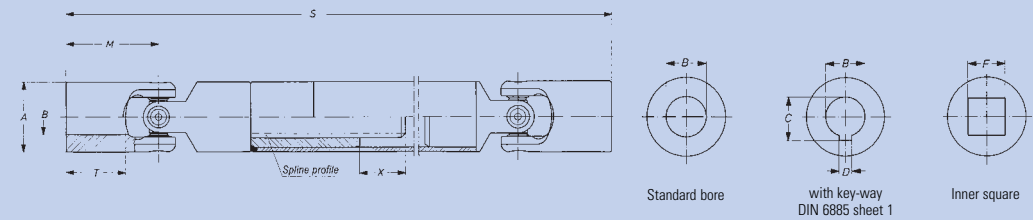
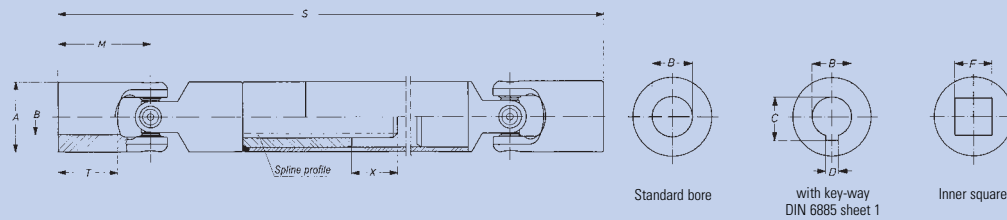


Needle bearing version, with length compensation



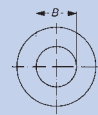
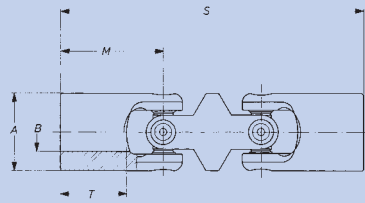
Please indicate compressed length „S“, extension and required type of flange when ordering!

Order number		0.616.100	0.620.100	0.625.100	0.632.100	0.640.100	0.650.100	0.663.100	0.616.103	0.620.103
Md _{max}	Nm	6	15	20	40	80	120	250	6	15
Angle of deflection β	°	45	45	45	45	45	45	45	45	45
Weight by S ₁	kg	0,20	0,33	0,59	1,09	2,13	4,0	8,25	0,20	0,33
Weight by S ₂	kg	0,24	0,39	0,68	1,21	2,28	4,44	8,75	0,24	0,39
Weight by S ₃	kg	0,26	0,42	0,72	1,35	2,57	4,98	9,70	0,26	0,42
A	mm	16	20	25	32	40	50	63	16	20
*B ^{H7}	mm	10	12	16	20	25	32	40	10	12
*C ^{+0,2}	mm	—	—	—	—	—	—	—	11,4	13,8
*D ^{P9}	mm	—	—	—	—	—	—	—	3	4
*F ^{H9}	mm	—	—	—	—	—	—	—	—	—
M	mm	26	31	37	43	54	66	83	26	31
S ₁ + X ₁	mm	165 + 15	174 + 20	198 + 25	234 + 30	301 + 40	372 + 50	475 + 70	165 + 15	174 + 20
S ₂ + X ₂	mm	185 + 30	194 + 40	228 + 55	264 + 60	321 + 60	422 + 100	505 + 100	185 + 30	194 + 40
S ₃ + X ₃	mm	210 + 60	224 + 70	248 + 75	294 + 90	371 + 110	472 + 150	585 + 180	210 + 600	224 + 70
T	mm	15	18	22	25	32	40	50	15	18
Spline profile	mm	6x7,5x10,2	6x11x14	6x11x14	6x16x20	6x21x25	6x28x32	6x36x42	6x7,5x10,2	6x11x14

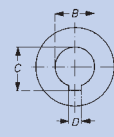
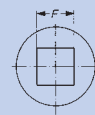
These drive shafts are also available with rapid-change coupling.
 * = Customized bores, key-way and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 S₁
 S₂
 S₃ = preferred lengths, compressed
 X₁ = Maximum extension for S₁
 X₂ = Maximum extension for S₂
 X₃ = Maximum extension for S₃
 For application criteria and calculations refer to technical annex

0.625.103	0.632.103	0.640.103	0.650.103	0.663.103	0.616.104	0.620.104	0.625.104	0.632.104	0.640.104	0.650.104	0.663.104
20	40	80	120	250	6	15	20	40	80	120	250
45	45	45	45	45	45	45	45	45	45	45	45
0,59	1,09	2,13	4,0	8,25	0,20	0,33	0,59	1,09	2,13	4,0	8,25
0,68	1,21	2,28	4,44	8,75	0,24	0,39	0,68	1,21	2,28	4,44	8,75
0,72	1,35	2,57	4,98	9,70	0,26	0,42	0,72	1,35	2,57	4,98	9,70
25	32	40	50	63	16	20	25	32	40	50	63
16	20	25	32	40	—	—	—	—	—	—	—
18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—
5	6	8	10	12	—	—	—	—	—	—	—
—	—	—	—	—	8	10	12	16	20	25	32
37	43	54	66	83	26	31	37	43	54	66	83
198 + 25	234 + 30	301 + 40	372 + 50	475 + 70	165 + 15	174 + 20	198 + 25	234 + 30	301 + 40	372 + 50	475 + 70
228 + 55	264 + 60	321 + 60	422 + 100	505 + 100	185 + 30	194 + 40	228 + 55	264 + 60	321 + 60	422 + 100	505 + 100
248 + 75	294 + 90	371 + 110	472 + 150	585 + 180	210 + 60	224 + 70	248 + 75	294 + 90	371 + 110	472 + 150	585 + 180
22	25	32	40	50	15	18	22	25	32	40	50
6x11x14	6x16x20	6x21x25	6x28x32	6x36x42	6x7,5x10,2	6x11x14	6x11x14	6x16x20	6x21x25	6x28x32	6x36x42

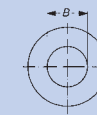
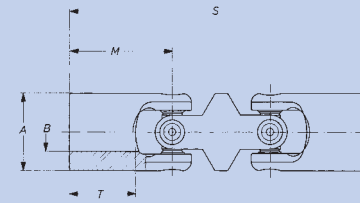
double, DIN 808, Needle bearing version



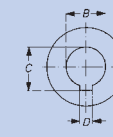
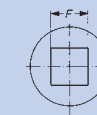
Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square

Precision Cardan Shafts, Standard bore

Precision Cardan Shafts,

Bore with key-way DIN 6885, Sheet 1

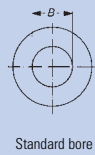
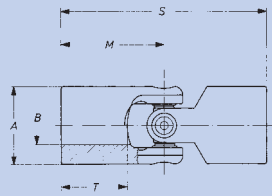
Precision Cardan Shafts, Inner square

Order number		0.616.300	0.620.300	0.625.300	0.632.300	0.640.300	0.650.300	0.663.300	0.616.303	0.620.303
Md _{max}	Nm	6	15	20	40	80	120	250	6	15
Angle of deflection β	°	45	45	45	45	45	45	45	45	45
Weight	kg	0,08	0,14	0,24	0,50	0,95	1,71	3,06	0,08	0,14
A	mm	16	20	25	32	40	50	63	16	20
B	mm	10	12	16	20	25	32	40	10	12
*B ^{H7}	mm	—	—	—	—	—	—	—	11,4	13,8
*D ^{P9}	mm	—	—	—	—	—	—	—	3	4
*E ^{H9}	mm	—	—	—	—	—	—	—	—	—
M	mm	26	31	37	43	54	66	83	26	31
S	mm	74	88	104	124	156	188	238	74	88
T	mm	15	18	22	25	32	40	50	15	18

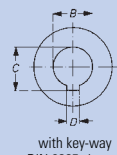
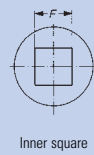
* = Customized bores, key-way and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 For application criteria and calculations refer to technical annex

0.625.303	0.632.303	0.640.303	0.650.303	0.663.303	0.616.304	0.620.304	0.625.304	0.632.304	0.640.304	0.650.304	0.663.304
20	40	80	120	250	6	15	20	40	80	120	250
45	45	45	45	45	45	45	45	45	45	45	45
0,24	0,50	0,95	1,71	3,06	0,08	0,14	0,24	0,50	0,95	1,71	3,06
25	32	40	50	63	16	20	25	32	40	50	63
16	20	25	32	40	—	—	—	—	—	—	—
18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—
5	6	8	10	12	—	—	—	—	—	—	—
—	—	—	—	—	8	10	12	16	20	25	32
37	43	54	66	83	26	31	37	43	54	66	83
104	124	156	188	238	74	88	104	124	156	188	238
22	25	32	40	50	15	18	22	25	32	40	50

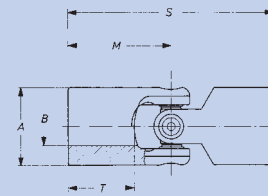
single, DIN 808, Needle bearing version



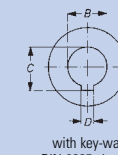
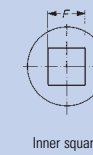
Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square

Precision Cardan Shafts, Standard bore

Precision Cardan Shafts,

Bore with key-way DIN 6885, Sheet 1

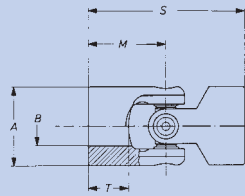
Precision Cardan Shafts, Inner square

Order number		0.616.400	0.620.400	0.625.400	0.632.400	0.640.400	0.650.400	0.663.400	0.616.403	0.620.403
Md _{max}	Nm	6	15	20	40	80	120	250	6	15
Angle of deflection β	°	45	45	45	45	45	45	45	45	45
Weight	kg	0,05	0,10	0,16	0,31	0,61	1,15	2,17	0,05	0,10
A	mm	16	20	25	32	40	50	63	16	20
B	mm	10	12	16	20	25	32	40	10	12
*B ^{H7}	mm	—	—	—	—	—	—	—	11,4	13,8
*D ^{P9}	mm	—	—	—	—	—	—	—	3	4
*F ^{H9}	mm	—	—	—	—	—	—	—	—	—
M	mm	26	31	37	43	54	66	83	26	31
S	mm	52	62	74	86	108	132	166	52	62
T	mm	15	18	22	25	32	40	50	15	18

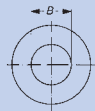
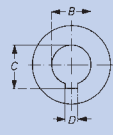
* = Customized bores, key-way and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 For application criteria and calculations refer to technical annex

0.625.403	0.632.403	0.640.403	0.650.403	0.663.403	0.616.404	0.620.404	0.625.404	0.632.404	0.640.404	0.650.404	0.663.404
20	40	80	120	250	6	15	20	40	80	120	250
45	45	45	45	45	45	45	45	45	45	45	45
0,16	0,31	0,61	1,15	2,17	0,05	0,10	0,16	0,31	0,61	1,15	2,17
25	32	40	50	63	16	20	25	32	40	50	63
16	20	25	32	40	—	—	—	—	—	—	—
18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—
5	6	8	10	12	—	—	—	—	—	—	—
—	—	—	—	—	8	10	12	16	20	25	32
37	43	54	66	83	26	31	37	43	54	66	83
74	86	108	132	166	52	62	74	86	108	132	166
22	25	32	40	50	15	18	22	25	32	40	50

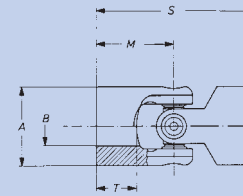
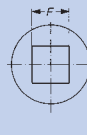
single, Short Version, DIN 808, Needle bearing version



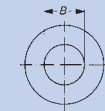
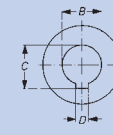
Standard bore

with key-way
DIN 6885 sheet 1

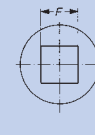
Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Precision Cardan Shafts, Standard bore

Precision Cardan Shafts,

Bore with key-way DIN 6885, Sheet 1

Precision Cardan Shafts, Inner square

Order number		0.616.410	0.620.410	0.625.410	0.632.410	0.640.410	0.650.410	0.663.410	0.616.413	0.620.413
Md _{max}	Nm	6	15	20	40	80	120	250	6	15
Angle of deflection β	°	45	45	45	45	45	45	45	45	45
Weight	kg	0,03	0,07	0,10	0,22	0,42	0,80	1,88	0,03	0,07
A	mm	16	20	25	32	40	50	63	16	20
B	mm	8	10	12	16	20	25	32	8	10
*B ^{H7}	mm	—	—	—	—	—	—	—	9	11,4
*C ^{H9}	mm	—	—	—	—	—	—	—	2	3
*D ^{H9}	mm	—	—	—	—	—	—	—	—	—
M	mm	20	24	28	34	41	52,5	65	20	24
S	mm	40	48	56	68	82	105	130	40	48
T	mm	11	13	15	18**	20**	27**	36	11	13

* = Customized bores, key-way and inner square dimensions possible

** = Bore depth smaller than DIN 808

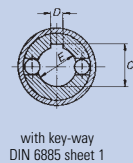
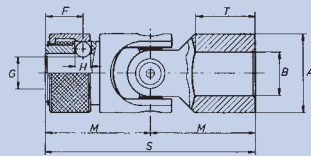
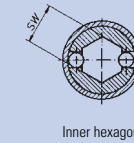
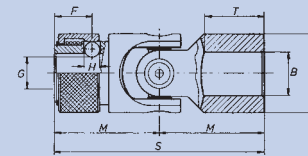
Md_{max} = Max. permissible torque

β = Max. angle of deflection per joint

For application criteria and calculations refer to technical annex

0.625.413	0.632.413	0.640.413	0.650.413	0.663.413	0.616.414	0.620.414	0.625.414	0.632.414	0.640.414	0.650.414	0.663.414
20	40	80	120	250	6	15	20	40	80	120	250
45	45	45	45	45	45	45	45	45	45	45	45
0,10	0,22	0,42	0,80	1,88	0,03	0,07	0,10	0,22	0,42	0,80	1,88
25	32	40	50	63	16	20	25	32	40	50	63
12	16	20	25	32	—	—	—	—	—	—	—
13,8	18,3	22,8	28,3	35,3	—	—	—	—	—	—	—
4	5	6	8	10	—	—	—	—	—	—	—
—	—	—	—	—	6	8	10	14	19	24	30
28	34	41	52,5	65	20	24	28	34	41	52,5	65
56	68	82	105	130	40	48	56	68	82	105	130
15	18**	20**	27**	36	11	13	15	18**	20**	27**	36

single, with rapid-change coupling, DIN 808, Needle bearing version

with key-way
DIN 6885 sheet 1

Inner hexagon

Precision Cardan Joints, with rapid-change coupling, Bore with key-way DIN 6885, Sheet 1

Order number		0.616.423	0.620.423	0.625.423	0.632.423	0.640.423	0.650.423	0.663.423
Md _{max}	Nm	6	15	20	40	80	120	250
Angle of deflection β	°	45	45	45	45	45	45	45
Weight	kg	0,05	0,10	0,16	0,31	0,61	1,15	1,90
A	mm	16	20	25	32	40	50	63
*B ^{H7}	mm	8	10	14	16	20	25	30
*C ^{H7}	mm	9	11	15,3	17,3	21,7	26,7	31,7
*D ^{H8}	mm	2	3	5	5	6	8	8
*E ^{H7}	mm	8	10	14	16	20	25	30
F ^{H8}	mm	9,5	11,5	13,5	14	19	20,5	25
G	mm	7	8,7	13	14,8	18	23	28
H	mm	3,5	4	4	6,35	8	10	10
M	mm	26	31	37	43	54	66	83
S	mm	52	62	74	86	108	132	166
*SW	mm	—	—	—	—	—	—	—
T	mm	15	18	22	25	32	40	50

Precision Cardan Joints, with rapid-change coupling, Inner hexagon

0.616.426	0.620.426	0.625.426	0.625.427	0.632.426	0.640.426	0.650.426	0.663.426	0.663.427
6	15	20	20	40	80	120	250	250
45	45	45	45	45	45	45	45	45
0,05	0,10	0,16	0,16	0,31	0,61	1,15	1,90	1,90
16	20	25	25	32	40	50	63	63
8	10	14	14	16	20	25	30	30
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
9,5	11,5	13,5	13,5	14	19	20,5	25	25
6,3	8	13	10,5	14,8	18	23	28	33
3,5	4	4	4	6,35	8	10	10	10
26	31	37	37	43	54	66	83	83
52	62	74	74	86	108	132	166	166
7,2	9,06	14,04	11,15	16	20	25	30	35
15	18	22	22	25	32	40	50	50

* = Customized bores, key-way and inner hexagon dimensions possible

Md_{max} = Max. permissible torque

β = Max. angle of deflection per joint

For application criteria and calculations refer to technical annex

■ TIP ■

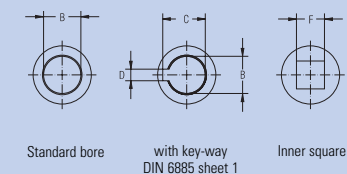
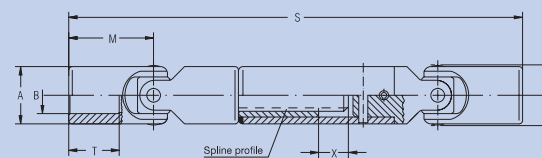
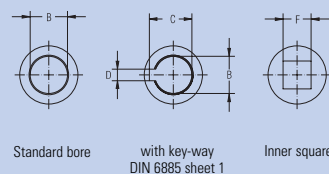
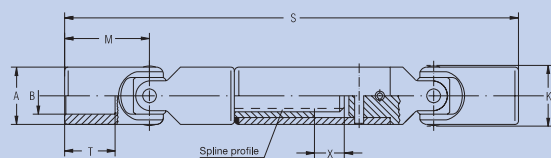
There are application examples in which frequent removal of the universal joint shaft or the joint from the drive or the output shaft is required.

In this case the use of a rapid-change coupling allows to change the shaft within very short time. This is done manually without any tools.

Torque transmission is ensured via a hexagonal profile or a feather key. Two steel balls which grip into a circular groove at the shaft connection provide axial locking of the shaft.



Sliding bearings, with length compensation



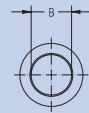
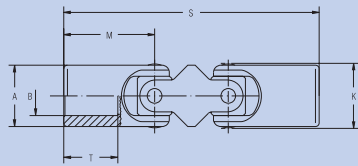
Please indicate compressed length „S“, extension and required type of flange when ordering!

		Cross Cardan Shafts, Standard bore							Cross Cardan Shafts, Bore with key-way DIN 6885, Sheet 1	
Order number		0.716.100	0.720.100	0.725.100	0.732.100	0.740.100	0.750.100	0.763.100	0.716.103	0.720.103
Md _{max}	Nm	8	20	30	60	160	290	450	8	20
Angle of deflection β	°	45	45	45	45	45	45	45	45	45
Weight by S ₁	kg	0,20	0,33	0,59	1,09	2,13	4,0	8,24	0,20	0,33
Weight by S ₂	kg	0,24	0,39	0,68	1,21	2,28	4,44	8,74	0,24	0,39
Weight by S ₃	kg	0,26	0,42	0,72	1,35	2,57	4,98	9,72	0,26	0,42
A	mm	16	20	25	32	40	50	63	16	20
*B ^{H7}	mm	10	12	16	20	25	32	40	10	12
*C ^{H9/D9}	mm	—	—	—	—	—	—	—	11,4	13,8
*D ^{H9}	mm	—	—	—	—	—	—	—	3	4
*F ^{H9}	mm	—	—	—	—	—	—	—	—	—
K	mm	17,5	21,5	26,5	33,5	42	52,5	65	17,5	21,5
M	mm	26	31	37	43	54	66	83	26	31
S ₁ + X ₁	mm	165 + 15	174 + 20	198 + 25	234 + 30	301 + 40	372 + 50	475 + 70	165 + 15	174 + 20
S ₂ + X ₂	mm	185 + 30	194 + 40	228 + 55	264 + 60	321 + 60	422 + 100	505 + 100	185 + 30	194 + 40
S ₃ + X ₃	mm	210 + 60	224 + 70	248 + 75	294 + 90	371 + 110	472 + 150	585 + 180	210 + 60	224 + 70
T	mm	15	18	22	25	32	40	50	15	18
Spline profile	mm	6x7,5x10,2	6x11x14	6x11x14	6x16x20	6x21x25	6x28x32	6x36x42	6x7,5x10,2	6x11x14

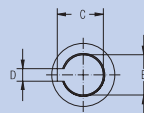
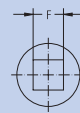
These drive shafts are also available with rapid-change coupling.
 * = Customized bores, key-ways and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 S₁
 S₂ = preferred lengths, compressed
 S₃
 X₁ = Maximum extension for S₁
 X₂ = Maximum extension for S₂
 X₃ = Maximum extension for S₃
 For application criteria and calculations refer to technical annex

Bore with key-way DIN 6885, Sheet 1						Cross Cardan Shafts, Inner square							
0.725.103	0.732.103	0.740.103	0.750.103	0.763.103	0.716.104	0.720.104	0.725.104	0.732.104	0.740.104	0.750.104	0.763.104		
30	60	160	290	450	8	20	30	60	160	290	450		
45	45	45	45	45	45	45	45	45	45	45	45		
0,59	1,09	2,13	4,0	8,24	0,20	0,33	0,59	1,09	2,13	4,0	8,24		
0,68	1,21	2,28	4,44	8,74	0,24	0,39	0,68	1,21	2,28	4,44	8,74		
0,72	1,35	2,57	4,98	9,72	0,26	0,42	0,72	1,35	2,57	4,98	9,72		
25	32	40	50	63	16	20	25	32	40	50	63		
16	20	25	32	40	—	—	—	—	—	—	—		
18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—		
5	6	8	10	12	—	—	—	—	—	—	—		
—	—	—	—	—	8	10	12	16	20	25	32		
26,5	33,5	42	52,5	65	17,5	21,5	26,5	33,5	42	52,5	65		
37	43	54	66	83	26	31	37	43	54	66	83		
198 + 25	234 + 30	301 + 40	372 + 50	475 + 70	165 + 15	174 + 20	198 + 25	234 + 30	301 + 40	372 + 50	475 + 70		
228 + 55	264 + 60	321 + 60	422 + 100	505 + 100	185 + 30	194 + 40	228 + 55	264 + 60	321 + 60	422 + 100	505 + 100		
248 + 75	294 + 90	371 + 110	472 + 150	585 + 180	210 + 60	224 + 70	248 + 75	294 + 90	371 + 110	472 + 150	585 + 180		
22	25	32	40	50	15	18	22	25	32	40	50		
6x11x14	6x16x20	6x21x25	6x28x32	6x36x42	6x7,5x10,2	6x11x14	6x11x14	6x16x20	6x21x25	6x28x32	6x36x42		

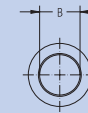
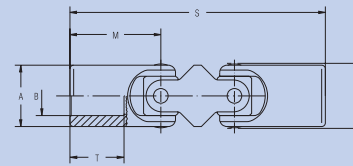
double, DIN 808



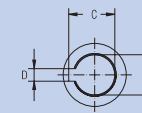
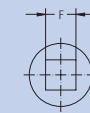
Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square

Cross Joints, double, Standard bore

Cross Joints, double, Bore with key-way DIN 6885, Sheet 1

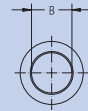
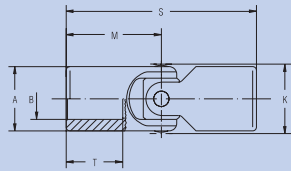
Cross Joints, double, Inner square

Order number		0.713.300	0.716.300	0.720.300	0.725.300	0.732.300	0.740.300	0.750.300	0.763.300	0.713.303	0.716.303
Md _{max}	Nm	6	8	20	30	60	160	290	450	6	8
Angle of deflection β	°	45	45	45	45	45	45	45	45	45	45
Weight	kg	0,04	0,08	0,14	0,24	0,50	0,95	1,71	3,51	0,04	0,08
A	mm	13	16	20	25	32	40	50	63	13	16
B	mm	8	10	12	16	20	25	32	40	8	10
*C ^{H7}	mm	—	—	—	—	—	—	—	—	9	11,4
*D ^{P9}	mm	—	—	—	—	—	—	—	—	2	3
*F ^{H9}	mm	—	—	—	—	—	—	—	—	—	—
K	mm	14	17,5	21,5	26,5	33,5	42	52,5	65	14	17,5
M	mm	21	26	31	37	43	54	66	83	21	26
S	mm	60	74	88	104	124	156	188	238	60	74
T	mm	12	15	18	22	25	32	40	50	12	15

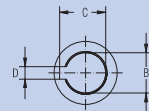
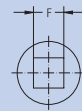
* = Customized bores, key-ways and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 For application criteria and calculations refer to technical annex

0.720.303	0.725.303	0.732.303	0.740.303	0.750.303	0.763.303	0.713.304	0.716.304	0.720.304	0.725.304	0.732.304	0.740.304	0.750.304	0.763.304
20	30	60	160	290	450	6	8	20	30	60	160	290	450
45	45	45	45	45	45	45	45	45	45	45	45	45	45
0,14	0,24	0,50	0,95	1,71	3,51	0,04	0,08	0,14	0,24	0,50	0,95	1,71	3,51
20	25	32	40	50	63	13	16	20	25	32	40	50	63
12	16	20	25	32	40	—	—	—	—	—	—	—	—
13,8	18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—	—
4	5	6	8	10	12	—	—	—	—	—	—	—	—
—	—	—	—	—	—	6	8	10	12	16	20	25	32
21,5	26,5	33,5	42	52,5	65	14	17,5	21,5	26,5	33,5	42	52,5	65
31	37	43	54	66	83	21	26	31	37	43	54	66	83
88	104	124	156	188	238	60	74	88	104	124	156	188	238
18	22	25	32	40	50	12	15	18	22	25	32	40	50

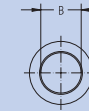
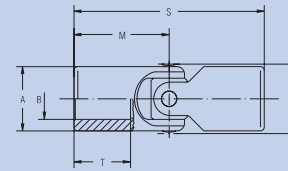
single, DIN 808



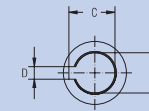
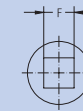
Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square

Cross Joints, single, Standard bore

Cross Joints, single, Bore with key-way DIN 6885, Sheet 1

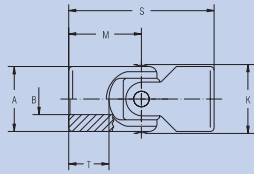
Cross Joints, single, Inner square

Order number		0.713.400	0.716.400	0.720.400	0.725.400	0.732.400	0.740.400	0.750.400	0.763.400	0.713.403	0.716.403
Md _{max}	Nm	6	8	20	30	60	160	290	450	6	8
Angle of deflection β	°	45	45	45	45	45	45	45	45	45	45
Weight	kg	0,03	0,05	0,10	0,16	0,31	0,61	1,15	2,38	0,03	0,05
A	mm	13	16	20	25	32	40	50	63	13	16
*B ^{H7}	mm	8	10	12	16	20	25	32	40	8	10
*C ^{H9}	mm	—	—	—	—	—	—	—	—	9	11,4
*D ^{H9}	mm	—	—	—	—	—	—	—	—	2	3
*F ^{H9}	mm	—	—	—	—	—	—	—	—	—	—
K	mm	14	17,5	21,5	26,5	33,5	42	52,5	65	14	17,5
M	mm	21	26	31	37	43	54	66	83	21	26
S	mm	42	52	62	74	86	108	132	166	42	52
T	mm	12	15	18	22	25	32	40	50	12	15

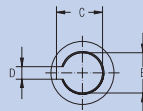
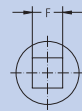
* = Customized bores, key-ways and inner square dimensions possible
Md_{max} = Max. permissible torque
β = Max. angle of deflection per joint
For application criteria and calculations refer to technical annex

0.720.403	0.725.403	0.732.403	0.740.403	0.750.403	0.763.403	0.713.404	0.716.404	0.720.404	0.725.404	0.732.404	0.740.404	0.750.404	0.763.404
20	30	60	160	290	450	6	8	20	30	60	160	290	450
45	45	45	45	45	45	45	45	45	45	45	45	45	45
0,10	0,16	0,31	0,61	1,15	2,38	0,03	0,05	0,10	0,16	0,31	0,61	1,15	2,38
20	25	32	40	50	63	13	16	20	25	32	40	50	63
12	16	20	25	32	40	—	—	—	—	—	—	—	—
13,8	18,3	22,8	28,3	35,3	43,3	—	—	—	—	—	—	—	—
4	5	6	8	10	12	—	—	—	—	—	—	—	—
—	—	—	—	—	—	6	8	10	12	16	20	25	32
21,5	26,5	33,5	42	52,5	65	14	17,5	21,5	26,5	33,5	42	52,5	65
31	37	43	54	66	83	21	26	31	37	43	54	66	83
62	74	86	108	132	166	42	52	62	74	86	108	132	166
18	22	25	32	40	50	12	15	18	22	25	32	40	50

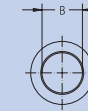
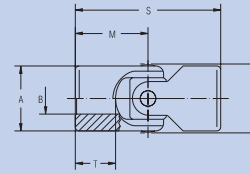
single, Short version, DIN 808



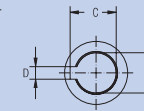
Standard bore

with key-way
DIN 6885 sheet 1

Inner square



Standard bore

with key-way
DIN 6885 sheet 1

Inner square

Cross Joints, single, Short version, Standard bore

Cross Joints, single, Short vers., Bore with key-way DIN 6885, Sheet 1

Cross Joints, single, Short version, Inner square

Order number		0.716.410	0.716.411	0.720.410	0.725.410	0.732.410	0.740.410	0.750.410	0.763.410	0.716.413	0.720.413
Md _{max}	Nm	8	8	20	30	60	160	290	450	8	20
Angle of deflection β	°	45	45	45	45	45	45	45	45	45	45
Weight	kg	0,02	0,03	0,07	0,10	0,22	0,42	0,80	2,12	0,03	0,07
A	mm	16	16	20	25	32	40	50	63	16	20
*B ^{H7}	mm	6	8	10	12	16	20	25	32	8	10
*C ^{H9}	mm	—	—	—	—	—	—	—	—	9	11,4
*D ^{H9}	mm	—	—	—	—	—	—	—	—	2	3
*E ^{H9}	mm	—	—	—	—	—	—	—	—	—	—
K	mm	17,5	17,5	21,5	26,5	33,5	42	52,5	65	17,5	21,5
M	mm	17	20	24	28	34	41	52,5	65	20	24
S	mm	34	40	48	56	68	82	105	130	40	48
T	mm	9	11	13	15	19	21**	28**	36	11	13

* = Customized bores, key-ways and inner square dimensions possible

** = Bore depth smaller than DIN 808

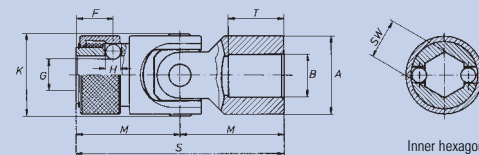
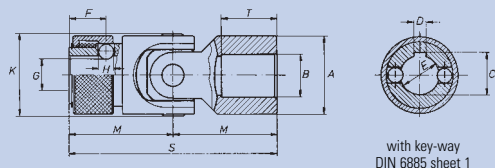
Md_{max} = Max. permissible torque

β = Max. angle of deflection per joint

For application criteria and calculations refer to technical annex

0.725.413	0.732.413	0.740.413	0.750.413	0.763.413	0.716.414	0.720.414	0.725.414	0.732.414	0.740.414	0.750.414	0.763.414
30	60	160	290	450	8	20	30	60	160	290	450
45	45	45	45	45	45	45	45	45	45	45	45
0,10	0,22	0,42	0,80	2,12	0,03	0,07	0,10	0,22	0,42	0,80	2,12
25	32	40	50	63	16	20	25	32	40	50	63
12	16	20	25	32	—	—	—	—	—	—	—
13,8	18,3	22,8	28,3	35,3	—	—	—	—	—	—	—
4	5	6	8	10	—	—	—	—	—	—	—
—	—	—	—	—	6	8	10	14	19	24	30
26,5	33,5	42	52,5	65	17,5	21,5	26,5	33,5	42	52,5	65
28	34	41	52,5	65	20	24	28	34	41	52,5	65
56	68	82	105	130	40	48	56	68	82	105	130
15	19	21**	28**	36	11	13	15	19	21**	28**	36

single, with rapid-change coupling, DIN 808



Cross Joints, with rapid-change coupling, Bore with key-way DIN 6885, Sheet 1

Order number		0.716.423	0.720.423	0.725.423	0.732.423	0.740.423	0.750.423	0.763.423
Md _{max}	Nm	8	20	30	60	160	290	450
Angle of deflection β	°	45	45	45	45	45	45	45
Weight	kg	0,05	0,10	0,16	0,31	0,61	1,15	2,08
A	mm	16	20	25	32	40	50	63
*B ^{H7}	mm	8	10	14	16	20	25	30
*C ^{H7}	mm	9	11	15,3	17,3	21,7	26,7	31,7
*D ^{H8}	mm	2	3	5	5	6	8	8
*E ^{H7}	mm	8	10	14	16	20	25	30
F	mm	9,5	11,5	13,5	14	19	20,5	25
G	mm	7	8,7	13	14,8	18	23	28
H	mm	3,5	4	4	6,35	8	10	10
K	mm	17,5	21,5	26,5	33,5	42	52,5	65
M	mm	26	31	37	43	54	66	83
S	mm	52	62	74	86	108	132	166
*SW ^{H7}	mm	—	—	—	—	—	—	—
T	mm	15	18	22	25	32	40	50

Cross Joints, with rapid-change coupling, Inner hexagon

0.716.426	0.720.426	0.725.426	0.725.427	0.732.426	0.740.426	0.750.426	0.763.426	0.763.426
8	20	30	30	60	160	290	450	450
45	45	45	45	45	45	45	45	45
0,05	0,10	0,16	0,16	0,31	0,61	1,15	2,08	2,08
16	20	25	25	32	40	50	63	63
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
9,5	11,5	13,5	13,5	14	19	20,5	25	25
6,3	8	13	10,5	14,8	18	23	28	33
3,5	4	4	4	6,35	8	10	10	10
17,5	21,5	26,5	26,5	33,5	42	52,5	65	65
26	31	37	37	43	54	66	83	83
52	62	74	74	86	108	132	166	166
7,2	9,06	14,04	11,15	16	20	25	30	35
15	18	22	22	25	32	40	50	50

* = Customized bores, key-ways and inner hexagon dimensions possible

Md_{max} = Max. permissible torque

β = Max. angle of deflection per joint

For application criteria and calculations refer to technical annex

■ TIP ■

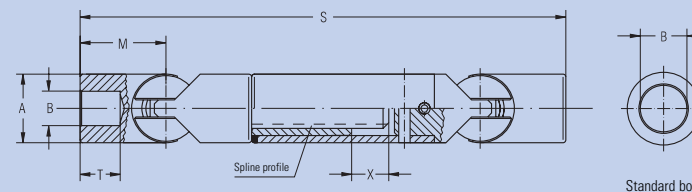
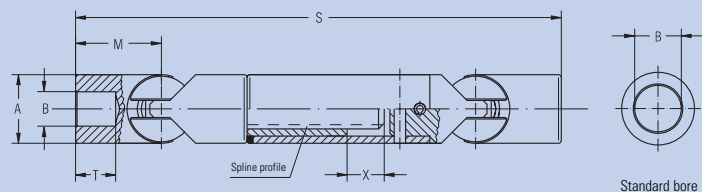
There are application examples in which frequent removal of the universal joint shaft or the joint from the drive or the output shaft is required.

In this case the use of a rapid-change coupling allows to change the shaft within very short time. This is done manually without any tools.

Torque transmission is ensured via a hexagonal profile or a feather key. Two steel balls which grip into a circular groove at the shaft connection provide axial locking of the shaft.



double, with length compensation, Standard bore



When ordering, please indicate compressed length and extension!

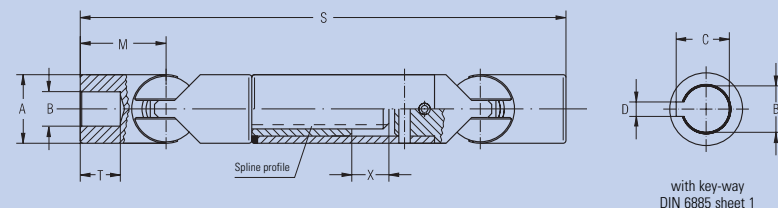
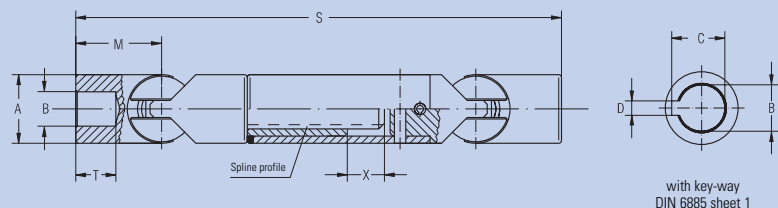
Ball and Socket Shafts, double, Standard bore

Order number		0.820.100	0.824.100	0.828.100	0.832.100	0.836.100	0.840.100	0.845.100
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight by S ₁	kg	0,32	0,50	0,78	1,10	1,58	2,17	2,92
Weight by S ₂	kg	0,36	0,58	0,85	1,22	1,72	2,28	3,38
Weight by S ₃	kg	0,40	0,62	0,98	1,33	1,82	2,52	3,68
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	10	12	14	16	18	20	22
*C ^{+0,2}	mm	—	—	—	—	—	—	—
*D ^{P9}	mm	—	—	—	—	—	—	—
*E ^{H9}	mm	—	—	—	—	—	—	—
M	mm	25	30	35	40	45	50	55
S ₁ + X ₁	mm	150 + 20	170 + 25	200 + 30	220 + 30	250 + 35	280 + 40	300 + 40
S ₂ + X ₂	mm	170 + 40	200 + 55	220 + 50	250 + 60	280 + 65	300 + 60	350 + 90
S ₃ + X ₃	mm	200 + 70	220 + 75	250 + 80	280 + 90	300 + 85	350 + 110	400 + 140
T	mm	13	14	17	19	22	24	26
Spline profile	mm	6x11x14	6x11x14	6x16x20	6x16x20	6x18x22	6x21x25	6x21x25

* = Customized bores, key-ways and inner square dimensions possible
 Md_{max} = Max. permissible torque
 β = Max. angle of deflection per joint
 S₁
 S₂
 S₃
 = preferred lengths, compressed
 X₁ = Maximum extension for S₁
 X₂ = Maximum extension for S₂
 X₃ = Maximum extension for S₃
 For application criteria and calculations refer to technical annex

0.850.100	0.855.100	0.860.100	0.865.100	0.870.100	0.880.100	0.890.100	0.896.100
290	440	520	700	820	930	1060	1250
35	35	35	35	35	35	35	35
4,27	5,50	7,78	10,4	13,6	20,1	27,7	35,8
4,58	5,98	8,45	10,8	14,7	21,9	30,6	38,7
5,18	6,62	9,58	11,8	16,2	24,5	33,5	41,7
50	55	60	65	70	80	90	100
25	30	35	40	45	50	60	70
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
62,5	67,5	82,5	95	105	115	130	145
350 + 50	400 + 50	450 + 50	520 + 70	580 + 70	630 + 70	700 + 70	800 + 100
400 + 100	450 + 100	500 + 100	550 + 100	630 + 120	700 + 140	800 + 170	900 + 200
450 + 150	500 + 160	580 + 180	630 + 180	700 + 190	800 + 240	900 + 270	1000 + 300
30	35	42	46	52	58	70	80
6x28x32	6x28x32	6x36x42	6x36x42	52x44x18	58x50x18	62x54x20	62x54x20

double, with length compensation, Bore with key-way DIN 6885, Sheet 1

When ordering, please indicate
compressed length and extension!

Ball and Socket Shafts, double, Bore with key-way DIN 6885, Sheet 1

Order number		0.820.103	0.824.103	0.828.103	0.832.103	0.836.103	0.840.103	0.845.103
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight by S ₁	kg	0,32	0,50	0,78	1,10	1,58	2,17	2,92
Weight by S ₂	kg	0,36	0,58	0,85	1,22	1,72	2,28	3,38
Weight by S ₃	kg	0,40	0,62	0,98	1,33	1,82	2,52	3,68
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	10	12	14	16	18	20	22
*C ^{H9/2}	mm	11,4	13,8	16,3	18,3	20,8	22,8	24,8
*D ^{H9}	mm	3	4	5	5	6	6	6
*E ^{H9}	mm	—	—	—	—	—	—	—
M	mm	25	30	35	40	45	50	55
S ₁ + X ₁	mm	150 + 20	170 + 25	200 + 30	220 + 30	250 + 35	280 + 40	300 + 40
S ₂ + X ₂	mm	170 + 40	200 + 55	220 + 50	250 + 60	280 + 65	300 + 60	350 + 90
S ₃ + X ₃	mm	200 + 70	220 + 75	250 + 80	280 + 90	300 + 85	350 + 110	400 + 140
T	mm	13	14	17	19	22	24	26
Spline profile	mm	6x11x14	6x11x14	6x16x20	6x16x20	6x18x22	6x21x25	6x21x25

* = Customized bores, key-ways and inner square dimensions possible

Md_{max} = Max. permissible torque

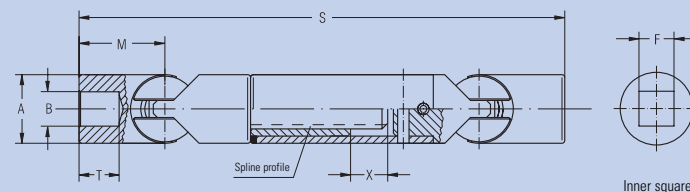
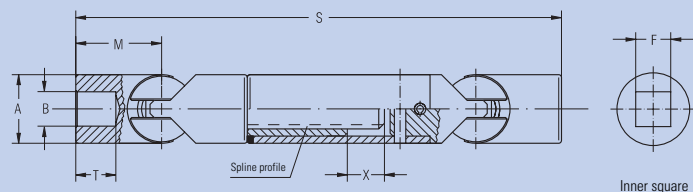
β = Max. angle of deflection per joint

S₁S₂ = preferred lengths, compressedS₃X₁ = Maximum extension for S₁X₂ = Maximum extension for S₂X₃ = Maximum extension for S₃

For application criteria and calculations refer to technical annex

0.850.103	0.855.103	0.860.103	0.865.103	0.870.103	0.880.103	0.890.103	0.896.103
290	440	520	700	820	930	1060	1250
35	35	35	35	35	35	35	35
4,27	5,50	7,78	10,4	13,6	20,1	27,7	35,8
4,58	5,98	8,45	10,8	14,7	21,9	30,6	38,7
5,18	6,62	9,58	11,8	16,2	24,5	33,5	41,7
50	55	60	65	70	80	90	100
25	30	35	40	45	50	60	70
28,3	33,3	38,3	43,3	48,8	53,8	64,4	74,9
8	8	10	12	14	14	18	20
—	—	—	—	—	—	—	—
62,5	67,5	82,5	95	105	115	130	145
350 + 50	400 + 50	450 + 50	520 + 70	580 + 70	630 + 70	700 + 70	800 + 100
400 + 100	450 + 100	500 + 100	550 + 100	630 + 120	700 + 140	800 + 170	900 + 200
450 + 150	500 + 160	580 + 180	630 + 180	700 + 190	800 + 240	900 + 270	1000 + 300
30	35	42	46	52	58	70	80
6x28x32	6x28x32	6x36x42	6x36x42	52x44x18	58x50x18	62x54x20	62x54x20

double, with length compensation, Inner square

When ordering, please indicate
compressed length and extension!

Ball and Socket Shafts, double, Inner square

Order number		0.820.104	0.824.104	0.828.104	0.832.104	0.836.104	0.840.104	0.845.104
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight by S ₁	kg	0,32	0,50	0,78	1,10	1,58	2,17	2,92
Weight by S ₂	kg	0,36	0,58	0,85	1,22	1,72	2,28	3,38
Weight by S ₃	kg	0,40	0,62	0,98	1,33	1,82	2,52	3,68
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	—	—	—	—	—	—	—
*C ^{+0,2}	mm	—	—	—	—	—	—	—
*D ^{P9}	mm	—	—	—	—	—	—	—
*E ^{H9}	mm	10	12	14	16	18	20	22
M	mm	25	30	35	40	45	50	55
S ₁ + X ₁	mm	150 + 20	170 + 25	200 + 30	220 + 30	250 + 35	280 + 40	300 + 40
S ₂ + X ₂	mm	170 + 40	200 + 55	220 + 50	250 + 60	280 + 65	300 + 60	350 + 90
S ₃ + X ₃	mm	200 + 70	220 + 75	250 + 80	280 + 90	300 + 85	350 + 110	400 + 140
T	mm	13	14	17	19	22	24	26
Spline profile	mm	6x11x14	6x11x14	6x16x20	6x16x20	6x18x22	6x21x25	6x21x25

* = Customized bores, key-ways and inner square dimensions possible

Md_{max} = Max. permissible torque

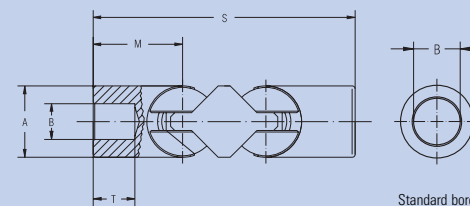
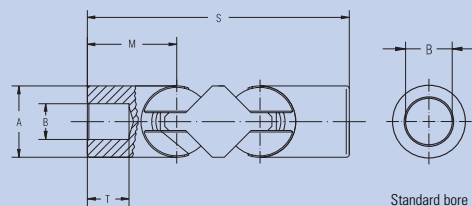
β = Max. angle of deflection per joint

S₁S₂ = preferred lengths, compressedS₃X₁ = Maximum extension for S₁X₂ = Maximum extension for S₂X₃ = Maximum extension for S₃

For application criteria and calculations refer to technical annex

0.850.104	0.855.104	0.860.104	0.865.104	0.870.104	0.880.104	0.890.104	0.896.104
290	440	520	700	820	930	1060	1250
35	35	35	35	35	35	35	35
4,27	5,50	7,78	10,4	13,6	20,1	27,7	35,8
4,58	5,98	8,45	10,8	14,7	21,9	30,6	38,7
5,18	6,62	9,58	11,8	16,2	24,5	33,5	41,7
50	55	60	65	70	80	90	100
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
25	30	32	36	40	42	50	54
62,5	67,5	82,5	95	105	115	130	145
350 + 50	400 + 50	450 + 50	520 + 70	580 + 70	630 + 70	700 + 70	800 + 100
400 + 100	450 + 100	500 + 100	550 + 100	630 + 120	700 + 140	800 + 170	900 + 200
450 + 150	500 + 160	580 + 180	630 + 180	700 + 190	800 + 240	900 + 270	1000 + 300
30	35	42	46	52	58	70	80
6x28x32	6x28x32	6x36x42	6x36x42	52x44x18	58x50x18	62x54x20	62x54x20

double, Standard bore



Ball and Socket Joints, double, Standard bore

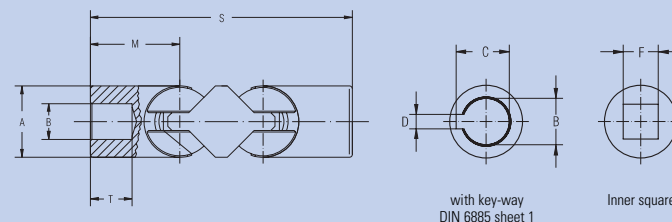
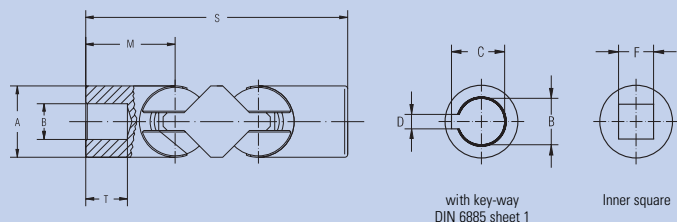
Order number		0.820.300	0.824.300	0.828.300	0.832.300	0.836.300	0.840.300	0.845.300
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight	kg	0,14	0,22	0,38	0,55	0,78	1,08	1,48
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	10	12	14	16	18	20	22
*C ^{+0,2}	mm	—	—	—	—	—	—	—
*D ^{F9}	mm	—	—	—	—	—	—	—
*E ^{H9}	mm	—	—	—	—	—	—	—
M	mm	25	30	35	40	45	50	55
S	mm	74	88	103	118	133	148	163
T	mm	13	14	17	19	22	24	26

* = Customized bores, key-ways and inner square dimensions possible
Md_{max} = Max. permissible torque
For application criteria and calculations refer to technical annex

0.850.300	0.855.300	0.860.300	0.865.300	0.870.300	0.880.300	0.890.300	0.896.300	0.897.300
290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35
2,08	2,62	3,65	4,78	5,88	8,52	11,7	15,5	21,8
50	55	60	65	70	80	90	100	110
25	30	35	40	45	50	60	70	75
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
62,5	67,5	82,5	95	105	115	130	145	160
185	200	237	267	292	322	362	404	444
30	35	42	46	52	58	70	80	85

0.800

double, Bore with key-way DIN 6885, Sheet 1; Inner square



Ball and Socket Joints, double, Bore with key-way DIN 6885, Sheet 1

Order number		0.820.303	0.824.303	0.828.303	0.832.303	0.836.303	0.840.303	0.845.303
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight	kg	0,14	0,22	0,38	0,55	0,78	1,08	1,48
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	10	12	14	16	18	20	22
*C ^{+0,2}	mm	11,4	13,8	16,3	18,3	20,8	22,8	24,8
*D ^{F9}	mm	3	4	5	5	6	6	6
*F ^{H9}	mm	—	—	—	—	—	—	—
M	mm	25	30	35	40	45	50	55
S	mm	74	88	103	118	133	148	163
T	mm	13	14	17	19	22	24	26

0.850.303	0.855.303	0.860.303	0.865.303	0.870.303	0.880.303	0.890.303	0.896.303	0.897.303
290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35
2,08	2,62	3,65	4,78	5,88	8,52	11,7	15,5	21,8
50	55	60	65	70	80	90	100	110
25	30	35	40	45	50	60	70	75
28,3	33,3	38,3	43,3	48,8	53,8	64,4	74,9	79,9
8	8	10	12	14	14	18	20	20
—	—	—	—	—	—	—	—	—
62,5	67,5	82,5	95	105	115	130	145	160
185	200	237	267	292	322	362	404	444
30	35	42	46	52	58	70	80	85

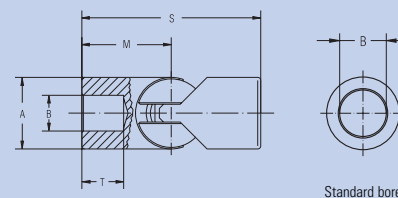
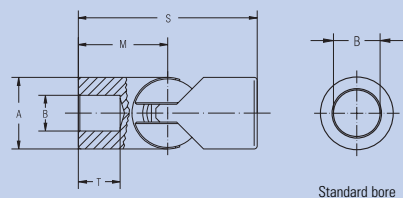
Ball and Socket Joints, double, Inner square

Order number		0.820.304	0.824.304	0.828.304	0.832.304	0.836.304	0.840.304	0.845.304
Md _{max}	Nm	20	30	50	60	120	160	200
Angle of deflection β	°	35	35	35	35	35	35	35
Weight	kg	0,14	0,22	0,38	0,55	0,78	1,08	1,48
A	mm	20	24	28	32	36	40	45
*B ^{H7}	mm	—	—	—	—	—	—	—
*C ^{+0,2}	mm	—	—	—	—	—	—	—
*D ^{F9}	mm	—	—	—	—	—	—	—
*F ^{H9}	mm	10	12	14	16	18	20	22
M	mm	25	30	35	40	45	50	55
S	mm	74	88	103	118	133	148	163
T	mm	13	14	17	19	22	24	26

0.850.304	0.855.304	0.860.304	0.865.304	0.870.304	0.880.304	0.890.304	0.896.304	0.897.304
290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35
2,08	2,62	3,65	4,78	5,88	8,52	11,7	15,5	21,8
50	55	60	65	70	80	90	100	110
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
25	30	32	36	40	42	50	54	58
62,5	67,5	82,5	95	105	115	130	145	160
185	200	237	267	292	322	362	404	444
30	35	42	46	52	58	70	80	85

* = Customized bores, key-ways and inner square dimensions possible
Md_{max} = Max. permissible torque
For application criteria and calculations refer to technical annex

single, Standard bore



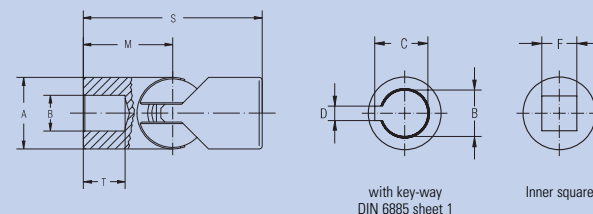
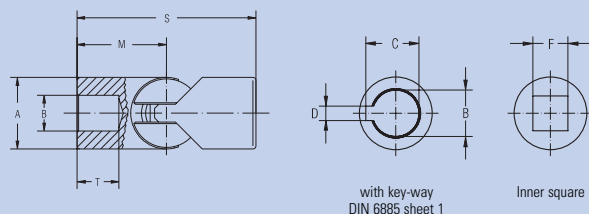
Ball and Socket Joints, single, Standard bore

Order number		0.813.400	0.816.400	0.820.400	0.824.400	0.828.400	0.832.400	0.836.400	0.840.400
Md _{max}	Nm	6	8	20	30	50	60	120	160
Angle of deflection β	°	35	35	35	35	35	35	35	35
Weight	kg	0,03	0,05	0,09	0,15	0,24	0,36	0,53	0,72
A	mm	13	16	20	24	28	32	36	40
*B ^{H7}	mm	6	8	10	12	14	16	18	20
*C ^{+0,2}	mm	—	—	—	—	—	—	—	—
*D ^{F9}	mm	—	—	—	—	—	—	—	—
*E ^{H9}	mm	—	—	—	—	—	—	—	—
M	mm	17,5	20	25	30	35	40	45	50
S	mm	35	40	50	60	70	80	90	100
T	mm	10	10	13	14	17	19	22	24

* = Customized bores, key-ways an inner square dimensions possible
Md_{max} = Max. permissible torque
For application criteria and calculations refer to technical annex

0.845.400	0.850.400	0.855.400	0.860.400	0.865.400	0.870.400	0.880.400	0.890.400	0.896.400	0.897.400
200	290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35	35
1,02	1,40	1,75	2,52	3,32	4,15	6,02	8,04	10,6	15,3
45	50	55	60	65	70	80	90	100	110
22	25	30	35	40	45	50	60	70	75
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
55	62,5	67,5	82,5	95	105	115	130	145	160
110	125	135	165	190	210	230	260	290	320
26	30	35	42	46	52	58	70	80	85

single, Bore with key-way DIN 6885, Sheet 1; Inner square



Ball and Socket Joints, single, Bore with Key-way DIN 6885, Sheet 1

Order number		0.820.403	0.824.403	0.828.403	0.832.403	0.836.403	0.840.403
Md _{max}	Nm	20	30	50	60	120	160
Angle of deflection β	°	35	35	35	35	35	35
Weight	kg	0,09	0,15	0,24	0,36	0,53	0,72
A	mm	20	24	28	32	36	40
*B ^{H7}	mm	10	12	14	16	18	20
*C ^{+0,2}	mm	11,4	13,8	16,3	18,3	20,8	22,8
*D ^{P9}	mm	3	4	5	5	6	6
*E ^{H8}	mm	—	—	—	—	—	—
M	mm	25	30	35	40	45	50
S	mm	50	60	70	80	90	100
T	mm	13	14	17	19	22	24

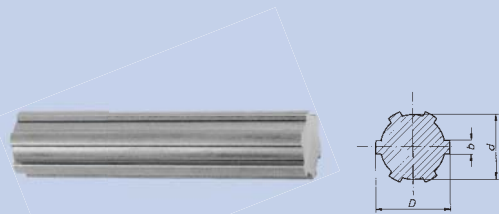
0.845.403	0.850.403	0.855.403	0.860.403	0.865.403	0.870.403	0.880.403	0.890.403	0.896.403	0.897.403
200	290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35	35
1,02	1,40	1,75	2,52	3,32	4,15	6,02	8,04	10,6	15,3
45	50	55	60	65	70	80	90	100	110
22	25	30	35	40	45	50	60	70	75
24,8	28,3	33,3	38,3	43,3	48,8	53,3	64,4	74,9	79,9
6	8	8	10	12	14	14	18	20	20
—	—	—	—	—	—	—	—	—	—
55	62,5	67,5	82,5	95	105	115	130	145	160
110	125	135	165	190	210	230	260	290	320
26	30	35	42	46	52	58	70	80	85

Ball and Socket Joints, single, Inner square

Order number		0.820.404	0.824.404	0.828.404	0.832.404	0.836.404	0.840.404
Md _{max}	Nm	20	30	50	60	120	160
Angle of deflection β	°	35	35	35	35	35	35
Weight	kg	0,09	0,15	0,24	0,36	0,53	0,72
A	mm	20	24	28	32	36	40
*B ^{H7}	mm	—	—	—	—	—	—
*C ^{+0,2}	mm	—	—	—	—	—	—
*D ^{P9}	mm	—	—	—	—	—	—
*E ^{H8}	mm	10	12	14	16	18	20
M	mm	25	30	35	40	45	50
S	mm	50	60	70	80	90	100
T	mm	13	14	17	19	22	24

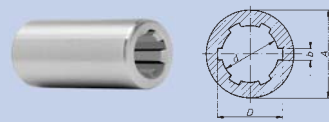
0.845.404	0.850.404	0.855.404	0.860.404	0.865.404	0.870.404	0.880.404	0.890.404	0.896.404	0.897.404
200	290	440	520	700	820	930	1060	1250	1370
35	35	35	35	35	35	35	35	35	35
1,02	1,40	1,75	2,52	3,32	4,15	6,02	8,04	10,6	15,3
45	50	55	60	65	70	80	90	100	110
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
22	25	30	32	36	40	42	50	54	58
55	62,5	67,5	82,5	95	105	115	130	145	160
110	125	135	165	190	210	230	260	290	320
26	30	35	42	46	52	58	70	80	85

* = Customized bores, key-ways an inner square dimensions possible
Md_{max} = Max. permissible torque
For application criteria and calculations refer to technical annex



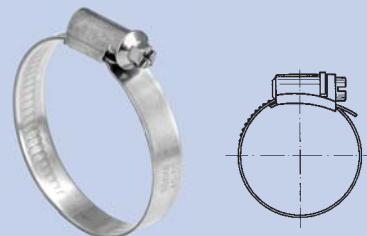
Spline Shafts DIN ISO 14

Material: C40 k, 1.0511 oder C45 k, 1.0503
Material: 35 S 20 k, 1.0726

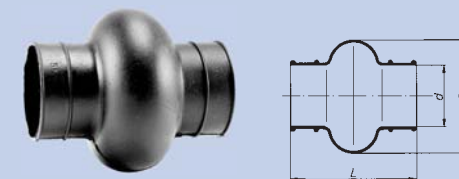


Spline Bore Hubs DIN ISO 14

Material: 9 SMn Pb 28 k, 1.0718



Material: steel, zinc-plated or stainless steel, corrosion- and acid-resistant



Material: neoprene; temperature-resistant up to 100 °C

Also available with Spigots

Spline Shafts DIN ISO 14

Order number		1.000.524.001	1.000.524.002	1.000.524.003	1.000.524.004	1.000.524.005	1.000.524.007	1.000.524.006
Designation		B 6 x 11 x 14	B 6 x 16 x 20	B 6 x 18 x 22	B 6 x 21 x 25	B 6 x 28 x 32	B 6 x 28 x 34	B 6 x 36 x 42
D	mm	14	20	22	25	32	34	42
d	mm	11	16	18	21	28	28	36
b	mm	3	4	5	5	7	7	8
Available in all lengths up to	mm	3000	3000	3000	3000	500*	3000	500*

Material: C40 k, 1.0511 oder C45 k, 1.0503

* = Material: 35 S 20 k, 1.0726

Spline Bore Hubs DIN ISO 14

Order number		1.000.511.001	1.000.511.002	1.000.511.003	1.000.511.004	1.000.511.005	1.000.511.007	1.000.511.006
Designation		A 6 x 11 x 14	A 6 x 16 x 20	A 6 x 18 x 22	A 6 x 21 x 25	A 6 x 28 x 32	A 6 x 28 x 34	A 6 x 36 x 42
D	mm	14	20	22	25	32	34	42
d	mm	11	16	18	21	28	28	36
b	mm	3	4	5	5	7	7	8
A	mm	20	28	36	40	50	50	60
Length*	mm	50	60	70	70	80	60	100

* = max. grip length even

Material: 9 SMn Pb 28 k, 1.0718

Hose Clips, steel, zinc-plated

Order number	1.000.961.011	1.000.961.029	1.000.961.003	1.000.961.006	1.000.961.012	1.000.961.013	1.000.961.014	1.000.961.010	
Joint-size	0.716/0.816/ 0.720/0.820	0.824/0.725/ 0.828	0.732/0.832/ 0.836	0.740/0.840/ 0.845	0.750/0.850/ 0.855	0.860/0.865	0.870	0.880	
Clamping range	mm	12 – 20	20 – 32	25 – 40	32 – 50	40 – 60	50 – 70	60 – 80	70 – 90

Hose Clips, stainless steel, corrosion- and acid-resistant

Order number	1.000.961.020	1.000.961.022	1.000.961.023	1.000.961.024	1.000.961.025	1.000.961.026	1.000.961.027	1.000.961.028	
Joint-size	0.716/0.816/ 0.720/0.820	0.824/0.725/ 0.828	0.732/0.832/ 0.836	0.740/0.840/ 0.845	0.750/0.850/ 0.855	0.860/0.865	0.870	0.880	
Clamping range	mm	12 – 20	20 – 32	25 – 40	32 – 50	40 – 60	50 – 70	60 – 80	70 – 90

Bellows

Order number		1.000.830.009	1.000.830.010	1.000.830.013	1.000.830.014	1.000.830.002	1.000.830.003
Joint-size		0.716/0.816	0.720/0.820	0.725/0.824	0.828	0.732/0.832	0.836
L	mm	40	47	52	58	67	74
D	mm	31	33	46	50	54	65
d	mm	16	20	25	28	32	36

1.000.830.004	1.000.830.015	1.000.830.016	1.000.830.006	1.000.830.007	1.000.830.017
0.740/0.840	0.845	0.750/0.850	0.855/0.860	0.865/0.870	0.880
84	97	110	122	132	157
75	82	90	100	110	131
040	45	50	56	65	80

In vehicle construction and mechanical engineering drive flanges form the connection between drive and cardan shaft.

Using modern machine equipment, we manufacture products on the basis of high-quality forgings according to customer drawings.

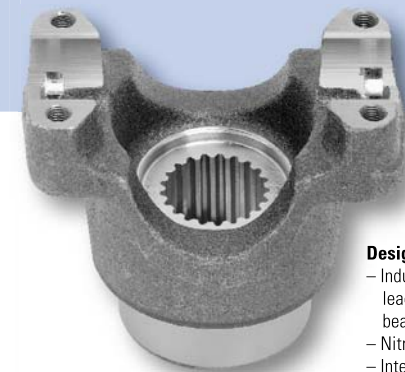
The drive flanges can be manufactured with internal and external splines as well as with hardened and lead-free ground seal bearing surface.

Please refer to the following pages for further information on our product range.



Design: end plate

- Induction-hardened and lead-free ground seal bearing surface
- Internal splines



Design: half round

- Induction-hardened and lead-free ground seal bearing surface
- Nitrided
- Internal splines



Design according to DIN ISO 8667

- Induction-hardened and lead-free ground seal bearing surface
- Internal splines
- Cross-serration 70°



Design: rectangular

- Induction-hardened and lead-free ground seal bearing surface
- Internal splines

Design: triangular

- Induction-hardened and lead-free ground seal bearing surface
- Internal splines



Special design: wing style

- Induction-hardened and lead-free ground seal bearing surface
- Internal splines



Design: wing style

- Induction-hardened and lead-free ground seal bearing surface
- Nitrided
- Internal splines



Design according to DIN 7646

- Induction-hardened and lead-free ground seal bearing surface
- Case-hardened version
- Internal splines

The main application field of our spiders is the integration into cardan joints. The spider is the main component of the cardan joint. Spiders, however, are also used in numerous other applications.

Our product range includes e.g. also so-called „compensation spiders“ for differential gears and spiders for tool technology.

Our spiders are made of high-quality pressed or forged blanks. Processing such as turning, case-hardening and grinding is carried out at our production facilities and strict quality control processes are adhered to.

General technical data for spiders:

Trunnion diameter: 4 mm to 48 mm

For torque range: 6 Nm to 35000 Nm

Complete spider kits with needle or roller bearing supported bushings are part of the delivery program of our cardan shaft service.

