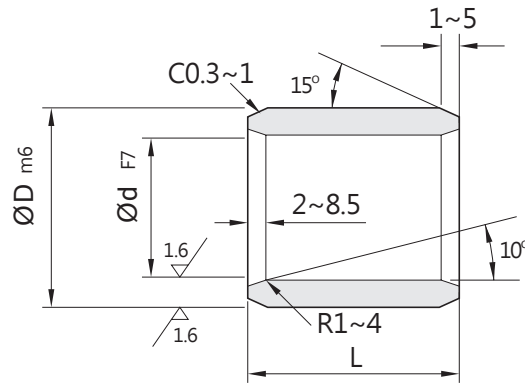
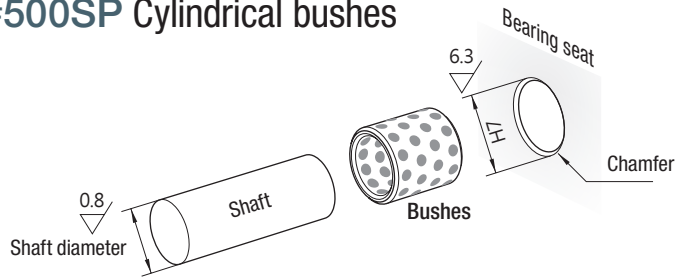


# Self-lubricating Bearing

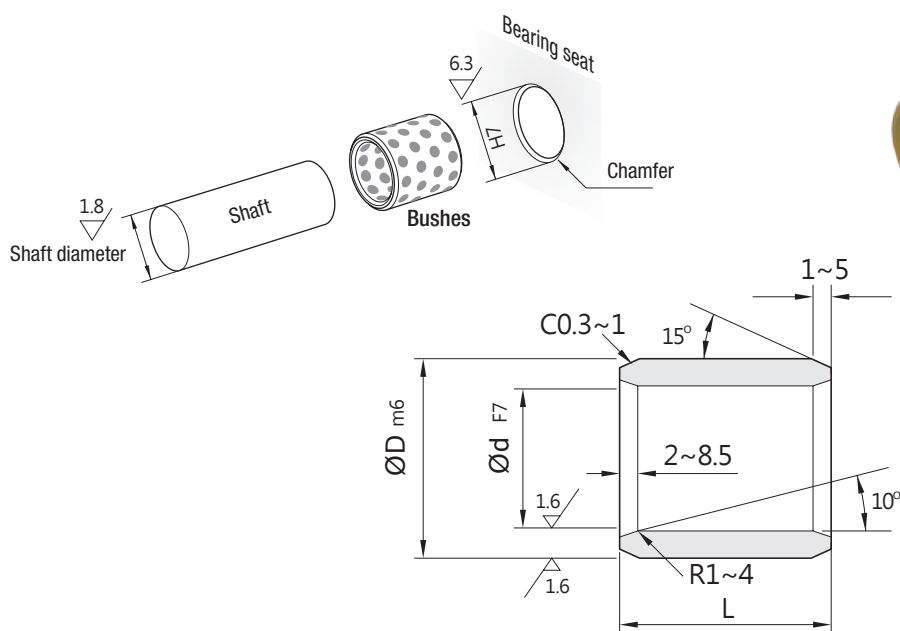
## SPB #500SP Cylindrical bushes



Inside Dia.		Outside dia.		Length L															Inside dia. tolerance	Washer SPW		
$\text{Ød}$	tolerance	$\text{ØD}$	tolerance	8	10	12	15	16	19	20	25	30	35	40	50	60	70	80				
6	+0.022 +0.010	10	+0.015 +0.006	061008	101610	061012													+0.019 +0.007	0603		
8	+0.028 +0.013	12	+0.018 +0.007	081208	081210	081212	081215												+0.025 +0.010	0803		
10		14		101408	101410	101412	101415				101420									1003		
12	+0.034 +0.016	18	+0.021 +0.008	121808	121810	121812	121815	121816	121819	121820	121825	121830							+0.031 +0.013	1203		
13		19			131910	131912	131915				131920	131925	131930							+0.030 +0.012	1303	
14		20			142010	142012	142015				142020	142025	142030								1403	
15		21			152110	152112	152115	152116			152120	152125	152130	152135	152140							1503
16		22			162210	162212	162215	162216	162219	162220	162225	162230	162235	162240								1603
17		23					172315															1803*
18		24				182410	182412	182415	182416		182420	182425	182430	182435	182440							1803
19		26						192615			192620											2005*
20		28				202810	202812	202815	202816	202819	202820	202825	202830	202835	202840							2005
20		30				203010	203012	203015	203016		203020	203025	203030	203035	203040							2505*
22	32				223212	223215			223220	223225									2505*			
25	+0.041 +0.020	33	+0.025 +0.009		253312	253315	253316		253320	253325	253330	253335	253340						+0.037 +0.016	2505		
25	35			253512	253515	253516		253520	253525	253530	253535	253540							3005*			
28	38								283820	283825	283830		283840						3005*			
30	38				303812	303815			303820	303825	303830	303835	303840							3005		
30	40				304012	304015			304020	304025	304030	304035	304040							3505*		
31.5	+0.050 +0.025	40										314030	314040							3505*		
32		42								324220	324230	324240								3505*		
35		44								354420	354425	354430	354435	354440						3505		
35		45								354520	354525	354530	354535	354540							4007*	
38		48												384840							4007*	
40		50				405015			405020	405025	405030	405035	405040							4007		
40		55				405515					405530	455535	405540							4507*		
45		55		+0.030 +0.011							455530	455635	455540							+0.045 +0.020	4507	
45		56									455630	456035	445640							4507		
45		60									456030	456035	456040	450650	456060	456070	456080			4507		

# Self-lubricating Bearing

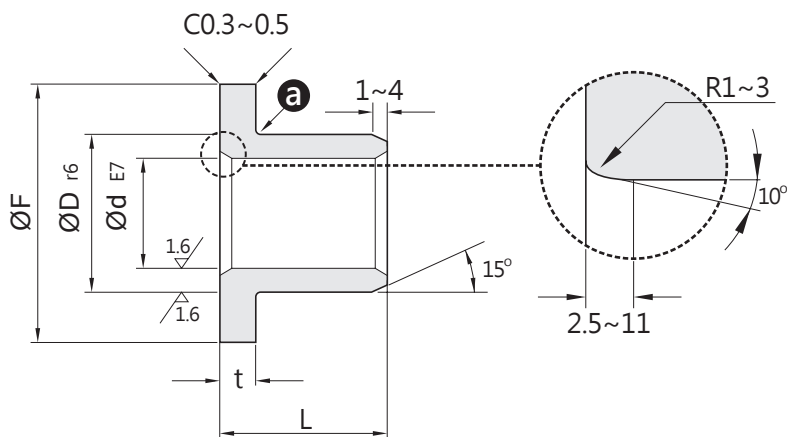
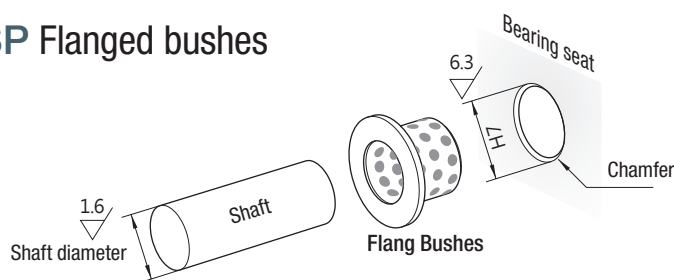
## SPB #500SP Cylindrical bushes



Inside dia.		Outside dia.		Length L														Inside dia. tolerance	Washer SPW								
Ø d	tolerance	Ø D	tolerance	20	30	35	40	50	60	70	80	90	100	120	130	140	150			200							
50	+0.050 +0.025	60	+0.030 +0.011	506020	506030	506035	506040	506050	506060	506070	506080								+0.045 +0.020	5008							
50		62		506230	506235	506240	506250	506260	506270	506280											5008						
50		65		506530	506540	506550	506560	506570	506580	5065100												5008					
55	+0.060 +0.030	70		+0.035 +0.013	557030	557035	557040	557050	557060	557070										+0.055 +0.025	5508						
60		74			607430	607435	607440	607450	607460	607470	607480											6008					
60		75			607530	607535	607540	607550	607560	607570	607580	6075100											6008				
63	+0.071 +0.036	75			+0.040 +0.015					637560	637570	637580									+0.054 +0.024	6508*					
65		80						658040	658050	658060	658070	658080												6508			
70		85				708530	708535	708540	708550	708560	708570	708580	7085100														
70	+0.083 +0.043	90				+0.046 +0.017					709050	709060	709070	709080								+0.065 +0.030	7010				
75		90									759050	759060	759070	759080	7590100										7010		
75		95										759560	759570	759580	7595100											7510	
80	+0.096 +0.050	96					+0.046 +0.017				809640	809650	809660	809670	809680	8096100	8096120						+0.064 +0.029	8010			
80		100									8010040	8010050	8010060	8010070	8010080	80100100	80100120	80100140								8010	
85		100											8510060	8510080													9010*
90	+0.083 +0.043	110	+0.046 +0.017									9011050	9011060		9011080	9011090	90110100	90110120					+0.076 +0.036	9010			
100		120										10012050	10012060	10012070	10012080	10012090	100120100	100120120	120140140								10010
110		130											11013050		11013070	11013080		110130100	110130120								
120	+0.083 +0.043	140		+0.046 +0.017										12014070	12014080	12014090	120140100	120140120		120140140			+0.088 +0.042	12010			
125		145																125145100	125145120								-
130		150																13015080	130150100	130150130							
140	+0.083 +0.043	160			+0.046 +0.017												140160100		140160140							12010	
150		170															15017080	150170100			150170150						12010
160		180															16018080	160180100			160180150						12010
170	+0.083 +0.043	190				+0.046 +0.017														170190150						12010	
180		200																			180200150						12010
190		210																			190210150						12010
200	+0.096 +0.050	230					+0.046 +0.017																+0.088 +0.042	12010			
200		230																			200230150	200230200					12010

# Self-lubricating Bearing

## SPF #500SP Flanged bushes



**a** Chamfered lower flange

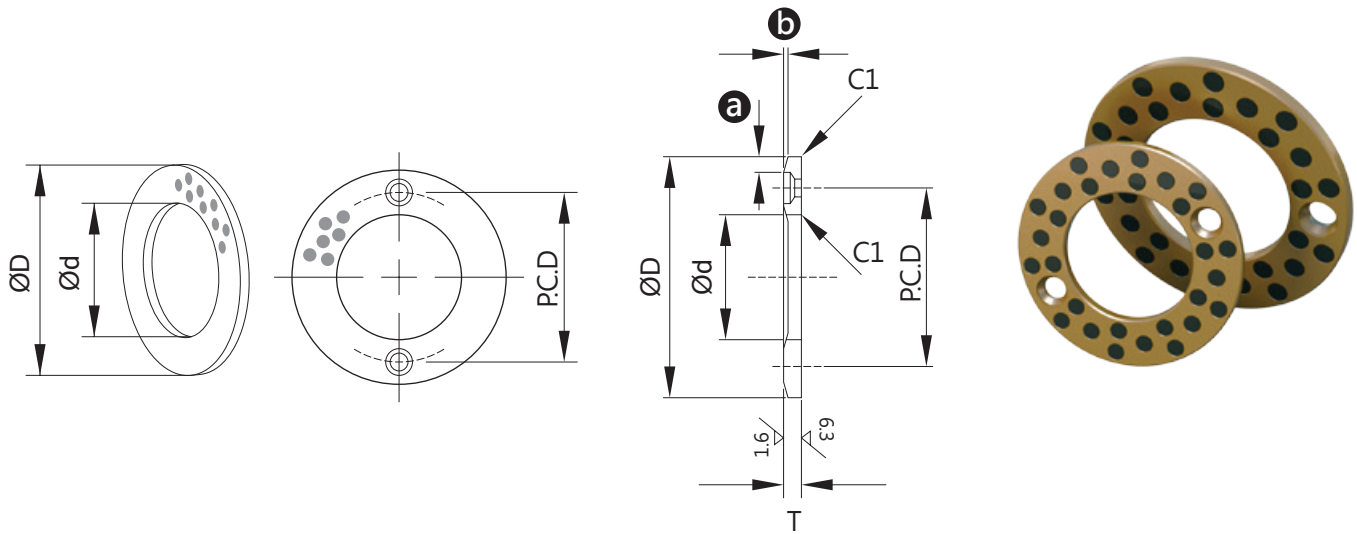
Ød	~16	~55	160
a	R0.3mm	R0.5mm	R1.0mm

Inside Dia.		Outside Dia.		Flanged Dia.		Length L														Inside dia. tolerance				
Ød	tolerance	ØD	tolerance	ØF	t	10	12	15	17	18	20	23	25	30	35	40	50	60	67.5		80	100	120	
6	+0.032 +0.020	10	+0.028 +0.019	16	2	0 -0.1	0610	0612															+0.016 +0.004	
8	+0.040 +0.025	12	+0.034 +0.023	20		081	0812	0815																+0.021 +0.006
10	+0.050 +0.032	14		22		1010	1012	1015	1017		1020													+0.031 +0.013
12		18	25		1210	1212	1215			1220	1225	1230												+0.028 +0.008
13	+0.041 +0.028	19	26		1310	1312	1315			1320	1325	1330												
14		20	27				1415			1420	1425													
15	+0.061 +0.040	21	28		1510	1512	1515			1520	1525	1530											+0.046 +0.021	
16		22	29			1612	1615	1618	1620	1623	1625	1630	1635	1640										
18	+0.075 +0.050	24	32				1815			1820	1825	1830	1835	1840									+0.040 +0.015	
20		30	40				2015			2020	2025	2030	2035	2040										+0.055 +0.025
25	+0.090 +0.060	35	45				2515			2520	2525	2530	2535	2540	2550									+0.060 +0.025
30		40	50							3020	3025	3030	3035	3040	3050									+0.053 +0.023
31.5	+0.073 +0.051	40	50							3120		3130	3135	3140										+0.046 +0.016
35		45	60							3520	3525	3530	3535	3540	3550									
40	+0.107 +0.072	50	65							4020	4025	4030	4035	4040	4050									+0.060 +0.025
45		55	70									4530	4335	4540	4550	4560								
50	+0.125 +0.085	60	75									5030	5035	5040	5050	5060								+0.065 +0.025
55		65	80											5540	5560									
60	+0.093 +0.068	75	90											6040	6050	6060			6080					+0.065 +0.025
63		75	85																					
65	+0.076 +0.054	80	95	7.5													6560	6367						+0.068 +0.028
70		85	105												7050				7080					
75	+0.093 +0.063	90	110														7560							+0.068 +0.028
80		100	120														8060		8080	80100				
90	+0.088 +0.063	110	130														9060		9080					+0.060 +0.025
100		120	150																10080	100100				
120	+0.076 +0.054	140	170	10															12080	120100				+0.052 +0.017
130		150	180																	*13080	*130100			
140	+0.088 +0.063	160	190																	*14080	*140100			
150		170	200																					
160	+0.093 +0.068	180	210																					+0.065 +0.025

# Self-lubricating Bearing

## SPW #500SP Thrust washers

( Can be used in conjunction with SPB )



### a Outside / Inside chamfer

Ød	~10.2	~18.2	~35.2	~45.2	~55.3	~100.5	120.5
a	1.5mm	2.0mm	2.5mm	3.0mm	4.0mm	5.0mm	4.0mm

### b Outside / Inside chamfer

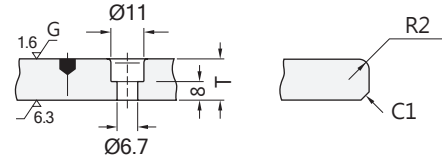
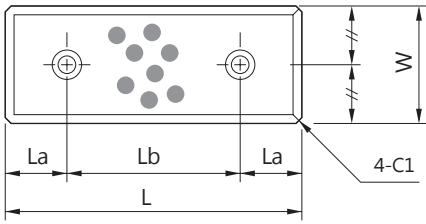
Ød	~10.2	~18.2	~35.2	~45.2	~55.3	~100.5	120.5
b	0.3mm	0.4mm	0.4mm	0.5mm	0.6mm	0.8mm	0.8mm

Parts No.	Inside Dia.		O.Dia.	Thickness		Mount holes		
	Ød	tolerance		ØD	T	tolerance	P.C.B	Qty
SWP- 0603	6.2	+0.2 -0.1	25	3	0 -0.1	15	2	M3
SWP- 0803	8.2		28					
SWP- 1003	10.2		30					
SWP- 1203	12.2		28					
SWP- 1203N	12.2		Headless bolt hole					
SWP- 1303	13.2		28			2	M3	
SWP- 1403	14.2		28					
SWP- 1503	15.2		35					
SWP- 1603	16.2		35					
SWP- 1603N	16.2		Headless bolt hole					
SWP- 1803	18.2		35			2	M3	
SWP- 2005	20.2		35					
SWP- 2505	25.2		40			2	M5	
SWP- 2505N	25.2		40					
SWP- 3005	30.2		Headless bolt hole					
SWP- 3005N	30.2		45			2	M5	
SWP- 3505	35.2		45					
SWP- 4007	40.2		Headless bolt hole					
SWP- 4507	45.2	50	2	M5				
		50						
		60	2	M6				
		60						
		70	2	M6				
		70						

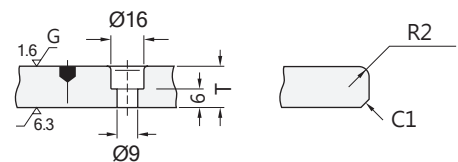
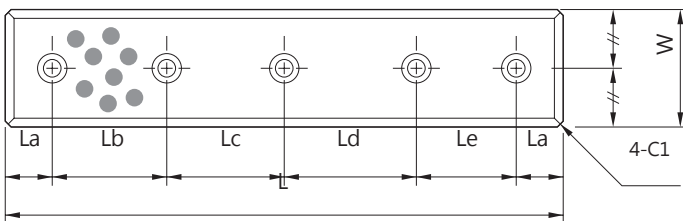
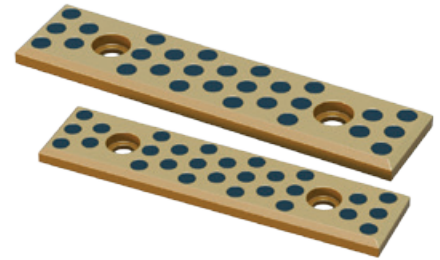
Parts No.	Inside Dia.		O.Dia.	Thickness		Mount holes				
	Ød	tolerance		ØD	T	tolerance	P.C.B	Qty	Blot	
SWP- 5008	50.3	+0.3 -0.1	100	8	0 -0.1	75	4	M8		
SWP- 5508	55.3		110							
SWP- 6008	60.3		120							
SWP- 6508	65.3		125							
SWP- 7010	70.3		130			10	4	M8		
SWP- 7510	75.3		140							
SWP- 8010	80.3		150							
SWP- 9010	90.3		170							
SWP- 10010	100.3		190			10	4	M10		
SWP- 12010	120.3		200						160	
									175	

# Self-lubricating Bearing

## SFP #500SP Sliding plates



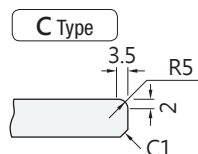
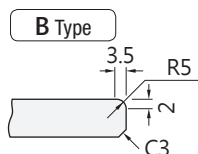
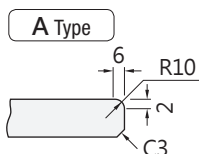
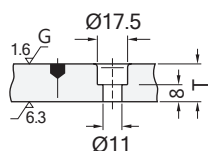
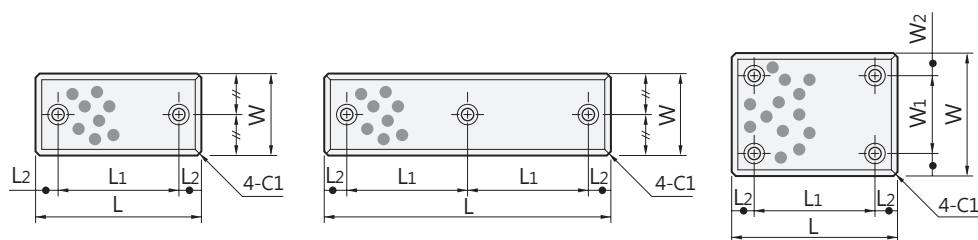
Parts No.	Width		Length		Thickness		Mount holes distance		Mount Blots	
	W	L	T	tolerance	La	Lb	Type	Qty		
SFP-1875	18	75	10	+0.04 +0.01	15	45	M6	Hexagon socket bolts	2	
SFP-18100		100			50					
SFP-18125		125			75					
SFP-18150		150			100					
SFP-2875	28	75			15	45				
SFP-28100		100			50					
SFP-28125		125			75					
SFP-28150		150			100					
SFP-3875	38	75			15	45				
SFP-38100		100			50					
SFP-38125		125			75					
SFP-38150		150			100					
SFP-4875	48	75	15	45						
SFP-48100		100	50							
SFP-48125		125	75							
SFP-48150		150	100							



Parts No.	Width		Length		Thickness		Mount holes distance					Mount Blots				
	W	L	T	tolerance	La	Lb	Lc	Ld	Le	Type	Qty					
SFP-35100	35	100	10	±0.025	20	60				M8	Flat head bolts	2				
SFP-35150		150				55	55					3				
SFP-35200		200					50	55				4				
SFP-35250		250				70	70	70				4				
SFP-35300		300				65	65	65	65			5				
SFP-35350		350				80	75	75	80			5				
SFP-50100	50	100				60								M8	Flat head bolts	2
SFP-50150		150				55	55					3				
SFP-50200		200					50	55				4				
SFP-50250		250				70	70	70				4				
SFP-50300		300				65	65	65	65			5				
SFP-50400		400				90	90	90	90			5				
SFP-75150	75	150	10	±0.025	20	110				M8	Flat head bolts	4				
SFP-75200		200				80	80					6				
SFP-75250		250				105	105					6				
SFP-75300		300				85	90	85				8				
SFP-75400		400				120	120	120				8				
SFP-75500		500				115	115	115	115			10				

# Self-lubricating Bearing

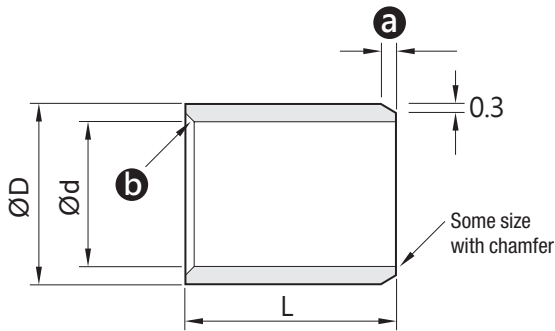
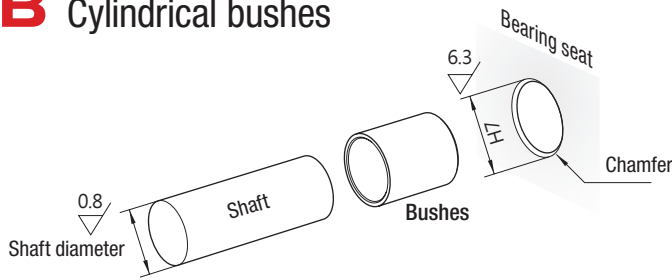
## FWP #500SP Sliding plates



Parts No.	Width		Length		Thickness		Mount holes distance					Mount holes	Chamfer type							
	W	tolerance	L	tolerance	T	tolerance	W1	tolerance	W2	L1	tolerance			L2						
FWP-2875	28		75		20	±0.01	-	-	-	45	±0.2	15	C							
FWP-28100			100				-	-	-	50		25								
FWP-28125			125				-	-	-	75										
FWP-28150			150				-	-	-	100										
FWP-28200			200				-	-	-	150										
FWP-3875	38		75		20	±0.01	-	-	-	45	15			C						
FWP-38100			100				-	-	-	50		25								
FWP-38125			125				-	-	-	75										
FWP-38150			150				-	-	-	100										
FWP-38200			200				-	-	-	150										
FWP-4875	48		75		20	±0.01	-	-	-	45	15		B							
FWP-48100			100				-	-	-	50		25								
FWP-48125			125				-	-	-	75										
FWP-48150			150				-	-	-	100										
FWP-48200			200				-	-	-	100					50					
FWP-48200A	200	-	-	-	150	25														
FWP-48250	250	-	-	-	100		3													
FWP-5875	58	-0.1 -0.3	75	-0.1 -0.3	20	±0.01		-	-	-	45	15		B						
FWP-58100			100				-	-	-	50	±0.2									
FWP-58150			150				-	-	-	100										
FWP-7575B			75					75		20			±0.01		-	-	-	25	2	A
FWP-75100B								100							-	-	-	50		
FWP-75125	125	-		-	-	75														
FWP-75150	150	-		-	-	100														
FWP-75200	200	-		-	-	150														
FWP-100100	100		100		20	±0.01	-	-	-	50	25	A								
FWP-100125			125				-	-	-	75										
FWP-100150			150				50	±0.2	25	100										
FWP-100200			200				-		-	-			150							
FWP-100250			250				-		-	-			200							
FWP-125125	125		125		20	±0.01	75		3.75	75	4									
FWP-125125A			125				-			-			-	75						
FWP-125150			150				50	±0.2		3.75			100							
FWP-125200			200				-			-			-	150						
FWP-125250			250				-			-			-	200						
FWP-150150	150		150		20	±0.01	-	25	100	25	A									
FWP-150200			200				100		150											
FWP-150250			250				-		-			-	200							

# Self-lubricating Bearing

## 80B Cylindrical bushes



### a Outside chamfer

$\text{Ød}$	~6	~35	~50
a	--- mm	1.8mm	2.0mm

### a Outside chamfer

$\text{Ød}$	~6	~35	~50
a	0.3mm	0.5mm	Note *1

(Note \*1) 80B-0605 : 0.5    80B-0406 = 0.5

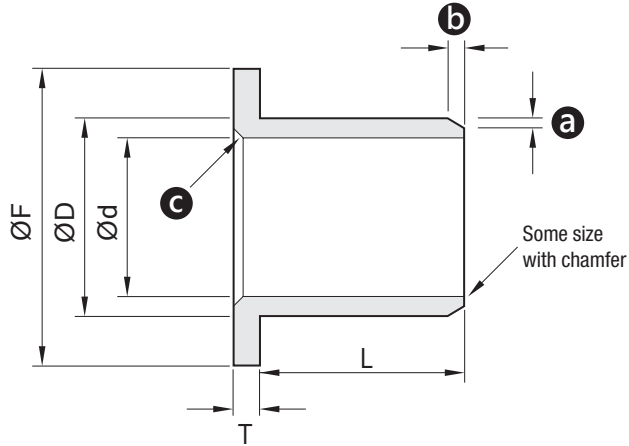
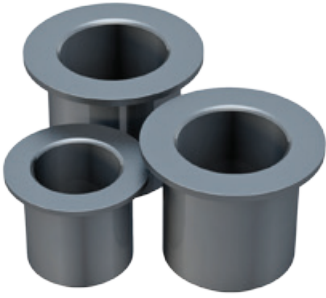
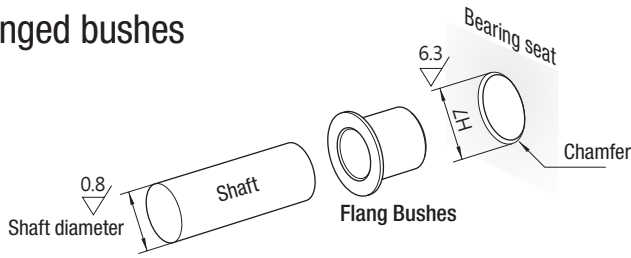
### b Inner chamfer

$\text{Ød}$	~10	~35	~40	~50
c	C0.3mm	R0.4mm	R0.6mm	R0.8mm

Shaft diameter		Bearing seat H7		Inside Dia.		Outside Dia.		Length L															
Dia.	tolerance	Dia.	tolerance	$\text{Ød}$	tolerance	$\text{ØD}$	tolerance	2	3	4	5	6	8	10	12	15	20	25	30	40	50		
2	$\begin{matrix} 0 \\ -0.010 \end{matrix}$	4	$\begin{matrix} +0.012 \\ 0 \end{matrix}$	2	$\begin{matrix} +0.065 \\ +0.015 \end{matrix}$	4		0202	0203	0204													
3		5		3	$\begin{matrix} +0.080 \\ +0.030 \end{matrix}$	5	$\begin{matrix} +0.107 \\ +0.032 \end{matrix}$		0303	0304	0305	0306											
4		6		4		6			0403	0404	0405	0406											
5	$\begin{matrix} 0 \\ -0.012 \end{matrix}$	7		5	$\begin{matrix} +0.095 \\ +0.045 \end{matrix}$	7			0503	0504	0505	0506	0508										
6		8	$\begin{matrix} +0.015 \\ 0 \end{matrix}$	6		8	$\begin{matrix} +0.157 \\ +0.045 \end{matrix}$			0604	0605	0606	0608	0610									
7		9		7		9					0705	0706	0708	0710									
8	$\begin{matrix} 0 \\ -0.015 \end{matrix}$	10		8		10					0805	0806	0808	0810	0812	0815							
9		11		9		11					0905	0906		0910	0912	0915							
10		12		10		12					1005	1006	1008	1010	1012	1015	1020						
12		14	$\begin{matrix} +0.018 \\ 0 \end{matrix}$	12	$\begin{matrix} +0.120 \\ +0.060 \end{matrix}$	14	$\begin{matrix} +0.193 \\ +0.058 \end{matrix}$				1206	1208	1210	1212	1215	1220							
14		16		14		16								1410	1412	1415	1420						
15	$\begin{matrix} 0 \\ -0.018 \end{matrix}$	17		15		17								1510	1512	1515	1520	1525					
16		18		16		18								1610	1612	1615	1620	1625					
18		20		18		20	$\begin{matrix} +0.221 \\ +0.071 \end{matrix}$							1810	1812	1815	1820	1825					
20		23		20		23										2015	2020	2025					
22		25	$\begin{matrix} +0.021 \\ 0 \end{matrix}$	22	$\begin{matrix} +0.145 \\ +0.075 \end{matrix}$	25											2220						
24		27		24		27	$\begin{matrix} +0.231 \\ +0.081 \end{matrix}$										2415	2420	2425				
25	$\begin{matrix} 0 \\ -0.021 \end{matrix}$	28		25		28											2515	2520	2525				
28		32		28	$\begin{matrix} +0.170 \\ +0.090 \end{matrix}$	32											2820	2825					
30		34		30		34	$\begin{matrix} +0.290 \\ +0.095 \end{matrix}$										3020	3025	3030	3040			
32		36		32		36											3220		3230	3240			
35		39	$\begin{matrix} +0.025 \\ 0 \end{matrix}$	35	$\begin{matrix} +0.215 \\ +0.115 \end{matrix}$	39											3520	3525	3530	3540			
38		42		38		42											3820		3830	3840			
40	$\begin{matrix} 0 \\ -0.025 \end{matrix}$	44		40		44	$\begin{matrix} +0.340 \\ +0.115 \end{matrix}$										4020		4030	4040	4050		
45		50		45		50											4520		4530	4540	4550		
50		55	$\begin{matrix} +0.030 \\ 0 \end{matrix}$	50	$\begin{matrix} +0.235 \\ +0.135 \end{matrix}$	55	$\begin{matrix} +0.430 \\ +0.130 \end{matrix}$										5020		5030	5040	5050		

# Self-lubricating Bearing

## 80F Flanged bushes



**a b** Outside chamfer

Ød	2	~35	~50
a	0.5mm	0.8mm	1.0mm
b	Note *1	1mm	2mm

(Note \*1) L 2mm : 0.3 L 3/4mm : 0.5

**c** Inner chamfer

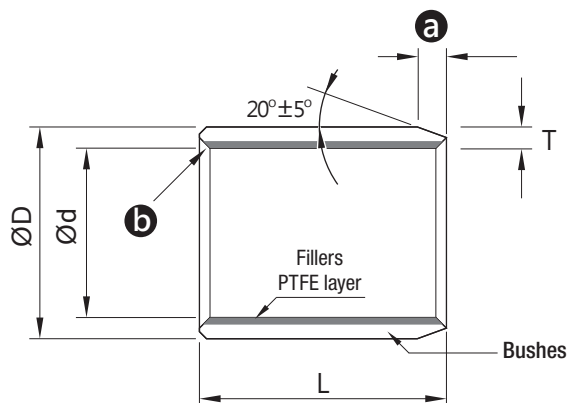
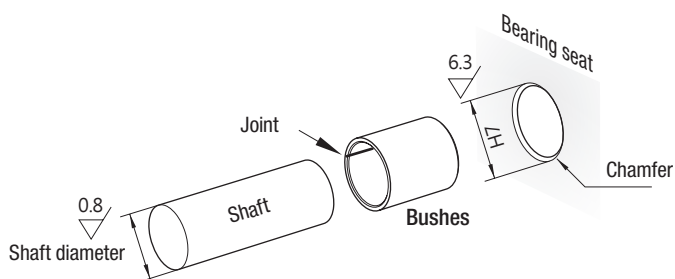
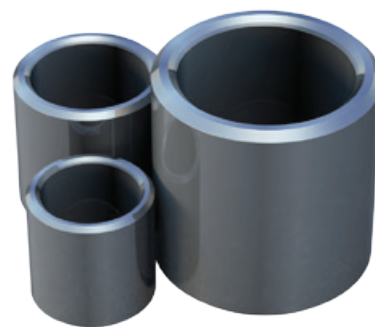
Ød	~10	~35	~40	~50
c	C0.3mm	R0.4mm	R0.6mm	R0.8mm

Inside Dia.		Outside dia.		Flanged dia.			Length L																				
Ød	tolerance	ØD	tolerance	ØF	T	tolerance	2	3	4	5	6	7	8	10	12	15	20	25	30	40	50						
2	+0.065 +0.015	4		6	1	0 -0.10	0202	0203	0204																		
3	+0.080 +0.030	5	+0.107 +0.032	8						0303	0304	0305	0306														
4	+0.095 +0.045	6	+0.157 +0.045	9						0403	0404	0405	0406														
5		7								0503	0504	0505	0506	0507													
6		8									0603		0605	0606		0608	0610										
7		9		13						0703		0705		0707		0710											
8	+0.120 +0.060	10	+0.193 +0.058	15						0803		0805	0806		0808	0810	0812	0815									
9		11					16				0903		0905	0906			0910	0912	0915								
10		12					18					1003		1005	1006		1010	1012	1015	1020							
12		14					20								1206		1210	1212	1215	1220							
14		16					22										1410	1412	1415	1420							
15				17				23										1510	1512	1515	1520	1525	1530				
16		18		24												1610	1612	1615	1620	1625	1630						
18		20	+0.221 +0.071	26												1810	1812	1815	1820	1825	1830						
20	+0.145 +0.075	23		31			1.5									2010	2012	2015	2020	2025	2030						
22		25	+0.231 +0.081	33														2210		2215	2220	2225	2230				
25	+0.170 +0.090	28		36														2510	2512	2515	2520	2525	2530				
30		34		42														3010	3012		3020	3025	3030	3040			
32		36		46															3220	3225	3230	3240					
35	+0.215 +0.115	39		49	2	0 -0.15										3510	3512		3520	3525	3530	3540					
38		42		52														3820		3830	3840						
40		44	+0.340 +0.115	54													4012		4020	4025	4030	4040	4050				
45		50		60			2.5												4520	4525	4530	4540	4550				
50	+0.235 +0.135	55	+0.430 +0.130	65																	5020		5030	5040	5050		



# Self-lubricating Bearing

## LFB Cylindrical bushes



**a** Outside chamfer (Ø10 Inside above)

T	2.0	2.5
a	1.0mm	1.0mm

**b** Outside chamfer (Ø10 Inside above)

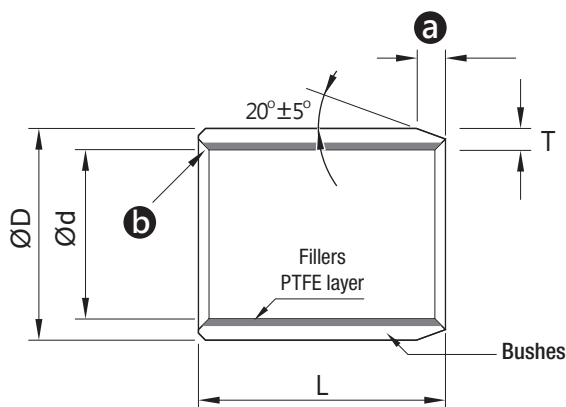
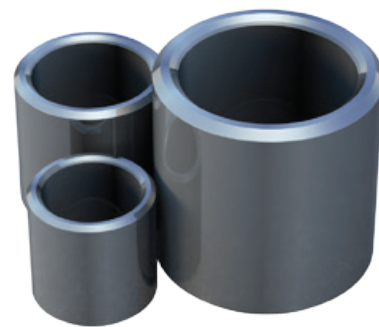
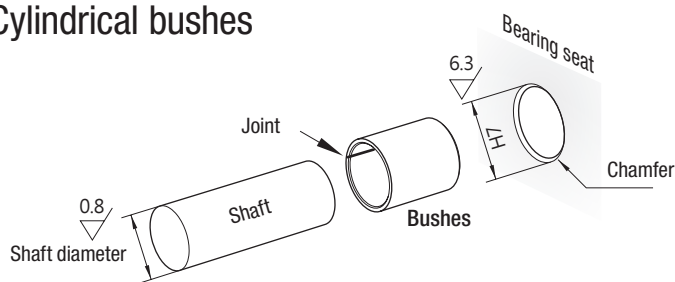
T	2.0	2.5
b	C0.5mm	C0.5mm

Shaft dia.		Bearing H7		I.dia.		Outside dia.		Thickness		Length L													Inside dia. tolerance					
Dia.	tolerance	Dia.	tolerance	ød	øD	tolerance	T1	tolerance	3	4	5	6	7	8	10	12	14	15	16	20	25	30		35				
3	-0.025 -0.034	5	+0.012 0	3	5	+0.047 +0.017	1.0	0 -0.025	0303	0304	0305	0306													+0.062 0			
4	-0.025 -0.037	6	+0.015 0	4	6	+0.055 +0.025			0403	0404	0405	0406		0408													+0.065 0	
5		7		5	7				0503	0504	0505	0506		0508														
6	-0.025 -0.040	8	+0.018 0	6	8	+0.066 +0.035			0603	0604	0605	0606	0607	0608	0610	0612											+0.068 0	
7		9		7	9					0705	0706	0707	0708	0710	0712													
8		10		8	10					0805	0806	0807	0808	0810	0812		0815											
9	-0.025 -0.043	11	+0.021 0	9	11	+0.070 +0.035						0906			0910												+0.071 0	
10		12		10	12						1006	1007	1008	1010	1012		1015		1020									
12		14		12	14						1206		1208	1210	1212		1215		1220									
13		15		13	15								1308	1310	1312		1315		1320									
14	-0.025 -0.046	16	+0.025 0	14	16	+0.080 +0.045						1408	1410	1412	1414	1415	1416	1420									+0.081 0	
15		17		15	17							1508	1510	1512		1515		1520	1525									
16		18		16	18									1610	1612		1615		1620	1625								
17		19		17	19										1710		1715											
18		20		18	20											1810	1812		1815		1820	1825	1830					
19	-0.025 -0.046	22	+0.025 0	19	22	+0.085 +0.050						1910			1915		1920									+0.085 0		
20		23		20	23							2010	2012		2015		2020	2025	2030									
22		25		22	25									2210	2212		2215		2220	2225	2230							
24	-0.025 -0.046	27	+0.025 0	24	27	+0.090 +0.050							2415		2420	2425	2430							+0.085 0				
25		28		25	28					2510	2512		2515		2520	2525	2530	2535										
26		30		26	30							2615		2620	2625	2630												
28		32		28	32								2812		2815		2820	2825	2830									



# Self-lubricating Bearing

## LFB Cylindrical bushes



**a** Outside chamfer (Ø10 Inside above)

T	2.0	2.5
a	1.0mm	1.0mm

**b** Outside chamfer (Ø10 Inside above)

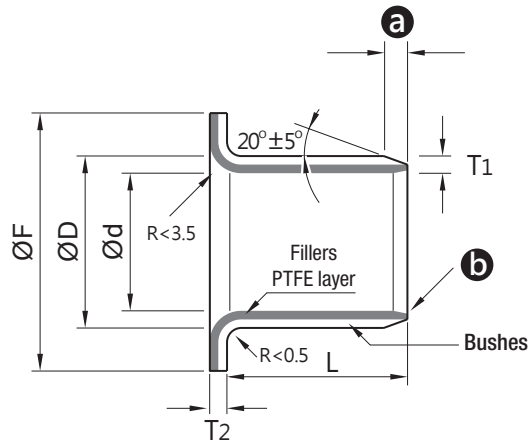
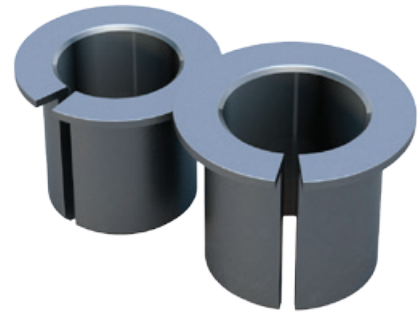
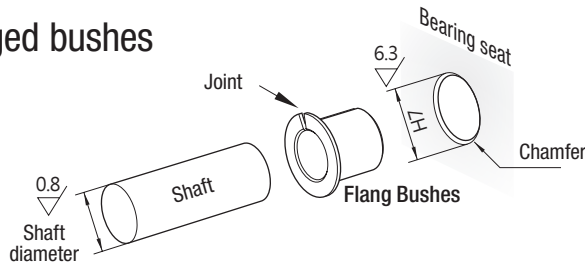
T	2.0	2.5
b	C0.5mm	C0.5mm

Shaft dia.		Bearing H7		O.dia.		Outside dia.		Thickness		Length L											Inside dia. tolerance						
Dia.	tolerance	Dia.	tolerance	Ø d	Ø D	tolerance	T	tolerance	12	15	20	25	30	35	40	50	60	70	80	90	95	100					
30	-0.025 -0.046	34	+0.025 0	30	34	+0.090 +0.050	2.0	0 -0.030	3012	3015	3020	3025	3030	3035	3040	3050								+0.085 0			
31	-0.025 -0.050	35		31	35				3115		3125	3130		3140													
32		36		32	36				3215	3220	3225	3230		3240													
35		39		35	39				3512		3520	3525	3530	3535	3540	3550											
38	-0.025 -0.050	42	+0.030 0	38	42	+0.095 +0.055	2.0	0 -0.030			3820	3825	3830	3835	3840								+0.105 0				
40		44		40	44				4012	4015	4020	4025	4030	4035	4040	4050											
45	-0.025 -0.055	50	+0.030 0	45	50	+0.100 +0.060	2.5	0 -0.040			4520	4525	4530	4535	4540	4550							+0.110 0				
50		55		50	55						5020	5025	5030	5035	5040	5050	5060										
55		60		55	60				5512		5525	5530	5535	5540	5550	5560											
60	+0.035 +0.005	65	+0.035 0	60	65	+0.120 +0.070	2.5	-0.030 -0.080					6030	6035	6040	6050	6060		6080				+0.190 +0.060				
65		70		65	70							6530		6540	6550	6560											
70	+0.035 +0.005	75	+0.035 0	70	75	+0.125 +0.075	2.5	-0.030 -0.080					7030	7035	7040	7050	7060	7070	7080				+0.200 +0.060				
75		80		75	80							7530	7535	7540	7550	7560		7580									
80		85		80	85									8040	8050	8060		8080									
85	+0.035 +0.005	90	+0.035 0	85	90	+0.130 +0.075	2.5	-0.030 -0.080						8540	8550	8560		8580					+0.200 +0.060				
90		95		90	95								9040	9050	9060					9090							
100	+0.035 0	105	+0.035 0	100	105	+0.140 +0.080	2.5	-0.030 -0.080							10050		10070	10050		10095	100100		+0.200 +0.060				
110		115		110	115										11050		11070							11095	110100		
120	+0.035 -0.005	125	+0.040 0	120	125	+0.145 +0.090	2.5	-0.030 -0.080							12050		12070			12095	120100		+0.200 +0.060				
130		135		130	135										13050			13080							130100		
140		145		140	145													14050				14080					140100
150	+0.035 -0.005	155	+0.040 0	150	155	+0.185 +0.120	2.5	-0.030 -0.080							15050			15080				150100	+0.200 +0.060				
160		165		160	165												16050			16080					160100		

# Self-lubricating Bearing

## LFF Flanged bushes

DRYMET LF



**a** Outside chamfer (Ø10 Inside above)

T1	1.0	1.5	2.0	2.5
a	0.5mm	0.8mm	1.0mm	1.0mm

**b** Outside chamfer (Ø10 Inside above)

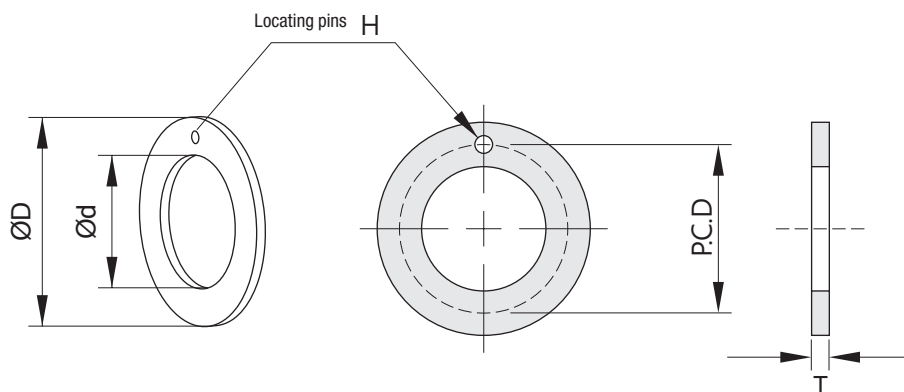
T1	1.0	1.5	2.0	2.5
b	C0.3mm	C0.5mm	C0.5mm	C0.5mm

Shaft dia.		Bearing H7		I.dia.	O.dia.	Flanged dia.			Thickness		Length L																Inside dia. tolerance		
Dia.	tolerance	Dia.	tolerance	Ød	ØD	ØF	tolerance	T2	tolerance	T1	tolerance	3	4	5	6	7	8	10	12	15	20	25	30	40					
3	-0.025 -0.034	4.6	+0.012 +0	3	4.6	7		0.8		0.8		0303		0305												+0.062 0			
4		5.6		4	5.6	9		0.8		0.8			0404		0406														
5		7		5	7	10		0.8		0.8			0504	0505	0506												+0.065 0		
6		8	+0.015 +0	6	8	12		0.8		0.8				0605	0606	0607	0608												
7	-0.025 -0.037	9		7	9	13		0.8		0.8						0707													
8		10		8	10	15		0.8		0.8					0806		0808	0810	0812										
9		11		9	11	16		0.8		0.8								0910											
10		12		10	12	18		0.8		0.8					1006	1007	1008	1010	1012	1015									
12		14		12	14	20		1.0		1.0					1206	1207	1208	1210	1212	1215							+0.068 0		
13		15	+0.018 +0	13	15	21		1.0		1.0									1310		1315								
14	-0.025 -0.043	16		14	16	22		1.0		1.0									1410	1412	1415								
15		17		15	17	23		1.0		1.0									1510	1512	1515	1520							
16		18		16	18	24		1.0		1.0									1610		1615	1620							
18		20		18	20	26		1.0		1.0									1810	1812	1815	1820					+0.071 0		
20		23		20	23	31	0 -0.80	1.5	0 -0.15	1.5									2010	2012	2015	2020	2025						
22		25	+0.021 +0	22	25	33		1.5		1.5									2210	2212	2215	2220							
24		27		24	27	35		1.5		1.5											2415	2420	2425				+0.081 0		
25	-0.025 -0.046	28		25	28	36		1.5		1.5									2510	2512	2515	2520	2525						
26		30		26	30	38		1.5		1.5											2615	2620							
28		32		28	32	40		1.5		1.5											2812	2815	2820						
30		34		30	34	42		2.0	0 -0.030	2.0											3012	3015	3020	3025	3030				
31		35		31	35	45		2.0		2.0													3125				+0.085 0		
32		36	+0.025 +0	32	36	46		2.0		2.0													3220	3225	3230				
35		39		35	39	49		2.0		2.0															3512	3520	3525	3530	3540
38	-0.025 -0.050	42		38	42	52		2.0		2.0														3820					
40		44		40	44	54		2.0		2.0														4012	4020	4025	4030	4040	
45		50		45	50	60		2.5		2.5																4520	4525	4530	4540
50		55		50	55	65		2.5		2.5	0 -0.040															5020		5030	5040
55	-0.025 -0.055	60	+0.030 +0	55	60	70		2.5		2.5																	5530	5540	
60		65		60	65	75		2.5		2.5																	6030	6040	

# Self-lubricating Bearing

## LFW Thrust washers

DRYMET LF



Parts No.	Inside Dia.		Outside dia.		Thickness		Locating pins		Locating pins position	
	Ød	tolerance	ØD	tolerance	T	tolerance	H	tolerance	P.C.D	tolerance
LFW- 0815	8	+0.25 0	16	0 -0.25	1.5	-0.03 -0.08	1	+0.30 +0.10	12	±0.12
LFW- 1015	10		18				1		14	
LFW- 1215	12		24				1.5		18	
LFW- 1415	14		26				2		20	
LFW- 1615	16		30				2		23	
LFW- 1815	18		32				2		25	
LFW- 2015	20		36				3		28	
LFW- 2215	22		38				3		30	
LFW- 2415	24		42				3		33	
LFW- 2615	26		44				3		35	
LFW- 2815	28		48				4		38	
LFW- 3215	32		54				4		43	
LFW- 3815	38		62				4		50	
LFW- 4215	42		66				4		54	
LFW- 4815	48		74		4	61				
LFW- 5215	52		78		2.0	4	65			