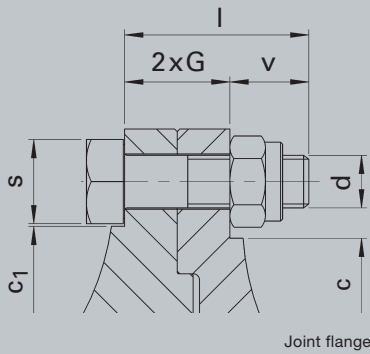


Installation/dismantling

Series 587/687/688



Hexagon bolt:
DIN 931/10.9

Hexagon nut:
similar to DIN 980/10
Self-locking

Shaft size		587.50		587.55		587.60
Flange dia.	mm	225	250	250	285	285
Ta	Nm	295	405	405	580	580
c	mm	158	176	168	202	202
c ₁	mm	171	189	189	214	214
d	-	M 16	M 18	M 18	M 20	M 20
l	mm	50	60	60	64	64
v	mm	20	24	24	24	24
s	mm	24	27	27	30	30
i ¹⁾	-	8	8	8	8	8
Bolts inserted from joint side		yes	yes	yes	yes	yes

Shaft size		687/688.15	687/688.20	687/688.25	687/688.30		687/688.35	
Flange dia.	mm	100	120	120	120	150	150	180
Ta	Nm	35	69	69	69	120	120	190
c	mm	64	76	76	76	100	100	119
c ₁	mm	69,5	84	84	84	110,3	110,3	132,5
d	-	M 8	M 10	M 10	M 10	M 12	M 12	M 14
l	mm	23	27	27	27	33	33	40
v	mm	9	11	11	11	13	13	16
s	mm	13	17	17	17	19	19	22
i ¹⁾	-	6	8	8	8	8	8	8
Bolts inserted from joint side		Normal design	yes	yes	yes	yes	yes	yes
Bolts inserted from joint side		Wide angel design	-	-	-	-	-	-

Shaft size		687/688.40		687/688.45		687/688.55		687/688.65	
Flange dia.	mm	150	180	180	225	180	225	180	225
Ta	Nm	120	190	190	295	295	295	295	295
c	mm	100	119	119	158	118	158	118	158
c ₁	mm	110,3	132,5	132,5	171	130,5	171	130,5	171
d	-	M 12	M 14	M 14	M 16	M 16	M 16	M 16	M 16
l	mm	33	40	40	50	50	50	50	50
v	mm	13	16	16	20	22	20	20	20
s	mm	19	22	22	24	24	24	24	24
i ¹⁾	-	8	8	8	8	10	8	10	8
Bolts inserted from joint side		Normal design	yes	yes	yes	yes	yes	no	yes
Bolts inserted from joint side		Wide angel design	yes	yes	yes	-	yes	-	-

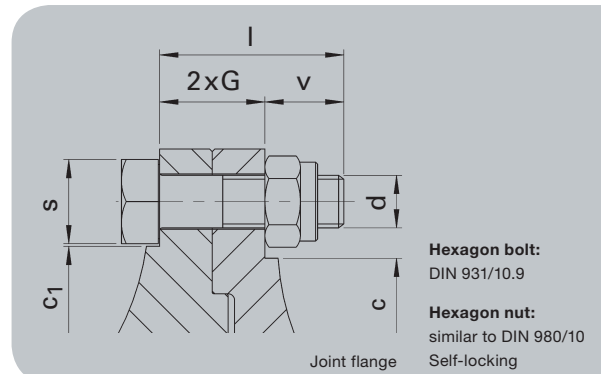
1) = Number of bolt holes

Ta = Tightening torque of bolting Special torque wrenches supplied on request

Installation/dismantling

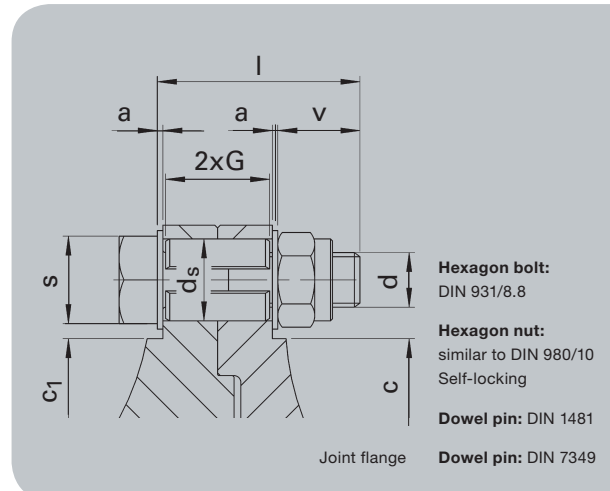
Series 390 Standard bolting

Shaft size		390.60	390.65	390.70	390.75	390.80
Flange dia.	mm	285	315	350	390	435
Ta	Nm	580	780	780	1.000	1.500
c	mm	202	230	256	295	332
c ₁	mm	214	247	277	308	343
d	-	M 20	M 22	M 22	M 24	M 27
l	mm	64	70	75	85	95
v	mm	24	26	25	29	31
s	mm	30	32	32	36	41
i ¹⁾	-	8	8	10	10	10
Bolts inserted from joint side		yes	yes	yes	yes	yes



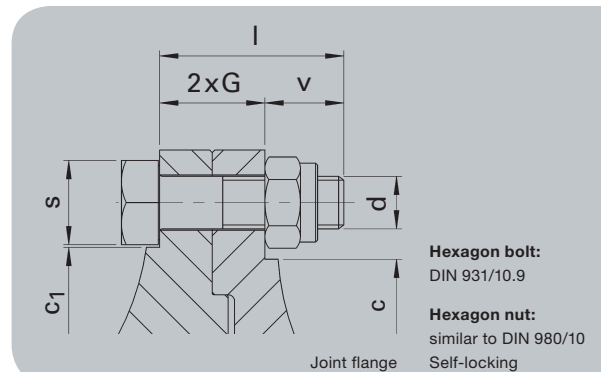
Series 587/390 Dowel pin connection

Shaft size		587.50	587.55	390.60	390.65	390.70	390.75	390.80
Flange dia.	mm	250	250	285	315	350	390	435
Ta	Nm	130	130	200	200	280	280	400
c	mm	176	168	202	230	256	295	332
c ₁ ²⁾	mm	176	176	198	228	254	294	332
d	-	M14	M14	M16	M16	M18	M18	M20
l	mm	65	65	75	75	90	95	110
d _s	mm	25	25	28	30	32	32	35
l _s	mm	32	32	36	40	45	50	60
v	mm	17	17	23	19	24	23	30
a	mm	6	6	6	6	8	8	8
s	mm	22	22	24	24	27	27	30
i ¹⁾	-	4	4	4	4	4	4	4
Bolts inserted from joint side		yes	yes	yes	yes	yes	yes	yes



Series 587/190/390 Super short designs

Shaft size		587.50	190.55	390.60	190.65	390.70
Flange dia.	mm	275	305	348	360	405
Ta	Nm	190	295	405	405	580
c	mm	213,5	237,5	274	288	324,5
c ₁	mm	225	250	285	299	338
d	-	M 14	M 16	M 18	M 18	M 20
l	mm	50	50	60	60	65
v	mm	15	20	24	24	21
s	mm	22	24	27	27	30
i ¹⁾	-	10	10	10	10	10
Bolts inserted from joint side		yes	yes	yes	yes	yes



1) = Number of bolt holes

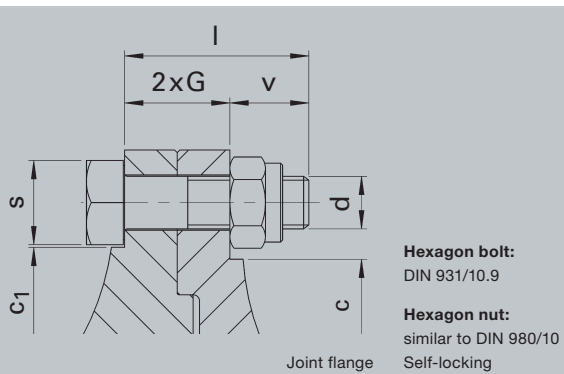
2) = Dowel pin connection without locking

Ta = Tightening torque of bolting Special torque wrenches supplied on request

Installation/dismantling

Series 392/393/689

Flange connection with face key



Shaft size		392.50 689.50	392.55 689.55	392.60	392.65	392.70	393.75	393.80	393.85	393.90
Flange dia.	mm	225	250	285	315	350	390	435	480	550
Ta	Nm	295	405	580	780	780	1.000	1.500	2.000	2.000
c	mm	152	170	193	224	254	286	315	334	420
c1	mm	171	190	214	247	277	307	342	377	444
d	-	M 16	M 18	M 20	M 22	M 22	M 24	M 27	M 30	M 30
l	mm	60	75	80	90	100	110	120	130	140
v	mm	20	25	26	26	30	30	36	36	40
s	mm	24	27	30	32	32	36	41	46	46
i1)	-	8	8	8	10	10	10	16	16	16
Bolts inserted from joint side		no	no	no	no	no	no	no	no	no

1) = Number of bolt holes

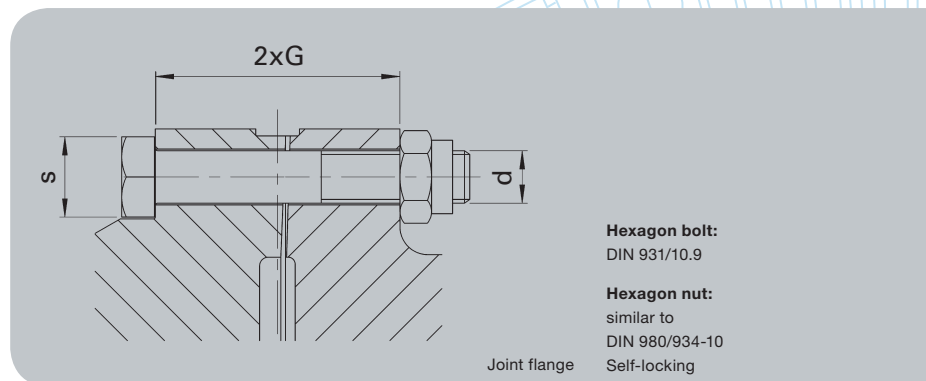
Ta = Tightening torque of bolting Special torque wrenches supplied on request



Installation/dismantling

Series 492/498/598

Flange connection with Hirth-serration



Series 492

Shaft size		492.60	492.65	492.70	492.75	492.80	492.85	492.90
Flange dia.	mm	285	315	350	390	435	480	550
Ta	Nm	175	270	270	375	375	525	720
d	-	M 14	M 16	M 16	M 18	M 18	M 20	M 22
s	mm	21	24	24	27	27	30	32
i ¹⁾	-	10	10	12	12	16	16	16
Bolts inserted from joint side		no	no	no	no	no	no	no

Series 498/598

Shaft size		498.00 598.00	498.05 598.05	498.10 598.10	498.15 598.15	498.20 598.20	498.25 598.25	498.30 598.30	498.35 598.35	498.40 598.40	498.45 598.45	498.50 598.50	498.55 598.55	498.60 598.60
Flange dia.	mm	600	650	700	750	800	850	900	950	1.000	1.050	1.100	1.150	1.200
Ta	Nm	900	900	900	1.800	1.800	3.150	3.150	3.150	5.400	5.400	5.400	8.200	8.200
d	-	M 24	M 24	M 24	M 30	M 30	M 36	M 36	M 36	M 42 x 3	M 42 x 3	M 42 x 3	M 48 x 3	M 48 x 3
s	mm	36	36	36	46	46	55	55	55	65	65	65	75	75
i ¹⁾	-	20	20	24	24	24	24	24	24	20	20	20	20	20
Bolts inserted from joint side		no	no	no	no	no	no	no	no	no	no	no	no	no

1) = Number of bolt holes

Ta = Tightening torque of bolting Special torque wrenches supplied on request



Installation/dismantling

Companion flanges

In general, driveshafts are connected to the driven units by companion flanges.

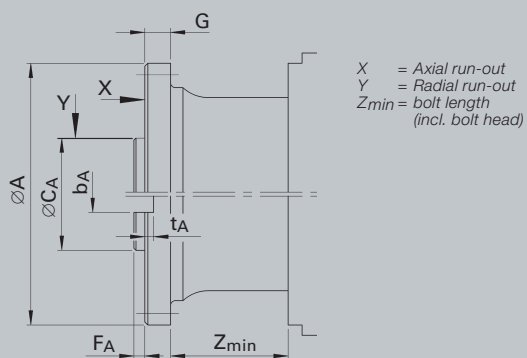
The accurate running of a driveshaft requires certain tolerances for the axial and radial run-out (see tables).

The dimensions of the companion flanges correspond with those of the same size of driveshafts, except for the centring depth F_A and the fit C_A , the depth of the keyway t_A and the width b_A . They can be taken from the following tables.

For better bolt locking we recommend designing the relief of the companion flange as a bolt head surface and inserting the bolt

from the companion flange side. In this case the distance Z_{min} must be met between the flange and the adjacent housing.

If it is not possible to insert the bolts from the companion flange side, we recommend the use of stud bolts.



Series 587

Shaft size		587.50		587.55		587.60	
A	mm	225	250	250	285	285	
F_A	mm	4-0,2	5-0,2	5-0,2	6-0,5	6-0,5	
G	mm	15	18	18	20	20	
X and Y	mm	0,05	0,06	0,06	0,06	0,06	
C_A h6	mm	140	140	140	175	175	

Series 687/688

Shaft size		687/688.15		687/688.20		687/688.25		687/688.30		687/688.35	
A	mm	100	120	120	120	150	150	180			
F_A	mm	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	2,3-0,2	
G	mm	7	8	8	8	10	10	12			
X and Y	mm	0,05	0,05	0,05	0,05	0,05	0,05	0,05			
C_A h6	mm	57	75	75	75	90	90	110			

Shaft size		687/688.40		687/688.45		687/688.55		687/688.65	
A	mm	150	180	180	225	180	225	180	225
F_A	mm	2,3-0,2	2,3-0,2	2,3-0,2	4-0,2	2,3-0,2	4-0,2	2,3-0,2	4-0,2
G	mm	10	12	12	15	14	15	15	15
X and Y	mm	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05
C_A h6	mm	90	110	110	140	110	140	110	140



Installation/dismantling

Series 390

Shaft size		390.60	390.65	390.70	390.75	390.80
A	mm	285	315	350	390	435
F _A	mm	6-0,5	6-0,5	7-0,5	7-0,5	9-0,5
G	mm	20	22	25	28	32
X and Y	mm	0,06	0,06	0,06	0,06	0,06
C _A h6	mm	175	175	220	250	280

Series 587/190 Super short designs

Shaft size		587.50	190.55	190.60	190.65	190.70
A	mm	275	305	348	360	405
F _A	mm	4-0,2	5-0,3	6-0,5	6-0,5	7-0,5
G	mm	15	15	18	18	22
X and Y	mm	0,06	0,06	0,06	0,06	0,06
C _A h6	mm	140	140	175	175	220

Series 392/393

Shaft size		392.50	392.55	392.60	392.65	392.70	393.75	393.80	393.85	393.90
A	mm	225	250	285	315	350	390	435	480	550
F _A	mm	4-0,5	5-0,5	6-0,5	7-0,5	7-0,5	7-0,5	9-0,5	11-0,5	11-0,5
G	mm	20	25	27	32	35	40	42	47	50
X and Y	mm	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06	0,06
C _A f8	mm	105	105	125	130	155	170	190	205	250
b _A K8	mm	32	40	40	40	50	70	80	90	100
t _A + 0,2 mm		9	12,5	15	15	16	18	20	22,5	22,5

