High Speed (Input) Shafts

These High Speed Shafts (HSS) are available in several sizes and versions. The smaller of them, C4N and C4R, are suitable for the transmission of smaller powers only. The larger types, from C60 to C13, allow for the transmission of high power, for example by means of multiple belt drives.
Models C60 to C13 provide the possibility to install a cover or guard, while C4N and C4R do not have this feature.

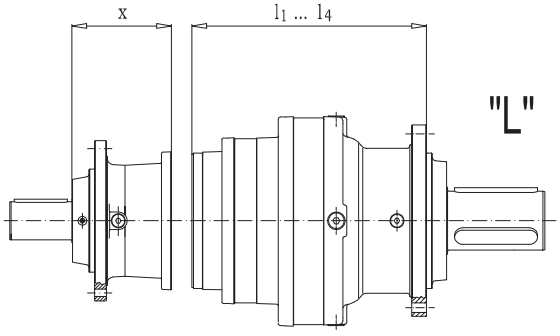
See table below for availability, for dimensions and technical data refer to page 'F 02'.

Availability, High Speed Shafts

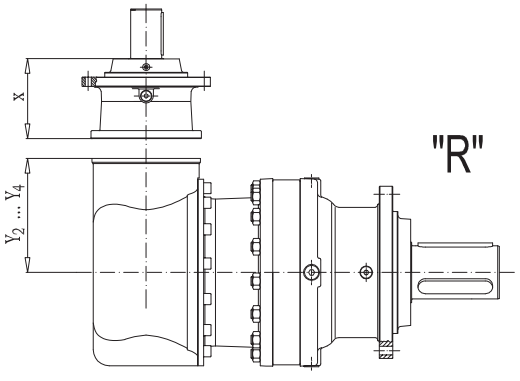
Data and dimensions are not binding and may be modified without prior notice

Gearbox Model														
Size	In-Line											Size	Right-Angle	
15	15 L1-L4													
18	18 L1-L4													
22	22 L1-L4													
28	28 L1-L4													
32	32 L1-L4													
36	36 L2-L4	36 L1										36	36 R2-R4	
42	42 L2-L4	42 L1										42	42 R2-R4	
50	50 L2-L4	50 L1										50	50 R2-R4	
60	60 L2-L4	60 L1										60	60 R2-R4	
67	67 L2-L4	67 L1										67	67 R2-R4	
75	75 L3-L4	75 L2	75 L1									75	75 R2-R4	
85	85 L3-L4	85 L2	85 L1									85	85 R2-R4	
100	100 L3-L4	100 L2	100 L1									100	100 R2-R4	
110	110 L3-L4	110 L2	110 L1									110	110 R2-R4	
130	130 L3-L4	130 L2	130 L1									130	130 R2-R4	
140	140 L3-L4	140 L2		140 L1								140	140 R2-R4	
170	170 L3-L4	170 L2		170 L1								170	170 R2-R4	
200	200 L4	200 L3	200 L2		200 L1							200	200 R3-R4	200 R2
220	220 L4	220 L3	220 L2		220 L1							220	220 R3-R4	220 R2
260	260 L4	260 L3	260 L2		260 L1							260	260 R3-R4	260 R2
300	300 L4	300 L3	300 L2			300 L1						300	300 R3-R4	300 R2
360	360 L4	360 L3		360 L2			360 L1					360	360 R3-R4	360 R2
420	420 L4	420 L3			420 L2		420 L1					420	420 R3-R4	420 R2
480	480 L4	480 L3			480 L2		480 L1					480	480 R3-R4	480 R2
560		560 L4	560 L3		560 L2		560 L1					560	560 R4	560 R2-R3
630		560 L4	630 L3		630 L2		630 L1					630	630 R4	630 R3
750		750 L4	750 L3			750 L2				750 L1		750	750 R4	750 R3
900		900 L4	900 L3			900 L2				900 L1		900	900 R4	900 R3
1100		1100 L4		1100 L3					1100 L2	1100 L1		1100	1100 R4	1100 R3
1300		1300 L4		1300 L3					1300 L2	1300 L1		1300	1300 R4	1300 R3
1700			1700 L4		1700 L3		1700 L2				1700 L1			
2100			2100 L4			2100 L3				2100 L2	2100 L1			
2500			2500 L4			2500 L3				2500 L2	2500 L1			
Type	Distance 'x' [mm] approx. mass [kg] approx. mass [lbs]											Type	Distance 'x' [mm] [kg] [lbs]	
C4N	107 9.3 20.5	111 10.8 23.8										C4N	107 9.3 20.5	
C4R	107 9.5 20.9	111 11.0 24.3										C4R	107 9.5 20.9	
C60		165 22.5 49.6	190 23.7 52.3	191 27.6 60.8	191 27.6 60.8							C60		165 22.5 49.6
C65			222.5 31.6 69.7	223.5 35.7 78.7	223.5 35.7 78.7							C65		197 30.4 67.0
C80					255 48.2 106.2	197.5 40.3 88.8								
C90							213.5 69.0 152.1	213.5 69.0 152.1						
C10								238.5 100.0 220.5	262 117.5 259.0					
C13										279 141.8 312.6	254.5 135.4 298.5			

Mounting Scheme, In-Line Gears

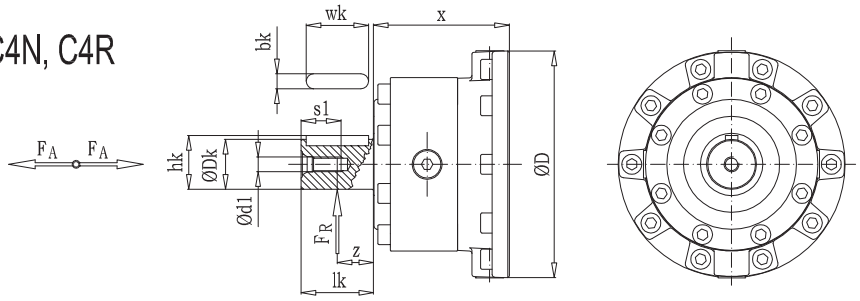


Mounting Scheme, Right-Angle Gears

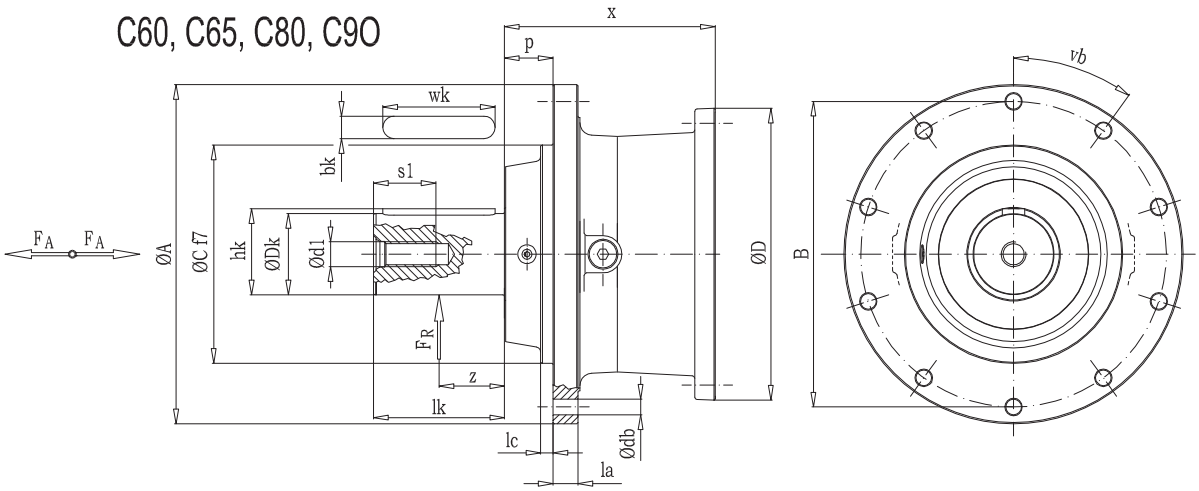


High Speed (Input) Shafts

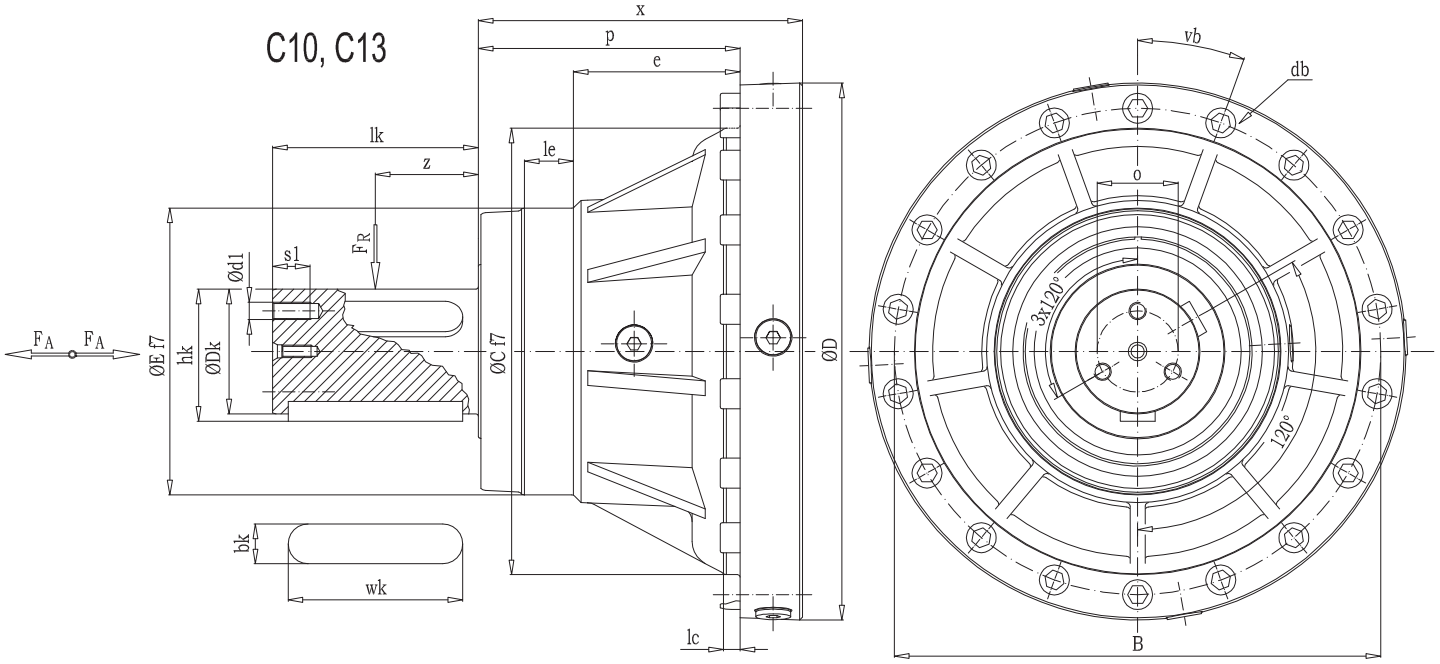
C4N, C4R



C60, C65, C80, C9O



C10, C13



Data and dimensions are not binding and may be modified without prior notice

Dimensions																					Admissible Shaft Loads [kN] (based on location of load and bearing life)														
																						F_R shaft shoulder				F_R middle of shaft				F_R end of shaft					
Type	A	la	B	db	vb	C	lc	D	E	le	e	p	Dk	lk	bk	hk	wk	d1	s1	o	z	F_A①	10^5	10^6	10^7	10^8	10^5	10^6	10^7	10^8	10^5	10^6	10^7	10^8	n_1 x h	Type
C4N	–	–	–	–	–	–	–	185	–	–	–	–	40 k6	58	12	43	50	M12	32	–	29	2	15.5	7.2	3.3	1.6	10.8	5.1	2.3	1.1	6.9	3.2	1.5	0.7		C4N
C4R	–	–	–	–	–	–	–	185	–	–	–	–	40 k6	58	12	43	50	M12	32	–	29	2	32.6	16.3	8.2	4.1	16.3	7.6	3.5	1.6	10.3	4.8	2.2	1.0		C4R
C60	220	18	195	12.5	10x36°	150	14	242	–	–	–	15	60 k6	105	18	64	90	M20	50	–	52.5	7	62.1	31.1	15.6	7.8	38.3	19.2	9.6	4.8	27.7	13.9	7.0	3.5		C60
C65	272	20	245	12.5	10x36°	175	10	242	–	–	–	39	65 k6	105	18	69	90	M20	50	–	52.5	7	72.8	36.5	18.3	9.2	50.3	25.2	12.6	6.3	38.4	19.3	9.7	4.8		C65
C80	280	22	250	15	12x30°	200	14.5	285	–	–	–	40	80 k6	130	22	85	110	M20	50	–	65	10	92.0	56.0	23.0	11.5	62.0	31.0	15.5	7.8	47.0	23.5	11.8	5.9		C80
C90	325	25	295	16.5	20x18°	230	10	360	–	–	–	36	90 k6	170	25	95	150	M20	50	–	85	15	152	76.0	38.0	19.0	94.0	47.0	23.5	11.8	68.0	34.0	17.0	8.5		C90
C10	–	–	390	M16	18x20°	358	13.5	432	230	40	135	210	100 m6	165	28	106	140	M14	30	65	82.5	20	212	106	53.0	27.0	142	71.0	36.0	18.0	107	54.0	27.0	14.0		C10
C13	–	–	415	M18	18x20°	385	13	460	260	38	152	227	130 m6	170	32	137	160	M16	35	70	85	25	305	153	76.0	38.0	216	108	54.0	27.0	134	67.0	34.0	17.0		C13

DIMENSIONS IN MM UNLESS OTHERWISE SPECIFIED

① Max. values, which must not be exceeded. Combined thrust and radial shaft loads might reduce bearing life. Contact Plan-Star Engineering for precise life calculation.