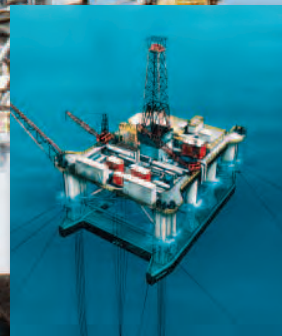
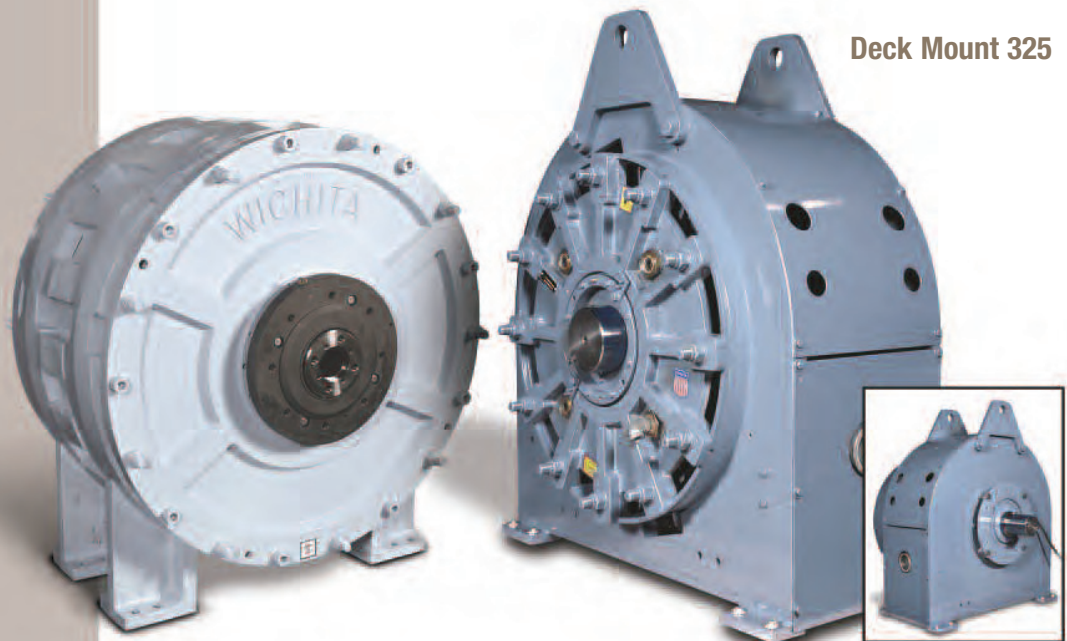


# Heavy Duty Clutches and Brakes for Energy & Offshore Applications



An Altra Industrial Motion Company





Deck Mount 325

**We're  
Committed  
to Energy &  
Offshore  
Applications**

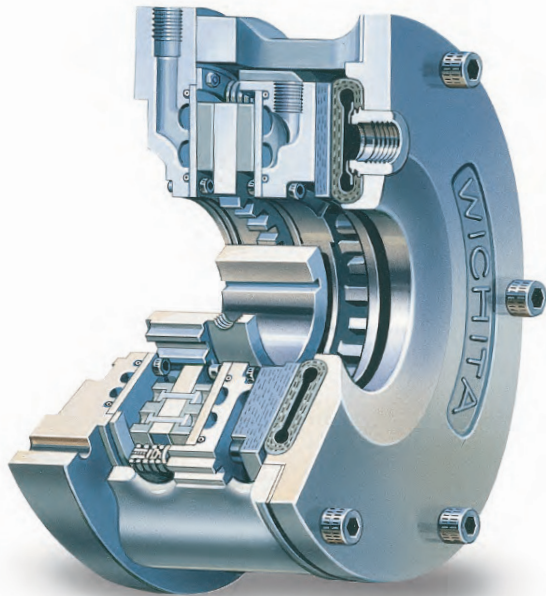
Wichita Clutch supplies leaders in the energy and offshore industry with a broad product offering to meet the specific clutch and brake requirements of all types of energy applications.



**Kopper Kool Brakes Optimized  
for Drawworks Applications**

Wichita Kopper Kool clutches and brakes represent the ultimate design for very high heat dissipation in the most rugged tensioning applications. Torque levels are in direct proportion to air pressure, providing accurately controlled, continuous slip braking action.

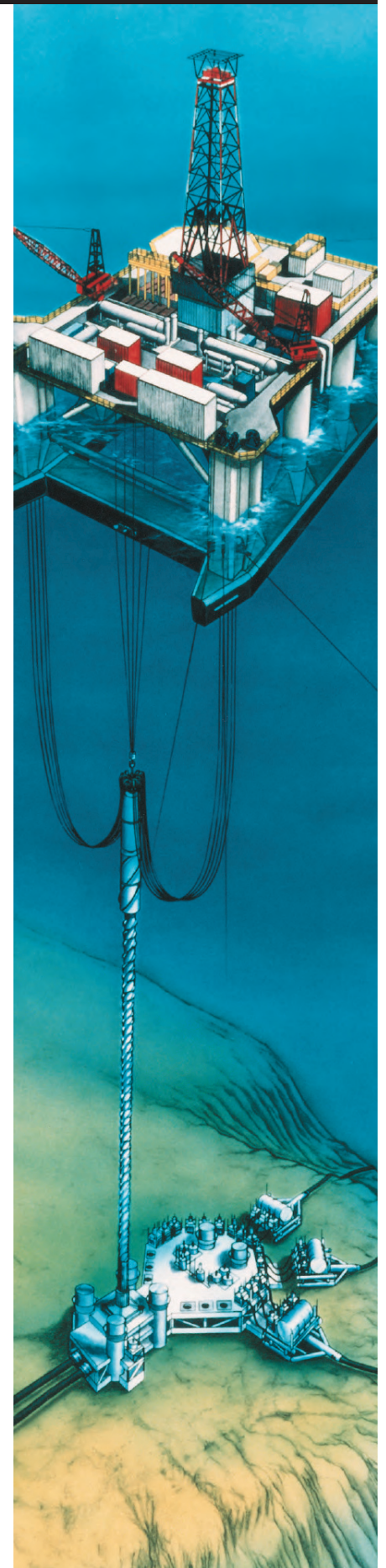
- New HICO friction material provides higher torque
- Copper alloy wear plates increase heat transfer
- Balanced water flow for the highest thermal capacity
- Durable air tube design
- Long-lasting friction material
- Integral shaft sub-assembly for optimal drawworks performance
- Saltwater corrosion package available
- Compatible with major electronic drilling systems
- Airtube has less hysteresis than piston type actuators, making it ideal for automatic drilling systems
- Packaged system can be easily removed as a unit for service if required and/or quickly swapped out for maximum rig availability
- Adjustment for wear is easily accomplished by removing shims without any unit disassembly
- Optional: Wear detection is built into the package for external monitoring



## Positioning and Mooring Kopper Kool Clutches and Brakes

**Proven worldwide dependability  
for offshore applications**

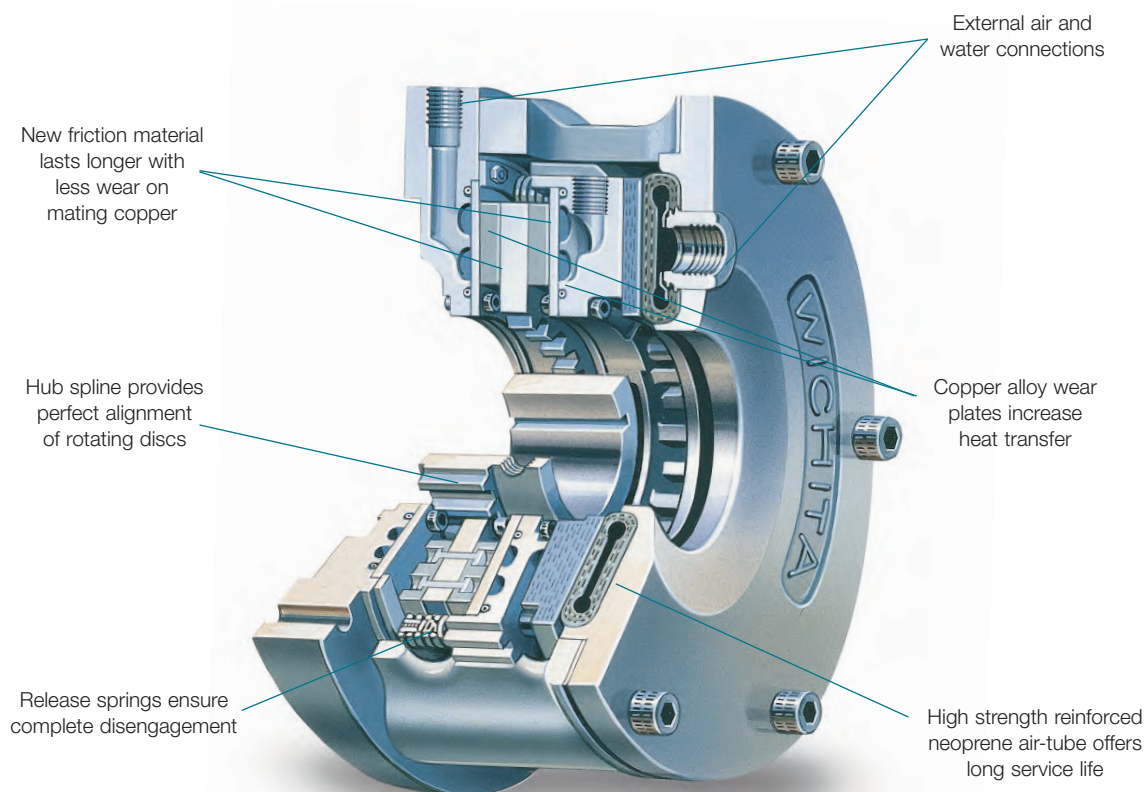
- Balanced water flow for the highest thermal capacity
- Durable air tube design
- Long-lasting friction material
- Saltwater corrosion package available
- Available dual actuator design



## Kopper Kool Clutches & Brakes

■ Air actuated = Liquid cooled

■ Copper disc design for high heat dissipation



### Design Features

- New friction material lasts longer with less wear on mating copper.
- Copper alloy wear plates increase heat transfer.
- Hub spline provides perfect alignment of rotating discs.
- External air & water connections.
- Release springs ensure complete disengagement.
- High strength reinforced neoprene air-tube offers long service life.
- Optional long stroke air tube available on 18" or 24" size units to increase life and standard maintenance intervals.
- High thermal capacity.

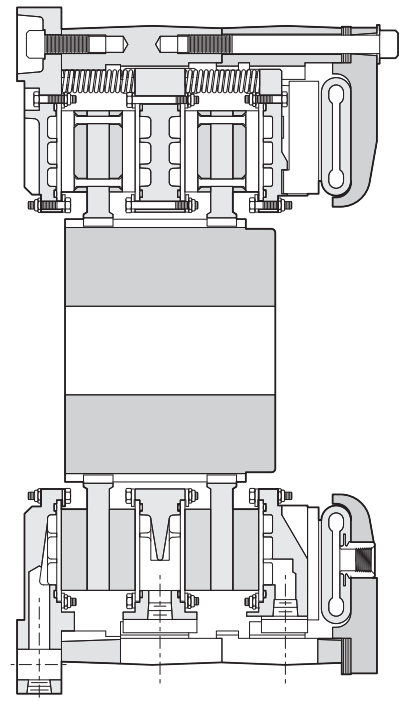
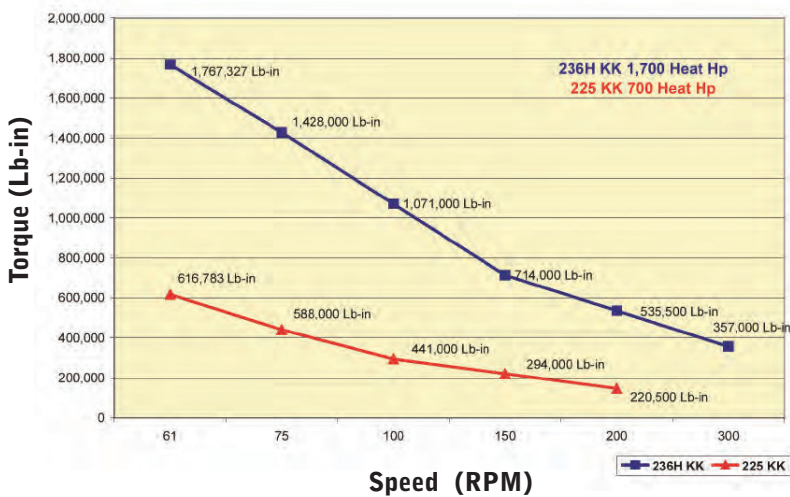
The Wichita Kopper Kool airtube disc Clutches and Brakes are liquid cooled and consist of a series of alternating discs connecting an inner drive member to an outer drive member. Engagement is achieved by pneumatic expansion of the airtube. This air-operated clutch contains copper discs for excellent heat dissipation and provides an accurately controlled continuous slip action for constant web tensioning. Tension levels are in direct proportion to air pressure applied.

# Kopper Kool Brakes

Model Size	Assembly Number	Dynamic Torque Capacity*				Heat Capacity		Max Bore Rect. Key (mm)	
		lb.in.		Nm		Series Water Hosing	Parallel Water Hosing		
		80 PSI	100 PSI	5.5 BAR	7 BAR	HP/kW	in.		
KKB 118	7-318-110-100-0	37,600	47,000	4,172	5,310	80 / 60	120 / 89	5.50	(140)
KKB 218	7-318-210-100-0	75,200	94,000	8,344	10,620	160 / 119	240 / 179		
KKB 318	7-318-310-101-0	112,800	141,000	12,517	15,930	240 / 179	360 / 268		
KKB 125	7-326-100-100-0	122,920	153,650	13,640	17,360	—	350/261	8.13	(207)
KKB 225	7-326-200-100-0	245,840	307,300	27,279	34,719	—	700 / 522		
KKB 325	7-326-300-101-0	368,760	460,950	40,919	52,079	—	1050/782		
KKB 136H	7-337-110-300-0	360,000	450,000	39,947	50,842	500 / 373	750 / 559	9.00	(229)
KKB 236H	7-337-210-300-0	720,000	900,000	79,894	101,683	1,000 / 746	1,500 / 1,119		
KKB 336H	7-337-310-300-0	1,080,000	1,350,000	119,841	152,525	1,500 / 1,119	2,250 / 1,678		
KKB 436H	7-337-410-102-0 <sup>1</sup>	1,440,000	1,800,000	159,788	203,367	2,000 / 1,491	3,000 / 2,237		

\* Static torque will vary with temperature. Maximum air pressure is 100 PSI / 7 BAR.  
 \*\* Maximum water jacket inlet pressure is 60 PSI. Minimum recommended air pressure is 3 PSI.  
 Brakes with as great as 50% higher torque capacity is available upon request.  
<sup>1</sup> Current design is with the Marine Corrosion package. A Non-Marine unit is available upon request.

## Wichita Kopper Kool Performance Torque @ Maximum Power Rating for sizes Atd-225 & Atd-236H



## Kopper Kool Spring Set Brakes

**Dimensions:** inches (mm)

Model Size ATD-	Assembly Number	lb.in.	Dynamic Torque Capacity*		Release Pressure		Width	
			Nm	PSI	BAR	in.	(mm)	
KKSSB 218	7-318-210-113-0	48,000	5,434	90	6.2	15.00	(381)	
KKSSB 225	7-326-200-100-0 <sup>1</sup>	504,200	56,965	95 <sup>5</sup>	6.5 <sup>5</sup>	18.87	(479.3)	
KKSSB 325	7-326-300-100-0 <sup>1,2</sup>	756,300	85,448	95 <sup>5</sup>	6.5 <sup>5</sup>	23.44	(824)	
KKSSB 330H	7-331-310-300-0 <sup>1</sup>	748,900	84,612	100	6.9	22.69	(576.3)	
KKSSB 236H <sup>4</sup>	7-337-210-304-0 <sup>2</sup>	649,400	73,370	120	8.3	22.03	(559.6)	
KKSSB 336H <sup>4</sup>	7-337-310-107-0 <sup>1,2</sup>	1,177,800	133,070	100	6.9	28.60	(726.4)	
KKSSB 336H <sup>4</sup>	7-337-310-106-0 <sup>2</sup>	940,600	106,270	120	8.3	28.60	(726.4)	

\* Static torque will vary with temperature.

\*\* Maximum water jacket inlet pressure is 60 PSI.

Brakes with as great as 50% higher torque capacity is available upon request.

<sup>1</sup> Current design is with enhanced linings. A unit with regular linings is available upon request.

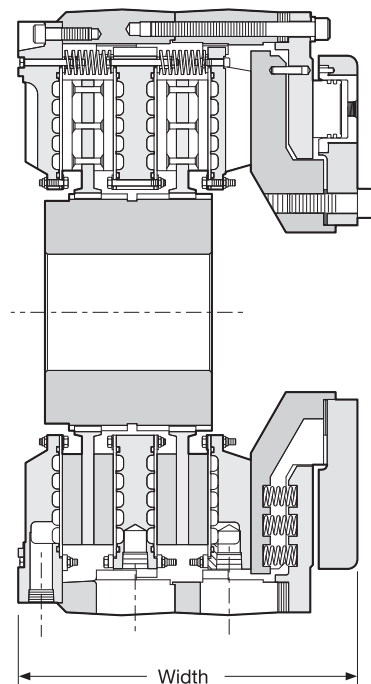
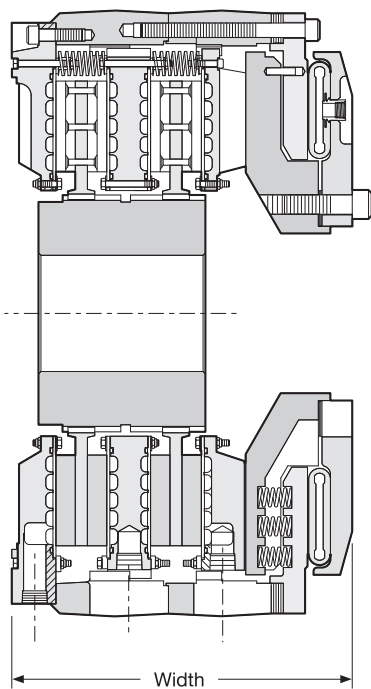
<sup>2</sup> Current design is with the Marine Corrosion package. A Non-Marine unit is available upon request.

<sup>3</sup> Current design is without hub. A unit with hub is available upon request.

<sup>4</sup> Mounting same as 436H KK except with 42.500" (1,079.5 mm) hole circle.

<sup>5</sup> Balance pressure.

Feature Differences: The KKSS brake uses air to release the brake, where as the KKSS-HYD brake uses hydraulic pressure to release the brake.



# Kopper Kool Spring Set Clutch

**Dimensions:** inches (mm)

Model Size ATD-	Assembly Number	Dynamic Torque		Heat Capacity HP(kW)	Roto - Coupling NPT	Max. Speed R/C RPM	Unit RPM	Width in.(mm)
		Capacity* with Release Pressure lb.in.(Nm)	PSI (BAR)					
KKSSC 225	6-326-200-100-0 <sup>1,2</sup>	504,200 (56,965)	90 <sup>8</sup> (6.5)	700 (522)	2"	250	460	45.00 (1,143)
KKSSC 325	6-326-300-100-0 <sup>1</sup>	756,300 (85,448)	90 <sup>8</sup> (6.5)	1,050 (782)	2"	250	460	49.57 (1,259)
KKSSC 236H	TBD <sup>2,3</sup>	542,100 (61,247)	100 (6.9)	1,300 (975 <sup>6</sup> )	2"	250	300	32.25 (819.2)
KKSSC-HYD 236H	6-337-210-100-0 <sup>2,3</sup>	542,100 (61,247)	1,450 (100.0)	1,300 (975 <sup>6</sup> )	2"	250	300	32.25 (819.2)

\* Static torque will vary with temperature.

\*\* Maximum water jacket inlet pressure is 60 PSI.

Brakes with as great as 50% higher torque capacity is available upon request.

<sup>1</sup> Current design is with enhanced linings. A unit with regular linings is available upon request.

<sup>2</sup> Current design is with the Marine Corrosion package. A Non-Marine unit is available upon request.

<sup>3</sup> Mounting same as 436H KK except with 42.500" (1,079.5 mm.) hole circle.

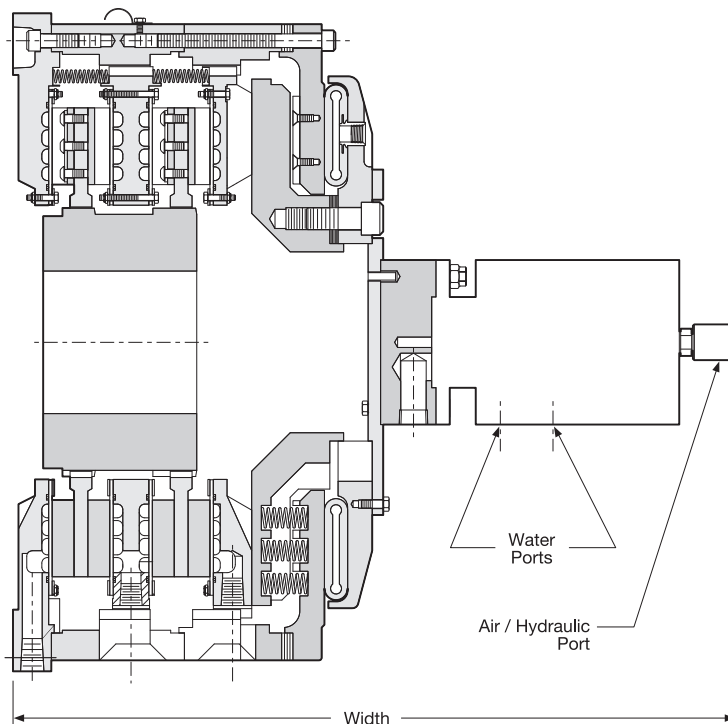
<sup>5</sup> Series hosing

<sup>6</sup> Parallel hosing

<sup>7</sup> Partial-parallel hosing

<sup>8</sup> Balance pressure

Feature Differences: The KKSS clutch uses air to release the clutch, where as the KKSS-HYD clutch uses hydraulic pressure to release the clutch.

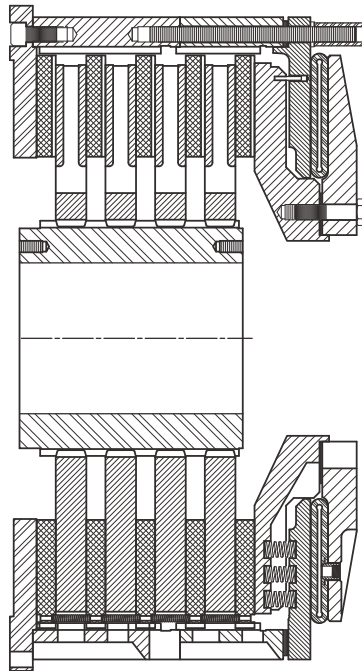


## Air Cooled Spring-Set Brakes

### Specifications:

Model Size ATD-	Assembly Number 60 PSI Release	Slip Torque Capacity						Max. Bore Rect. Key in. (mm)
		60 PSI	lb.in. 75 PSI	90 PSI	4.1 BAR	Nm 5.2 BAR	6.2 BAR	
SSB 118	7-118-100-100-0	31,400	40,400	51,600	3,548	4,564	5,830	
SSB 218	7-118-200-100-0	60,000	77,000	100,000	6,779	8,700	11,298	4.75 (120)
SSB 318	7-118-300-100-0	80,900	102,000	122,000	9,140	11,524	13,784	
SSB 124H	7-125-100-100-0	75,500	86,600	—	8,530	9,784	—	
SSB 224H	7-125-200-100-0	137,000	161,200	—	15,478	18,213	—	6.00 (152)
SSB 324H	7-125-300-100-0	178,900	223,600	—	20,212	25,263	—	
SSB 136H	7-137-100-100-0	254,500	300,000	400,000	28,754	33,894	45,193	9.00 (229)
SSB 236H	7-137-200-100-0	477,500	564,000	760,000	53,949	63,722	85,866	
SSB 336H	7-137-300-100-0*	675,000	840,100	1,012,600	76,263	94,916	114,405	10.00 (254)
SSB 436H	7-137-400-102-0	868,800	1,081,300	1,303,400	98,158	122,167	147,260	
SSB 148	7-148-100-300-0	698,250			78,889			
SSB 248	7-148-200-300-0	1,335,000			150,830			18.00 (455)
SSB 348	7-148-300-103-0	1,726,000			195,006			

\* Not the standard 60 PSI release pressure.





## Low Inertia and Air Tube Disc Clutches and Brakes

**Air actuated, modular clutch and brake combinations**

**Air Tube design provides fast response with smooth engagement**

### Clutch Combinations

- Low Inertia
- Low Inertia High Torque

### Brake Combinations

- Low Inertia
- Low Inertia Spring-Set

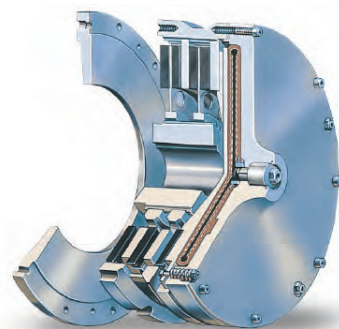
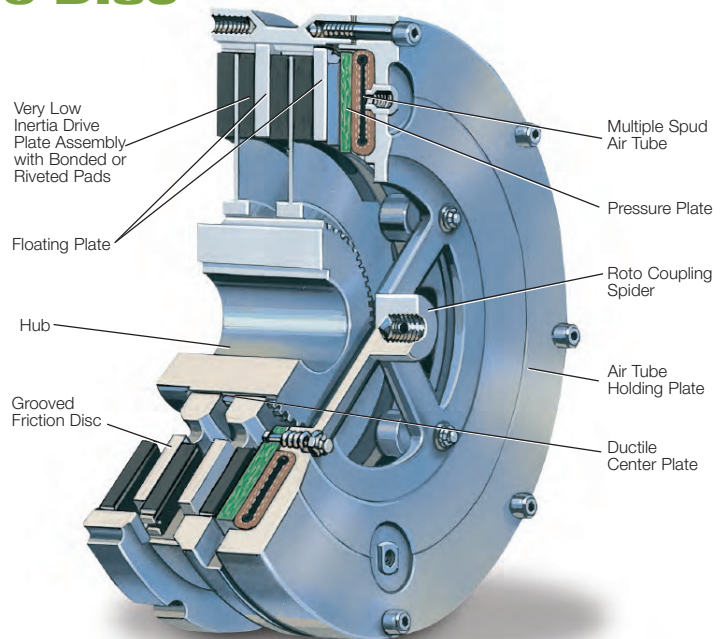
### Low Inertia Clutches and Brakes

Wichita Low Inertia Clutches and Brakes are designed to be completely free from effects of centrifugal force and self energization. They provide the high speed acceleration and deceleration essential for today's process equipment. The low-inertia designs reduce power consumption and heat build-up in cycling applications. A quick energizing air tube provides fast response with smooth engagement. They combine all the best features of the disc type clutch with all the advantages of direct air engagement through direct axial pressure application in a special composition full-circle tube.

Wichita clutches engage smoothly without noise, shock or impact and release completely in a fraction of a second. Extremely fast action is possible because of the small volume of air required. Torque developed is in direct proportion to air pressure applied.

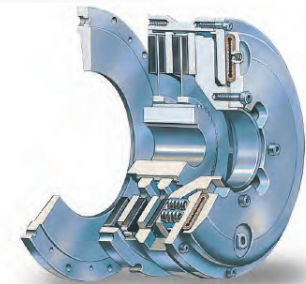
Clutches may be slipped moderately to control the acceleration rate. When large inertia loads are powered from electric motors, smooth, controlled slip starts by Wichita Clutches can

keep power demands below the allowed maximum. Heat generated by controlled slipping or high cycle rate operation is dissipated by the centrifugal blower design of these units. These clutches and brakes interface well with automated controls through simple air and/or electric circuits.



### High Torque Clutch

Wichita High Torque Clutches provide the highest torque to size ratios of any Wichita clutch. They provide smooth controlled starts and stops and are designed for minimum power loss due to low rotating inertia.



### Spring-Set Brake

Wichita Spring-Set Air Release Brakes are ideal for fail safe protection of process equipment. Constructed of high strength cast iron, this improved design has thick friction discs for longer wear life. The fast acting air tube design assures quick, smooth stops.

### Common Features for High Torque Clutch and Spring-Set Brake

- Thick, full circle friction discs for longer life
- Extremely fast response
- No lubrication
- High torque to size ratio
- Low rotating inertia

## Genuine Replacement Parts

### Longer Life

We have years of experience in building value into every Genuine Wichita Replacement Part. Our parts, made with quality materials and leading-edge technology, not only last longer than the competition, resulting in lower life cycle costs, they also fit precisely to give you the assurance of trouble-free performance. That's why we can confidently offer you the very best warranty in the business.

### Faster Delivery

To help you lessen downtime problems, we've recently established new methods and procedures that will get Genuine Replacement Parts to you quicker than ever before. We've improved order processing, increased manufacturing capacities and added to our nationwide network of distributors. Many of our parts can now be shipped within 24 hours of your order or are available off-the-shelf from your local distributor. You don't have to pay a premium price for all the product and service advantages of Genuine Wichita Replacement Parts. You'll find our prices to be very competitive with any of the companies offering imitation replacement parts.

### Warranty

When you specify Genuine Replacement Parts from Wichita you automatically expect more...and get more. Especially better performance, longer life and the peace of mind that comes with knowing you are working with the industry's proven leader. To further back up our quality commitment to you, we now offer a new three-year warranty on our line of replacement air tubes\*, and a two-year warranty on all other components\*\*. That's unmatched by anyone in our industry...and for good reason.

### Air Tubes

- Wear resistance polymers insure compatibility with other Wichita parts
- Consistent size allows ease of replacement if required
- Low air volume construction reduces needless use of compressed air
- Combination of space-age fibers and elastomers give extended life and retention of size and fit



### Friction Discs

- Special high strength materials with molded composite teeth resist functional wear and provide additional output torque
- Exactly match the mating Wichita component for consistent and maximum high torque output
- High heat resistance to combat unforeseen application problems
- Consistent size for ease of replacement
- Air grooves provide cooling and longer life



\* Split air tubes are not intended for permanent installation and, therefore, are not covered under the warranty agreement.

\*\* The warranty does not cover replacement or refurbishment of normal wear items.

**For after hours  
emergency service,  
call 1-940-631-4595.**

## **Altra Industrial Motion provides single-source convenience and world-class service**

For over a century, the most important breakthroughs in engineered power transmission have been led by Wichita Clutch, Warner Electric, and Marland Clutch. Today, these companies, and several others, are working together to lead the next century of innovations in power transmission technology. This is what Altra Industrial Motion is all about.

With a full complement of mechanical and electrical solutions for every type of application, Altra Industrial Motion stands alone as the industry's most fully committed supplier of power transmission solutions.

### **World-Class Engineering**

- State-of-the-art CAD/CAM, 3D solid modeling and analytical capabilities
- Web-based, electronic document management system
- Application engineering support
- Six Sigma driven in engineering/manufacturing processes

### **Superior Customer Service and Application Support... Worldwide**

Our team in the field is more than salespeople... they are experienced application specialists who understand your production process and challenges and can recommend the right power transmission solution. Our customer service and tech support teams are well trained and ready to help.



### **The Driving Force: The Altra Business System**

All our business units subscribe to a standard of quality derived from the Altra Business System (ABS), a series of progressive manufacturing methods designed to continuously improve power transmission production and implemented to ensure that we provide the consistently superior products in demand from today's industrial marketplace.



### **Extensive Training Programs**

We offer a wide variety of training opportunities to help you become familiar with all of our product lines, specifications and typical applications. Whether it's in one of our facilities or at your plant or office, we can put the right training program together to meet your needs.

**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

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+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*

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1-800-825-6544

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**Linear Products**

**Warner Linear**

*Linear Actuators*

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*For application assistance:*  
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*Mill Spindles, Ameriflex, Ameridisc*

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1-814-480-5000

*Gear Couplings*

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Boksburg, South Africa  
+27 11 918 4270

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*For application assistance:*  
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1-888-449-9439

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**Huco Dynatork**

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+44 (0) 1992 501900  
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1-800-825-6544

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+44 (0) 1234 350311

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1-800-825-6544

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Esslingen, Germany  
+49 (711) 3518-0

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*Worm Gear and Helical Speed Reducers*

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1-716-298-4100

**Overrunning Clutches**

**Formsprag Clutch**

*Overrunning Clutches and Holdbacks*

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*Roller Ramp and Sprag Type Overrunning Clutches and Backstops*

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**Stieber Clutch**

*Overrunning Clutches and Holdbacks*

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+49 (0) 6221 30 47 0

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*Belted Drives*

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*For application assistance:*  
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1-315-432-0700

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www.altramotion.com.cn*



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[www.wichitaclutch.com](http://www.wichitaclutch.com)

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Wichita Falls, TX 76302 - USA  
940-723-3400  
Fax: 940-723-3436

[www.wichitaclutch.co.uk](http://www.wichitaclutch.co.uk)

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Fax: +44 (0) 1234 350317



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