



## TECHNICAL DATA SHEET OF THE PRODUCT

### Threaded fittings nickel-plated and chrome-plated

#### 1. Purpose and scope of application

Raftec threaded brass connecting fittings are used to create detachable threaded connections on cold, drinking, domestic and hot water supply, heating, compressed air pipelines and on process pipelines that transport gases and liquids that are not aggressive to materials. The connectors can be used on pipelines made of any material: steel, copper, brass, plastic, metal-polymer, polypropylene, etc. The connections are made on a pipe cylindrical thread according to GOST 6357 (ISO 228, EN 10226).

#### 2. Technical specifications

No	Characteristic	Designation
1	Maximum working environment temperature, °C	200
2	Maximum working environment temperature for As01, °C	120
3	Connecting thread	Pipe inch
4	Average full service life, years	40

Excess pressures for pressure-treated brass pipeline components according to GOST 15527

Thread designation in inches	Nominal pressure, PN, Mpa	Maximum working pressure, PN, Mpa, at ambient temperature, °C	
		120°C	200°C
1/4"	4,0	4,0	3,2
3/8"	4,0	4,0	3,2
1/2"	4,0	4,0	3,2
3/4"	4,0	4,0	3,2
1"	4,0	4,0	3,2
1 1/4"	2,5	2,5	2,0
1 1/2"	2,5	2,5	2,0
2"	2,5	2,5	2,0

Thread parameters according to GOST 6357

Thread designation in inches	Outer diameter of thread, mm	Thread pitch, mm	Number of thread turns on 1"
1/4"	13,158	1,337	19
3/8"	16,663	1,337	19
1/2"	20,956	1,814	14
3/4"	26,442	1,814	14
1"	33,250	2,309	11
1 1/4"	41,913	2,309	11
1 1/2"	47,805	2,309	11
2"	59,616	2,309	11

#### 3. Material

The connectors are made of brass grade CW 614N by hot volume stamping according to standard EN 12165. The connectors have a nickel galvanic coating. UHL extensions have a chromium galvanic coating on a copper substrate.

No	Element name	Material	Material grade according to standards
1	Fitting body	Hot pressed brass nickel plated	CW614N
2	Nut	Hot pressed brass nickel plated	CW614N
3	Sealing ring removable branch pipe	Ethylene-propylene-diene monomer	EPDM

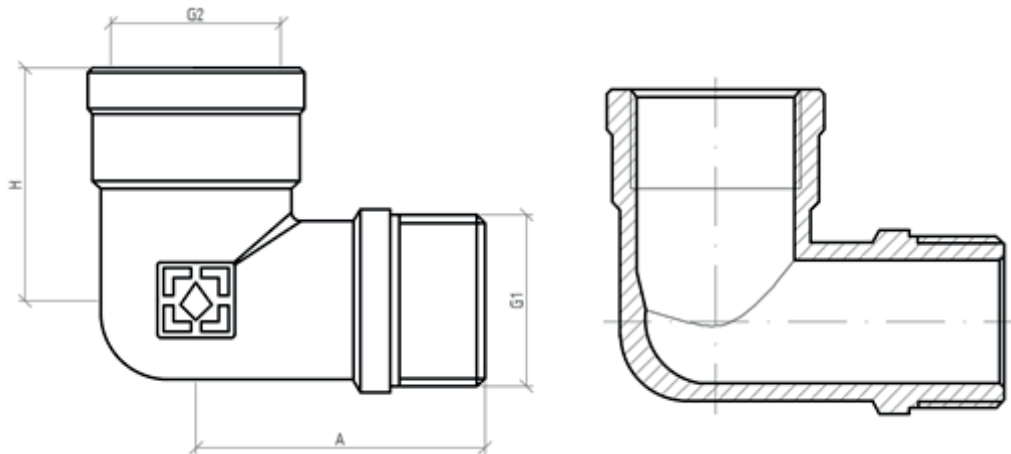
## 4. Installation instructions

1. Installation can be performed by a specialist or a specialized organization.
2. The installation of connectors should be carried out in accordance with the requirements of SP 73.13330.2012 “Internal sanitary and technical systems
3. The fitting can be installed in any mounting position.
4. The fittings must not be subject to loads from the pipeline (bending, compression, stretching, torsion, distortion, vibration, misalignment of pipes, uneven tightening of fasteners).  
If necessary, supports or compensators must be provided to reduce the load on the fittings from the pipeline.
5. The misalignment of connecting pipelines should not exceed 3 mm for a length of up to 1 m plus 1 mm for each subsequent meter.
6. As a sealant for threaded connections, it is necessary to use FUM tape (fluoroplastic sealant), polyamide thread with silicone, flax with special pastes, as well as other sealing materials that ensure the tightness of the connections.
7. After installation, the system units must be tested for tightness using a hydraulic or pneumatic method.
8. To install chrome extensions, use a hex key.
9. When installing fittings, it is prohibited to apply torques to them that exceed the values specified in the passport table and it is recommended to use conventional wrenches:

Thread, inches	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Maximum torque (thread), Nm	30	40	60	80	120	150

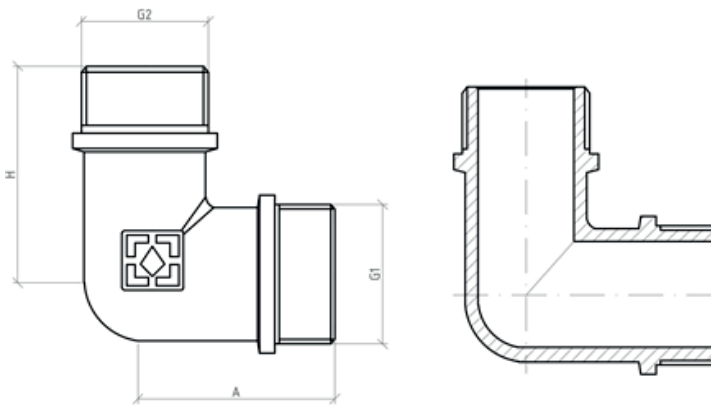
## 5. Nomenclature and overall dimensions

### 5.1 Elbow internal thread - external thread



Elbow 90° MF						
Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	UP01	1/2"	1/2"	35	28	69
3/4"	UP02	3/4"	3/4"	40	35	122
1"	UP03	1"	1"	46.5	39	210
1 1/4"	UP04	1 1/4"	1 1/4"	57.5	45	412

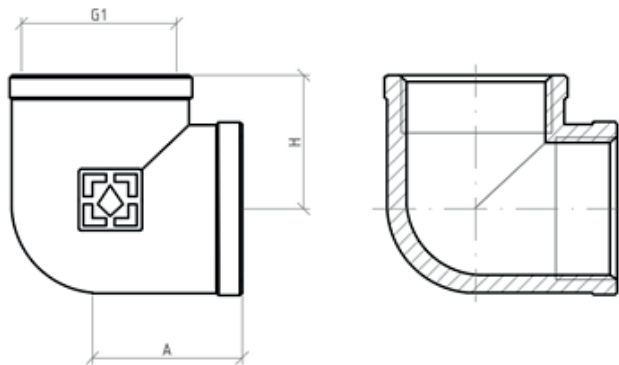
### 5.2 Elbow male thread-male thread



**Elbow 90° MM**

Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	UN01	1/2"	1/2"	33	33	62
3/4"	UN02	3/4"	3/4"	39	39	122
1"	UN03	1"	1"	45	45	203

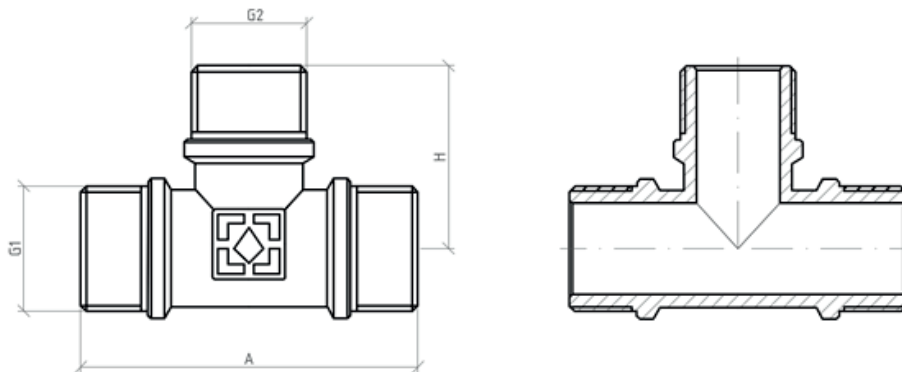
### 5.3 Elbow female thread-female thread



**Elbow 90° FF**

Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	U01	1/2"	1/2"	23.8	23.8	72
3/4"	U02	3/4"	3/4"	28	28	125
1"	U03	1"	1"	31	31	208
1 1/4"	U04	1 1/4"	1 1/4"	43	43	412

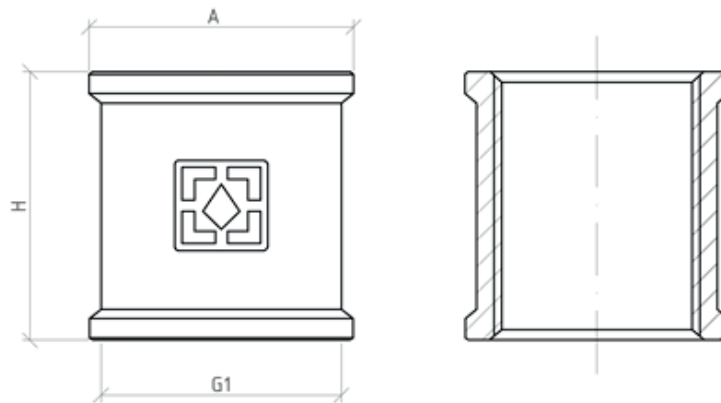
### 5.4 Tee external thread



**Tee MMM**

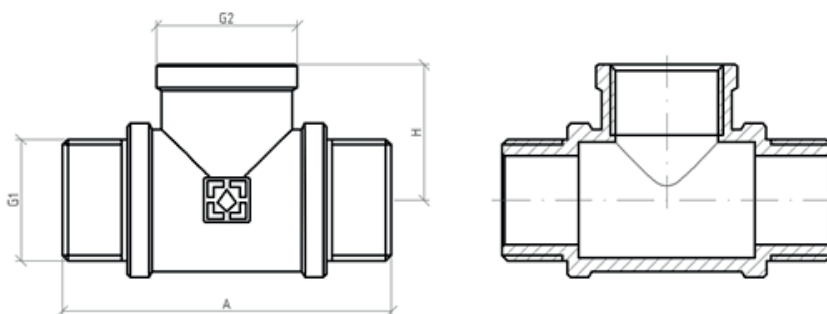
Size	Article	G	A, mm.	B, mm.	Weight, gr.
1/2"	TNNN010101	1/2"	60	30	91

### 5.5 Coupling internal thread



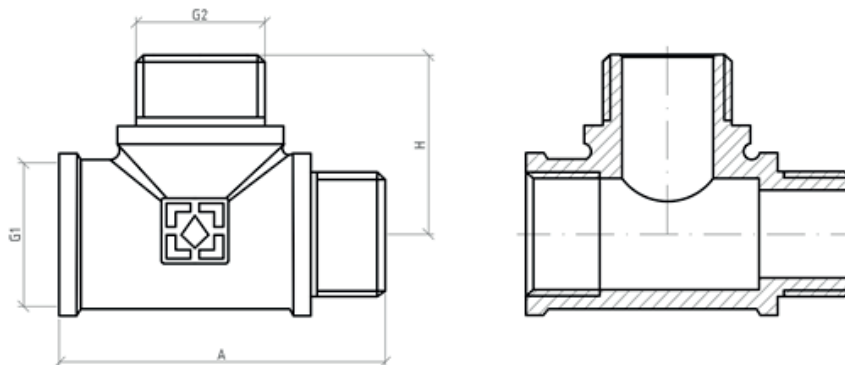
Coupling FF					
Size	Article	G	A, mm	B, mm.	Weight, gr.
1/2"	MR01	1/2"	26	29.5	40
3/4"	MR02	3/4"	32	34	65
1"	MR03	1"	40	34.5	105
1 1/4"	MR04	1 1/4"	49.5	47	182
1 1/2"	MR05	1 1/2"	55	60.5	287
2"	MR06	2"	67	67	415

### 5.6 Tee male thread-female thread-male thread



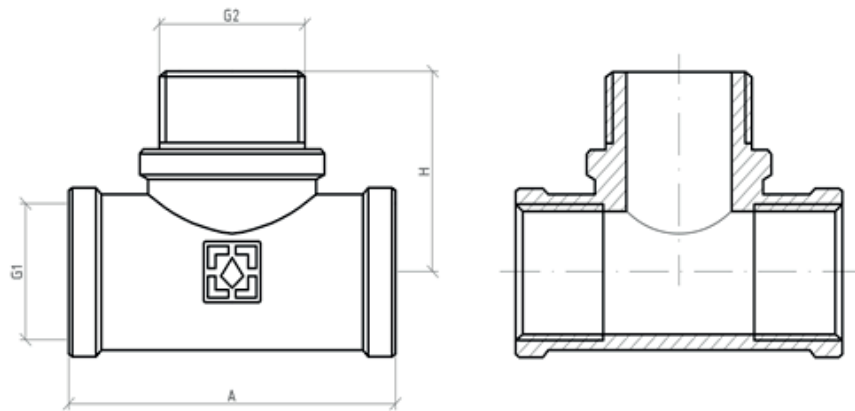
Tee MFM						
Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	TNVN010101	1/2"	1/2"	70	23	98.5

### 5.7 Tee female thread - male thread - male thread



Tee FMM						
Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	TVNN010101	1/2"	1/2"	58.5	35	113

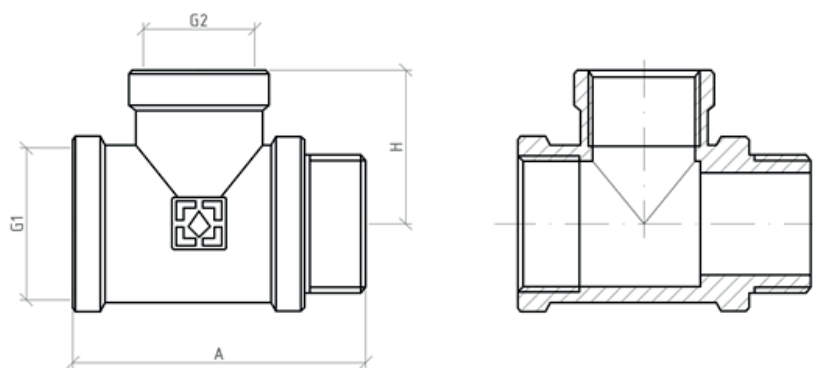
### 5.8 Tee female thread - male thread - female thread



**Tee FMF**

Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	TVNV010101	1/2"	1/2"	47	35	96

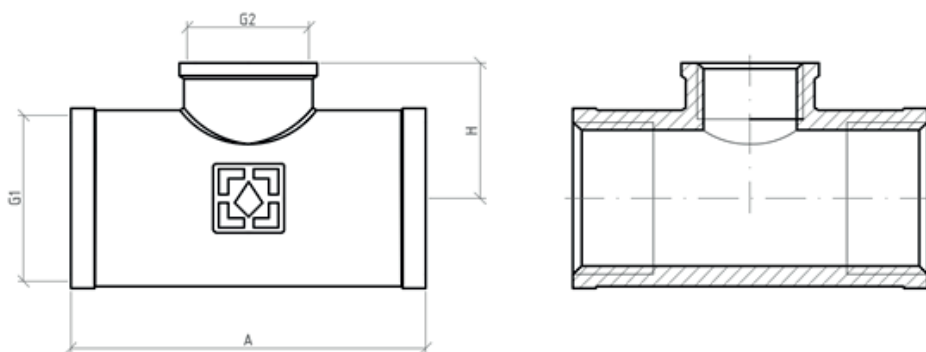
### 5.9 Tee female thread-female thread-male thread



**Tee FFM**

Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"	TVVN010101	1/2"	1/2"	58.5	23.5	98

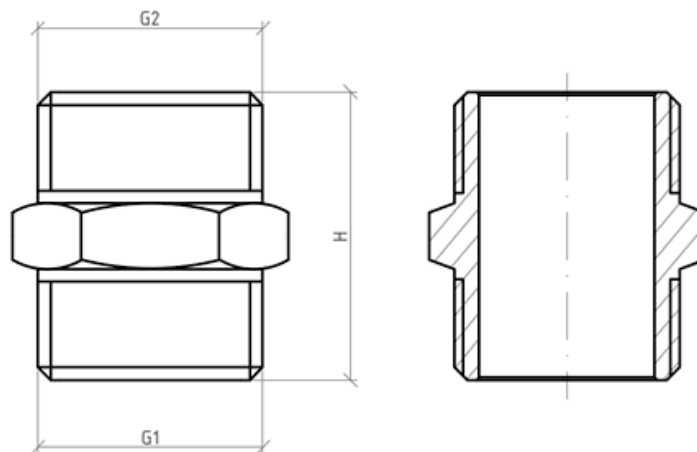
### 5.10 Tee female thread-female thread-female thread



**Tee FFF**

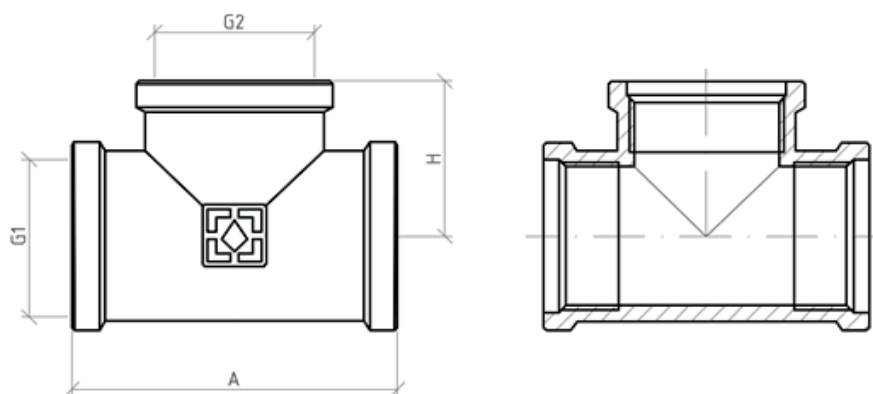
Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
3/4"x1/2"x3/4"	TVVV020102	3/4"	1/2"	54.5	26	133
1"x1/2"x1"	TVVV030103	1"	1/2"	70	30	239
1"x3/4"x1"	TVVV030203	1"	3/4"	70	35	252

### 5.11 Nipple external thread-external thread



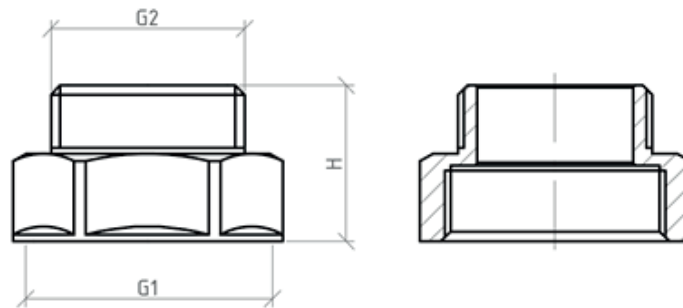
Nipple MM					
Size	Article	G	G1	H, mm.	Weight, gr.
1/2"	N01	1/2"	1/2"	27	30
3/4"	N02	3/4"	3/4"	29	44
1"	N03	1"	1"	34.5	88
1 1/4"	N04	1 1/4"	1 1/4"	41	142
1 1/2"	N05	1 1/2"	1 1/2"	41	164
2"	N06	2"	2"	44	252

### 5.12 Tee internal thread



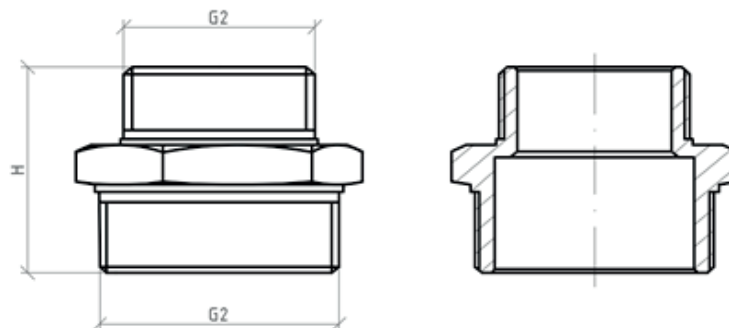
Tee FFF						
Size	Article	G	G1	A, mm.	H, mm.	Weight, gr.
1/2"x1/2"x1/2"	T01	1/2"	1/2"	45.5	25	91
3/4"x3/4"x3/4"	T02	3/4"	3/4"	54.5	27.25	144
1"x1"x1"	T03	1"	1"	70	35	267
1 1/4"x1 1/4"x1 1/4"	T04	1 1/4"	1 1/4"	84	47	423
1 1/2"x1 1/2"x1 1/2"	T05	1 1/2"	1 1/2"	90	45	548

### 5.13 Adapter internal thread - external thread



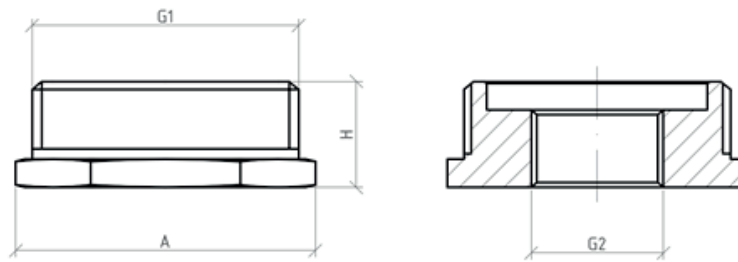
Hexagonal reduction FM						
Size	Article	G	G1	A, mm.	H, mm.	Weight, gr.
3/8"x1/4"	P005001	1/4"	3/8"	20.5	19.5	20
1/2"x1/4"	P01001	1/4"	1/2"	22.5	23.5	29
1/2"x3/8"	P01005	3/8"	1/2"	21.3	26.5	28
3/4"x1/2"	P0201	1/2"	3/4"	25.5	30	58
1"x1/2"	P0301	1"	1/2"	27	37	75
1"x3/4"	P0302	3/4"	1"	28	37	77
1 1/4"x1/2"	P0401	1/2"	1 1/4"	29	52	138
1 1/4"x3/4"	P0402	3/4"	1 1/4"	31	46.5	133
1 1/4"x1"	P0403	1"	1 1/4"	33.5	46.5	145
1 1/2"x1 1/4"	P0504	1 1/4"	1 1/2"	36	53	180
2"x1"	P0603	1"	2"	34	73	290
2"x1 1/4"	P0604	1 1/4"	2"	35	73	303

### 5.14 Reducing nipple external thread-external thread



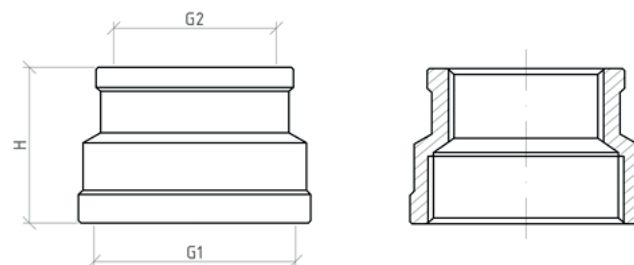
Reduced nipples MM						
Size	Article	G	G1	A, mm.	B, mm.	Weight, gr.
1/2"x1/4"	NP01001	1/4"	1/2"	25.5	21	26
1/2"x3/8"	NP01005	3/8"	1/2"	26	25	16
3/4"x1/2"	NP0201	1/2"	3/4"	28	27	42
1"x1/2"	NP0301	1/2"	1"	31	34	78
1"x3/4"	NP0302	3/4"	1"	32	34	72
1 1/4"x3/4"	NP0402	3/4"	1 1/4"	36	43	123
1 1/4"x1"	NP0403	1"	1 1/4"	38.5	43	133
1 1/2"x1"	NP0503	1"	1 1/2"	38.5	49	157
1 1/2"x1 1/4"	NP0504	1 1/4"	1 1/2"	41	49	158
2"x1"	NP0603	1"	2"	37.5	67	248
2"x1 1/4"	NP0604	1 1/4"	2"	42	67	237
2"x1 1/2"	NP0605	1 1/2"	2"	42.5	67	200

### 5.15 Union internal thread - external thread



Hexagonal reduced socket FM						
Size	Article	G	G1	A, mm.	H, mm.	Weight, gr.
3/8"x1/4"	F005001	3/8"	1/4"	15	17	10,5
1/2"x3/8"	F01005	3/8"	1/2"	15	21	16,5
1/2"x1/4"	F01001	1/4"	1/2"	15	21	22,5
3/4"x1/2"	F0201	1/2"	3/4"	17.5	27	33
1"x1/2"	F0301	1/2"	1"	20.5	34	81
1"x3/4"	F0302	3/4"	1"	20.5	34	57
1 1/4"x1/2"	F0401	1/2"	1 1/4"	20.5	43	146
1 1/4"x3/4"	F0402	3/4"	1 1/4"	21	47.5	127
1 1/4"x1"	F0403	1"	1 1/4"	20.5	43	88
1 1/2"x1/2"	F0501	1/2"	1 1/2"	23	49	184
1 1/2"x1"	F0503	1"	1 1/2"	17	57.5	122
1 1/2"x1 1/4"	F0504	1 1/4"	1 1/2"	23	49	95
2"x1 1/4"	F0604	1 1/2"	2"	21	70	237
2"x1 1/2"	F0605	1 1/2"	2"	21	70	200

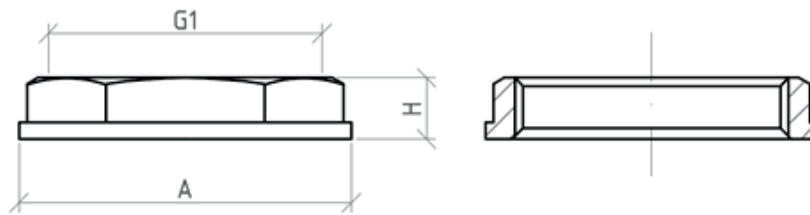
### 5.16 Reducing coupling internal thread-internal thread



Reduced socket FF					
Size	Article	G	G1	H, mm.	Weight, gr.
1/2"x3/8"	MP01005	3/8"	1/2"	32	40
3/4"x1/2"	MP0201	1/2"	3/4"	32	61
1"x1/2"	MP0301	1/2"	1"	34	84
1"x3/4"	MP0302	3/4"	1"	35	105
1 1/4"x3/4"	MP0402	3/4"	1 1/4"	37.3	145
1 1/4"x1"	MP0403	1"	1 1/4"	38	171
1 1/2"x1 1/4"	MP0504	1 1/4"	1 1/2"	41.5	207
2"x1"	MP0603	1"	2"	46.5	285
2"x1 1/4"	MP0604	1 1/4"	2"	48	286
2"x1 1/2"	MP0605	1 1/2"	2"	47.5	291



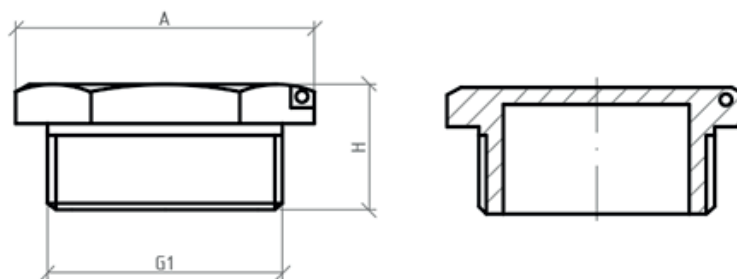
### 5.17 Locknut internal thread



**Locknut without flange**

Size	Article	G	H, mm.	A, mm.	S, mm.	Weight, gr.
1/2"	K01	1/2"	6.5	30	24	13
3/4"	K02	3/4"	6.5	38	30.5	21
1"	K03	1"	6.7	46	38	30.5
1 1/4"	K04	1 1/4"	7.5	54.5	46.5	41.5
1 1/2"	K05	1 1/2"	10	60	52	60

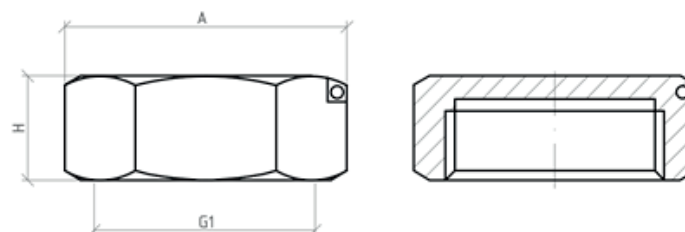
### 5.18 Plug external thread



**Male plug M**

Size	Article	G	H, mm.	A, mm.	Weight, gr.
1/2"	ZN01	1/2"	17	22	26.5
3/4"	ZN02	3/4"	18.5	28.5	44
1"	ZN03	1"	18.5	38	70
1 1/4"	ZN04	1 1/4"	25	47.5	135
1 1/2"	ZN05	1 1/2"	24.5	59	160

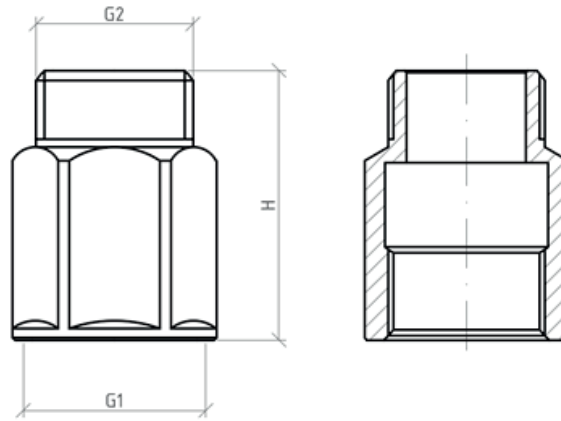
### 5.19 Plug internal thread



**Plug F**

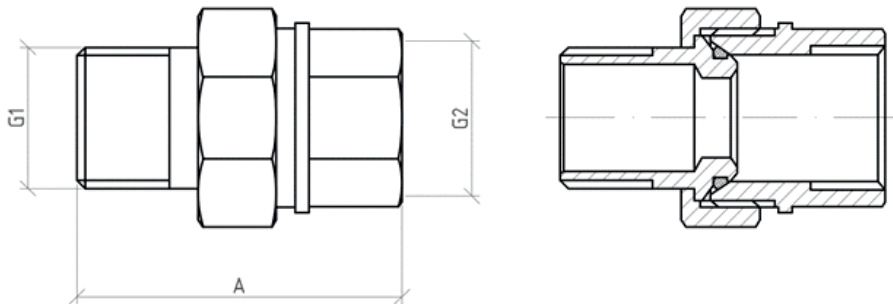
Size	Article	G	H, mm.	A, mm.	Weight, gr.
1/2"	ZV01	1/2"	12	24.5	25
3/4"	ZV02	3/4"	13.5	30	38
1"	ZV03	1"	15	37	59
1 1/4"	ZV04	1 1/4"	19	47	117
1 1/2"	ZV05	1 1/2"	20	54	168

### 5.20 Extension internal thread - external thread



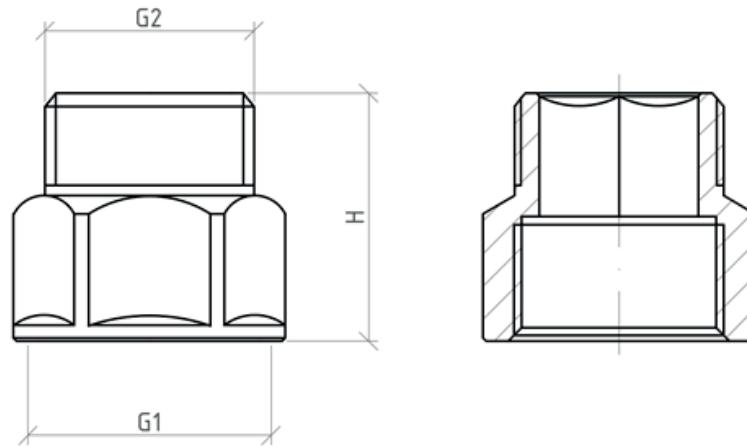
Heavy extension round hole FM						
Size	Article	G	G1	H, mm.	B, mm.	Weight, gr.
1/2"	UDL0110	1/2"	1/2"	20	24	28
1/2"	UDL0115	1/2"	1/2"	25	24	34
1/2"	UDL0120	1/2"	1/2"	30	24	39
1/2"	UDL0125	1/2"	1/2"	35	24	45
1/2"	UDL0130	1/2"	1/2"	40	24	51
1/2"	UDL0140	1/2"	1/2"	50	24	64
1/2"	UDL0150	1/2"	1/2"	60	24	80

### 5.21 American-straight-drive



Conical seat 3 pieces straight fitting					
Size	Article	G	G1	A, mm.	Weight, gr.
1/2"	AS01	1/2"	1/2"	46	91
3/4"	AS02	3/4"	3/4"	52	147
1"	AS03	1"	1"	67	282

## 5.22 Extension chrome plated internal thread - external thread



**Conical seat 3 pieces angle fitting MF**

Size	Article	G	G1	H, mm.	B, mm.	Weight, gr.
1/2"	UHL0110	1/2"	1/2"	22	25	35
1/2"	UHL0115	1/2"	1/2"	27	25	42
1/2"	UHL0120	1/2"	1/2"	32	25	47
1/2"	UHL0125	1/2"	1/2"	37	25	53
1/2"	UHL0130	1/2"	1/2"	42	25	61
1/2"	UHL0140	1/2"	1/2"	52	25	71
1/2"	UHL0150	1/2"	1/2"	62	25	86
1/2"	UHL0160	1/2"	1/2"	72	25	98
1/2"	UHL0170	1/2"	1/2"	82	25	110
1/2"	UHL0180	1/2"	1/2"	92	25	125
1/2"	UHL0190	1/2"	1/2"	102	25	138
1/2"	UHL01.100	1/2"	1/2"	112	25	148

## **6. Operating and maintenance instructions**

1. The fittings must be operated under the conditions specified in the tables provided in Section No. 2 “Technical Specifications”.
2. The fitting must be installed in accordance with the instructions in Section No. 4 “Installation Instructions”.

## **7. Storage and transportation**

1. Products must be stored in the manufacturer's packaging according to storage conditions 3 according to GOST 15150-69.
2. Transportation of the product must be carried out in accordance with the requirements of 5 according to GOST 15150-69.

## **8. 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.

## **9. 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 covers all defects caused by the manufacturer's fault.
3. The warranty does not cover defects that occur in the following cases:
  - violation of passport regimes for transportation, storage, installation, operation and maintenance of the product;
  - improper transportation and loading and unloading operations;
  - the presence of traces of exposure to substances that are aggressive to the product materials;
  - the presence of damage caused by fire, natural disasters, force majeure circumstances;
  - the presence of damage caused by incorrect actions of the consumer;
  - the 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.

## **10. 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.

For warranty repair, complaints and claims regarding the quality of products, please contact the service center at the address: 08132, Kyiv region, Vyshneve, Kyivska st., building 6b.

Tel.: + 38(050)-315-16-33

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: \_\_\_\_\_

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