

# Omega<sup>®</sup>-HSU

## *The best coupling solution for Hot & Humid conditions*

**R**exnord has revolutionized the elastomeric coupling industry with a material that is specifically designed to give superior performance in hot and humid applications. Completely interchangeable with our standard Omega<sup>®</sup> coupling, the Omega<sup>®</sup>-HSU coupling offers the split-in-half convenience of easy installation without moving hubs or connected equipment.

Omega<sup>®</sup>-HSU couplings are non-lubricated, material flexing couplings utilizing a specially formulated polyurethane designed for exceptional durability, strength and fatigue resistance. The torsionally soft flex element protects connected equipment by cushioning shock loads, reducing torsional vibration and absorbing the effect of unavoidable misalignment. The result is lower equipment service and lower overall maintenance costs.

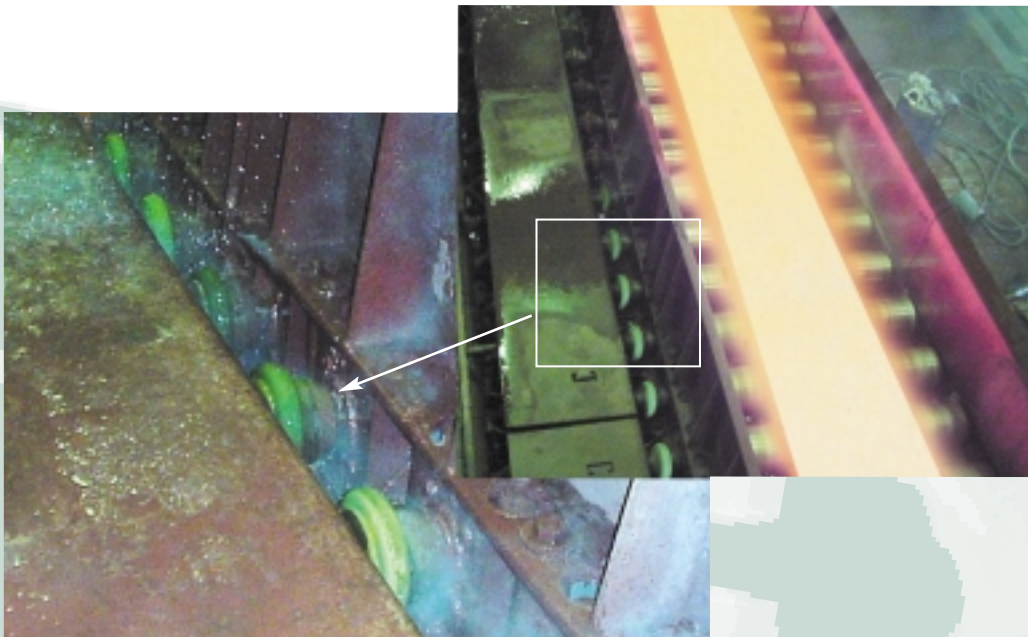


### **Rex Omega<sup>®</sup>-HSU Coupling**

The Omega<sup>®</sup>-HSU coupling is an extension of the Omega product family utilizing Hydrolytically Stable Urethane. Rexnord engineers have spent many years researching the proper material that combines strength, vibration dampening and hydrolytic stability. The results are the Omega<sup>®</sup>-HSU coupling specifically designed for hot and humid environments.

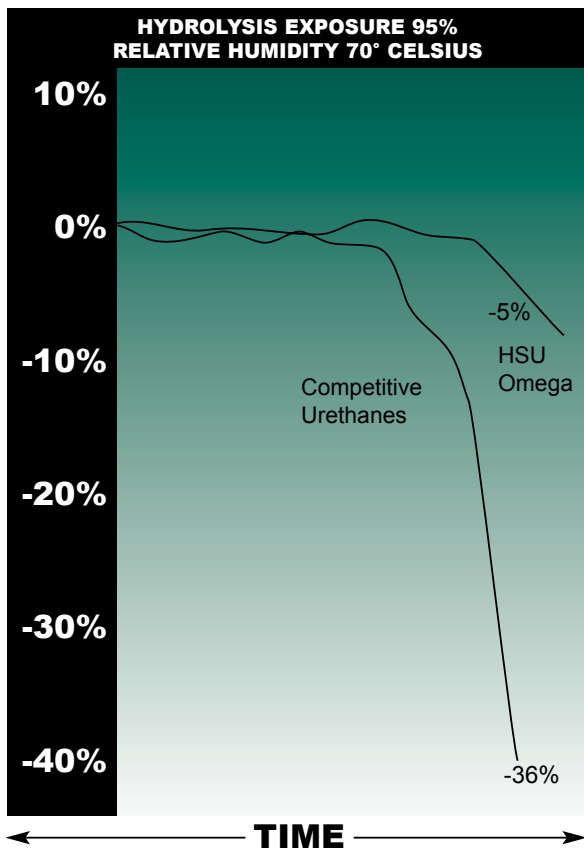
The Omega<sup>®</sup>-HSU material has been tested for many years in applications in steel mills, pulp and paper mills, chemical plants, and power generation facilities. This information along with extensive lab tests measuring misalignment capabilities, fatigue resistance, and peak overload, prove the Omega<sup>®</sup>-HSU coupling can withstand challenging environmental applications.

The Omega<sup>®</sup>-HSU coupling is ideal for use in industrial applications such as pumps, screw compressors and blowers.



**Omega<sup>®</sup>-HSU couplings lowered maintenance costs by increased operating life on a roll-table drive with high levels of heat and humidity.**

## HEAT & HUMIDITY TEST



In accelerated environmental chamber testing, tensile samples of polyurethane were exposed to high heat and humidity that accelerate hydrolysis degradation approximately 30-60 times normal. After exposure, only the HSU Omega polyurethane continued to perform with a minimal loss of tensile strength.

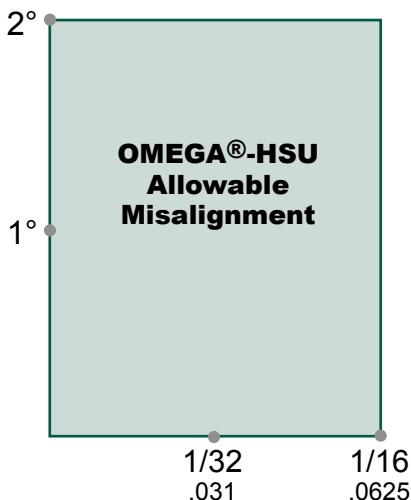
## OMEGA-HSU SPECIFICATIONS

Power Ratings				Maximum Bore and Bushing Numbers				
Size	Power Rating ① HP/100 RPM KW/RPM	Continuous Torque ① In Lbs. Nm.	Max RPM ②	Straight Bore hubs Maximum Bore Inches mm	QD Hubs Max Bore ③ Inches	Bushing No.	TAPER LOCK® Hubs Max Bore ③ Inches mm	Bushing No.
2	0.30	190	7500	1.13				
	0.0023	21.5		28				
3	0.58	365	7500	1.38			1	1008
	0.0043	41.2		34			13	
4	0.88	550	7500	1.63	1.25	JA	1	1008
	0.0066	62		42			13	
5	1.48	925	7500	1.88	1.63	SH	1.13	1108
	0.011	104.5		48			13	
10	2.3	1450	7500	2.13	1.94	SDS	1.44	1310
	0.017	163.8		55			13	
20	3.65	2300	6600	2.38	2.5	SK	1.69	1610
	0.027	260		60			21	
30	5.79	3650	5800	2.88	2.81	SF	2.12	2013
	0.043	412		75			21	
40	8.85	5500	5000	3.38	3.5	E	2.69	2517
	0.066	622		85			26	
50	12.14	7650	4200	3.63	3.5	E	2.69	2517
	0.09	864		90			26	
60	19.84	12500	3800	4	3.94	F	3.25	3020
	0.148	1412		105			31	
70	35.12	22125	3600	4.5	4.5	J	3.94	3535
	0.262	2486		120			31	
80	62.7	39500	2000	6	5.5	M	4.44	4040
	0.467	4463		155			31	
100	135	85050	1900	6.75	5.5	M	4.94	4545
	1	9605		171			48	
120	270	170100 ④	1800	7.5	6	N	5	5050
	2	19221		190			48	
140	540	340200 ⑤	1500	9	7	P	7 ⑥	7060 ⑦
	4	38442		229			48	

- Service factor = 1.0. This rating may be lower due to bushing ratings in severe applications. Consult bushing manufacturer.
  - Higher max RPMs are possible with optional high speed rings for sizes 20-80. Consult Rexnord.
  - With shallow keyway with steel bushings.
  - 120 couplings with QD hubs have a continuous torque rating of 150,000 inch-lbs.  
120 couplings with TL hubs have a continuous torque rating of 126,000 inch-lbs.
  - 140 couplings with QD hubs have a continuous torque rating of 250,000 inch-lbs.
  - Maximum bushing bore capacity.
  - An 8065 bushing hub with 8.00" max bore also available. Consult Rexnord.
- ® TAPERLOCK® is the registered trademark of Reliance Electric and/or J. H. Fenner & Co. Limited England.

Note: Part numbers are the same as standard Omega with an HSU suffix.

## EQUIPMENT ALIGNMENT



Coupling alignment is directly related to smooth efficient equipment operation. Care should be taken for best possible alignment.

When determining coupling misalignment capabilities, select the diagonal line on the corresponding chart by coupling size. Any combination of parallel and angular misalignment within the "square" formed is an acceptable operating state and will not cause a premature failure of the coupling under normal operation conditions. Any combination outside of the "square" formed is not recommended and may cause premature failures of the Omega® HSU Coupling.

The straight edge and caliper alignment method can be used, however, more accurate alignment methods are preferred. Refer to Rexnord bulletin "Coupling Alignment Made Easy" for specific techniques using reverse dial indicator, face/rim dial indicator, and across the flex element alignment methods.



Rexnord Corporation • Coupling Division  
5555 S. Moorland Rd. • New Berlin, WI 53151  
PH: 262/796-4060 • FAX: 262/796-4064 • [www.rexnord.com](http://www.rexnord.com)

