



Class	ATLANTA Quality	Module	Total Pitch Error ¹⁾ (± μm/m)	Tooth Thickness Tolerance (μm)	Max. Length (mm)	Max. Feed Force per Pinion Contact ²⁾ (kN)	Applications (Examples)
UHPR Ultra High Precision Rack	3	5	12	-13	1005	62.0	High Precision Machine Tools with Electrical Preload
		6	12	-13	1018	89.0	
		8	12	-13	1005	156.0	
		10	12	-13	1005	234.0	
		12	12	-13	1018	333.5	
HPR High Precision Rack	5	3	26	-15	1018	25.5	Backlash Free Drives with Electrical Preload Machine Tools, Lifting Axis, Multiple Pinion Contact
		4	26	-15	1005	49.0	
		5	26	-15	1005	75.0	
		6	26	-15	1018	107.0	
HPR High Precision Rack	6	2	36	-37	1005	15.5	Wood, Plastic, Composite, Aluminium Working Machines
		3	36	-37	1018	25.5	
		4	36	-37	1005	49.0	
	6	2	36	-37	2011	12.5	Machine Tools, Integratable Racks, Water Cutting Machines, Tube Bending Systems, Plasma Cutting Machines
		3	36	-37	2036	23.5	
		4	36	-37	2011	42.0	
		5	36	-22	2011	62.0	
		6	36	-22	2036	89.0	
		8	36	-22	2011	155.5	
	7	2	52	-51	1005	12.5	Woodworking Machines, Linear Axis with High Requirement for a Smooth Running
		3	52	-51	1018	23.0	
		4	52	-51	1005	42.0	
		5	52	-37	1005	62.0	
6		52	-37	1018	89.0		
8	2	60	-59	1005	12.0	Portals, Handling Linear Axis	
	3	60	-59	1018	22.0		
	4	60	-59	1005	39.0		
	5	60	-59	1005	57.5		
PR Precision Rack	8	2	100	-110	2011	7.0	Linear Axis
		3	100	-110	2036	12.0	
		4	100	-110	2011	23.0	
BR Basic Rack	9	1	150	-110	999	0.7	Linear Axis with Low Load Feed Units for Adjustment
		1.5	150	-110	1998	1.0	
		2	150	-110	3016	3.0	
		2.5	150	-110	2003	3.0	
		3	150	-110	3054	6.5	
		4	150	-110	3016	12.5	
		5	150	-110	2011	14.5	
		6	150	-110	2036	21.5	
		8	150	-110	2011	38.5	
	10	150	-110	1005	49.5		
	10	1	200	-110	999	2.0	Driving and Lifting Axes for Higher Loads but Without Special Accuracy
		1.5	200	-110	1998	3.5	
		2	200	-110	3016	7.0	
3		200	-110	3054	16.5		
4		200	-110	3016	29.5		
5		200	-110	2011	45.5		
6		200	-110	2036	63.0		
8	200	-110	2011	110.0			
10	200	-110	1005	166.0			



¹⁾ Values available for 1000 mm. Other total pitch errors for other length, see detailed description (Kap. ZB).

²⁾ Values are only valid for special steel according ATLANTA-Standard.

When using the maximum capacity of the teeth, or multiple pinions in contact, the mounting screw loads must be checked separately! Please ask ATLANTA for advice!



Class	Series	Module	ATLANTA-Quality	Page
UHPR	46	5, 6, 8, 10, 12	3	ZB-4
	28	3, 4, 5, 6	5	ZB-5
HPR	28	2, 3, 4	6	ZB-6
	28	2, 3, 4, 5, 6, 8, 10, 12	6	ZB-7
	28	2, 3, 4, 5, 6, 8	7	ZB-8
PR	34	2, 3, 4, 5	8	ZB-9
	33	2, 3, 4	8	ZB-10
BR	25	1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10	9	ZB-11–12
	34	1, 1.5, 2, 3, 4, 5, 6, 8, 10	10	ZB-15



Selection and Load Tables

ZB-36–46



Electrically Controlled Lubricators, Sliding-Type Lubricating Brushes and Hose-Connection Sets

ZE-2–6



Felt Gear and Mounting Shaft








ZE-7–8



Mounting

ZF-9

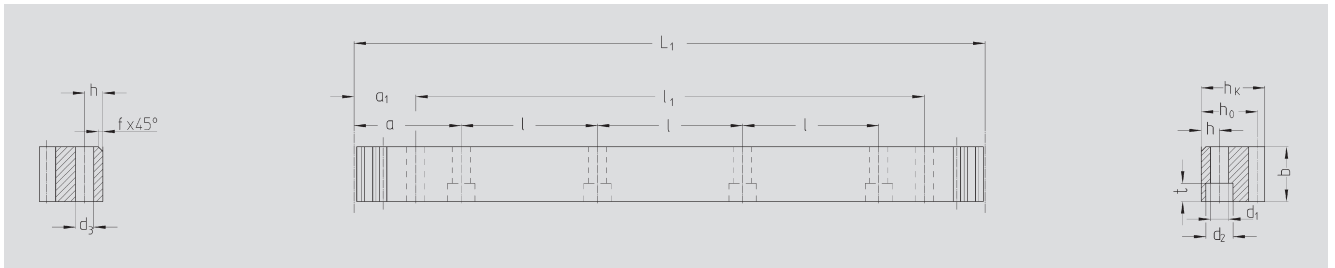


	Series	Module	Heat-Treatment of Teeth	Tolerance of Teeth	Page
	78	2, 3, 4, 5, 6, 8	Case-Hardened	≤ 5	ZB-16–20
	24	2, 3, 4, 5, 6, 8, 10	Case-Hardened	6 e 25	ZB-21–26
	24	2, 3, 4, 5	Induction-Hardened	6 e 25	ZB-27
	21/23.. ...	1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 12	Soft	8 e 25	ZB-28–35
	Short Description TR-Pinion, Mounting Instructions				ZF-11–13
	Selection and Load Tables for Rack Drives				ZD-2–4
	Electronically Controlled Lubricators, Sliding-Type Lubricating Brushes and Hose-Connection Sets				ZE-2–6





ATLANTA-Quality 3



Order Code	Module	L ₁	N° of teeth	b ^{+0,4}	h _k	h ₀	f	a	l	N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
46 50 105	5	1005.3	64	49	39	34	2.5	62.8	125.66	8	12	13.5	20	13	30.10	945.0	11.7	12.2
46 60 105	6	1017.9	54	59	49	43	2.5	63.6	127.23	8	16	17.5	26	17	31.40	955.0	15.7	18.5
46 80 105	8	1005.3	40	79	79	71	2.5	62.8	125.66	8	25	22.0	33	21	26.60	952.0	19.7	22.0
46 10 105	10	1005.3	32	99	99	89	2.5	62.8	125.66	8	32	33.0	48	32	125.66	753.9	19.7	68.0
46 12 105	12	1017.9	27	120	120	108	2.5	63.6	127.23	8	40	39.0	58	38	127.23	763.4	19.7	111.0

Total pitch error

$$GT_f/1000 \leq 0.012 \text{ mm}$$

- Teeth hardened with the ATLANTA high performance hardening process and ground
- Heat-treatable steel according to ATLANTA-Standard
- Ground on all sides after hardening
- Signed with effective total pitch error (20°C)

Inspection measurement data available as an option.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

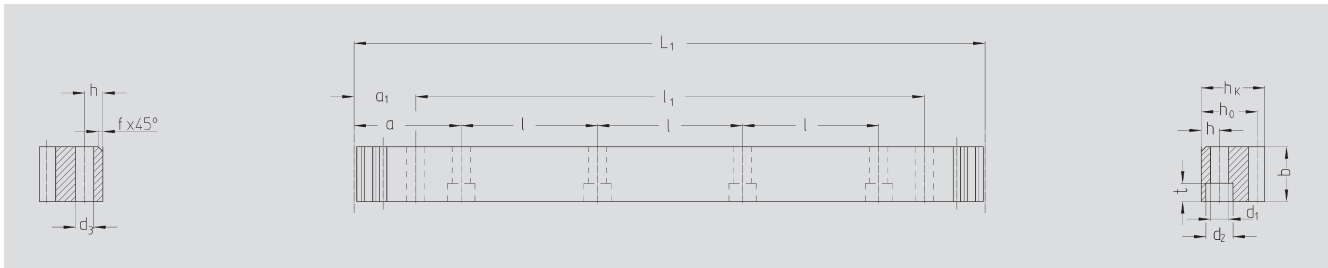
Screws for rack mounting, see page ZF-3.





ATLANTA-Quality 5

StrongLine



Order Code	Module	L ₁	N° of teeth	b ^{+0,4}	h _k	h ₀	f	a	l	N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
28 35 100	3	1017.88	108	29	29	26	2.0	63.61	127.23	8	10	12	17.5	11	28.6	960.6	11.7	5.9
28 45 100	4	1005.31	80	39	39	35	2.0	62.83	125.66	8	13	16	23.0	15	30.3	944.7	15.7	10.7
28 55 100	5	1005.31	64	49	49	44	2.5	62.83	125.66	8	15	18	26.0	17	34.8	935.7	15.7	16.3
28 65 100	6	1017.88	54	59	59	53	2.5	63.62	127.23	8	20	22	33.0	21	98.6	820.6	19.7	24.5

Total pitch error $GT_f/1000 \leq 0.026 \text{ mm}$

- Teeth case hardened and ground
- Case hardening steel according to ATLANTA-Standard
- Ground on all sides after hardening
- Signed with effective total pitch error (20°C)

Inspection measurement data available as an option.

Mounting racks, see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

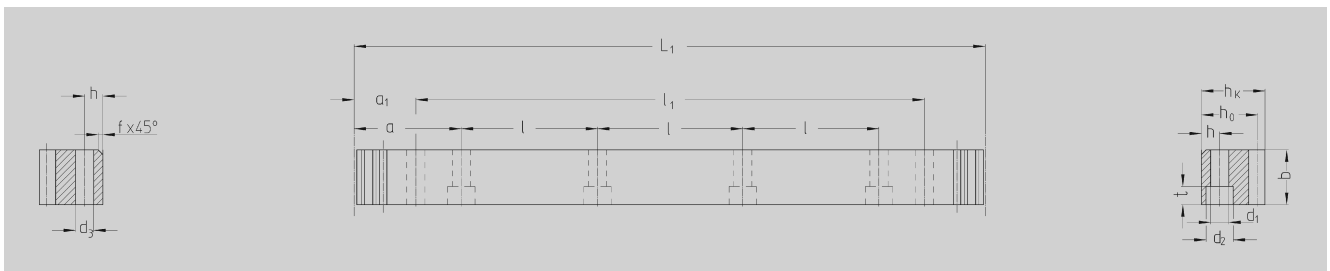
For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.





Quality 6



Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	f	a	l	N° of Holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
28 20 025 ¹⁾	2	251.3	40	24	24	22.0	2	62.8	125.66	2	8	7	11	7	31.3	188.7	5.7	1.00
28 21 025	2	251.3	40	24	24	22.0	2	62.8	125.66	2	8	7	11	7	31.3	188.7	5.7	1.00
28 20 050 ¹⁾	2	502.7	80	24	24	22.0	2	62.8	125.66	4	8	7	11	7	31.3	440.1	5.7	2.10
28 21 050	2	502.7	80	24	24	22.0	2	62.8	125.66	4	8	7	11	7	31.3	440.1	5.7	2.10
28 20 100	2	1005.3	160	24	24	22.0	2	62.8	125.66	8	8	7	11	7	31.3	942.7	5.7	4.20
28 21 100	2	1005.3	160	24	24	22.0	2	62.8	125.66	8	8	7	11	7	31.3	942.7	5.7	4.20
28 30 025 ¹⁾	3	254.5	27	29	29	26.0	2	63.6	127.23	2	9	10	15	9	34.4	185.7	7.7	1.50
28 31 025	3	254.5	27	29	29	26.0	2	63.6	127.23	2	9	10	15	9	34.4	185.7	7.7	1.50
28 30 050 ¹⁾	3	508.9	54	29	29	26.0	2	63.6	127.23	4	9	10	15	9	34.4	440.1	7.7	3.00
28 31 050	3	508.9	54	29	29	26.0	2	63.6	127.23	4	9	10	15	9	34.4	440.1	7.7	3.00
28 30 100	3	1017.9	108	29	29	26.0	2	63.6	127.23	8	9	10	15	9	34.4	949.1	7.7	6.00
28 31 100	3	1017.9	108	29	29	26.0	2	63.6	127.23	8	9	10	15	9	34.4	949.1	7.7	6.00
28 40 025 ¹⁾	4	251.3	20	39	39	35.0	2	62.8	125.66	2	12	10	15	9	37.5	176.3	7.7	2.60
28 41 025	4	251.3	20	39	39	35.0	2	62.8	125.66	2	12	10	15	9	37.5	176.3	7.7	2.60
28 40 050 ¹⁾	4	502.7	40	39	39	35.0	2	62.8	125.66	4	12	10	15	9	37.5	427.7	7.7	5.30
28 41 050	4	502.7	40	39	39	35.0	2	62.8	125.66	4	12	10	15	9	37.5	427.7	7.7	5.30
28 40 100 ¹⁾	4	1005.3	80	39	39	35.0	2	62.8	125.66	8	12	10	15	9	37.5	930.3	7.7	10.50
28 41 100	4	1005.3	80	39	39	35.0	2	62.8	125.66	8	12	10	15	9	37.5	930.3	7.7	10.50
28 42 100	4	1005.3	80	39	39	35.0	2	62.8	125.66	8	12	14	20	13	37.5	930.3	11.7	10.50
28 42 150	4	1507.9	120	39	39	35.0	2	62.8	125.66	12	12	14	20	13	37.5	1432.9	11.7	16.00
28 42 200	4	2010.62	160	39	39	35.0	2	62.8	125.66	16	12	14	20	13	37.5	1935.6	11.7	21.00

1) The screw joint limits the feed force.

Total pitch error:

$GT_f/1000 \leq 0.036 \text{ mm}$

$GT_f/1500 \leq 0.043 \text{ mm} (\leq 0.029/1000 \text{ mm})$

$GT_f/2000 \leq 0.047 \text{ mm} (\leq 0.024/1000 \text{ mm})$

- Teeth induction-hardened and ground
- Material 16MnCr5, carburized
- Ground on all sides after hardening

Mounting racks, see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

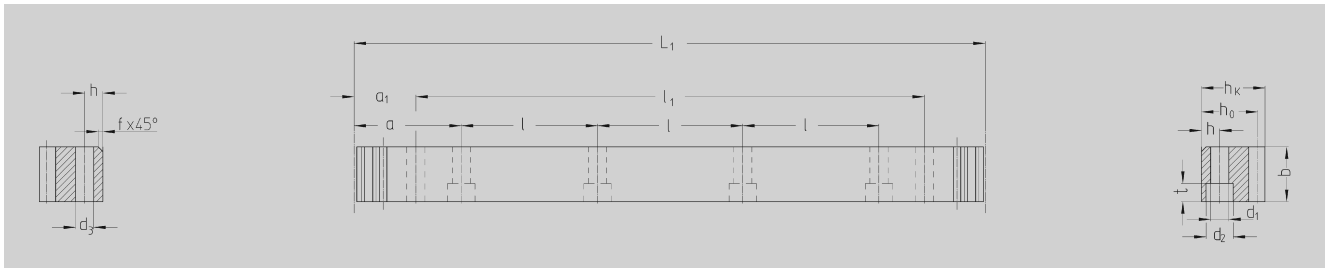
For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.



Quality 6



Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	f	a	l	N° of Holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg		
28 20 105	2	1005.30	160	24	24	22.0	2	62.8	125.66	8	8	7	11	7	31.3	942.70	5.7	4.20		
28 21 105	2	1005.30	160	24	24	22.0	2			without Mounting Holes										4.20
28 20 205	2	2010.62	320	24	24	22.0	2	62.8	125.66	16	8	7	11	7	31.3	1948.00	5.7	8.40		
28 21 205	2	2010.62	320	24	24	22.0	2			without Mounting Holes										8.40
28 30 105	3	1017.90	108	29	29	26.0	2	63.6	127.23	8	9	10	15	9	34.4	949.10	7.7	6.00		
28 31 105	3	1017.90	108	29	29	26.0	2			without Mounting Holes										6.00
28 30 205	3	2035.75	216	29	29	26.0	2	63.6	127.23	16	9	10	15	9	34.4	1967.00	7.7	12.00		
28 31 205	3	2035.75	216	29	29	26.0	2			without Mounting Holes										12.00
28 40 105 ¹⁾	4	1005.30	80	39	39	35.0	2	62.8	125.66	8	12	10	15	9	37.5	930.30	7.7	10.50		
28 41 105	4	1005.30	80	39	39	35.0	2			without Mounting Holes										10.50
28 40 205	4	2010.62	160	39	39	35.0	2	62.8	125.66	16	12	10	15	9	37.5	1935.60	7.7	21.00		
28 41 205	4	2010.62	160	39	39	35.0	2			without Mounting Holes										21.00
28 42 105	4	1005.30	80	39	39	35.0	2	62.8	125.66	8	12	14	20	13	37.5	930.3	11.7	10.50		
28 42 155	4	1507.90	120	39	39	35.0	2	62.8	125.66	12	12	14	20	13	37.5	1432.9	11.7	16.00		
28 42 205	4	2010.62	160	39	39	35.0	2	62.8	125.66	16	12	14	20	13	37.5	1935.6	11.7	21.00		
28 50 055 ¹⁾	5	502.60	32	49	39	34	2.5	62.8	125.66	4	12	14	20	13	30.1	442.40	11.7	6.70		
28 51 055	5	502.60	32	49	39	34	2.5			without Mounting Holes										6.70
28 50 105	5	1005.30	64	49	39	34	2.5	62.8	125.66	8	12	14	20	13	30.1	945.00	11.7	13.40		
28 51 105	5	1005.30	64	49	39	34	2.5			without Mounting Holes										13.40
28 50 155	5	1507.96	96	49	39	34	2.5	62.8	125.66	12	12	14	20	13	30.1	1447.70	11.7	20.10		
28 51 155	5	1507.96	96	49	39	34	2.5			without Mounting Holes										20.10
28 50 205	5	2010.62	128	49	39	34	2.5	62.8	125.66	16	12	14	20	13	30.1	1950.40	11.7	26.80		
28 51 205	5	2010.62	128	49	39	34	2.5			without Mounting Holes										26.80
28 60 055 ¹⁾	6	508.90	27	59	49	43	2.5	63.6	127.23	4	16	18	26	17	31.4	446.10	15.7	10.40		
28 61 055	6	508.90	27	59	49	43	2.5			without Mounting Holes										10.40
28 60 105	6	1017.88	54	59	49	43	2.5	63.6	127.23	8	16	18	26	17	31.4	955.00	15.7	20.20		
28 61 105	6	1017.88	54	59	49	43	2.5			without Mounting Holes										20.20
28 60 155	6	1526.81	81	59	49	43	2.5	63.6	127.23	12	16	18	26	17	31.4	1464.00	15.7	30.30		
28 61 155	6	1526.81	81	59	49	43	2.5			without Mounting Holes										30.30
28 60 205	6	2035.75	108	59	49	43	2.5	63.6	127.23	16	16	18	26	17	31.4	1973.00	15.7	40.40		
28 61 205	6	2035.75	108	59	49	43	2.5			without Mounting Holes										40.40
28 80 055 ¹⁾	8	502.65	20	79	79	71	2.5	62.8	125.66	4	25	22	33	21	26.6	449.45	19.7	22.38		
28 81 055	8	502.65	20	79	79	71	2.5			without Mounting Holes										22.38
28 80 105	8	1005.30	40	79	79	71	2.5	62.8	125.66	8	25	22	33	21	26.6	952.00	19.7	44.76		
28 81 105	8	1005.30	40	79	79	71	2.5			without Mounting Holes										44.76
28 80 205	8	2010.61	80	79	79	71	2.5	62.8	125.66	16	25	22	33	21	26.6	1957.30	19.7	89.50		
28 81 205	8	2010.61	80	79	79	71	2.5			without Mounting Holes										89.50
28 10 105	10	1005.30	32	99	99	89	2.5	62.83	125.66	8	32	33	48	32	125.66	753.96	19.7	68.72		
28 11 105	10	1005.30	32	99	99	89	2.5			without Mounting Holes										68.72
28 12 105	12	1017.90	27	120	120	108	2.5	63.60	127.23	8	40	39	58	38	127.23	763.40	19.7	111.00		
28 13 105	12	1017.90	27	120	120	108	2.5			without Mounting Holes										20.00

1) The screw joint limits the feed force.

**Total pitch error: $GT_f/1000 \leq 0.036 \text{ mm}$, $GT_f/1500 \leq 0.043 \text{ mm}$ ($\leq 0.029/1000 \text{ mm}$)
 $GT_f/2000 \leq 0.047 \text{ mm}$ ($\leq 0.024/1000 \text{ mm}$)**

- Teeth induction-hardened and ground
- Material C45
- Ground on all sides after hardening

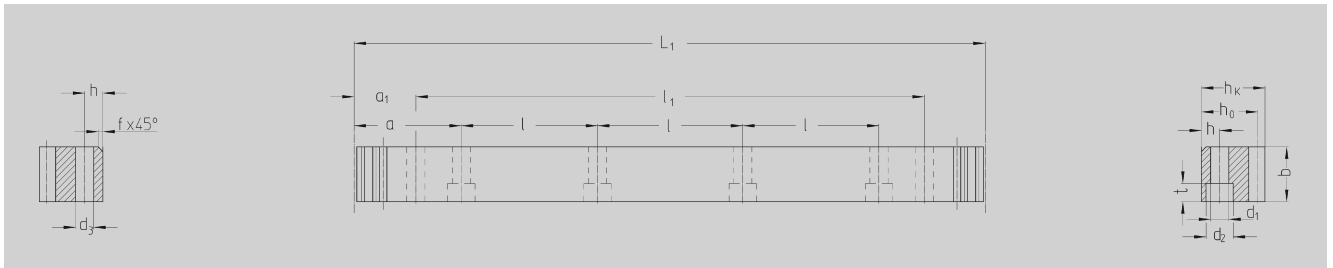
Mounting racks, see page ZF-2.

Further information see page ZB-4.





Quality 7



Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	f	a	l	N° of Holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
28 20 107	2	1005.3	160	24	24	22	2	62.8	125.66	8	8	7	11	7	31.3	942.7	5.7	4.2
28 30 107	3	1017.9	108	29	29	26	2	63.6	127.23	8	9	10	15	9	34.4	949.1	7.7	6.0
28 40 107	4	1005.3	80	39	39	35	2	62.8	125.66	8	12	14	20	13	37.5	930.3	7.7	10.5
28 50 107	5	1005.3	64	49	39	34	2.5	62.8	125.66	8	12	14	20	13	30.1	945.0	11.7	13.4
28 60 107	6	1017.88	54	59	49	43	2.5	63.6	127.23	8	16	18	26	17	31.4	955.00	15.7	20.20
28 80 107	8	1005.30	40	79	79	71	2.5	62.8	125.66	8	25	22	33	21	26.6	952.00	19.7	44.76

Total pitch error: $GT_f/1000 \leq 0.052$ mm

- Teeth induction-hardened and ground
- Material C45
- Ground on all sides after hardening

Mounting racks see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

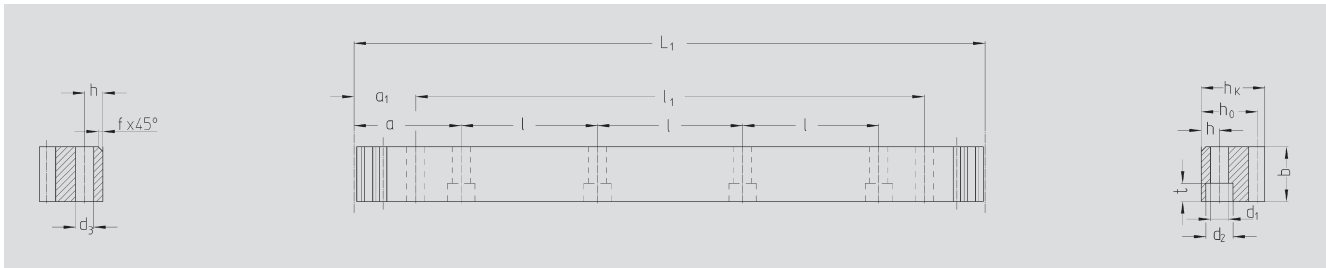


For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.



ATLANTA-Quality 8



Order Code	Module	L ₁	N° of teeth	b ^{+0,4}	h _k	h ₀	f	a	l	N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
34 20 108	2	1005.30	160	25	24	22	2	62.80	125.66	8	8	7	11	7	31.4	942.7	5.7	4.2
34 20 208	2	2010.62	320	25	24	22	2	62.83	125.66	16	8	7	11	7	31.3	1948.0	5.7	8.4
34 30 108	3	1017.90	108	30	29	26	2	63.60	127.23	8	9	10	15	9	34.4	949.1	7.7	6.0
34 30 208	3	2035.75	216	30	29	26	2	63.62	127.23	16	9	10	15	9	34.4	1967.0	7.7	12.0
34 40 108	4	1005.30	80	40	39	35	2	62.80	125.66	8	12	14	20	13	37.5	930.3	11.7	10.5
34 40 208	4	2010.62	160	40	39	35	2	62.83	125.66	16	12	14	20	13	37.5	1935.6	11.7	20.4
34 50 108	5	1005.30	64	50	39	34	2.5	62.80	125.66	8	12	14	20	13	30.2	945.0	11.7	13.4
34 50 208	5	2010.62	128	50	39	34	2.5	62.83	125.66	16	12	14	20	13	30.2	1950.4	11.7	27.6

Without bores on request.

Total pitch error:

$$GT_f/1000 \leq 0.060 \text{ mm}$$

$$GT_f/2000 \leq 0.078 \text{ mm } (\leq 0.039 \text{ mm}/1000)$$

- Teeth hardened with the ATLANTA high performance hardening process and ground
- Heat-treatable steel according to ATLANTA-Standard
- Bright steel, profile blasted

Mounting racks see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

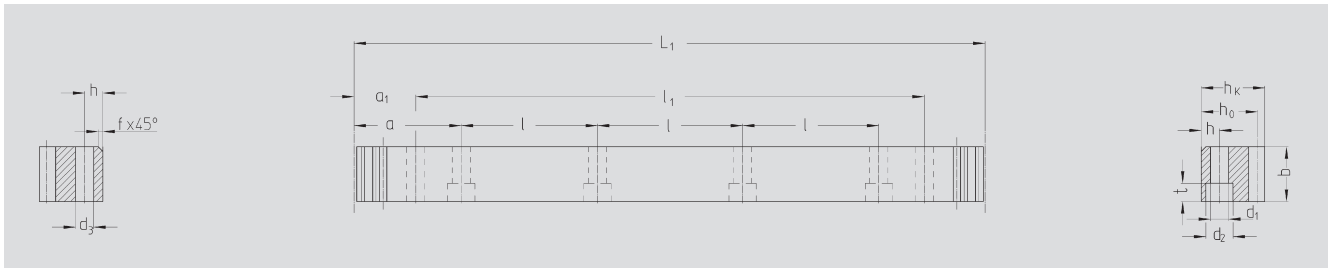
For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.





ATLANTA-Quality 8



Order Code	Module	L ₁	N° of teeth	b _{-0,5}	h _k	h ₀	f	a	l	N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
33 21 100	2	1005.31	160	25	24	22	2	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	4.30
33 20 100	2	1005.31	160	25	24	22	2	without mounting holes										4.30
33 21 200	2	2010.62	320	25	24	22	2	62.83	125.66	16	8	7	11	7	31.3	1948.0	5.7	8.60
33 20 200	2	2010.62	320	25	24	22	2	without mounting holes										8.60
33 31 100	3	1017.88	108	30	29	26	2	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7	6.20
33 30 100	3	1017.88	108	30	29	26	2	without mounting holes										6.20
33 31 200	3	2035.75	216	30	29	26	2	63.62	127.23	16	9	10	15	9	34.4	1967.0	7.7	12.40
33 30 200	3	2035.75	216	30	29	26	2	without mounting holes										12.40
33 41 100	4	1005.31	80	40	39	35	2	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7	11.00
33 40 100	4	1005.31	80	40	39	35	2	without mounting holes										11.00
33 41 200	4	2010.62	160	40	39	35	2	62.83	125.66	16	12	10	15	9	37.5	1935.6	7.7	22.00
33 40 200	4	2010.62	160	40	39	35	2	without mounting holes										22.00

500 mm and other length on request.

Total pitch error

$$GT_f / 1000 \leq 0.100 \text{ mm,}$$

$$GT_f / 2000 \leq 0.200 \text{ mm.}$$

- Milled teeth, quenched and tempered
- Heat-treatable steel according to ATLANTA-Standard
- Bright steel, backside machined

Mounting racks see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

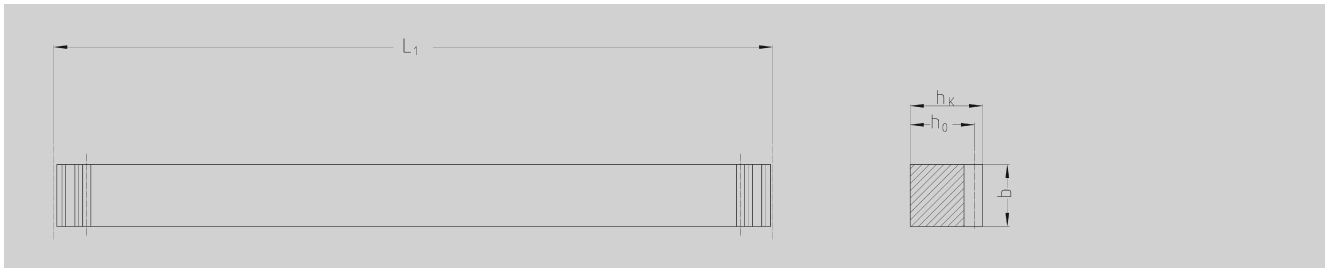
For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.





Quality 9



Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	Remarks	kg
25 10 025	1	251.33	80	15	15	14	Square Dimension	0.41
25 10 050	1	499.51	159	15	15	14	Square Dimension	0.82
25 10 100	1	999.03	318	15	15	14	Square Dimension	1.64
25 15 025	1.5	249.76	53	17	17	15.5	Square Dimension	0.51
25 15 050	1.5	499.51	106	17	17	15.5	Square Dimension	1.03
25 15 100	1.5	999.03	212	17	17	15.5	Square Dimension	2.06
25 15 200	1.5	1998.05	424	17	17	15.5	Square Dimension	4.11
25 20 025	2	251.33	40	20	20	18	Square Dimension	0.71
25 20 050	2	502.65	80	20	20	18	Square Dimension	1.41
25 20 100	2	999.03	159	20	20	18	Square Dimension	2.81
25 20 150	2	1507.96	240	20	20	18	Square Dimension	4.25
25 20 200	2	1998.05	318	20	20	18	Square Dimension	5.62
25 20 300	2	3015.93	480	20	20	18	Square Dimension	8.49
25 25 025	2.5	251.33	32	25	25	22.5	Square Dimension	1.10
25 25 050	2.5	502.65	64	25	25	22.5	Square Dimension	2.21
25 25 100	2.5	997.46	127	25	25	22.5	Square Dimension	4.38
25 25 200	2.5	2002.77	255	25	25	22.5	Square Dimension	8.80
25 30 025	3	254.47	27	30	30	27	Square Dimension	1.61
25 30 051	3	508.94	54	30	30	27	Square Dimension	3.22
25 30 101	3	1017.88	108	30	30	27	Square Dimension	6.44
25 30 150	3	1526.81	162	30	30	27	Square Dimension	9.66
25 30 201	3	2035.75	216	30	30	27	Square Dimension	12.88
25 30 300	3	3053.63	324	30	30	27	Square Dimension	19.32
25 40 025	4	251.33	20	40	40	36	Square Dimension	2.83
25 40 050	4	502.65	40	40	40	36	Square Dimension	5.65
25 40 100	4	1005.31	80	40	40	36	Square Dimension	11.31
25 40 150	4	1507.96	120	40	40	36	Square Dimension	19.97
25 40 201	4	2010.62	160	40	40	36	Square Dimension	22.61
25 40 300	4	3015.93	240	40	40	36	Square Dimension	33.93

Total pitch error $GT_f/1000 \leq 0.150$ mm.

- Milled teeth
- Material C45
- Bright steel

Mounting racks see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

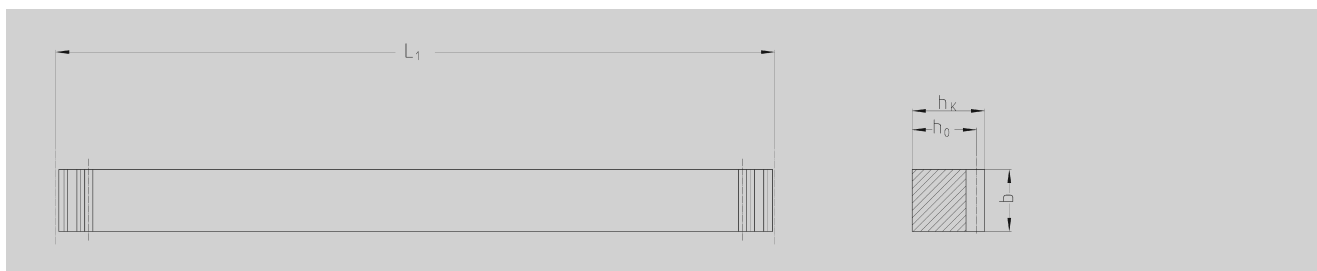
For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.





Quality 9



Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	Remarks	kg
25 50 025	5	251.33	16	50	40	35	Not square dimension	3.44
25 50 050	5	502.65	32	50	40	35	Not square dimension	6.87
25 50 100	5	1005.31	64	50	40	35	Not square dimension	13.74
25 50 150	5	1507.96	96	50	40	35	Not square dimension	20.40
25 50 200	5	2010.62	128	50	40	35	Not square dimension	27.48
25 52 100	5	1005.31	64	50	50	45	Square dimension	17.10
25 52 200	5	2010.62	128	50	50	45	Square dimension	34.20
25 60 051	6	508.94	27	60	50	44	Not square dimension	10.49
25 60 101	6	1017.88	54	60	50	44	Not square dimension	20.99
25 60 201	6	2035.75	108	60	50	44	Not square dimension	41.97
25 62 101	6	1017.88	54	60	60	54	Square dimension	25.00
25 62 201	6	2035.75	108	60	60	54	Square dimension	50.00
25 80 100	8	1005.31	40	80	79.5	71.5	Square dimension	44.63
25 80 200	8	2010.62	80	80	79.5	71.5	Square dimension	89.26
25 11 100	10	1005.30	32	100	100	90	Square dimension	70.60

Total pitch error $GT_f/1000 \leq 0.150$ mm.

- Milled teeth
- Material C45
- Bright steel

Mounting racks see page ZF-2.

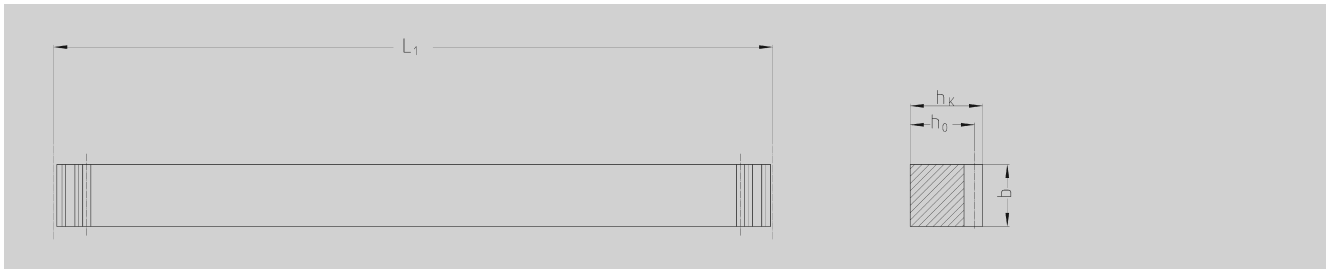


To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.

**Quality 10**

Order Code	Module	L ₁	N° of Teeth	b	h _k	h ₀	Remarks	kg
27 10 025	1	251.33	80	15	15	14	Square dimension	0.41
27 10 050	1	499.51	159	15	15	14	Square dimension	0.82
27 10 100	1	999.03	318	15	15	14	Square dimension	1.64
27 15 025	1.5	249.76	53	17	17	15.5	Square dimension	0.51
27 15 050	1.5	499.51	106	17	17	15.5	Square dimension	1.03
27 15 100	1.5	999.03	212	17	17	15.5	Square dimension	2.06
27 15 200	1.5	1998.05	424	17	17	15.5	Square dimension	4.11
27 20 025	2	251.33	40	20	20	18	Square dimension	0.71
27 20 050	2	502.65	80	20	20	18	Square dimension	1.41
27 20 100	2	999.03	159	20	20	18	Square dimension	2.81
27 20 150	2	1507.96	240	20	20	18	Square dimension	4.25
27 20 200	2	1998.05	318	20	20	18	Square dimension	5.62
27 20 300	2	3015.93	480	20	20	18	Square dimension	8.49
27 25 025	2.5	251.33	32	25	25	22.5	Square dimension	1.10
27 25 050	2.5	502.65	64	25	25	22.5	Square dimension	2.21
27 25 100	2.5	997.46	127	25	25	22.5	Square dimension	4.38
27 25 200	2.5	2002.77	255	25	25	22.5	Square dimension	8.80
27 30 025	3	254.47	27	30	30	27	Square dimension	1.61
27 30 051	3	508.94	54	30	30	27	Square dimension	3.22
27 30 101	3	1017.88	108	30	30	27	Square dimension	6.44
27 30 150	3	1526.81	162	30	30	27	Square dimension	9.66
27 30 201	3	2035.75	216	30	30	27	Square dimension	12.88
27 30 300	3	3053.63	324	30	30	27	Square dimension	19.32
27 40 025	4	251.33	20	40	40	36	Square dimension	2.83
27 40 050	4	502.65	40	40	40	36	Square dimension	5.65
27 40 100	4	1005.31	80	40	40	36	Square dimension	11.31
27 40 150	4	1507.96	120	40	40	36	Square dimension	19.97
27 40 201	4	2010.62	160	40	40	36	Square dimension	22.61
27 40 300	4	3015.93	240	40	40	36	Square dimension	33.93

Total pitch error $GT_f/1000 \leq 0.200$ mm.

- Milled teeth and induction hardened
- Material C45
- Bright steel

Mounting racks see page ZF-2.

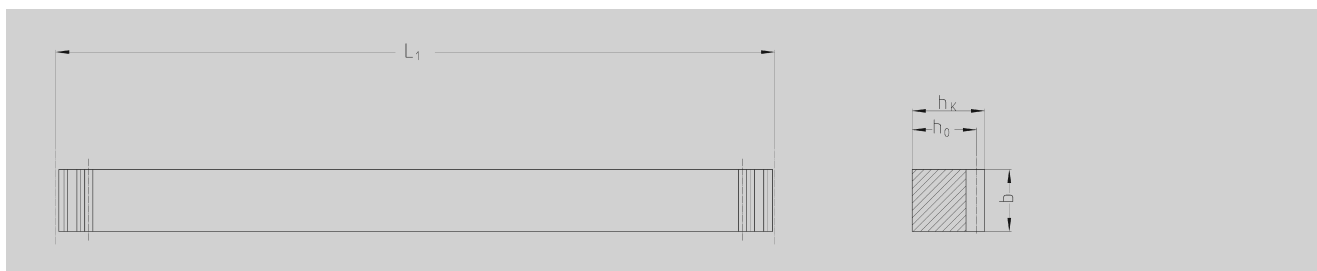
To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting see page ZF-3.



**Quality 10**

Order Code	Module	L_1	N° of Teeth	b	h_k	h_0	Remarks	kg
27 50 025	5	251.33	16	50	40	35	Not square dimension	3.44
27 50 050	5	502.65	32	50	40	35	Not square dimension	6.87
27 50 100	5	1005.31	64	50	40	35	Not square dimension	13.74
27 50 150	5	1507.96	96	50	40	35	Not square dimension	20.40
27 50 200	5	2010.62	128	50	40	35	Not square dimension	27.48
27 52 100	5	1005.31	64	50	50	45	Square dimension	17.10
27 52 200	5	2010.62	128	50	50	45	Square dimension	34.20
27 60 051	6	508.94	27	60	50	44	Not square dimension	10.49
27 60 101	6	1017.88	54	60	50	44	Not square dimension	20.99
27 60 201	6	2035.75	108	60	50	44	Not square dimension	41.97
27 62 101	6	1017.88	54	60	60	54	Square dimension	25.00
27 62 201	6	2035.75	108	60	60	54	Square dimension	50.00
27 80 100	8	1005.31	40	80	79.5	71.5	Square dimension	44.63
27 80 200	8	2010.62	80	80	79.5	71.5	Square dimension	89.26
27 11 100	10	1005.30	32	100	100	90	Square dimension	70.60

Total pitch error $GT_f/1000 \leq 0.200$ mm.

- Milled teeth and induction hardened
- Material C45
- Bright steel

Mounting racks see page ZF-2.



To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

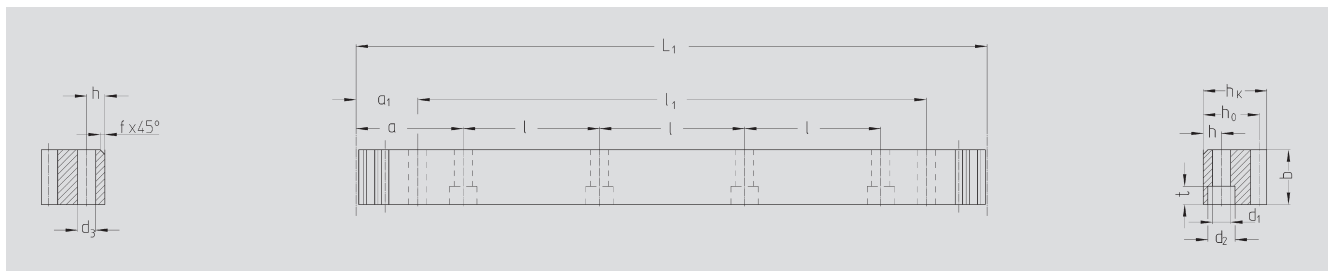
For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.



ATLANTA-Quality 10



Order Code	Module	L ₁	N° of teeth	b	h _k	h ₀	f	a	l	N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	kg
34 93 100	1	999.06	318	15	15	14	2			without mounting holes								1.64
34 93 200	1	1998.05	636	15	15	14	2			without mounting holes								3.28
34 16 100	1.5	999.03	212	17	17	15.5	2			without mounting holes								2.06
34 16 200	1.5	1998.05	424	17	17	15.5	2			without mounting holes								4.12
34 20 100	2	1005.31	160	25	24	22	2	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7	4.20
34 21 100	2	1005.31	160	25	24	22	2			without mounting holes								4.20
34 20 200	2	2010.62	320	25	24	22	2	62.83	125.66	16	8	7	11	7	31.3	1948.0	5.7	8.40
34 21 200	2	2010.62	320	25	24	22	2			without mounting holes								8.40
34 30 100	3	1017.88	108	30	29	26	2	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7	6.00
34 31 100	3	1017.88	108	30	29	26	2			without mounting holes								6.00
34 30 200	3	2035.75	216	30	29	26	2	63.62	127.23	16	9	10	15	9	34.4	1967	7.7	12.00
34 31 200	3	2035.75	216	30	29	26	2			without mounting holes								12.00
34 40 100 ¹⁾	4	1005.31	80	40	39	35	2	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7	10.20
34 41 100	4	1005.31	80	40	39	35	2			without mounting holes								10.20
34 42 100	4	1005.31	80	40	39	35	2	62.83	125.66	8	12	14	20	13	37.5	930.3	11.7	10.20
34 40 200 ¹⁾	4	2010.62	160	40	39	35	2	62.83	125.66	16	12	10	15	9	37.5	1935.6	7.7	20.50
34 41 200	4	2010.62	160	40	39	35	2			without mounting holes								20.50
34 42 200	4	2010.62	160	40	39	35	2	62.83	125.66	16	12	14	20	13	37.5	1935.6	11.7	20.50
34 50 100	5	1005.31	64	50	39	34	2.5	62.83	125.66	8	12	14	20	13	30.2	945.0	11.7	13.80
34 51 100	5	1005.31	64	50	39	34	2.5			without mounting holes								13.80
34 50 200	5	2010.62	128	50	39	34	2.5	62.83	125.66	16	12	14	20	13	30.2	1950.3	11.7	27.50
34 51 200	5	2010.62	128	50	39	34	2.5			without mounting holes								27.50
34 60 100	6	1017.88	54	60	49	43	2.5	63.62	127.23	8	16	18	26	17	31.4	955.0	15.7	21.00
34 61 100	6	1017.88	54	60	49	43	2.5			without mounting holes								21.00
34 60 200	6	2035.75	108	60	49	43	2.5	63.62	127.23	16	16	18	26	17	31.4	1972.9	15.7	42.00
34 61 200	6	2035.75	108	60	49	43	2.5			without mounting holes								42.00
34 81 100	8	1005.31	40	80	79	71	2.5			without mounting holes								44.63
34 81 200	8	2010.61	80	80	79	71	2.5			without mounting holes								82.26
34 11 100	10	1005.30	32	100	99	89	2.5			without mounting holes								70.60

1) The screw joint limits the feed force.

500 mm and other length on request.

Total pitch error

$$GT_f / 1000 \leq 0.200 \text{ mm,}$$

$$GT_f / 1500 \leq 0.300 \text{ mm,}$$

$$GT_f / 2000 \leq 0.400 \text{ mm.}$$

- Teeth hardened with the ATLANTA high performance hardening process
- Heat-treatable steel according to ATLANTA-Standard
- Bright steel

Mounting racks see page ZF-2.

To achieve precision rack joints, we recommend our patented rack assembly kit, see page ZF-4.

For lubrication of rack & pinions we recommend our automatic lubrication systems, see page ZE-1.

For the calculation and selection of the rack & pinion drive, see page ZD-1.

Screws for rack mounting, see page ZF-3.

