

## Minimum Load Requirements for Cylindrical Roller Bearings

In order to prevent roller skidding, a common failure in Cylindrical Roller Bearings (CRB), loads must be applied to CRB type roller bearings during operation (or testing). Skidding can occur even in very short periods of time without proper loading, reducing the bearing's life. Please refer to the charts below for the minimum required loads for 200 and 300 series CRB's (NU204-NU338). The minimum required load is calculated based on the bearing size, bearing limiting speed, operating speed and mean pitch diameter.

Base Part Number	Force (lbs)			
	900 rpm	1200 rpm	1800 rpm	3600 rpm
NU204	23	24	24	26
NU205	31	31	32	34
NU206	45	45	47	51
NU207	59	61	63	69
NU208	77	79	82	90
NU209	91	93	97	108
NU210	107	110	114	129
NU211	131	134	140	159
NU212	161	165	173	199
NU213	190	195	206	239
NU214	211	218	230	268
NU215	235	242	257	301
NU216	274	283	301	356
NU217	314	326	348	416
NU218	357	370	397	478
NU219	404	420	452	549
NU220	453	472	510	623
NU221	510	533	578	714
NU222	569	595	648	807
NU224	681	719	795	1022
NU226	778	819	901	1147
NU228	929	982	1088	1406
NU230	1091	1157	1289	1685
NU232	1270	1352	1516	2008
NU234	1470	1571	1774	2382
NU236	1610	1724	1954	2644
NU238	1847	1989	2273	3126

Base Part Number	Force (lbs)			
	900 rpm	1200 rpm	1800 rpm	3600 rpm
NU304	28	28	29	31
NU305	41	41	43	46
NU306	57	58	60	66
NU307	70	71	74	82
NU308	93	94	98	110
NU309	114	117	122	137
NU310	140	143	150	171
NU311	169	173	182	210
NU312	200	206	217	252
NU313	235	242	257	301
NU314	272	281	299	354
NU315	313	324	346	413
NU316	357	370	397	478
NU317	400	415	447	541
NU318	453	472	510	623
NU319	506	528	572	704
NU320	583	610	665	827
NU321	645	677	740	929
NU322	732	770	845	1070
NU324	877	925	1023	1315
NU326	1039	1102	1228	1606
NU328	1214	1293	1449	1919
NU330	1409	1506	1700	2283
NU332	1610	1724	1954	2644
NU334	1847	1989	2273	3126
NU336	2087	2254	2588	3590
NU338	2348	2543	2935	4109



- Ratings are applicable for all CRB Series N, NU, NJ
- Contact Koyo's Application Engineering Department to determine minimum loads for bearings that fall outside of the size range provided in the chart.
- Please refer to Koyo's AMD Program Price Book for a list of Koyo's current CRB offering.

Please consult the Koyo Application Engineering Team for further information.