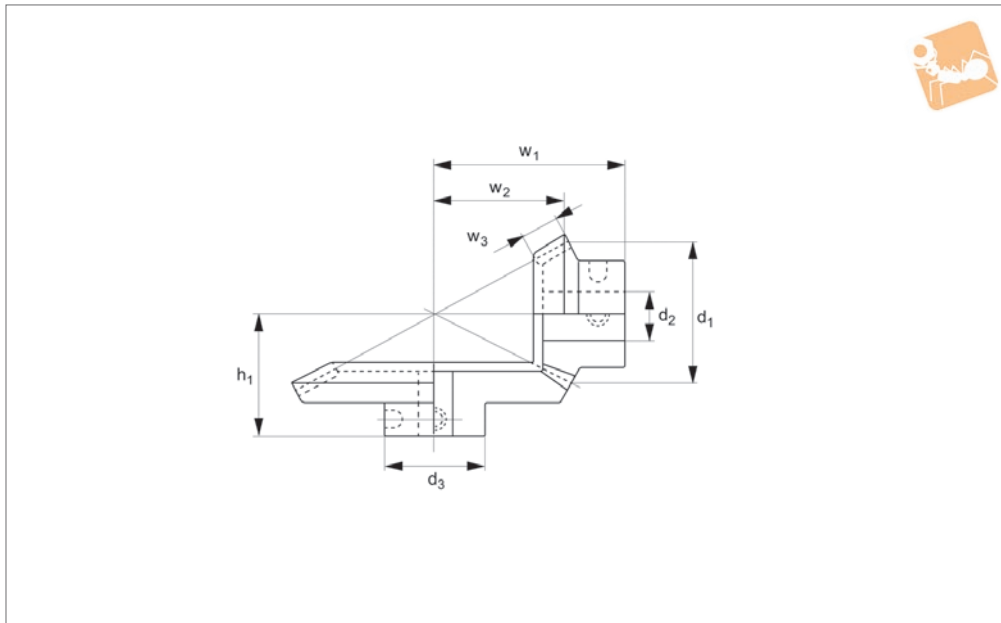




1,5 Module Mitre & Bevel gears stainless/aluminium

Other Precision Gears



R2100

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

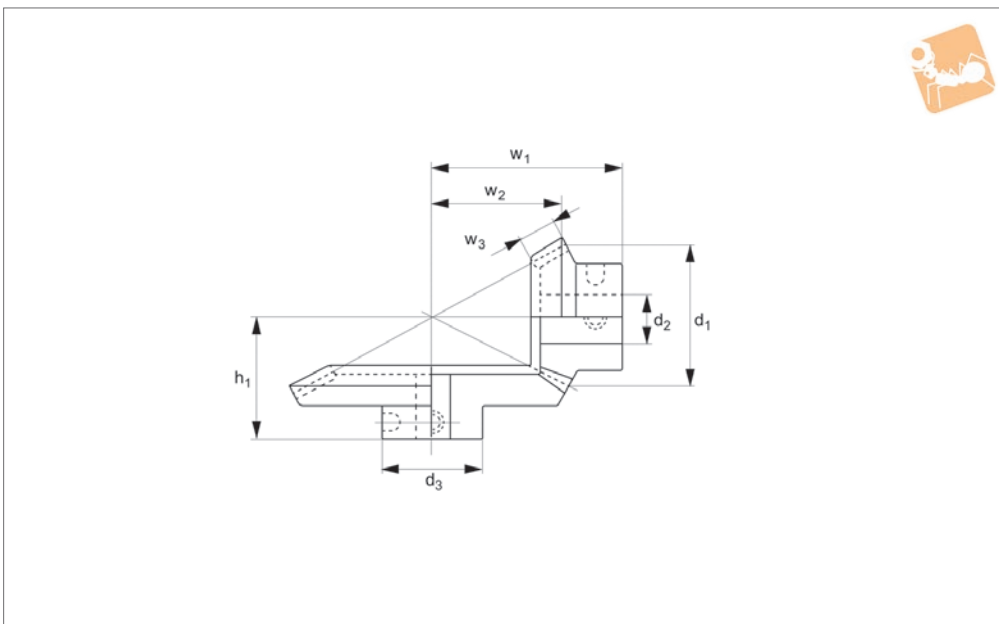
Technical Notes

20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2100.001	30	30	Ø12	26	1 to 1	20	20	32,0	13,94	13,94	8	32	Stainless	Aluminium
R2100.001S	30	30	Ø12	26	1 to 1	20	20	32,0	13,94	13,94	8	32	Stainless	Stainless
R2100.001A	30	30	Ø12	26	1 to 1	20	20	32,0	13,94	13,94	8	32	Aluminium	Aluminium
R2100.002	60	30	Ø12	26	1 to 2	20	40	47,5	14,12	29,10	8	32	Stainless	Aluminium
R2100.003	90	30	Ø12	26	1 to 3	20	60	63,5	14,16	44,33	8	32	Stainless	Aluminium
R2100.001P		30	Ø12	26	1 to 1	20		32,0		13,94	8	32	Stainless	
R2100.001G	30		Ø12	26	1 to 1		20	32,0	13,94		8	32		Aluminium



R2102



Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

Technical Notes

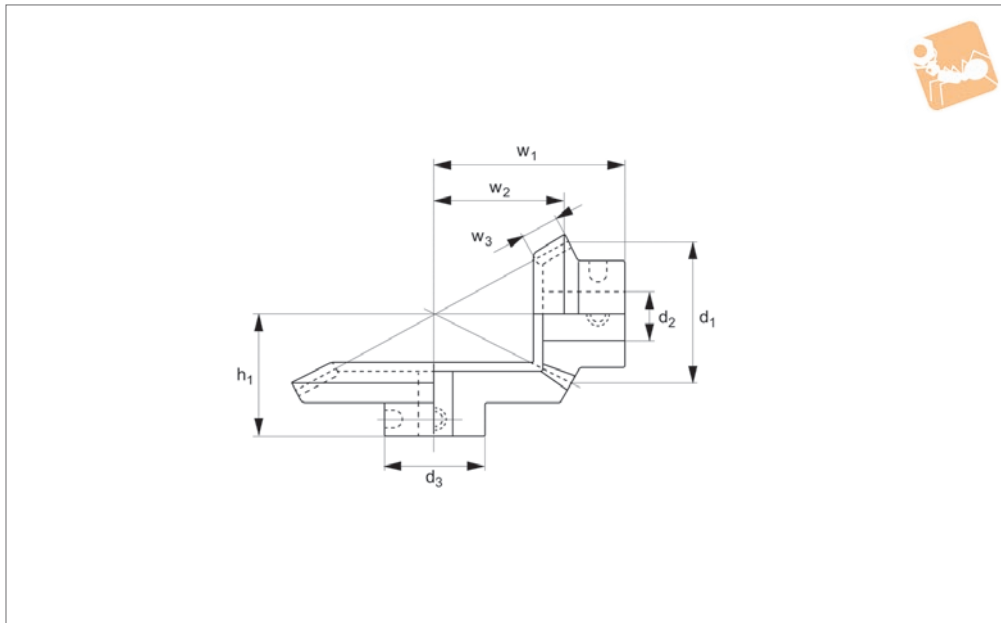
20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2102.001	24	24	Ø10	19	1 to 1	24	24	25,5	11,29	11,29	7	25,5	Stainless	Aluminium
R2102.001S		24	Ø10	19	1 to 1	24	24	25,5	11,29	11,29	7	25,5	Stainless	Stainless
R2102.001A	24	24	Ø10	19	1 to 1	24	24	25,5	11,29	11,29	7	25,5	Aluminium	Aluminium
R2102.002	58	24	Ø10	19	1 to 2	24	48	38,0	11,42	23,40	7	25,5	Stainless	Aluminium
R2102.003	72	24	Ø10	19	1 to 3	24	72	51,0	11,44	35,56	7	25,5	Stainless	Aluminium
R2102.004	96	24	Ø10	19	1 to 4	24	96	63,5	11,45	47,65	7	25,5	Stainless	Aluminium
R2102.001P		24	Ø10	19	1 to 1	24		25,5		11,29	7	25,5	Stainless	
R2102.001G	24		Ø10	19	1 to 1		24	25,5	11,29		7	25,5		Aluminium



0,8 Module Mitre & Bevel gears stainless/aluminium

Other Precision Gears



R2104

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

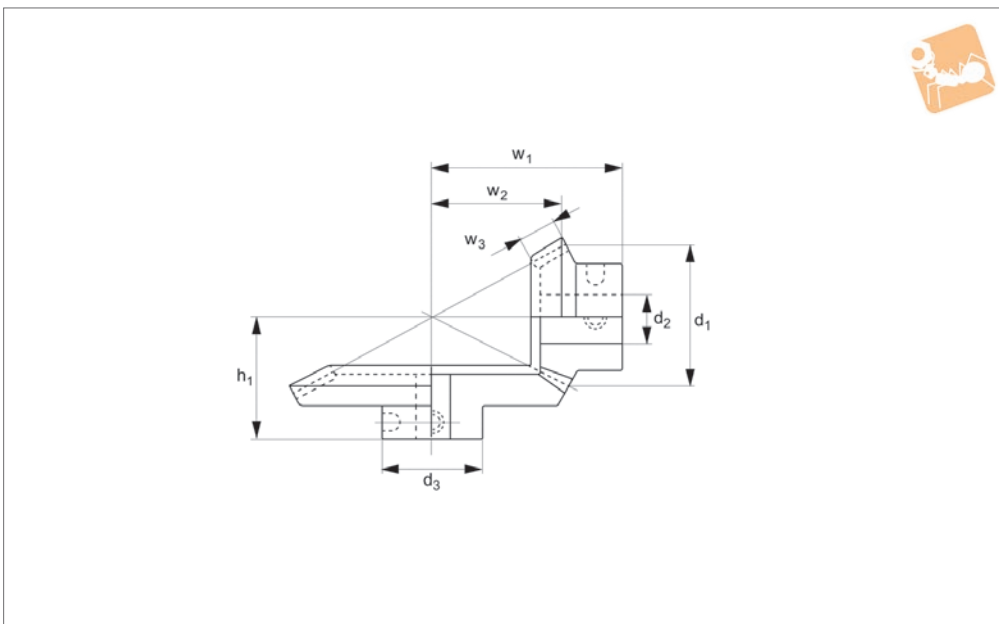
Technical Notes

20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2104.001	19,20	19,20	Ø8	16	1 to 1	24	24	19,0	9,03	9,03	7	19	Stainless	Aluminium
R2104.001S		19,20	Ø8	16	1 to 1	24	24	19,0	9,03	9,03	7	19	Stainless	Stainless
R2104.001A	19,20	19,20	Ø8	16	1 to 1	24	24	19,0	9,03	9,03	7	19	Aluminium	Aluminium
R2104.002	38,40	19,20	Ø8	16	1 to 2	24	48	28,5	9,13	18,72	7	19	Stainless	Aluminium
R2104.003	57,60	19,20	Ø8	16	1 to 3	24	72	38,0	9,15	28,44	7	19	Stainless	Aluminium
R2104.004	76,80	19,20	Ø8	16	1 to 4	24	96	47,5	9,16	38,12	7	19	Stainless	Aluminium
R2104.001P		19,20	Ø8	16	1 to 1	24		19,0		9,03	7	19	Stainless	
R2104.001G	19,20		Ø8	16	1 to 1		24	19,0	9,03		7	19		Aluminium



R2106



Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

Technical Notes

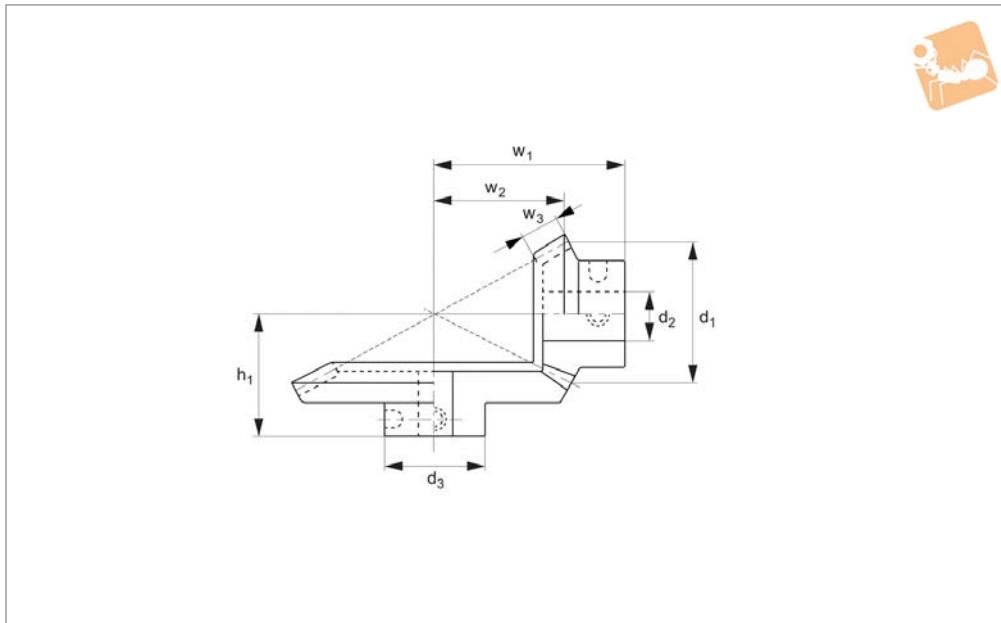
20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2106.001	18	18	Ø8	13	1 to 1	30	30	18	8,58	8,58	5	18	Stainless	Aluminium
R2106.001S	18	18	Ø8	13	1 to 1	30	30	18	8,58	8,58	5	18	Stainless	Stainless
R2106.001A	18	18	Ø8	13	1 to 1	30	30	18	8,58	8,58	5	18	Aluminium	Aluminium
R2106.002	36	18	Ø8	13	1 to 2	30	60	26	8,65	17,64	5	18	Stainless	Aluminium
R2106.003	54	18	Ø8	13	1 to 3	30	90	36	8,66	26,73	5	18	Stainless	Aluminium
R2106.004	72	18	Ø8	13	1 to 4	30	120	44	8,67	35,79	5	18	Stainless	Aluminium
R2106.001P		18	Ø8	13	1 to 1	30		18		8,58	5	18	Stainless	
R2106.001G	18		Ø8	13	1 to 1		30	18	8,58		5	18		Aluminium



0,5 Module Mitre & Bevel gears stainless/aluminium

Other Precision Gears



R2108

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

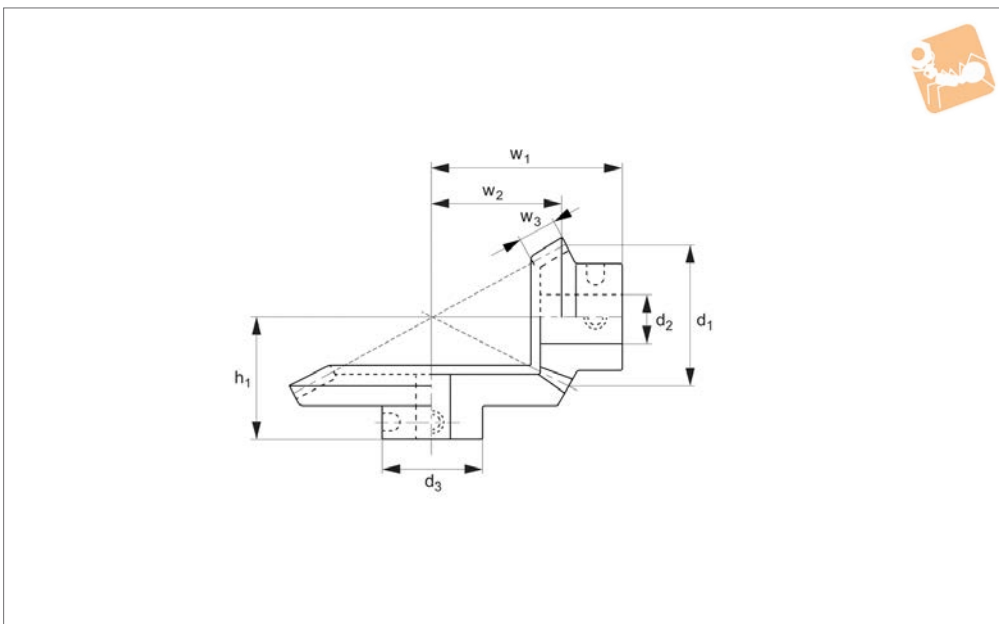
Technical Notes

20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2108.01	16	16	Ø5	10	1 to 1	30	30	15	7,65	7,65	4	15	Stainless	Aluminium
R2108.01S	16	16	Ø5	10	1 to 1	30	30	15	7,65	7,65	4	15	Stainless	Stainless
R2108.01A	16	16	Ø5	10	1 to 1	30	30	15	7,65	7,65	4	15	Aluminium	Aluminium
R2108.02	32	16	Ø5	10	1 to 2	30	60	23	7,71	15,70	4	15	Stainless	Aluminium
R2108.03	48	16	Ø5	10	1 to 3	30	90	32	7,72	23,78	4	15	Stainless	Aluminium
R2108.04	64	16	Ø5	10	1 to 4	30	120	39	7,72	31,83	4	15	Stainless	Stainless
R2108.01P		16	Ø5	10	1 to 1	30		15		7,65	4	15	Stainless	
R2108.01G	16		Ø5	10	1 to 1		30	15	7,65		4	15		Aluminium



R2110



Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

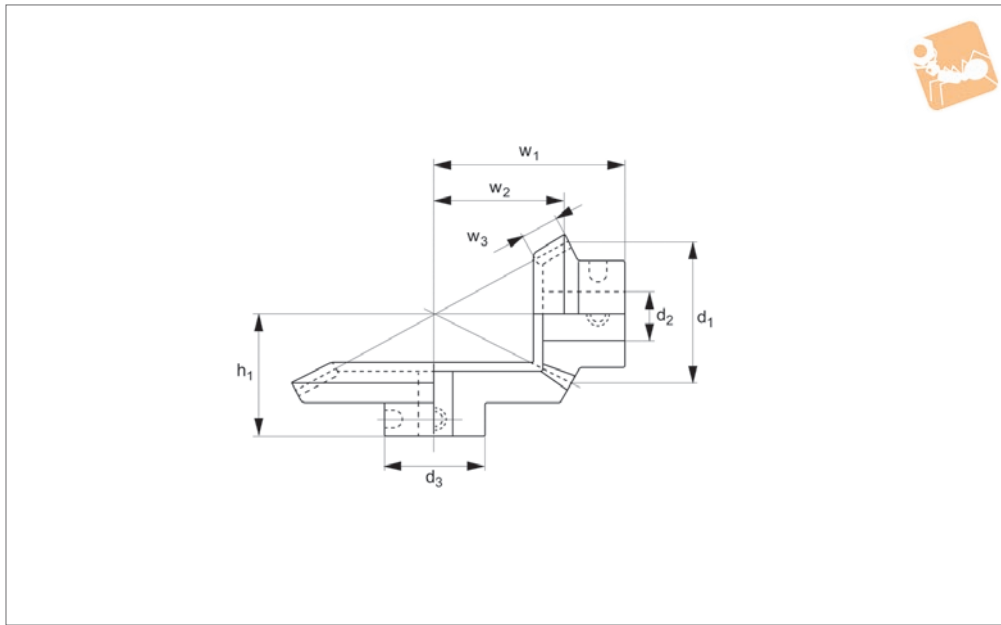
Technical Notes

20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2110.001	14,40	14,40	Ø5	10	1 to 1	36	36	15,0	6,92	6,92	4	15	Stainless	Aluminium
R2110.001S	14,40	14,40	Ø5	10	1 to 1	36	36	15,0	6,92	6,92	4	15	Stainless	Stainless
R2110.001A	14,40	14,40	Ø5	10	1 to 1	36	36	15,0	6,92	6,92	4	15	Aluminium	Aluminium
R2110.002	28,80	14,40	Ø5	10	1 to 2	36	72	22	6,97	14,16	4	15	Stainless	Aluminium
R2110.003	43,20	14,40	Ø5	10	1 to 3	36	108	29,5	6,97	21,42	4	15	Stainless	Aluminium
R2110.001P		14,40	Ø5	10	1 to 1	36		15,0		6,92	4	15	Stainless	
R2110.001G	14,40		Ø5	10	1 to 1		36	15,0	6,92		4	15		Aluminium



0,3 Module Mitre & Bevel gears stainless/aluminium



R2112

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305) or aluminium (DIN 3,1355).

Quality class DIN 7, AGMA 10.

Tips

Gears will only mesh at right angles when used as sets described in chart.

Technical Notes

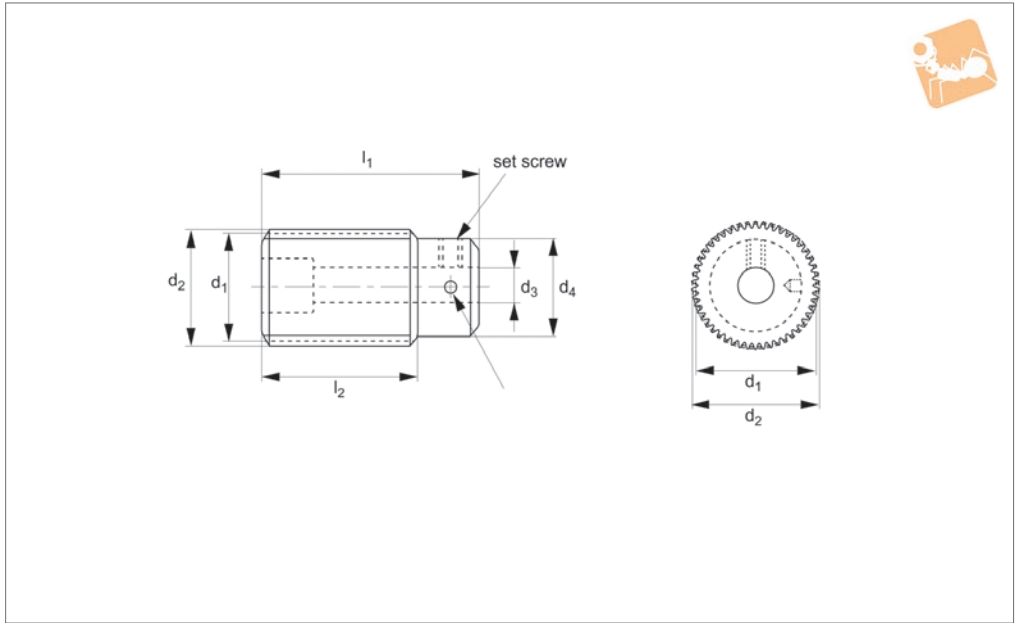
20° pressure angle.

Order No.	d ₁ (gear)	d ₁ (pinion)	d ₂ tol. H7	d ₃	Ratio	No. of teeth (pinion)	No. of teeth (gear)	w ₁	w ₂ (gear)	w ₂ (pinion)	w ₃	h ₁	Material (pinion)	Material (gear)
R2112.001	10,80	10,80	Ø3	8	1 to 1	36	36	13,0	5,19	5,19	3	13	Stainless	Aluminium
R2112.001S	10,80	10,80	Ø3	8	1 to 1	36	36	13,0	5,19	5,19	3	13	Stainless	Stainless
R2112.001A	10,80	10,80	Ø3	8	1 to 1	36	36	13,0	5,19	5,19	3	13	Aluminium	Aluminium
R2112.002	21,60	10,80	Ø3	8	1 to 2	36	72	18,5	5,23	10,62	3	13	Stainless	Aluminium
R2112.003	32,40	10,80	Ø3	8	1 to 3	36	108	24,0	5,23	16,07	3	13	Stainless	Aluminium
R2112.001P	10,80	10,80	Ø3	8	1 to 1	36	36	13,0	5,19	5,19	3	13	Stainless	Stainless
R2112.001G	10,80		Ø3	8	1 to 1		36	13,0	5,19		3	13		Aluminium





R2132



Material

Stainless steel (DIN 1,4305).

Technical Notes

Quality class DIN 7/AGMA 10.
Right hand.

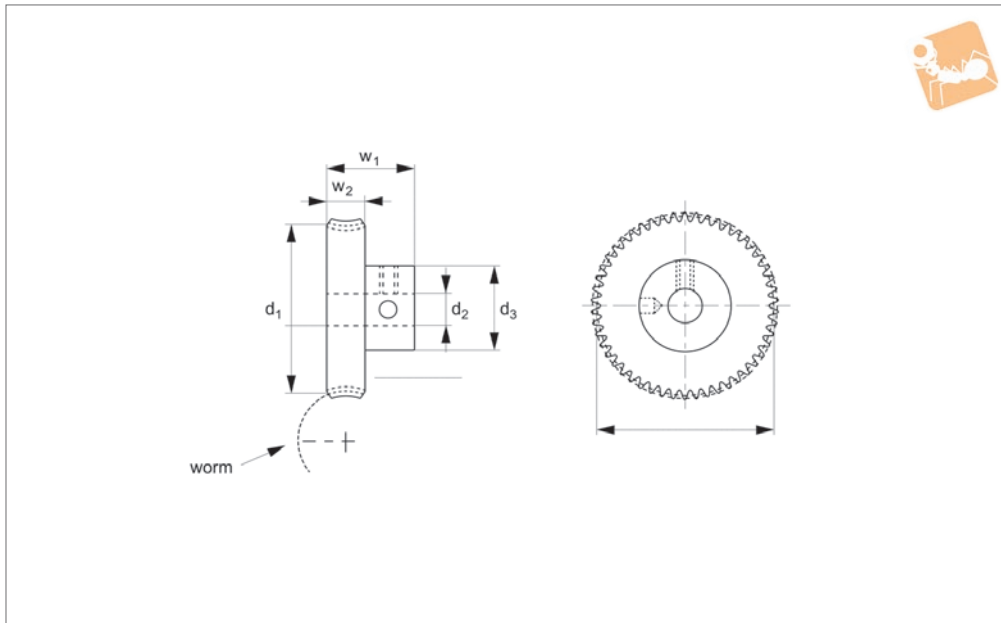
Order No.	Ø B	Thread	Lead	Lead angle	Pressure angle
WAS-7S	7	Single	4.712	5° 21'	14½°
WAS-7D	7	Double	9.425	10° 37'	14½°
WAS-7F	7	Four	18.850	20° 33'	20°
WAS-8S	8	Single	4.712	5° 21'	14½°
WAS-8D	8	Double	9.425	10° 37'	14½°
WAS-8F	8	Four	18.850	20° 33'	20°



1,0 Module Precision Worm Gears

Right Hand

Other Precision Gears



R2134

OTHER PRECISION GEARS

Material

Brass.

Right hand.

Select worm part R2136 with corresponding number of threads.

Tips

Ratio=(No. of teeth/No. of worm threads).
For larger sizes, please see the following page.

Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2134.020-10S	Single	20	10	20.00	3.142	4° 45'	14½°
R2134.030-10S	Single	30	10	30.00	3.142	4° 45'	14½°
R2134.040-10S	Single	40	10	40.00	3.142	4° 45'	14½°
R2134.050-10S	Single	50	10	50.00	3.142	4° 45'	14½°
R2134.060-10S	Single	60	10	60.00	3.142	4° 45'	14½°
R2134.072-10S	Single	72	10	72.00	3.142	4° 45'	14½°
R2134.080-10S	Single	80	10	80.00	3.142	4° 45'	14½°
R2134.096-10S	Single	96	10	96.00	3.142	4° 45'	14½°
R2134.100-10S	Single	100	10	100.00	3.142	4° 45'	14½°
R2134.020-10D	Double	20	10	20.00	6.283	9° 27'	20°
R2134.030-10D	Double	30	10	30.00	6.283	9° 27'	20°
R2134.040-10D	Double	40	10	40.00	6.283	9° 27'	20°
R2134.050-10D	Double	50	10	50.00	6.283	9° 27'	20°
R2134.060-10D	Double	60	10	60.00	6.283	9° 27'	20°
R2134.072-10D	Double	72	10	72.00	6.283	9° 27'	20°
R2134.080-10D	Double	80	10	80.00	6.283	9° 27'	20°
R2134.096-10D	Double	96	10	96.00	6.283	9° 27'	20°
R2134.100-10D	Double	100	10	100.00	6.283	9° 27'	20°
R2134.020-10F	Four	20	10	20.00	12.566	18° 26'	25°
R2134.030-10F	Four	30	10	30.00	12.566	18° 26'	25°
R2134.040-10F	Four	40	10	40.00	12.566	18° 26'	25°
R2134.050-10F	Four	50	10	50.00	12.566	18° 26'	25°
R2134.060-10F	Four	60	10	60.00	12.566	18° 26'	25°
R2134.072-10F	Four	72	10	72.00	12.566	18° 26'	25°
R2134.080-10F	Four	80	10	80.00	12.566	18° 26'	25°
R2134.096-10F	Four	96	10	96.00	12.566	18° 26'	25°
R2134.100-10F	Four	100	10	100.00	12.566	18° 26'	25°
R2134.020-12S	Single	20	12	20.00	3.142	4° 45'	14½°
R2134.030-12S	Single	30	12	30.00	3.142	4° 45'	14½°
R2134.040-12S	Single	40	12	40.00	3.142	4° 45'	14½°
R2134.050-12S	Single	50	12	50.00	3.142	4° 45'	14½°
R2134.060-12S	Single	60	12	60.00	3.142	4° 45'	14½°
R2134.072-12S	Single	72	12	72.00	3.142	4° 45'	14½°
R2134.080-12S	Single	80	12	80.00	3.142	4° 45'	14½°

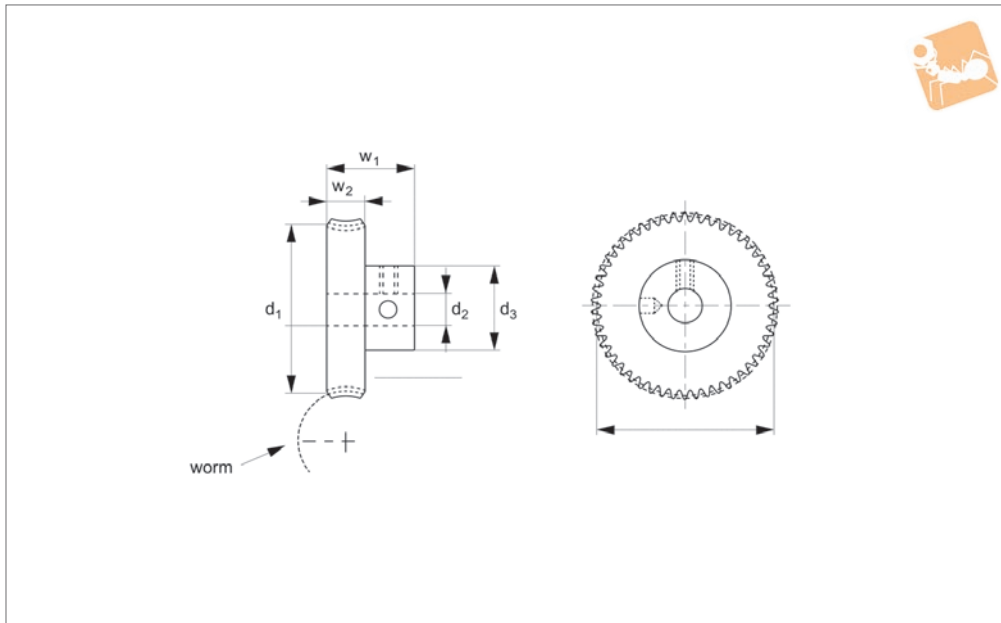


Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2134.096-12S	Single	96	12	96.00	3.142	4° 45'	14½°
R2134.100-12S	Single	100	12	100.00	3.142	4° 45'	14½°
R2134.020-12D	Double	20	12	20.00	6.283	9° 27'	20°
R2134.030-12D	Double	30	12	30.00	6.283	9° 27'	20°
R2134.040-12D	Double	40	12	40.00	6.283	9° 27'	20°
R2134.050-12D	Double	50	12	50.00	6.283	9° 27'	20°
R2134.060-12D	Double	60	12	60.00	6.283	9° 27'	20°
R2134.072-12D	Double	72	12	72.00	6.283	9° 27'	20°
R2134.080-12D	Double	80	12	80.00	6.283	9° 27'	20°
R2134.096-12D	Double	96	12	96.00	6.283	9° 27'	20°
R2134.100-12D	Double	100	12	100.00	6.283	9° 27'	20°



1,0 Module Precision Worm Gears - brass

Other Precision Gears



R2134.1

OTHER PRECISION GEARS

Material

Brass.

Right hand.

Select worm R2136 with corresponding number of threads.

Tips

Ratio=(No. of teeth/No. of worm threads).
For smaller sizes, please see the previous page.

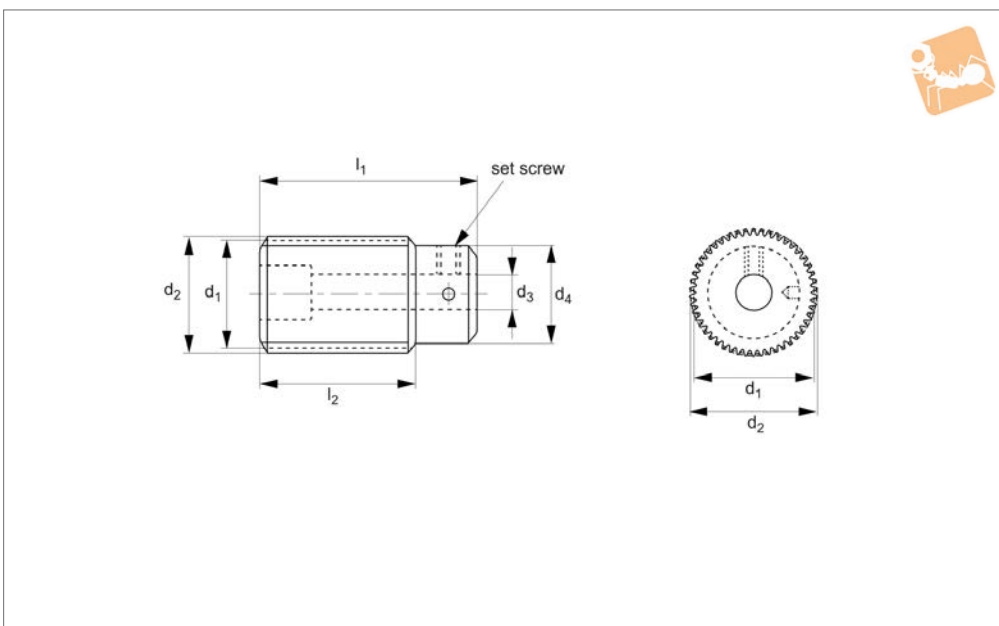
Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2134.020-12F	Four	20	12	20.00	12.566	18° 26'	25°
R2134.030-12F	Four	30	12	30.00	12.566	18° 26'	25°
R2134.040-12F	Four	40	12	40.00	12.566	18° 26'	25°
R2134.050-12F	Four	50	12	50.00	12.566	18° 26'	25°
R2134.060-12F	Four	60	12	60.00	12.566	18° 26'	25°
R2134.072-12F	Four	72	12	72.00	12.566	18° 26'	25°
R2134.080-12F	Four	80	12	80.00	12.566	18° 26'	25°
R2134.096-12F	Four	96	12	96.00	12.566	18° 26'	25°
R2134.100-12F	Four	100	12	100.00	12.566	18° 26'	25°



R2136



Material

Stainless steel (DIN 1,4305).

Technical Notes

Quality class DIN 7/AGMA 10.
Right hand.

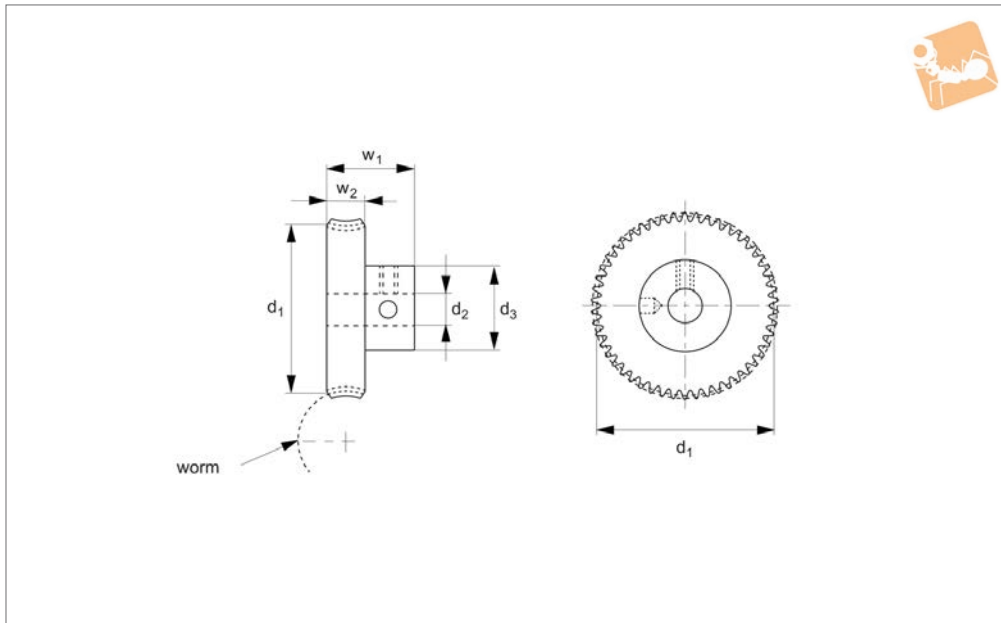
Order No.	Ø B	Starts	Lead	Lead angle	Pressure angle
R2136.07S	7	Single	3.142	4° 45'	14½°
R2136.07D	7	Double	6.283	9° 27'	20°
R2136.07F	7	Four	12.566	18° 26'	25°
R2136.08S	8	Single	3.142	4° 45'	14½°
R2136.08D	8	Double	6.283	9° 27'	20°
R2136.08F	8	Four	12.566	18° 26'	25°



0,8 Module Precision Worm Gears

brass

Other Precision Gears



R2138

OTHER PRECISION GEARS

Material

Brass.

Right hand.

Select worm part R2136 with corresponding number of threads.

Tips

Ratio=(No. of teeth/No. of worm threads).

Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2138.020S-05	Single	20	5	16.00	2.513	4° -0'	14½°
R2138.030S-05	Single	30	5	24.00	2.513	4° -0'	14½°
R2138.040S-05	Single	40	5	32.00	2.513	4° -0'	14½°
R2138.050S-05	Single	50	5	40.00	2.513	4° -0'	14A°
R2138.060S-05	Single	60	5	48.00	2.513	4° -0'	14A°
R2138.080S-05	Single	80	5	64.00	2.513	4° -0'	14A°
R2138.090S-05	Single	90	5	76.80	2.513	4° -0'	14A°
R2138.100S-05	Single	100	5	80.00	2.513	4° -0'	14A°
R2138.020D-05	Double	20	5	16.00	5.027	7° -59'	20°
R2138.030D-05	Double	30	5	24.00	5.027	7° -59'	20°
R2138.040D-05	Double	40	5	32.00	5.027	7° -59'	20°
R2138.050D-05	Double	50	5	40.00	5.027	7° -59'	20°
R2138.060D-05	Double	60	5	48.00	5.027	7° -59'	20°
R2138.080D-05	Double	80	5	64.00	5.027	7° -59'	20°
R2138.090D-05	Double	90	5	76.80	5.027	7° -59'	20°
R2138.100D-05	Double	100	5	80.00	5.027	7° -59'	20°
R2138.020F-05	Four	20	5	16.00	10.053	15° -40'	25°
R2138.030F-05	Four	30	5	24.00	10.053	15° -40'	25°
R2138.040F-05	Four	40	5	32.00	10.053	15° -40'	25°
R2138.050F-05	Four	50	5	40.00	10.053	15° -40'	25°
R2138.060F-05	Four	60	5	48.00	10.053	15° -40'	25°
R2138.080F-05	Four	80	5	64.00	10.053	15° -40'	25°
R2138.090F-05	Four	90	5	76.80	10.053	15° -40'	25°
R2138.100F-05	Four	100	5	80.00	10.053	15° -40'	25°
R2138.020S-08	Single	20	8	16.00	2.513	4° -0'	14½°
R2138.030S-08	Single	30	8	24.00	2.513	4° -0'	14½°
R2138.040S-08	Single	40	8	32.00	2.513	4° -0'	14½°
R2138.050S-08	Single	50	8	40.00	2.513	4° -0'	14A°
R2138.060S-08	Single	60	8	48.00	2.513	4° -0'	14A°
R2138.080S-08	Single	80	8	64.00	2.513	4° -0'	14A°
R2138.090S-08	Single	90	8	76.80	2.513	4° -0'	14A°
R2138.100S-08	Single	100	8	80.00	2.513	4° -0'	14A°
R2138.020D-08	Double	20	8	16.00	5.027	7° -59'	20°
R2138.030D-08	Double	30	8	24.00	5.027	7° -59'	20°

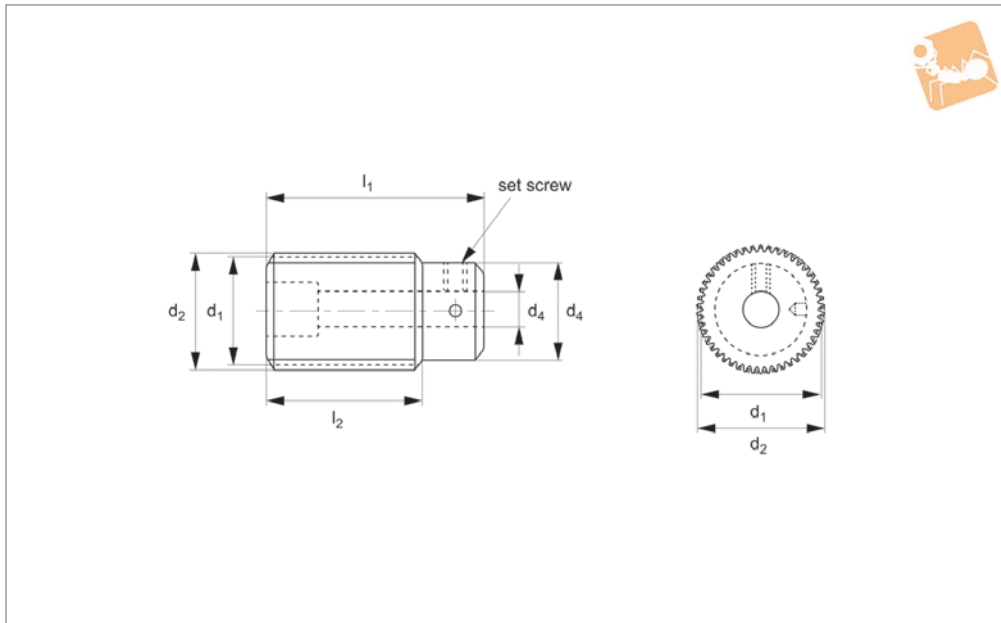


Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2138.040D-08	Double	40	8	32.00	5.027	7° -59'	20°
R2138.050D-08	Double	50	8	40.00	5.027	7° -59'	20°
R2138.060D-08	Double	60	8	48.00	5.027	7° -59'	20°
R2138.080D-08	Double	80	8	64.00	5.027	7° -59'	20°
R2138.090D-08	Double	90	8	76.80	5.027	7° -59'	20°
R2138.100D-08	Double	100	8	80.00	5.027	7° -59'	20°
R2138.020F-08	Four	20	8	16.00	10.053	15° -40'	25°
R2138.030F-08	Four	30	8	24.00	10.053	15° -40'	25°
R2138.040F-08	Four	40	8	32.00	10.053	15° -40'	25°
R2138.050F-08	Four	50	8	40.00	10.053	15° -40'	25°
R2138.060F-08	Four	60	8	48.00	10.053	15° -40'	25°
R2138.080F-08	Four	80	8	64.00	10.053	15° -40'	25°
R2138.090F-08	Four	90	8	76.80	10.053	15° -40'	25°
R2138.100F-08	Four	100	8	80.00	10.053	15° -40'	25°



0,8 Module Precision Worms

stainless steel



R2140

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305).

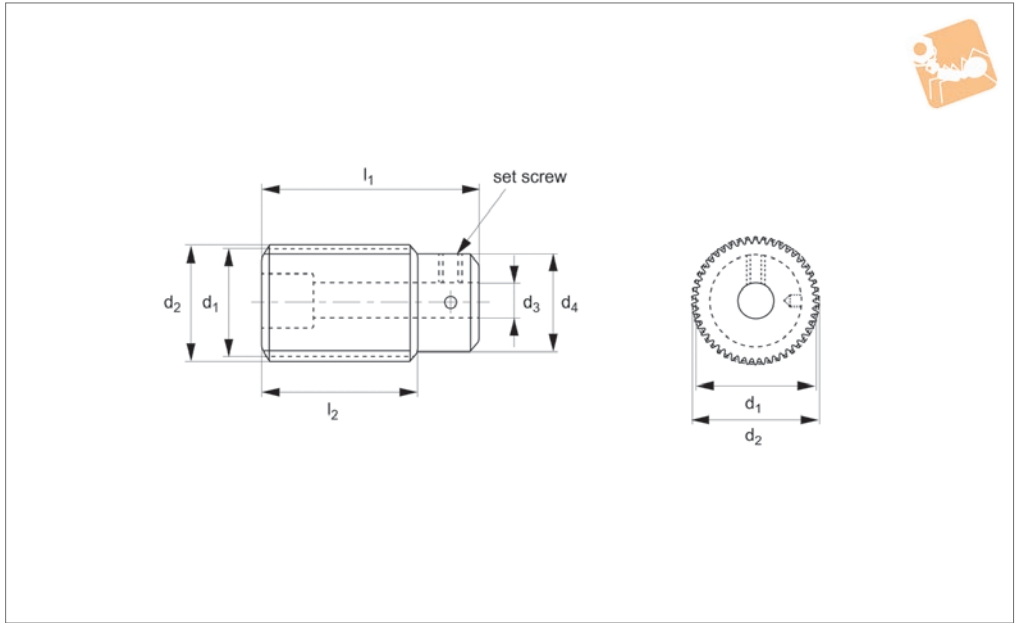
Technical Notes

Quality class DIN 7/AGMA 10.
Right hand.

Order No.	Starts	Lead	Lead angle	Pressure angle
R2140.05S	Single	2.513	4° 0'	14½°
R2140.05D	Double	5.027	7° 59'	20°
R2140.04F	Four	10.053	15° 40'	25°



R2144



Material

Stainless steel (DIN 1,4305).

Technical Notes

Quality class DIN 7/AGMA 10.
Right hand.

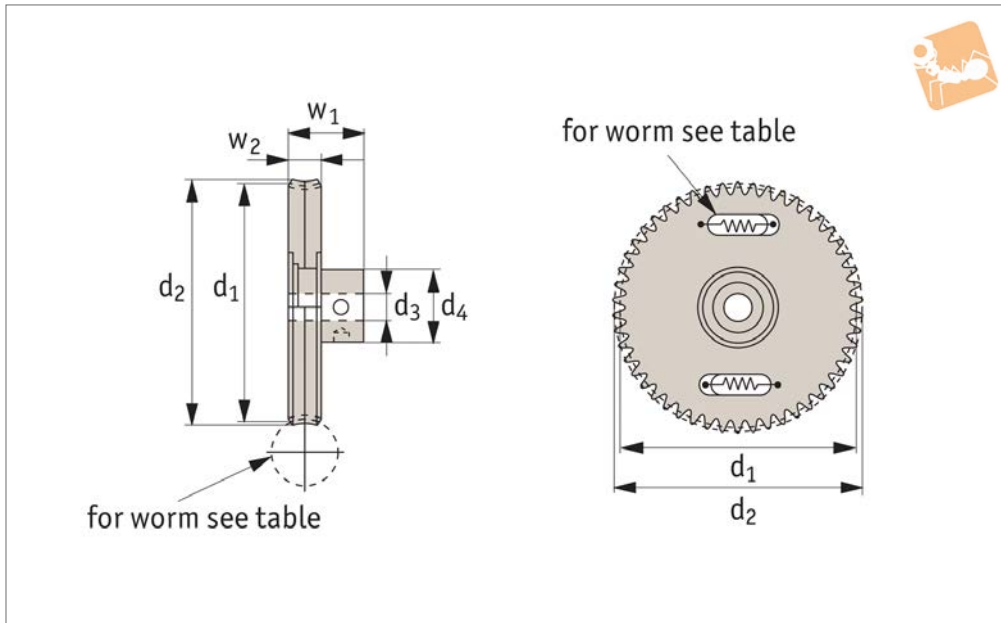
Order No.	Starts	l_1	l_2	d_1	d_2	d_3 tol. H7	d_4	Lead	Lead angle	Pressure angle
R2144.3S	Single	19	14	9	10	3	8	1.571	3° 10'	14 1/2°
R2144.3D	Double	19	14	9	10	3	8	3.142	6° 20'	20°
R2144.3F	Four	19	14	9	10	3	8	6.283	12° 31'	25°
R2144.5S	Single	19	14	9	10	5	8	1.571	3° 10'	14 1/2°
R2144.5D	Double	19	14	9	10	5	8	3.142	6° 20'	20°
R2144.5F	Four	19	14	9	10	5	8	6.283	12° 31'	25°



0,5 Module Anti-backlash Worm Gears

brass

Other Precision Gears



R2147

OTHER PRECISION GEARS

Material

Brass.

Right hand.

Select worm with corresponding number of threads - see part no. R2144.

Also available with clamp style hub.

Tips

Ratio=(No. of teeth/No. of worm threads).
For larger sizes, please see following page.

Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2147.040S-05	Single	40	5	20.00	1.571	3° 10'	14A°
R2147.050S-05	Single	50	5	25.00	1.571	3° 10'	14A°
R2147.060S-05	Single	60	5	30.00	1.571	3° 10'	14A°
R2147.070S-05	Single	70	5	35.00	1.571	3° 10'	14A°
R2147.080S-05	Single	80	5	40.00	1.571	3° 10'	14A°
R2147.090S-05	Single	90	5	45.00	1.571	3° 10'	14A°
R2147.100S-05	Single	100	5	50.00	1.571	3° 10'	14A°
R2147.120S-05	Single	120	5	60.00	1.571	3° 10'	14A°
R2147.180S-05	Single	180	5	90.00	1.571	3° 10'	14A°
R2147.040D-05	Double	40	5	20.00	3.142	6° 20'	20°
R2147.050D-05	Double	50	5	25.00	3.142	6° 20'	20°
R2147.060D-05	Double	60	5	30.00	3.142	6° 20'	20°
R2147.120D-05	Double	120	5	60.00	3.142	6° 20'	20°
R2147.070D-05	Double	70	5	35.00	3.142	6° 20'	20°
R2147.080D-05	Double	80	5	40.00	3.142	6° 20'	20°
R2147.090D-05	Double	90	5	45.00	3.142	6° 20'	20°
R2147.100D-05	Double	100	5	50.00	3.142	6° 20'	20°
R2147.180D-05	Double	180	5	90.00	3.142	6° 20'	20°
R2147.040F-05	Four	40	5	20.00	6.283	12° 31'	25°
R2147.050F-05	Four	50	5	25.00	6.283	12° 31'	25°
R2147.060F-05	Four	60	5	30.00	6.283	12° 31'	25°
R2147.070F-05	Four	70	5	35.00	6.283	12° 31'	25°
R2147.080F-05	Four	80	5	40.00	6.283	12° 31'	25°
R2147.090F-05	Four	90	5	45.00	6.283	12° 31'	25°
R2147.100F-05	Four	100	5	50.00	6.283	12° 31'	25°
R2147.120F-05	Four	120	5	60.00	6.283	12° 31'	25°
R2147.180F-05	Four	180	5	90.00	6.283	12° 31'	25°
R2147.040S-08	Single	40	8	20.00	1.571	3° 10'	14A°
R2147.050S-08	Single	50	8	25.00	1.571	3° 10'	14A°
R2147.060S-08	Single	60	8	30.00	1.571	3° 10'	14A°
R2147.070S-08	Single	70	8	35.00	1.571	3° 10'	14A°
R2147.080S-08	Single	80	8	40.00	1.571	3° 10'	14A°
R2147.090S-08	Single	90	8	45.00	1.571	3° 10'	14A°
R2147.100S-08	Single	100	8	50.00	1.571	3° 10'	14A°



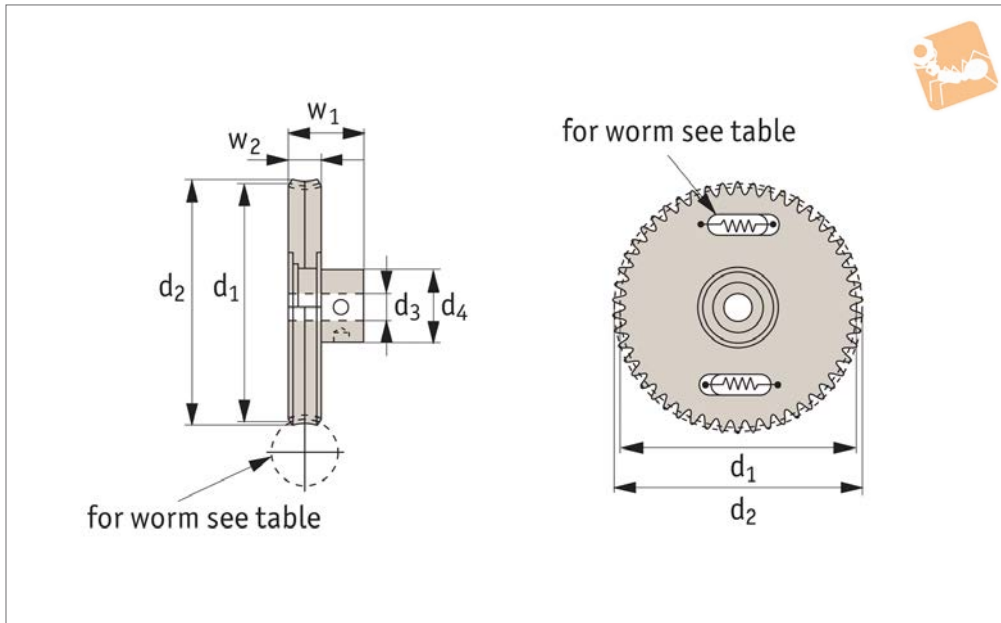
Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2147.120S-08	Single	120	8	60.00	1.571	3° 10'	14A°
R2147.180S-08	Single	180	8	90.00	1.571	3° 10'	14A°



0,5 Module Anti-backlash Worm Gears

brass

Other Precision Gears



R2147.1

OTHER PRECISION GEARS

Material

Brass.

Right hand.

Select worm with corresponding number of threads - see part no. R2144.

Also available with clamp style hub.

Tips

Ratio=(No. of teeth/No. of worm threads).
For smaller sizes, please see previous page.

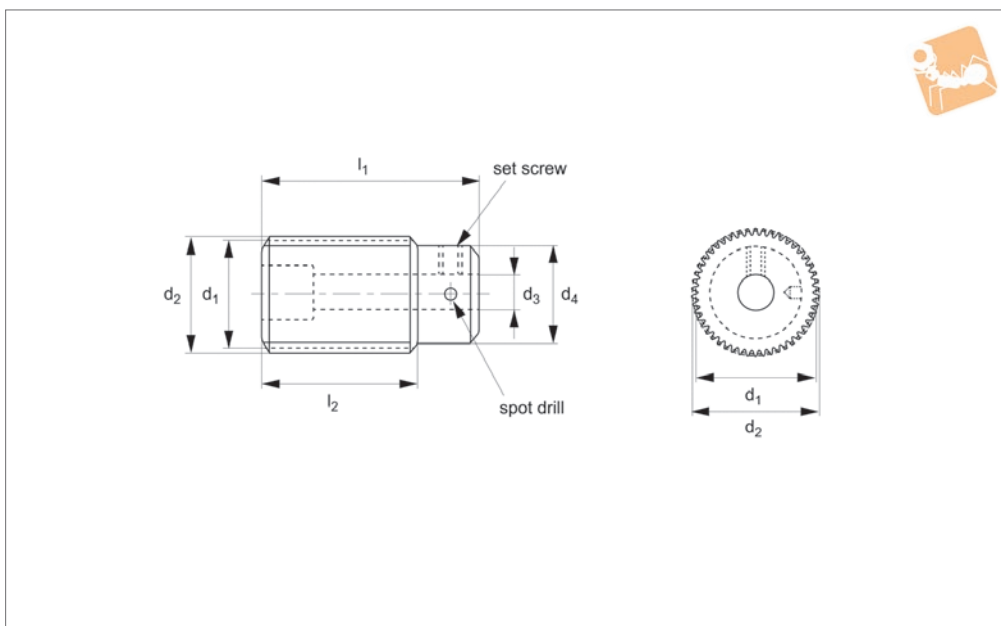
Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2147.D040-05	Double	40	5	20.00	3.142	6° 20'	20°
R2147.D050-05	Double	50	5	25.00	3.142	6° 20'	20°
R2147.D060-05	Double	60	5	30.00	3.142	6° 20'	20°
R2147.D070-05	Double	70	5	35.00	3.142	6° 20'	20°
R2147.D080-05	Double	80	5	40.00	3.142	6° 20'	20°
R2147.D090-05	Double	90	5	45.00	3.142	6° 20'	20°
R2147.D100-05	Double	100	5	50.00	3.142	6° 20'	20°
R2147.D120-05	Double	120	5	60.00	3.142	6° 20'	20°
R2147.D180-05	Double	180	5	90.00	3.142	6° 20'	20°
R2147.F040-05	Four	40	5	20.00	6.283	12° 31'	25°
R2147.F050-05	Four	50	5	25.00	6.283	12° 31'	25°
R2147.F060-05	Four	60	5	30.00	6.283	12° 31'	25°
R2147.F070-05	Four	70	5	35.00	6.283	12° 31'	25°
R2147.F080-05	Four	80	5	40.00	6.283	12° 31'	25°
R2147.F090-05	Four	90	5	45.00	6.283	12° 31'	25°
R2147.F100-05	Four	100	5	50.00	6.283	12° 31'	25°
R2147.F120-05	Four	120	5	60.00	6.283	12° 31'	25°
R2147.F180-05	Four	180	5	90.00	6.283	12° 31'	25°



R2149



Material
Stainless steel (AISI 303, 1,4305).

Right hand.

Technical Notes
Quality class DIN 7/AGMA 10.

Tips
Ratio = No. of teeth/No. of worm threads.

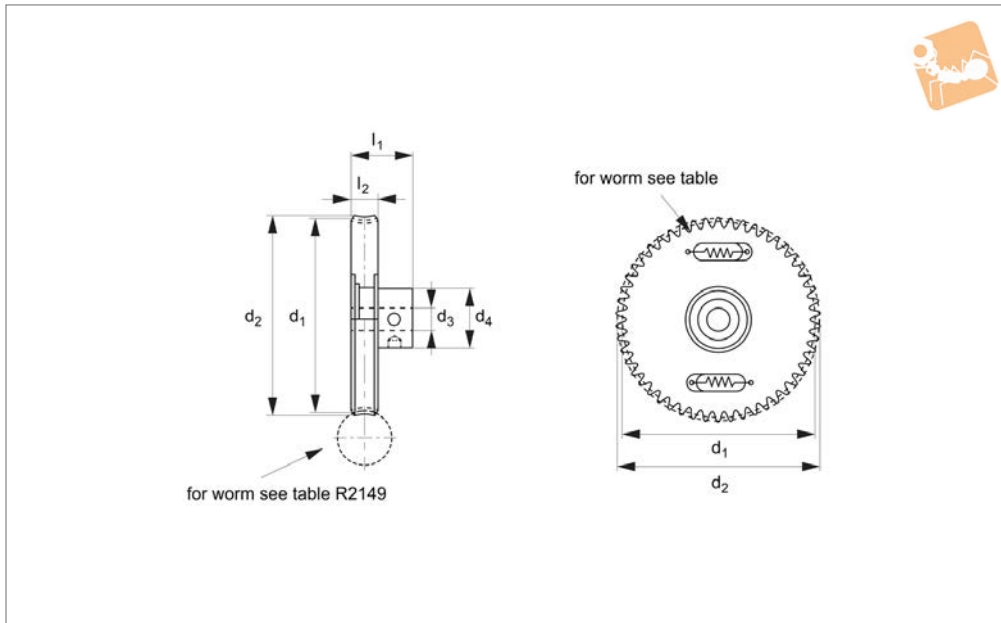
Order No.	l_1	l_2	d_1	d_2 +0.00 -0.11	d_3 tol. H7	d_4	Thread	Lead	Lead angle	Pressure angle
R2149.S03	25	19	13.2	14	3	8	single	1.257	1° 44'	14-1/2°
R2149.D03	25	19	13.2	14	3	8	double	2.513	3° 28'	14-1/2°
R2149.F03	25	19	13.2	14	3	8	four	5.027	6° 54'	14-1/2°
R2149.S05	25	19	13.2	14	5	10	single	1.257	1° 44'	14-1/2°
R2149.D05	25	19	13.2	14	5	10	double	2.513	3° 28'	14-1/2°
R2149.F05	25	19	13.2	14	5	10	four	5.027	6° 54'	14-1/2°
R2149.S07	25	19	13.2	14	7	11	single	1.257	1° 44'	14-1/2°
R2149.D07	25	19	13.2	14	7	11	double	2.513	3° 28'	14-1/2°
R2149.F07	25	19	13.2	14	7	11	four	5.027	6° 54'	14-1/2°



0,4 Module Anti-backlash Worm Gears

brass

Other Precision Gears



R2150

OTHER PRECISION GEARS

Material

Gears: Brass

Hubs: Stainless steel (DIN 1,4305).

Right hand.

Select worm with corresponding number of threads - see part no. R2144.

Also available with clamp style hub.

Tips

Ratio=(No. of teeth/No. of worm threads).
For larger sizes, please see following page.

Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2150.S050-05	Single	50	5	20.00	1.257	1° 44'	14 1/2°
R2150.S060-05	Single	60	5	24.00	1.257	1° 44'	14 1/2°
R2150.S070-05	Single	70	5	28.00	1.257	1° 44'	14 1/2°
R2150.S080-05	Single	80	5	32.00	1.257	1° 44'	14 1/2°
R2150.S090-05	Single	90	5	36.00	1.257	1° 44'	14 1/2°
R2150.D050-05	Double	50	5	20.00	2.513	3° 28'	14 1/2°
R2150.F050-05	Four	50	5	20.00	5.027	6° 54'	14 1/2°
R2150.S100-05	Single	100	5	40.00	1.257	1° 44'	14 1/2°
R2150.S110-05	Single	110	5	44.00	1.257	1° 44'	14 1/2°
R2150.S120-05	Single	120	5	48.00	1.257	1° 44'	14 1/2°
R2150.S180-05	Single	180	5	72.00	1.257	1° 44'	14 1/2°
R2150.D060-05	Double	60	5	24.00	2.513	3° 28'	14 1/2°
R2150.D070-05	Double	70	5	28.00	2.513	3° 28'	14 1/2°
R2150.D080-05	Double	80	5	32.00	2.513	3° 28'	14 1/2°
R2150.D090-05	Double	90	5	36.00	2.513	3° 28'	14 1/2°
R2150.D100-05	Double	100	5	40.00	2.513	3° 28'	14 1/2°
R2150.D110-05	Double	110	5	44.00	2.513	3° 28'	14 1/2°
R2150.D120-05	Double	120	5	48.00	2.513	3° 28'	14 1/2°
R2150.D180-05	Double	180	5	72.00	2.513	3° 28'	14 1/2°
R2150.F060-05	Four	60	5	24.00	5.027	6° 54'	14 1/2°
R2150.F070-05	Four	70	5	28.00	5.027	6° 54'	14 1/2°
R2150.F080-05	Four	80	5	32.00	5.027	6° 54'	14 1/2°
R2150.F090-05	Four	90	5	36.00	5.027	6° 54'	14 1/2°
R2150.F100-05	Four	100	5	40.00	5.027	6° 54'	14 1/2°
R2150.F110-05	Four	110	5	44.00	5.027	6° 54'	14 1/2°
R2150.F120-05	Four	120	5	48.00	5.027	6° 54'	14 1/2°
R2150.F180-05	Four	180	5	72.00	5.027	6° 54'	14 1/2°
R2150.S050-08	Single	50	8	20.00	1.257	1° 44'	14 1/2°
R2150.S060-08	Single	60	8	24.00	1.257	1° 44'	14 1/2°
R2150.S070-08	Single	70	8	28.00	1.257	1° 44'	14 1/2°
R2150.S080-08	Single	80	8	32.00	1.257	1° 44'	14 1/2°
R2150.S090-08	Single	90	8	36.00	1.257	1° 44'	14 1/2°
R2150.S100-08	Single	100	8	40.00	1.257	1° 44'	14 1/2°



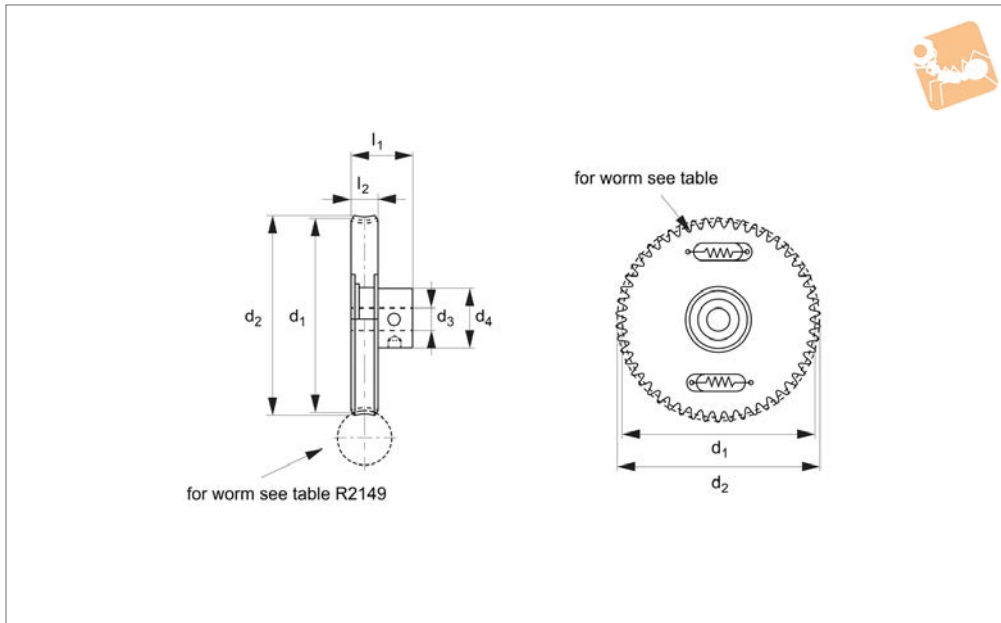
Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2150.S110-08	Single	110	8	44.00	1.257	1° 44'	14 1/2°
R2150.S120-08	Single	120	8	48.00	1.257	1° 44'	14 1/2°
R2150.S180-08	Single	180	8	72.00	1.257	1° 44'	14 1/2°



0,4 Module Anti-backlash Worm Gears

brass

Other Precision Gears



R2150.1

OTHER PRECISION GEARS

Material

Gears: Brass
Hubs: Stainless steel (DIN 1,4305).

Right hand.

Select worm with corresponding number of threads - see part no. R2144.
Also available with clamp style hub.

Tips

Ratio=(No. of teeth/No. of worm threads).
For smaller sizes, please see previous page.

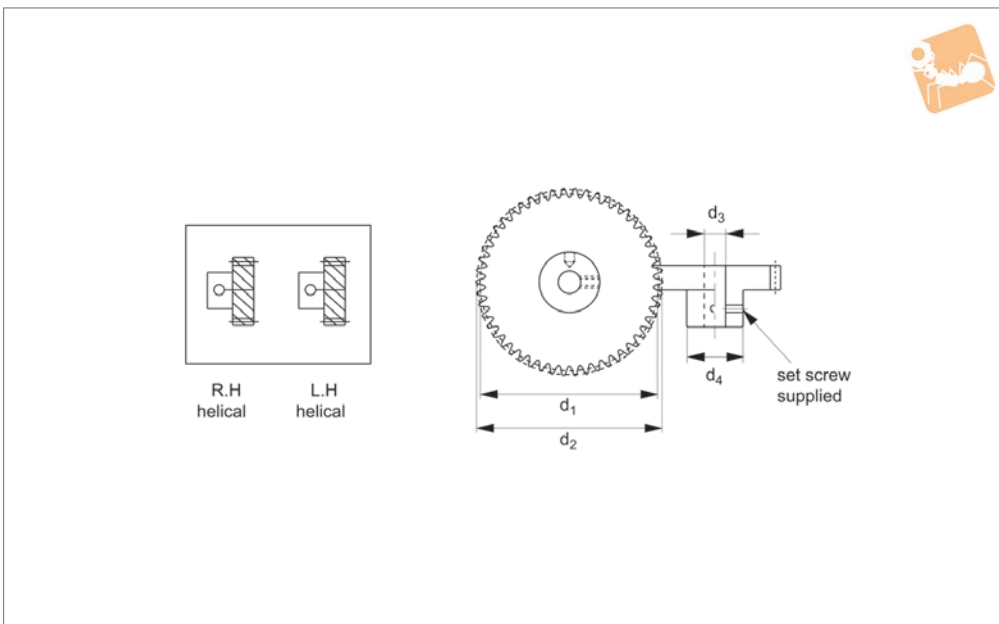
Technical Notes

Quality class DIN 7/AGMA 10.

Order No.	Starts	No. of teeth	Bore dia.	Pitch dia. P.D.	Circular pitch	Helix angle	Pressure angle
R2150.D050-08	Double	50	8	20.00	2.513	3° 28'	14 1/2°
R2150.D060-08	Double	60	8	24.00	2.513	3° 28'	14 1/2°
R2150.D070-08	Double	70	8	28.00	2.513	3° 28'	14 1/2°
R2150.D080-08	Double	80	8	32.00	2.513	3° 28'	14 1/2°
R2150.D090-08	Double	90	8	36.00	2.513	3° 28'	14 1/2°
R2150.D100-08	Double	100	8	40.00	2.513	3° 28'	14 1/2°
R2150.D110-08	Double	110	8	44.00	2.513	3° 28'	14 1/2°
R2150.D120-08	Double	120	8	48.00	2.513	3° 28'	14 1/2°
R2150.D180-08	Double	180	8	72.00	2.513	3° 28'	14 1/2°
R2150.F050-08	Four	50	8	20.00	5.027	6° 54'	14 1/2°
R2150.F060-08	Four	60	8	24.00	5.027	6° 54'	14 1/2°
R2150.F070-08	Four	70	8	28.00	5.027	6° 54'	14 1/2°
R2150.F080-08	Four	80	8	32.00	5.027	6° 54'	14 1/2°
R2150.F090-08	Four	90	8	36.00	5.027	6° 54'	14 1/2°
R2150.F100-08	Four	100	8	40.00	5.027	6° 54'	14 1/2°
R2150.F110-08	Four	110	8	44.00	5.027	6° 54'	14 1/2°
R2150.F120-08	Four	120	8	48.00	5.027	6° 54'	14 1/2°
R2150.F180-08	Four	180	8	72.00	5.027	6° 54'	14 1/2°



R2152



Material
Stainless steel (DIN 1,4305).

20° pressure angle.
Quality class DIN 8, AGMA 9.

with same helical direction.
For parallel transmission use right and left helix.

Technical Notes
45° helix angle.

Tips
For right angle transmission use two gears

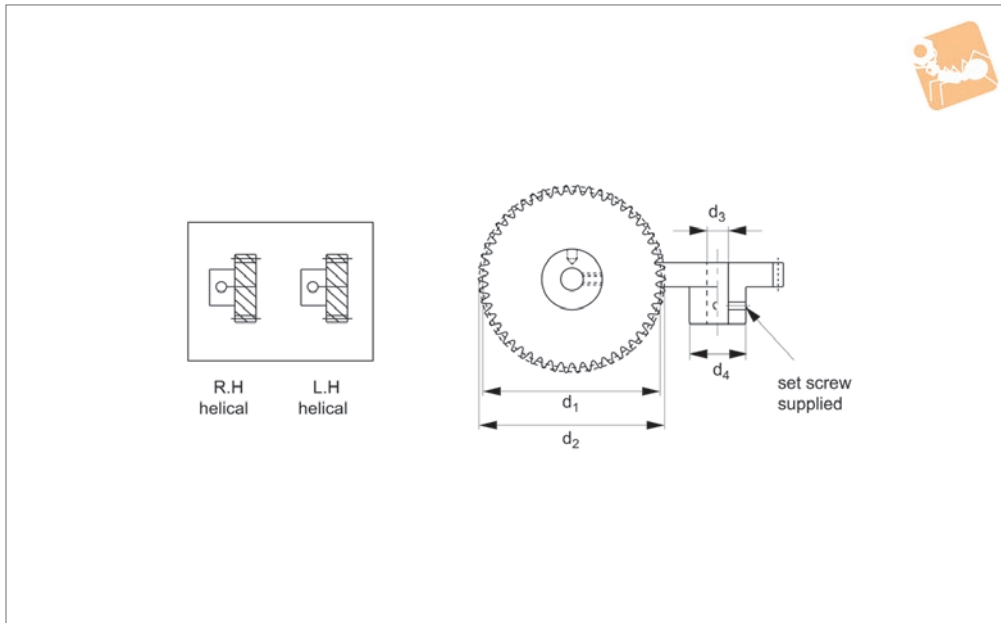
Order No.	Hand	No. of teeth	Pitch dia. P.D.	O.D. dia.
R2152.R012	Right	12	25.46	28.46
R2152.R016	Right	16	33.94	36.94
R2152.R020	Right	20	42.43	45.43
R2152.L012	Left	12	25.46	28.46
R2152.L016	Left	16	33.94	36.94
R2152.L020	Left	20	42.43	45.43
R2152.R024	Right	24	50.91	53.91
R2152.L024	Left	24	50.91	53.91
R2152.R032	Right	32	67.88	70.88
R2152.R040	Right	40	84.85	87.85
R2152.R048	Right	48	101.82	104.82
R2152.L032	Left	32	67.88	70.88
R2152.L040	Left	40	84.85	87.85
R2152.L048	Left	48	101.82	104.82



1,25 Module Helical Gears

stainless steel, pin hub

Other Precision
Gears



R2154

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305).

20° pressure angle.

Quality class DIN 8, AGMA 9.

with same helical direction.

For parallel transmission use right and left helix.

Technical Notes

45° helix angle.

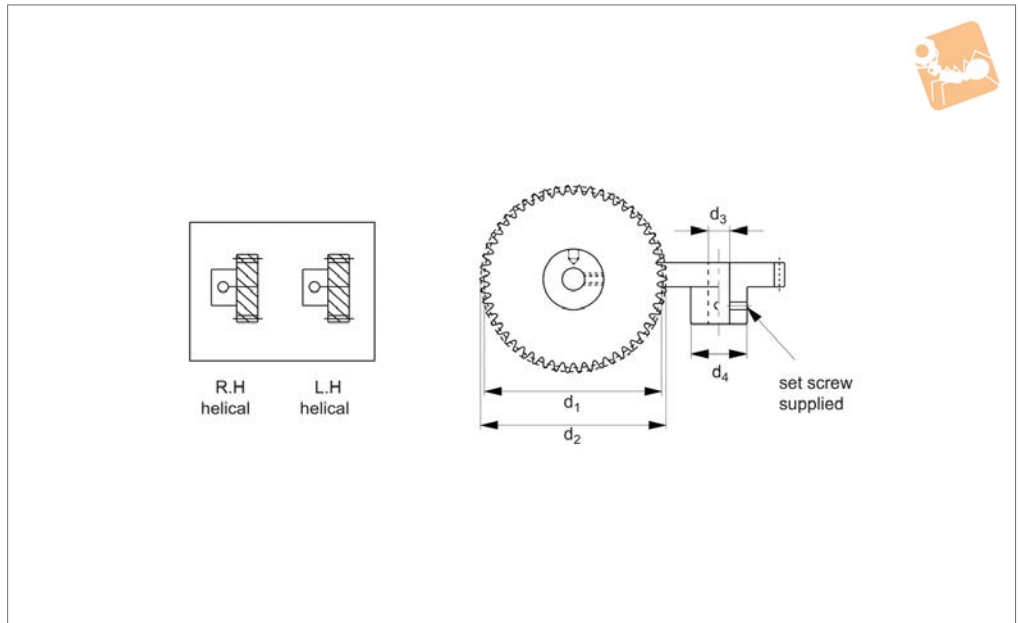
Tips

For right angle transmission use two gears

Order No.	Hand	No. of teeth	Pitch dia. P.D.	O.D. dia.
R2154.R010	Right	10	17.68	20.18
R2154.R015	Right	15	26.52	29.02
R2154.R020	Right	20	35.36	37.86
R2154.L010	Left	10	17.68	20.18
R2154.L015	Left	15	26.52	29.02
R2154.L020	Left	20	35.36	37.86
R2154.R025	Right	25	44.19	46.69
R2154.L025	Left	25	44.19	46.69
R2154.R030	Right	30	53.03	55.53
R2154.R040	Right	40	70.71	73.21
R2154.R050	Right	50	88.39	90.89
R2154.R060	Right	60	106.07	108.57
R2154.L030	Left	30	53.03	55.53
R2154.L040	Left	40	70.71	73.21
R2154.L050	Left	50	88.39	90.89
R2154.L060	Left	60	106.07	108.57



R2156



Material

Stainless steel (DIN 1,4305), or aluminium (DIN 3,1355).

20° pressure angle.

Quality class DIN 7, AGMA 10.

transmission use right and left helix.

Technical Notes

45° helix angle.

Tips

For right angle transmission use two gears with same helical direction. For parallel

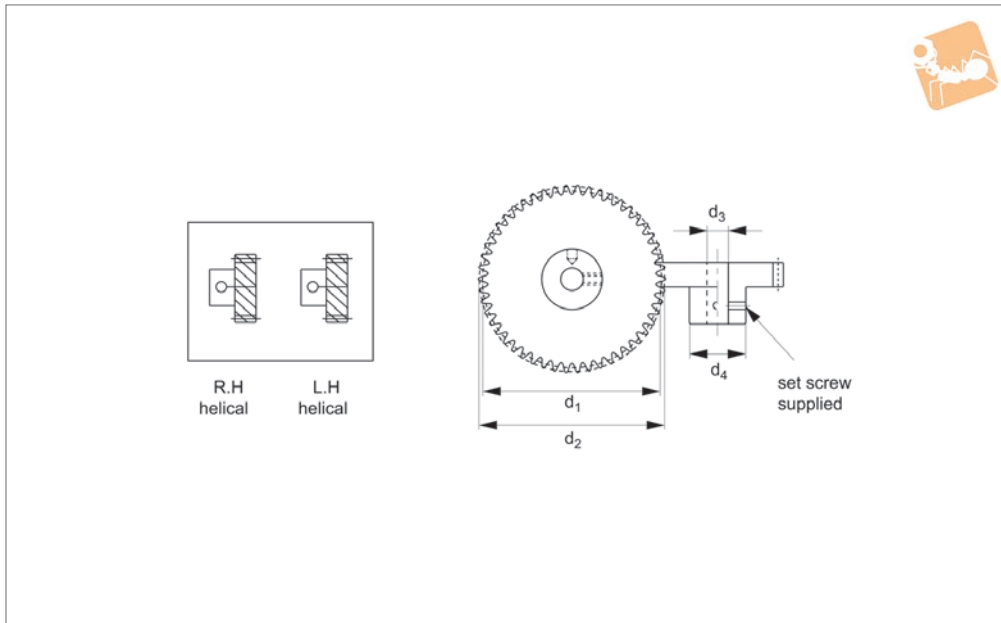
Order No.	Hand	No. of teeth	Material	Pitch dia. P.D.	O.D. dia.
R2156.R012	Right	12	Stainless	16.94	18.97
R2156.R018	Right	18	Stainless	25.45	27.45
R2156.R024	Right	24	Stainless	33.94	35.94
R2156.R030	Right	30	Stainless	42.42	44.42
R2156.R036	Right	36	Stainless	50.91	52.91
R2156.R048	Right	48	Stainless	67.88	69.88
R2156.R060	Right	60	Stainless	84.85	86.85
R2156.R072	Right	72	Stainless	101.82	103.82
R2156.R512	Right	12	Aluminium	16.94	18.97
R2156.R518	Right	18	Aluminium	25.45	27.45
R2156.R524	Right	24	Aluminium	33.94	35.94
R2156.R530	Right	30	Aluminium	42.42	44.42
R2156.R536	Right	36	Aluminium	50.91	52.91
R2156.R548	Right	48	Aluminium	67.88	69.88
R2156.R560	Right	60	Aluminium	84.85	86.85
R2156.R572	Right	72	Aluminium	101.82	103.82
R2156.L012	Left	12	Stainless	16.94	18.97
R2156.L018	Left	18	Stainless	25.45	27.45
R2156.L024	Left	24	Stainless	33.94	35.94
R2156.L030	Left	30	Stainless	42.42	44.42
R2156.L036	Left	36	Stainless	50.91	52.91
R2156.L048	Left	48	Stainless	67.88	69.88
R2156.L060	Left	60	Stainless	84.85	86.85
R2156.L072	Left	72	Stainless	101.82	103.82
R2156.L512	Left	12	Aluminium	16.94	18.97
R2156.L518	Left	18	Aluminium	25.45	27.45
R2156.L524	Left	24	Aluminium	33.94	35.94
R2156.L530	Left	30	Aluminium	42.42	44.42
R2156.L536	Left	36	Aluminium	50.91	52.91
R2156.L548	Left	48	Aluminium	67.88	69.88
R2156.L560	Left	60	Aluminium	84.85	86.85
R2156.L572	Left	72	Aluminium	101.82	103.82



0,8 Module Helical Gears

stainless steel or aluminium, pin hub

Other Precision Gears



R2158

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4305), or aluminium (DIN 3,1355).

20° pressure angle.
Quality class DIN 7, AGMA 10.

For parallel transmission use right and left helix.

Technical Notes

45° helix angle.

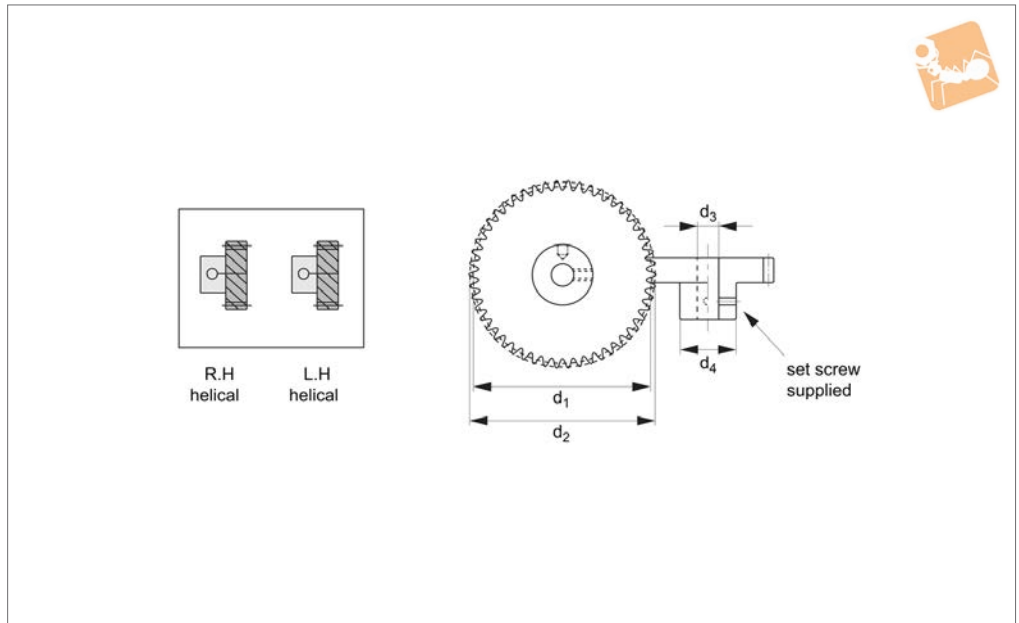
Tips

For right angle transmission use two gears with same helical direction.

Order No.	Hand	No. of teeth	Material	Pitch dia. P.D.	O.D. dia.
R2158.R016	Right	16	Stainless	18.10	19.70
R2158.R024	Right	24	Stainless	27.15	28.75
R2158.R032	Right	32	Stainless	36.20	37.80
R2158.R040	Right	40	Stainless	45.25	46.85
R2158.R048	Right	48	Stainless	54.30	55.90
R2158.R064	Right	64	Stainless	72.40	74.00
R2158.R080	Right	80	Stainless	90.50	92.10
R2158.R096	Right	96	Stainless	108.61	110.21
R2158.R516	Right	16	Aluminium	18.10	19.70
R2158.R524	Right	24	Aluminium	27.15	28.75
R2158.R532	Right	32	Aluminium	36.20	37.80
R2158.R540	Right	40	Aluminium	45.25	46.85
R2158.R548	Right	48	Aluminium	54.30	55.90
R2158.R564	Right	64	Aluminium	72.40	74.00
R2158.R580	Right	80	Aluminium	90.50	92.10
R2158.R596	Right	96	Aluminium	108.61	110.21
R2158.L016	Left	16	Stainless	18.10	19.70
R2158.L024	Left	24	Stainless	27.15	28.75
R2158.L032	Left	32	Stainless	36.20	37.80
R2158.L040	Left	40	Stainless	45.25	46.85
R2158.L048	Left	48	Stainless	54.30	55.90
R2158.L516	Left	16	Aluminium	18.10	19.70
R2158.L064	Left	64	Stainless	72.40	74.00
R2158.L080	Left	80	Stainless	90.50	92.10
R2158.L096	Left	96	Stainless	108.61	110.21
R2158.L524	Left	24	Aluminium	27.15	28.75
R2158.L532	Left	32	Aluminium	36.20	37.80
R2158.L540	Left	40	Aluminium	45.25	46.85
R2158.L548	Left	48	Aluminium	54.30	55.90
R2158.L564	Left	64	Aluminium	72.40	74.00
R2158.L580	Left	80	Aluminium	90.50	92.10
R2158.L596	Left	96	Aluminium	108.61	110.21



R2160



Material
Stainless steel (DIN 1,4305).

Technical Notes
45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips
For right angle transmission use two gears with same helical direction. For parallel transmission use right and left helix.

Important Notes
For 0,5 module left hand helical gears see R2161.

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2160.R020-05	Right	20	Stainless	5	14.14	15.14
R2160.R024-05	Right	24	Stainless	5	16.97	17.97
R2160.R025-05	Right	25	Stainless	5	17.68	18.68
R2160.R030-05	Right	30	Stainless	5	21.21	22.21
R2160.R035-05	Right	35	Stainless	5	24.75	25.75
R2160.R036-05	Right	36	Stainless	5	25.46	26.46
R2160.R040-05	Right	40	Stainless	5	28.28	29.28
R2160.R045-05	Right	45	Stainless	5	31.82	32.82
R2160.R048-05	Right	48	Stainless	5	33.94	34.94
R2160.R050-05	Right	50	Stainless	5	35.36	36.36
R2160.R060-05	Right	60	Stainless	5	42.43	43.43
R2160.R070-05	Right	70	Stainless	5	49.50	50.50
R2160.R072-05	Right	72	Stainless	5	50.91	51.91
R2160.R080-05	Right	80	Stainless	5	56.57	57.57
R2160.R090-05	Right	90	Stainless	5	63.64	64.64
R2160.R096-05	Right	96	Stainless	5	67.88	68.88
R2160.R100-05	Right	100	Stainless	5	70.71	71.71
R2160.R120-05	Right	120	Stainless	5	84.85	85.85
R2160.R144-05	Right	144	Stainless	5	101.82	102.82
R2160.R020-08	Right	20	Stainless	8	14.14	15.14
R2160.R024-08	Right	24	Stainless	8	16.97	17.97
R2160.R025-08	Right	25	Stainless	8	17.68	18.68
R2160.R030-08	Right	30	Stainless	8	21.21	22.21
R2160.R035-08	Right	35	Stainless	8	24.75	25.27
R2160.R036-08	Right	36	Stainless	8	25.46	26.46
R2160.R040-08	Right	40	Stainless	8	28.28	29.28
R2160.R045-08	Right	45	Stainless	8	31.82	32.82
R2160.R048-08	Right	48	Stainless	8	33.94	34.94
R2160.R050-08	Right	50	Stainless	8	35.36	36.36
R2160.R060-08	Right	60	Stainless	8	42.43	43.43
R2160.R070-08	Right	70	Stainless	8	49.50	50.50
R2160.R072-08	Right	72	Stainless	8	50.91	51.91
R2160.R080-08	Right	80	Stainless	8	56.57	57.57



0,5 Module Right Hand Helical Gears stainless steel pin hub

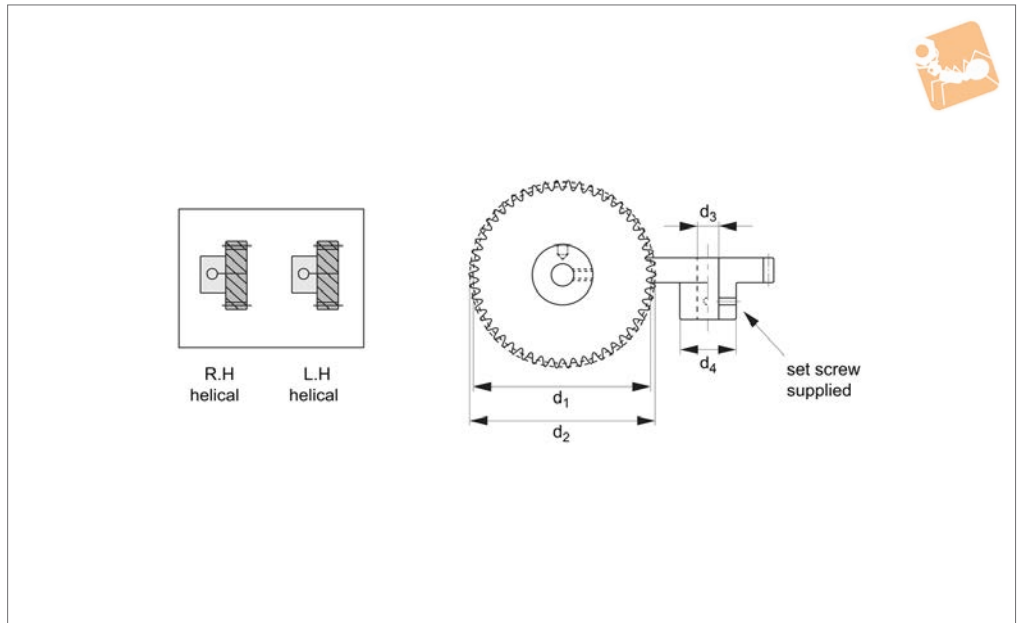
Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2160.R090-08	Right	90	Stainless	8	63.64	64.64
R2160.R096-08	Right	96	Stainless	8	67.88	68.88
R2160.R100-08	Right	100	Stainless	8	70.71	71.71
R2160.R120-08	Right	120	Stainless	8	84.85	85.85
R2160.R144-08	Right	144	Stainless	8	101.82	102.82

OTHER PRECISION GEARS



R2160.1



Material

Aluminium (DIN 3,1355).

Technical Notes

45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips

For right angle transmission use two gears with same helical direction. For parallel transmission use right and left helix.

Important Notes

For 0,5 module left hand helical gears see R2161.

Order No.	Hand	No. of teeth	Material	Bore dia.	Outside	Pitch
R2160.R520-05	Right	20	5	Aluminium	15.14	14.14
R2160.R524-05	Right	24	5	Aluminium	17.97	16.97
R2160.R525-05	Right	25	5	Aluminium	18.68	17.68
R2160.R530-05	Right	30	5	Aluminium	22.21	21.21
R2160.R535-05	Right	35	5	Aluminium	25.75	24.75
R2160.R536-05	Right	36	5	Aluminium	26.46	25.46
R2160.R540-05	Right	40	5	Aluminium	29.28	28.28
R2160.R545-05	Right	45	5	Aluminium	32.82	31.82
R2160.R548-05	Right	48	5	Aluminium	34.94	33.94
R2160.R550-05	Right	50	5	Aluminium	36.36	35.36
R2160.R560-05	Right	60	5	Aluminium	43.43	42.43
R2160.R570-05	Right	70	5	Aluminium	50.50	49.50
R2160.R572-05	Right	72	5	Aluminium	51.91	50.91
R2160.R580-05	Right	80	5	Aluminium	57.57	56.57
R2160.R590-05	Right	90	5	Aluminium	64.64	63.64
R2160.R596-05	Right	96	5	Aluminium	68.88	67.88
R2160.R600-05	Right	100	5	Aluminium	71.71	70.71
R2160.R620-05	Right	120	5	Aluminium	85.85	84.85
R2160.R644-05	Right	144	5	Aluminium	102.82	101.82
R2160.R520-08	Right	20	8	Aluminium	15.14	14.14
R2160.R524-08	Right	24	8	Aluminium	17.97	16.97
R2160.R525-08	Right	25	8	Aluminium	18.68	17.68
R2160.R530-08	Right	30	8	Aluminium	22.21	21.21
R2160.R535-08	Right	35	8	Aluminium	25.27	24.75
R2160.R536-08	Right	36	8	Aluminium	26.46	25.46
R2160.R540-08	Right	40	8	Aluminium	29.28	28.28
R2160.R545-08	Right	45	8	Aluminium	32.82	31.82
R2160.R548-08	Right	48	8	Aluminium	34.94	33.94
R2160.R550-08	Right	50	8	Aluminium	36.36	35.36
R2160.R560-08	Right	60	8	Aluminium	43.43	42.43
R2160.R570-08	Right	70	8	Aluminium	50.50	49.50
R2160.R572-08	Right	72	8	Aluminium	51.91	50.91
R2160.R580-08	Right	80	8	Aluminium	57.57	56.57



0,5 Module Right Hand Helical Gears aluminium pin hub

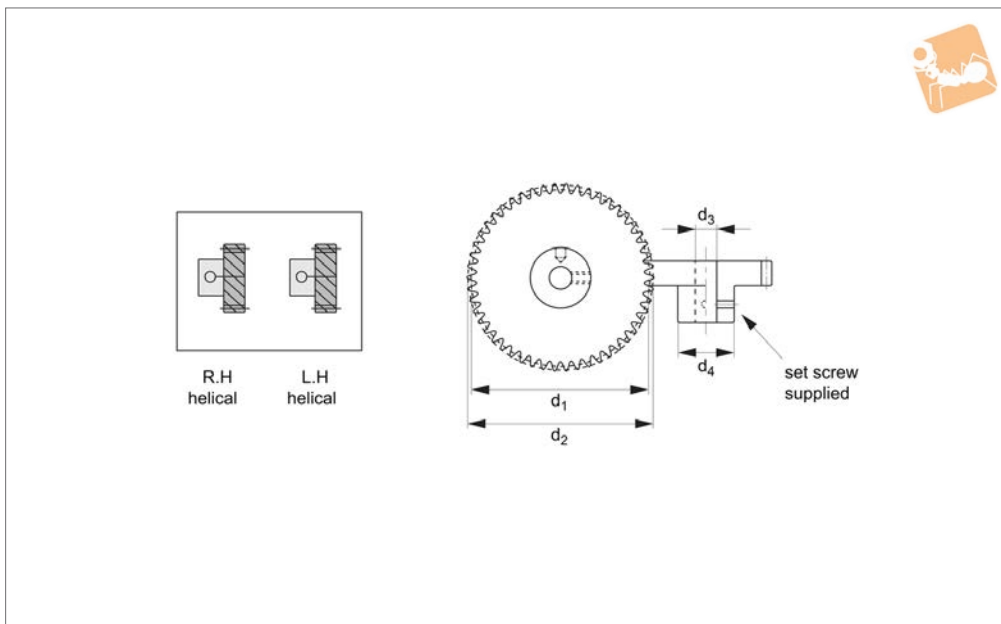
Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Outside	Pitch
R2160.R590-08	Right	90	8	Aluminium	64.64	63.64
R2160.R596-08	Right	96	8	Aluminium	68.88	67.88
R2160.R600-08	Right	100	8	Aluminium	71.71	70.71
R2160.R620-08	Right	120	8	Aluminium	85.85	84.85
R2160.R644-08	Right	144	8	Aluminium	102.82	101.82

OTHER PRECISION GEARS



R2161



Material
Stainless steel (DIN 1,4305).

Technical Notes
45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips
For right angle transmission use two gears with same helical direction.
For parallel transmission use right and left

helix..

Important Notes
For 0,5 module right hand helical gears see R2160.

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2161.L020-05	Left	20	Stainless	5	14.14	15.14
R2161.L024-05	Left	24	Stainless	5	16.97	16.97
R2161.L025-05	Left	25	Stainless	5	17.68	17.68
R2161.L020-08	Left	20	Stainless	8	14.14	15.14
R2161.L024-08	Left	24	Stainless	8	16.97	17.97
R2161.L025-08	Left	25	Stainless	8	17.68	18.68
R2161.L030-08	Left	30	Stainless	8	21.21	22.21
R2161.L030-05	Left	30	Stainless	5	21.21	21.21
R2161.L035-05	Left	35	Stainless	5	24.75	25.75
R2161.L036-05	Left	36	Stainless	5	25.46	26.46
R2161.L040-05	Left	40	Stainless	5	28.28	29.28
R2161.L045-05	Left	45	Stainless	5	31.82	32.82
R2161.L035-08	Left	35	Stainless	8	24.75	25.75
R2161.L036-08	Left	36	Stainless	8	25.46	26.46
R2161.L040-08	Left	40	Stainless	8	28.28	29.28
R2161.L045-08	Left	45	Stainless	8	31.82	32.82
R2161.L048-08	Left	48	Stainless	8	33.94	34.94
R2161.L048-05	Left	48	Stainless	5	33.94	34.94
R2161.L050-05	Left	50	Stainless	5	35.36	36.36
R2161.L060-05	Left	60	Stainless	5	42.43	43.43
R2161.L070-05	Left	70	Stainless	5	49.50	50.50
R2161.L072-05	Left	72	Stainless	5	50.91	51.91
R2161.L050-08	Left	50	Stainless	8	35.36	36.36
R2161.L060-08	Left	60	Stainless	8	42.43	43.43
R2161.L070-08	Left	70	Stainless	8	49.50	50.50
R2161.L072-08	Left	72	Stainless	8	50.91	51.91
R2161.L080-08	Left	80	Stainless	8	56.57	57.57
R2161.L080-05	Left	80	Stainless	5	56.57	57.57
R2161.L090-05	Left	90	Stainless	5	63.64	64.64
R2161.L096-05	Left	96	Stainless	5	67.88	68.88
R2161.L100-05	Left	100	Stainless	5	70.71	71.71
R2161.L120-05	Left	120	Stainless	5	84.85	85.85
R2161.L090-08	Left	90	Stainless	8	63.64	64.64



0,5 Module Left Hand Helical Gears

stainless steel, pin hub

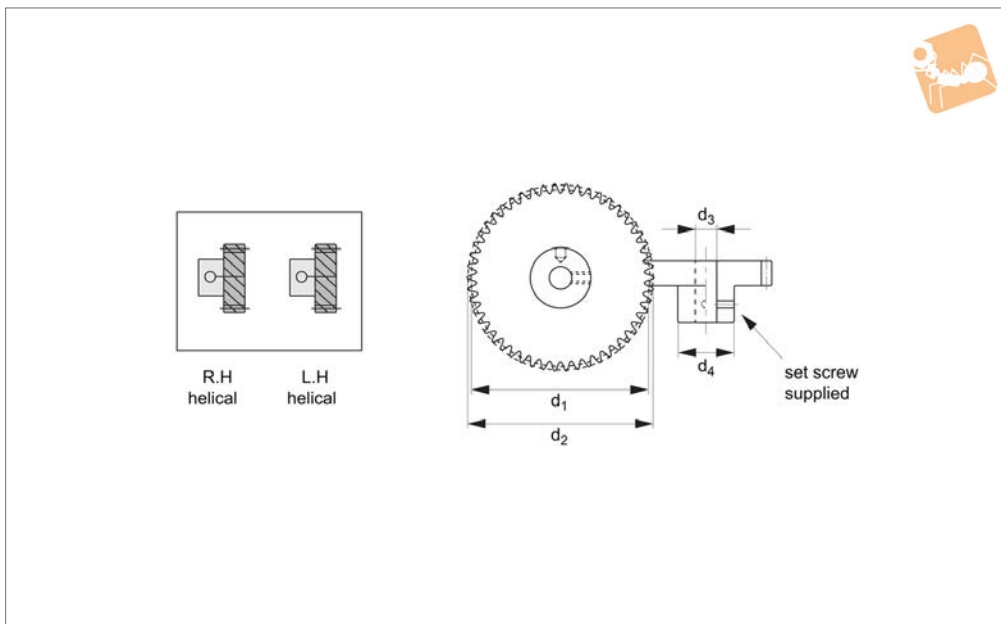
Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2161.L096-08	Left	96	Stainless	8	67.88	68.88
R2161.L100-08	Left	100	Stainless	8	70.71	71.71
R2161.L120-08	Left	120	Stainless	8	84.85	85.85
R2161.L144-08	Left	144	Stainless	8	101.82	102.82
R2161.L144-05	Left	144	Stainless	5	101.82	102.82

OTHER PRECISION GEARS



R2161.1



Material
Aluminium (DIN 3,1355).

Technical Notes
45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips
For right angle transmission use two gears with same helical direction.
For parallel transmission use right and left

helix.

Important Notes
For 0,5 module right hand helical gears see R2160.

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2161.L520-05	Left	20	Aluminium	5	14.14	15.14
R2161.L524-05	Left	24	Aluminium	5	16.97	16.97
R2161.L525-05	Left	25	Aluminium	5	17.68	17.68
R2161.L530-05	Left	30	Aluminium	5	21.21	21.21
R2161.L535-05	Left	35	Aluminium	5	24.75	25.75
R2161.L536-05	Left	36	Aluminium	5	25.46	26.46
R2161.L540-05	Left	40	Aluminium	5	28.28	29.28
R2161.L545-05	Left	45	Aluminium	5	31.82	32.82
R2161.L548-05	Left	48	Aluminium	5	33.94	34.94
R2161.L550-05	Left	50	Aluminium	5	35.36	36.36
R2161.L560-05	Left	60	Aluminium	5	42.43	43.43
R2161.L570-05	Left	70	Aluminium	5	49.50	50.50
R2161.L572-05	Left	72	Aluminium	5	50.91	51.91
R2161.L580-05	Left	80	Aluminium	5	56.57	57.57
R2161.L590-05	Left	90	Aluminium	5	63.64	64.64
R2161.L596-05	Left	96	Aluminium	5	67.88	68.88
R2161.L600-05	Left	100	Aluminium	5	70.71	71.71
R2161.L620-05	Left	120	Aluminium	5	84.85	85.85
R2161.L644-05	Left	144	Aluminium	5	101.82	102.82
R2161.L520-08	Left	20	Aluminium	8	14.14	15.14
R2161.L524-08	Left	24	Aluminium	8	16.97	17.97
R2161.L525-08	Left	25	Aluminium	8	17.68	18.68
R2161.L530-08	Left	30	Aluminium	8	21.21	22.21
R2161.L535-08	Left	35	Aluminium	8	24.75	25.75
R2161.L536-08	Left	36	Aluminium	8	25.46	26.46
R2161.L540-08	Left	40	Aluminium	8	28.28	29.28
R2161.L545-08	Left	45	Aluminium	8	31.82	32.82
R2161.L548-08	Left	48	Aluminium	8	33.94	34.94
R2161.L550-08	Left	50	Aluminium	8	35.36	36.36
R2161.L560-08	Left	60	Aluminium	8	42.43	43.43
R2161.L570-08	Left	70	Aluminium	8	49.50	50.50
R2161.L572-08	Left	72	Aluminium	8	50.91	51.91
R2161.L580-08	Left	80	Aluminium	8	56.57	57.57



0,5 Module Left Hand Helical Gears

aluminium, pin hub

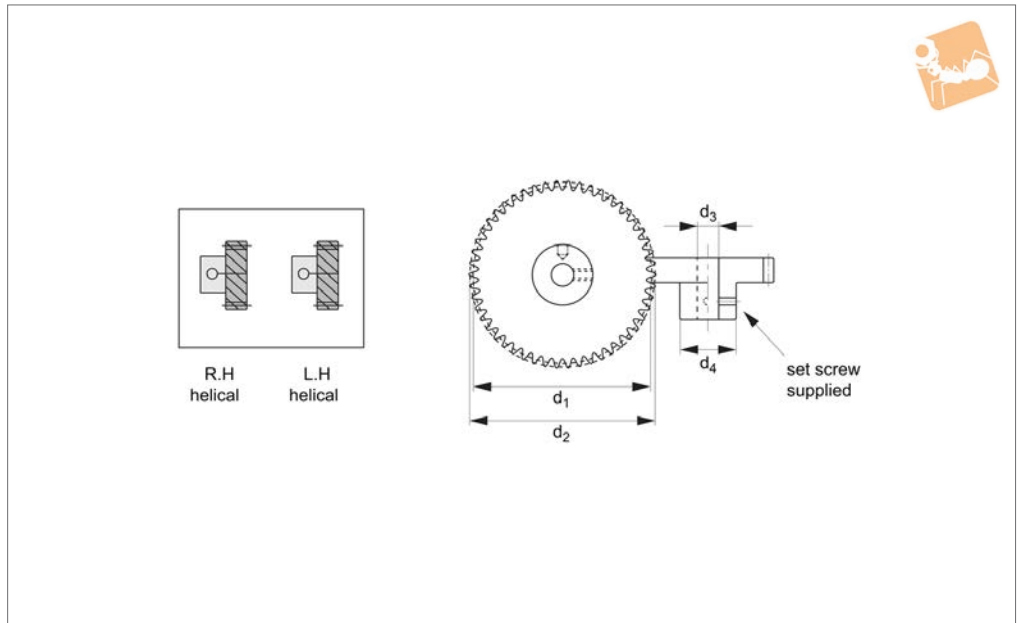
Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2161.L590-08	Left	90	Aluminium	8	63.64	64.64
R2161.L596-08	Left	96	Aluminium	8	67.88	68.88
R2161.L600-08	Left	100	Aluminium	8	70.71	71.71
R2161.L620-08	Left	120	Aluminium	8	84.85	85.85
R2161.L644-08	Left	144	Aluminium	8	101.82	102.82

OTHER PRECISION GEARS



R2162



Material
Stainless steel (DIN 1,4305).

Technical Notes
45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips
For right angle transmission use two gears with same helical direction.
For parallel transmission use right and left

helix.

Important Notes
For 0,4 module left hand helical gears see R2163.

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2162.R020-03	Right	20	Stainless	3	11.31	12.11
R2162.R025-03	Right	25	Stainless	3	14.14	14.94
R2162.R030-03	Right	30	Stainless	3	16.97	17.77
R2162.R032-03	Right	32	Stainless	3	18.10	18.90
R2162.R035-03	Right	35	Stainless	3	19.80	20.60
R2162.R040-03	Right	40	Stainless	3	22.63	23.43
R2162.R045-03	Right	45	Stainless	3	24.46	26.26
R2162.R048-03	Right	48	Stainless	3	27.15	27.95
R2162.R050-03	Right	50	Stainless	3	28.28	29.08
R2162.R060-03	Right	60	Stainless	3	33.94	34.74
R2162.R064-03	Right	64	Stainless	3	36.20	37.00
R2162.R070-03	Right	70	Stainless	3	39.60	40.40
R2162.R080-03	Right	80	Stainless	3	45.25	46.05
R2162.R090-03	Right	90	Stainless	3	50.91	51.71
R2162.R096-03	Right	96	Stainless	3	54.31	55.11
R2162.R100-03	Right	100	Stainless	3	56.57	57.37
R2162.R128-03	Right	128	Stainless	3	72.41	73.21
R2162.R160-03	Right	160	Stainless	3	90.51	91.31
R2162.R020-05	Right	20	Stainless	5	11.31	12.11
R2162.R025-05	Right	25	Stainless	5	14.14	14.94
R2162.R030-05	Right	30	Stainless	5	16.97	17.77
R2162.R032-05	Right	32	Stainless	5	18.10	18.90
R2162.R035-05	Right	35	Stainless	5	19.80	20.60
R2162.R040-05	Right	40	Stainless	5	22.63	23.43
R2162.R045-05	Right	45	Stainless	5	24.46	26.26
R2162.R048-05	Right	48	Stainless	5	27.15	27.95
R2162.R050-05	Right	50	Stainless	5	28.28	29.08
R2162.R060-05	Right	60	Stainless	5	33.94	34.74
R2162.R064-05	Right	64	Stainless	5	36.20	37.00
R2162.R070-05	Right	70	Stainless	5	39.60	40.40
R2162.R080-05	Right	80	Stainless	5	42.25	46.05
R2162.R090-05	Right	90	Stainless	5	50.91	51.71
R2162.R096-05	Right	96	Stainless	5	54.31	55.11



0,4 Module Right Hand Helical Gears

stainless steel, pin hub

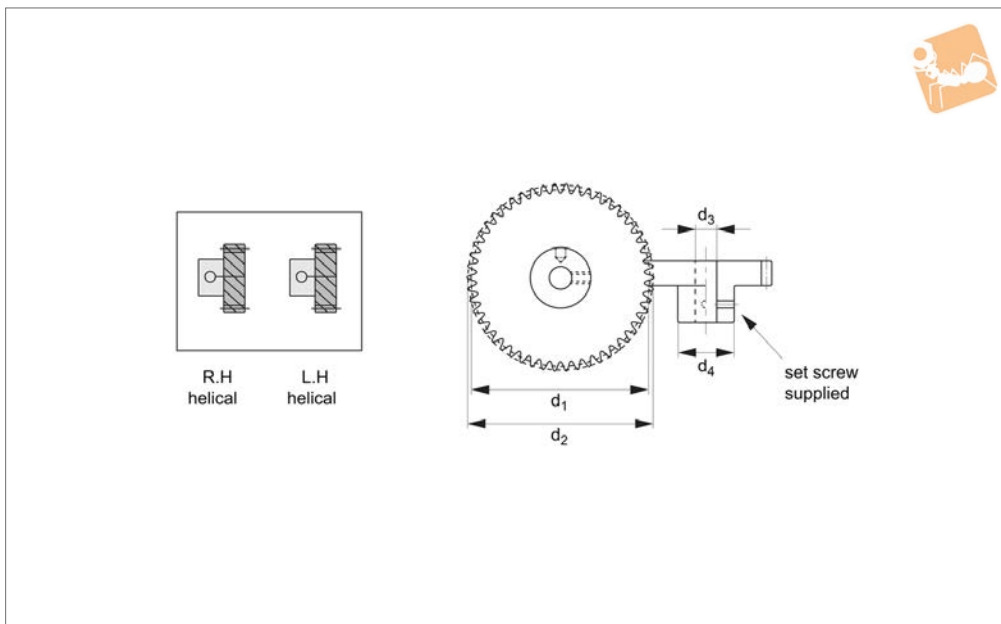
Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2162.R100-05	Right	100	Stainless	5	56.57	57.37
R2162.R128-05	Right	128	Stainless	5	72.41	73.21
R2162.R160-05	Right	160	Stainless	5	90.51	91.31

OTHER PRECISION GEARS



R2162.1



Material
Aluminium (DIN 3,1355).

Technical Notes
45° helix angle.
20° pressure angle.

Quality class DIN 7, AGMA 10.

Tips
For right angle transmission use two gears with same helical direction.
For parallel transmission use right and left

helix.

Important Notes
For 0,4 module left hand helical gears see R2163.

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2162.R520-03	Right	20	Aluminium	3	11.31	12.11
R2162.R525-03	Right	25	Aluminium	3	14.14	14.94
R2162.R530-03	Right	30	Aluminium	3	16.97	17.77
R2162.R532-03	Right	32	Aluminium	3	18.10	18.90
R2162.R535-03	Right	35	Aluminium	3	19.80	20.60
R2162.R540-03	Right	40	Aluminium	3	22.63	23.43
R2162.R545-03	Right	45	Aluminium	3	24.56	26.26
R2162.R548-03	Right	48	Aluminium	3	27.15	27.95
R2162.R550-03	Right	50	Aluminium	3	28.28	29.08
R2162.R560-03	Right	60	Aluminium	3	33.94	34.74
R2162.R564-03	Right	64	Aluminium	3	36.20	37.00
R2162.R570-03	Right	70	Aluminium	3	39.60	40.40
R2162.R580-03	Right	80	Aluminium	3	45.25	46.05
R2162.R590-03	Right	90	Aluminium	3	50.91	51.71
R2162.R596-03	Right	96	Aluminium	3	54.31	55.11
R2162.R600-03	Right	100	Aluminium	3	56.57	57.37
R2162.R628-03	Right	128	Aluminium	3	72.41	73.21
R2162.R660-03	Right	160	Aluminium	3	90.51	91.31
R2162.R520-05	Right	20	Aluminium	5	11.31	12.11
R2162.R525-05	Right	25	Aluminium	5	14.14	14.94
R2162.R530-05	Right	30	Aluminium	5	16.97	17.77
R2162.R532-05	Right	32	Aluminium	5	18.10	18.90
R2162.R535-05	Right	35	Aluminium	5	19.80	20.60
R2162.R540-05	Right	40	Aluminium	5	22.63	23.43
R2162.R545-05	Right	45	Aluminium	5	24.46	26.26
R2162.R548-05	Right	48	Aluminium	5	27.15	27.95
R2162.R550-05	Right	50	Aluminium	5	28.28	29.08
R2162.R560-05	Right	60	Aluminium	5	33.94	34.74
R2162.R564-05	Right	64	Aluminium	5	36.20	37.00
R2162.R570-05	Right	70	Aluminium	5	39.60	40.40
R2162.R580-05	Right	80	Aluminium	5	45.25	46.05
R2162.R590-05	Right	90	Aluminium	5	50.91	51.71
R2162.R596-05	Right	96	Aluminium	5	54.31	55.11



0,4 Module Right Hand Helical Gears

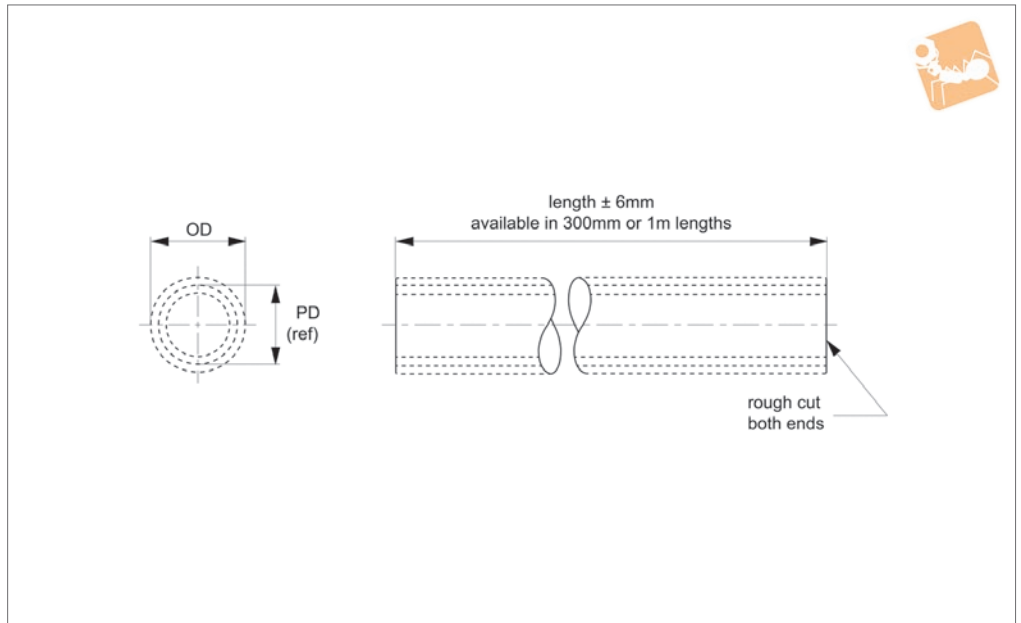
aluminium, pin hub

Other Precision
Gears

Order No.	Hand	No. of teeth	Material	Bore dia.	Pitch dia. P.D.	Outside dia.
R2162.R600-05	Right	100	Aluminium	5	56.57	57.37
R2162.R5128-05	Right	128	Aluminium	5	72.41	73.21
R2162.R660-05	Right	160	Aluminium	5	90.51	91.31



R2170



Material
Stainless steel (DIN 1,4005).

Quality class Din 7/AGMA 10.
Adjacent hole centre $\pm 0,06$, Accumulative
hole centre $\pm 0,14$.

Technical Notes
20° pressure angle.

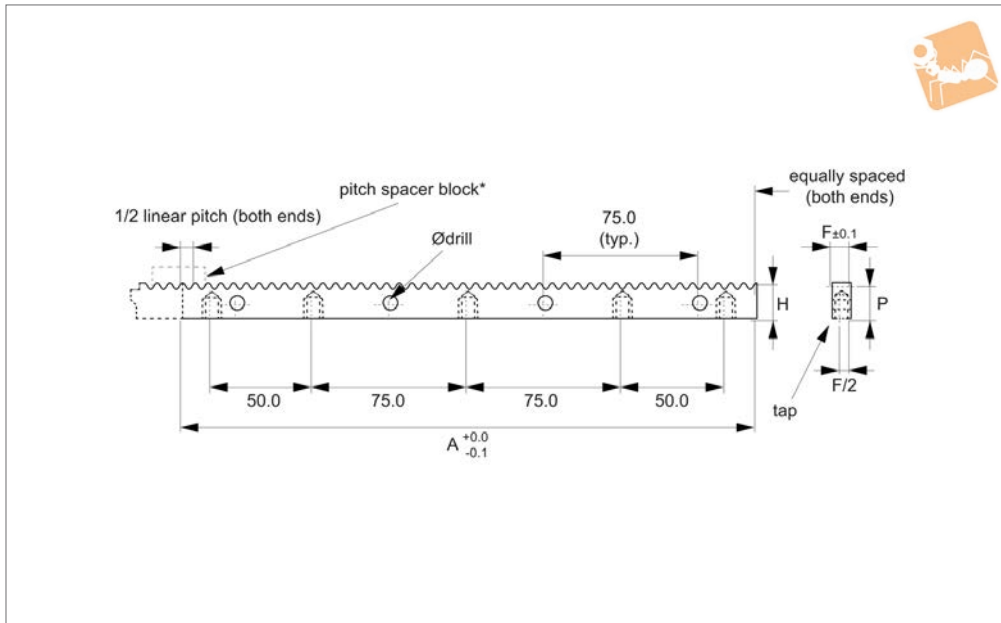
Order No.	Module	Linear pitch	c
R8M-1-G1	0.8	2.51	11.39
R8M-2-G1	0.4	1.26	11.79



1,5/0,25 Module Precision Racks

stainless

Other Precision Gears



R2172

OTHER PRECISION GEARS

Material

Stainless steel (DIN 1,4005).

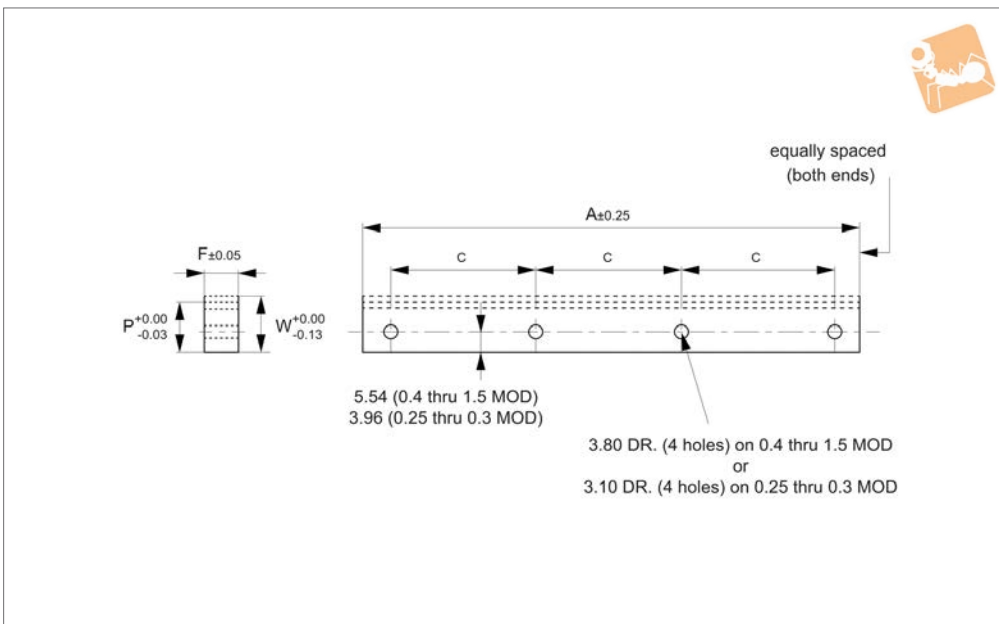
Technical Notes

20° pressure angle.
Quality class Din 7/AGMA 10.

Order No.	Module	Linear pitch	a	f	b	h +0.00 -0.13	P ref.	Ø Drill	Tap
R1M-1	1.5	4.71	282.7	9.0	7.9	18.42	16.91	7.0	M 5 X 0,8
R1M-2	1.25	3.93	282.8	9.0	7.9	18.42	17.17	7.0	M 5 X 0,8
R1M-3	1.0	3.14	279.6	5.8	5.5	12.07	11.07	3.8	M 4 X 0,7
R1M-4	0.8	2.51	281.5	5.8	5.5	12.07	11.26	3.8	M 4 X 0,7
R1M-5	0.6	1.88	280.9	5.8	5.5	12.07	11.47	3.8	M 4 X 0,7
R1M-6	0.5	1.57	279.6	5.8	5.5	12.07	11.56	3.8	M 4 X 0,7
R1M-7	0.4	1.26	280.2	5.8	5.5	12.07	11.66	3.8	M 4 X 0,7
R1M-8	0.3	0.94	280.9	4.2	4.0	8.89	8.59	3.1	M 3 X 0,5
R1M-9	0.25	0.78	279.6	4.2	4.0	8.89	8.64	3.1	M 3 X 0,5



R2174



Material
Stainless Steel (DIN 1,4005).

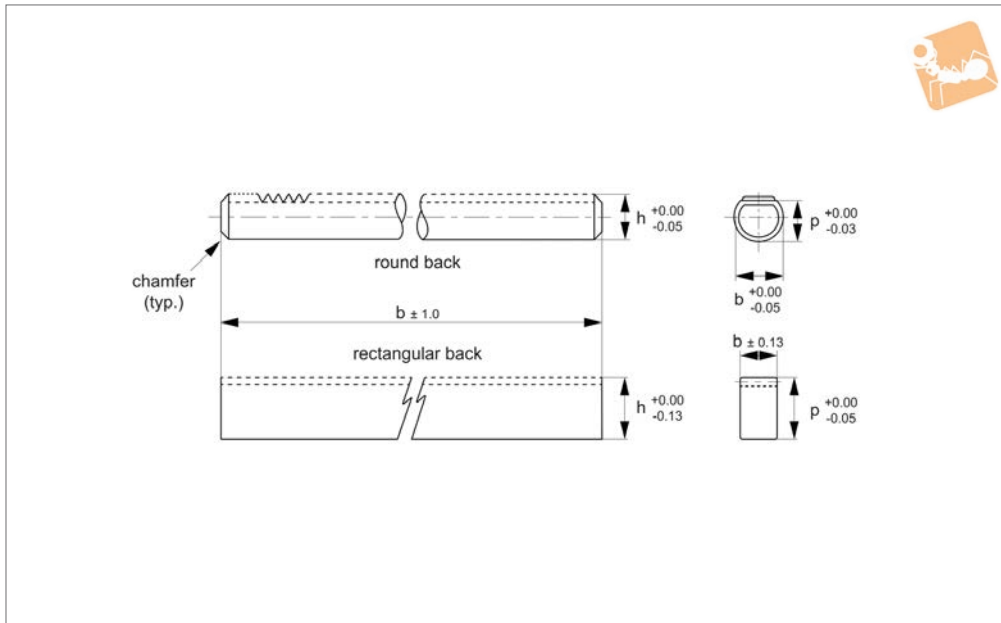
Technical Notes
20° pressure angle.
Quality class Din 7/AGMA 10.

Order No.	Module	a	f	c	P ref.	w
R4M-5	1.5	249.8	5.8	80.0	10.7	12.2
R4M-9	1.25	247.4	5.8	80.0	10.9	12.2
R4M-11	1.0	248.2	5.8	80.0	11.2	12.2
R4M-15	0.8	248.8	5.8	80.0	11.4	12.2
R4M-17	0.6	224.3	5.8	70.0	11.6	12.2
R4M-19	0.5	224.7	5.8	70.0	11.7	12.2
R4M-21	0.4	174.7	5.8	55.0	11.8	12.2
R4M-23	0.3	124.4	4.2	35.0	8.7	9.0
R4M-25	0.25	74.6	4.2	20.0	8.8	9.0



0,5/0,25 Module Gear Racks stainless

Other Precision
Gears



R2176

OTHER PRECISION GEARS

Material

Stainless Steel (DIN 1,4005).

Technical Notes

20° pressure angle.

Quality class Din 7/AGMA 10.

Order No.	Module	Rack style	a	h	Ø B	P ref.
R2M-1	1.5	Round	600	17.27	19.974	15.77
R2M-2	1.25	Round	600	13.46	19.974	12.21
R2M-3	1.00	Round	450	12.19	12.974	11.79
R2M-4	0.8	Round	450	8.64	9.974	7.84
R2M-5	0.6	Round	450	5.59	5.974	4.99
R2M-6	0.5	Round	450	5.59	5.974	5.09
R2M-7	0.4	Round	275	5.59	5.974	5.19
R2M-8	0.3	Round	275	3.96	4.755	3.66
R2M-9	0.25	Round	275	3.96	4.755	3.71
R3M-1	1.5	Rectangular	600	18.54	9.02	17.04
R3M-2	1.25	Rectangular	600	18.54	9.02	17.29
R3M-3	1.00	Rectangular	450	12.19	5.84	11.19
R3M-4	0.8	Rectangular	450	12.19	5.84	11.39
R3M-5	0.6	Rectangular	450	12.19	5.84	11.59
R3M-6	0.5	Rectangular	450	12.19	5.84	11.69
R3M-7	0.4	Rectangular	275	12.19	5.84	11.79
R3M-8	0.3	Rectangular	275	9.02	4.24	8.72
R3M-9	0.25	Rectangular	275	9.02	4.24	8.77