



RGPBALLS[®]
PRECISION CYLINDRICAL &
NEEDLE ROLLERS

www.ngpballs.com

Welcome



COMPANY PROFILE

WELCOME TO OUR WORLD: PRECISION.

For over fifty years, we have been among Europe's leading companies in the manufacturing, trading and distribution of precision balls, rollers and ball transfer units.

WE MOVE MOUNTAINS TO GET THE DETAILS PERFECT

Over 70 people working together since long time in our headquarter in Cinisello Balsamo: at Rgpballs we have about 10,000 m² of know-how and expertise. We consistently work on innovations to stay at the forefront. With us, everything is about quality.

CHOOSING RGPBALLS® MEANS CHOOSING EXPERTISE, ...

Nothing says more than time. We have over 50 years of efforts, breakthroughs, and expertise under our belts. And we keep improving everyday.

METHOD, ...

Science pushes us far, a consultative spirit keeps us close to your needs. And this is how we manage to handle the broadest range of inquiries.

SPEED.

Time is valuable, exactly like our warehouse.

Indeed, more stock available means less time needed to satisfy any demand.

AN "EVERYTHING, RIGHT NOW" WAREHOUSE.

You also know that in an ever-changing business, speed is competitiveness.

Our warehouse is a valuable resource with more than 5,000 tons of products regularly in stock.

We can guarantee prompt delivery for most of our customers' needs worldwide.

WE HAVE MORE THAN 3,000 CUSTOMERS ALL AROUND THE WORLD, AND WE SPEAK THEIR LANGUAGES.

Our catalogue is international; wherever you are, you can select our products and consult with our experts, without worrying about physical or language barriers.

Our team can speak all major languages: Italian, German, English, French, Spanish, Ukrainian, Russian, Chinese, and Romanian.

A FAMILY BUSINESS.

We are a company that is also a big family. You won't find any board of directors with us, only the passion we put into each and every challenge. Our business is so stable that after 50 years we are still here, with all the professionalism of an international business.

10.000
m² headquarter

80
employees

4.000
tons of products

+3.000
customers

CERTIFICATION:

CERTIFICATION FOR MANAGEMENT SYSTEMS:

ISO 9001:2015 – ISO 14001:2015 – ISO 45001:2018

PRODUCT CERTIFICATION ACCORDING TO TUV-PROFICERT PROCEDURES

ROLLERS, NEEDLES & PINS

RGPBALLS manufactures rollers, needles and pins in compliance with UNI / DIN standards, and according to customers drawings.

Available in a wide range of sizes and degrees of precision, the rollers are selected according to standard tolerance classes.

There is a wide range of application fields, which vary from the automotive to the bearing and linear guide industry, from aviation to wind power, vibrofinishing processes, and more.

Our technical staff is available to provide further details.

Our product range:

- NRA rollers
- NRB rollers
- ZB rollers
- TR rollers
- Special needles and rollers based on specific technical drawings
- Pins according to UNI / DIN standards
- Tumbling / vibratory finishing / polishing pins

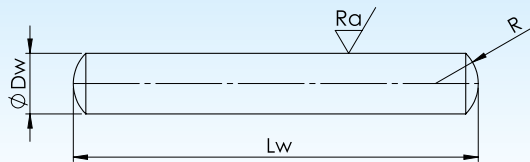
Materials:

- AISI 52100/100Cr6/W 1.3505
- AISI 304/W 1.4301
- AISI 316/W 1.4401
- AISI 420C/W 1.4034
- AISI 440C/W 1.4125
- Silicon Nitride Si3N4
- Aluminum Oxide Al2O3
- Tungsten carbide
- Other special materials on demand

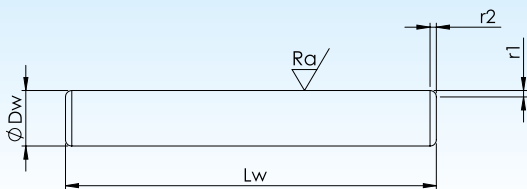


CYLINDRICAL ROLLERS & NEEDLES

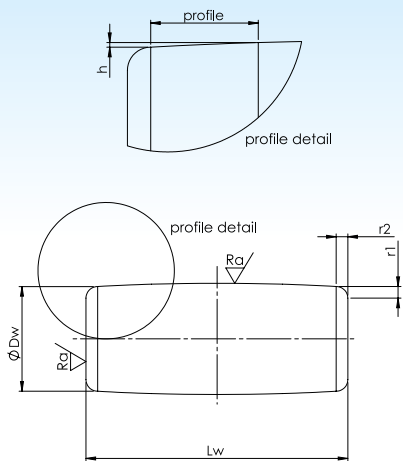
“NRA” TYPE – ROUND ENDS



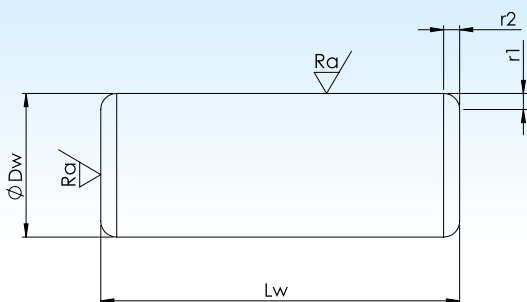
“NRB” TYPE – FLAT ENDS



“ZB” TYPE - LOGARITHMIC PROFILE



“TR” TYPE – GROUND ENDS



TECHNICAL FEATURES

	“NRA” TYPE – ROUND ENDS	“NRB” TYPE – FLAT ENDS	“ZB” TYPE - LOGARITHMIC PROFILE	ground ends, bright surface
Minimum diameter	1 mm	1 mm	3 mm	3 mm
Maximum diameter	6 mm	6 mm	80 mm	80 mm
Diameter tolerance*	+0/-10 µm	+0/-10 µm	+0/-10 µm	+0/-10 µm
Minimum length	5,8 mm	5,8 mm	4 mm	4 mm
Maximum length	59,8 mm	59,8 mm	120 mm	120 mm

*available after evaluation where required tolerances are different from 0 / -10 µm

LENGTH TOLERANCE	0 ÷ 3 mm +0/-140 µm	0 ÷ 3 mm +0/-140 µm	-	-
	3 ÷ 6 mm +0/-180 µm	3 ÷ 6 mm +0/-180 µm	3 ÷ 15 mm +0/-30 µm	3 ÷ 15 mm +0/-30 µm
	6 ÷ 10 mm +0/-220 µm	6 ÷ 10 mm +0/-220 µm	15 ÷ 50 mm +0/-50 µm	15 ÷ 50 mm +0/-50 µm
	10 ÷ 18 mm +0/-270 µm	10 ÷ 18 mm +0/-270 µm	> 50 mm +0/-80 µm	> 50 mm +0/-80 µm
	18 ÷ 30 mm +0/-330 µm	18 ÷ 30 mm +0/-330 µm	-	-
	30 ÷ 50 mm +0/-390 µm	30 ÷ 50 mm +0/-390 µm	-	-
	> 50 mm +0/-460 µm	> 50 mm +0/-460 µm	-	-

PRECISION GRADES AND TOLERANCES

GRADE	ROUNDNESS	ROUGHNESS	SORTING GAUGE GROUPS
G 1 (solo ZB - TR)	< 0,5 µm	< 0,10 µm	1,5 µm
G 2	< 1 µm	< 0,16 µm	2 µm
G 3	< 1,5 µm	< 0,30 µm	3 µm
G 5	< 2,5 µm	< 0,40 µm	5 µm

MATERIALS

TYPE	CHEMICAL COMPOSITION								
	%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Mo	Hardness
AISI 52100 - UNI 100Cr6 - W 1.3505	0,95-1,10	0,35 max	0,20-0,50	0,025 max	0,025 max	1,30-1,60	-	-	60 - 66 HRC
AISI 304 - WN 1.4301	0,080 max	0,75 max	2,00 max	0,045 max	0,030 max	18,00- 20,00	8,00-10,50	-	20 - 39 HRC
AISI 316 - WN 1.4401	0,080 max	1,00 max	2,00 max	0,045 max	0,030 max	16,00- 18,00	10,00- 14,00	2,00-3,00	20 - 39 HRC
AISI 420C - WN 1.4034	0,43-0,50	1,00 max	1,00 max	0,040 max	0,030 max	12,50- 14,50	-	-	52 - 60 HRC
AISI 440C - WN 1.4034	0,95-1,20	1,00 max	1,00 max	0,040 max	0,030 max	16,00- 18,00	-	0,75 max	57 - 65 HRC

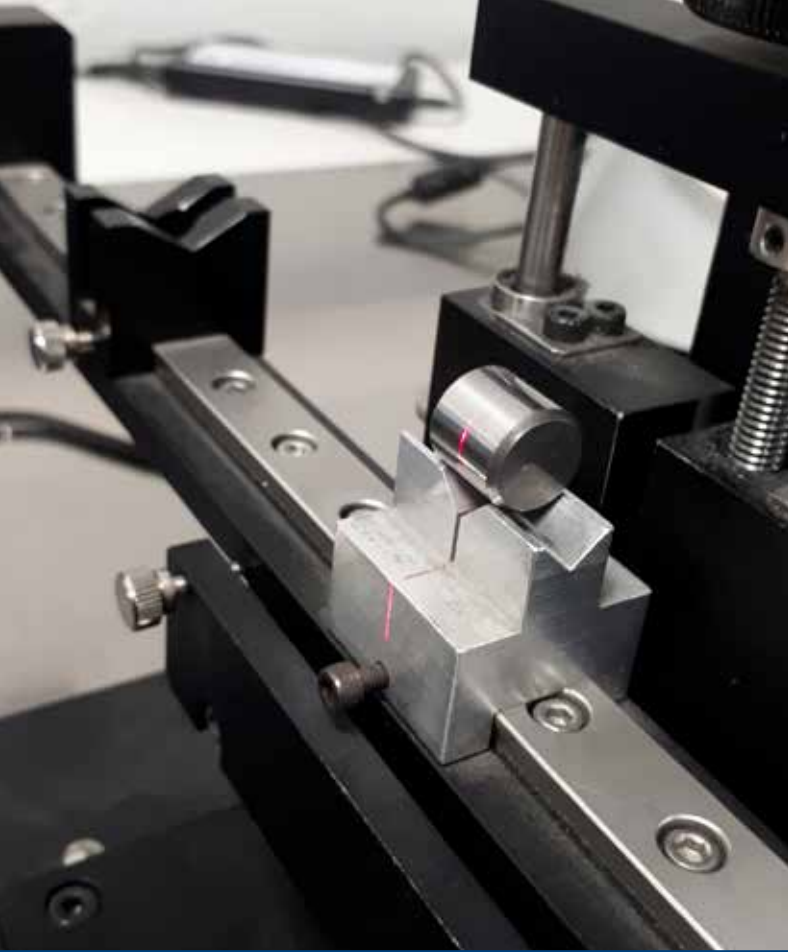
ON DEMAND (EXAMPLES)

TYPE	CHEMICAL COMPOSITION				
	%WC	%Co	%Al ₂ O ₃	%Si ₃ N ₄	Hardness
Tungsten Carbide K20 with Cobalt binder	93,00-95,00	5,00-7,00	-	-	90,0 - 91,5 HRC
Aluminum Oxide	-	-	99,00-99,99	-	1250 - 1700 HRC
Silicon Nitride	-	-	-	90,00-95,00	1400 - 1600 HRC



NET WEIGHTS TABLE (CHROME STEEL ROLLERS)

Ø x L.	NET WEIGHT 1000 PZ/KG	Ø x L.	NET WEIGHT 1000 PZ/KG	Ø x L.	NET WEIGHT 1000 PZ/KG	Ø x L.	NET WEIGHT 1000 PZ/KG
1 x 5,8	0,036	3 x 5	0,27	4 x 19,8	1,95	7 x 7	2,08
1 x 6,8	0,042	3 x 9,8	0,54	4 x 21,8	2,15	7 x 10	2,98
1 x 7,8	0,048	3 x 11,8	0,65	4 x 23,8	2,38	8 x 8	3,10
1 x 9,8	0,060	3 x 13,8	0,76	4 x 25,8	2,55	8 x 12	4,69
1,5 x 5,8	0,080	3 x 15,8	0,87	4 x 27,8	2,74	9 x 9	4,42
1,5 x 6,8	0,094	3 x 17,8	0,99	4 x 29,8	2,95	10 x 10	6,07
1,5 x 7,8	0,108	3 x 19,8	1,10	4 x 34,8	3,40	11 x 11	8,08
1,5 x 9,8	0,136	3 x 21,8	1,21	4 x 39,8	3,90	11 x 15	11,03
1,5 x 11,8	0,164	3 x 23,8	1,32	5 x 5	0,76	12 x 12	10,50
1,5 x 13,8	0,191	3 x 25,8	1,43	5 x 8	1,21	12 x 18	15,57
2 x 6,8	0,164	3 x 27,8	1,54	5 x 15,8	2,43	14 x 14	16,67
2 x 7,8	0,191	3 x 29,8	1,65	5 x 19,8	3,05	14 x 20	23,85
2 x 9,8	0,24	3,5 x 11,8	0,91	5 x 21,8	3,36	15 x 15	20,51
2 x 11,8	0,29	3,5 x 13,8	1,04	5 x 23,8	3,67	16 x 16	25,04
2 x 13,8	0,34	3,5 x 15,8	1,19	5 x 25,8	3,98	17 x 17	29,90
2 x 15,8	0,39	3,5 x 17,8	1,34	5 x 27,8	4,29	18 x 18	35,46
2 x 17,8	0,44	3,5 x 19,8	1,51	5 x 29,8	4,60	19 x 19	41,71
2 x 19,8	0,49	3,5 x 21,8	1,64	5 x 34,8	5,40	20 x 20	48,67
2 x 21,8	0,54	3,5 x 23,8	1,85	5 x 39,8	6,15	20 x 30	73,00
2,5 x 7,8	0,30	3,5 x 25,8	1,95	5 x 49,8	7,50	21 x 30	81,06
2,5 x 9,8	0,38	3,5 x 27,8	2,10	5,5 x 8	1,47	22 x 22	64,77
2,5 x 11,8	0,45	3,5 x 29,8	2,25	6 x 6	1,31	24 x 36	127,24
2,5 x 13,8	0,53	3,5 x 34,8	2,65	6 x 8	1,71	25 x 25	95,10
2,5 x 15,8	0,61	4 x 6	0,58	6 x 17,8	3,95	25 x 36	136,95
2,5 x 17,8	0,69	4 x 8	0,78	6 x 21,8	4,83	26 x 26	107,00
2,5 x 19,8	0,76	4 x 11,8	1,16	6 x 23,8	5,28	28 x 28	134,33
2,5 x 21,8	0,84	4 x 13,8	1,36	6 x 25,8	5,71	30 x 30	164,36
2,5 x 23,8	0,92	4 x 15,8	1,55	6 x 39,8	8,83	30 x 48	262,97
2,8 x 7,8	0,30	4 x 17,8	1,75				



**MAKE
YOUR
WORLD
MOVE**

® RGPBALLS S.r.l.

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