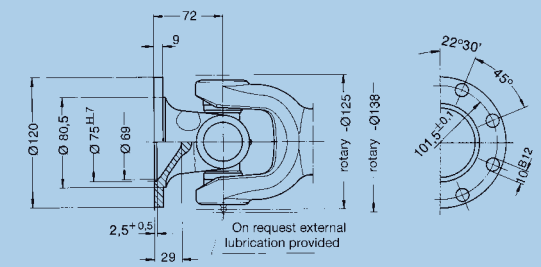
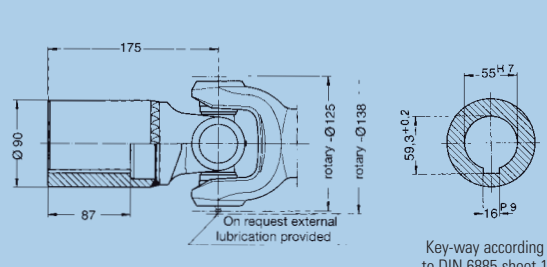
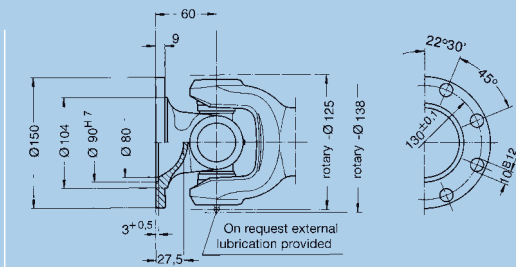
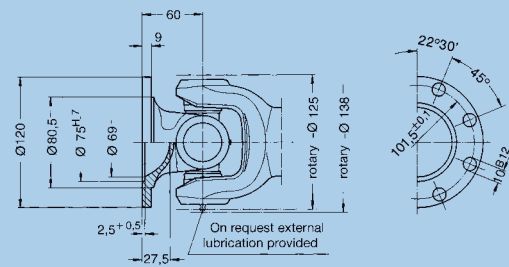


Needle or Roller bearing version

At utilisation of the nominal torque a verification of the flange connection is necessary.

One keyway is not enough to transmit the max. torque. In such case a second keyway or an internal spline is recommended.



On both sides standard flange end number: 0.113.XX0

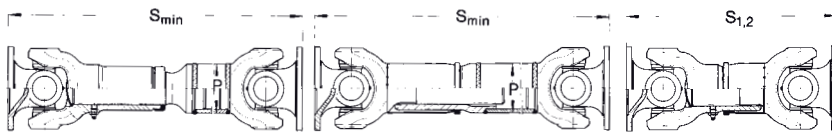
On both sides larger flange end number: 0.113.XX1

On both sides connecting hub without key-way end number: 0.113.XX2 with key-way end number: 0.113.XX3

On both sides flange for larger angle deflection end number: 0.113.XX5

- β* = Maximum angle of deflection per joint
- J_m = Moment of inertia
- G = Weight
- S_{min} = Minimum length of tubular types
- S₁ = Compressed lengths
- S₂ = of short types
- X₁ = Extension at S_{min} resp. S₁
- X₂ = Extension at S₂
- P₁ = Tube diameter. Dimensions in bold type for normal applications. Alternative dimensions are for long shafts at high speeds, see technical annex domain speed
- P₂ = Alternative tube
- P₃ = Alternative tube

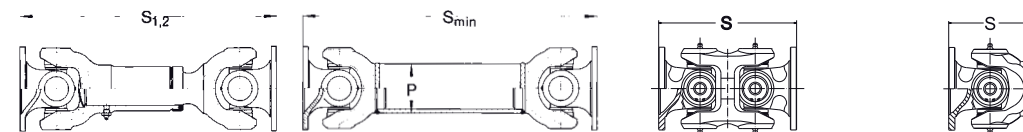
Universal Cardan Drive-Shafts with extension



additional spline protection on request

Cardan Drive-Shafts without extension

Universal Joints without extension



additional spline protection on request

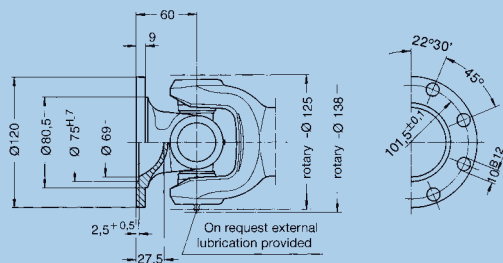
Please indicate requested length „S“ and max. r.p.m. when ordering!

Order number	Tubular Type normal extension				Tubular Type larger extension				Short Type I		
	0.113.100	0.113.101	0.113.102	0.113.105	0.113.110	0.113.111	0.113.112	0.113.115	0.113.130	0.113.131	0.113.132
Angle of deflection β*	20	18	20	35	20	18	20	35	20	18	20
Flange-Ø	120	150	Hub	120	120	150	Hub	120	120	150	Hub
S _{min} resp. S ₁	491	491	721	530	556	556	786	580	345	345	575
S ₂	-	-	-	-	-	-	-	-	375	375	605
X resp. X ₁	60	60	60	60	130	130	130	130	35	35	35
X ₂	-	-	-	-	-	-	-	-	50	50	50
P ₁	70 x 4	70 x 4	70 x 4	70 x 4	70 x 4	70 x 4	70 x 4	70 x 4	-	-	-
P ₂	80 x 4	80 x 4	80 x 4	80 x 4	80 x 4	80 x 4	80 x 4	80 x 4	-	-	-
P ₃	100 x 4	100 x 4	100 x 4	100 x 4	100 x 4	100 x 4	100 x 4	100 x 4	-	-	-
Spline dim. DIN 5480	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24
Number of flange holes	8	8	-	8	8	8	-	8	8	8	-
J _m (at S _{min} resp. S ₁)	0,01811	0,0218	0,01897	0,0199	0,02019	0,02388	0,02211	0,02324	0,01773	0,02142	0,02302
J _m (at S ₂)	-	-	-	-	-	-	-	-	0,01807	0,02176	0,02336
J _m /100 mm standard tube	0,00071	0,00071	0,00071	0,00071	0,00071	0,00071	0,00071	0,00071	-	-	-
G (at S _{min} resp. S ₁)	13,66	15,02	19,88	14,55	15,46	16,82	21,75	16,12	11,31	12,67	17,53
G (at S ₂)	-	-	-	-	-	-	-	-	12,03	13,39	18,25
G/100 mm standard tube	0,65	0,65	0,65	0,65	0,65	0,65	0,65	0,65	-	-	-

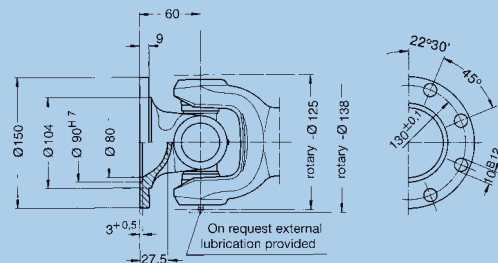
* Please refer to point 6.7 of the technical attachment

Short Type II				Tubular Type				Universal Joint Double			Universal Joint Single			
0.113.140	0.113.141	0.113.142	0.113.145	0.113.200	0.113.201	0.113.202	0.113.205	0.113.300	0.113.301	0.113.302	0.113.400	0.113.401	0.113.402	0.113.405
20	18	20	35	20	18	35	35	12	12	12	20	18	35	35
120	150	Hub	120	120	150	Hub	120	120	150	Hub	120	150	Hub	120
420	420	650	460	307	307	534	330	200	200	430	120	120	350	144
450	450	680	495	-	-	-	-	-	-	-	-	-	-	-
60	60	60	60	-	-	-	-	-	-	-	-	-	-	-
60	60	60	60	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	70 x 4	70 x 4	70 x 4	70 x 4	-	-	-	-	-	-	-
-	-	-	-	80 x 4	80 x 4	80 x 4	80 x 4	-	-	-	-	-	-	-
-	-	-	-	100 x 4	100 x 4	100 x 4	100 x 4	-	-	-	-	-	-	-
50x2x24	50x2x24	50x2x24	50x2x24	-	-	-	-	-	-	-	-	-	-	-
8	8	-	8	8	8	-	8	8	8	-	8	8	-	8
0,01512	0,01881	0,02041	0,01836	0,01436	0,01805	0,0156	0,01591	0,01336	0,01705	0,01465	0,00510	0,00879	0,01039	0,00998
0,01546	0,01915	0,02075	0,01866	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	0,00071	0,00071	0,00071	0,00071	-	-	-	-	-	-	-
12,60	13,96	18,83	13,47	9,36	10,72	15,56	10,02	7,97	9,33	14,04	4,42	5,78	10,66	5,10
12,94	14,30	19,17	13,92	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	0,65	0,65	0,65	0,65	-	-	-	-	-	-	-

At utilisation of the nominal torque a verification of the flange connection is necessary.

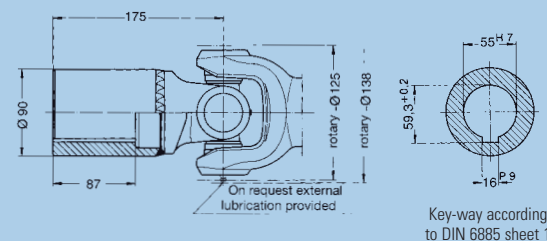


Standard flange
end number: 0.113.XX0

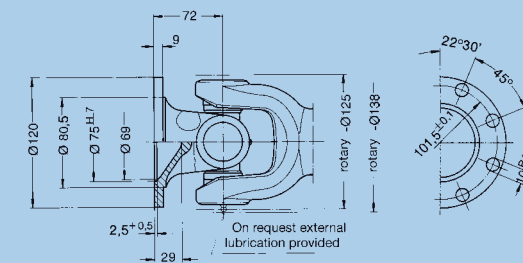


Larger flange
end number: 0.113.XX1

One keyway is not enough to transmit the max. torque. In such case a second keyway or an internal spline is recommended.

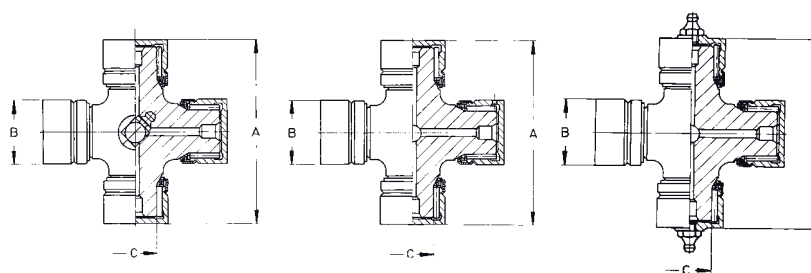


Connecting hub
without key-way end number: 0.113.XX2
with key-way end number: 0.113.XX3



Flange for larger angle of deflection
end number: 0.113.XX5

Cross Units



β* = Maximum angle of deflection per joint
X = Preferred extension (larger extension available up to approx. 9 x spline o. D.)

Fixed joint

Slip joint

Slip joint (sliding sleeve type)

Needle bearing version

	Standard version Needle bearing	Lubrication for version 0.100.3XX Needle bearing	Version suitable for external lubrication Needle bearing
Order number	0.113.010	0.113.011	0.113.012
A	mm 106	106	106
B	mm 38	38	38
C	mm 26,28	26,28	26,28
Snap rings included	mm J 38 x 1,5	J 38 x 1,5	J 38 x 1,5
Weight	kg 1,32	1,32	1,33

Roller bearing version

	Standard version Roller bearing	Version suitable for external lubrication Roller bearing
Order number	0.113.015	0.113.016
A	mm 106	106
B	mm 38	38
C	mm 25,7	25,7
Snap rings included	mm J 38 x 1,5	J 38 x 1,5
Weight	kg 1,25	1,34

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

Needle resp. Roller bearing version

	without extension				standard extension				larger extension			
Order number	0.113.050	0.113.051	0.113.052	0.113.055	0.113.060	0.113.061	0.113.062	0.113.065	0.113.070	0.113.071	0.113.072	0.113.075
Angle of deflection β*	20	18	20	35	20	18	20	35	20	18	20	35
Weight	kg 4,52	5,20	7,63	4,85	8,85	9,53	11,96	9,40	10,24	10,92	13,35	10,57
Flange-Ø	mm 120	150	Hub	120	120	150	Hub	120	120	150	Hub	120
S	mm 128	128	243	140	318	318	433	343	320	320	435	332
X	mm -	-	-	-	60	60	60	60	130	130	130	130
Y	mm 20	20	20	20	22	22	22	22	22	22	22	22
Z	mm 62,25	62,25	62,25	62,25	62,25	62,25	62,25	62,25	62,25	62,25	62,25	62,25
Spline dim. DIN 5480	mm -	-	-	-	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24	50x2x24
Number of flange holes	8	8	-	8	8	8	-	8	8	8	-	8

* Please refer to point 6.7 of the technical attachment.

The dimensions Z, Y and S will be changed within a product change. Please contact us for further questions.