

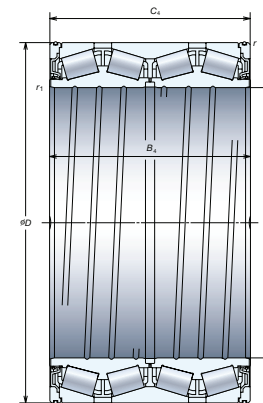
Dimensions of Bearings for Rolling Mills

Water-TF Bearings - WTF-Series

Bearing Numbers	Boundary Dimensions (mm/inch)						Basic Load Ratings (kN)		Constant e	Axial Load Factors	
	d	D	B _a	C ₄	r (min)	r ₁ (min)	C _r	C _{0r}		Y ₂	Y ₃
WTF170KVS2401Eg	170	240	175	175	2.5	2.5	1 020	2 010	0.32	3.2	2.1
*WTF215KVS2851Eg	215.900 (8.5000)	288.925 (11.750)	177.800 (7.0000)	177.800 (7.0000)	3.3	0.8	1 070	2 350	0.49	2.1	1.4
*WTF216KVS3351Eg	216.103 (8.5080)	330.2 (13.0000)	263.525 (10.3750)	263.525 (10.3750)	3.3	1.5	2 290	4 550	0.46	2.2	1.5
WTF220KVS3301Eg	220	330	260	260	3.0	4.0	2 330	4 800	0.40	2.5	1.7
*WTF234KVS3251Eg	234.950 (9.2500)	327.025 (12.8750)	196.850 (7.7500)	196.850 (7.7500)	3.3	1.5	1 550	3 200	0.46	2.2	1.5
*WTF244KVS3215Eg	244.475 (9.6250)	327.025 (12.8750)	193.680 (7.6250)	193.680 (7.6250)	3.0	1.5	1 370	3 050	0.40	2.5	1.7
WTF245KVS3402Eg	245	345	310	310	3.0	2.0	2 700	6 650	0.40	2.5	1.7
*WTF254KVS3552Eg	254.000 (10.0000)	358.775 (14.1250)	269.875 (10.6250)	269.875 (10.6250)	3.3	1.5	2 420	5 500	0.40	2.5	1.7
WTF260KVS3601Eg	260	365	340	340	4.0	2.7	2 960	7 350	0.40	2.5	1.7
WTF260KVS3651Eg	260	365	340	340	4.0	2.5	2 960	7 350	0.40	2.5	1.7
*WTF260KVS4251Eg	260.350 (10.2500)	422.275 (16.6250)	314.325 (12.3750)	314.325 (12.3750)	3.3	6.4	3 600	7 050	0.33	3.0	2.0
*WTF266KVS3551Eg	266.700 (10.5000)	355.600 (14.0000)	230.188 (9.0625)	230.188 (9.0625)	3.3	1.5	1 960	4 600	0.35	2.9	1.9
*WTF76KVS3952Eg	276.225 (10.8750)	393.700 (15.5000)	269.875 (10.6251)	269.875 (10.6251)	3.3	1.5	2 720	6 100	0.45	2.2	1.5
*WTF279KVS3952Eg	279.400 (11.0000)	393.700 (15.5000)	269.875 (10.6251)	269.875 (10.6251)	6.4	1.5	2 720	6 100	0.45	2.2	1.5
*WTF279KVS3954Eg	279.4	393.7	320	320	6.4	1.5	3 100	7 350	0.40	2.5	1.7
WTF290KVS4001Eg	290	400	346	346	4.0	3.0	3 250	8 400	0.40	2.5	1.7
*WTF304KVS4351Eg	304.648 (11.9940)	438.048 (17.2460)	280.990 (11.6260)	280.990 (11.6260)	3.3	3.3	3 100	6 750	0.45	2.2	1.5
*WTF304KVS4155Eg	304.800 (12.0000)	419.100 (16.5000)	269.875 (10.6250)	269.875 (10.6250)	3.0	1.5	2 850	6 550	0.33	3.0	2.0
*WTF304KVS4152Eg	304.902 (12.0040)	412.648 (12.6250)	266.700 (10.50000)	266.700 (10.50000)	3.0	1.5	2 760	6 500	0.33	3.0	2.0
WTF310KVS4301Eg	310	430	310	310	3.3	3.0	3 350	8 200	0.46	2.2	1.5
WTF310KVS4302Eg	310	430	350	350	3.3	2.7	3 700	9 550	0.46	2.2	1.5
*WTF317KVS4251Eg	317.500 (12.5000)	422.275 (16.6250)	269.875 (10.6250)	269.875 (10.6250)	3.3	1.5	2 740	6 750	0.34	3.0	2.0



Bearing Numbers	Boundary Dimensions (mm/inch)						Basic Load Ratings (kN)		Constant e	Axial Load Factors	
	d	D	B _a	C ₄	r (min)	r ₁ (min)	C _r	C _{0r}		Y ₂	Y ₃
*WTF343KVS4551Eg	340.052 (13.5060)	457.098 (17.9960)	254.000 (10.0000)	254.000 (10.0000)	3.3	1.5	2 830	6 700	0.45	2.2	1.5
*WTF355KVS4551Eg	355.600 (14.0000)	457.200 (18.0000)	252.412 (9.9375)	252.412 (9.9375)	3.3	1.5	2 650	6 750	0.32	3.2	2.1
*WTF406KVS451Eg	406.400 (16.0000)	546.100 (21.5000)	288.925 (11.3750)	288.925 (11.3750)	6.4	1.5	3 950	9 450	0.48	2.1	1.4
WTF450KVS5901Eg	450	595	368	368	5.0	4.0	5 550	15 000	0.33	3.0	2.0
*WTF457KVS5951Eg	457.200 (18.0000)	596.900 (23.5000)	276.225 (10.8750)	276.225 (10.8750)	3.3	1.5	4 000	9 850	0.47	2.2	1.4
WTF482KVS6151Eg	482.600 (19.0000)	615.950 (24.2500)	330.200 (13.0000)	330.200 (13.0000)	6.4	4.3	4 900	13 500	0.33	3.1	2.1



Dynamic Equivalent Load
 $P = X F_r + Y F_a$

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	Y_3	0,67	Y_2

Static Equivalent Load

$P_0 = F_r + Y_0 F_a$
 Where $Y_0 = Y_3$
 The values of e, Y_2 and Y_3 are given in the table.

Remarks (*) Bearings marked * are inch designs.
 Water-TF Bearings are a special purpose bearing series in the same design as the standard Extra-Capacity Sealed-Clean Four-Row Tapered Roller Bearings.
 Other bearings are available. Please contact NSK for additional information.

Dimensions of Bearings for Rolling Mills

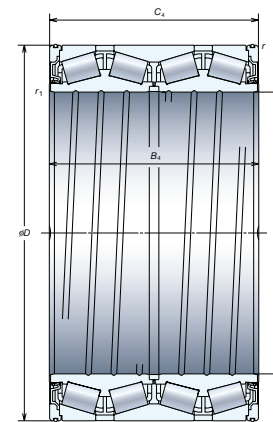
Extra-Capacity Sealed-Clean Four-Row Tapered Roller Bearings - KVS Series

Bearing Numbers	Boundary Dimensions (mm/inch)						Basic Load Ratings (kN)		Constant e	Axial Load Factors	
	d	D	B _a	C ₄	r (min)	r ₁ (min)	C _r	C _{0r}		Y ₂	Y ₃
STF170KVS2401Eg	170	240	175	175	2.5	2.5	1 020	2 010	0.32	3.2	2.1
*STF215KVS2851Eg	215.900 (8.5000)	288.925 (11.3750)	177.800 (7.0000)	177.800 (7.0000)	3.3	0.8	1 070	2 350	0.49	2.1	1.4
*STF216KVS3351Eg	216.103 (8.5080)	330.2 (13.0000)	263.525 (10.3750)	263.525 (10.3750)	3.3	1.5	2 290	4 550	0.46	2.2	1.5
STF220KVS3301Eg	220	330	260	260	3.0	4.0	2 330	4 800	0.40	2.5	1.7
*STF234KVS3251Eg	234.950 (9.2500)	327.025 (12.8750)	196.850 (7.7500)	196.850 (7.7500)	3.3	1.5	1 550	3 200	0.46	2.2	1.5
*STF244KVS3251Eg	244.475 (9.6250)	327.025 (12.8750)	193.680 (7.6250)	193.680 (7.6250)	3.0	1.5	1 370	3 050	0.40	2.5	1.7
STF245KVS3402Eg	245	345	310	310	3.0	2.0	2 700	6 650	0.40	2.5	1.7
*STF254KVS3552	254.000 (10.0000)	358.775 (14.1250)	269.875 (10.6250)	269.875 (10.6250)	3.3	1.5	2 420	5 500	0.40	2.5	1.7
STF260KVS3601Eg	260	365	340	340	4.0	2.7	2 960	7 350	0.40	2.5	1.7
STF260KVS3651Eg	260	365	340	340	4.0	2.5	2 960	7 350	0.40	2.5	1.7
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*STF279KVS3952Eg	279.400 (11.0000)	393.700 (15.5000)	269.875 (10.6251)	269.875 (10.6251)	6.4	1.5	2 720	6 100	0.45	2.2	1.5
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STF310KVS4302Eg	310	430	350	350	3.3	2.7	3 700	9 550	0.46	2.2	1.5
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Remarks: Other bearings are available. Please contact NSK for additional information.



Bearing Numbers	Boundary Dimensions (mm/inch)						Basic Load Ratings (kN)		Constant e	Axial Load Factors	
	d	D	B _a	C ₄	r (min)	r ₁ (min)	C _r	C _{0r}		Y ₂	Y ₃
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STF450KVS5901Eg	450	595	368	368	5.0	4.0	5 550	15 000	0.33	3.0	2.0
*STF457KVS5951Eg	457.200 (18.0000)	596.900 (23.5000)	276.225 (10.8750)	276.225 (10.8750)	3.3	1.5	4 000	9 850	0.47	2.2	1.4
STF482KVS6151Eg	482.600 (19.0000)	615.950 (24.2500)	330.200 (13.0000)	330.200 (13.0000)	6.4	4.3	4 900	13 500	0.33	3.1	2.1



Dynamic Equivalent Load
 $P = X F_r + Y F_a$

$F_a / F_r \leq e$		$F_a / F_r > e$	
X	Y	X	Y
1	Y ₃	0,67	Y ₂

Static Equivalent Load

$$P_0 = F_r + Y_0 F_a$$

Where $Y_0 = Y_3$

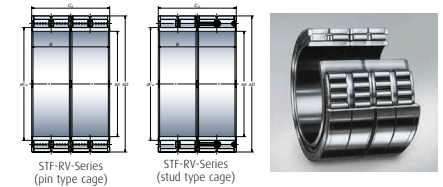
The values of e, Y₂ and Y₃ are given in the table.

Remarks 1. Extra-Capacity Sealed-Clean Four-Row Tapered Roller Bearings are made of NSK Super-TF material as the standard specification
 2. Bearings marked * are inch design and numerical values in parentheses under Boundary Dimensions are in inches..

Dimensions of Bearings for Rolling Mills

Super-TF Four-Row Cylindrical Roller Bearings - STF-RV Series

Bearing Numbers	Boundary Dimensions (mm)					Basic Load Ratings (kN)	
	d	D	B	C ₂	F _w	C _r	C _{or}
STF380RV5414g	380	540	300	300	421	4 450	9 700
STF380RV5411g	380	540	400	400	422	6 000	14 400
STF400RV5611g	400	560	410	410	445	6 550	16 500
STF420RV6012g	420	600	440	440	465	7 300	17 200
STF430RV5911g	430	591	420	420	476	6 350	16 100
STF440RV6215g	430	620	450	450	487	8 100	19 700
STF460RV6513g	440	650	470	470	509	8 600	21 200
STF470RV6611g	460	660	470	470	519	8 450	20 800
STF480RV6814g	470	680	420	420	528	8 350	19 000
STF480RV6815g	480	680	500	500	532	9 400	23 500
STF500RV6713g	480	670	450	450	540	7 750	20 000
STF500RV7111g	500	710	480	480	558	8 500	21 200
STF500RV7214g	500	720	530	530	568	10 100	25 900
STF510RV6811g	510	680	500	500	560	8 950	25 700
STF520RV7311g	520	735	535	535	574.5	10 800	27 500
STF530RV7811g	530	780	570	570	601	11 800	29 200
STF550RV7413g	550	740	510	510	600	10 100	27 600
STF560RV8011g	560	800	600	600	620	12 400	31 500
STF560RV8211g	560	820	600	600	625	14 100	34 000
STF570RV8113g	570	815	594	594	628	13 200	32 000
STF600RV8212g	600	820	575	575	660	12 900	35 500
STF600RV8511g	600	850	600	600	664	14 600	37 500
STF600RV8511g	600	870	640	640	682	15 700	40 000
STF600RV8741g	600	870	640	640	669	15 700	40 000
STF628RV9211g	628	922	600	600	702	15 600	37 000
STF634RV9011g	634.5	901.87	674	674	705	17 000	44 500
STF650RV9212g	650	920	670	670	723	16 200	44 000



Bearing Numbers	Boundary Dimensions (mm)					Basic Load Ratings (kN)	
	d	D	B ₄	C ₂	F _w	C _r	C _{or}
STF660RV9311g	660	930	660	660	728	17 000	44 000
STF690RV9611g	690	960	670	670	760	17 400	47 000
STF690RV9813g	690	980	750	750	766	19 200	53 000
STF700RV9313g	700	930	620	620	763	14 800	43 000
STF700RV9812g	700	980	700	700	766	18 800	49 000
STF725RV1012g	725	1 000	700	700	790	19 000	51 500
STF730RV1011g	730	1 030	750	750	809	20 700	56 500
STF750RV1013g	750	1 000	670	670	813	17 500	50 000
STF760RV1012g	760	1 030	750	750	828	20 800	60 000
STF761RV1012g	761.425	1 079.6	787.4	787.4	846	23 900	65 500
STF770RV1011g	770	1 075	770	770	847	23 100	63 500
STF800RV1013g	800	1 080	700	700	787	19 100	56 000
STF800RV1012g	800	1 100	750	750	880	19 300	57 000
STF820RV1119g	820	1 130	745	720	892	20 100	59 000
STF820RV1112g	820	1 130	650	650	891	20 300	53 000
STF820RV11110g	820	1 130	800	800	903	22 900	66 500
STF840RV1111g	840	1 160	840	840	920	24 900	71 500
STF850RV1115g	850	1 150	840	840	928	25 600	77 500
STF850RV1111g	850	1 180	850	850	940	24 700	72 500
STF900RV1216g	900	1 220	800	800	981	25 900	74 500
STF900RV1212g	900	1 220	840	840	898	26 800	80 000
STF900RV1217g	900	1 280	930	930	1 000	33 000	93 000
STF950RV1314g	950	1 330	950	950	1 053	33 500	97 000
STF800RV1014g	800	1 080	700	700	878	19 200	55 000
STF1270RV1612g	1 270	1 602	850	850	1 350	32 000	103 000
STF1300RV1612g	1 300	1 655	890	890	1 391	34 000	110 500
STF1348RV1711g	1 348.95	1 745	1 010	1 000	1 466	42 500	134 000

Remarks: The specification of oil mist fitting and O-rings on outer rings are available when requested. Other bearings are available. Please contact NSK for additional information.