

# Rolling Program

## BILLETS WITH ROUNDED EDGES:

- Square: 14-110 mm, length 3000-6000 mm
- Tolerance:  $\varnothing$  15-105 mm

## ROUND SECTIONS

(acc.to EN 10060 standard):

- Bars:  $\varnothing$  15-105 mm
- Length: 3000-6000 mm
- Surface:  
Surface can be unmachined or rough peeled.  
Rough peeled products are made in dimensions  $\varnothing$  30-102 mm and tolerance  $\pm 0.3$  mm (+ 0.6/-0 mm); if very narrow tolerances are required, we apply + 0.5/-0.
- Tolerance for unmachined surface is seen in the table below.
- Straightness: We reach  $\geq 2$  mm/m straightness.

### TOLERANCES FOR ROUND UNMACHINED SECTIONS

DIMENSION mm	TOLERANCE mm	DIMENSION mm	TOLERANCE mm	DIMENSION mm	TOLERANCE mm	
15	$\pm 0,4$	36	$\pm 0,8$	62	$\pm 1,0$	
16	$\pm 0,5$	37		63		
17		38		64		
18		39		65		
19		40		66		
20		41		68		
21		42		70		
22		43		72		
23		44		73		
24		45		75		
25		46		78		
26		$\pm 0,6$		47		$\pm 1,0$
27			49	82		
28	50		83			
29	51		85			
30	52		88			
31	53		89			
32	54		90			
33	55		92			
34	56		93			
35	58		94			
		60	$\pm 1,0$	95	$\pm 1,3$	
				97		
				100		
				103		
				105		$\pm 1,5$

### SQUARE SECTIONS

(acc.to EN 10059 standard):

- Square 25-75 mm
- Length: 3000-6000 mm
- Tolerance: See the table below.
- Straightness: We reach  $\geq 2$  mm/m straightness.

#### TOLERANCES FOR SQUARE SECTIONS

DIMENSION mm	TOLERANCE mm	ROUNDNESS OF EDGES mm	DIMENSION mm	DIMENSION mm	ROUNDNESS OF EDGES mm
25 x 25	$\pm 0,4$	$r \geq 2$	40 x 40	$\pm 0,8$	$r \geq 2,5$
26 x 26	$\pm 0,6$		42 x 42		
28 x 28			45 x 45		
30 x 30			50 x 50		
32 x 32		52 x 52			
35 x 35		$r \geq 2,5$	55 x 55	$\pm 1,0$	$r \geq 3$
36 x 36			60 x 60		
37 x 37			65 x 65		
38 x 38			70 x 70		
	75 x 75				

Sections can be made in plus tolerance only, in plus/minus tolerance or in minus tolerance only. We can also produce intermediate dimensions (by 1 mm increments).

### FLAT SECTIONS

(acc.to EN 10058 standard):

- Width: 40-150 mm with thickness: 7-65 mm
- Width: 150-255 mm with thickness: 7-50 mm
- Ratio: for tool steel 1:15, for structural steel 1:18
- Width: min. thickness + 10 mm - applies to all steels except for high-speed steel.
- Length: 3000-6000 mm
- Surface: unmachined, sandblasted or varnished
- Tolerance: See the table below.
- Straightness: We reach  $\geq 2$  mm/m straightness.

#### TOLERANCES FOR FLAT SECTIONS

width < 150mm	WIDTH (mm)	TOLERANCE (mm)
	b = 40	$\pm 0,75$
	40 < b $\geq$ 80	$\pm 1$
	80 < b $\geq$ 100	$\pm 1,5$
	100 < b $\geq$ 120	$\pm 2$
	120 < b $\geq$ 120	$\pm 2,5$
width > 150 mm	THICKNESS (mm)	TOLERANCE (mm)
	d < 20	$\pm 0,5$
	20 < d $\geq$ 40	$\pm 1$
	40 < d $\geq$ 50	$\pm 1,5$
	WIDTH (mm)	TOLERANCE (mm)
	150 < d $\geq$ 250	2 % width
width > 150 mm	THICKNESS (mm)	TOLERANCE (mm)
	4 < b $\geq$ 10	-0,4/+0,6
	10 < b $\geq$ 20	-0,4/+0,8
	20 < b $\geq$ 25	-0,5/+0,9
	25 < b $\geq$ 30	-0,6/+1,0
	30 < b $\geq$ 40	-0,7/+1,1
40 < b $\geq$ 50	-0,9/+1,1	

Table contains standard tolerances. Sections can be also made with a very tight tolerance, namely to a 3/4 width tolerance and to a 1/2 thickness tolerance from the table. Sections can be made in plus tolerance only, in plus/minus tolerance or in minus tolerance only.

## Rolling Program - BRIGHT SECTIONS

### PEELED AND PEELED&POLISHED BARS

(acc.to EN 10278 standard)

- Bars:  $\varnothing$  16-80 mm
- Length: 2500-6000 mm

### GROUND AND GROUND&POLISHED BARS

(acc.to EN 10278 standard)

- Bars:  $\varnothing$  7-80 mm
- Length: 1200-4000 mm

#### TOLERANCES FOR BRIGHT SECTIONS

NOMINAL DIMENSION (mm)	TOLERANCES		
	h8	h9	h11
$> 6 \leq 10$	0,022	0,036	0,090
$> 10 \leq 18$	0,027	0,043	0,110
$> 18 \leq 30$	0,033	0,052	0,130
$> 30 \leq 50$	0,039	0,062	0,160
$> 50 \leq 80$	0,046	0,074	0,190

In addition to these tolerances: f, k, a, g, j,...

