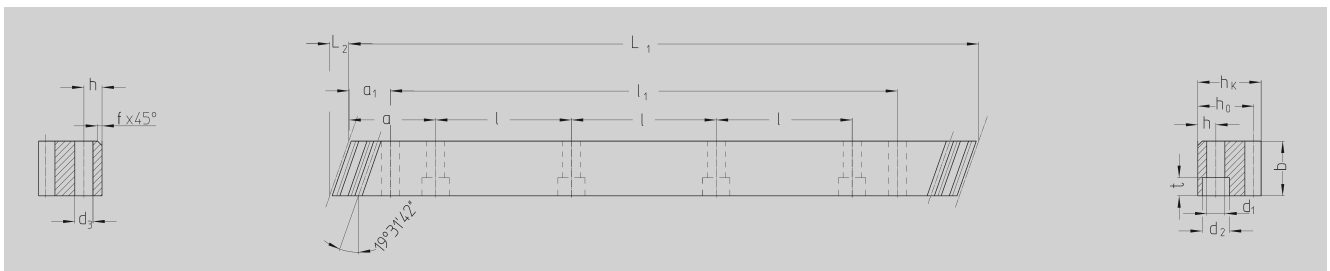




Quality 6



Order Code	Module	L ₁	L ₂	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	
29 20 050 ²⁾	2	500.00	8.5	75	24	24	22	2	62.5	125	4	8	7	11	7	31.7	436.6	5.7	2.10	
29 21 050	2	500.00	8.5	75	24	24	22	2	62.5	125	4	without Mounting Holes								2.10
29 20 100	2	1000.00	8.5	150	24	24	22	2	62.5	125	8	8	7	11	7	31.7	936.6	5.7	4.10	
29 21 100	2	1000.00	8.5	150	24	24	22	2	62.5	125	8	without Mounting Holes								4.10
29 20 150	2	1500.00	8.5	225	24	24	22	2	62.5	125	12	8	7	11	7	31.7	1436.6	5.7	6.15	
29 21 150	2	1500.00	8.5	225	24	24	22	2	62.5	125	12	without Mounting Holes								6.15
29 20 200	2	2000.00	8.5	300	24	24	22	2	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	8.20	
29 21 200	2	2000.00	8.5	300	24	24	22	2	62.5	125	16	without Mounting Holes								8.20
29 30 050 ²⁾	3	500.00	10.3	50	29	29	26	2	62.5	125	4	9	10	15	9	35.0	430.0	7.7	2.90	
29 31 050	3	500.00	10.3	50	29	29	26	2	62.5	125	4	without Mounting Holes								2.90
29 30 100	3	1000.00	10.3	100	29	29	26	2	62.5	125	8	9	10	15	9	35.0	930.0	7.7	5.90	
29 31 100	3	1000.00	10.3	100	29	29	26	2	62.5	125	8	without Mounting Holes								5.90
29 30 150	3	1500.00	10.3	150	29	29	26	2	62.5	125	12	9	10	15	9	35.0	1430.0	7.7	8.85	
29 31 150	3	1500.00	10.3	150	29	29	26	2	62.5	125	12	without Mounting Holes								8.85
29 30 200	3	2000.00	10.3	200	29	29	26	2	62.5	125	16	9	10	15	9	35.0	1930.0	7.7	11.80	
29 31 200	3	2000.00	10.3	200	29	29	26	2	62.5	125	16	without Mounting Holes								11.80
29 40 050 ¹⁾²⁾	4	506.67	13.8	38	39	39	35	2	62.5	125	4	12	10	15	9	33.3	433.0	7.7	5.40	
29 41 050	4	506.67	13.8	38	39	39	35	2	62.5	125	4	without Mounting Holes								5.40
29 40 100 ²⁾	4	1000.00	13.8	75	39	39	35	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	10.70	
29 41 100	4	1000.00	13.8	75	39	39	35	2	62.5	125	8	without Mounting Holes								10.70
29 42 100	4	1000.00	13.8	75	39	39	35	2	62.5	125	8	12	14	20	13	33.3	933.4	11.7	10.70	
29 41 150	4	1506.67	13.8	113	39	39	35	2	62.5	125	12	without Mounting Holes								16.00
29 42 150 ¹⁾	4	1506.67	13.8	113	39	39	35	2	62.5	125	12	12	14	20	13	33.3	1433.4	11.7	16.00	
29 41 200	4	2000.00	13.8	150	39	39	35	2	62.5	125	16	without Mounting Holes								21.40
29 42 200	4	2000.00	13.8	150	39	39	35	2	62.5	125	16	12	14	20	13	33.3	1933.4	11.7	21.40	

- 1) This racks should be used for continuous linking only with the left side (see sketch).
- 2) 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.

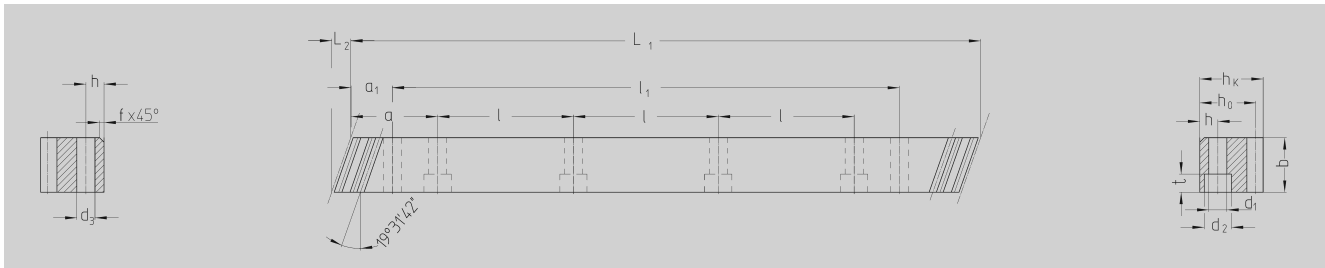
For lubrication of racks & pinions, we recommend our automatic lubrication systems, see page ZE-1.

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	L ₂	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	
29 15 055 ²⁾	1.5	500.00	6.74	100	19	19	17.5	2	62.5	125	4	8	7	11	7	31.7	436.6	5.7	1.30	
29 16 055	1.5	500.00	6.74	100	19	19	17.5	2	62.5	125	4	without Mounting Holes							1.30	
29 15 105	1.5	1000.00	6.74	200	19	19	17.5	2	62.5	125	8	8	7	11	7	31.7	936.6	5.7	2.60	
29 16 105	1.5	1000.00	6.74	200	19	19	17.5	2	without Mounting Holes											2.60
29 20 105	2	1000.00	8.50	150	24	24	22	2	62.5	125	8	8	7	11	7	31.7	936.6	5.7	4.10	
29 21 105	2	1000.00	8.50	150	24	24	22	2	without Mounting Holes											4.10
29 20 155	2	1500.00	8.50	225	24	24	22	2	62.5	125	12	8	7	11	7	31.7	1436.6	5.7	6.15	
29 21 155	2	1500.00	8.50	225	24	24	22	2	without Mounting Holes											6.15
29 20 205	2	2000.00	8.50	300	24	24	22	2	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	8.20	
29 21 205	2	2000.00	8.50	300	24	24	22	2	without Mounting Holes											8.20
29 30 105	3	1000.00	10.30	100	29	29	26	2	62.5	125	8	9	10	15	9	35.0	930.0	7.7	5.90	
29 31 105	3	1000.00	10.30	100	29	29	26	2	without Mounting Holes											5.90
29 30 155	3	1500.00	10.30	150	29	29	26	2	62.5	125	12	9	10	15	9	35.0	1430.0	7.7	8.85	
29 31 155	3	1500.00	10.30	150	29	29	26	2	without Mounting Holes											8.85
29 30 205	3	2000.00	10.30	200	29	29	26	2	62.5	125	16	9	10	15	9	35.0	1930.0	7.7	11.80	
29 31 205	3	2000.00	10.30	200	29	29	26	2	without Mounting Holes											11.80
29 40 105 ²⁾	4	1000.00	13.80	75	39	39	35	2	62.5	125	8	12	10	15	9	33.3	933.4	7.7	10.70	
29 41 105	4	1000.00	13.80	75	39	39	35	2	without Mounting Holes											10.70
29 42 105	4	1000.00	13.80	75	39	39	35	2	62.5	125	8	12	14	20	13	33.3	939.4	11.7	13.00	
29 42 155 ¹⁾	4	1506.67	13.80	113	39	39	35	2	62.5	125	12	12	14	20	13	33.3	1433.4	11.7	19.50	
29 40 205	4	2000.00	13.80	150	39	39	35	2	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	21.40	
29 41 205	4	2000.00	13.80	150	39	39	35	2	without Mounting Holes											21.40
29 42 205	4	2000.00	13.80	150	39	39	35	2	62.5	125	16	12	14	20	13	33.3	1933.4	11.7	21.40	
29 50 055 ²⁾	5	500.00	17.40	30	49	49	34	2.5	62.5	125	4	12	14	20	13	37.5	425.0	11.7	6.50	
29 51 055	5	500.00	17.40	30	49	49	34	2.5	without Mounting Holes											6.50
29 50 105	5	1000.00	17.40	60	49	49	34	2.5	62.5	125	8	12	14	20	13	37.5	925.0	11.7	13.00	
29 51 105	5	1000.00	17.40	60	49	49	34	2.5	without Mounting Holes											13.00
29 50 155	5	1500.00	17.40	90	49	49	34	2.5	62.5	125	12	12	14	20	13	37.5	1425.0	11.7	19.50	
29 51 155	5	1500.00	17.40	90	49	49	34	2.5	without Mounting Holes											19.50
29 50 205	5	2000.00	17.40	120	49	49	34	2.5	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	26.00	
29 51 205	5	2000.00	17.40	120	49	49	34	2.5	without Mounting Holes											26.00
29 60 055 ²⁾	6	500.00	20.90	25	59	59	43	2.5	62.5	125	4	16	18	26	17	37.5	425.0	15.7	9.90	
29 61 055	6	500.00	20.90	25	59	59	43	2.5	without Mounting Holes											9.90
29 60 105	6	1000.00	20.90	50	59	59	43	2.5	62.5	125	8	16	18	26	17	37.5	925.0	15.7	18.10	
29 61 105	6	1000.00	20.90	50	59	59	43	2.5	without Mounting Holes											18.10
29 60 155	6	1500.00	20.90	75	59	59	43	2.5	62.5	125	12	16	18	26	17	37.5	1425.0	15.7	27.10	
29 61 155	6	1500.00	20.90	75	59	59	43	2.5	without Mounting Holes											27.10
29 60 205	6	2000.00	20.90	100	59	59	43	2.5	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	36.20	
29 61 205	6	2000.00	20.90	100	59	59	43	2.5	without Mounting Holes											36.20
29 80 055 ²⁾	8	480.00	28.00	18	79	79	71	2.5	60.0	120	4	25	22	33	21	120.0	240.0	19.7	21.00	
29 81 055	8	480.00	28.00	18	79	79	71	2.5	without Mounting Holes											21.00
29 80 105	8	960.00	28.00	36	79	79	71	2.5	60.0	120	8	25	22	33	21	120.0	720.0	19.7	42.50	
29 81 105	8	960.00	28.00	36	79	79	71	2.5	without Mounting Holes											42.50
29 80 205	8	1920.00	28.00	72	79	79	71	2.5	60.0	120	16	25	22	33	21	120.0	1680.0	19.7	85.00	
29 81 205	8	1920.00	28.00	72	79	79	71	2.5	without Mounting Holes											85.00
29 10 105	10	1000.00	35.11	30	99	99	89	2.5	62.5	125	8	32	33	48	32	125.0	750.0	19.7	68.72	
29 11 105	10	1000.00	35.11	30	99	99	89	2.5	without Mounting Holes											68.72
29 10 155	10	1500.00	35.11	45	99	99	89	2.5	62.5	125	12	32	33	48	32	125	1250.0	19.7	103.00	
29 11 155	10	1500.00	35.11	45	99	99	89	2.5	without Mounting Holes											103.00
29 12 105	12	1000.00	42.56	25	120	120	108	2.5	40.0	125	8	40	39	58	38	125.0	750.0	19.7	111.00	
29 13 105	12	1000.00	42.56	25	120	120	108	2.5	without Mounting Holes											111.00



1) These racks should be used for continuous linking only with the left side (see sketch).
 2) The screw joint limits the feed force.

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

• Further information see next page.