

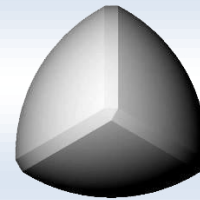
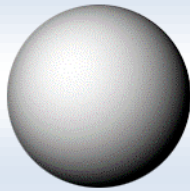
## RELO STANDARD

QUALITY REQUIREMENTS OF THE STEEL RELO GRINDING BODIES

FOR THE NEEDS OF THE DRUM MILLS

The present standard applies to the technological specification of rolled, casted and die forged steel grinding bodies of type RELO, used for grinding in the processing of ores, coal, clinker and other minerals, materials and waste.

*Comparative table between the specifications of spherical grinding bodies according to GOCT (GOST) and RELO Grinding Bodies*



<b>Standard for SPHERICAL BALLS</b>				<b>Standard for RELO GRINDING BODIES</b>			
<b>N:</b>	<b>MODEL</b>	<b>NOMINAL D - F</b>	<b>VOLUME MM/3</b>	<b>N:</b>	<b>MODEL</b>	<b>HEIGHT MM</b>	<b>VOLUME MM/3</b>
1	Sphere	15,00	1 766,25	1	Tetrahedron	15,512	1 766,25
2	Sphere	20,00	4 186,67	2	Tetrahedron	20,683	4 186,67
3	Sphere	25,00	8 177,08	3	Tetrahedron	25,853	8 177,08
4	Sphere	30,00	14 130,00	4	Tetrahedron	31,024	14 130,00
5	Sphere	40,00	33 493,33	5	Tetrahedron	41,365	33 493,33
6	Sphere	50,00	65 416,67	6	Tetrahedron	51,706	65 416,67
7	Sphere	60,00	113 040,00	7	Tetrahedron	62,048	113 040,00
8	Sphere	70,00	179 503,33	8	Tetrahedron	72,389	179 503,33
9	Sphere	80,00	267 946,67	9	Tetrahedron	82,730	267 946,67
10	Sphere	90,00	381 510,00	10	Tetrahedron	93,071	381 510,00
11	Sphere	100,00	523 333,33	11	Tetrahedron	103,413	523 333,33
12	Sphere	110,00	696 556,67	12	Tetrahedron	113,754	696 556,67
13	Sphere	120,00	904 320,00	13	Tetrahedron	124,095	904 320,00
14	Sphere	130,00	1 149 763,33	14	Tetrahedron	134,436	1 149 763,33
15	Sphere	140,00	1 436 026,67	15	Tetrahedron	144,778	1 436 026,67
16	Sphere	150,00	1 766 250,00	16	Tetrahedron	155,119	1 766 250,00
17	Sphere	160,00	2 143 573,33	17	Tetrahedron	165,460	2 143 573,33

## Basic parameters and dimensions

### Distribution of the hardness of RELO Grinding Bodies by groups

- 1 - Grinding bodies with **normal** hardness - **HRC 52 – 56**
- 2 - Grinding bodies with **increased** hardness - **HRC 56 – 58**
- 3 - Grinding bodies with **high** hardness - **HRC 58 – 60**
- 4 - Grinding bodies with **particularly high** hardness - **HRC 60 – 62**

### Standard for RELO Grinding Bodies

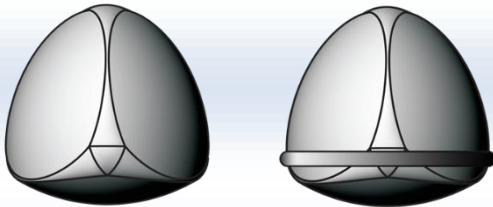
Nº	MODEL/ SIZE	HEIGHT MM	VOLUME CM/3	CALCULATED WEIGHT KG	% ACCEPTABLE TOLERANCES IN THE VOLUME
1	R15	15,512	1,8	0,014	+1.0
2	R20	20,683	4,2	0,033	+1.0
3	R25	25,853	8,2	0,064	+1.0
4	R30	31,024	14,1	0,111	+2.0
5	R40	41,365	33,5	0,263	+2.0
6	R50	51,706	65,4	0,513	+3.0
7	R60	62,048	113,0	0,887	+3.0
8	R70	72,389	179,5	1,410	+3.0
9	R80	82,730	267,9	2,103	+3.0
10	R90	93,071	381,5	2,995	+4.0
11	R100	103,413	523,3	4,108	+4.0
12	R110	113,754	696,6	5,468	+4.0
13	R120	124,095	904,3	7,099	+4.0
14	R130	134,436	1149,8	9,026	+5.0
15	R140	144,778	1436,0	11,273	+5.0
16	R150	155,119	1766,3	13,865	+5.0
17	R160	165,460	2143,6	16,827	+5.0

**Notes:**

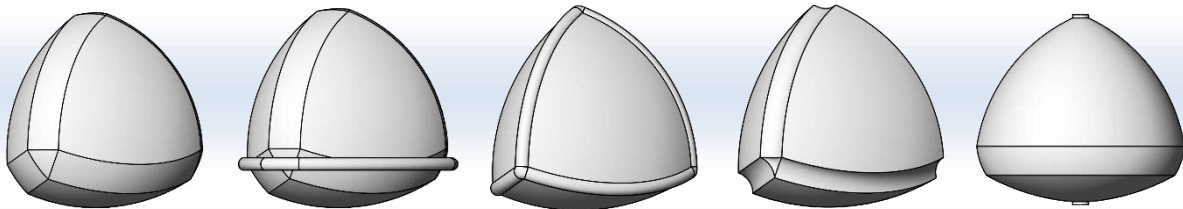
1. The volume of the grinding bodies type RELO is calculated for relative weight of the steel being **7,85 g/ cm<sup>3</sup>**.

2. For the different materials and conditions of grinding are offered the following models of RELO Grinding Bodies:

**2.1 Grinding bodies for dry grinding: C-1, C-2.**



**2.2 Grinding bodies for wet grinding: M-1 (M-1.1, M-1.2, M-1.3), M-2, M-3, M-4, M-5.**



**Example:**

Conditional designation of grinding body with **size 80, model M-1.1, hardness 3**

- Grinding body **R 80 – M-1.1 /3**

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