



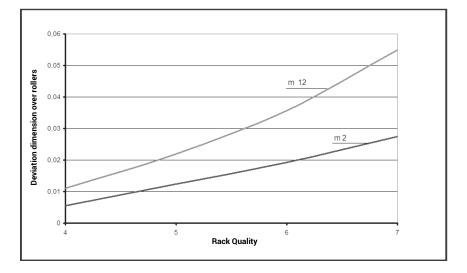
Deutsches Patent Nr. 10 2006 008 461.6-52

Order Code	Description		Module	Helical Rack	Straight Rack	kg
29 01 001	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 002 1 29 00 032 2 28 01 008	1.5	29 15 xxx 39 15 xxx		
29 01 002	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 002 1 29 00 042 2 28 01 008	2	29 20 xxx 38 21 xxx 39 20 xxx	28 20 xxx 33 21 xxx 34 20 xxx	0.40
29 01 003	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 003 1 29 00 050 2 28 01 008	3	29.30.xxx 38.31.xxx 39.30.xxx	28.30.xxx 33.31.xxx 34.30.xxx	0.44
29 01 004	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 003 1 29 00 070 2 28 01 008	4	29.40.xxx 38.41.xxx 39.40.xxx	28.40.xxx 33.41.xxx 34.40.xxx	0.55
29 01 024	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 005 1 29 00 070 2 28 01 008	4	29.42.xxx 29.xx.xx7 39.42.xxx 39.40.xx8	28.42.xxx 28.xx.xx7 34.42.xxx 34.40.xx8	0.55
29 01 005	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 005 1 29 00 090 2 28 01 015	5	29.50.xxx 39.50.xxx	28.50.xxx 34.50.xxx	0.8
29 01 006	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 006 1 29 00 100 2 28 01 015	6	29.60.xxx 39.60.xxx	28.60.xxx 34.60.xxx	0.90
29 01 008	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 008 1 29 00 140 2 28 01 015	8 Helical	29.80.xxx		1.35
28 01 008	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 28 00 008 1 29 00 140 2 28 01 015	8 Straight		28.80.xxx	1.15
29 01 010	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 008 1 29 00 180 2 28 01 015	10	29.10.xxx	28.10.xxx	1.40
29 01 012	Assembly kit, comprised of: 1 x Adjusting device 3 x Magnetic Rollers 1 x Measuring bridge with dial indicator	2 29 00 008 1 29 00 200 2 28 01 015	12	29.12.xxx	28.12.xxx	1.50

All dimensions are in mm



Over-Roller Tolerances For Rack Joints



Using The Rack Assembly Kit

ATLANTA gear racks can be assembled to the correct pitch by means of assembly aids. After positioning the racks for assembly insert the fixing screws of the rack and slightly turn them in by hand.

Arrange the rack adjusting device in the existing pinholes of the racks. The device is held in position on the racks by magnetic force. Any mounting position is possible.

The rollers are inserted in the two adjacent racks and in the gap at the joint. They, too, are held in place in the tooth space by magnetic force and can therefore be used in any mounting position of the racks. It is thus ensured that they are always accurately positioned on the tooth flanks. The tooth gaps must be free from residues or any other foreign matter.

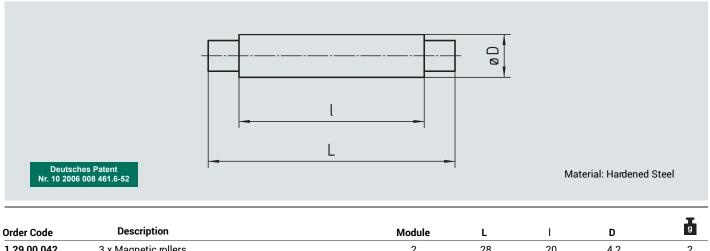
With the measuring bridge set to zero on a measuring plate or another level surface it is now possible to measure the variation of the dimension over the roller. The exact pitch at the joint can then be adjusted by moving the rack with utmost precision in either direction. The diagram above shows the excellent toothing quality obtained based on the variation of the dimension over rollers at the joint of the racks.

It is no longer necessary to adjust the rack by tapping with a hammer. The slightly pre-stressed rack is put in the correct position and held in this position until it is screwed together.



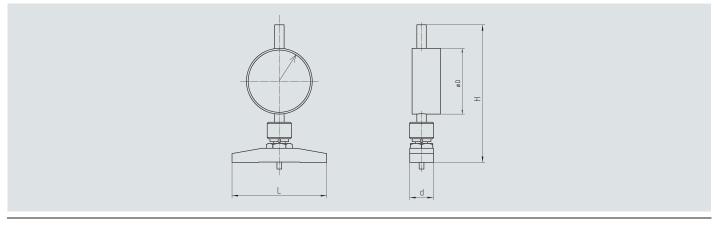


Magnetic Rollers



1 29 00 042	3 x Magnetic rollers	2	28	20	4.2	2
1 29 00 050	3 x Magnetic rollers	3	33	25	5	5
1 29 00 070	3 x Magnetic rollers	4	40	30	7	15
1 29 00 090	3 x Magnetic rollers	5	42	34	9	20
1 29 00 100	3 x Magnetic rollers	6	43	35	10	25
1 29 00 140	3 x Magnetic rollers	8	45	35	14	45
1 29 00 180	3 x Magnetic rollers	10	42	35	18	75
1 29 00 200	3 x Magnetic rollers	12	50	43	20	75

Measuring Bridge With Dial Indicator



Order Code	Description	Module	L	b	н	D	g
2 28 01 008	Measuring bridge	2 - 4	80	20	115	58	310
2 28 01 015	Measuring bridge	5 – 12	150	20	120	58	420

Usage

The magnetic rollers (patented) are placed in the tooth gaps of the already mounted rack, of the rack to be mounted, and in the gap at the joint. Adjust the measuring bridge on a measuring plate or other level surface to zero. Mount the adjusting device.

By means of the measuring bridge and the adjusting device, it is now possible to adjust the optimal pitch by moving the racks to be assembled. The pointer of the dial indicator should, if possible, reach the pre-set zero value.







Rack Adjusting Device

By fitting the adjusting device (patented) in the pinholes of the toothed rack, it is possible to move the rack to be assembled axially in both directions by turning the screw.

This permits to adjust the correct dimension over rollers and the accurate pitch at the rack joint. The adjusting device is held in place on the rack by means of magnetic force and can be used in any mounting position.

Up to module 6 the wrench sizes correspond to the rack mounting screws.

Order Code	Description	Wrench Size	Module	Helical	Straight	kg
2 29 00 002	Adjusting device	5	1.5 & 2	29.15.105 29.20.xxx	28.20.xxx	0.12
2 29 00 003	Adjusting device	6	3&4	29.30.xxx 29.40.100 29.40.xx5	28.30.xxx 28.40.100 28.40.xx5	0.14
2 29 00 005	Adjusting device	10	4 & 5	29.40.xx7 29.42.xxx 29.40.xx8	28.40.xx7 28.42.xxx 28.40.xx8	0.3
2 29 00 006	Adjusting device	14	6	29.60.xxx	28.60.xxx	0.44
2 29 00 008	Adjusting device	14	8 to 12	29.80.xxx 29.10.xxx 29.12.xxx	28.10.xxx 28.12.xxx	0.82
2 28 00 008	Adjusting device	14	8 Straight		28.80.xxx 46.80.xxx	0.46