



Factory of Rolling Bearings and Cardan Shafts

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FKL®

CARDAN SHAFTS



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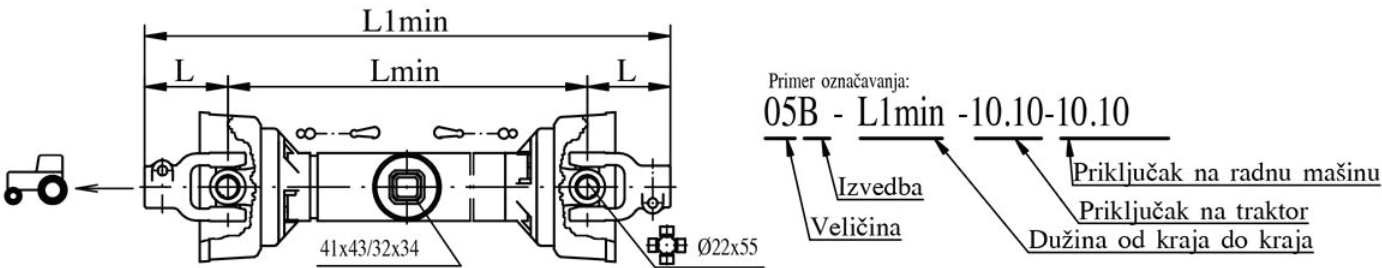
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SIZE 05

Load capacity:
Speed n=540 °/min
Dinamic capacity Mr=160 Nm
- for life 1000h and joint deflection angle β=5°

Min. shaft length (compressed)	L _{min}	435	485	535	585	685	985
Profile overlap (compressed)	L _p	295	345	395	445	545	845
Max. shaft length in operation	L _{max}	630	715	795	880	1045	1545
Overall lenght (compressed)	L _{1min}	L _{1min} = L _{min} + L + L					

Note: Further lenghts on request



Standard connections:

		Part Number	D	L	Z	Nm
05B-		05.10.10	1 3/8" z=6	90	6	
		05.10.08	8x32x38	90	8	
		05.10.14	6x21x25	90	8	
		05.10.18	6x26x30	90	10	
		05.15.10	1 3/8" z=6	90		
		05.15.09	1 3/8" z=21	90		
		05.14.13	6x23x28	90		
		05.15.18	6x26x30	90		
		05.15.3L	Ø25	90	8	
		05.15.4L	Ø30	90	8	
05BJ- Overrunning clutch		51.05.00	1 3/8" z=6	131		
		51.05.08	8x32x38	131		
05BS- Radial pin clutch		42.05.00	1 3/8" z=6	151		300
		52.05.00	1 3/8" z=6	151		500

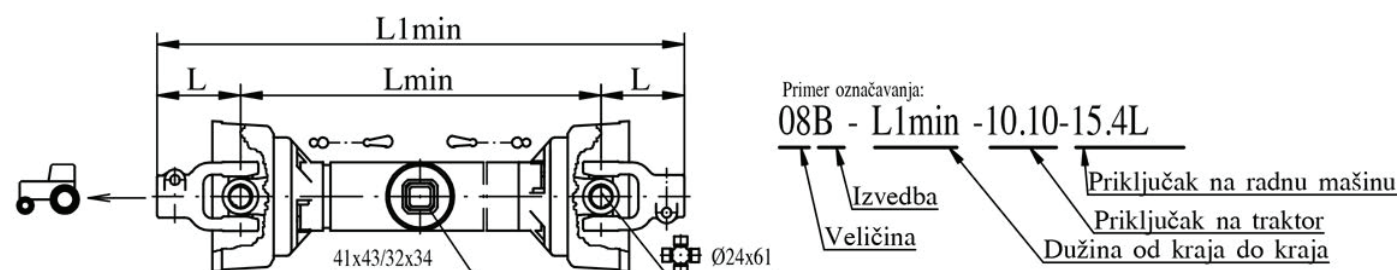
PTO drive shafts with nonstandard connections on request.

SIZE 08

Load capacity:
Speed $n=540^\circ/\text{min}$
Dinamic capacity $M_r=270\text{ Nm}$
- for life 1000h and joint deflection angle $\beta=5^\circ$

Min. shaft length (compressed)	$L_{\min}$	440	490	540	590	690	990
Profile overlap (compressed)	L_p	295	345	395	445	545	845
Max. shaft length in operation	$L_{\max}$	630	715	800	880	1050	1550
Overall length (compressed)	$L_{1\min}$	$L_{1\min} = L_{\min} + L + L$					

Note: Further lengths on request



Standard connections:

		Part Number	D	L	Z	Nm
08B-		08.10.10	1 3/8" z=6	98		
		08.10.08	8x32x38	98		
		08.10.09	1 3/8" z=21	98		
		08.10.14	6x21x25	98		
		08.15.10	1 3/8" z=6	98		
08BJ- Overrunning clutch		08.15.4L	Ø30	98	8	
		05.15.4M	Ø30	98	10	
08BS- Radial pin clutch		52.08.00	1 3/8" z=6	151		600
		521.08.00	1 3/8" z=6	151		400
08BSV- Shear bolt clutch		50.08.00	1 3/8" z=6	128		780
		50.08.00	1 3/8" z=21	128		780

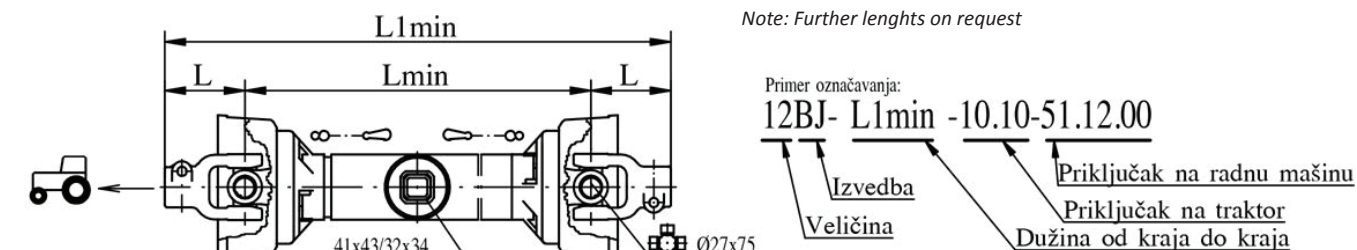
PTO drive shafts with nonstandard connections on request.

SIZE 12

Load capacity:
Speed $n=540^\circ/\text{min}$
Dinamic capacity $M_r=460\text{ Nm}$
- for life 1000h and joint deflection angle $\beta=5^\circ$

Min. shaft length (compressed)	$L_{\min}$	455	505	555	605	705	1005
Profile overlap (compressed)	L_p	285	335	385	435	535	835
Max. shaft length in operation	$L_{\max}$	645	725	810	895	1060	1560
Overall length (compressed)	$L_{1\min}$	$L_{1\min} = L_{\min} + L + L$					

Note: Further lengths on request



Standard connections:

		Part Number	D	L	Z	Nm
12B-		12.10.10	1 3/8" z=6	107		
		12.10.09	1 3/8" z=21	107		
		12.10.08	8x32x38	107		
		12.15.10	1 3/8" z=6	107		
		12.15.4L	Ø30	107	8	
12BJ- Overrunning clutch		12.15.4M	Ø30	107	10	
		12.15.5M	Ø35	107	10	
		12.15.5N	Ø35	107	12	
12BS- Radial pin clutch		51.12.00	1 3/8" z=6	131		
		51.12.08	8x32x38	131		
		71.12.3K.10	1 3/8" z=6	148		
12BSV- Shear bolt clutch		52.12.00	1 3/8" z=6	151		600
		62.12.00	1 3/8" z=6	171		900
12BSF- Friction clutch		50.12.00	1 3/8" z=6	137		1860
		50.12.09	1 3/8" z=21	137		1600
12BSFT- Friction clutch with cover		63.12.00	1 3/8" z=6	152		750
		63.12.08	8x32x38	152		750
		73.12.00	1 3/8" z=6	152		900
		64.12.00	1 3/8" z=6	155		750
		74.12.00	1 3/8" z=6	177		900

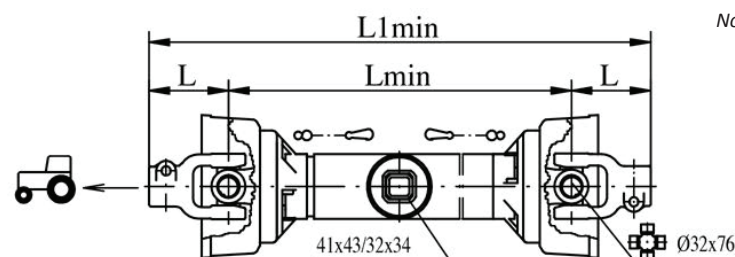
PTO drive shafts with nonstandard connections on request.

SIZE 16

Load capacity:
Speed $n=540$ °/min
Dinamic capacity $M_r=620$ Nm
- for life 1000h and joint deflection angle $\beta=5^\circ$

Min. shaft length (compressed)	L_{min}	475	525	575	625	725	1025
Profile overlap (compressed)	L_p	280	330	380	430	530	830
Max. shaft length in operation	L_{max}	680	745	825	910	1075	1575
Overall length (compressed)	L_{1min}	$L_{1min} = L_{min} + L + L$					

Note: Further lengths on request



Primer označavanja:
16BS- L1min -10.10-62.16.00
Izvedba
Veličina
Priključak na radnu mašinu
Priključak na traktor
Dužina od kraja do kraja

Standard connections:

		Part Number	D	L	Z	Nm
16B-		16.10.10	1 3/8" z=6	112		
		16.10.09	1 3/8" z=21	112		
		16.10.08	8x32x38	112		
16BJ-		16.15.10	1 3/8" z=6	112		
16BS-		16.15.4L	Ø30	112	8	
		16.15.4M	Ø30	112	10	
		16.15.5M	Ø35	112	10	
		16.15.6N	Ø40	112	12	
Overrunning clutch		61.16.00	1 3/8" z=6	163		
		61.16.08	8x32x38	163		
Radial pin clutch		52.16.00	1 3/8" z=6	163		600
		62.16.00	1 3/8" z=6	183		900
Shear bolt clutch		50.16.10.10	1 3/8" z=6	145		1860
		50.16.10.08	8x32x38	145		1860
Friction clutch		73.16.00	1 3/8" z=6	158		900
		73.16.08	8x32x38	158		900
Friction clutch with cover		74.16.00	1 3/8" z=6	182		900
		84.16.00	1 3/8" z=6	182		1300

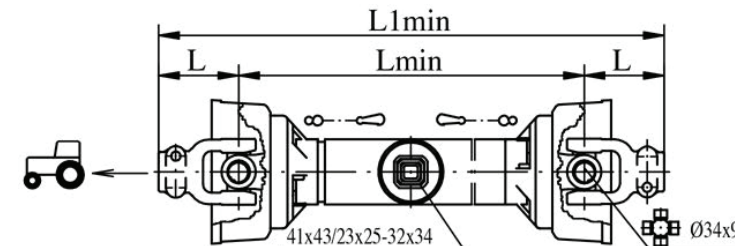
PTO drive shafts with nonstandard connections on request.

SIZE 18

Load capacity:
Speed $n=540$ °/min
Dinamic capacity $M_r=780$ Nm
- for life 1000h and joint deflection angle $\beta=5^\circ$

Min. shaft length (compressed)	L_{min}	490	540	590	640	740	1040
Profile overlap (compressed)	L_p	270	320	370	420	520	820
Max. shaft length in operation	L_{max}	670	755	835	920	1085	1585
Overall length (compressed)	L_{1min}	$L_{1min} = L_{min} + L + L$					

Note: Further lengths on request



Primer označavanja:
18BSFT- L1min -11.10-84.18.00
Izvedba
Veličina
Priključak na radnu mašinu
Priključak na traktor
Dužina od kraja do kraja

Standard connections:

		Part Number	D	L	Z	Nm
18B-		18.11.10	1 3/8" z=6	116		
		18.11.09	1 3/8" z=21	116		
		18.11.08	8x32x38	116		
18BJ-		18.15.10	1 3/8" z=6	116		
Overrunning clutch		61.18.00	1 3/8" z=6	163		
		61.18.08	8x32x38	163		
Radial pin clutch		71.18-18.15	1 3/4" z=6	163		
Shear bolt clutch		62.18.00	1 3/8" z=6	183		900
Friction clutch		50.18.10.10	1 3/8" z=6	155		1860
		50.18.10.08	8x32x38	155		1860
Friction clutch with cover		73.18.00	1 3/8" z=6	164		900
		83.18.00	1 3/8" z=6	165		1300
18BSFT-		83.18.08	8x32x38	165		1300
		103.18.11	1 3/4" z=6	166		1500
18BSFT-		84.18.00	1 3/8" z=6	177		1300

PTO drive shafts with nonstandard connections on request.

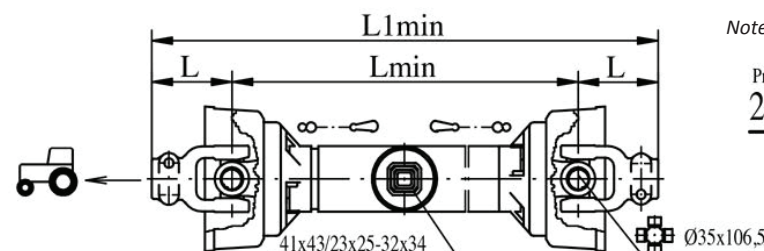
SIZE 20

Load capacity:
Speed $n=540$ °/min
Dinamic capacity $M_r=1000$ Nm
- for life 1000h and joint deflection angle $\beta=5^\circ$

Min. shaft length (compressed)	L_{min}	515	565	615	665	765	1065
Profile overlap (compressed)	L_p	260	310	360	410	510	810
Max. shaft length in operation	L_{max}	690	775	860	940	1110	1610
Overall length (compressed)	L_{1min}	$L_{1min} = L_{min} + L + L$					

Note: Further lengths on request

Primer označavanja:
20BSF- L1min -11.10-93.20.00
Izvedba Veličina Priključak na radnu mašinu Priključak na traktor Dužina od kraja do kraja

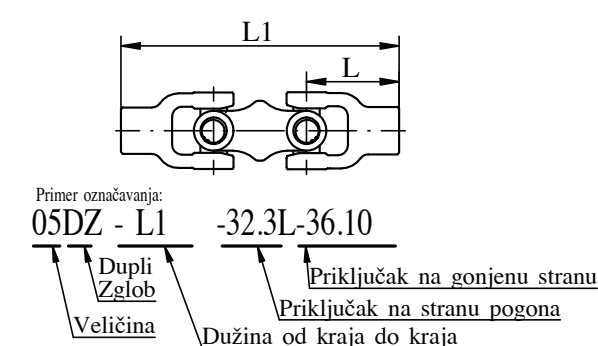
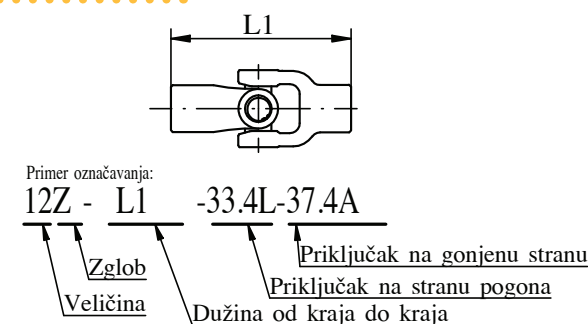


Standard connections:

	Part Number	D	L	Z	Nm
20B-	20.11.10	1 3/8" z=6	129		
	20.11.09	1 3/8" z=21	129		
	20.11.08	8x32x38	129		
	20.13.15	1 3/4" z=20	129		
	20.15.11	1 3/4" z=6	129		
	20.15.5M	Ø35	129	10	
20BJ- Overrunning clutch	61.20.00	1 3/8" z=6	193		
	61.20.08	8x32x38	193		
20BS- Radial pin clutch					
20BSV- Shear bolt clutch	50.20.13.11	1 3/4" z=6	170		1860
	50.20.10.08	8x32x38	170		1860
20BSF- Friction clutch	83.20.00	1 3/8" z=6	182		1300
	83.20.08	8x32x38	182		1300
	93.20.00	1 3/8" z=6	183		1800
	103.20.11	1 3/4" z=6	183		1800
20BSFT- Friction clutch with cover	84.20.00	1 3/8" z=6	205		1300

PTO drive shafts with nonstandard connections on request.

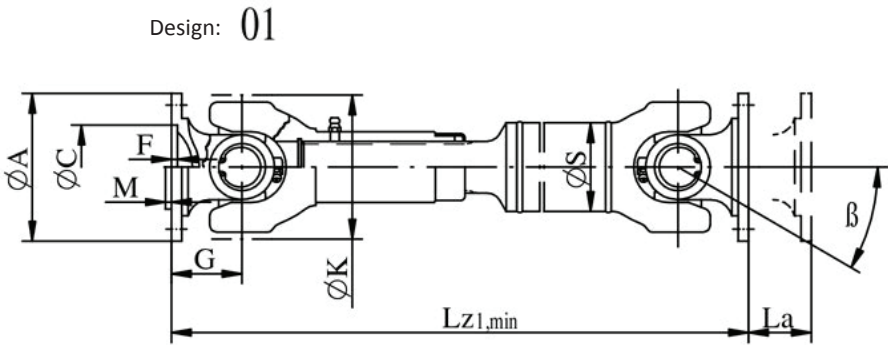
CARDAN JOINTS



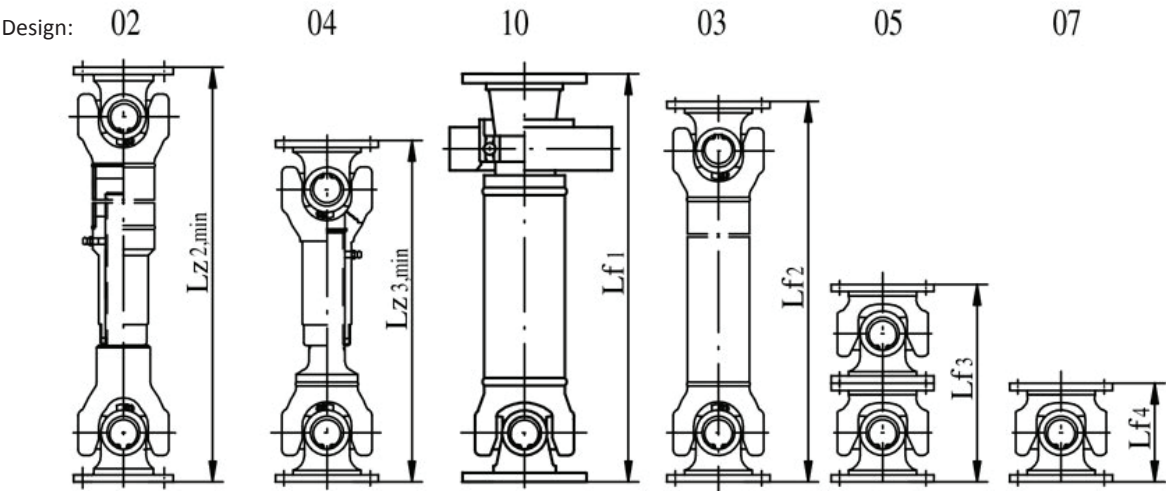
Standard connections:

Size	Part Number	D	L	Z	V	N	D ₁
05	05.31.1K	20	78	6	22,8	M8	
	05.32.3L	25	78	8	28,3	M10	
	05.33.4L	30	78	8	33,3	M12	
	05.33.4M	30	85	10	33,3	M12	
	05.36.10	1 3/8" z=6	78				8
	05.37.4A	30	78				10
08	08.33.4L	30	80	8	33,3	M12	
	08.33.4M	30	80	10	33,3	M12	
	08.37.4A	30	80				10
12	12.33.3L	25	95	8	28,3	M12	
	12.33.4L	30	95	8	33,3	M12	
	12.33.5M	35	95	10	38,3	M12	
	12.33.6N	40	95	12	43,3	M12	
	12.37.4A	30	95				10
16	16.32.4L	30	105	8	33,3	M10	
	16.33.5M	35	105	10	38,3	M12	
	16.33.6N	40	105	12	43,3	M12	
18	18.33.5M	35	109	10	38,3	M12	
	18.33.6N	40	109	12	43,3	M12	
	18.33.10	1 3/8" z=6	109			M12	
	18.33.11	1 3/4" z=6	109			M12	
	18.37.4A	30	109				10
	18.38.5A	35	109				13
20	20.33.5M	35	124	10	38,3	M12	
	20.33.6N	40	124	12	43,3	M12	
	20.33.8N	45	124	12	48,3	M12	
	20.33.10	1 3/8" z=6	124			M12	

Joints with nonstandard connections on request.



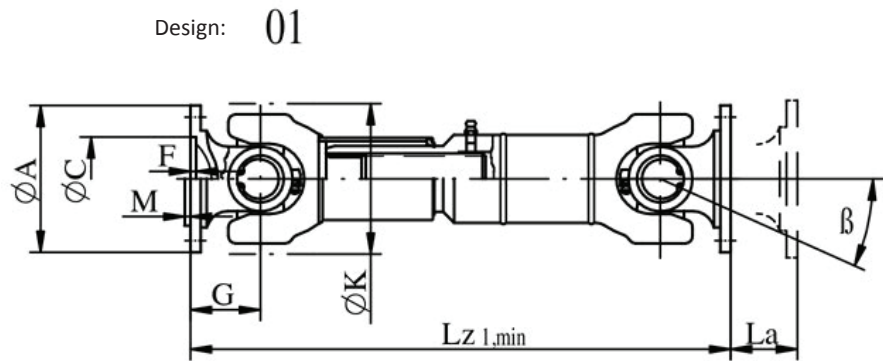
Coding example:
A 97 . 01 . Lzmin . P2-6x10
ØA Design Connection
Series
Lenght, compressed



Standard connections:

	Size M _{dmax} (Nm)	β	ØA	ØB	ØC	F	M	G	ØS	ØK	z x H	Lz _{1,min}	La
 P1 P1	65	30	58	47	30	1,5		32	42,4x2,6	60	4x5,1 4x6,1	280	35
	Ø20x47,2	30	65	52	35	1,7		32	42,4x2,6	60	4x6,1 4x8,1 6x6,1	280	35
	250 Nm												
 P1 P1 P1 P1	75	30	75	62	42	2		42	42,4x2,6	68	6x6,1 6x8,1	280	35
	Ø22x55,2	30	75	62	42	2		42	42,4x2,6	68	4x8,1 8x6,1	280	35
	400 Nm	30	75	62	42	2		64	42,4x2,6	68	4x5,1 4x6,1	320	35
 P1 P1 P1 P2	90	24	90	74,5	47	2,5		48	60x3	97	4x8,1 6x8,1	370	45
	Ø27x79,1	24	97	79,37	60,32		1,5	48	60x3	97	4x10,1 6x10,1	370	45
	1250 Nm	24	100	84	57	2,5		48	60x3	97	6x8,1 8x8,1	370	45
 P1 P2 P1 P2	100	24	97	79,37	60,32		1,5	48	60x3	97	4x10,1 6x10,1	370	45
	Ø32x82	24	100	84	57	2,5		48	60x3	97	6x8,1 8x8,1	370	45
		24	116	95,25	69,85		1,5	52	60x3	97	4x11,1 4x12,1	380	45
		24	120	101,5	75	2,5		52	60x3	97	8x8,1	380	45
 P1 P1 P2 P2	120	20	120	101,5	75	2,5		60	70x4	125	8x8,1 8x10,1	440	60
	Ø38x104,5	20	120	95,25	69,85		1,5	60	70x4	125	4x11,1 4x12,1	440	60
		20	130	112	82,3		2,3	79	70x4	125	8x10,1	480	60
		20	150	130	90	3		60	70x4	125	8x10,1	440	60
	3400 Nm												

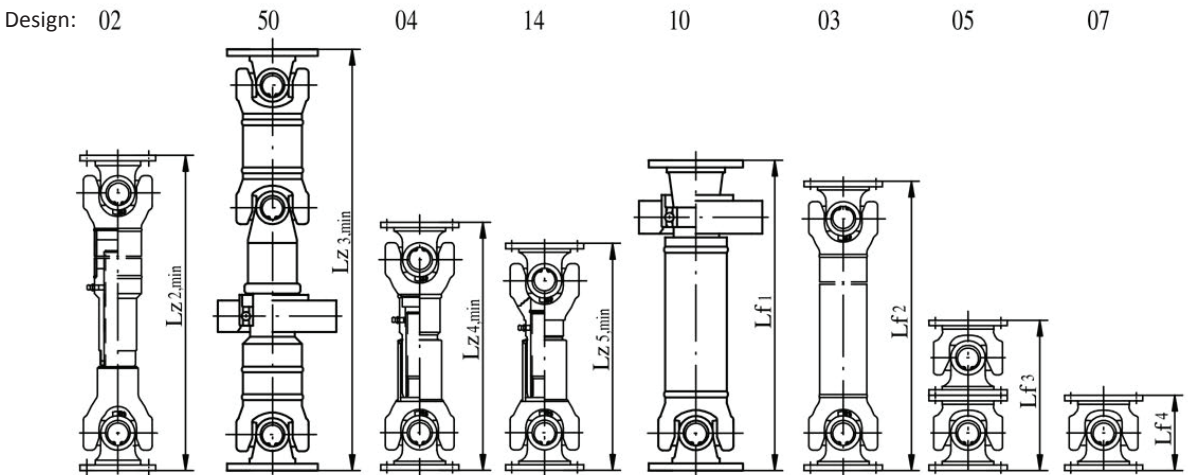
Lz _{2,min} mm	La mm	Lz _{3,min} mm	La mm	Lf4 mm	Lz ₅ mm	Lz ₆ mm	Lz ₇ mm
360	150	180	20		190	128	64
360	150	180	20		190	128	64
400	150	220	20		220	168	84
400	150	220	20		220	168	84
440	150	265	20		270	256	128
510	200	280	40		220	192	96
510	200	280	40		220	192	96
510	200	280	40		220	192	96
510	200	280	40		220	192	96
510	200	280	40		220	192	96
510	200	280	40		220	192	96
520	200	290	40	500	230	208	104
520	200	290	40		230	208	104
560	200	400	60	600	280	240	120
560	200	400	60	600	280	240	120
		440	60	600	320		
560	200	400	60	600	280	240	120



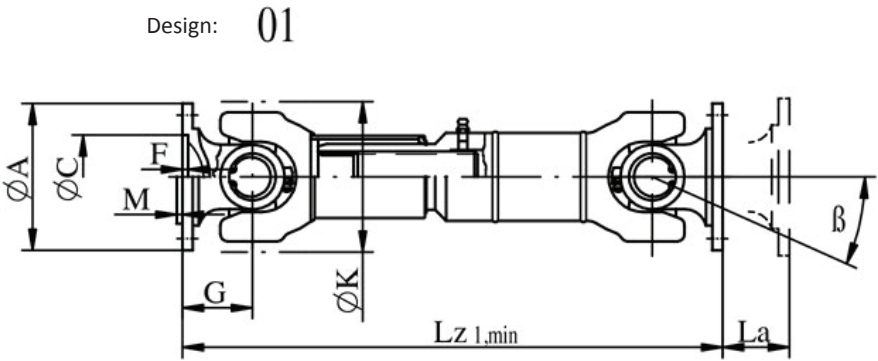
Coding example:
B 120 . 01 . Lzmin . P1-8x8

ØA Design Connection
Series
Lenght, compressed

Standard connections:	Size Mdmax (Nm)	β	ØA	ØB	ØC	F	M	G	ØS	ØK	z x H	Lz _{1, min}	La
	90 Ø27x79,1 1250 Nm	24	90	74,5	47	2,5		48	60x3	97	4x8,1 6x8,1	330	50
		24	97	79,37	60,32		1,5	48	60x3	97	4x10,1 6x10,1	330	50
		24	100	84	57	2,5		48	60x3	97	6x8,1 8x8,1	330	50
	100 Ø32x82 2000 Nm	24	97	79,37	60,32		1,5	48	60x3	97	4x10,1 6x10,1	330	60
		24	100	84	57	2,5		48	60x3	97	6x8,1 8x8,1	330	60
		24	116	95,25	69,85		1,4	52	76x2,4	97	4x11,1 4x12,1	340	60
		24	120	101,5	75	2,5		52	76x2,4	97	8x8,1	340	60
	120 Ø38x104,5 3400 Nm	20	120	101,5	75	2,5		60	70x4	125	8x8,1 8x10,1	480	100
		20	120	95,25	69,85		1,5	60	70x4	125	4x11,1 6x12,1	480	100
		20	130	112	82,2		2,3	79	70x4	125	8x10,1	520	100
		20	150	130	90	3		60	70x4	125	8x10,1	480	100
		30	150	130	90	3		75	85x5	146	8x10,1 8x12,1	570	110
	150 Ø48x121,8 6200 Nm	20	150	120,7	95,25		1,5	64	85x5	146	4x12,1 4x14,1	550	110
		30	165	140	100	3		75	85x5	146	8x16,1	570	110
		30	180	155,5	110	3		75	85x5	146	8x12,1 8x14,1	570	110
		30	175	155,5	168,23		3	75	85x5	146	8x10,1	570	110
		30	150	130	90	3		75	85x5	146	8x10,1 8x12,1	570	110
		30	150	130	90	3		75	85x5	146	8x10,1 8x12,1	570	110



Lz _{2, min} mm	La mm	Lz _{3, mi} mm	La mm	Lz _{4, min} mm	La mm	Lz _{5, min} mm	La mm	Lf ₁ mm	Lf ₂ mm	Lf ₃ mm	Lf ₄ mm
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
510	200			280	40	280	40		220	192	96
520	200	1300	60	290	40	290	40	500	230	208	104
520	200			290	40	290	40		230	208	104
560	200			440	100	315	45	600	280	240	120
560	200			440	60	315	45	600	280	240	120
				340	60	355	45	600	320		
560	200			440	60	315	45	600	280	240	120
860	300			540	110	360	45	650	370	300	150
				520	110	340	45	650	350	256	128
860	300			540	110	360	45	650	370	300	150
860	300			540	110	360	45	650	370	300	150
860	300			540	110	360	45	650	370	300	150

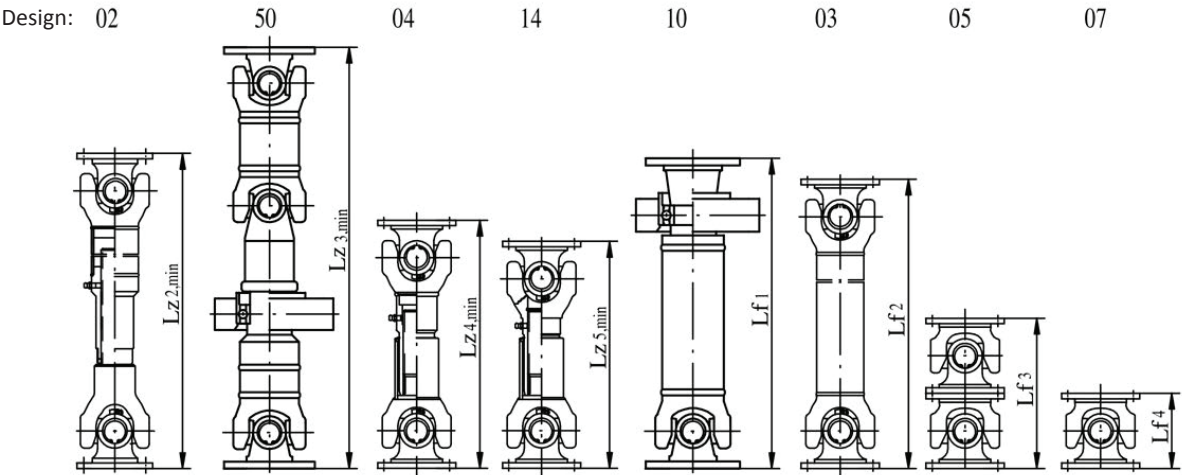


Coding example:
B 120 . 01 . Lzmin . P1-8x8

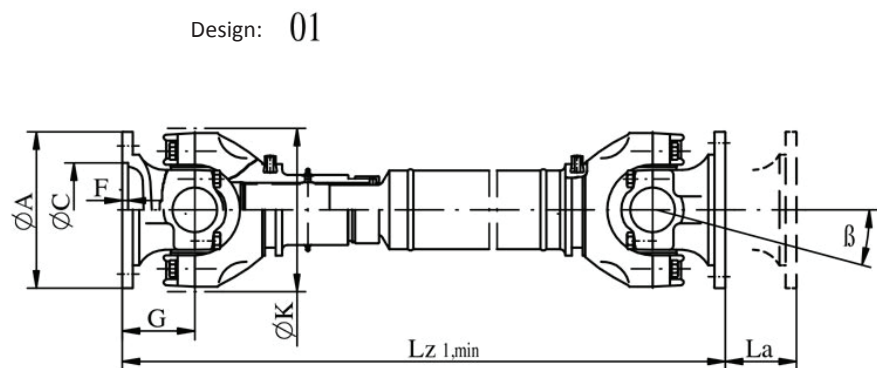
ØA Design Connection
Series
Lenght, compressed

Standard connections:

	Size Mdmax (Nm)	β	ØA	ØB	ØC	F	M	G	ØS	ØK	z x H	Lz _{1,min}	La
	165	35	150	130	90	3		96	92x5	165	8x12,1	660	110
		35	165	140	100	3		96	92x5	165	8x16,1	660	110
		35	180	155,5	110	3		96	92x5	165	8x12,1 8x14,1	660	110
	1000 Nm	20	205	184,15	196,81		3	80	92x5	165	8x12,1	630	110
		20	205	185	198		3	80	92x5	165	8x12,1	630	110
		35	150	130	P6			90	92X5	165	4X13,1	650	110
	180	35	180	155,5	110	3		100	100X6	178	8x14,1 8x16,1	690	110
		35	180	155,5	110	3		100	100x6	178	10x16,1	690	110
		35	205	184,15	196,81		3	100	100x6	178	8x12,1 12x10,1	690	110
	1200 Nm	35	180	150	P6			100	100x6	178	4x15	690	110
		30	180	155,5	110	3,6		100	110x6	180	10x16,1	700	110
	180H	30	180	155,5	110			100	110x6	180	4x15	700	110
		30	180	150	P6			100	110x6	180	4x15	700	110
	15000 Nm												
	225	20	225	196	140	5		108	114x8,8	205	8x16,1	720	110
		20	230	205	223		4	108	114x8,8	205	8x12,1	720	110
	18000 Nm												



Lz _{2,min} mm	La mm	Lz _{3,mi} mm	La mm	Lz _{4,min} mm	La mm	Lz _{5,min} mm	La mm	Lf ₁ mm	Lf ₂ mm	Lf ₃ mm	Lf ₄ mm
850	300			620	110	460	40	750	450	384	192
850	300			620	110	460	40	750	450	384	192
850	300			620	110	460	40	750	450	384	192
850	300			590	110	460	40	750	420	320	160
850	300			590	110	460	40	750	420	320	160
850	300			620	110	460	40	750	440		180
850	300			630	110	480	40		460	400	200
900	300			630	110	480	40		460	400	200
900	300			630	110	480	40		460	400	200
900	300			630	110	480	40		460		200
900	300			640	110	480	40		460	400	200
900	300			640	110	480	40		460		200
930	300			650	100	550	40		480	432	216
930	300			650	100	550	40		480	432	216



Coding example:

C 285 . 01 . Lzmin . P51

ØA

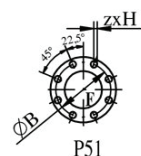
Design

Connection

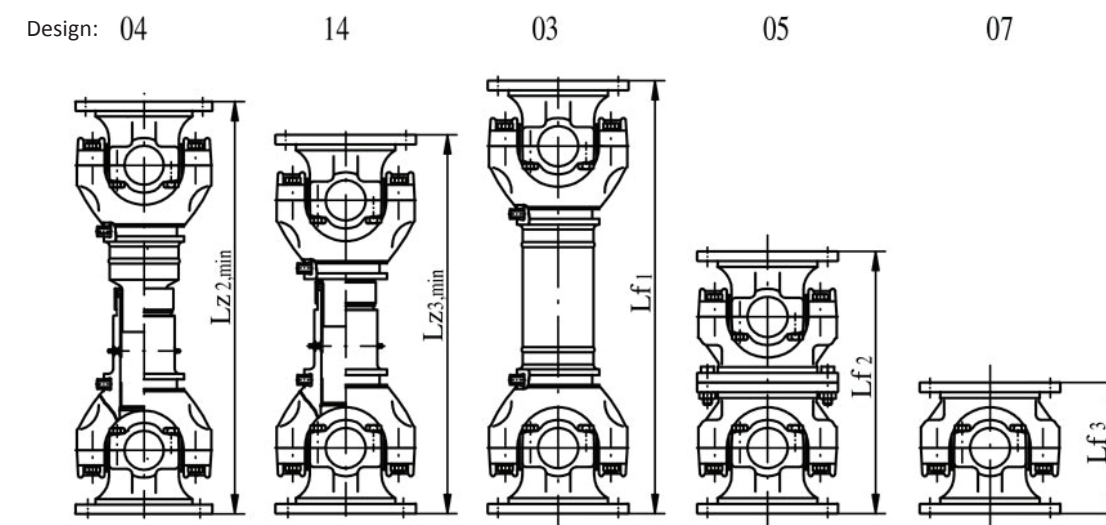
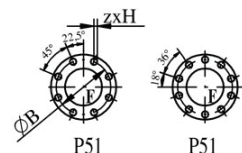
Series

Lenght, compressed

Standard connections:

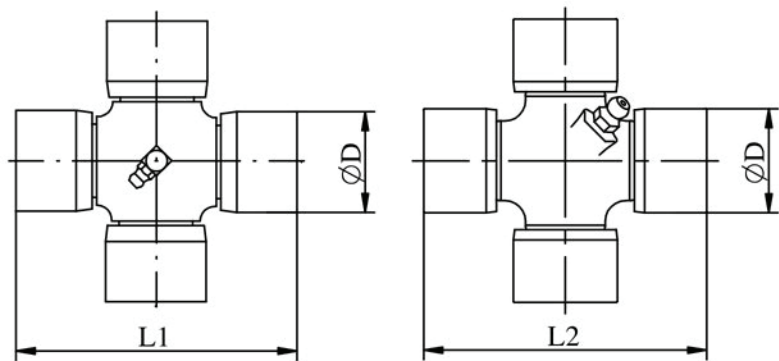


Size M _{dmax} (Nm)	β	ØA	ØB	ØC	F	M	G	ØS	ØK	z x H	L _{z, min}	La
 250 Ø74x154 15000 Nm	15	250	218	140	6		130	146x13	250	8x18,1	855	80
 285 Ø83x175 18000 Nm	15	285	245	175	7		135	152x16	285	8x20,1	910	100
	15	315	285	175	7		135	152x16	285	8x22,1	910	100
	10	275	248	140	6		120	152x16	285	10x14,1	880	100

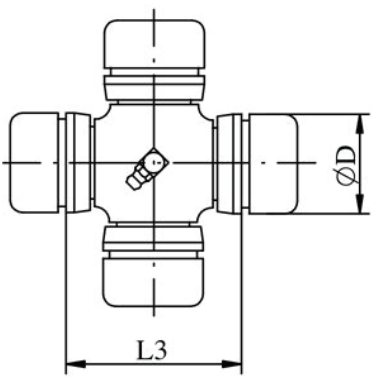


Lz _{2,min} mm	La mm	Lz _{3,mi} mm	La mm	Lf ₁ mm	Lf ₂ mm	Lf ₃ mm
810	70	680	50	620	520	260
850	80	720	50	700	540	270
850	80	720	50	700	540	270
820	80	690	50	670	480	240

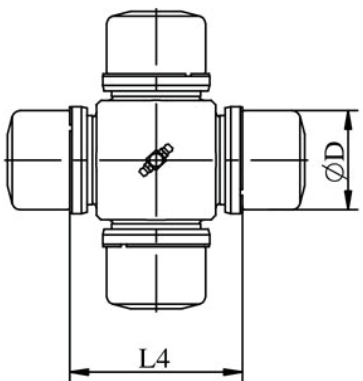
- | | | | |
|----|---|----|---------------------|
| 01 | Tubular design | 10 | Intermediate shaft |
| 02 | Tubular design with large lenght compensation | 05 | Double flange joint |
| 03 | Tubular design without lenght compensation | 07 | Single flange joint |
| 04 | Short design | 50 | Driveline |
| 14 | Super short design | | |



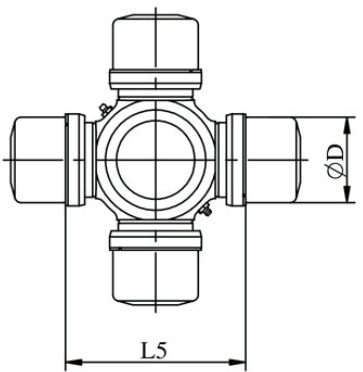
Part Number	ØD	L ₁	L ₂
03.B2.00	20	44	
03.00.00	20	47	
03.B1.00	20	47,2	
1.B1.00	22	55	
75.B1.00	22	55,2	
75.B2.00	22	59	
75.B9.00	23	52,2	
08.B1.00	24	61	
90.B5.00	26	69,8	
3.B1.00	27	70	
3.B2.00	27	71,2	
4.B1.00	27	75	
90.B2.00	27		75
90.B1.00	27	79,1	
90.B7.00	27		80
90.B3.00	27	80	
90.B6.00	27		81,8
116.B1.00	27	84	84
90.B4.00	28,5	70,9	
100.B1.00	30	83	
15.2001.00	30,2		106
100.B3.00	31	89	
16.B1.00	32	76	
100.B2.00	32	82	
20.2001.00	32		107
18.B1.00	34	90	
20.B1.00	35	106,5	
120.B1.00	38	105,8	
120.B2.00	35	96,8	
150.B2.00	42	104,5	
150.B8.00	47	131,9	
150.B16.00	47,625	135,17	
150.B7.00	48	116,5	
150.B1.00	48	121,8	
150.B10.00	48	126	
165.B8.00	50	138,3	
150.B9.00	50	155	
165.B1.00	52	133	
165.B4.00	52	147	
165.B5.00	52	154	
165.B3.00	53	135	
180.B3.00	57	144	
180.B4.00	57	152	
225.B3.00	65	172,4	
225.B11.00	72	185	



Part Number	ØD	L ₃
150.B12.00	45	72,1



Part Number	ØD	L ₄
250.B11.00	74	129
285.B14.00	83	129
285.B11.00	83	139



Part Number	ØD	L ₄
225.B6.00.S	65	144
250.B1.00	74	154
285.B12.00	83	175