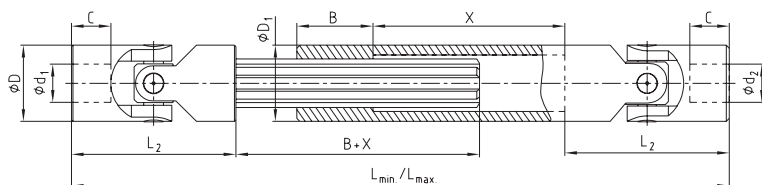


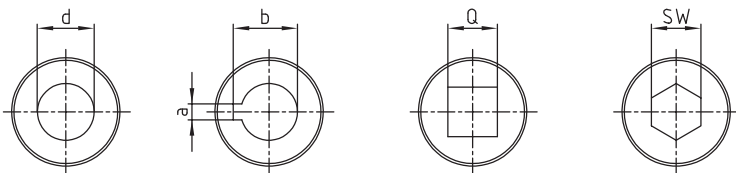
## Type GA and HA acc. to DIN 808 with plain and needle bearing (extendable)



- Precision double joint - extendable, maximum articulation angle 45° for each joint
- Bridging larger shaft distances
- Type GA (plain bearing)  $n_{max.} = 1000$  rpm
- Type HA (needle bearing)  $n_{max.} = 4000$  rpm
- Available with quick locking GR; HR
- Available with finish bore H7 – on request available with key-way, thread for setscrews, square or hexagon bore
- Also available as clamping hub



Finish bores:



Preferred lengths									
Size	Dimensions [mm]								
	L <sub>min.</sub> / L <sub>max.</sub>								
03	140	160	180	230					
	170	200	240	330					
04	160	180	200	220	250	280	300		
	190	225	270	300	355	420	450		
05	170	180	200	220	250	280	300	350	400
	200	220	260	300	350	420	450	550	650
1	190	210	240	250	275	300	380	400	
	220	250	320	350	390	430	590	630	
2	230	250	270	290	300	400	500		
	280	320	370	400	415	620	820		
3	250	270	290	320	380	420	500		
	300	340	380	440	560	640	800		
4	250	270	290	330	350	470			
	280	320	350	430	470	710			
5	295	310	350	380	420	460	500		
	345	375	450	500	590	660	745		
6	330	350	370	400	450	500	540		
	380	420	455	510	620	720	795		

Type GA with plain bearing $n_{max.} = 1000$ rpm and type HA with needle bearing $n_{max.} = 4000$ rpm														
Size		Dimensions [mm]											Splines shaft	D <sub>1</sub>
GA	HA	d <sub>1</sub> , d <sub>2</sub> [H7]	D	L <sub>2</sub>	C	L <sub>min.</sub> / L <sub>max.</sub> / X		B	a [JS9]	b	Q [H8]	SW [H8]		
01 GA	-	6	16	34	8	←	→	25	2	7,0	6	6	SW8	16
02 GA	-	8	16	40	11	←	→	25	2	9,0	8	8	SW8	16
03 GA	03 HA	10	22	48	12	←	→	30	3	11,4	10	10	11 x 14 Z6	22
04 GA	04 HA	12	25	56	13	←	→	40	4	13,8	12	12	13 x 16 Z6	26
05 GA	05 HA	14	28	60	14	←	→	40	5	16,3	14	14	13 x 16 Z6	29
1 GA	1 HA	16	32	68	16	←	→	40	5	18,3	16	16	16 x 20 Z6	32
2 GA	2 HA	18	36	74	17	←	→	40	6	20,8	18	18	18 x 22 Z6	37
3 GA	3 HA	20	42	82	18	←	→	45	6	22,8	20	20	21 x 25 Z6	42
4 GA	4 HA	22	45	95	22	←	→	50	6	24,8	22	22	23 x 28 Z6	47
5 GA	5 HA	25	50	108	26	←	→	50	8	28,3	25	25	26 x 32 Z6	52
6 GA	6 HA	30	58	122	29	←	→	60	8	33,3	30	30	32 x 38 Z8	58
7 GA	7 HA	35	70	140	35	←	→	70	10	38,3	-	-	36 x 42 Z8	70
8 GA	8 HA	40	80	160	39	←	→	80	12	43,3	-	-	42 x 48 Z8	80
9 GA	9 HA	50	95	190	46	←	→	90	14	53,8	-	-	46 x 54 Z8	95

### Calculation of mounting lengths L and X (stroke)

$$\text{Stroke } X \geq (L_{max} - 2 \cdot L_2 - B) / 2$$

$$L_{min.} \geq (L_{max} + 2 \cdot L_2 + B) / 2$$

$$\text{Minimum dimension } L_{min.} = L_2 + B + X + L_2$$

Ordering example:	3 GA	d <sub>1</sub> = Ø20	d <sub>2</sub> = Ø20 keyway DIN	550/650
	Size/type of joint	Finish bore (H7)	Finish bore (H7), keyway to DIN 6885 sheet 1 (JS9)	Mounting length L <sub>min.</sub> /L <sub>max.</sub>