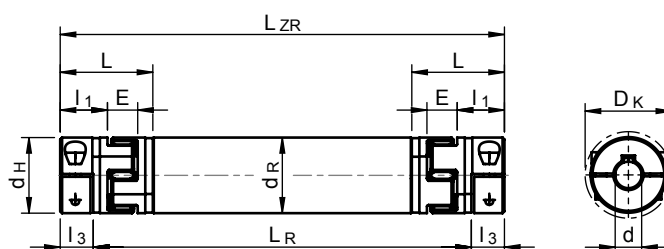




Drive Technology

Joint shafts VWK

Easy radial mounting with 2-part coupling hubs, replacement of toothed spiders without displacement of the drive shafts. Lengths up to 4 meters are possible without pillow block bearing are possible depending on revolution speed and size. Low mass moment of inertia due to aluminum material. Combination with other hub versions are possible. Bore size to ISO-fit H7, key to DIN 6885 Bl. 1 – JS9.



Technical Data																
Size	Nominal torque [Nm]	Dimensions [mm]														
	98 Sh A	d _{min.}	d _{max.}	L _R min.	L _R max.	L _{ZR} min.	L _{ZR} max.	D _H	d _R	I ₁	I ₃	L	E	D _K	C	
VWK-ZR3-AGS19	21	8	20	98	2965	133	3000	40	40	25	17,5	49	16	46	5	
VWK-ZR3-AGS24	60	10	28	113	3456	157	3500	55	50	30	22	59	18	57,5	5	
VWK-ZR3-AGS28	160	14	38	131	3950	181	4000	65	60	35	25	67	20	73	5	
VWK-ZR3-AGS38	325	18	45	163	3934	229	4000	80	70	45	33	83,5	24	83,5	5	
VWK-ZR3-AGS42	450	22	50	180	3927	253	4000	95	80	50	36,5	93	26	93,5	5	
VWK-ZR3-AGS48	525	22	55	202	3921	281	4000	105	100	56	39,5	103	28	105	5	

¹⁾ Standard design 7.6 split clamping hub with key.
²⁾ Additional hub designs upon request.

Example of order code

VWK-ZR3-AGS19-L_R1000-7.6-Ø14m.N./7.5-Ø20o.N.

AGS19 = size

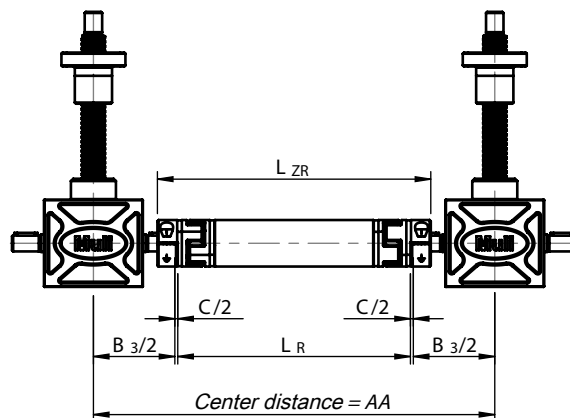
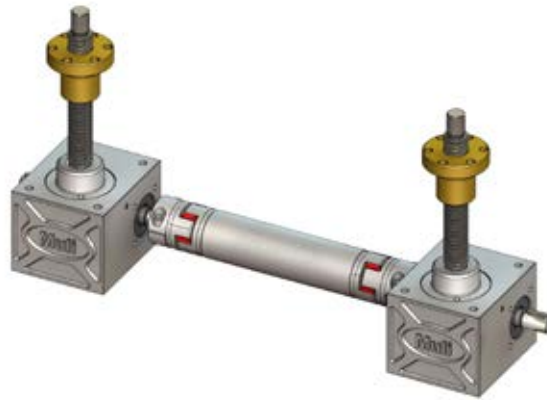
L_R = 1000 mm (L_R = distance between the drive shafts – C)

7.6-Ø14m.N. = hub type 7.6 with Ø14 mm hole with keyway

7.5-Ø20o.N. = hub type 7.5 with Ø20 mm hole without keyway

Drive Technology

Length calculation for joint shafts VVK without pillow block bearing

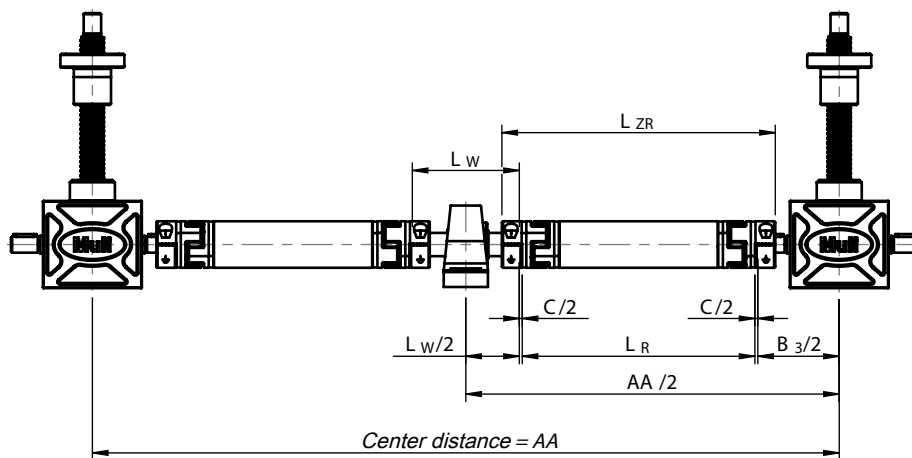
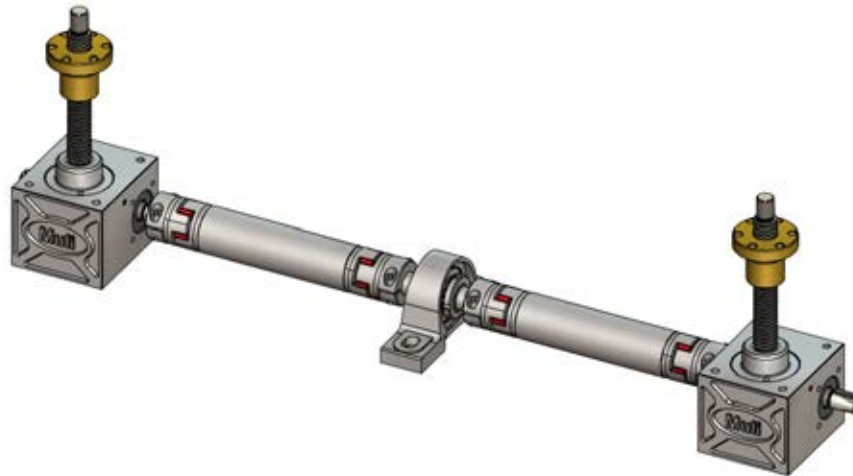


$$L_R = AA - B_3 - C$$

- L_R = Distance between the drive shafts
- AA = Centre distance
- B_3 = Width of screw jack
- C = Mounting tolerance

Drive Technology

Length calculation for joint shafts VWK with pillow block bearing



$$L_R = AA/2 - B_3/2 - L_W/2 - C$$

L_R = Distance between the drive shafts

AA = Centre distance

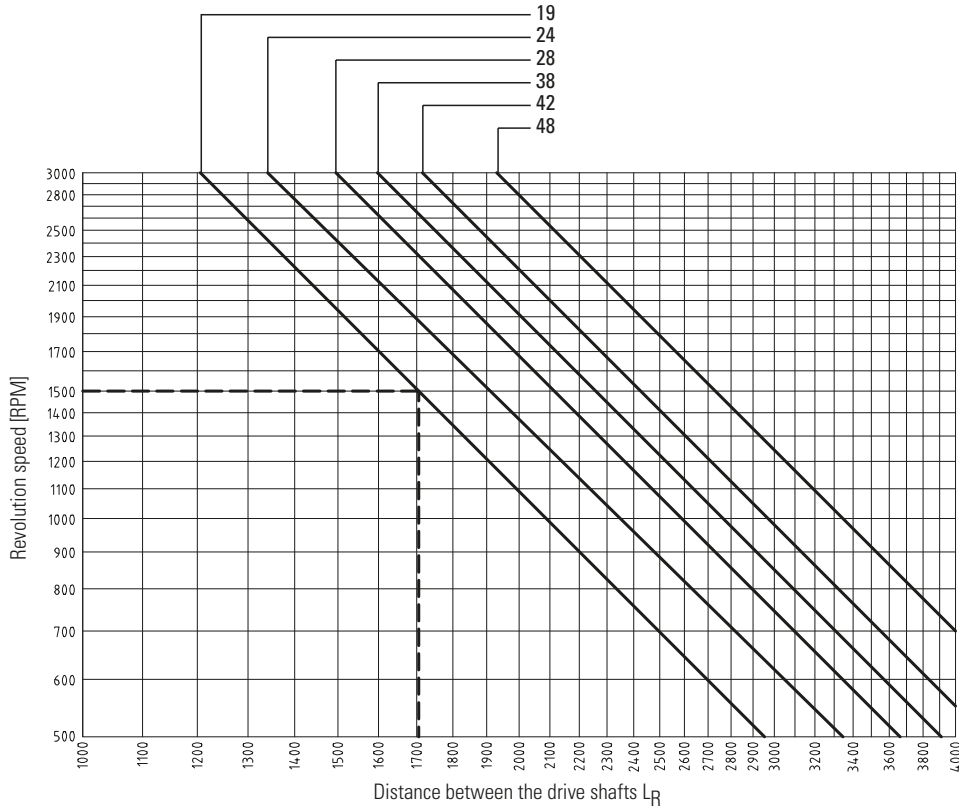
B_3 = Width of screw jack

C = Mounting tolerance

L_W = Length of intermediate shaft WZK

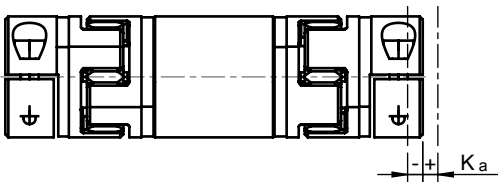
Drive Technology

Critical revolution speed for joint shafts VWK

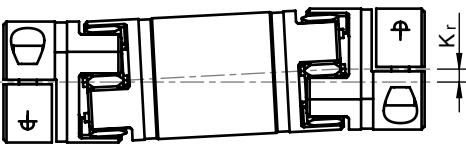


Offsets tolerances for VWK joint shafts

Axial offsets K_a

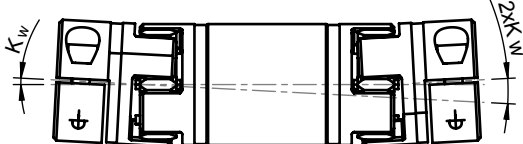


Radial offsets K_r



$$K_r [\text{mm}] = (L_{ZR} - 2x l_1 - E) \times \tan \alpha$$

Angular offsets K_w



Offset Data

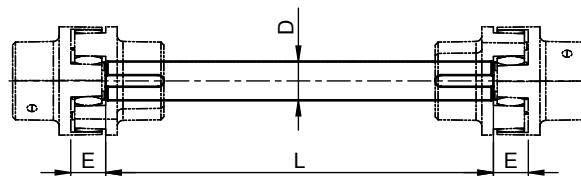
Size	Axial K_a [mm]	Radial K_r ¹⁾ [mm]	Angle K_w [°]
14	1,0	15,16	0,9°
	-1,0		
19	1,2	14,67	0,9°
	-1,0		
24	1,4	14,48	0,9°
	-1,0		
28	1,5	14,30	0,9°
	-1,4		
38	1,8	13,92	0,9°
	-1,4		
42	2,0	13,73	0,9°
	-2,0		
48	2,1	13,51	0,9°
	-2,0		
55	2,2	13,19	0,9°
	-2,0		
65	2,6	12,80	0,9°
	-2,0		

¹⁾ Radial offset referring to a shaft length $L_{ZR} = 1000\text{mm}$

Drive Technology

Joint shafts VW

The VW connecting shafts series are rigid shafts with a key way at each end. For greater distances and diameters of axle, some of these shafts are available as tubular shafts.



Technical Data		
Size	Dimensions [mm]	Combined with Couplings size / type / nominal torque [Nm]
VW20	20	RA19-1.0a / 10 & RA24-1.0 / 35
VW25	25	RA24-1.0a / 35 & RA28-1.0 / 95
VW30	30	RA28-1.0a / 95 & RG38-1.0 / 190
VW35	35	RG38-1.0 / 190 & RG42-1.0 / 265
VW40	40	RG42-1.0 / 265 & RG48-1.0 / 310
VW45	45	RA48-1.0 / 310 & RG55-1.0 / 410
VW50	50	RG55-1.0 / 410 & RG65-1.0 / 625

Length calculation for joint shaft VW

$$L = AA - B_3 - 2xE$$

L = Length of joint shaft

AA = Centre distance

B₃ = Width of screw jack

E = Coupling dimensions (page 65)

Example of order code

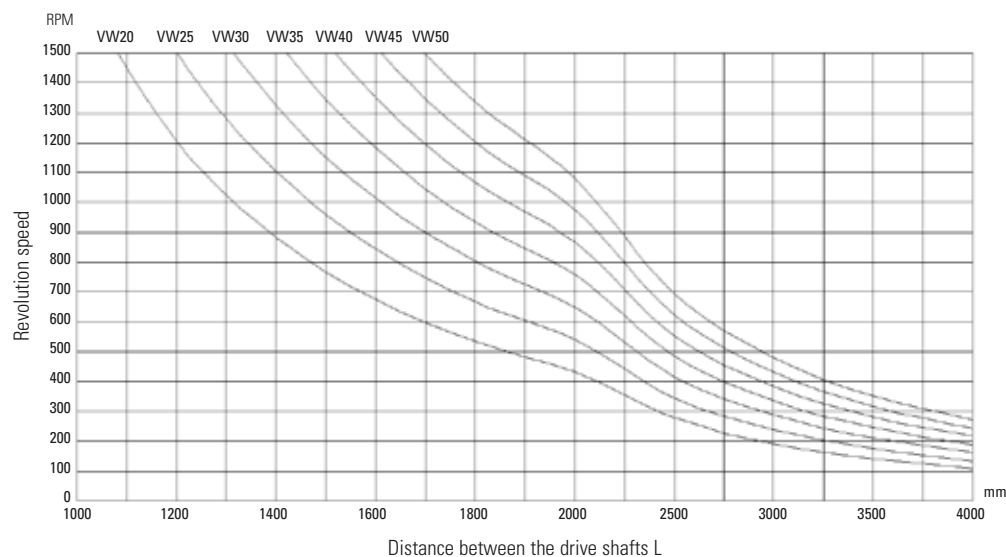
VW20-RA19-L1000-1.0-Ø10-1.0-Ø14

Size: 20

Length of joint shaft: L

Coupling half shell type 1.0 with key

Critical speed for VW joint shafts

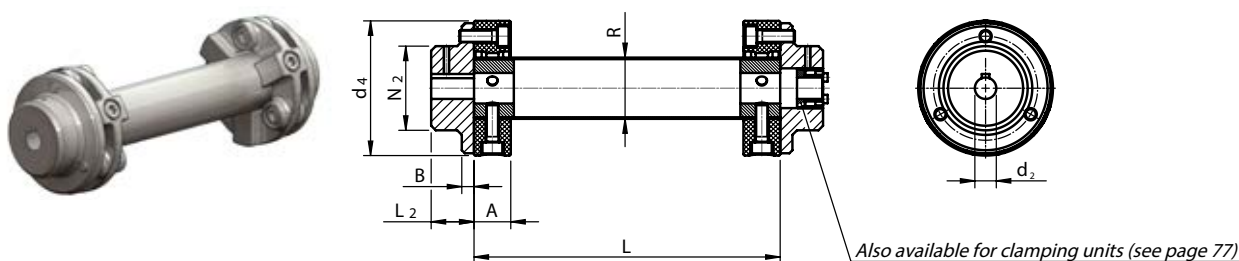




Drive Technology

Joint shafts GX

Torsionally stiff shafts suitable for connection of screw jacks. Noise, rotation vibrations and shocks are dampened and compensation of axial and radial displacements. Additionally the shafts are oil resistant and withstand high temperatures. Suitable for long connection distances and/or high revolution speeds. Flexible shafts are maintenance-free. By removing the axial screws, the shaft can easily be removed and disconnected without displacement of the drive shafts. The shafts will be delivered as tubes with couplings mounted on both sides (length L according to customer information). For very long distances pillow block bearings are required. For the perfect alignment we recommend the usage of joint shafts with clamping units.



Technical Data												
Size	M ¹⁾ [Nm]	Dimensions [mm]									Weight	
		d _{2 min.}	d _{2 max.}	A	B	C	R	d ₄	L ₂	N ₂	m ₁ ²⁾ [kg]	m ₂ ³⁾ [kg/m]
GX1	10	10	25	18	7	5	30	56	24	36	0,47	1,05
GX2	30	14	38	24	8	5	40	88	28	55	1,06	1,42
GX4	60	16	45	25	8	5	45	100	30	65	2,31	1,61
GX8	120	20	55	30	10	5	60	125	42	80	3,55	2,16
GX16	240	22	70	35	12	5	70	155	50	100	6,16	2,53
GX25	370	22	85	40	14	5	85	175	55	115	9,5	3,09
GX30	550	28	100	50	16	5	100	205	66	140	15,21	3,64

¹⁾ Transmissible torque ²⁾ m₁ = Weight without middle part ³⁾ m₂ = Weight of middle piece per meter.

Example of order code

GX8-1000-25H7-1-25H7-1

Size: GX8

Distance between the drive shafts: L (1000mm)

1. First hub bore with key Ø25-1 (without key Ø25-0)
2. Second hub bore with key Ø25-1 (without key Ø25-0)

Length calculation for joint shaft GX

$$L = AA - B_3 - C$$

L = Distance between the drive shafts

AA = Centre distance

B₃ = Width of screw jack

C = Mounting tolerance

Critical speed for GX joint shafts

