

AquaMaKks™
Water Cooled
Clutches
and Brakes
Interchange



An Altra Industrial Motion Company



AquaMaKKs water cooled clutches and brakes are designed to provide accurate torque control for heavy-duty tensioning applications.

AquaMaKKs™ clutches and brakes are pneumatically or hydraulically controlled and water cooled. They consist of a series of alternating friction discs and water jackets. Torque is transmitted by applying axial force from the pneumatic, hydraulic, or spring set actuator. Copper wear plates are used for excellent heat dissipation. Models are available in 19", 25", and 36" diameter sizes. Torque Ranges from 55,440 in.lbs. @ 80 PSI to 1,596,000 in.lbs. @ 100 PSI.

New engineered composite water jacket improves performance

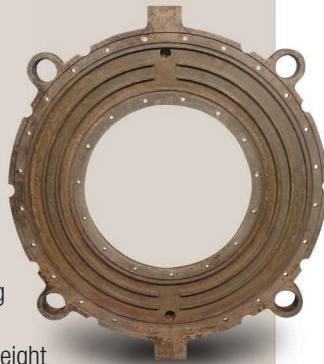
Wichita engineers have utilized the latest cutting edge technologies and state-of-the-art materials to develop a revolutionary new breakthrough in water cooled clutch and brake design... composite water jackets (patent pending).

Corrosion resistant, saltwater friendly

Composite material will not corrode, so salt water and water sources with high PH acidic values can be used for cooling without the need to supply fresh water.

Other composite water jacket benefits include:

- Improved channeled water flow - achieved via groove designed and molded into jacket providing enhanced cooling capability
- Fast & easy maintenance created from the lightweight composite jacket design that is about 25% the weight of the competitors metal design
- Water jacket design and material allows for longer life, requiring fewer replacements
- Reduced overall clutch weight – critical for weight restricted applications (eg: truck mounted)



No optional salt water corrosion protection is required



AquaMaKKs features an air, hydraulic, or spring-set actuated and water cooled design, with copper wear plates for heavy-duty continuous slip tension applications



Oil and Gas

The AquaMaKKs family is ideally suited for superior water cooled tension control for drawworks applications.



Marine Deck Machinery

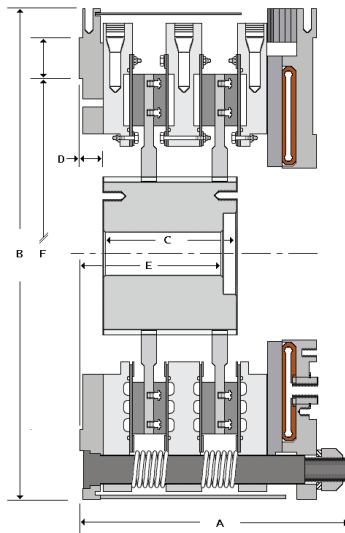
Positioning and mooring winches require high heat dissipation and accurate tension control. That's why AquaMaKKs is perfectly suited for these applications.

Custom Engineered Solutions are available from Wichita Clutch

Dimensions

Model Size ATD	Assembly Number	A-Length		B-Diameter		C-Length		D-Depth		E-Length		F-Diameter			
												OD		ID	
		in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
KKB119AM	7-119AM-W-1005	12.35	314	28.3	719	4.13	105	1.25	32	3.75	95	23.25	591	18.25	464
	WCB 118	9	229	23.86	606	2.5	64	1.25	32	3.75	95	23.25	591	18.25	464
KKB219AM	7-219AM-W-1302	17.09	434	28.3	719	8.97	228	1.25	32	6.88	175	23.25	591	18.25	464
	WCB 218	13	330	23.86	606	5.63	143	1.25	32	6.88	175	23.25	591	18.25	464
KKB319AM	7-319AM-W-1303	21.58	548	28.3	719	13.39	340	1.25	32	10.88	276	23.25	591	18.25	464
	WCB 318	17.25	438	23.86	606	9.63	245	1.25	32	10.88	276	23.25	591	18.25	464
KKB419AM	7-419AM-W-1300	26.07	662	28.3	719	17.88	454	1.25	32	13.75	349	23.25	591	18.25	464
	WCB 418	21.5	546	23.86	606	12.5	318	1.25	32	13.75	349	23.25	591	18.25	464
KKB125AM	7-125AM-W-1003	13.75	349	34.12	867	5.49	139	1.38	35	4.88	124	30	762	24.38	619
	WCB 124	11	279	30.62	778	3.5	89	1.38	35	4.88	124	30	762	24.38	619
KKB225AM	7-225AM-W-1300	18.86	479	34.12	867	10.32	262	1.38	35	10.01	254	30	762	24.38	619
	WCB 224	15.5	394	30.62	778	8.63	219	1.38	35	10.01	254	30	762	24.38	619
KKB325AM	7-325AM-W-1300	23.99	609	34.12	867	16.39	416	1.38	35	14.57	370	30	762	24.38	619
	WCB 324	24	610	30.62	778	13.19	335	1.38	35	14.57	370	30	762	24.38	619
KKB425AM	7-425AM-W-1300	29.42	747	34.12	867	20.66	525	1.38	35	18.32	465	30	762	24.38	619
	WCB 424	28.5	724	30.62	778	16.94	430	1.38	35	18.32	465	30	762	24.38	619
KKB136AM	7-136AM-W-1000	15	381	45.51	1156	5	127	2.36	60	7.36	187	44.5	1130	18.38	467
	WCB 136	17	432	44.86	1139	5	127	2.36	60	7.36	187	44.5	1130	18.38	467
KKB236AM	7-236AM-W-1301	21.28	541	45.51	1156	10	254	2.36	60	11.36	289	44.5	1130	18.38	467
	WCB 236	20.75	527	44.86	1139	9	229	2.36	60	11.36	289	44.5	1130	18.38	467
KKB336AM	7-336AM-W-1301	26.76	680	45.51	1156	17.05	433	2.36	60	15.36	390	44.5	1130	18.38	467
	WCB 336	27.48	698	44.86	1139	13	330	2.36	60	15.36	390	44.5	1130	18.38	467
KKB436AM	7-436AM-W-1301	32.79	833	45.51	1156	23.16	588	2.36	60	20.36	517	44.5	1130	18.38	467
	WCB 436	35	889	44.86	1139	18	457	2.36	60	20.36	517	44.5	1130	18.38	467

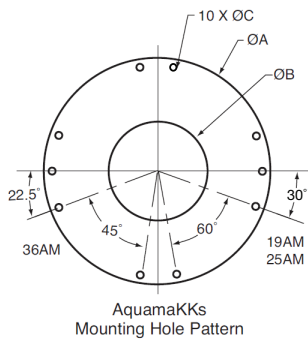
Specifications



Model Size ATD	Assembly Number	Dynamic Torque Capacity w/Std Linings (optional linings available)				Heat Capacity Parallel Water Hosting	
		lb.in.		Nm		HP	kW
		80 PSI	100 PSI	5.5 BAR	7BAR		
KKB119AM	7-119AM-W-1005	55,440	83,000	6,259	9,371	185	138
	WCB 118	48,800	59,170	5,510	6,680	120	89
KKB219AM	7-219AM-W-1302	110,880	166,000	12,518	18,741	370	276
	WCB 218	97,600	117,100	11,019	13,221	240	179
KKB319AM	7-319AM-W-1303	166,320	249,000	18,778	28,112	555	414
	WCB 318	146,400	173,900	16,529	19,633	360	268
KKB419AM	7-419AM-W-1300	221,760	332,000	25,037	37,483	740	552
	WCB 418	195,200	229,400	22,038	25,899	480	358
KKB125AM	7-125AM-W-1003	132,000	165,000	14,903	18,629	400	298
	WCB 124	100,000	121,300	11,290	13,695	270	201
KKB225AM	7-225AM-W-1300	264,000	330,000	29,806	37,257	800	596
	WCB 224	200,000	240,000	22,580	27,096	540	403
KKB325AM	7-325AM-W-1300	396,000	495,000	44,708	55,886	1200	895
	WCB 324	300,000	356,300	33,870	40,226	810	604
KKB425AM	7-425AM-W-1300	528,000	660,000	59,611	74,514	1600	1193
	WCB 424	400,000	470,000	45,160	53,063	1080	805
KKB136AM	7-136AM-W-1000	319,344	399,000	36,054	45,047	850	634
	WCB 136	295,000	357,700	33,306	40,384	650	485
KKB236AM	7-236AM-W-1301	638,688	798,000	72,108	90,094	1700	1268
	WCB 236	590,000	708,000	66,611	79,933	1300	969
KKB336AM	7-336AM-W-1301	958,032	1,197,000	108,162	135,141	2550	1901
	WCB 336	885,000	1,050,900	99,917	118,647	1950	1454
KKB436AM	7-436AM-W-1301	1,277,376	1,596,000	144,216	180,188	3400	2535
	WCB 436	1,180,000	1,386,500	133,222	156,536	2600	1939

* Optional HICO friction material provides up to 50% higher torque

* Torque values can be affected by speed, temperature, unit wear and lining burnish after installation



Mounting Hole Pattern

Model Size ATD	ØA		ØB		ØC		Hole Circle		# Holes	PLT THK	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)		Qty	in.
KKB 19AM	28.3	719	11	279	0.656	17	22	559	10	1.63	41
18" WCB	23.86	606	11	279	0.656	17	22	559	10	1.47	37
KKB 25AM	34.12	867	16.7	424	0.656	17	28.75	730	10	1.63	41
24" WCB	30.62	778	12.75	324	0.656	17	28.75	730	10	1.75	44
KKB 36AM	45.51	1156	16.5	419	1.06	27	42	1067	10	1.61	41
36" WCB	44.86	1139	16.5	419	1.06	27	42	1067	14	2.58	66

Electromagnetic Clutches and Brakes

Warner Electric

Electromagnetic Clutches and Brakes

New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

St Barthelemy d'Anjou, France
+33 (0) 2 41 21 24 24

Precision Electric Coils and Electromagnetic Clutches and Brakes

Columbia City, IN - USA
1-260-244-6183

Matrix International

Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes

Brechin, Scotland
+44 (0) 1356 602000

New Hartford, CT - USA
1-800-825-6544

Inertia Dynamics

Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes

New Hartford, CT - USA
1-800-800-6445

Linear Products

Warner Linear

Linear Actuators
Belvidere, IL - USA
1-800-825-6544

For application assistance:
1-800-825-9050

St Barthelemy d'Anjou, France
+33 (0) 2 41 21 24 24

Couplings

Ameridrives Couplings

Mill Spindles, Ameriflex, Ameridisc

Erie, PA - USA
1-814-480-5000

Gear Couplings

San Marcos, TX - USA
1-800-458-0887

Bibby Turboflex

Disc, Gear, Grid Couplings, Overload Clutches

Dewsbury, England
+44 (0) 1924 460801

Boksburg, South Africa
+27 11 918 4270

TB Wood's

Elastomeric Couplings

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

General Purpose Disc Couplings

San Marcos, TX - USA
1-888-449-9439

Ameridrives Power Transmission

Universal Joints, Drive Shafts, Mill Gear Couplings

Green Bay, WI - USA
1-920-593-2444

Huco Dynatork

Precision Couplings and Air Motors

Hertford, England
+44 (0) 1992 501900

Chambersburg, PA - USA
1-888-829-6637

Lamiflex Couplings

Flexible Couplings, Bearing Isolators, and Coupling Guards

São Paulo, SP - Brasil
+55-11-5679-6533

Heavy Duty Clutches and Brakes

Wichita Clutch

Pneumatic Clutches and Brakes

Wichita Falls, TX - USA
1-800-964-3262

Bedford, England
+44 (0) 1234 350311

Twiflex Limited

Caliper Brakes and Thrusters

Twickenham, England
+44 (0) 20 8894 1161

Industrial Clutch

Pneumatic and Oil Immersed Clutches and Brakes

Waukesha, WI - USA
1-262-547-3357

Gearing

Boston Gear

Enclosed and Open Gearing, Electrical and Mechanical P.T. Components

Charlotte, NC - USA
1-800-825-6544

For application assistance:
1-800-816-5608

Bauer Gear Motor

Geared Motors

Esslingen, Germany
+49 (711) 3518 0

Somerset, NJ - USA
1-732-469-8770

Nuttall Gear and Delroyd Worm Gear

Worm Gear and Helical Speed Reducers

Niagara Falls, NY - USA
1-716-298-4100

Overrunning Clutches

Formsprag Clutch

Overrunning Clutches and Holdbacks

Warren, MI - USA
1-800-348-0881 – Press #1

For application assistance:
1-800-348-0881 – Press #2

Marland Clutch

Roller Ramp and Sprag Type Overrunning Clutches and Backstops

South Beloit, IL - USA
1-800-216-3515

Stieber Clutch

Overrunning Clutches and Holdbacks

Heidelberg, Germany
+49 (0) 6221 30 47 0

Belted Drives and Sheaves

TB Wood's

Belted Drives

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

Engineered Bearing Assemblies

Kilian Manufacturing

Engineered Bearing Assemblies

Syracuse, NY - USA
1-315-432-0700

For information concerning our sales offices in Asia Pacific check our website
www.altramotion.com.cn



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