***Yusupov A.R.***

***Candidate of Technical Sciences, Associate Professor,***

***Fergana Polytechnic Institute. Uzbekistan***

# RATIONING AND STANDARDIZATION OF THE SIZE OF FUNCTIONAL AND INFRASTRUCTURAL STRUCTURES OF HYDRO-RECLAMATION, AGRICULTURE

*Abstract: it allows to unify dimensions as needed and, thus, to use elements of building elements and equipment on the basis of interchangeability in limited types. The m 100 mm is adopted as the main module in the design. When determining the dimensions of the premises, the agreed dimensions are observed. For this purpose, basic, enlarged and shared modules are used.*

*Keywords: building, structure, construction, size, norm, module, standard,*

## Introduction

The standardization of dimensions in the design of building products and buildings is based on "modular dimensional consistency in construction" [1]. It allows you to unify the dimensions at will and, thus, use elements of construction products and equipment based on interchangeability in limited types.

## Materials and methods

This includes empirical methods such as modeling, fact-finding, experimentation, description and observation, as well as logical and historical methods, theoretical methods such as abstraction, deduction, induction, synthesis and analysis, as well as methods of heuristic strategies. Research materials: scientific facts, results of previous observations, surveys, experiments and tests; means of idealization and rationalization of the scientific approach.

## Results and discussions:

100 mm was adopted as the main module in the design [2]. When determining the dimensions of the premises, the agreed dimensions are observed. For this purpose, the main, enlarged and shared modules are used (Table 1).

Table 1.

**Coordinated modular dimensions**

| Name | Mark | Size, mm | Name | Mark | Size, mm |
|---|---|---|---|---|---|
| Enlarged modules (mulpti-modules) | 1M | 100 | Share modules | 1M | 100 |
| | 3M | 300 | | 1/2M | 50 |
| | 6M | 600 | | 1/5M | 20 |
| | 12M | 1200 | | 1/10M | 10 |
| | 15M | 1500 | | 1/20M | 5 |
| | 30M | 3000 | | 1/50M | 2 |
| | 60M | 6000 | | 1/100M | 1 |

The preferred modular dimensions of the main types of building structures are shown in Table 2.

Table 2

**Preferred modular dimensions of prefabricated elements**

| Parameters | Favorable values, mm |
|---|---|
| The length of interstory ceilings, roofs, external wall panels, crossbars; the height of columns, internal wall panels and curtain walls | It is selected depending on the main longitudinal and transverse steps of the building, as well as the height of the floors. |
| Width of interstory and gable panels | 1200; 1500; 2400; 3000; 3600 |
| Height of exterior wall panels | 600; 900; 1200; 1500; 1800; 2100 |

| | |
|---|---|
| Intermediate walls: | |
| height | Height of window openings |
| width | Multiplied by 300 |
| The width of the staircases | 1050; 1200; 1350; 1500; 1750; 2200 |
| The width of the stairwells | In residential areas: 1200, 1500, 1800, 2100, 2400; in public buildings: 1000, 1150, 1300, 1600, 1900. |
| The thickness of the interstory ceilings and internal load-bearing walls | 20 once |

**Conclusion:**

Technological tolerances and marginal deviations in construction are determined based on the geometric dimensions of the products in accordance with their accuracy class. The accuracy class is usually introduced based on the structural, technological and economic requirements for products, structures, buildings and structures. The technological rates set for the sizes of building structures and products are determined by the formula [3]:

$$\Delta x=iK, \qquad (1)$$

где I – единица ставки, мм; K-класс точности, указывающий количество единиц ставки в данном классе точности.

При изготовлении строительных изделий и элементов единица ставки определяется по формуле [4]:$i=a_i(0,8+0,001\sqrt{L})(\sqrt[3]{L+25}+0,01\sqrt[3]{L^2})$, (2)

bu yerda: L – uzunlik o`lchami, mm; $a_i$ – koeffitsiyent bo`lib, qiymati chiziqli o`lchamlar, to`g`rilik, tekislik va diagonallar tengligining qo`yimini hisoblashda 1 ga teng, elmentlar perpendikulyarligi qo`yimini hisoblashda 0,6 ga teng olinadi [5,6].

**References:**

1. Tojiyev R.J.,.Yusupov A.R. Metrologiya, standartlashtirish va sifat nazorati. O`quv qo`llanma.Farg`ona.: FarPI,«Texnika» noshirlik bo`limi. 2003-328 bet.

2. Tojiyev, R.J., Yusupov, A.R., Rajabova, N.R. Qurilishda metrologiya, standartlash va sertifikatlashtirish [Matn]: darslik / R.J. Tojiyev, A.R. Yusupov, N.R. Rajabova. – Toshkent: «Yosh avlod matbaa», 2022– 464 b,

3. Метрология, стандартизация, сертификация: учебник для вузов / С.В. Пономарев, Г.В. Шишкина, Г.В. Мозгова. - Тамбов: Изд-во ГОУ ВПО ТГТУ, 2010. - 96 С.

4. Метрология, стандартизация и сертификация: учеб. пособие. Пособие. У.Б. Герасимова, Б.И. Герасимов-М.: ФОРУМ: ИНФРА-М., 2010

5. GOST 21780-2006. Система обеспечения точности геометрических параметров в строительстве. Расчет точности (Международный государственный стандарт). - Ташкент.: Уздавархит курилиш, 1997.

6. O`zRST 8.010-93. O`lchashlar birligini ta’minlash davlat tizimi. Metrologiya. Atamalar va ta’riflar.