

Comparison standard, line of product VOR 2090/01-315 bis -336
Description:

This comparison standard for surface roughness, line of product 2090/01-315 to -336, is a set of surface standards from a series of roughness comparison specimens for the most important metal cutting production processes.

They were manufactured in a specialized electroplating process of a stainless, wear-resistant nickel alloy in narrow cooperation with famous industrial companies and research institutes.

Each set contains five to eight different comparison specimens (see table) which are at least approx. 24 x 15 mm; Each individual comparison specimen is labeled with the nominal value in arithmetic mean roughness Ra in microns and CLA / AA in μ inch, with the measured value, averaged roughness Rz in microns and μ inch and the ISO roughness (N-code) according to DIN SO 1302, DIN 4769.150468, VSM 10321.

Price per manufacturing method (for 5- to 8-specimens): Price and delivery time on request

Standard No.	manufacturing method		number of specimens		Comparative areas				roughness classes	
	main group	subgroup	single	total	Ra (μm)		Rz (μm)			
					from	to	from	to		
315	Surface grinding			8	0,025	3,2	0,25	16	N 1	N 8
316	Cylindrical grinding			8	0,025	3,2	0,25	16	N 1	N 8
317	Flat lapping	Criss-cross	4		0,025	0,2	0,4	1	N 1	N 4
				8						
		Parallel	4		0,025	0,2	0,4	1,6	N 1	N 4
318	Cylindrical lapping		4		0,025	0,2	0,4	1	N 1	N 4
				8						
	Superfinishing		4		0,025	0,2	0,4	1,6	N 1	N 4
319	Face turning			8	0,4	50	1,6	160	N 5	N 12
320	Cylindrical turning			8	0,4	50	1,6	160	N 5	N 12
321	End milling			8	0,4	50	1,6	160	N 5	N 12
322	Drilling		4		1,6	12,5	6,3	63	N 7	N 10
				8						
	Reaming		4		0,4	3,2	1,6	16	N 5	N 8
323	Horizontal milling			8	0,4	50	1,6	160	N 5	N 12
325	Shaping (planing)			8	0,8	100	4	400	N 6	N 13
326	Linishing (belt sanding)			6	0,1	3,2	1	25	N 3	N 8
328	Vertical grinding			6	0,2	6,3	1	40	N 4	N 9
329	Blasting	Grit blasting	4		3,2	25	25	160	1-4 as in ISO 8503/1	
				8						
		Shot blasting	4		3,2	18	25	100		
331	Spark erosion (EDM)			8	0,4	50	2,5	160	N 5	N 12
333	Hand filing			5	0,4	6,3	2,5	63	N 5	N 9
334	Castings			7	0,8	50	2,5	250	N 6	N 12
335	Honing			6	0,05	1,6	0,25	10	N 2	N 7
336	Polishing			5	0,0125	0,2	0,25	1,6	N 0	N 4

Example: End milling, Item-No.: 2090/01-321

Comparison standard, line of product VOR 2090/01-130
Description:

This comparison standard for surface roughness, line of product VOR 2090/01-130, consists 30 comparison specimens, covering six commonly-used machining methods (Horizontal milling / frontal milling / turning / flat lapping / reaming / tapping). Ra values from 0.05 to 12.5 microns / Rz values of 0.55 to 50 microns.

It was a special electroplating process of a stainless, wear-resistant nickel alloy produced in close cooperation with leading industrial companies and research institutes.

Each comparison standard is labeled with the roughness class (N-symbol) acc. to ISO R 1302 and DIN 4769.150468, VSM 10,321 and the nominal value in mean roughness value (Ra). Moreover, for surface roughness Rz indicated rounded up, owing to the high level of diversification and higher uncertainty the Rz value, it would be inappropriate to call for each type, the measured value to Rz.

Price per standard (consists 30 comparison specimens): Price and delivery time on request

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