

Rack and pinion system



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RACK AND PINION SYSTEM



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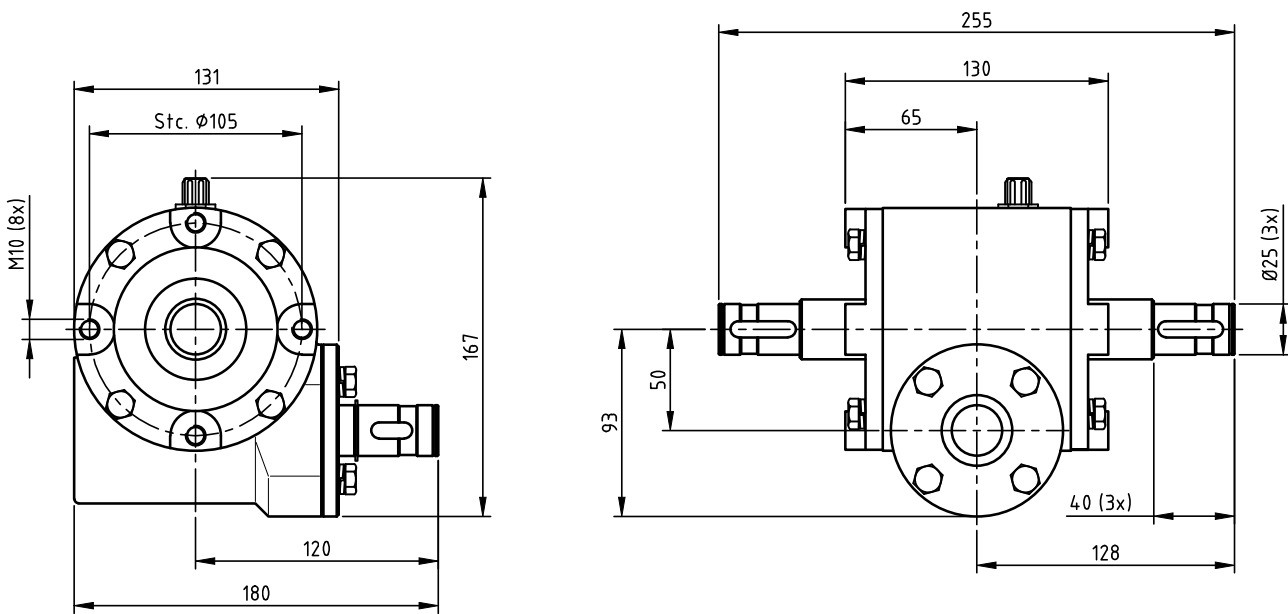
GWK240/GWK400 WORM GEARBOX



The GWK-serie, with self-braking worm wheel transmission (reduction $i=35$), is used, among other applications, in continuous ridge ventilation systems or panels in stables.

Chain coupling sets with a duplex chain according to DIN chain no. 08B-2 with 16 links can be supplied for the shafts of the GWK240 and 10B-2 for the GWK400. The sprocket wheel joint is available for 1", 5/4" or 2" drive tubes. The worm gearbox is supplied with mounting attachments on two sides.

As an option the GWK-serie can be fitted with a tube-bolt chain coupling set for 1" or 5/4" drive tubes. Also available with a continuous entry shaft or with an extended outgoing shaft on one side.



Description	T [Nm]	T' [Nm]	i [-]	m [kg]	Article number
GWK240	240	19,5	35	11,0	P.GWK240
GWK400	400	32,5	35	11,0	P.GWK400

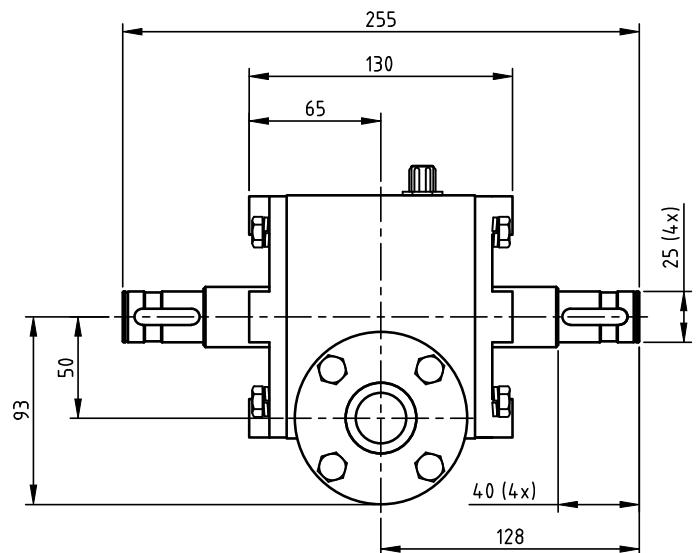
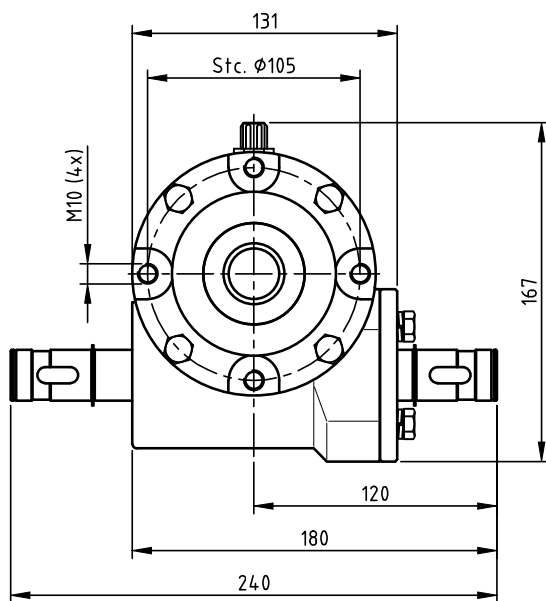
The GWK-serie with continuous entry shaft has a self-braking worm wheel transmission (reduction $i=35$) and is used, among other applications, in continuous ridge ventilation systems or panels in stables.

Chain coupling sets with a duplex chain according to DIN chain no. 08B-2 with 16 links can be supplied for the shafts of the GWK240 and 10B-2 for the GWK400.

The sprocket wheel joint is available for 1", 5/4" or 2" drive tubes. The worm gearbox with continuous entry shaft can be mounted on two sides.



As an option the GWK-serie can be fitted with a tube-bolt chain coupling set for 1" or 5/4" drive tubes. Also available with a extended outgoing shaft on one side.



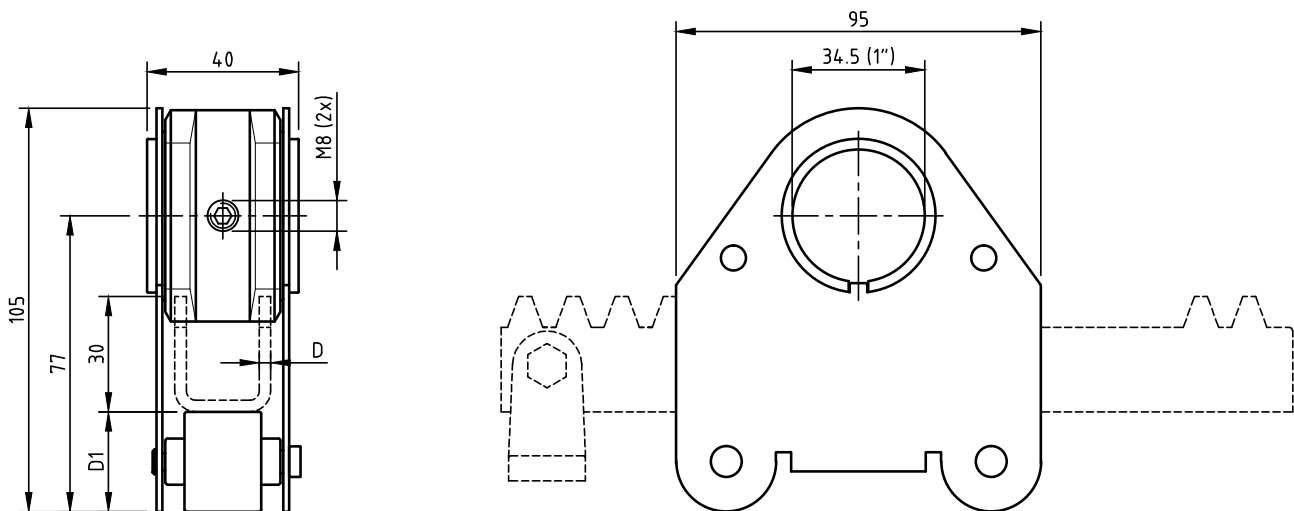
Description	T [Nm]	T' [Nm]	i [-]	m [kg]	Article number
GWK240 - continuous entry shaft	240	19,5	35	12,0	P.GWK240.DL
GWK400 - continuous entry shaft	400	32,5	35	12,0	P.GWK400.DL



The THG30 gearcase is designed for opening windows in a continuous ridge ventilation system or panels in stables. The THG30 is suited for medium to intensive use. The version P.THG30.UNIT.K(2) is suitable for average use and is equipped with plastic slide bearing rings. The version P.THG30.UNIT is equipped with bronze slide bearing rings and is therefore suited for intensive use.

Depending on the system, the rack box can be driven by a GW motor gearbox or a GWK worm gearbox. The pinion, which is by default suited for a 1" (33,7 mm) drive tube, is secured to the drive tube by means of two M8x12 set screws. The tightening torque for the setscrews is 8 Nm.

As an option for drive tube Ø32 mm a clip is available. And to adjust for drive tubes 3/4" (Ø27 mm) an adapter tube is available.

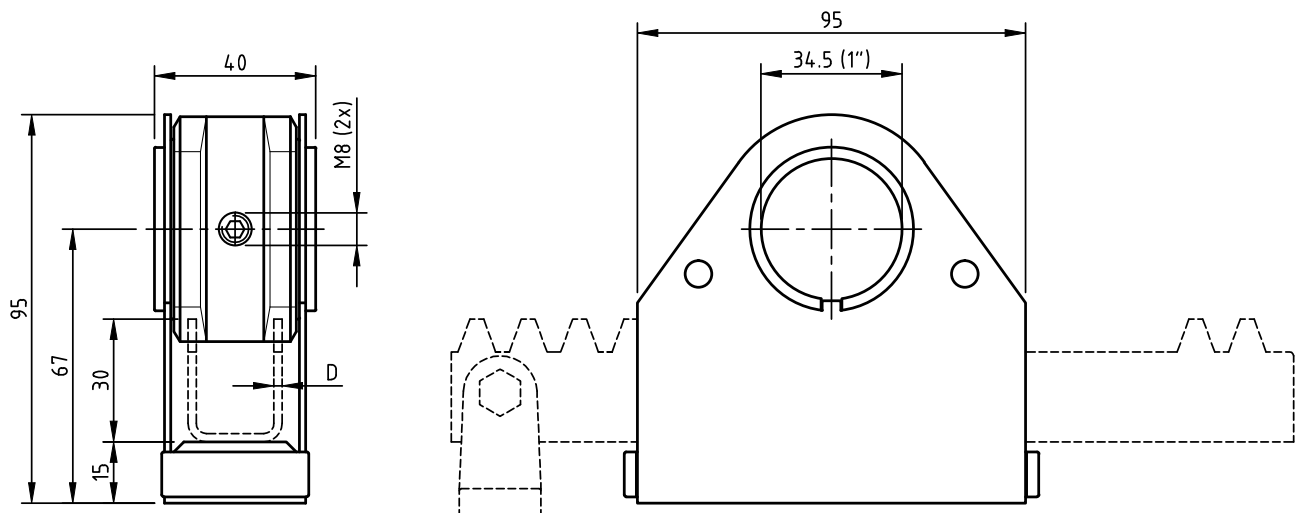


Description	Use	T [Nm]	D [mm]	R [mm]	s [mm/rev]	m [kg]	Article number
Rack box THG30	Frequent	10,4	3	27	138,23	0,43	P.THG30.UNIT
Rack box THG30, plastic bearing	Average	8,1	2	26	138,23	0,41	P.THG30.UNIT.K2
Rack box THG30, plastic bearing	Average	10,4	3	27	138,23	0,41	P.THG30.UNIT.K

The THG30-Economy gearbox is intended exclusively for ventilation systems in light weight structures, for instance in plastic tunnels without intensive climate control. The THG30-Economy is designed for use with a 2 mm rack. Depending on the system, the rack box can be driven by a GW motor gearbox or a GWK worm gearbox.

The casing of the THG30, suitable for a 1" (33,7 mm) drive tube, is made of sendzimir galvanised steel plate and has high-grade plastic slide bearings and a slide block. The pinion is secured to the drive tube by means of two M8x12 set screws. The tightening torque for the set screws is 8 Nm.

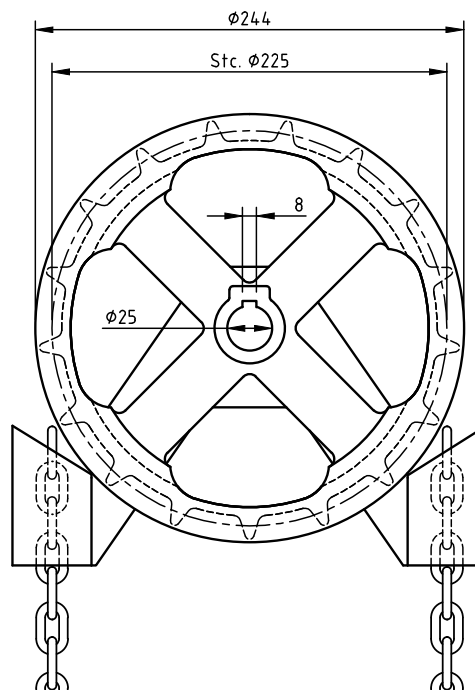
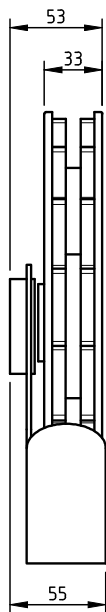
As an option for drive tube Ø32 mm a clip is available. For drive tube 3/4" (Ø27 mm) a adapter tube is available.



Description	T [Nm]	D [mm]	s [mm/rev]	m [kg]	Article number
Economy rack box THG30	8,1	2	138,23	0,41	P.THG30.UNIT.E



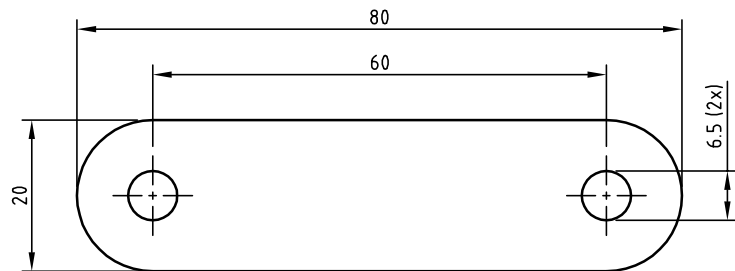
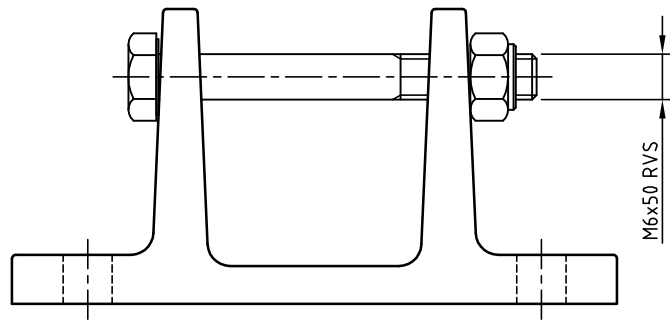
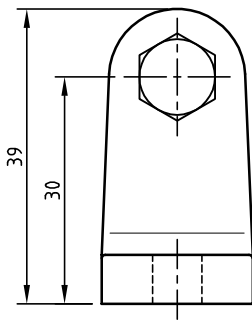
The chain pocket wheel is used to drive the GWK240 and GWK400 worm gearboxes by hand. The chain pocket wheel set consists of a pocket wheel, an 8 meter chain with connecting link and chain guidance. The pocket wheel is mounted on the ingoing axle of the worm gearbox. On site the chain can be adjusted to length.



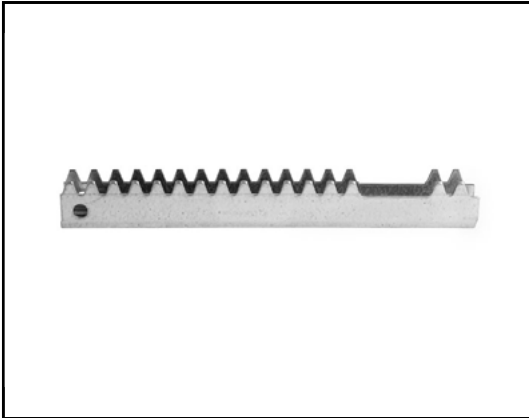
Description	m [kg]	Article number
Chain pocket wheel D250 d1" chain 8m + bracket	7,76	P.NS.D25.L80

The aluminium window bracket set is used to fasten the THG30 gear racks to ventilation windows or panels.

The window bracket is supplied with an M6x50 stainless steel bolt and a lock nut.



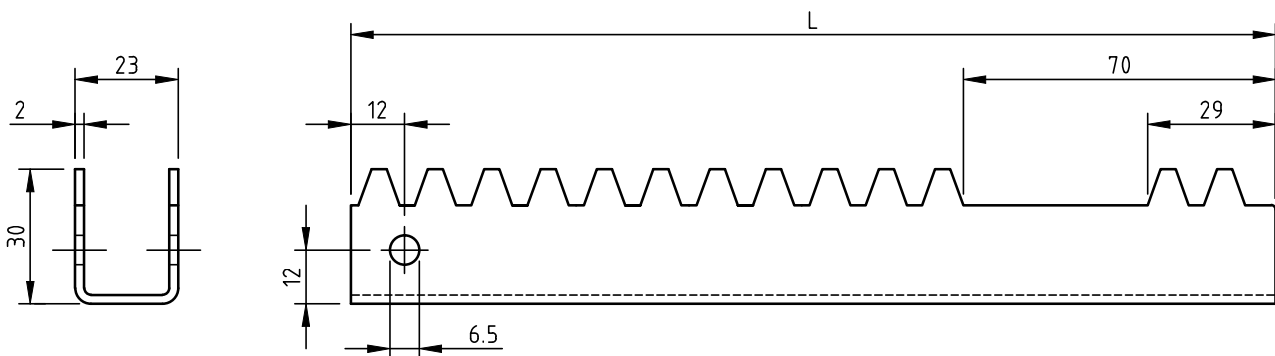
Description	m [g]	Article number
Window bracket set THG30	55	P.THG30.RB



The gear rack for the THG30 rack box is manufactured from sendzimir galvanised steel plate. The rack is 30 mm in height, and has a wall thickness of 2 mm. The rack is fitted with a run-out safeguard to prevent the gear rack from running out of the gearcase. The rack is also fitted with a blow-out safeguard to prevent the gear rack from blowing out when it is in the run-out safeguard position.

The rack is available in various lengths, depending on the required stroke, and has $\varnothing 6.5$ mm holes for the attachment of the window bracket.

As an option the rack can also be bent with internal or external toothing, or be provided with $\varnothing 8.5$ mm or $\varnothing 10.5$ mm holes.

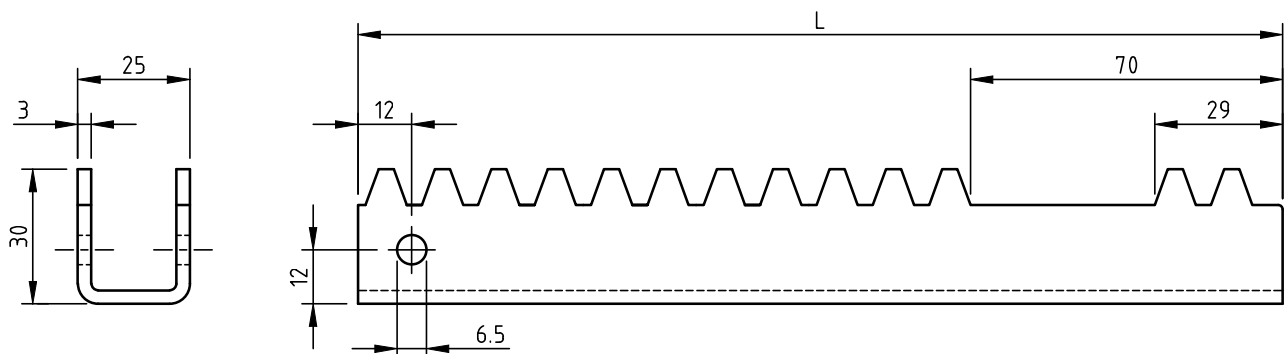


Description	F [N]	L [mm]	m [kg]	Article number
THG30 gear rack 2 mm	350	1048	1,1	P.THG30.2.L1048
THG30 gear rack 2 mm	350	1199	1,3	P.THG30.2.L1199
THG30 gear rack 2 mm	350	1250	1,3	P.THG30.2.L1250
THG30 gear rack 2 mm	350	1350	1,4	P.THG30.2.L1350
THG30 gear rack 2 mm	350	1451	1,5	P.THG30.2.L1451
THG30 gear rack 2 mm	350	1652	1,6	P.THG30.2.L1652

The gear rack for the THG30 rack box is manufactured from sendzimir galvanised steel plate. The rack is 30 mm in height, and has a wall thickness of 3 mm. The rack is fitted with a run-out safeguard to prevent the gear rack from running out of the gearcase. The rack is also fitted with a blow-out safeguard to prevent the gear rack from blowing out when it is in the run-out safeguard position.

The rack is available in various lengths, depending on the required stroke. The rack contains holes of $\varnothing 6.5$ mm for attaching the window bracket.

The rack can optionally also be bent with internal or external toothing, or have $\varnothing 8.5$ mm or $\varnothing 10.5$ mm holes fitted.



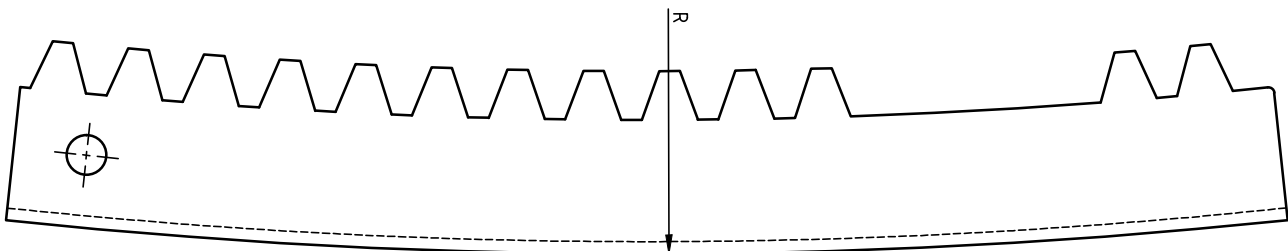
Description	F [N]	L [mm]	m [kg]	Article number
THG30 gear rack 3 mm	450	1048	1,9	P.THG30.3.L1048
THG30 gear rack 3 mm	450	1250	2,0	P.THG30.3.L1250
THG30 gear rack 3 mm	450	1350	2,1	P.THG30.3.L1350
THG30 gear rack 3 mm	450	1451	2,3	P.THG30.3.L1451
THG30 gear rack 3 mm	450	1652	2,6	P.THG30.3.L1652
THG30 gear rack 3 mm	450	1752	2,8	P.THG30.3.L1752
THG30 gear rack 3 mm	450	1853	2,9	P.THG30.3.L1853
THG30 gear rack 3 mm	450	1953	3,1	P.THG30.3.L1953



The sendzimir galvanised gear rack for the THG30 rack box can also be bent with internal tothing.

The standard radius is 1000 mm.

Other radiuses are available on request.

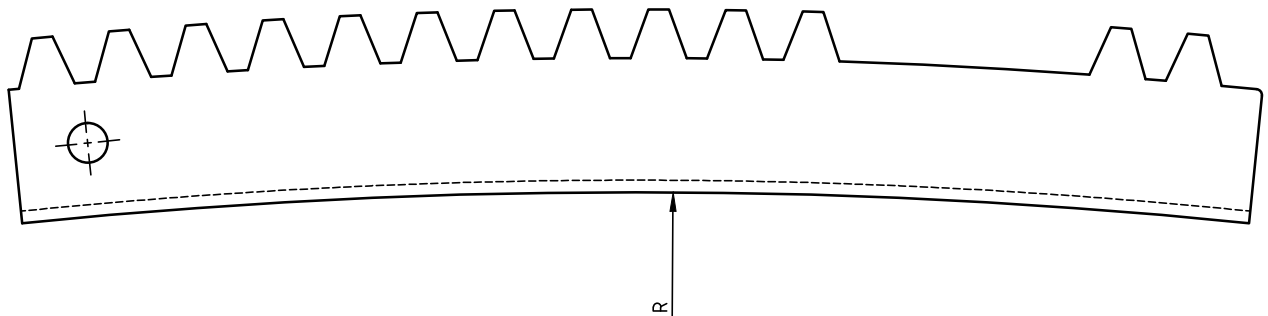
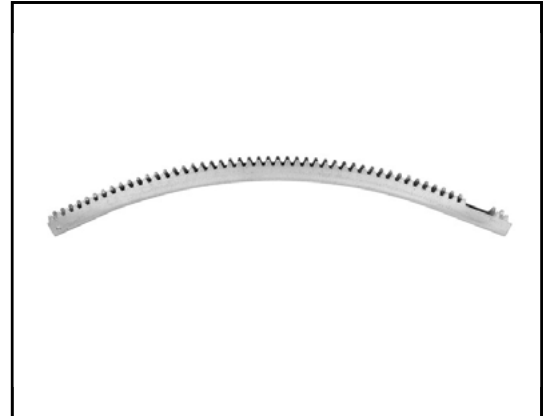


Description	R [mm]	Article number
Bent THG30 gear rack with internal tothing	1000	P.THG30.R1000.BIN

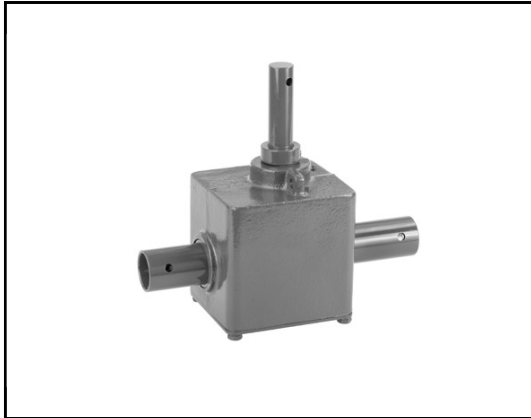
The sendzimir galvanised gear rack for the THG30 rack box can also be bent with external tothing.

The standard radius is 1000 mm.

Other radiuses are available on request.

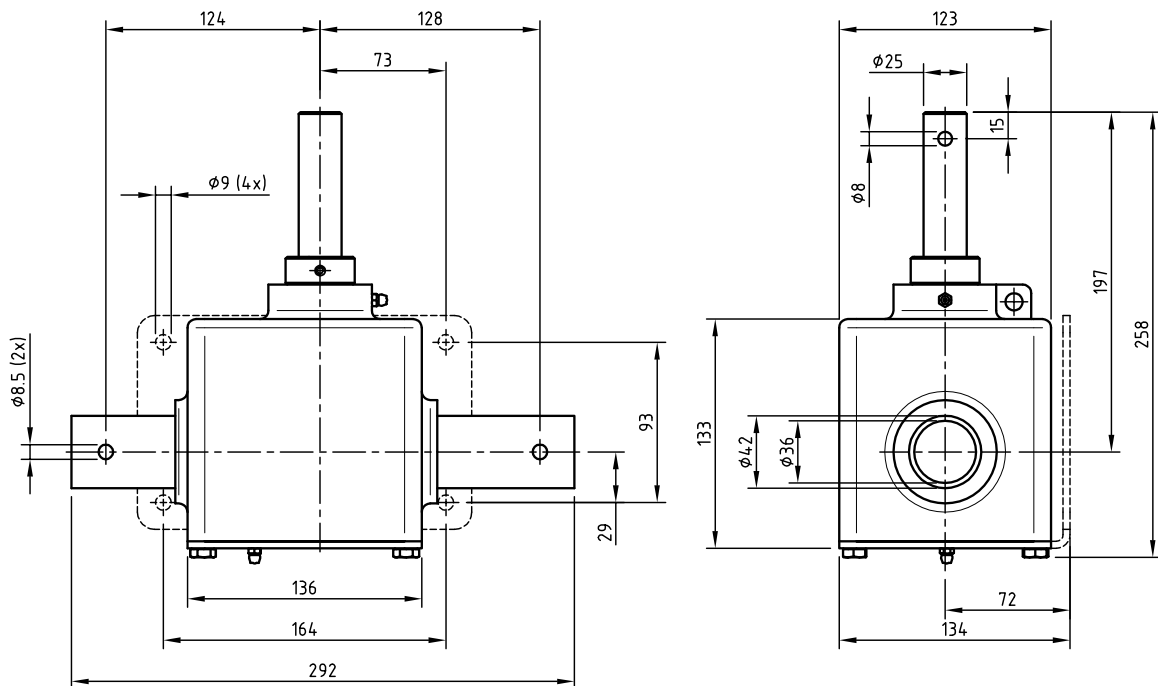


Description	R [mm]	Article number
Bent THG30 gear rack with external tothing	1000	P.THG30.R1000.BUI



The HKK120 distribution gearbox (1:1) is used in the THG30 drive system. The ingoing shaft of the HKK120 is hollow so it can be mounted over the 1" tube driven by a GW motor gearbox. The tube has to be fixed with 2 M8 bolts. The drive tube is branched off at a 90° angle in the gearcase, for example to drive a GWK worm gearbox.

As a standard the HKK120 distribution gearbox comes complete with an integrated mounting plate.



Description	T [Nm]	N [rpm]	i [-]	m [kg]	Article number
HKK120 without mounting plate	120	42	1	8,0	P.HKK120.D25.D100
HKK120 with mounting plate	120	42	1	8,5	P.HKK120.D25.D100.MP