

HiTORK®

UNIVERSAL JOINTS





UNIVERSAL JOINTS

Universal Joints are used to transmit torque from one shaft to another which are inclined to each other. It is an ideal form of coupling to transmit power efficiently when inclination of shafts is unavoidable.

Universal Joints are manufactured from right quality alloy steel and heat treated for increased durability and overload resistance. Precision machining and ground to close tolerances ensure optimum performances under severe operating conditions.

Universal Joints are available as Single (US), Double (UD) and Expandable (UE) types and are suitable for applications up to 800 rpm.

Apart from standard models shown in this catalogue, special versions, example in Stainless Steel material, inch dimensions, quick release, etc., can also be supplied against specific requirements.

SELECTION CRITERIA

Table 1 gives maximum allowable torque for angle of inclination of 10 degrees. If the inclination angle is different from 10 degrees, the values shown in Table - 1 are to be multiplied by the factor F given in Table - 2

Example :

Power to be transmitted : 2kW

Speed : 750 rpm

Angle of inclination : 20 degrees

Torque to be transmitted

$$M = \frac{9555 \times 2}{750} = 25.48 \text{ Nm.}$$

Due to 20 degrees inclination angle, select

Universal Joint of torque capacity

$$M_t = M / F = 25.48 / 0.75 = 33.97 \text{ Nm Select model}$$

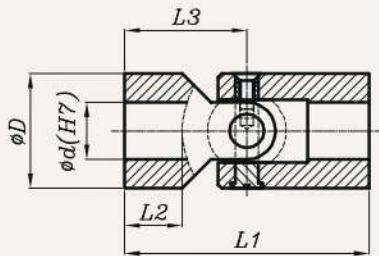
US, UD, UE 32

Model	rpm						
	100	200	300	400	500	700	800
US, UD, UE 13	6	4	3.5	3	2.5	2	1.5
16	11	7	6	5.5	5	4.5	3
20	23	15	13	12	11	10	7
22	28	18	16	14	12	11	8
25	40	23	18	16	14	11	9
28	60	35	27	24	21	17	14
32	80	70	68	55	50	43	34
36	125	108	104	84	76	65	-
40	200	160	110	90	80	72	-
45	230	184	126	102	90	-	-
50	350	220	160	140	115	-	-
56	470	295	215	188	-	-	-
63	580	360	260	225	-	-	-

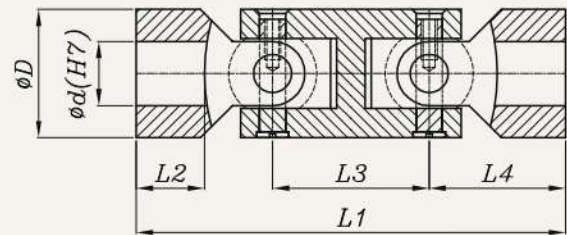
Angle up to	Factor F
5°	1.25
10°	1
20°	0.75
30°	0.45
40°	0.3



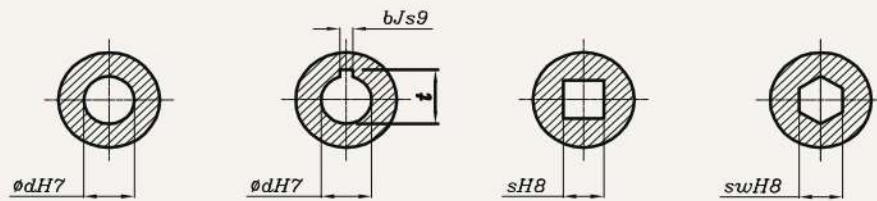
UNIVERSAL JOINTS



Single Joint



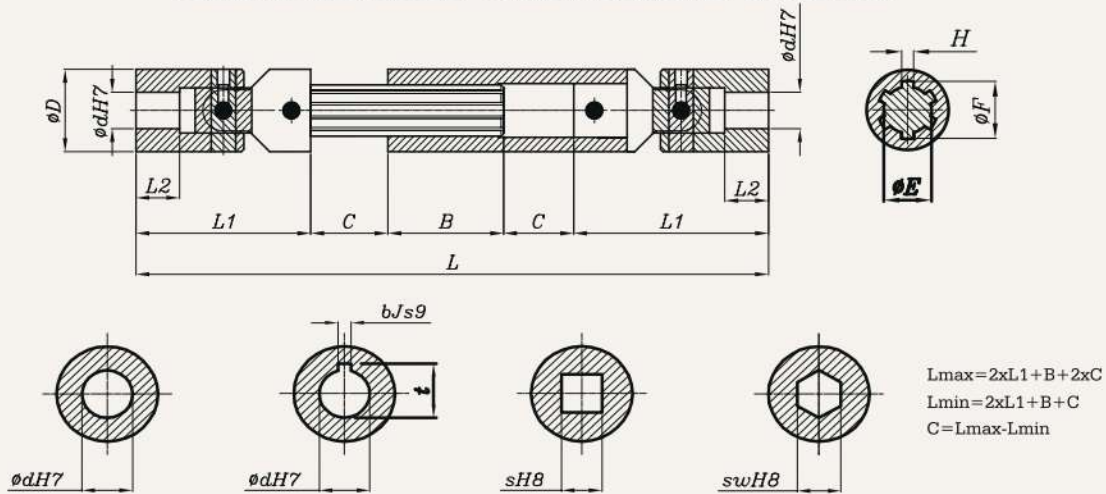
Double Joint



Single joint						Double joint							Bore			Max Static torque Nm
Model	ØD	Ød	L1	L2	L3	Model	ØD	Ød	L1	L2	L3	L4	b x t	s	sw	
US 13	13	6.5	34	8	17	UD 13	13	6.5	54	8	20	17	3x7.9	6.5	6.5	21
US 16	16	8	40	10	20	UD 16	16	8	63	10	23	20	3x9.4	8	8	40
US 20	20	10	48	12	24	UD 20	20	10	77	12	29	24	3x11.4	10	10	80
US 22	22.5	11	52	12	26	UD 22	22.5	11	81	12	29	26	3x12.4	11	11	90
US 25	25	12	56	14	28	UD 25	25	12	89	14	33	28	4x13.8	12	12	118
US 28	28	14	62	15	31	UD 28	28	14	97	15	34	31	5x16.3	14	14	170
US 32	32	16	68	16	34	UD 32	32	16	107	16	39	34	5x18.3	16	16	250
US 36	36	18	72	18	36	UD 36	36	18	115	18	43	36	6x20.8	18	18	355
US 40	40	20	82	20	41	UD 40	40	20	128	20	46	41	6x22.8	20	20	500
US 45	45	22	95	22	47.5	UD 45	45	22	148	22	52	47.5	6x24.8	22	22	630
US 50	50	25	108	27	54	UD 50	50	25	167	27	59	54	8x28.3	25	25	800
US 56	56	28	122	30	61	UD 56	56	28	188	30	66	61	8x31.3	28	28	1320
US 63	63	30	166	38	83	UD 63	63	30	256	38	90	83	8x33.3	30	30	1500

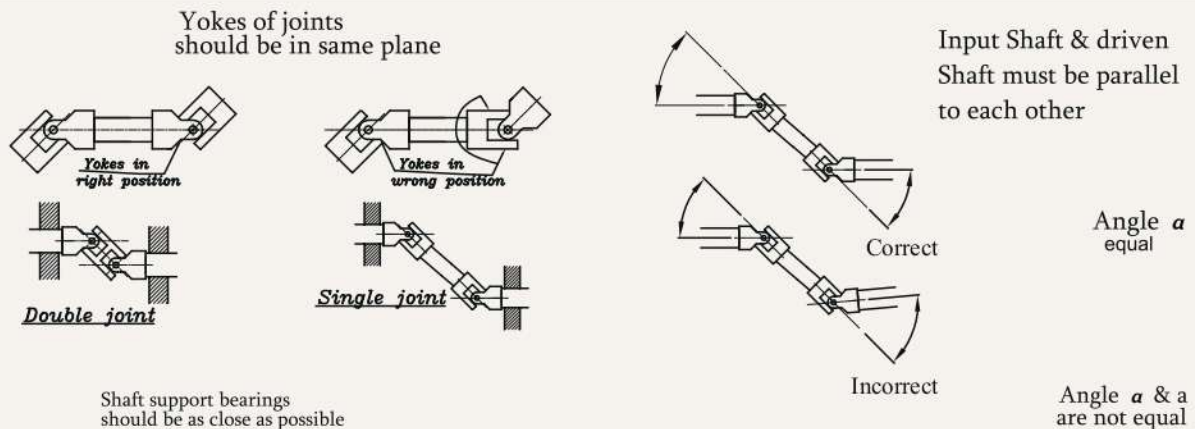


EXPANDABLE UNIVERSAL JOINTS



Model	ØD	Ød	L1	L2	B	Spline			Bore			Max Static torque Nm
						E	F	H	b x t	S	sw	
UE 20	20	10	48	12	40	11	14	3	3x 11.4	10	10	80
UE 22	22.5	11	52	12	40	11	14	3	3x 12.4	11	11	90
UE 25	25	12	56	14	45	13	16	3.5	4x 13.8	12	12	118
UE 28	28	14	62	15	45	13	16	3.5	5x 16.3	14	14	170
UE 32	32	16	68	16	45	16	20	4	5x 18.3	16	16	250
UE 36	36	18	72	18	45	16	20	4	6x 20.8	18	18	355
UE 40	40	20	82	20	45	18	22	5	6x 22.8	20	20	500
UE 45	45	22	95	22	48	21	25	5	6x 24.8	22	22	630
UE 50	50	25	108	27	48	23	28	6	8x 28.3	25	25	800
UE 56	56	28	122	30	50	23	28	6	8x 31.3	28	28	1320
UE 63	63	30	166	38	55	26	32	6	8x 33.3	30	30	1500

INSTALLATION OF UNIVERSAL JOINTS



PERFORMANCE DATA AND DIMENSIONS ARE NOT BINDING

ISO : 9001 - 2008

