

**Tab. 5 DIMENSIONS AND CLEAN TURNED SIZES FOR HOLLOW
HOLLOW BAR FOR MACHINING
HOT ROLLING**

Nom sizes			EXECUTION DIMENSIONS							
OD	ID	WT	OD	ID	WT	Odmin	Odmax	Idmin	Idmax	Weight
56	45	5.5	57.0	44.6	6.2	56.6	57.4	43.1	46.1	7.77
56	40	8.0	57.0	39.6	8.7	56.6	57.4	37.8	41.4	10.36
56	38	9.0	57.0	37.6	9.7	56.6	57.4	35.7	39.5	11.31
56	36	10.0	57.0	35.6	10.7	56.6	57.4	33.7	37.5	12.22
56	32	12.0	57.0	31.6	12.7	56.6	57.4	29.4	33.8	13.87
56	30	13.0	57.0	29.6	13.7	56.6	57.4	27.3	31.9	14.63
63	50	6.5	63.5	49.3	7.1	63.0	64.0	47.5	51.1	9.88
63	45	9.0	63.5	44.3	9.6	63.0	64.0	42.4	46.2	12.76
63	43	10.0	63.5	42.3	10.6	63.0	64.0	40.2	44.4	13.83
63	40	11.5	63.5	39.3	12.1	63.0	64.0	37.1	41.5	15.34
63	36	13.5	63.5	35.3	14.1	63.0	64.0	32.8	37.8	17.18
71	56	7.5	71.7	55.5	8.1	71.2	72.2	53.7	57.3	12.70
71	50	10.5	71.7	49.5	11.1	71.2	72.2	47.4	51.6	16.59
71	45	13.0	71.7	44.5	13.6	71.2	72.2	42.1	46.9	19.49
71	40	15.5	71.7	39.5	16.1	71.2	72.2	37.0	42.0	22.08
75	60	7.5	76.1	59.3	8.4	75.6	76.6	57.5	61.1	14.02
75	56	9.5	76.1	55.5	10.3	75.6	76.6	53.4	57.6	16.71
75	50	12.5	76.1	49.7	13.2	75.6	76.6	47.4	52.0	20.48
75	45	15.0	76.1	44.7	15.7	75.6	76.6	42.2	47.2	23.39
80	63	8.5	80.8	62.4	9.2	80.3	81.3	60.5	64.3	16.25
80	60	10.0	80.8	59.4	10.7	80.3	81.3	57.3	61.5	18.50
80	56	12.0	80.8	55.4	12.7	80.3	81.3	53.1	57.7	21.33
80	50	15.0	80.8	49.4	15.7	80.3	81.3	46.9	51.9	25.21
85	70	7.5	85.9	69.5	8.2	85.4	86.4	67.7	71.3	15.71
85	67	9.0	85.9	66.5	9.7	85.4	86.4	64.6	68.4	18.23
85	65	10.0	85.9	64.5	10.7	85.4	86.4	62.4	66.6	19.84
85	61	12.0	85.9	60.5	12.7	85.4	86.4	58.2	62.8	22.93
85	55	15.0	85.9	54.5	15.7	85.4	86.4	52.0	57.0	27.18
85	50	17.5	85.9	49.5	18.2	85.4	86.4	47.0	52.0	30.39
85	45	20.0	85.9	44.5	20.7	85.4	86.4	42.0	47.0	33.28
90	75	7.5	90.9	74.3	8.3	90.4	91.4	72.4	76.2	16.91
90	71	9.5	90.9	70.3	10.3	90.4	91.4	68.2	72.4	20.47
90	67	11.5	90.9	66.3	12.3	90.4	91.4	64.0	68.6	23.84
90	63	13.5	90.9	62.3	14.3	90.4	91.4	60.0	64.6	27.01
90	60	15.0	90.9	59.5	15.7	90.4	91.4	57.0	62.0	29.12
90	56	17.0	90.9	55.5	17.7	90.4	91.4	53.0	58.0	31.95
90	50	20.0	90.9	49.5	20.7	90.4	91.4	47.0	52.0	35.84
90	45	22.5	90.9	44.5	23.2	90.4	91.4	41.6	47.4	38.73
95	80	7.5	96.0	79.2	8.4	95.5	96.5	77.3	81.1	18.15
95	75	10.0	96.0	74.2	10.9	95.5	96.5	72.1	76.3	22.88
95	71	12.0	96.0	70.4	12.8	95.5	96.5	68.1	72.7	26.26
95	69	13.0	96.0	68.4	13.8	95.5	96.5	66.0	70.8	27.98
95	67	14.0	96.0	66.4	14.8	95.5	96.5	63.9	68.9	29.64
95	63	16.0	96.0	62.4	16.8	95.5	96.5	59.9	64.9	32.81

Tab. 5 HOT ROLLING - table continued

Nom sizes			EXECUTION DIMENSIONS							
OD	ID	WT	OD	ID	WT	Odmin	Odmax	Idmin	Idmax	Weight
95	59	18.0	96.0	58.4	18.8	95.5	96.5	55.9	60.9	35.79
95	56	19.5	96.0	55.4	20.3	95.5	96.5	52.9	57.9	37.90
95	50	22.5	96.0	49.6	23.2	95.5	96.5	46.7	52.5	41.65
100	85	7.5	101.6	84.2	8.7	101.1	102.1	82.3	86.1	19.93
100	80	10.0	101.6	79.2	11.2	101.1	102.1	77.0	81.4	24.97
100	75	12.5	101.6	74.2	13.7	101.1	102.1	71.8	76.6	29.70
100	71	14.5	101.6	70.2	15.7	101.1	102.1	67.7	72.7	33.26
100	67	16.5	101.6	66.2	17.7	101.1	102.1	63.7	68.7	36.62
100	63	18.5	101.6	62.4	19.6	101.1	102.1	59.7	65.1	39.64
100	59	20.5	101.6	58.4	21.6	101.1	102.1	55.7	61.1	42.62
100	56	22.0	101.6	55.4	23.1	101.1	102.1	52.5	58.3	44.72
100	50	25.0	101.6	49.4	26.1	100.9	102.3	46.1	52.7	48.60
106	90	8.0	107.1	89.1	9.0	106.6	107.7	87.2	91.1	21.77
106	85	10.5	107.1	84.1	11.5	106.6	107.7	82.0	86.3	27.11
106	80	13.0	107.1	79.3	13.9	106.6	107.7	76.8	81.9	31.95
106	75	15.5	107.1	74.3	16.4	106.6	107.7	71.8	76.9	36.68
106	71	17.5	107.1	70.3	18.4	106.6	107.7	67.8	72.9	40.25
106	67	19.5	107.1	66.3	20.4	106.6	107.7	63.6	69.1	43.62
106	63	21.5	107.1	62.3	22.4	106.6	107.7	59.6	65.1	46.79
106	59	23.5	107.1	58.3	24.4	106.6	107.7	55.4	61.3	49.76
106	56	25.0	107.1	55.5	25.8	106.6	107.7	52.4	58.7	51.73
106	50	28.0	107.1	49.5	28.8	106.6	107.7	46.2	52.9	55.61
112	95	8.5	113.1	94.1	9.5	112.5	113.7	92.1	96.1	24.27
112	90	11.0	113.1	89.1	12.0	112.5	113.7	86.8	91.4	29.92
112	85	13.5	113.1	84.1	14.5	112.5	113.7	81.6	86.6	35.26
112	80	16.0	113.1	79.1	17.0	112.5	113.7	76.5	81.7	40.29
112	75	18.5	113.1	74.1	19.5	112.5	113.7	71.3	76.9	45.01
112	71	20.5	113.1	70.3	21.4	112.5	113.7	67.5	73.1	48.40
112	63	24.5	113.1	62.3	25.4	112.5	113.7	59.1	65.5	54.94
112	59	26.5	113.1	58.3	27.4	112.5	113.7	54.9	61.7	57.91
112	56	28.0	113.1	55.3	28.9	112.5	113.7	51.7	58.9	60.01
112	50	31.0	113.1	49.3	31.9	112.5	113.7	45.5	53.1	63.88
118	100	9.0	119.2	99.0	10.1	118.6	119.8	96.9	101.1	27.17
118	95	11.5	119.2	94.0	12.6	118.6	119.8	91.6	96.4	33.12
118	90	14.0	119.2	89.2	15.0	118.6	119.8	86.6	91.8	38.55
118	85	16.5	119.2	84.2	17.5	118.6	119.8	81.6	86.8	43.89
118	80	19.0	119.2	79.2	20.0	118.6	119.8	76.4	82.0	48.93
118	75	21.5	119.2	74.2	22.5	118.6	119.8	71.4	77.0	53.66
118	71	23.5	119.2	70.2	24.5	118.6	119.8	67.2	73.2	57.22
118	63	27.5	119.2	62.2	28.5	118.6	119.8	58.8	65.6	63.75
118	59	29.5	119.2	58.2	30.5	118.6	119.8	54.6	61.8	66.72
118	55	31.5	119.2	54.2	32.5	118.5	119.9	50.3	58.1	69.49
125	106	9.5	126.3	104.9	10.7	125.7	126.9	102.7	107.1	30.50
125	100	12.5	126.3	99.1	13.6	125.7	126.9	96.6	101.6	37.80
125	95	15.0	126.3	94.1	16.1	125.7	126.9	91.5	96.7	43.75
125	90	17.5	126.3	89.1	18.6	125.7	126.9	86.5	91.7	49.40

Tab. 5 HOT ROLLING - table continued

Nom. sizes			EXECUTION DIMENSIONS							
OD	ID	WT	OD	ID	WT	Odmin	Odmax	Idmin	Idmax	Weight
125	85	20.0	126.3	84.1	21.1	125.7	126.9	81.3	86.9	54.74
125	80	22.5	126.3	79.3	23.5	125.7	126.9	76.3	82.3	59.58
125	71	27.0	126.3	70.3	28.0	125.7	126.9	66.9	73.7	67.88
125	65	30.0	126.3	64.3	31.0	125.7	126.9	60.6	68.0	72.86
125	60	32.5	126.3	59.3	33.5	125.6	127.0	55.3	63.3	76.67
125	55	35.0	126.3	54.3	36.0	125.6	127.0	50.0	58.6	80.17
132	112	10.0	133.0	110.8	11.1	132.4	133.7	108.7	113.0	33.37
132	106	13.0	133.0	104.8	14.1	132.4	133.7	102.2	107.5	41.34
132	102	15.0	133.0	100.8	16.1	132.4	133.7	98.2	103.5	46.42
132	98	17.0	133.0	96.8	18.1	132.4	133.7	94.2	99.5	51.29
132	95	13.5	133.0	93.8	19.6	132.4	133.7	91.2	96.5	54.81
132	90	21.0	133.0	89.0	22.0	132.4	133.7	86.2	91.9	60.22
132	84	24.0	133.0	83.0	25.0	132.4	133.7	79.9	86.2	66.59
132	80	26.0	133.0	79.0	27.0	132.4	133.7	75.7	82.4	70.58
132	71	30.5	133.0	70.0	31.5	132.4	133.7	66.2	73.9	78.85
132	65	33.5	133.0	64.0	34.5	132.3	133.7	59.9	68.1	83.81
140	120	10.0	141.3	118.7	11.3	140.6	142.0	116.4	121.0	36.23
140	118	11.0	141.3	116.7	12.3	140.6	142.0	114.2	119.2	39.13
140	112	14.0	141.3	110.7	15.3	140.6	142.0	108.0	113.4	47.54
140	106	17.0	141.3	104.9	18.2	140.6	142.0	102.2	107.6	55.25
140	100	20.0	141.3	98.9	21.2	140.6	142.0	96.0	101.8	62.79
140	95	22.5	141.3	93.9	23.7	140.6	142.0	90.8	97.0	68.73
140	90	25.0	141.3	88.9	26.2	140.6	142.0	85.6	92.2	74.37
140	80	30.0	141.3	78.9	31.2	140.6	142.0	75.0	82.8	84.72
140	70	35.0	141.3	68.9	36.2	140.6	142.0	64.6	73.2	93.83
140	65	37.5	141.3	63.9	38.7	140.6	142.0	59.4	68.4	97.92
150	125	12.5	151.5	123.7	13.9	150.8	152.3	121.2	126.3	47.17
150	122	14.0	151.5	120.9	15.3	150.8	152.3	118.2	123.7	51.39
150	118	16.0	151.5	116.9	17.3	150.8	152.3	114.0	119.9	57.26
150	112	19.0	151.5	110.9	20.3	150.8	152.3	107.9	114.0	65.68
150	106	22.0	151.5	104.9	23.3	150.8	152.3	101.8	108.1	73.67
150	100	25.0	151.5	98.9	26.3	150.8	152.3	95.6	102.3	81.20
150	95	27.5	151.5	93.9	28.8	150.8	152.3	90.3	97.6	87.15
150	90	30.0	151.5	88.9	31.3	150.8	152.3	85.1	92.8	92.78
150	80	35.0	151.5	78.9	36.3	150.8	152.3	74.6	83.3	103.1
150	75	37.5	151.5	73.9	38.8	150.8	152.3	69.4	78.5	107.8
160	136	12.0	161.6	134.6	13.5	160.8	162.4	131.9	137.3	49.31
160	132	14.0	161.6	130.6	15.5	160.8	162.4	127.8	133.4	55.85
160	125	17.5	161.6	123.6	19.0	160.8	162.4	120.8	126.4	66.82
160	122	19.0	161.6	120.8	20.4	160.8	162.4	118.0	123.6	71.04
160	118	21.0	161.6	116.8	22.4	160.8	162.4	113.8	119.8	76.90
160	112	24.0	161.6	110.8	25.4	160.8	162.4	107.4	114.2	85.32
160	105	27.5	161.6	103.8	28.9	160.8	162.4	100.1	107.5	94.58
160	100	30.0	161.6	98.8	31.4	160.8	162.4	94.8	102.8	100.8
160	95	32.5	161.6	93.8	33.9	160.8	162.4	89.6	98.0	106.8

Tab. 5 HOT ROLLING - table continued

Nom. sizes			EXECUTION DIMENSIONS							
OD	ID	WT	OD	ID	WT	Odmin	Odmax	Idmin	Idmax	Weight
160	90	35.0	161.6	88.8	36.4	160.8	162.4	84.4	93.2	112.4
160	80	40.0	161.6	78.8	41.4	160.8	162.4	74.0	83.6	122.7
170	145	12.5	171.7	143.5	14.1	170.9	172.6	140.7	146.4	54.80
170	140	15.0	171.7	138.5	16.6	170.9	172.6	135.7	141.4	63.49
170	135	17.0	171.7	134.5	18.6	170.9	172.6	131.7	137.4	70.23
170	130	20.0	171.7	128.7	21.5	170.9	172.6	125.7	131.8	79.64
170	126	22.0	171.7	124.7	23.5	170.9	172.6	121.5	128.0	85.89
170	118	26.0	171.7	116.7	27.5	170.9	172.6	113.1	120.4	97.80
170	110	30.0	171.7	108.7	31.5	170.9	172.6	104.7	112.8	108.9
170	100	35.0	171.7	98.7	36.5	170.9	172.6	94.3	103.2	121.7
170	90	40.0	171.7	88.7	41.5	170.9	172.6	83.9	93.6	133.3
180	150	15.0	181.8	148.4	16.7	180.9	182.7	145.5	151.3	68.00
180	145	17.5	181.8	143.4	19.2	180.9	182.7	140.4	146.4	76.99
180	140	20.0	181.8	138.6	21.6	180.9	182.7	135.5	141.7	85.34
180	135	22.5	181.8	133.6	24.1	180.9	182.7	130.3	136.9	93.73
180	130	25.0	181.8	128.6	26.6	180.9	182.7	125.0	132.2	101.8
180	125	27.5	181.8	123.8	29.0	180.9	182.7	120.0	127.6	109.3
180	112	34.0	181.8	110.6	35.6	180.9	182.7	106.1	115.1	128.4
180	100	40.0	181.8	98.6	41.6	180.9	182.7	93.6	103.6	143.8
190	160	15.0	191.0	155.8	17.6	189.6	192.4	150.9	160.7	75.26
190	155	17.5	191.0	151.8	19.6	189.6	192.4	146.5	157.1	82.85
190	150	20.0	191.0	146.8	22.1	189.6	192.4	141.0	152.6	92.05
190	146	22.0	191.0	142.8	24.1	189.6	192.4	136.6	149.0	99.20
190	140	25.0	191.0	136.4	27.3	189.6	192.4	129.6	143.2	110.2
190	132	29.0	191.0	127.6	31.7	189.6	192.4	120.0	135.2	124.5
190	120	35.0	191.0	115.0	38.0	189.6	192.4	107.6	122.4	143.4
190	118	36.0	191.0	112.4	39.3	189.6	192.4	104.8	120.0	147.0
190	106	42.0	191.0	100.0	45.5	189.6	192.4	91.4	108.6	163.3
200	170	15.0	203.0	168.2	17.4	201.5	204.5	163.3	173.1	79.64
200	165	17.5	203.0	162.2	20.4	201.5	204.5	156.7	167.7	91.87
200	160	20.0	203.0	157.0	23.0	201.5	204.5	150.9	163.1	102.1
200	155	22.5	203.0	151.8	25.6	201.5	204.5	145.3	158.3	112.0
200	150	25.0	203.0	146.6	28.2	201.5	204.5	139.5	153.7	121.6
200	140	30.0	203.0	135.6	33.7	201.5	204.5	127.5	143.7	140.7
200	130	35.0	203.0	124.8	39.1	201.5	204.5	117.1	132.5	158.0
200	126	37.0	203.0	120.4	41.3	201.5	204.5	112.3	128.5	164.7
200	120	40.0	203.0	114.0	44.5	201.0	205.0	105.0	123.0	173.9
212	180	16.0	214.1	177.7	18.2	212.5	215.7	172.5	182.9	87.93
212	175	18.5	214.1	172.7	20.7	212.5	215.7	167.1	178.3	98.73
212	170	21.0	214.1	167.7	23.2	212.5	215.7	161.5	173.9	109.2
212	160	26.0	214.1	157.7	28.2	212.5	215.7	150.5	164.9	129.3
212	150	31.0	214.1	145.3	34.4	212.5	215.7	136.9	153.7	152.4
212	140	36.0	214.1	134.7	39.7	212.5	215.7	126.9	142.5	170.7
212	130	41.0	214.1	124.1	45.0	212.5	215.7	115.3	132.9	187.7
212	125	43.5	214.1	118.3	47.9	212.5	215.7	110.0	127.0	196.3

Tab. 5 HOT ROLLING - table continued

Nom. sizes			EXECUTION DIMENSIONS							
OD	ID	WT	OD	ID	WT	Oadmin	Odmax	ldmin	ldmax	Weight
212	112	50.0	214.1	104.7	54.7	212.5	215.7	50.35	59.05	215.0
212	102	55.0	214.1	94.1	60.0	212.5	215.7	55.20	64.80	228.0
224	180	22.0	226.2	177.6	24.3	224.5	227.9	21.90	26.70	121.0
224	170	27.0	226.2	166.6	29.8	224.5	227.9	26.85	32.75	144.3
224	160	32.0	226.2	155.8	35.2	224.5	227.9	31.70	38.70	165.8
224	144	40.0	226.2	138.2	44.0	224.5	227.9	40.50	47.50	197.7
224	132	46.0	226.2	125.2	50.5	224.5	227.9	46.50	54.50	218.8
224	124	50.0	226.2	117.2	54.5	224.5	227.9	50.15	58.85	230.8
224	120	52.0	226.2	112.4	56.9	224.5	227.9	52.40	61.40	237.6
224	114	55.0	226.2	105.8	60.2	224.5	227.9	55.40	65.00	246.4
236	204	16	238.4	200.6	18.9	236.6	240.2	17.01	20.79	102.3
236	196	20	238.4	191.8	23.3	236.6	240.2	20.97	25.63	123.6
236	190	23	238.4	185	26.7	236.6	240.2	24.03	29.37	139.4
236	180	28	238.4	176.6	30.9	236.6	240.2	27.81	33.99	158.1
236	170	33	238.4	168	35.2	236.6	240.2	31.68	38.72	176.4
236	160	36	238.4	155.4	41.5	236.6	240.2	37.35	45.65	201.5
236	156	40	238.4	152.6	42.9	236.6	240.2	38.61	47.19	206.8

Note: Nominal sizes are assured by machining with OD centring for a finished part length of maximum 3 x OD or maximum 200 mm (whichever is smaller).