Coupling Corporation of America

Anderson Clamp Hub™

An Advanced Design Concept In Shaft Connections

Quickly becoming the industry standard for shaft mounting. Its patented technology allows users to carry high torques without any keys or tapers. Quick and easy installation and removal with basic hand tools - No heat and hydraulics required.

Retrofits to any type of existing shaft - straight, keyed, hydraulic, tapered, or splined.

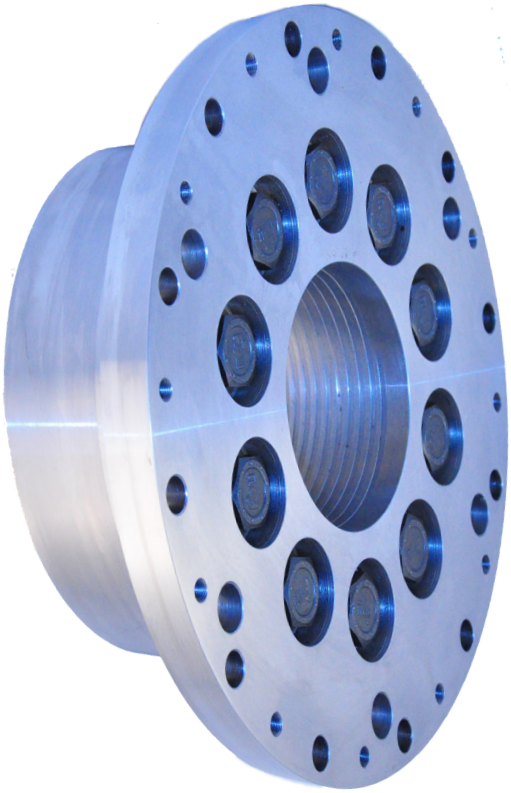
Anderson Clamp Hub vs. Traditional Hubs

Keyed Hubs

Because of the stresses a keyway causes in a shaft, keyed shafts need to be larger to carry a given torque.

Anderson Clamp Hub benefits:

- No key necessary, resulting in smaller, less expensive shafts
- Easy axial and angular adjustment
- No torches and no hot work permits needed
- Better concentricity
- Less time for fitting



Hydraulic Hubs

Since the Anderson Clamp hub uses no oil, there are several major advantages over a hydraulic hub.

Anderson Clamp Hub benefits:

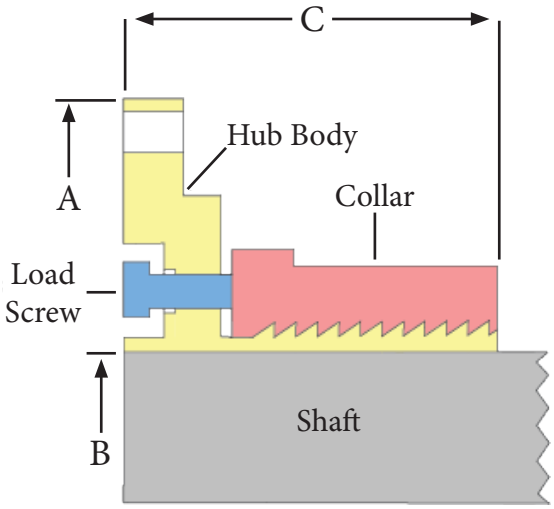
- Higher coefficient of friction
- Higher torque transmission safety factor
- Easy axial adjustment - no shims needed
- No special equipment needed to install / remove
- No “weep” time before running





Dimensions and Engineering Data

Nominal Sizes		Parameters					A*	B		C*
		Max. Cont. Torque (in-lb)	Peak Torque (in-lb)	Max Speed (rpm)	Weight (lbm)	Inertia (lb-in^2)	Outer Diameter (in)	Min. Bore (in)	Max. Bore (in)	Hub Length (in)
080	A	1,875	3,152	59,664	1.21	1.00	2.77	0.830	1.030	1.42
	B	1,875	3,152	59,664	0.93	0.93	2.77	0.880	1.550	1.42
100	A	3,400	6,800	46,784	2.37	2.60	3.45	0.950	1.175	2.017
	B	3,400	6,800	46,784	1.99	2.43	3.45	1.175	1.530	2.017
	C	4,260	8,520	46,784	2.04	2.97	3.45	1.530	1.795	2.022
	D	4,260	8,520	46,784	1.85	2.81	3.45	1.795	1.910	2.025
	E	4,260	8,520	46,784	1.98	3.49	3.45	1.910	2.075	2.028
125	A	4,869	9,738	38,389	4.50	8.02	4.23	1.000	1.250	1.943
	B	6,492	12,984	38,389	4.28	7.92	4.23	1.250	1.430	1.942
	C	6,492	12,984	38,389	4.16	8.07	4.23	1.430	1.670	2.042
	D	8,115	16,230	38,389	3.63	7.62	4.23	1.670	2.000	2.041
	E	8,115	16,230	38,389	3.35	8.55	4.23	2.000	2.410	2.041
162	A	17,800	35,600	29,233	11.29	37.03	5.47	1.625	2.000	3.21
	B	17,800	35,600	29,233	9.76	35.71	5.47	2.000	2.625	3.46
	C	17,800	35,600	29,233	6.46	28.43	5.47	2.625	3.500	3.47
	D	17,800	35,600	29,233	6.96	36.10	5.47	3.500	4.000	3.71
200	A	34,200	68,400	23,756	19.96	103	6.77	2.125	2.625	3.59
	B	34,200	68,400	23,756	14.25	87	6.77	2.625	3.625	3.35
	C	34,200	68,400	23,756	11.29	82	6.77	3.625	4.375	2.99
	D	34,200	68,400	23,756	11.60	94	6.77	4.375	4.875	3.23
250	A	67,700	135,400	19,067	37.94	304	8.63	2.500	3.250	4.73
	B	67,700	135,400	19,067	26.65	244	8.63	3.250	4.250	4.24
	C	67,700	135,400	19,067	20.85	210	8.63	4.250	4.875	3.61
	D	67,700	135,400	19,067	24.96	281	8.63	4.875	5.250	3.48
312	A	105,966	211,932	15,125	46.62	562	10.59	3.8	4.39	5.21
	B	132,457	264,914	15,125	49.00	614	10.59	4.39	4.71	5.223
	C	132,457	264,914	15,125	46.53	605	10.59	4.71	5.07	5.234
	D	158,949	317,898	15,125	47.75	683	10.59	5.07	5.67	5.234
	E	158,949	317,898	15,125	42.77	662	10.59	5.67	6.26	5.241
400	A	223,020	446,040	11,848	105.51	1,791	14.10	4.000	4.600	7.00
	B	278,775	557,550	11,848	115.39	2,148	14.10	4.600	5.250	7.00
	C	278,775	557,550	11,848	101.67	1,995	14.10	5.250	5.900	7.01
	D	350,000	700,000	11,848	119.05	2,769	14.10	5.900	6.650	7.61
	E	350,000	700,000	11,848	108.78	2,689	14.10	6.650	7.325	7.87
	F	350,000	700,000	11,848	99.74	2,632	14.10	7.325	8.050	8.37
500	A	418,140	836,280	9,485	201.94	4,330	14.77	4.500	5.292	8.696
	B	522,170	1,044,340	9,485	200.50	4,760	14.77	5.292	6.200	8.713
	C	625,000	1,250,000	9,485	194.00	4,845	14.77	6.200	7.000	9.484
	D	625,000	1,250,000	9,485	164.60	4,433	14.77	7.000	7.970	9.503
	E	625,000	1,250,000	9,485	153.10	4,668	14.77	7.970	8.750	9.523
562		832,800	1,665,600	8,430	282.20	9,711	19.34	5.700	6.750	8.71
630		1,093,050	2,186,100	7,556	292.00	11,445	21.25	7.000	12.000	9.06
800		2,173,500	4,347,000	5,966	Contact CCA for more information					
1000		4,105,500	8,211,000	4,672						
1250		8,020,500	16,041,000	3,719						



*Hubs can be designed for shorter shafts and different A dimensions; consult CCA.

Note

Weight and inertia are given for maximum bore.

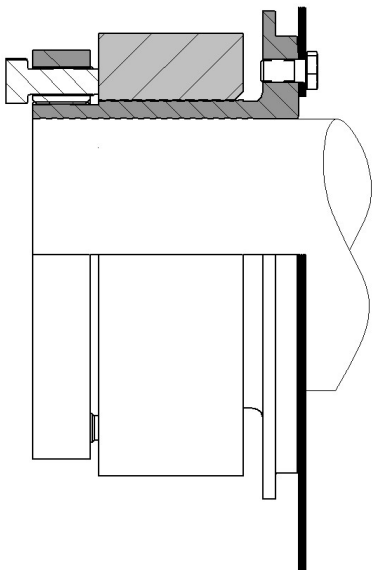
Sizes larger than 500 are application specific; numbers listed are estimates.

Slip values are approximately 3X values shown.

Values given are subject to change.

Materials

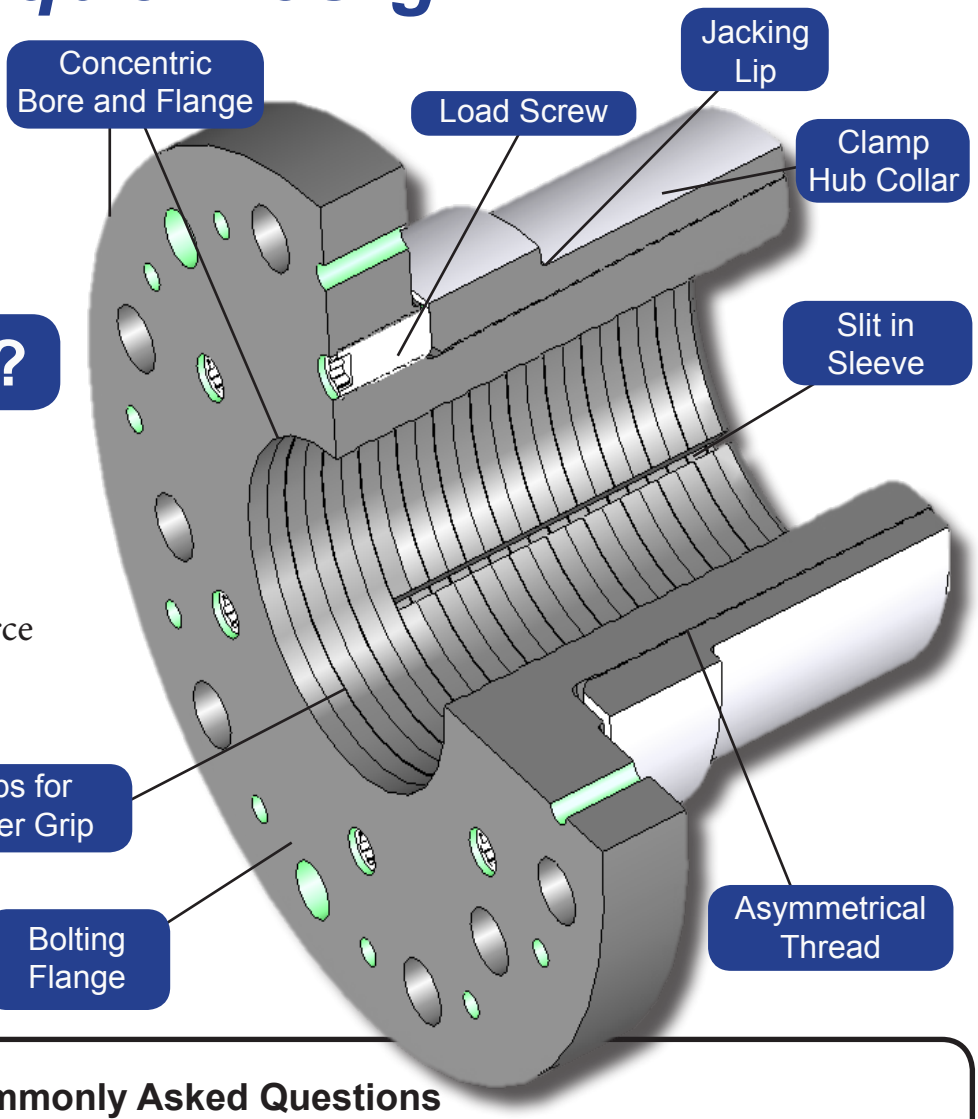
Hub body and collar - 4000 series or equivalent alloy steel heat treated to 130,000 PSI UTS minimum.



In close coupled applications, where the hub is reversed, a pushing collar is used at the shaft end so that the load screws are always accessible.

The Anderson Clamp Hub
Unique Design

Simple Design
+
Incredible Value



How Does It Work?

1. Tighten the load screws by hand.
2. The collar moves axially away from the flange.
3. Asymetrical threads in the collar force the split inner sleeve inward.
4. The split sleeve securely clamps to the shaft.

Commonly Asked Questions

How do I know when the load screws are tight enough? As you tighten the screws, the collar will move away from the flange and create a gap. CCA will provide proper gap dimensions.

Will the loading screws loosen during operation? No, the axial force on the screws is too high. Even if one screw is loosened, the remaining screws would become even tighter.

Does the Anderson Clamp Hub damage the shaft? No, it is designed to stay well within yielding stresses of the shaft.

What if I can't remove it by unloading the screws? CCA has designed pulling features into the hub if needed.

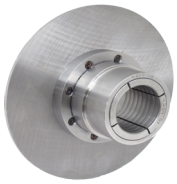
How can CCA retrofit a keyed shaft? By putting a half key in the keyway, the Anderson Clamp Hub clamps on to the shaft without collapsing the empty keyway.

How can the Anderson Clamp Hub have axial freedom on a tapered shaft? A split bushing with an internal taper and an external cylindrical surface is placed on the tapered shaft. The hub clamps on to the outside of the bushing.

Anderson Clamp Hub Applications

Ideal Solutions

- Fits a wide variety of shaft configurations
  - Straight or tapered shafts
  - Keyed or non-keyed shafts
  - Field applications for less than perfect shafts
- Coupling to shaft applications
  - Perfect for almost any coupling
  - Retrofit existing couplings to our keyless hub
- Solid coupling
  - When flexibility is not an issue, a double Anderson Clamp Hub can be a simple shaft-to-shaft connection
- Fan blades to shaft
- Actuator arms
- Shaft-mounting gear
- Any place a shaft connection is needed



Clamp Hub on brake disc

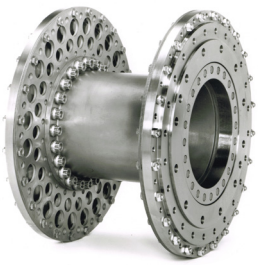
Clamp Hub Gear Mount

The Anderson Clamp Hub is the perfect hub for almost any coupling

OEM Advantage

- Easy to cost justify
- Save time and money
- No shaft keys or threads required
  - Reduce shaft machining cost
  - Allows for smaller shaft sizes
  - Smaller size bearings and seals
- Simple installation and removal with basic hand tools
- No heat or hot work permits required

FLEXXOR Coupling



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Anderson Clamp Hub

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A Perfect Combination!

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