

New Type	Old Type	Dimension (mm)					Reference Dimension (mm)					
		D	H	d	2 α	2 γ	h	h1	R	D1	e	ϵ
W-0060412-0.2		6	4	0.2	12°	90°	≤0.1	0.8	2.8	4.2	0.8	45°
W-0060412-0.25		6	4	0.25	12°	90°	≤0.1	0.8	2.8	4.2	0.8	45°
W-0060412-0.3		6	4	0.3	12°	90°	≤0.1	0.8	2.8	4.2	0.8	45°
W-0060412-0.35		6	4	0.35	12°	90°	≤0.1	0.8	2.8	4.2	0.8	45°
W-0060412-0.4		6	4	0.4	12°	90°	≤0.1	0.8	2.8	4.2	0.8	45°
W-0080612-0.5		8	6	0.5	12°	90°	≤0.1	1.0	4.5	5.8	1.0	45°
W-0080612-0.6		8	6	0.6	12°	90°	≤0.1	1.0	4.3	5.8	1.0	45°
W-0080612-0.7		8	6	0.7	12°	90°	≤0.1	1.0	4.3	5.9	1.0	45°
W-0080612-0.8		8	6	0.8	12°	90°	≤0.1	1.0	4.2	5.9	1.0	45°
W-0080612-0.9		8	6	0.9	12°	90°	≤0.1	1.0	4.2	6.0	1.0	45°
W-0080612-1.0		8	6	1.0	12°	90°	≤0.1	1.0	4.0	6.0	1.0	45°
W-0090612-0.5		9	6	0.3	12°	90°	≤0.1	1.0	4.3	6.6	1.2	45°
W-0090612-0.6		9	6	0.6	12°	90°	≤0.1	1.0	4.2	6.6	1.2	45°
W-0090612-0.7		9	6	0.7	12°	90°	≤0.1	1.0	4.2	6.8	1.2	45°
W-0090612-0.8		9	6	0.8	12°	90°	≤0.1	1.0	4.2	6.8	1.2	45°
W-0090612-0.9		9	6	0.9	12°	90°	≤0.1	1.0	4.2	6.8	1.2	45°
W-0090612-1.0		9	6	1.0	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0090612-1.1		9	6	1.1	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0090612-1.2		9	6	1.2	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0090612-1.3		9	6	1.3	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0090612-1.4		9	6	1.4	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0090612-1.5		9	6	1.5	12°	90°	≤0.1	1.0	4.0	7.0	1.2	45°
W-0120612-0.2	W103-0.2	12	6	0.2	12°	60°	≤0.1	0.8	5.2	8.5	1.2	45°
W-0120812-0.25	W103-0.25	12	8	0.25	12°	60°	≤0.1	0.8	5.2	8.5	1.2	45°
W-0120812-0.3	W103-0.3	12	8	0.3	12°	60°	≤0.1	0.8	5.2	8.5	1.2	45°
W-0120812-0.4	W103-0.4	12	8	0.4	12°	60°	≤0.1	0.8	5.2	8.5	1.2	45°
W-0120814-0.6	W103-0.6	12	8	0.6	14°	60°	1.5	0.8	4.1	4.3	1.5	45°
W-0120814-0.7		12	8	0.7	14°	60°	1.5	0.8	4.1	4.3	1.5	45°
W-0120814-0.8	W103-0.80	12	8	0.8	14°	60°	1.5	0.8	6.0	8.2	1.5	45°
W-0120814-0.9		12	8	0.9	14°	60°	1.5	0.8	6.0	8.2	1.5	45°
W-0120814-1.0	W103-1.0	12	8	1.0	14°	60°	1.5	0.8	6.0	8.2	1.5	45°
W-0120814-1.1		12	8	1.1	14°	60°	1.5	0.8	6.0	8.6	1.5	45°
W-0120814-1.2		12	8	1.2	14°	60°	1.5	0.8	6.0	8.6	1.5	45°
W-0120814-1.3	W103-1.3	12	8	1.3	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W-0120814-1.4		12	8	1.4	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W-0120814-1.5		12	8	1.5	14°	60°	1.0	1.0	6.0	9.0	1.5	45°
W-0120814-1.6	W103-1.6	12	8	1.6	14°	60°	1.2	1.0	5.4	9.0	1.5	45°
W-0151014-1.0	W104-1.0	15	10	1.0	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W-0151014-1.1		15	10	1.1	14°	60°	1.5	1.2	7.0	8.2	1.2	45°
W-0151014-1.2	W104-1.2	15	10	1.2	14°	60°	1.5	1.2	7.0	8.2	1.5	45°
W-0151014-1.3		15	10	1.3	14°	60°	1.5	1.2	7.0	8.2	1.2	45°

W-0151014-1.4	W104-1.4	15	10	1.4	14°	60°	1.5	1.2	7.0	8.2	1.5	45°
W-0151014-1.5		15	10	1.5	14°	60°	1.5	1.2	7.0	8.6	1.2	45°
W-0151014-1.6	W104-1.6	15	10	1.6	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W-0151014-1.7		15	10	1.7	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W-0151014-1.8	LW104-1.8	15	10	1.8	14°	60°	1.1	1.5	6.0	12.0	1.5	45°
W-0151014-1.9		15	10	1.9	14°	60°	1.5	1.2	7.0	9.0	1.2	45°
W-0151014-2.0	LW104-2.0	15	10	2.0	14°	60°	1.1	1.5	6.0	12.0	1.5	45°
W-0151014-2.1		15	10	2.1	14°	60°	1.5	1.2	7.0	11.0	1.2	45°
W-0151014-2.2	LW104-2.2	15	10	2.2	14°	60°	1.1	1.5	6.0	12.0	1.5	45°
W-0151014-2.3	W104-2.3	15	10	2.3	14°	60°	1.1	1.0	6.0	12.0	1.5	45°
W-0151014-2.4	LW104-2.4	15	10	2.4	14°	60°	1.1	1.5	6.0	12.0	1.5	45°
W-0151014-2.5	W104-2.5	15	10	2.5	14°	60°	1.1	1.2	6.0	12.0	1.5	45°
W-0151014-2.6	LW104-2.6	15	10	2.6	14°	60°	1.4	1.5	6.0	12.0	1.5	45°
W-0151014-2.7		15	10	2.7	14°	60°	1.4	1.2	6.0	12.0	1.5	45°
W-0151014-2.8	LW104-2.8	15	10	2.8	14°	60°	1.4	1.5	6.0	12.0	1.5	45°
W-0151014-2.9		15	10	2.9	14°	60°	1.4	1.2	6.0	12.0	1.5	45°
W-0151014-3.0	LW104-3.0	15	10	3.0	14°	60°	1.4	1.8	6.0	12.0	1.5	45°
W-0151014-3.2	W104-3.2	15	10	3.2	14°	60°	1.5	1.2	6.0	12.0	1.5	45°
W-0151014-3.4	LW104-3.4	15	10	3.4	14°	60°	1.6	1.8	6.0	12.0	1.5	45°
W-0151014-3.5	W104-3.5	15	10	3.5	14°	60°	1.6	1.8	6.0	12.0	1.5	45°
W-0151014-3.6	LW104-3.6	15	10	3.6	14°	60°	1.6	1.8	6.0	12.0	1.5	45°
W-0151014-3.8	LW104-3.8	15	10	3.8	14°	60°	1.6	1.8	6.0	12.0	1.5	45°
W-0191314-1.2H		19	13.5	1.2	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-1.5H		19	13.5	1.5	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-1.8H		19	13.5	1.8	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-2.0H		19	13.5	2.0	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-2.3H		19	13.5	2.3	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-2.5H		19	13.5	2.5	14°	60°	2.0	1.6	9.0	13.0	1.5	45°
W-0191314-2.8H		19	13.5	2.8	14°	60°	2.0	1.6	9.0	16.0	1.5	45°
W-0191314-3.0H		19	13.5	3	14°	60°	2.0	1.6	9.0	16.0	1.5	45°
W-0201414-1.1	W105-1.1	20	14	1.1	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.2	W105-1.2	20	14	1.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.3		20	14	1.3	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.4	W105-1.4	20	14	1.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.5		20	14	1.5	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.6		20	14	1.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.7	W105-1.1	20	14	1.7	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.8		20	14	1.8	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-1.9		20	14	1.9	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.0	W105-2.0	20	14	2.0	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.1		20	14	2.1	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.2		20	14	2.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.3	W105-2.3	20	14	2.3	14°	60°	2.0	1.6	9.0	13.2	1.5	45°

W-0201414-2.4		20	14	2.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.5		20	14	2.5	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.6		20	14	2.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.7		20	14	2.7	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.8		20	14	2.8	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-2.9		20	14	2.9	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-3.0	W105-3.0	20	14	3.0	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-3.2		20	14	3.2	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-3.4	W105-3.4	20	14	3.4	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-3.6	W105-3.6	20	14	3.6	14°	60°	2.0	1.6	9.0	13.2	1.5	45°
W-0201414-3.8	LW105-3.8	20	14	3.8	14°	60°	1.5	2.0	9.0	15.0	1.1	45°
W-0201414-4.0	LW105-4.0	20	14	4.0	14°	60°	1.6	2.0	9.0	15.0	1.1	45°
W-0201414-4.2	LW105-4.2	20	14	4.2	14°	60°	1.7	2.0	9.0	15.0	1.1	45°
W-0201416-4.4	LW105-4.4	20	14	4.4	16°	60°	1.8	2.5	8.0	17.0	1.1	45°
W-0201416-4.6	LW105-4.6	20	14	4.6	16°	60°	1.9	2.5	8.0	17.0	1.1	45°
W-0201416-4.8	LW105-4.8	20	14	4.7	16°	60°	1.9	2.5	8.0	17.0	1.1	45°
W-0201416-5.0	LW105-5.0	20	14	5.0	16°	60°	2.1	2.5	8.0	17.0	1.1	45°
W-0201416-5.3		20	14	5.3	16°	60°	2.4	1.0	5.6	17.0	2.0	45°
W-0201416-5.5	LW105-5.5	20	14	5.5	16°	60°	2.2	2.5	8.0	17.0	1.1	45°
W-0201416-5.7	LW105-5.7	20	14	5.7	16°	60°	2.3	2.5	8.0	17.0	1.1	45°
W-0241614-3.7H		24	16.5	3.7	14°	60°	3.2	2.0	9.0	20.0	1.5	45°
W-0241614-4.2H		24	16.5	4.2	14°	60°	3.2	2.0	9.0	20.0	1.5	45°
W-0241614-5.3H		24	16.5	5.3	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-5.7H		24	16.5	5.7	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-6.0H		24	16.5	6.0	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-6.5H		24	16.5	6.5	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-6.7H		24	16.5	6.7	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-7.0H		24	16.5	7.0	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-7.3H		24	16.5	7.3	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-7.5H		24	16.5	7.5	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-7.7H		24	16.5	7.7	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-8.0H		24	16.5	8.0	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0241614-8.5H		24	16.5	8.5	14°	60°	3.2	2.0	12.0	20.0	1.5	45°
W-0251814-3.0	W106-3.0	25	18	3.0	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-3.2		25	18	3.2	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-3.4		25	18	3.4	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-3.6		25	18	3.6	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-3.8		25	18	3.8	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-4.0		25	18	4.0	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-4.2	W106-4.2	25	18	4.2	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-4.5		25	18	4.5	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-4.8		25	18	4.8	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-5.1		25	18	5.1	14°	60°	3.2	2.0	12.0	17.5	2.0	45°

W-0251814-5.4		25	18	5.4	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-5.5	W106-5.5	25	18	5.5	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251814-5.8		25	18	5.8	14°	60°	3.0	2.5	12.0	18.0	2.0	45°
W-0251814-6.0	LW106-6.0	25	18	6.0	14°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251816-6.8		25	18	6.8	16°	60°	3.1	2.3	12.0	18.0	2.0	45°
W-0251816-7.3	W106-7.3	25	18	7.3	16°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251816-7.7	W106-7.7	25	18	7.7	16°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0251816-9.0	LW106-9.0	25	18	9.0	16°	60°	3.2	2.0	12.0	17.5	2.0	45°
W-0302216-7.7	W107-7.7	30	22	7.7	16°	60°	4.5	2.0	14.5	20.5	2.0	45°
W-0302216-9.0	W107-9.0	30	22	9.0	16°	60°	3.4	2.9	14.6	26.0	2.0	45°
W-0302216-10.0	W107-10.0	30	22	10.0	16°	60°	3.6	2.7	14.4	26.0	2.0	45°
W-0302216-10.5	W107-10.5	30	22	10.5	16°	60°	3.6	2.7	14.4	26.0	2.0	45°
W-0302216-11.0	W107-11.0	30	22	11.0	16°	60°	3.7	2.6	14.3	26.0	2.0	45°
W-0352516-6.7	W108-6.7	35	25	6.7	16°	60°	4.5	2.0	14.5	23.5	2.0	45°
W-0352516-7.0		35	25	7.0	16°	60°	2.5	3.5	14.5	25.0	2.0	45°
W-0352516-7.5		35	25	7.5	16°	60°	2.5	3.5	14.5	25.0	2.0	45°
W-0352516-7.7	W108-7.7	35	25	7.7	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W-0352516-8.2	W108-8.2	35	25	8.2	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W-0352516-8.7	W108-8.7	35	25	8.7	16°	60°	2.5	3.5	14.0	25.0	3.0	45°
W-0352516-9.3	W108-9.3	35	25	9.3	16°	60°	2.8	3.5	14.0	25.0	3.0	45°
W-0352516-9.8	W108-9.8	35	25	9.8	16°	60°	2.8	3.5	14.0	25.0	3.0	45°
W-0352516-10.0	LW106-10	35	25	10.0	16°	60°	3.0	3.5	14.0	25.0	3.0	45°
W-0352516-10.5	W108-10.5	35	25	10.5	16°	60°	3.2	3.5	14.0	25.0	3.0	45°
W-0352516-11.0	W108-11	35	25	11.0	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W-0352516-11.5	W108-11.5	35	25	11.5	16°	60°	3.6	3.5	14.0	25.0	3.0	45°
W-0352516-12.0	LW106-12	35	25	12.0	16°	60°	3.5	3.5	14.0	25.0	3.0	45°
W-0352516-12.5	W108-12.5	35	25	12.5	16°	60°	3.6	3.5	14.0	51.0	3.0	45°
W-0502818-17.77	W110-17.77	50	28	17.7	18°	60°	10.0	5.0	7.0	-	1.5	45°
W-0502824-18.33	W110-18.33	50	28	18.3	24°	60°	7.0	5.0	6.5	-	1.5	45°
W-0532820-25.5		53	28	25.5	20°	60°	6.0	5.0	9.6	-	2.0	45°
W-0532820-26.5		53	28	26.5	20°	60°	6.0	5.0	9.6	-	2.0	45°
W-0532820-27.5		53	28	27.5	20°	60°	6.0	5.0	9.6	-	2.0	45°
W-0532820-28.5		53	28	28.5	20°	60°	6.0	5.0	9.6	-	2.0	45°
W-0573023-24.5		57	30	24.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0573023-26.5		57	30	26.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0573023-28.5		57	30	28.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0573023-25.5		57	30	25.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0573023-27.5		57	30	27.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0573023-29.5		57	30	29.5	23°	60°	6.0	5.0	11.0	-	2.0	45°
W-0583220-30.5		58	32	30.5	20°	60°	7.0	5.0	9.8	51	2.0	45°
W-0583220-31.5		58	32	31.5	20°	60°	7.0	5.0	9.8	51	2.0	45°
W-0583220-32.5		58	32	32.5	20°	60°	7.0	5.0	9.8	51	2.0	45°
W-0583220-33.5		58	32	33.5	20°	60°	7.0	5.0	9.8	48	2.0	45°

W-0583322-24.5	W13-24.5	58	33	24.0	22°	60°	6.0	6.0	14.0	51	3.0	45°
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