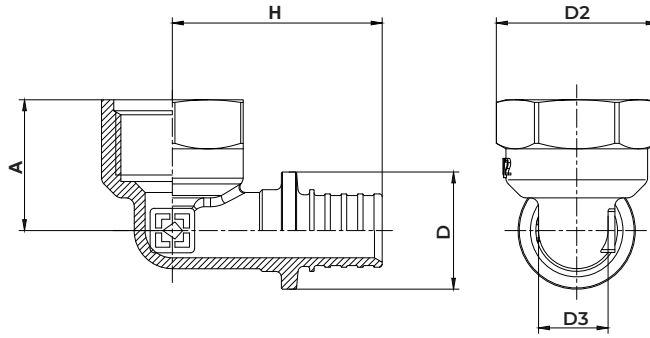
Nº	Code	Diameter	A, mm	H, mm	D, mm	Weight, g	Package, pcs.
1	PZ16	16	21,5	24,5	15	22	20
2	PZ20	20	25,3	29	18	24	20

## 2.8 Elbow



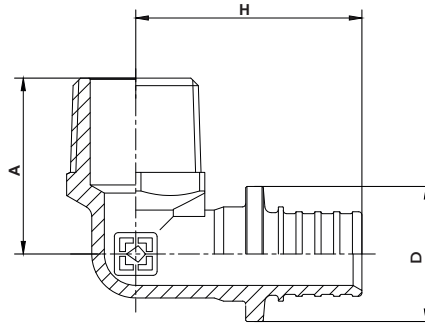
Nº	Code	Diameter	A, mm	H, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	PK1616	16x16	47,25	35,5	21,5	15	14	51	10
2	PK2020	20x20	55	42	25,3	18,5	16,8	85	8
3	PK2525	25x25	44,3	52,5	30,5	23	20,5	140	5
4	PK3232	32x32	44,3	64	39	29	26	305	1

### 2.9 Elbow adapter 90° with female thread



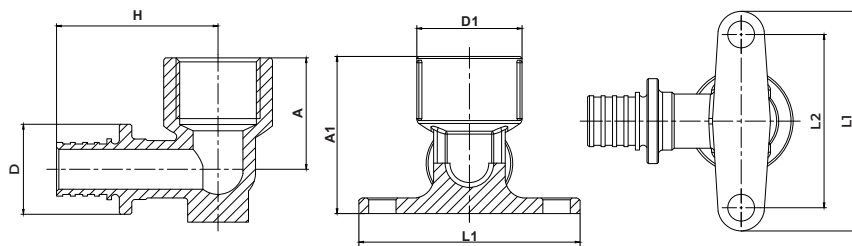
Nº	Code	Diameter	A, mm	H, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	PKV1601	16x1/2"	25	38,5	21,5	28	14	64	10
2	PKV1602	16x3/4"	26	43	25,3	28	16,8	107	10
3	PKV2001	20x1/2"	26,5	45,5	25,3	35	16,8	83	10
4	PKV2002	20x3/4"	26,5	53	30,5	35	20,5	103	10
5	PKV2502	25x3/4"	26	41	21,5	35	14	133	5
6	PKV3203	32x1"	33,5	63,5	39	44,5	26	303	1

### 2.10 Elbow adapter 90° with male thread



Nº	Code	Diameter	A, mm	H, mm	D, mm	Weight, g	Package, pcs.
1	PKN1601	16x1/2"	28	36	21,5	58	10
2	PKN1602	16x3/4"	30	39	21,5	78,1	10
3	PKN2001	20x1/2"	29	40,5	25,3	78,4	10
4	PKN2002	20x3/4"	30	43,5	25,3	92,3	10
5	PKN2502	25x3/4"	32,5	51,5	30,5	129	5
6	PKN3203	32x1"	38	61,5	39	292	1

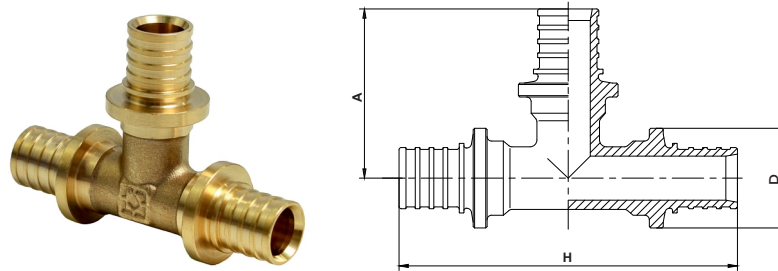
### 2.11 Wall-mounted elbow, female thread



Nº	Code	Diameter	A, mm	A1, mm	H, mm	D, mm	D1, mm	L1, mm	L2, mm	Weight, g	Package, pcs.
1	PWM1601	16x1/2"	29	40,5	38,5	21,5	28	57	45	92	10
2	PWM2001	20x1/2"	27,5	40,5	43	25,3	28	57	45	109	10
3	PWM2002	20x3/4"	27,5	40,5	45	25,4	35	57	45	128	10

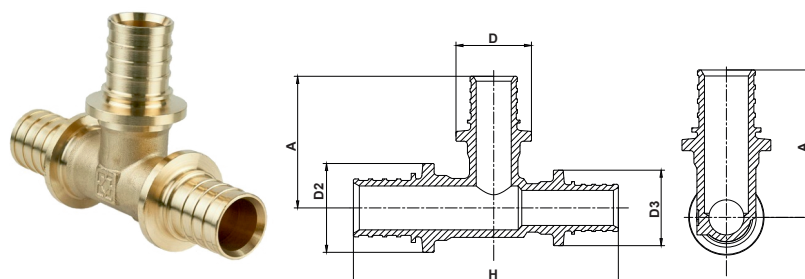


## 2.12 Tee equal



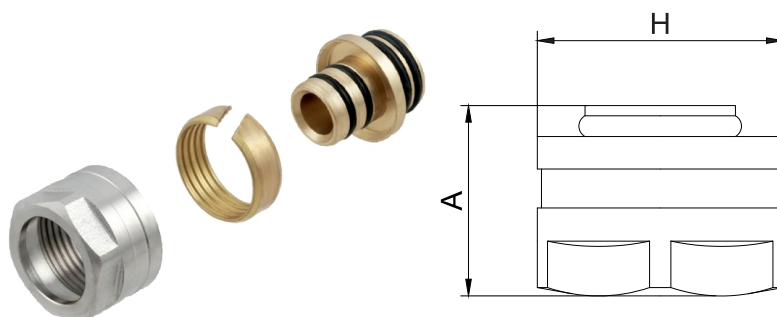
Nº	Code	Diameter	A, mm	H, mm	D, mm	Weight, g	Package, pcs.
1	PT16	16x16x16	35,5	71	21,5	73	10
2	PT20	20x20x20	42	84	25,3	111	5
3	PT25	25x25x25	52,5	105	30,5	202	5
4	PT32	32x32x32	64	128	39	350	1

## 2.13 Tee, outlet expanded



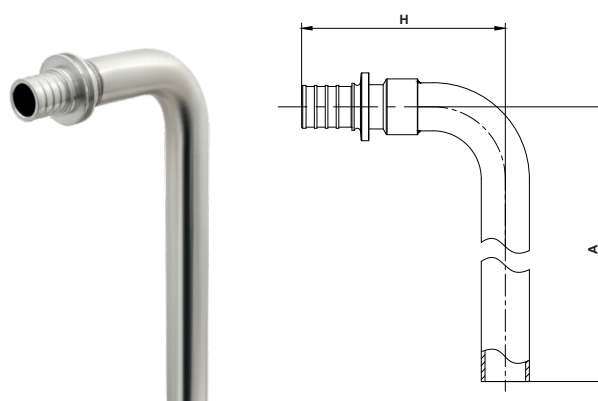
Nº	Code	Diameter	A, mm	H, mm	D, mm	D2, mm	D3, mm	Weight, g	Package, pcs.
1	Pt162016	16x20x16	42	75	25,3	21,5	21,5	93	5
2	PT201616	20x16x16	37,5	75,5	21,5	25,3	21,5	103	5
3	PT201620	20x16x20	37,5	80	21,5	25,3	25,3	108	5
4	PT202016	20x20x16	42	79,5	25,3	25,3	21,5	92	5
5	PT202520	20x25x20	50	90	30,5	25,3	25,3	151	3
6	PT252020	25x20x20	45	92,5	25,3	30,5	25,3	153	3
7	PT251625	25x16x25	40	96	21,5	30,5	30,5	150	3
8	PT252516	25x25x16	52,5	93	30,5	30,5	21,5	155	3
9	PT251616	25x16x16	40	84	21,5	30,5	21,5	124	3
10	PT322532	32x25x32	57	118	15,3	39	39	302	1
11	PT323225	32x32x25	63	120	39	39	30,5	310	1
12	PT322032	32x20x32	49,5	113	25,3	39	39	279	1
13	PT322520	32x25x20	57	74	30,5	39	25,3	243	1

## 2.14 Eurocone



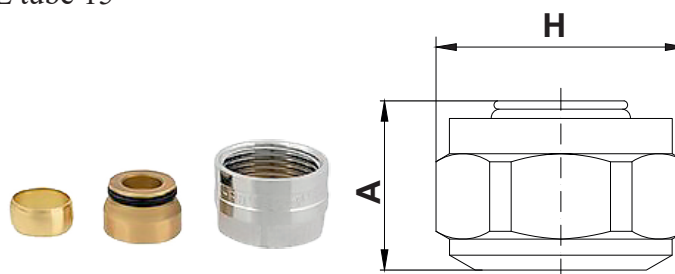
Nº	Code	Diameter	A, mm	H, mm	Weight, g	Package, pcs.
1	EKRC-16-34-20	3/4x16x2,0	23	30	63,8	1
2	EKRC-16-34-22	3/4x16x2,2	23	30	63,8	1
3	EKRC-20-34-20	3/4x20x2,0	23	30	63,8	1
4	EKRC-20-34-28	3/4x20x2,8	23	30	63,8	1

## 2.15 Tube L for radiator connection



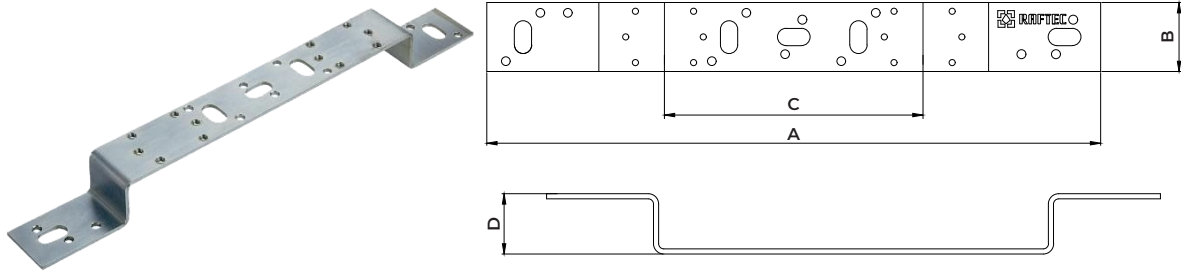
Nº	Code	Diameter	A, mm	H, mm	Weight, g	Package, pcs.
1	PUT1525	15x15	250	50	127	1

## 2.16 Eurocone for L tube 15



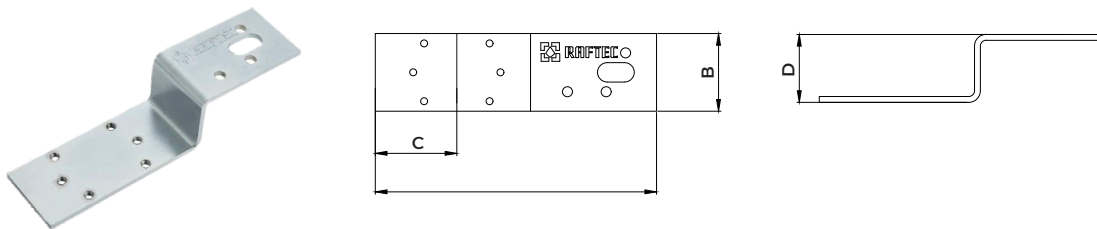
Nº	Code	Diameter	A, mm	H, mm	Weight, g	Package, pcs.
1	PTS3415	3/4"	21,7	29	66	-

## 2.17 Double mounting strip



Nº	Code	A, mm	B, mm	C, mm	D, mm
1	PPS-00	356	40	150	35
2	PPS-02	356	40	100	35

## 2.18 Single mounting plant



Nº	Code	A, mm	B, mm	C, mm	D, mm
1	PPS-001	145	40	42	35

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### 3. Installation and operation instructions

The temperature during installation of the Raftec system should be above  $-15^{\circ}\text{C}$ , the recommended temperature range during installation is from  $5^{\circ}\text{C}$  to  $25^{\circ}\text{C}$ . For installation, we recommend using a specialized Raftec tool

Installation of the fitting:

1. Cut the pipe perpendicular to its axis.
2. Put the Raftec sleeve on the pipe with the chamfer facing the fitting connection side.
3. Insert the expander with the Raftec expansion nozzle of the required diameter into the pipe until it stops. Expand in three cycles (the pipe is rotated around its axis by  $10^{\circ}$  -  $45^{\circ}$  degrees).
4. Insert the fitting nipple into the pipe to the penultimate flange.
5. Press the sleeve onto the fitting using the Raftec press with press nozzles corresponding to the pipe diameter.
6. After completing the system installation, press the system with test pressure.

The connection with the tension sleeve is non-separable, therefore, in accordance with DBN V.2.5-67-2013, it can be concreted into the floor or plastered into the wall without installing hatches or other inspection methods.

**Attention!** Requirements for concealed installation:

1. When installing fittings and pipes in a concealed manner, protective covers must be used, fittings must be isolated from contact with mortar to prevent corrosion, and the location of concealed fittings must be indicated in the design documentation.
2. When crossing two pipelines, it is prohibited to overlap fittings on fittings; only pipe-to-pipe and pipe-to-fitting intersections are permitted.
3. Connecting the pipe to the central branch of the tee and connecting the pipe to the square must occur at an angle of  $90$  degrees.
4. Do not allow ice to form inside the pipe to prevent damage.
5. Installation must be performed by qualified and competent personnel.
6. Fittings must be operated under the conditions specified in the tables in section No. 2 "technical characteristics".

### 4. Storage and transportation

1. Fittings must be stored in the manufacturer's packaging according to storage conditions 3 according to GOST 15150-69.
2. Fittings must be transported in accordance with requirements 5 according to GOST 15150-69.

### 5. Utilization

Disposal of the product (melting, burial, resale) in accordance with the procedure established by the Law of Ukraine of 1992 No. 50, Art. 678, (as amended by No. 2556 - III (2556-14) of 21.06.2001, No. 48, Art. 252 "On Atmospheric Air Protection" (as amended by 14.07.2016), of 1998 No. 36-37, 242 "On Waste" (as amended by 09.04.2015), of 1991 No. 41, Art. 546 "On Environmental Protection" (as amended by 04.10.2016), as well as other norms, acts, rules, orders, etc.

### 6. Warranty obligations

1. The manufacturer guarantees that the products comply with safety requirements, provided that the consumer complies with the rules of use, transportation, storage, installation and operation.
  2. The warranty applies to all defects that have arisen due to the fault of the manufacturer.
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3. The warranty does not apply to defects that have arisen in cases of:
  - violation of the passport regimes of transportation, storage, installation, operation and maintenance of the product;
  - improper transportation and loading and unloading operations;
  - presence of traces of exposure to substances aggressive to the materials of the product;
  - presence of damage caused by fire, natural disasters, force majeure circumstances;
  - presence of damage caused by incorrect actions of the consumer;
  - presence of traces of third-party interference in the design of the product.
4. The manufacturer reserves the right to make changes to the product design that do not affect the declared technical characteristics.

#### **7. Warranty terms and conditions**

1. Claims for the quality of the goods may be made during the warranty period.
  2. Defective products during the warranty period are repaired or exchanged for new ones free of charge. The decision to replace or repair the product is made by the service center. The replaced product or its part obtained as a result of the repair becomes the property of the service center.
  3. The costs associated with dismantling, installation and transportation of the defective product during the warranty period are not reimbursed to the Buyer.
  4. In cases where the claim is unfounded, the costs of diagnostics and examination are paid by the Buyer.
  5. Products are accepted for warranty repair (as well as when returned) fully equipped.
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WARRANTY CARD № \_\_\_\_\_

Product name \_\_\_\_\_  
Brand, article, size \_\_\_\_\_  
Quantity \_\_\_\_\_  
Name and address of the trading organization \_\_\_\_\_  
Date of sale \_\_\_\_\_ Seller's signature \_\_\_\_\_

Stamp or seal  
of the trading organization

I AGREE with the conditions:  
BUYER \_\_\_\_\_  
(signature)

The warranty period is seven years (eighty-four months) from the date of sale to the end consumer.

When making claims regarding the quality of the goods, the buyer shall provide the following documents:

1. A statement in any form, indicating:
  - name of the organization, full name of the buyer, actual address and contact phone number;
  - name and address of the organization that performed the installation;
  - main system parameters;
  - short description of the defect;
2. Document proving the purchase of the product;
3. Hydraulic test certificate of the system in which the product was installed;
4. A completed warranty card issued on the manufacturer's website «[raftec.eu](http://raftec.eu)».

Return or exchange mark: \_\_\_\_\_

Date \_\_\_\_\_ y. Signature: \_\_\_\_\_