TIMKEN



ENVIROSPEXX™

ENERGY EFFICIENT ROLLER BEARINGS

ENGINEERING FOR ENVIRONMENTAL GOALS

Timken® EnviroSpexx™ energy efficient roller bearings are designed to increase efficiency and reduce energy consumption, which positively impacts an equipment's carbon footprint. These bearings are designed with geometries that minimize rotational torque for maximum system efficiency. Optimized geometry can lead to torque reduction, resulting in an overall decrease in the amount of electricity required to operate equipment or machinery. By incorporating Timken EnviroSpexx roller bearings into your equipment, you can reduce energy costs and carbon emissions.



To learn more about how Timken EnviroSpexx roller bearings can improve the efficiency in your equipment contact your Timken sales engineer or visit **timken.com/envirospexx**

Timken Bearing Legacy

- **Enhanced Geometries.** Timken EnviroSpexx roller bearings are designed with enhanced geometries to extend bearing life under certain operating conditions.
- **Reduced Torque.** Enhanced geometries lead to torque reduction, and at the end of the day, an overall decrease in the amount of electricity needed to operate a wide range of applications globally.
- **Cooler Operation.** Timken EnviroSpexx spherical, tapered, and mounted roller bearings are proven to run cooler compared to other bearings in the market.
- **Extensive Selection:** The EnviroSpexx portfolio includes specially designed roller bearings commonly used in industrial applications, such as gear drives, pumps and compressors.

The Timken Difference: Case Studies and Results

Application: Compressors

A compressor shaft was supported by two tapered roller bearings. By using Timken EnviroSpexx bearings, the application saw a 25% reduction in torque and realized a 5-year savings of $4,691 with a total reduction in generated carbon of 23,523 lbs.

Application: Pumps

Two tapered roller bearings were used to secure the pump shaft. After selecting Timken EnviroSpexx bearings, torque was reduced by 10% resulting in a 5-year energy savings of $841 with a total reduction in generated carbon of 3,827 lbs.

Application: Gearbox

Timken EnviroSpexx tapered roller bearings were used to support a 3-shaft/6-bearing configuration. Over 5 years, a 10% reduction in torque resulted in an efficiency savings of $5,063 and a total reduction in generated carbon of 25,398 lbs.

ENVIROSPEXX ROLLER BEARINGS

EnviroSpexx Tapered Roller Bearings							
Bearing No.	Bore	OD	T-Width	Overall Width	C_1	C_{90}	C_0
	mm	mm	mm	mm	kN	kN	kN
30206Q	30.000	62.000	17.250	18.800	51.9	13.5	43.8
30207Q	35.000	72.000	18.250	20.030	71.8	18.6	63.6
30208Q	40.000	80.000	19.750	21.124	84.0	21.8	74.7
30209Q	45.000	85.000	20.750	22.800	94.8	24.6	89.0
30210Q	50.000	90.000	21.750	23.100	94.2	24.4	87.4
30211Q	55.000	100.000	22.750	24.560	127.0	32.9	122.0
30212Q	60.000	110.000	23.750	25.530	127.0	32.9	117.0
30213Q	65.000	120.000	24.750	28.100	164.0	42.6	158.0
30214Q	70.000	125.000	26.250	28.570	164.0	42.4	157.0
30215Q	75.000	130.000	27.250	28.810	181.0	46.8	180.0
30216Q	80.000	140.000	28.250	30.300	194.0	50.3	187.0
30217Q	85.000	150.000	30.500	33.100	236.0	61.2	236.0
30218Q	90.000	160.000	32.500	34.667	285.0	73.9	295.0
30219Q	95.000	170.000	34.500	38.100	314.0	81.5	327.0
30220Q	100.000	180.000	37.000	39.300	357.0	92.4	375.0
32004XQ	20.000	42.000	15.000	16.449	32.9	8.5	29.4
32005XQ	25.000	47.000	15.000	16.800	36.5	9.5	35.4
32006XQ	30.000	55.000	17.000	18.300	46.5	12.0	45.3
32007XQ	35.000	62.000	18.000	19.400	56.5	14.6	57.6
32008XQ	40.000	68.000	19.000	20.700	65.8	17.1	71.6
32009XQ	45.000	75.000	20.000	22.110	78.7	20.4	84.3
32010XQ	50.000	80.000	20.000	22.080	82.7	21.5	92.7
32011XQ	55.000	90.000	23.000	25.010	112.0	29.1	126.0
32012XQ	60.000	95.000	23.000	25.010	115.0	29.7	132.0
32013XQ	65.000	100.000	23.000	24.980	116.0	30.1	137.0
32014XQ	70.000	110.000	25.000	26.830	133.0	34.5	163.0
32015XQ	75.000	115.000	25.000	26.830	135.0	35.0	170.0
32016XQ	80.000	125.000	29.000	31.360	197.0	51.0	238.0

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The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.