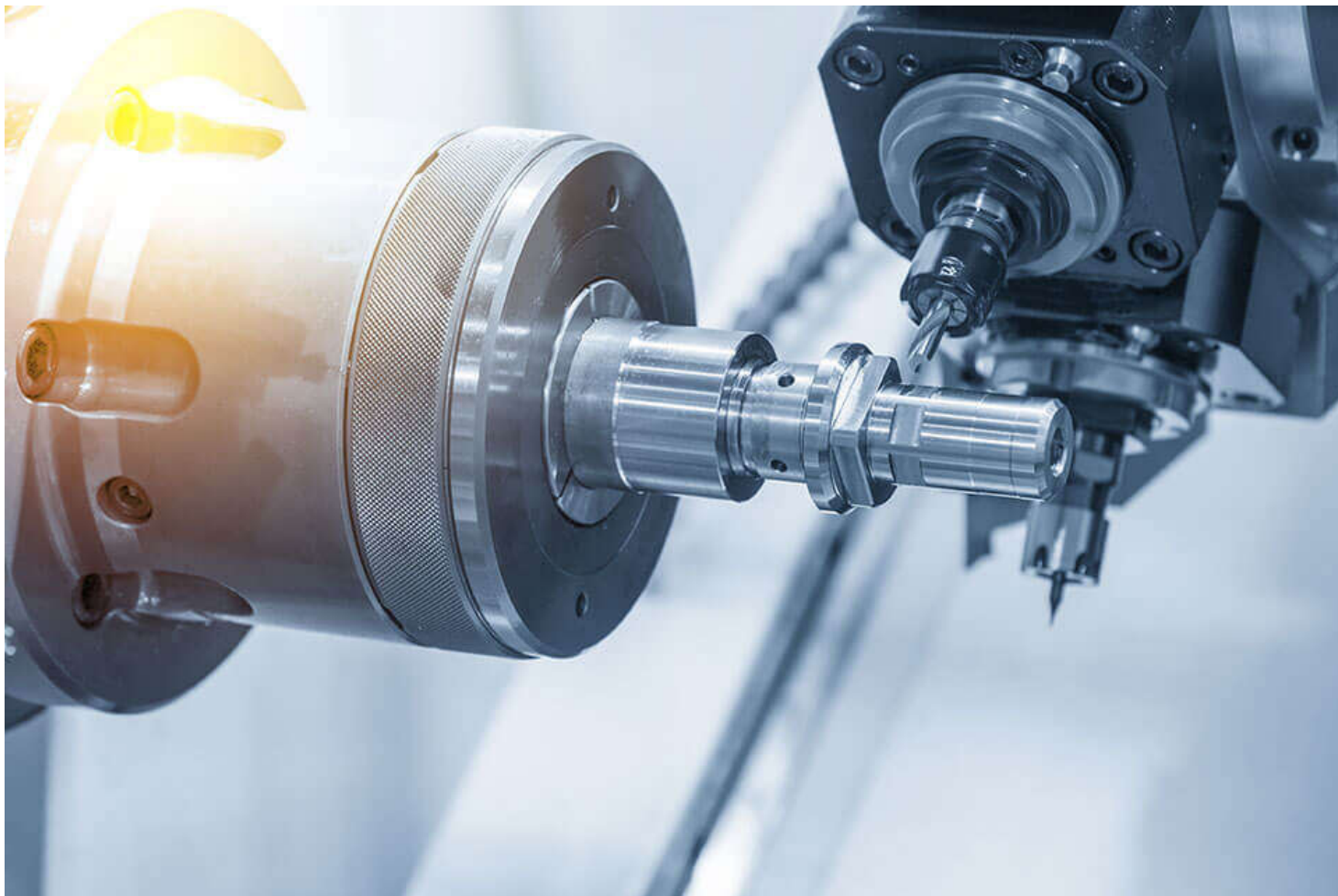


HIGH TEMPERATURE THIN SECTION BALL BEARINGS FOR FAST SPEEDS



Version: 05/2025

Every care has been taken to ensure the correctness of the information contained in this document but no liability can be accepted for any errors or omissions. Subject to change without prior notice.

GMW High-Temperature Thin Section Deep Groove Ball Bearings For Fast Speeds:

We offer thin-section heat-resistant ball bearings with the suffix T180 suitable for high speeds. Processing to heat treatment, these bearings withstand significantly higher temperatures than standard bearings.

GMW thin-section ball bearings provide a high-quality solution for normal operating temperatures up to 180°C (even short ranges up to 200°C) and fast speeds. These bearings have the following properties:

- ✓ *Made from chromium steel material*
- ✓ *C3 clearance design compensates for temperature-induced distortion*
- ✓ *Adaptable to temperatures up to 180°C (short-term up to 200°C)*
- ✓ *This special high-temperature grease (synthetic base oil, polyurea thickener) ensures smooth movement.*
- ✓ *A riveted steel plate roller cage provides high stability but low friction.*

Available Configurations: Suffix T180 high-temperature thin-section ball bearings usually come in two versions:

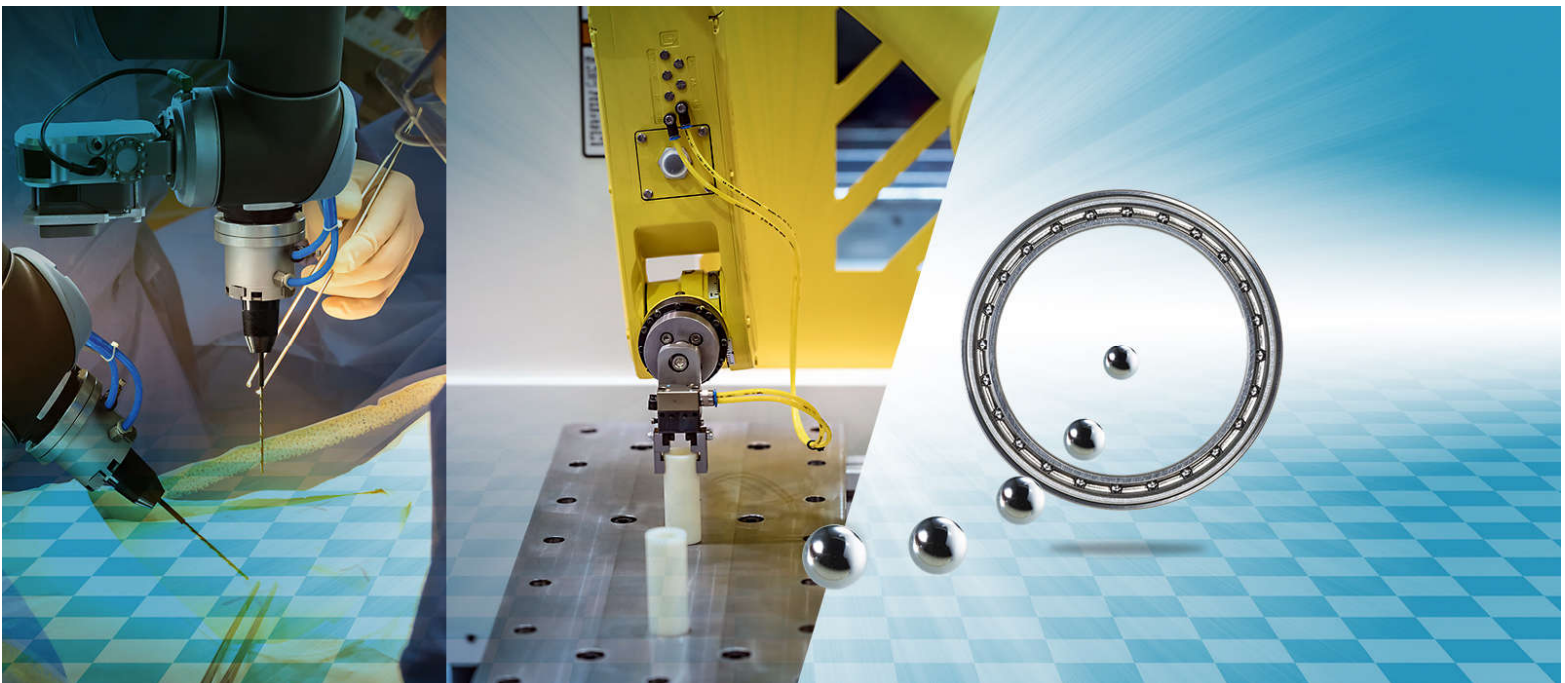
- ✓ *ZZ type – two steel shields.*
- ✓ *RS type – two rubber seals*

Applications such as:

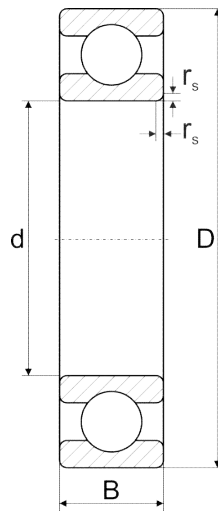
- ✓ *Electric motor*
- ✓ *Cooling fan*
- ✓ *High-capacity pump*
- ✓ *Agricultural machinery*
- ✓ *Conveyor roller*
- ✓ *Agricultural product drying oven*

Extensive range

- 6800 ... 6812
- 6900 ... 6912



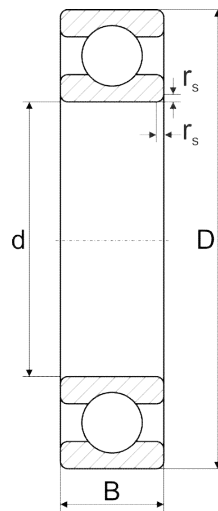
68XX



Code	Dimensions				Load Ratings		Max. Speed			Weight ≈ [kg]
	d	D	B	r _s min	C ₀	C _{dyn}	Open	2Z	2RS	
GMW	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]	
6800	10	19	5	0,3	0,75	1,59	32 000	27 000	18 000	0,005
6801	12	21	5	0,3	1,04	1,91	29 000	24 000	18 000	0,006
6802	15	24	5	0,3	1,25	2,07	27 000	20 000	16 000	0,007
6803	17	26	5	0,3	1,36	2,13	25 000	18 000	15 000	0,020
6804	20	32	7	0,3	2,23	3,48	22 000	15 000	11 500	0,022
6805	25	37	7	0,3	2,63	3,68	18 000	12 500	9 500	0,026
6806	30	42	7	0,3	3,15	4,00	15 000	11 000	8 000	0,027
6807	35	47	7	0,3	3,60	4,27	13 000	9 500	7 000	0,030
6808	40	52	7	0,3	3,89	4,41	12 000	8 500	6 500	0,030
6809	45	58	7	0,3	4,33	4,59	11 000	7 500	7 500	0,044
6810	50	65	7	0,3	6,08	6,61	9 000	6 500	6 500	0,049
6811	55	72	7	0,3	8,08	8,53	8 500	6 000	6 000	0,084
6812	60	78	9	0,3	8,76	9,20	7 600	5 500	5 500	0,106

(Remark: The weight applies for the bearing only without lubricant and shields)

69XX



Code	Dimensions				Load Ratings		Max. Speed			Weight ≈ [kg]
	d	D	B	rs min	C0	Cdyn	Open	2Z	2RS	
GMW	[mm]	[mm]	[mm]	[mm]	[kN]	[kN]	[min ⁻¹]	[min ⁻¹]	[min ⁻¹]	
6900	10	22	6	0,3	1,27	2,69	29 000	25 000	17 000	0,008
6901	12	24	6	0,3	1,46	2,89	25 000	20 000	17 000	0,011
6902	15	28	7	0,3	2,25	4,32	23 000	18 500	15 000	0,016
6903	17	30	7	0,3	2,55	4,59	22 000	17 000	14 000	0,018
6904	20	37	9	0,3	3,68	6,37	20 000	14 000	11 500	0,036
6905	25	42	9	0,3	4,18	6,66	16 000	11 500	9 500	0,042
6906	30	47	9	0,3	5,01	7,24	14 000	10 000	8 000	0,048
6907	35	55	10	0,6	7,16	10,39	12 000	8 500	6 500	0,074
6908	40	62	12	0,6	9,20	13,02	11 000	7 500	6 500	0,112
6909	45	68	12	0,6	10,13	13,49	9 900	7 000	6 500	0,128
6910	50	72	12	0,6	10,66	13,90	9 000	6 500	6 000	0,132
6911	55	80	13	1,0	12,69	14,82	8 500	5 500	5 500	0,180
6912	60	85	13	1,0	13,48	15,08	8 100	5 500	5 000	0,198

(Remark: The weight applies for the bearing only without lubricant and shields)