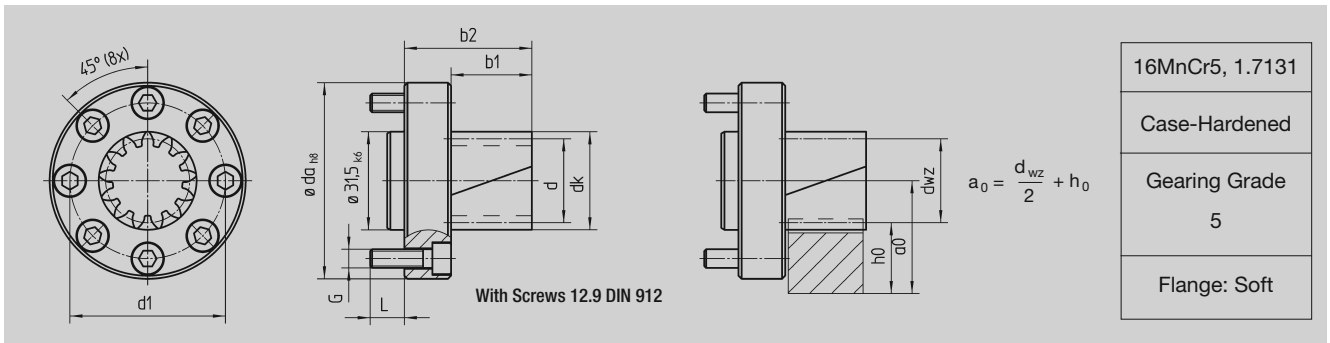




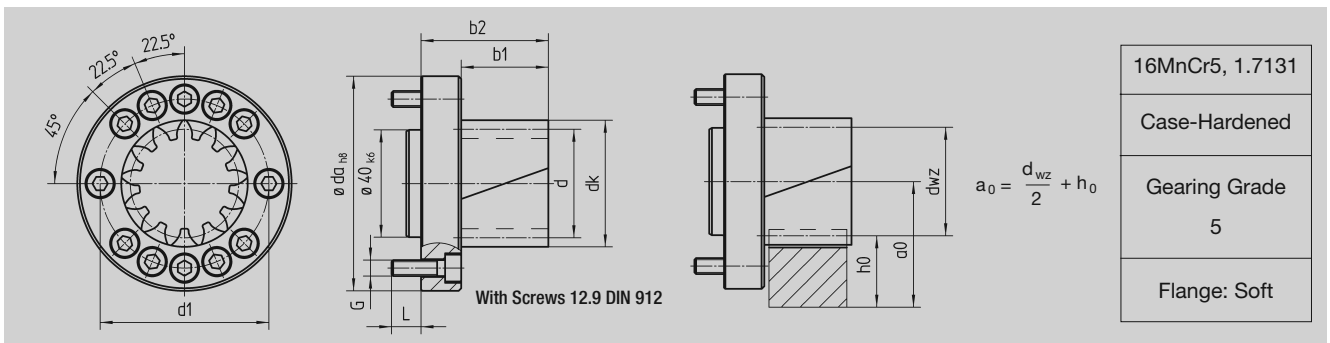
### Bolt Circle-ø 50, helical tooth system, 19° 31' 42" left-hand



Order Code	No. of Teeth	Profile Modification Factor	Interface											
			$d_{wz}$	$d_k$	$b_1$	$b_2$	L	$a_0$	ISO	$d_1$	G	$d_{ah8}$	L	kg
<b>Module 2</b>														
78 21 912	12	0.5	27.46	31.50	26.0	41	80.00	35.73	9409-1-A-50	50	M6	63	11	0.5
78 21 916	16	0	33.95	37.95	26.0	41	106.67	38.98	9409-1-A-50	50	M6	63	11	0.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 16

### Bolt Circle-ø 63, helical tooth system, 19° 31' 42" left-hand



Order Code	No. of Teeth	Profile Modification Factor	Interface											
			$d_{wz}$	[mm] $d_k$	[mm] $b_1$	[mm] $b_2$	[mm] L	[mm] $a_0$	ISO	$d_1$	G	$d_{ah8}$	L	kg
<b>Module 2</b>														
78 22 912	12	0.5	27.46	31.5	26.0	41	80.00	35.73	9409-1-A-63	63	M6	80	11	0.8
78 22 919	19	0	40.32	44.3	26.0	41	126.67	42.16	9409-1-A-63	63	M6	80	11	0.9
78 22 923	23	0	48.81	52.8	26.0	41	153.33	46.40	9409-1-A-63	63	M6	80	11	1.0

Further number of teeth on request, min. number of teeth 12, max. number of teeth 23

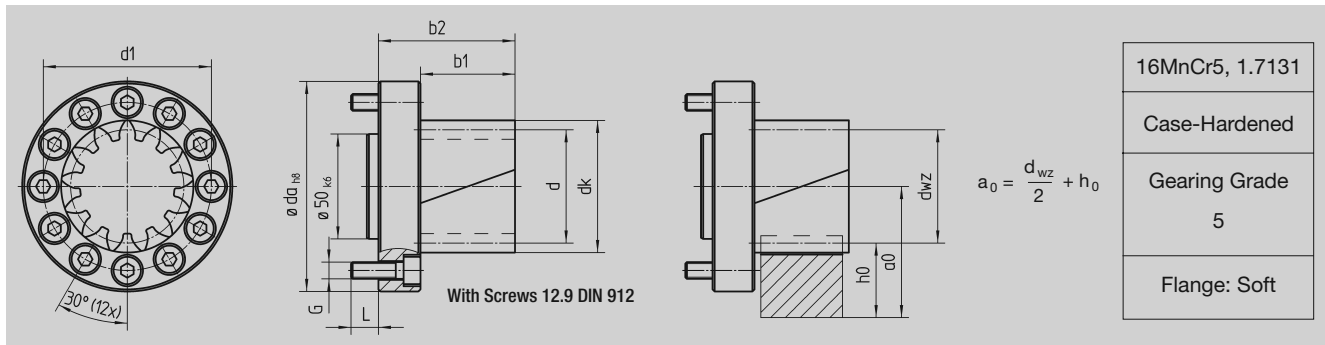
Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 3</b>														
78 32 912	12	0.5	41.20	47.2	32.5	47.5	120.00	46.60	9409-1-A-63	63	M6	80	11	1.0
78 32 914	14	0.3	46.36	52.4	32.5	47.5	140.00	49.18	9409-1-A-63	63	M6	80	11	1.0

Further number of teeth on request, min. number of teeth 12, max. number of teeth 14



### Bolt Circle- $\varnothing 80$ , helical tooth system, $19^\circ 31' 42''$ left-hand



Order Code	No. of Teeth	Profile Modification Factor	Interface							ISO	d <sub>1</sub>	G	d <sub>ah8</sub>	L	kg
			x	d <sub>wz</sub>	d <sub>k</sub>	b <sub>1</sub>	b <sub>2</sub>	L	a <sub>0</sub>						
<b>Module 2</b>															
<b>78 23 912</b>	12	0.5	27.46	31.5	26.0	46	80.00	37.73	9409-1-A-80	80	M8	100	13	1.4	
<b>78 23 923</b> <sup>(1)</sup>	23	0	48.81	52.8	26.0	46	153.33	46.40	9409-1-A-80	80	M8	100	13	1.6	
<b>78 23 929</b> <sup>(1)</sup>	29	0	61.54	65.5	26.0	46	193.33	52.77	9409-1-A-80	80	M8	100	13	1.9	

Further number of teeth on request, min. number of teeth 12, max. number of teeth 29

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 3</b>															
<b>78 33 912</b>	12	0.5	41.20	47.2	32.5	52.5	120.00	46.60	9409-1-A-80	80	M8	100	13	1.6	
<b>78 33 916</b>	16	0	50.93	56.9	32.5	52.5	160.00	51.46	9409-1-A-80	80	M8	100	13	1.8	
<b>78 33 917</b> <sup>(1)</sup>	17	0	54.11	60.1	32.5	52.5	170.00	53.06	9409-1-A-80	80	M8	100	13	1.9	
<b>78 33 919</b>	19	0	60.48	66.5	32.5	52.5	190.00	56.24	9409-1-A-80	80	M8	100	13	2.0	

Further number of teeth on request, min. number of teeth 12, max. number of teeth 19

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 4</b>															
<b>78 43 912</b>	12	0.5	54.93	62.9	45.0	65	160.00	62.46	9409-1-A-80	80	M8	100	13	2.1	

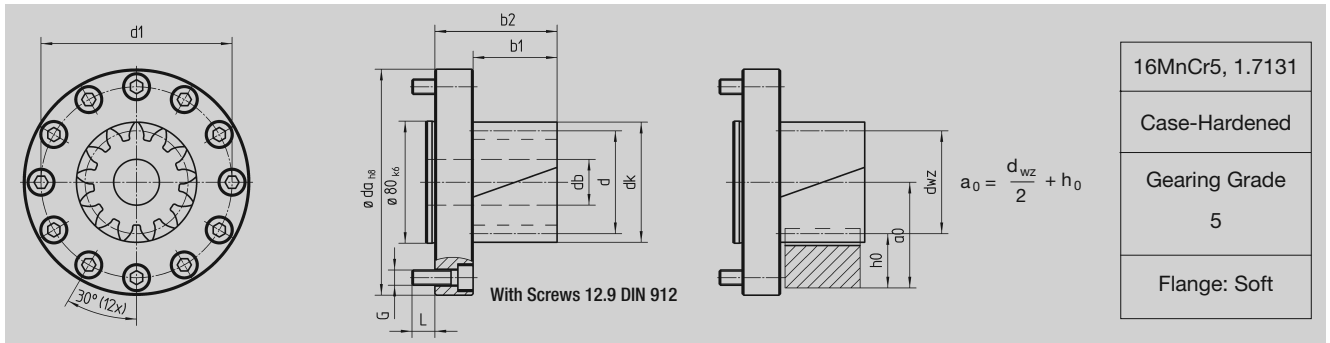
Further number of teeth on request, min. number of teeth 12, max. number of teeth 13

(1) Also available as pinion for counter bearing.





### Bolt Circle- $\varnothing$ 125, helical tooth system, $19^{\circ} 31' 42''$ left-hand



Order Code	No. of Teeth	Profile Modification Factor	Interface											kg	
			z	x	$d_{wz}$	$d_k$	$b_1$	$b_2$	L	$a_0$	ISO	$d_1$	G		$d_{ah8}$
<b>Module 3</b>															
78 34 912	12	0.5	41.20	47.20	32.5	57.5	120	46.60	9409-1-A-125	125	M10	148	15	-	3.8
78 34 312	12	0.5	41.20	47.20	32.5	57.5	120	46.60	-	125	M12	148	17	-	3.8
78 34 919	19	0	60.48	66.50	32.5	57.5	190	56.24	9409-1-A-125	125	M10	148	15	-	4.2
78 34 319	19	0	60.48	66.50	32.5	57.5	190	56.24	-	125	M12	148	17	-	4.2
78 34 925	25	0	79.58	85.60	32.5	57.5	250	65.79	9409-1-A-125	125	M10	148	15	-	4.8
78 34 926 <sup>(1)</sup>	26	0	82.76	88.80	32.5	57.5	260	67.38	9409-1-A-125	125	M10	148	15	-	4.9
78 34 326	26	0	82.76	88.80	32.5	57.5	260	67.38	-	125	M12	148	17	-	4.9
78 34 932 <sup>(1)</sup>	32	0	101.86	107.90	32.5	57.5	320	76.93	9409-1-A-125	125	M10	148	15	-	5.6
78 34 332	32	0	101.86	107.90	32.5	57.5	320	79.63	-	125	M12	148	17	-	5.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 32

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 4</b>															
78 44 912	12	0.5	54.93	62.90	45.0	70.0	160.00	62.46	9409-1-A-125	125	M10	148	15	-	4.4
78 44 312	12	0.5	54.93	62.90	45.0	70.0	160.00	62.46	-	125	M12	148	17	-	4.3
78 44 915	15	0	63.66	71.70	45.0	70.0	200.00	66.83	9409-1-A-125	125	M10	148	15	-	4.7
78 44 916	16	0	67.91	75.90	45.0	70.0	213.33	68.95	9409-1-A-125	125	M10	148	15	-	4.8
78 44 917	17	0	72.15	80.15	32.5	57.5	170.00	53.06	9409-1-A-125	125	M10	148	15	-	5.0
78 44 317	17	0	72.15	80.15	32.5	57.5	170.00	53.06	-	125	M12	148	17	-	5.0
78 44 919	19	0.11	81.52	89.50	45.0	70.0	256.10	75.76	9409-1-A-125	125	M10	148	15	-	5.4
78 44 319	19	0.11	81.52	89.50	45.0	70.0	256.10	75.76	-	125	M12	148	17	-	5.3
78 44 920 <sup>(1)</sup>	20	0	84.88	92.90	45.0	70.0	266.67	77.44	9409-1-A-125	125	M10	148	15	-	5.5
78 44 320	20	0	84.88	92.90	45.0	70.0	266.67	77.44	-	125	M12	148	17	-	5.5
78 44 923	23	0	97.62	105.60	45.0	70.0	306.67	83.81	-	125	M10	148	15	-	6.1

Further number of teeth on request, min. number of teeth 12, max. number of teeth 23

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 5</b>															
78 54 912	12	0.5	68.66	78.70	55	80	200.00	68.33 <sup>(2)</sup>	9409-1-A-125	125	M10	148	15	-	5.1
78 54 312	12	0.5	68.66	78.70	55	80	200.00	68.33 <sup>(2)</sup>	-	125	M12	148	17	-	5.1
78 54 916 <sup>(1)</sup>	16	0	84.88	94.90	55	80	266.67	76.44 <sup>(2)</sup>	9409-1-A-125	125	M10	148	15	-	6.0
78 54 316	16	0	84.88	94.90	55	80	266.67	76.44 <sup>(2)</sup>	-	125	M12	148	17	-	6.3
78 54 918	18	0	95.49	105.50	55	80	300.00	81.75 <sup>(2)</sup>	9409-1-A-125	125	M10	148	15	-	6.6
78 54 318	18	0	95.49	105.50	55	80	300.00	81.75 <sup>(2)</sup>	-	125	M12	148	17	-	6.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 18

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 6</b>															
78 64 912	12	0.5	82.39	94.40	65	90	240.00	84.20	9409-1-A-125	125	M10	148	15	25	5.8
78 64 312	12	0.5	82.39	94.40	65	90	240.00	84.20	-	125	M12	148	17	25	5.9
78 64 913	13	0.5	88.76	100.80	65	90	260.00	87.38	9409-1-A-125	125	M10	148	15	25	6.3
78 64 915	15	0	95.49	107.50	65	90	300.00	90.75	9409-1-A-125	125	M10	148	15	25	6.8

Further number of teeth on request, min. number of teeth 12, max. number of teeth 15

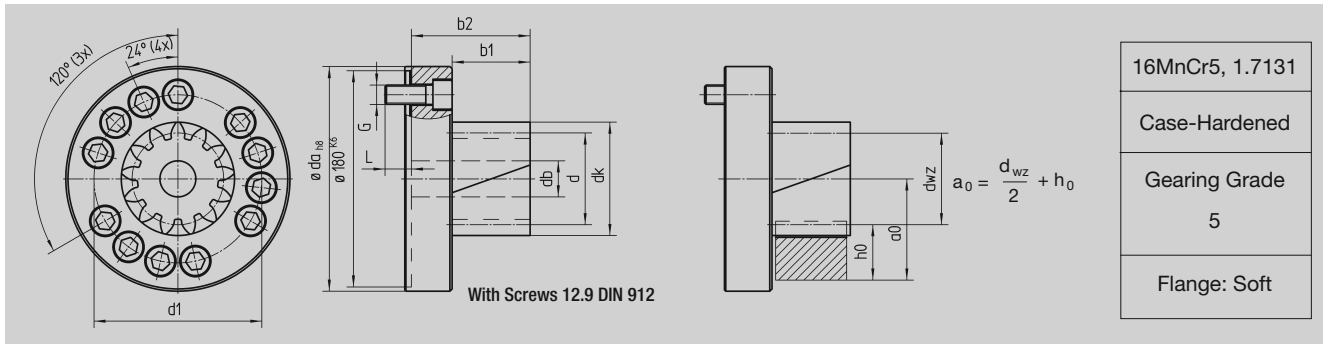
Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

(1) Also available as pinion for counter bearing.

(2) For 29 55 ...  $a'_0 = a_0 + 10$ .



**Bolt Circle- $\varnothing$  140, helical tooth system, 19° 31' 42" left-hand**



Order Code	No. of Teeth	Profile Modification Factor	Interface												
			$d_{wz}$	$d_k$	$b_1$	$b_2$	L	$a_0$	ISO	$d_1$	G	$d_{ah8}$	L	$d_b$	kg
<b>Module 4</b>															
78 46 912	12	0.5	54.93	62.90	45	79	160.00	62.46	-	140	M16	187	22	-	8.1
78 46 919	19	0.11	81.52	89.50	45	79	256.10	75.76	-	140	M16	187	22	-	9.1
78 46 920	20	0	84.88	92.90	45	79	266.67	77.40	-	140	M16	187	22	-	9.2
78 46 320	20	0	84.88	92.90	45	79	266.67	77.40	-	145	M20	187	16	-	9.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 25

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

**Module 5**

78 56 914	14	0.3	77.27	87.30	55	89	233.33	72.64 <sup>(2)</sup>	-	140	M16	187	22	-	9.2
78 56 918	18	0	95.49	105.50	55	89	300.00	81.74 <sup>(2)</sup>	-	140	M16	187	22	-	10.3
78 56 919	19	0	100.80	110.80	55	89	316.67	84.40 <sup>(2)</sup>	-	140	M16	187	22	-	10.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 20

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

**Module 6**

78 66 912	12	0.5	82.39	94.40	65	99	240.00	84.20	-	140	M16	187	22	25	9.5
78 66 915	15	0	95.49	107.50	65	99	300.00	90.75	-	140	M16	187	22	25	10.5
78 66 916 <sup>(1)</sup>	16	0	101.86	113.90	65	99	320.00	93.93	-	140	M16	187	22	25	11.3

Further number of teeth on request, min. number of teeth 12, max. number of teeth 16

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

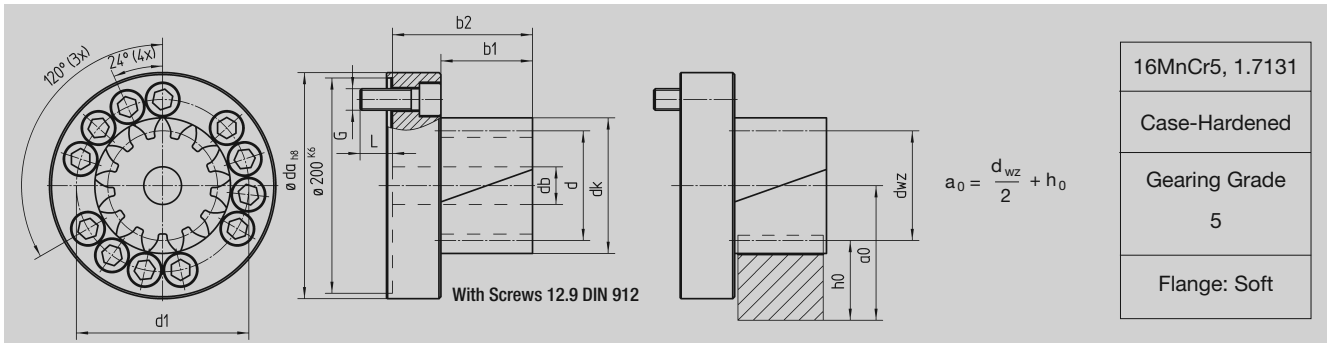
(1) Also available as pinion for counter bearing.

(2) For 29 55 ...  $a'_0 = a_0 + 10$ .





**Bolt Circle-ø 160, helical tooth system, 19° 31' 42" left-hand**



Order Code	No. of Teeth	Profile Modification Factor	Interface												
			$d_{whz}$	$d_k$	$b_1$	$b_2$	$L$	$a_0$	ISO	$d_1$	$G$	$d_{ah8}$	$L$	$d_b$	kg
<b>Module 5</b>															
78 57 912	12	0.5	68.66	78.7	55	100	200.00	68.33 <sup>(1)</sup>	-	160	M20	210	30	-	13.8
78 57 919	19	0	100.80	110.8	55	100	316.67	84.40 <sup>(1)</sup>	-	160	M20	210	30	-	15.6

Further number of teeth on request, min. number of teeth 12, max. number of teeth 22

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 6</b>															
78 67 912	12	0.5	82.39	94.4	65	110	240.00	84.20	-	160	M20	210	30	25	14.5
78 67 916	16	0	101.86	113.9	65	110	320.00	93.93	-	160	M20	210	30	25	15.9

Further number of teeth on request, min. number of teeth 12, max. number of teeth 18

Highlighted items will become obsolete in the future. Please check with the factory for delivery information.

<b>Module 8</b>															
78 87 912	12	0.5	109.86	125.9	85	130	320.00	125.93	-	160	M20	210	30	30	17.8

<sup>(2)</sup> For 29 55 ...  $a'_0 = a_0 + 10$ .

