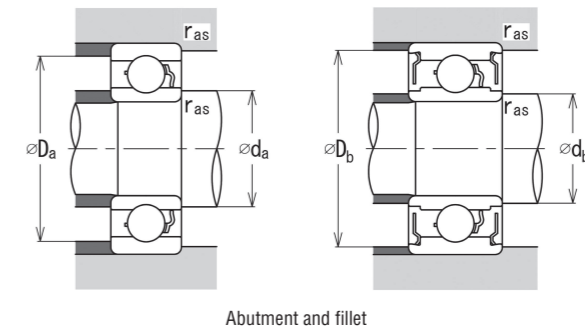
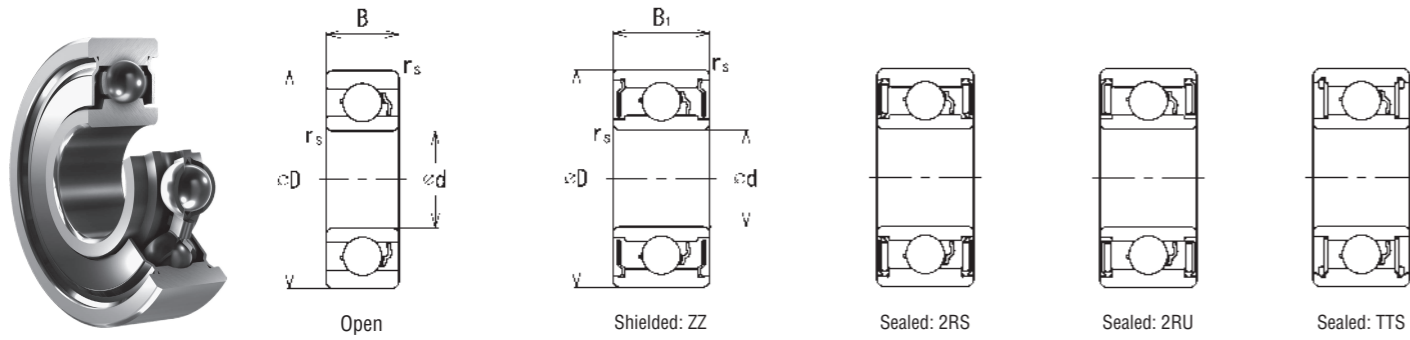


Extra-miniature/miniature/small bearings [Stainless-steel]



Dimension

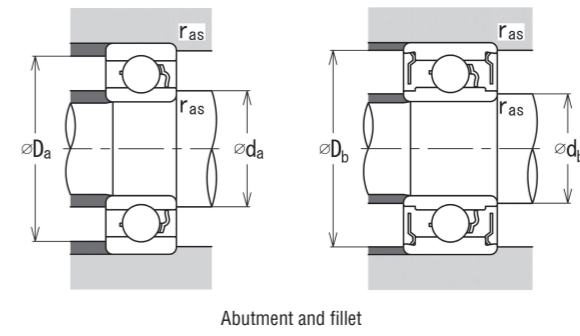
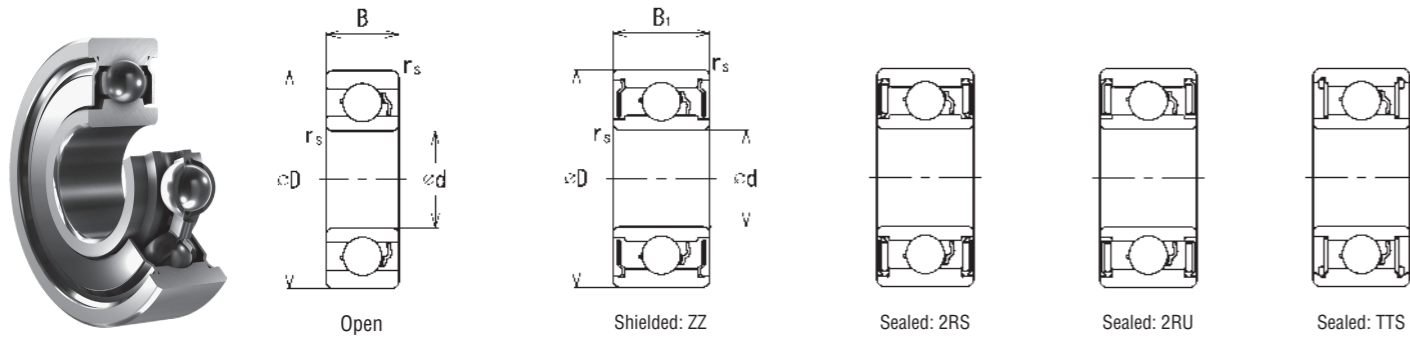
Extra-miniature/miniature/small bearings [Stainless-steel]

Bore diameter d		Outer diameter D		Width				Chamfer r _s (min)		Bearing number					Load rating		Limiting speed ⁽³⁾	
				Open B		Shielded, Sealed B ₁				Open	2 Shields ⁽²⁾	2 Seals ⁽²⁾			Cr	Cor	Grease	Oil
				mm	inch	mm	inch					2RS	2RU	TTS				
0.6	0.0236	2.5	0.0984	1	0.0394	—	—	0.05	0.0020	68/0.6H	—	—	—	—	50	11	128 000	152 000
1	0.0394	3	0.1181	1	0.0394	—	—	0.05	0.0020	681H	—	—	—	—	81	20	117 000	139 000
		3	0.1181	1.5	0.0591	—	—	0.05	0.0020	SMR31	—	—	—	—	81	20	117 000	139 000
		4	0.1575	1.6	0.0630	—	—	0.10	0.0039	691H	—	—	—	—	120	29	105 000	124 000
1.2	0.0472	4	0.1575	1.8	0.0709	2.5	0.0984	0.10	0.0039	SMR41X	SMR41XZZ	—	—	—	96	27	105 000	124 000
		1.5	0.0591	4	0.1575	1.2	0.0472	2	0.0787	0.05	0.0020	681XH	681XHZZ	—	—	—	96	27
2	0.0787	5	0.1969	2	0.0787	2.6	0.1024	0.15	0.0059	691XH	691XHZZ	—	—	—	202	55	94 000	111 000
		6	0.2362	2.5	0.0984	3	0.1181	0.15	0.0059	601XH	601XHZZ	—	—	—	281	79	86 000	101 000
		4	0.1575	1.2	0.0472	2	0.0787	0.05	0.0020	672H	672HZZ	—	—	—	106	32	98 000	116 000
		5	0.1969	1.5	0.0591	2.3	0.0906	0.08	0.0031	682H	682HZZ	—	—	—	144	40	94 000	111 000
		5	0.1969	2	0.0787	2.5	0.0984	0.10	0.0039	SMR52	SMR52ZZ	—	—	—	144	40	94 000	111 000
		6	0.2362	2.3	0.0906	3	0.1181	0.15	0.0059	692H	692HZZ	—	—	—	281	79	86 000	101 000
		6	0.2362	2.5	0.0984	2.5	0.0984	0.15	0.0059	SMR62	SMR62ZZ	—	—	—	281	79	86 000	101 000
2.5	0.0984	7	0.2756	2.5	0.0984	3	0.1181	0.15	0.0059	SMR72	SMR72ZZS	—	—	—	328	102	76 000	90 000
		7	0.2756	2.8	0.1102	3.5	0.1378	0.15	0.0059	602H	602HZZS	—	—	—	328	102	76 000	90 000
		8	0.3150	2.5	0.0984	3.5	0.1378	0.15	0.0059	682XH	682XHZZ	—	—	—	177	58	81 000	96 000
		8	0.3150	2.5	0.0984	—	—	0.20	0.0079	692XH	692XHZZS	—	—	—	328	102	76 000	90 000
		8	0.3150	2.8	0.1102	4	0.1575	0.15	0.0059	SMR82X	—	—	—	—	475	143	70 000	82 000
		8	0.3150	2.8	0.1102	4	0.1575	0.15	0.0059	602XH	602XHZZ	—	—	—	469	140	72 000	85 000
		8	0.3150	2.5	0.0984	—	—	0.15	0.0059	SMR63	SMR63ZZ	—	—	—	177	58	81 000	96 000
3	0.1181	6	0.2362	2	0.0787	2.5	0.0984	0.10	0.0039	683H	683HZZ	2RS	—	—	265	90	74 000	88 000
		8	0.3150	2.5	0.0984	—	—	0.15	0.0059	SMR83	—	—	—	—	336	112	67 000	79 000
		8	0.3150	—	—	3	0.1181	0.10	0.0039	—	SMR83ZZ	—	—	—	336	112	67 000	79 000
		8	0.3150	3	0.1181	4	0.1575	0.15	0.0059	693H	693HZZ	2RS	—	—	475	143	70 000	82 000
		9	0.3543	2.5	0.0984	—	—	0.20	0.0079	SMR93	—	—	—	—	486	150	66 000	78 000
		9	0.3543	—	—	4	0.1575	0.15	0.0059	—	SMR93ZZ	—	—	—	486	150	66 000	78 000
		9	0.3543	3	0.1181	5	0.1969	0.15	0.0059	603H	603HZZ	—	—	—	486	150	66 000	78 000
4	0.1575	10	0.3937	4	0.1575	4	0.1575	0.15	0.0059	623H ⁽¹⁾	623HZZ	2RS	2RU	TTS	538	175	66 000	78 000
		13	0.5118	5	0.1969	5	0.1969	0.20	0.0079	633H ⁽¹⁾	633HZZ	2RS	—	—	1 110	388	51 000	60 000
		7	0.2756	2	0.0787	—	—	0.10	0.0039	SMR74	—	—	—	—	265	92	70 000	82 000
		7	0.2756	—	—	2.5	0.0984	0.10	0.0039	—	SMR74ZZ	—	—	—	217	86	71 000	83 000
		8	0.3150	2	0.0787	—	—	0.15	0.0059	SMR84	—	—	—	—	336	112	67 000	79 000
		8	0.3150	—	—	3	0.1181	0.10	0.0039	—	SMR84ZZ	—	—	—	336	112	67 000	79 000
		9	0.3543	2.5	0.0984	4	0.1575	0.10	0.0039	684H	684HZZ	2RS	—	TTS	545	181	63 000	75 000
4	0.1575	10	0.3937	3	0.1181	4	0.1575	0.20	0.0079	SMR104	SMR104ZZ	2RS	2RU	—	604	216	59 000	70 000
		11	0.4331	4	0.1575	4	0.1575	0.15	0.0059	694H ⁽¹⁾	694HZZ	2RS	—	—	815	277	57 000	67 000
		12	0.4724	4	0.1575	4	0.1575	0.20	0.0079	604H ⁽¹⁾	604HZZ	2RS	—	—	815	277	57 000	67 000
		13	0.5118	5	0.1969	5	0.1969	0.20	0.0079	624H ⁽¹⁾	624HZZ	2RS	2RU	—	1 110	388	51 000	60 000
		16	0.6299	5	0.1969	5	0.1969	0.30	0.0118	634H ⁽¹⁾	634HZZ	2RS	—	—	1 140	414	46 000	54 000

Cage type ⁽⁴⁾	Ball		Abutment and fillet dimensions										Mass (Ref.)	
			Open				Shielded, Sealed				r _{as} (max)	Open	2 Shields	
	Size	Qty.	d _a (min)	d _a (max)	D _a (min)	D _a (max)	d _b (min)	d _b (max)	D _b (min)	D _b (max)				mm
	mm	pcs.	mm											
W	0.500	5	1.00	1.10	2.00	2.10	—	—	—	—	0.05	0.02	—	
W	0.600	6	1.40	1.50	2.60	2.70	—	—	—	—	0.05	0.03	—	
W	0.600	6	1.40	1.50	2.60	2.70	—	—	—	—	0.05	0.04	—	
W	0.800	5	1.80	1.90	3.30	3.50	—	—	—	—	0.10	0.09	—	
W	0.600	7	2.00	2.10	3.10	3.20	2.00	2.10	3.60	3.60	0.10	0.11	0.14	
W	0.600	7	1.90	2.10	3.10	3.60	1.90	2.10	3.60	3.70	0.05	0.07	0.10	
W	1.000	6	2.40	2.40	4.10	4.10	2.40	2.40	4.60	4.60	0.15	0.17	0.22	
W	1.200	6	2.70	2.90	4.90	5.20	2.70	2.90	5.50	5.50	0.15	0.32	0.37	
W	0.600	8	2.40	2.50	3.50	3.60	2.40	2.50	3.70	3.70	0.05	0.05	0.08	
W	0.800	6	2.50	2.60	4.00	4.40	2.50	2.60	4.50	4.50	0.08	0.13	0.18	
W	0.800	6	2.60	2.60	4.00	4.20	2.60	2.60	4.50	4.50	0.10	0.16	0.19	
W	1.200	6	2.90	2.90	4.90	5.20	2.90	2.90	5.50	5.50	0.15	0.28	0.33	
W	1.200	6	2.90	2.90	4.90	5.20	2.90	2.90	5.50	5.50	0.15	0.29	0.29	
W	1.200	7	3.20	3.80	5.70	6.20	3.00	3.10	6.30	6.30	0.15	0.45	0.51	
W	1.200	7	3.20	3.80	5.70	6.20	3.00	3.10	6.30	6.30	0.15	0.50	0.59	
W	0.800	8	3.10	3.60	5.00	5.40	3.10	3.60	5.50	5.50	0.08	0.22	0.30	
W	1.200	7	3.70	3.80	5.70	6.20	3.70	3.80	6.30	6.30	0.15	0.42	0.56	
W	1.588	6	4.10	4.30	6.70	6.70	—	—	—	—	0.20	0.52	—	
W	1.588	6	3.70	4.00	6.50	6.80	3.70	4.00	7.10	7.10	0.15	0.62	0.85	
W	0.800	8	3.60	3.60	5.00	5.20	3.60	3.60	5.50	5.50	0.10	0.21	0.25	
W	1.000	8	3.80	4.20	5.80	6.20	3.70	3.80	6.40	6.40	0.10	0.33	0.44	
J	1.200	7	4.20	4.90	6.90	7.20	—	—	—	—	0.15	0.55	—	
J	1.200	7	—	—	—	—	3.80	4.90	7.50	7.50	0.10	—	0.64	
J	1.588	6	3.90	4.30	6.70	7.20	3.90	4.30	7.30	7.30	0.15	0.60	0.77	
W	1.588	6	4.60	4.80	7.30	7.70	—	—	—	—	0.20	0.70	—	
W	1.588	6	—	—	—	—	3.90	4.30	8.00	8.20	0.15	—	1.07	
W	1.588	6	4.20	4.80	7.30	7.80	3.90	4.30	8.00	8.20	0.15	0.84	1.33	
J	1.588	7	3.90	4.30	8.10	8.80	3.90	4.30	8.10	8.80	0.15	1.47	1.56	
J	2.381	7	4.60	5.90	11.40	11.70	4.60	5.90	11.40	11.70	0.20	2.91	3.08	
W	1.000	8	4.60	4.70	6.30	6.50	—	—	—	—	0.10	0.22	—	
W	0.800	11	—	—	—	—	4.60	4.70	6.60	6.60	0.10	—	0.30	
J	1.200	7	4.90	4.90	6.90	7.20	—	—	—	—	0.15	0.36	—	
J	1.200	7	—	—	—	—	4.80	4.90	7.50	7.50	0.10	—	0.51	
W	1.588	7	4.80	5.10	7.60	8.20	4.80	5.10	8.20	8.50	0.10	0.62	0.93	
J	1.588	8	5.60	5.80	8.30	8.70	5.60	5.80	8.90	8.90	0.20	0.99	1.29	
J	2.000	7	5.20	5.50	9.90	10.20	5.20	5.50	9.90	10.20	0.15	1.47	1.59	
J	2.000	7	5.30	5.50	9.90	10.40	5.30	5.50	9.90	10.40	0.20	1.99	2.11	
J	2.381	7	5.60	5.90	11.40	11.70	5.60	5.90	11.40	11.70	0.20	2.78	2.95	
J	2.381	7	6.00	6.60	13.10	14.00	6.00	6.60	13.10	14.00	0.30	4.80	5.14	

(1) Open bearings have shield/seal grooves.
 (2) Single-shielded/single-sealed bearings are also available; suffix Z, RS, RU or TS.
 (3) Applicable only for open, single Z, ZZ, single RU and 2RU types in inner ring rotating conditions.
 Limiting speeds for the contact rubber seal(s) types can be lower than the above-mentioned values, so please check the detailed values per item on "products" section of our website.
 (4) Some items are also available with the TW cage. Please contact us for details.

Extra-miniature/miniature/small bearings [Stainless-steel]



Dimension

Extra-miniature/miniature/small bearings [Stainless-steel]

Bore diameter d		Outer diameter D		Width				Chamfer r _s (mm)		Bearing number					Load rating		Limiting speed ⁽³⁾	
				Open B		Shielded, Sealed B ₁				Open	2 Shields ⁽²⁾		2 Seals ⁽²⁾		Cr	Cor	Grease	Oil
				mm	inch	mm	inch				2RS	2RU	TTS	N				
5	0.1969	8	0.3150	2	0.0787	—	—	0.10	0.0039	SMR85	—	—	—	—	263	97	62 000	74 000
		8	0.3150	—	—	2.5	0.0984	0.10	0.0039	—	SMR85ZZ	—	—	—	185	73	63 000	75 000
		9	0.3543	2.5	0.0984	3	0.1181	0.15	0.0059	SMR95	SMR95ZZ	—	—	TTS	367	134	60 000	71 000
		10	0.3937	3	0.1181	4	0.1575	0.15	0.0059	SMR105	SMR105ZZ	2RS	—	—	367	134	60 000	71 000
		11	0.4331	4	0.1575	4	0.1575	0.15	0.0059	SMR115⁽¹⁾	SMR115ZZ	2RS	—	—	609	226	54 000	64 000
		11	0.4331	3	0.1181	5	0.1969	0.15	0.0059	685H	685HZZ	2RS	—	—	609	226	54 000	64 000
		13	0.5118	4	0.1575	4	0.1575	0.20	0.0079	695H⁽¹⁾	695HZZ	2RS	—	—	916	344	50 000	59 000
		14	0.5512	5	0.1969	5	0.1969	0.20	0.0079	605H⁽¹⁾	605HZZ	2RS	—	—	1 130	405	48 000	56 000
		16	0.6299	5	0.1969	5	0.1969	0.30	0.0118	625H⁽¹⁾	625HZZ	2RS	—	—	1 470	536	44 000	52 000
		19	0.7480	6	0.2362	6	0.2362	0.30	0.0118	635H⁽¹⁾	635HZZ	2RS	—	—	1 990	711	38 000	45 000
6	0.2362	10	0.3937	2.5	0.0984	—	—	0.15	0.0059	SMR106	—	—	—	422	175	54 000	64 000	
		10	0.3937	—	—	3	0.1181	0.10	0.0039	—	SMR106ZZ	—	—	—	423	174	55 000	64 000
		12	0.4724	3	0.1181	4	0.1575	0.20	0.0079	SMR126	SMR126ZZ	2RS	—	—	608	234	50 000	59 000
		13	0.5118	3.5	0.1378	5	0.1969	0.15	0.0059	686H	686HZZ	2RS	2RU	—	920	350	48 000	56 000
		13	0.5118	—	—	5	0.1969	0.15	0.0059	—	—	—	—	TTS	920	350	38 000	38 000
		15	0.5906	5	0.1969	5	0.1969	0.20	0.0079	696H⁽¹⁾	696HZZ	2RS	2RU	—	1 140	414	46 000	54 000
		15	0.5906	—	—	5	0.1969	0.20	0.0079	—	—	—	—	TTS	1 140	414	38 000	38 000
		16	0.6299	5	0.1969	5	0.1969	0.20	0.0079	696AH⁽¹⁾	696AHZZ	2RS	2RU	—	1 140	414	46 000	54 000
		17	0.6693	6	0.2362	6	0.2362	0.30	0.0118	606H⁽¹⁾	606HZZ	2RS	2RU	—	1 920	670	42 000	49 000
		19	0.7480	6	0.2362	6	0.2362	0.30	0.0118	626H⁽¹⁾	626HZZ	2RS	2RU	—	1 990	711	38 000	45 000
7	0.2756	11	0.4331	2.5	0.0984	3	0.1181	0.15	0.0059	SMR117	SMR117ZZ	—	—	388	161	50 000	59 000	
		13	0.5118	3	0.1181	—	—	0.20	0.0079	SMR137	—	—	—	460	221	45 000	53 000	
		13	0.5118	—	—	4	0.1575	0.15	0.0059	—	SMR137ZZ	—	—	—	460	221	45 000	53 000
		14	0.5512	3.5	0.1378	5	0.1969	0.15	0.0059	687H	687HZZ	2RS	—	—	999	409	44 000	52 000
		17	0.6693	5	0.1969	5	0.1969	0.30	0.0118	697H⁽¹⁾	697HZZ	2RS	—	—	1 370	573	40 000	47 000
		19	0.7480	6	0.2362	6	0.2362	0.30	0.0118	607H⁽¹⁾	607HZZ	2RS	2RU	—	1 990	711	38 000	45 000
		19	0.7480	—	—	6	0.2362	0.30	0.0118	—	—	—	—	TTS	1 900	729	29 000	29 000
		22	0.8661	7	0.2756	7	0.2756	0.30	0.0118	627H⁽¹⁾	627HZZ	2RS	2RU	—	2 800	1 090	33 000	39 000
		22	0.8661	—	—	7	0.2756	0.30	0.0118	—	—	—	—	TTS	2 800	1 090	27 000	27 000
		8	0.3150	12	0.4724	2.5	0.0984	—	—	0.15	0.0059	SMR128	—	—	—	462	220	46 000
12	0.4724			—	—	3.5	0.1378	0.10	0.0039	—	SMR128ZZ	2RS	—	—	463	219	46 000	54 000
12	0.4724			—	—	3.5	0.1378	0.10	0.0039	—	—	—	—	TTS	462	220	31 000	31 000
14	0.5512			3.5	0.1378	—	—	0.20	0.0079	SMR148	—	—	—	696	309	42 000	50 000	
14	0.5512			—	—	4	0.1575	0.15	0.0059	—	SMR148ZZ	2RS	—	—	696	309	42 000	50 000
16	0.6299			4	0.1575	5	0.1969	0.20	0.0079	688H	688HZZ	2RS	2RU	—	1 070	472	40 000	47 000
16	0.6299			—	—	5	0.1969	0.20	0.0079	—	—	—	—	TTS	1 070	472	29 000	29 000
19	0.7480			6	0.2362	6	0.2362	0.30	0.0118	698H⁽¹⁾	698HZZ	2RS	2RU	—	1 900	729	37 000	44 000
22	0.8661			7	0.2756	7	0.2756	0.30	0.0118	608H⁽¹⁾	608HZZ	2RS	2RU	—	2 800	1 090	33 000	39 000
8	0.3150			22	0.8661	—	—	7	0.2756	0.30	0.0118	—	—	—	—	TTS	2 800	1 090
		24	0.9449	8	0.3150	8	0.3150	0.30	0.0118	628H⁽¹⁾	628HZZ	2RS	2RU	—	2 830	1 130	31 000	37 000
		28	1.1024	9	0.3543	9	0.3543	0.30	0.0118	638H⁽¹⁾	638HZZ	2RS	2RU	—	3 890	1 570	28 000	33 000
		17	0.6693	4	0.1575	5	0.1969	0.20	0.0079	679H	679HZZ	—	—	—	781	374	41 000	48 000
		20	0.7874	6	0.2362	6	0.2362	0.30	0.0118	689H	689HZZ	2RS	—	—	1 130	531	37 000	44 000
		24	0.9449	7	0.2756	7	0.2756	0.30	0.0118	699H⁽¹⁾	699HZZ	2RS	2RU	—	2 100	855	35 000	42 000
9	0.3543	24	0.9449	7	0.2756	7	0.2756	0.30	0.0118	609H⁽¹⁾	609HZZ	2RS	2RU	—	2 850	1 150	30 000	36 000
		26	1.0236	8	0.3150	8	0.3150	0.60	0.0236	629H⁽¹⁾	629HZZ	2RS	2RU	—	3 890	1 570	28 000	33 000
		30	1.1811	10	0.3937	10	0.3937	0.60	0.0236	639H⁽¹⁾	639HZZ	2RS	—	—	4 350	1 910	25 000	30 000

Cage type ⁽⁴⁾	Ball		Abutment and fillet dimensions								Mass (Ref.)		
			Open				Shielded, Sealed				r _{as} (max)	Open	2 Shields
	Size	Qty.	d _a (min)	d _a (max)	D _a (min)	D _a (max)	d _b (min)	d _b (max)	D _b (min)	D _b (max)			
	mm	pcs.	mm										
W	1.000	8	5.60	5.70	7.30	7.50	—	—	—	—	0.10	0.26	—
W	0.800	9	—	—	—	—	5.60	5.70	7.60	7.60	0.10	—	0.35
W	1.200	8	5.90	5.90	7.90	8.20	5.90	5.90	8.50	8.50	0.15	0.50	0.57
W	1.200	8	5.90	5.90	7.90	8.80	5.90	5.90	8.50	8.80	0.15	0.93	1.21
J	1.588	8	6.20	6.70	10.00	10.20	6.20	6.70	10.00	10.20	0.15	1.42	1.52
J	1.588	8	6.20	6.70	9.30	9.80	5.90	6.10	10.00	10.20	0.15	1.17	1.81
J	2.000	8	6.30	6.50	11.30	11.70	6.30	6.50	11.30	11.70	0.20	2.11	2.26
J	2.381	7	6.60	6.80	12.30	12.70	6.60	6.80	12.30	12.70	0.20	3.14	3.33
J	2.778	7	7.00	7.40	13.50	14.00	7.00	7.40	13.50	14.00	0.30	4.44	4.77
J	3.500	6	7.00	8.40	16.60	17.00	7.00	8.40	16.60	17.00	0.30	7.48	8.00
W	1.200	10	6.90	6.90	9.00	9.20	—	—	—	—	0.15	0.57	—
W	1.200	10	—	—	—	—	6.80	6.90	9.40	9.40	0.10	—	0.70
J	1.588	8	7.30	7.60	10.30	10.70	7.10	7.10	11.00	11.00	0.20	1.22	1.56
J	2.000	8	7.20	7.90	11.10	11.80	7.20	7.30	11.80	12.20	0.15	1.83	2.47
J	2.000	8	—	—	—	—	7.20	7.30	11.70	12.20	0.15	—	2.38
J	2.381	7	7.30	7.40	13.10	13.40	7.30	7.40	13.10	13.40	0.20	3.48	3.78
J	2.381	7	—	—	—	—	7.30	7.40	12.90	13.40	0.20	—	3.71
J	2.381	7	7.30	7.40	13.10	14.40	7.30	7.40	13.10	14.40	0.20	4.40	4.70
J													