

# ESZ Type 200

with supervisory approval

**t = 15 mm**

Approval no. Z-16.32-408

## Design table

perm.  $F$  = KN (shown by the orange table)

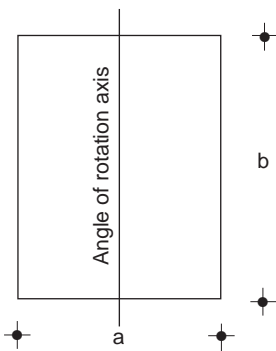
perm.  $\sigma_m$  = N/mm<sup>2</sup> (shown by the red table)

perm.  $\alpha$  = 0\* (no perm. scheduled torsion)

Intermediate dimensions may be interpolated

a = mm b = mm	80	90	100	110	120	130	140	150	160	170	180	190	200	230	250	300	350	400	500
80	53.2	61.3	71.0	79.6	88.7	97.3	107.5	116.6	126.0	134.9	144.0	154.4	163.8	195.0	214.4	267.1	319.4	365.0	456.0
90	8.3	75.8	86.3	98.0	107.9	119.0	131.0	144.0	155.5	167.3	179.3	190.8	202.5	238.5	266.3	330.5	397.3	462.3	576.0
100	8.9	9.6	104.0	117.2	132.0	144.3	158.2	173.3	187.2	201.5	216.0	230.9	260.0	287.5	320.0	400.5	480.4	564.0	705.0
110	9.0	9.9	10.7	138.4	154.6	173.0	188.0	205.1	223.6	239.6	254.8	272.4	290.4	345.1	378.1	471.9	571.7	669.4	836.0
120	9.2	10.0	11.0	11.7	179.7	199.4	221.8	238.7	255.7	276.6	299.4	320.1	341.3	402.4	446.4	553.0	667.8	783.4	1,020.2
130	9.4	10.2	11.1	12.1	12.8	228.5	252.0	278.9	298.8	318.9	343.7	370.9	393.8	466.4	513.3	633.8	769.0	905.8	1,179.8
140	9.6	10.4	11.3	12.2	13.2	13.5	285.4	313.1	345.0	368.2	391.6	420.8	444.9	527.4	588.0	729.1	878.1	1,013.0	1,350.2
150	9.7	10.7	11.6	12.4	13.3	14.3	14.9	351.0	383.4	409.3	445.5	474.5	501.8	597.7	666.6	830.3	984.4	1,170.0	1,500.0
160	9.8	10.8	11.7	12.7	13.3	14.4	15.4	16.0	426.0	463.5	493.1	537.5	567.0	665.3	748.8	933.1	1,120.0	1,280.0	1,600.0
170	9.9	10.9	11.9	12.8	13.6	14.4	15.5	16.1	17.0	511.0	546.2	584.8	635.8	751.1	834.5	1,020.0	1,190.0	1,360.0	1,700.0
180	10.0	11.1	12.0	12.9	13.9	14.7	15.5	16.5	17.1	17.9	606.5	646.4	690.1	827.2	900.0	1,080.0	1,260.0	1,440.0	1,800.0
190	10.2	11.2	12.2	13.0	14.0	15.0	15.8	16.7	17.7	18.1	713.3	760.0	874.0	950.0	1,140.0	1,330.0	1,520.0	1,900.0	
200	10.2	11.3	13.0	13.2	14.2	15.1	15.9	16.7	17.7	18.7	19.2	20.0	800.0	920.0	1,000.0	1,200.0	1,400.0	1,600.0	2,000.0
230	10.63	11.5	12.5	13.6	14.6	15.6	16.4	17.3	18.1	19.2	20.0	20.0	20.0	1,058.0	1,150.0	1,380.0	1,610.0	1,840.0	2,300.0
250	10.7	11.8	12.8	13.8	14.9	15.8	16.8	17.8	18.7	19.6	20.0	20.0	20.0	20.0	1,250.0	1,500.0	1,750.0	2,000.0	2,500.0
300	11.1	12.2	13.4	14.3	15.4	16.3	17.4	18.5	19.4	20.0	20.0	20.0	20.0	20.0	20.0	1,800.0	2,100.0	2,400.0	3,000.0
350	11.4	12.6	13.7	14.9	15.9	16.9	17.9	18.8	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	2,450.0	2,800.0	3,500.0
400	11.4	12.8	14.1	15.2	16.3	17.4	18.4	19.5	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	3,200.0	4,000.0
500	11.4	12.8	14.1	15.2	17.0	18.2	19.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	5,000.0

\* = only for bearings subjected to pressure (criteria according to leaflet 339 Daf Stb)



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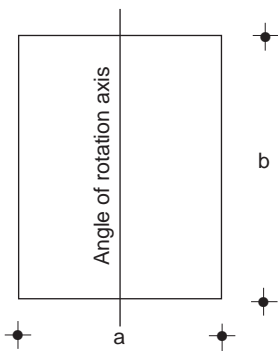
perm.  $F$  = KN (shown by the orange table)

perm.  $\sigma_m$  = N/mm<sup>2</sup> (shown by the red table)

perm.  $\alpha$  = 10% (angle of rotation axis at right angles to the smaller bearing side )

Intermediate dimensions may be interpolated

a = mm b = mm	80	90	100	110	120	130	140	150	160	170	180	190	200	230	250	300	350	400	500
80	51.7 8.1	59.6	69.0	77.3	86.2	94.6	104.5	113.3	122.4	131.1	139.9	150.0	159.2	189.5	208.3	259.5	310.3	355.0	444.0
90	8.3	73.1 9.0	83.2	94.5	104.0	114.7	126.3	138.8	149.9	161.3	172.9	184.0	195.2	229.9	256.7	318.6	383.0	445.7	558.0
100	8.6	9.2	99.4 9.9	111.9	126.1	137.9	151.2	165.6	178.9	192.5	206.4	220.6	248.4	274.7	305.8	382.7	459.0	538.9	675.0
110	8.8	9.5	10.2	131.0 10.8	146.3	163.7	177.9	194.1	211.6	226.8	241.1	257.8	274.8	326.5	357.8	446.5	541.0	633.4	792.0
120	9.0	9.6	10.5	11.1	168.2 11.7	186.6	207.6	223.4	239.4	258.9	280.2	299.6	319.4	376.7	417.8	517.6	625.1	733.2	954.9
130	9.1	9.8	10.6	11.4	12.0	211.3 12.5	233.1	257.9	276.3	294.9	317.9	343.0	364.2	431.4	474.8	586.1	711.2	837.8	1.091.2
140	9.3	10.0	10.8	11.6	12.4	12.8	260.5 13.3	285.8	314.9	336.1	357.5	384.2	406.2	481.5	536.8	665.6	801.6	941.2	1.232.6
150	9.4	10.3	11.0	11.8	12.4	13.2	13.6	315.9 14.0	345.1	368.3	401.0	427.1	451.6	537.9	599.9	747.2	885.9	1.053.0	1.377.0
160	9.6	10.4	11.2	12.0	12.5	13.3	14.1	14.4	377.5 14.7	410.8	437.0	476.3	502.5	589.6	663.6	827.0	992.6	1.161.6	1.520.0
170	9.6	10.5	11.3	12.1	12.7	13.3	14.1	14.4	15.1	445.3 15.4	476.1	509.7	554.1	654.6	727.3	906.8	1.093.2	1.279.5	1.668.7
180	9.7	10.7	11.5	12.2	13.0	13.6	14.2	14.9	15.2	15.6	519.2 16.0	553.3	590.7	708.1	783.5	986.0	1.179.4	1.386.7	1.800.0
190	9.9	10.8	11.6	12.3	13.1	13.9	14.4	15.0	15.7	15.8	16.2	598.9 16.6	645.6	766.8	841.0	1.063.8	1.272.9	1.503.3	1.900.0
200	9.9	10.8	12.4	12.5	13.3	14.0	14.5	15.1	15.7	16.3	16.4	17.0	684.1 17.1	832.1	904.4	1.139.6	1.369.8	1.600.0	2.000.0
230	10.3	11.1	11.9	12.9	13.6	14.4	15.0	15.6	16.0	16.7	17.1	17.5	18.1	967.9 18.3	1.077.3	1.347.4	1.610.0	1.840.0	2.300.0
250	10.4	11.4	12.2	13.0	13.9	14.6	15.3	16.0	16.6	17.1	17.4	17.7	18.1	18.7	1.173.6 18.8	1.489.6	1.750.0	2.000.0	2.500.0
300	10.8	11.8	12.8	13.5	14.4	15.0	15.8	16.6	17.2	17.8	18.3	18.7	19.0	19.5	19.9	1.684.8 18.7	2.079.0	2.397.6	3.000.0
350	11.1	12.2	13.1	14.1	14.9	15.6	16.4	16.9	17.7	18.4	18.7	19.1	19.6	20.0	20.0	19.8	2.031.3 16.6	2.399.6	3.153.0
400	11.1	12.4	13.5	14.4	15.3	16.1	16.8	17.6	18.1	18.8	19.3	19.8	20.0	20.0	20.0	20.0	17.1	1.922.8 12.0	2.530.7
500	11.1	12.4	13.5	14.4	15.9	16.8	17.6	18.4	19.0	19.6	20.0	20.0	20.0	20.0	20.0	20.0	18.0	12.7	



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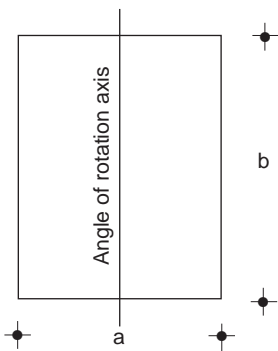
perm. **F** = KN (shown by the orange table)

perm.  $\sigma_m$  = N/mm<sup>2</sup> (shown by the red table)

perm.  $\alpha$  = 25% (angle of rotation axis at right angles to the smaller bearing side )

Intermediate dimensions may be interpolated

a = mm b = mm	80	90	100	110	120	130	140	150	160	170	180	190	200	230	250	300	350	400	500
80	49.5	57.0	66.0	73.9	82.4	90.4	99.9	108.3	117.0	125.3	133.8	143.5	152.2	181.2	199.2	248.1	296.7	339.0	424.0
90	7.7	69.0	78.5	89.2	98.2	108.3	119.2	131.0	141.5	152.5	163.2	173.7	184.3	217.0	242.3	300.7	361.63	420.7	526.5
100	8.2	8.5	92.4	104.1	117.3	128.3	140.6	154.0	166.4	179.1	192.0	205.2	231.1	255.6	284.4	356.0	427.0	501.3	625.0
110	8.4	9.0	9.5	119.8	133.8	149.8	162.8	177.5	193.5	207.4	220.6	235.8	251.4	298.7	327.3	408.5	494.9	579.4	726.0
120	8.6	9.1	9.8	10.1	151.0	167.5	186.3	200.5	214.8	232.4	251.5	268.9	286.7	338.0	375.0	464.5	561.0	658.0	857.0
130	8.7	9.3	9.9	10.5	10.7	185.6	204.7	226.5	242.7	259.0	279.2	301.2	319.8	378.9	416.9	514.7	624.6	735.7	958.3
140	8.9	9.5	10.0	10.6	11.1	11.2	223.2	244.9	269.8	288.0	306.3	329.2	348.0	412.6	459.9	570.3	686.9	806.4	1.056.2
150	9.0	9.7	10.3	10.8	11.1	11.6	11.7	263.3	287.6	307.0	334.1	355.9	376.3	448.3	499.9	622.7	738.3	877.5	1.147.5
160	9.1	9.8	10.4	11.0	11.2	11.7	12.0	12.0	304.8	331.7	352.8	384.6	405.7	476.1	535.8	667.7	801.4	937.9	1.227.3
170	9.2	10.0	10.5	11.1	11.4	11.7	12.1	12.0	12.2	346.9	370.8	397.0	431.6	509.9	566.5	706.3	851.5	996.7	1.299.8
180	9.3	10.1	10.7	11.1	11.6	11.9	12.2	12.4	12.3	12.1	388.2	413.7	441.7	529.4	585.8	737.2	881.8	1.036.8	1.363.4
190	9.4	10.2	10.8	11.3	11.8	12.2	12.4	12.5	12.7	12.3	12.1	427.2	460.5	547.0	600.0	758.9	908.0	1.072.3	1.394.5
200	9.5	10.2	11.6	11.4	11.9	12.3	12.4	12.5	12.7	12.7	12.3	12.1	462.2	562.2	611.1	770.0	925.6	1.093.3	1.422.2
230	9.8	10.5	11.1	11.8	12.2	12.7	12.8	13.0	12.9	13.0	12.8	12.5	12.2	521.6	580.6	726.2	881.5	1.033.6	1.362.9
250	10.0	10.8	11.4	11.9	12.5	12.8	13.1	13.3	13.4	13.3	13.0	12.6	12.2	10.1	496.5	630.2	755.3	893.7	1.174.5
300	10.3	11.1	11.9	12.4	12.9	13.2	13.6	13.8	13.9	13.8	13.7	13.3	12.8	10.5	8.4				
350	10.6	11.5	12.2	12.9	13.4	13.7	14.0	14.1	14.3	14.3	14.0	13.7	13.2	11.0	8.6				
400	10.6	11.7	12.5	13.2	13.7	14.1	14.4	14.6	14.7	14.7	14.4	14.1	13.7	11.2	8.9				
500	10.6	11.7	12.5	13.2	14.3	14.7	15.1	15.3	15.3	15.3	15.1	14.7	14.2	11.9	9.4				



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perm.  $\sigma_m$  = N/mm<sup>2</sup> (shown by the red table)

perm.  $\alpha$  = 50% (angle of rotation axis at right angles to the smaller bearing side )

Intermediate dimensions may be interpolated

$\frac{a}{b}$ mm/mm	80	90	100	110	120	130	140	150	160	170	180	190	200	230	250	300	350	400	500
80	45.7	52.6	60.9	68.2	76.1	83.5	92.2	100.1	108.0	115.7	123.5	132.5	140.5	167.3	183.9	229.1	274.0	313.6	392.0
90	7.1	62.2	70.7	80.4	88.5	97.6	107.4	118.1	127.5	137.2	147.1	156.5	166.1	195.5	218.4	271.0	325.8	379.1	472.5
100	7.6	7.9	80.9	91.1	102.7	112.2	123.0	134.8	145.6	156.7	168.0	179.6	202.2	223.6	248.9	311.5	373.6	438.7	550.0
110	7.8	8.1	8.3	101.2	113.1	126.5	137.5	149.9	163.5	175.2	186.3	199.2	212.3	252.3	276.5	345.0	418.0	489.4	610.5
120	7.9	8.2	8.6	8.6	122.2	135.6	150.8	162.3	173.9	188.1	203.6	217.7	232.1	273.6	303.6	376.0	454.1	532.7	693.8
130	8.0	8.3	8.6	8.8	8.7	142.7	157.3	174.1	186.6	199.1	214.7	231.6	245.9	291.3	320.6	395.7	480.2	565.6	736.7
140	8.2	8.5	8.8	8.9	9.0	8.6	161.1	176.7	194.7	207.8	221.0	237.5	251.1	297.7	331.9	411.5	495.6	581.9	762.1
150	8.3	8.7	9.0	9.1	9.0	8.9	8.4	175.5	191.7	204.6	222.7	237.3	250.9	298.9	333.3	415.1	492.2	585.0	765.0
160	8.4	8.9	9.1	9.3	9.1	9.0	8.7	8.0	183.6	199.8	212.6	231.7	244.5	286.8	322.8	402.3	482.8	565.1	739.4
170	8.5	9.0	9.2	9.4	9.2	9.0	8.7	8.0	7.3	182.8	195.4	209.2	227.5	268.7	298.6	372.2	448.7	525.3	685.0
180	8.6	9.1	9.3	9.4	9.4	9.2	8.8	8.3	7.4	6.4	169.8	181.0	193.2	231.6	256.3	322.5	385.8	453.6	596.5
190	8.7	9.2	9.5	9.5	9.5	9.4	8.9	8.3	7.6	6.5	5.3	141.1	152.1	180.6	198.1	250.6	299.9	354.1	460.5
200	8.8	9.2	10.1	9.7	9.7	9.5	9.0	8.4	7.6	6.7	5.4	4.0	92.4	112.4	122.2	154.0	185.1	218.7	284.4
230	9.1	9.4	9.7	10.0	9.9	9.7	9.2	8.7	7.8	6.9	5.6	4.1	2.4						
250	9.2	9.7	10.0	10.1	10.1	9.9	9.5	8.9	8.1	7.0	5.7	4.2	2.4						
300	9.5	10.0	10.4	10.5	10.4	10.1	9.8	9.2	8.4	7.3	6.0	4.4	2.6						
350	9.8	10.3	10.7	10.9	10.8	10.6	10.1	9.4	8.6	7.5	6.1	4.5	2.6						
400	9.8	10.5	11.0	11.1	11.1	10.9	10.4	9.8	8.8	7.7	6.3	4.7	2.7						
500	9.8	10.5	11.0	11.1	11.6	11.3	10.9	10.2	9.2	8.1	6.6	4.8	2.8						

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