

Tightening spindles size 2

Spindle bearing



- ▶ Working range 0.6 – 10 Nm
- ▶ Max. output drive speed 1,000 rpm

Depending on the size, the actual components may differ from those in the illustration.

FEATURES

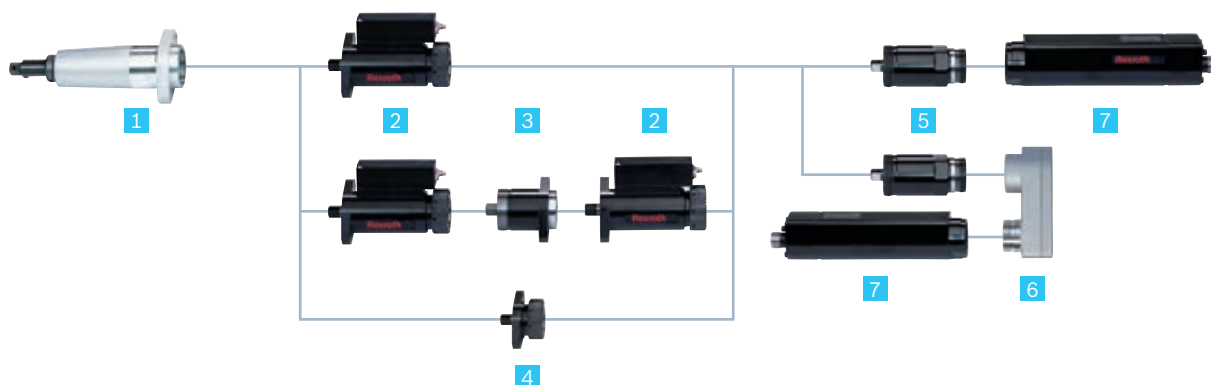
- ▶ Various lengths with axial compensator
- ▶ Standard tool mounts
- ▶ Maximum efficiency
- ▶ Maintenance-free for 1 million full-load cycles





Tightening spindle		Spindle bearing				Measurement transducer	Planetary gearbox	EC motor
Working range*	Max. output drive speed	Range of spring mm/ max. spring force	Tool mount	Code	Order no.	Code / Order no.	Code / Order no.	Code / Order no.
Nm	rpm	N						
0.6–5.6	1,000	20/34.1	1/4" square drive	2GA82	0608800077	2DMC006 0608820110	2GE19 0608720043	EC302 0608701016
			1/4" quick-change chuck	2GB82	0608800078			
				2GB82F73	0608800085			
	780	20/34.1	1/4" square drive	2GA82	0608800077		2GE26 0608720038	
			1/4" quick-change chuck	2GB82	0608800078			
				2GB82F73	0608800085			
1.2–10	1,000	20/34.1	1/4" square drive	2GA82	0608800077	2DMC012 0608820111	2GE19 0608720043	
			1/4" quick-change chuck	2GB82	0608800078			
				2GB82F73	0608800085			
	780	20/34.1	1/4" square drive	2GA82	0608800077		2GE26 0608720038	
			1/4" quick-change chuck	2GB82	0608800078			
				2GB82F73	0608800085			




* The accuracy within the working range according to VDI/VDE 2647 is $\pm 2\%$ over 6 s.

Note: You can find component dimensions and 3D/CAD data on the Internet at www.boschrexroth.com/tightening






Spindle bearing size 2 – components



1 Spindle bearing 	Code	2GA82	2GB82	2GB82F73	
	Order no.	0 608 800 077	0 608 800 078	0 608 800 085	
	Max. torque	Nm	10	10	10
	Range of spring	mm	20	20	20
	Spring force	N	16–34	16–34	22–73
	Reduction		1	1	1
	Avg. efficiency		1	1	1
	Length A	mm	82	82	82
	Installation length	mm	90	90	90
Weight	kg	0.2	0.2	0.2	
2 Measurement transducer 	Code	2DMC006	2DMC012		
	Order no.	0 608 820 110	0 608 820 111	You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140.	
	Nominal torque	Nm	6	12	
	Reduction		1	1	
	Avg. efficiency		1	1	
	Installation length	mm	118.5	118.5	
Weight	kg	0.55	0.55		
3 Redundanzadapter 	Code	2AR			
	Order no.	0 608 810 020		When configuring with a redundant measurement transducer, the adapter connects both measurement transducers.	
	Reduction		1		
	Avg. efficiency		1		
	Installation length	mm	50		
Weight	kg	0.3			
4 Adapter 	Code	2A			
	Order no.	0 608 810 024		When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox.	
	Reduction		1		
	Avg. efficiency		1		
	Installation length	mm	30		
Weight	kg	0.4			

5 Planetary gearbox 	Code	2GE19	2GE26
	Order no.	0608720043	0608720038
	Reduction	18.9	25.5
	Avg. efficiency	0.93	0.9
	Installation length	mm 50.9	50.9
	Weight	kg 0.4	0.4
6 Transverse gearbox 	Code	2ULG	
	Order no.	0608810054	The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox.
	Reduction	1	
	Avg. efficiency	0.95	
	Installation length	mm 28.3	
	Weight	kg 0.4	
7 EC motor 	Code	EC302	
	Order no.	0608701016	
	Installation length	mm 197	
	Weight	kg 0.72	

Side-by-side arrangement of tightening spindles (center-to-center distance)

Number of tightening spindles	2	3	4	5	6
					
Min. circle diameter- $\varnothing d_{\min}$ mm	2G... 35	40	55	66	74

Tightening spindles size 2

Offset output drive



- ▶ Working range 0.6 – 10 Nm
- ▶ Max. output drive speed 1,000 rpm

Depending on the size, the actual components may differ from those in the illustration.

FEATURES

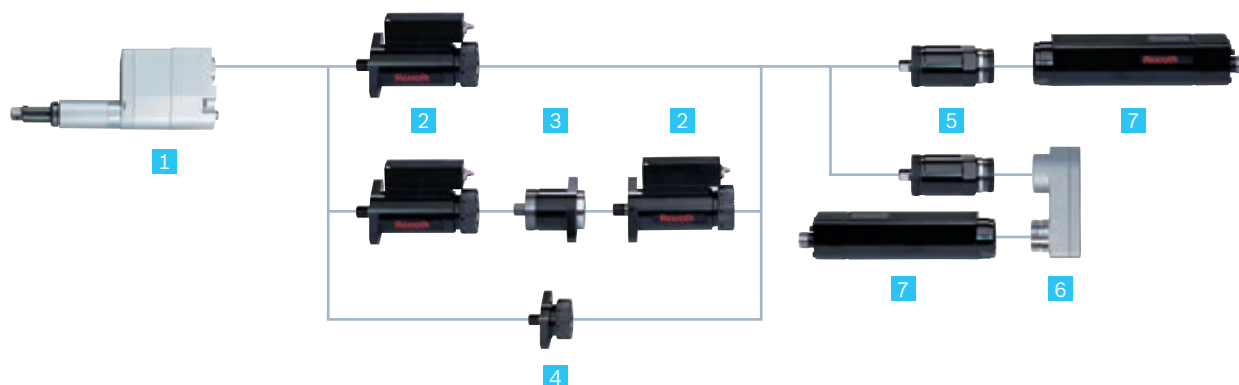
- ▶ For tight hole templates, side-by-side arrangement with small center-to-center distances
- ▶ Standard tool mounts
- ▶ Maintenance-free for 1 million full-load cycles





Tightening spindle		Offset output drive				Measurement transducer	Planetary gearbox	EC motor
Working range	Max. output drive speed	Range of spring	Tool mount	Code	Order no.	Code/Order no.	Code/Order no.	Code/Order no.
Nm	rpm	mm						
0.6*–5.1	1,000	20	1/4" square drive	2VNA82	0608800607	2DMC006 0608820110	2GE19 0608720043	EC302 0608701016
			1/4" quick-change chuck	2VNB82	0608800608			
	780	20	1/4" square drive	2VNA82	0608800607		2GE26 0608720038	
			1/4" quick-change chuck	2VNB82	0608800608			
1.2*–10	1,000	20	1/4" square drive	2VNA82	0608800607	2DMC012 0608820111	2GE19 0608720043	
			1/4" quick-change chuck	2VNB82	0608800608			
	780	20	1/4" square drive	2VNA82	0608800607		2GE26 0608720038	
			1/4" quick-change chuck	2VNB82	0608800608			




* Depending on the tolerance limits, position-based MCT required

Note: You can find component dimensions and 3D/CAD data on the Internet at www.boschrexroth.com/tightening






Offset output drive size 2 – components



1 Offset output drive 	Code	2VNA82	2VNB82		
	Order no.	0 608 800 607	0 608 800 608		
	Max. torque	Nm	10	10	
	Range of spring	mm	20	20	
	Spring force	N	16–34	16–34	
	Reduction		1	1	
	Avg. efficiency		0.9	0.9	
	Length A	mm	82	82	
	Installation length	mm	153	153	
Weight	kg	0.6	0.6		
2 Measurement transducer 	Code	2DMC006	2DMC012		
	Order no.	0 608 820 110	0 608 820 111	You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140.	
	Nominal torque	Nm	6	12	
	Reduction		1	1	
	Avg. efficiency		1	1	
	Installation length	mm	118.5	118.5	
Weight	kg	0.55	0.55		
3 Redundant adapter 	Code	2AR			
	Order no.	0 608 810 020		When configuring with a redundant measurement transducer, the adapter connects both measurement transducers.	
	Reduction		1		
	Avg. efficiency		1		
	Installation length	mm	50		
Weight	kg	0.3			
4 Adapter 	Code	2A			
	Order no.	0 608 810 024		When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox.	
	Reduction		1		
	Avg. efficiency		1		
	Installation length	mm	30		
Weight	kg	0.4			

5 Planetary gearbox 	Code	2GE19	2GE26	
	Order no.	0608720043	0608720038	
	Reduction	18.9	25.5	
	Avg. efficiency	0.93	0.9	
	Installation length	mm	50.9	50.9
	Weight	kg	0.4	0.4
6 Transverse gearbox 	Code	2ULG		
	Order no.	0608810054		
	Reduction	1		
	Avg. efficiency	0.95		
	Installation length	mm	28.3	The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox.
Weight	kg	0.4		
7 EC motor 	Code	EC302		
	Order no.	0608701016		
	Installation length	mm	197	
	Weight	kg	0.72	

Side-by-side arrangement of tightening spindles (center-to-center distance)

Number of tightening spindles	2	3	4	5	6	
						
Min. circle diameter- $\varnothing d_{\min}$ mm	2VN...82	23	27	33	41	52

Tightening spindles size 2 Angle head



- ▶ Working range 2.2 – 11 Nm
- ▶ Max. output drive speed 1,000 rpm

Depending on the size, the actual components may differ from those in the illustration.

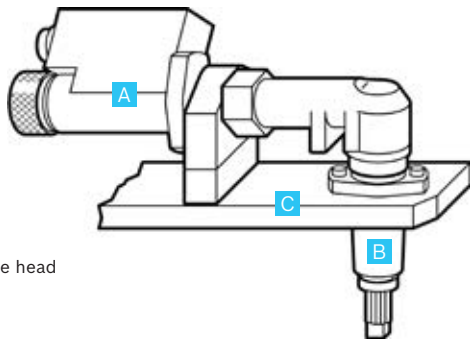
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- ▶ For restricted accessibility
- ▶ Precision tothing for high torque accuracy
- ▶ Incremental positioning (45° increments)
- ▶ Integrated fastening flanges

Tightening spindle		Angle head			Measurement transducer	Planetary gearbox	EC motor
Working range Nm	Max. output drive speed rpm	Tool mount	Code	Order no.	Code/Order no.	Code/Order no.	Code/Order no.
2.2–5.6	1,000	1/4" square drive	2W11	0608810041	2DMC006 0608820110	2GE19 0608720043	EC302 0608701016
	740	1/4" square drive	2W11	0608810041		2GE26 0608720038	
2.2–11	1,000	1/4" square drive	2W11	0608810041	2DMC012 0608820111	2GE19 0608720043	
	740	1/4" square drive	2W11	0608810041		2GE26 0608720038	

Note: You can find component dimensions and 3D/CAD data on the Internet at www.boschrexroth.com/tightening

ANGLE HEAD WITH SPINDLE BEARING



- A** Spindle with angle head
- B** Spindle bearing
- C** Mounting plate

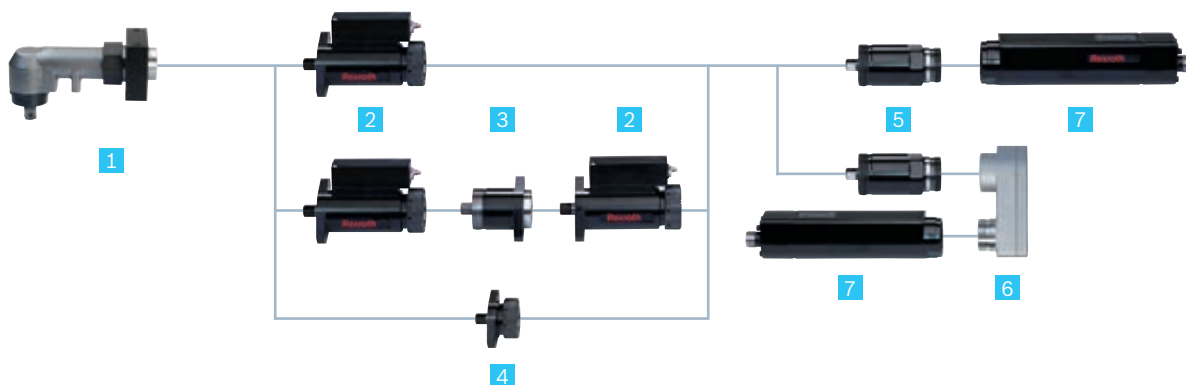
AXIAL COMPENSATOR





To ensure troublefree operation, the angle head must always be operated with an output drive axial compensator, e.g. spindle bearing.




You can find more information in the planning instructions for angle heads in the Rexroth media directory at www.boschrexroth.com/mediadirectory.






For an output drive axial compensator, the following angle head/spindle bearing combination is possible:
2W011 (0608810041) – spindle bearing size 2 (page 14).

Angle head size 2 – components



1 Angle head 	Code	2W011			
	Order no.	0608810041			
	Max. torque	Nm	11		
	Reduction		1.05		
	Avg. efficiency		0.95		
	Installation length	mm	81.5		
	Weight	kg	0.7		
2 Measurement Transducer 	Code	2DMC006	2DMC012		
	Order no.	0608820110	0608820111	You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140.	
	Nominal torque	Nm	6		12
	Reduction		1		1
	Avg. efficiency		1		1
	Installation length	mm	118.5		118.5
	Weight	kg	0.55		0.55
3 Redundant adapter 	Code	2AR			
	Order no.	0608810020		When configuring with a redundant measurement transducer, the adapter connects both measurement transducers	
	Reduction	1			
	Avg. efficiency	1			
	Installation length	mm	50		
	Weight	kg	0.3		
4 Adapter 	Code	2A			
	Order no.	0608810024		When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox	
	Reduction	1			
	Avg. efficiency	1			
	Installation length	mm	30		
	Weight	kg	0.4		

5 Planetary gearbox 	Code	2GE19	2GE26
	Order no.	0608720043	0608720038
	Reduction	18.9	25.5
	Avg. efficiency	0.93	0.9
	Installation length	mm 50.9	50.9
	Weight	kg 0.4	0.4
6 Transverse gearbox 	Code	2ULG	
	Order no.	0608810054	The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox.
	Reduction	1	
	Avg. efficiency	0.95	
	Installation length	mm 28.3	
	Weight	kg 0.4	
7 EC motor 	Code	EC302	
	Order no.	0608701016	
	Installation length	mm 197	
	Weight	kg 0.72	

Side-by-side arrangement of tightening spindles (center-to-center distance)					
Number of tightening spindles	2	3	4	5	6
					
Min. circle diameter- $\varnothing d_{\min}$ mm	2W011 26	30	36	44	52

Tightening spindles size 2

Feed output drive



- ▶ Working range 0.6 – 10 Nm
- ▶ Max. output drive speed 1,000 rpm

Depending on the size, the actual components may differ from those in the illustration.

FEATURES

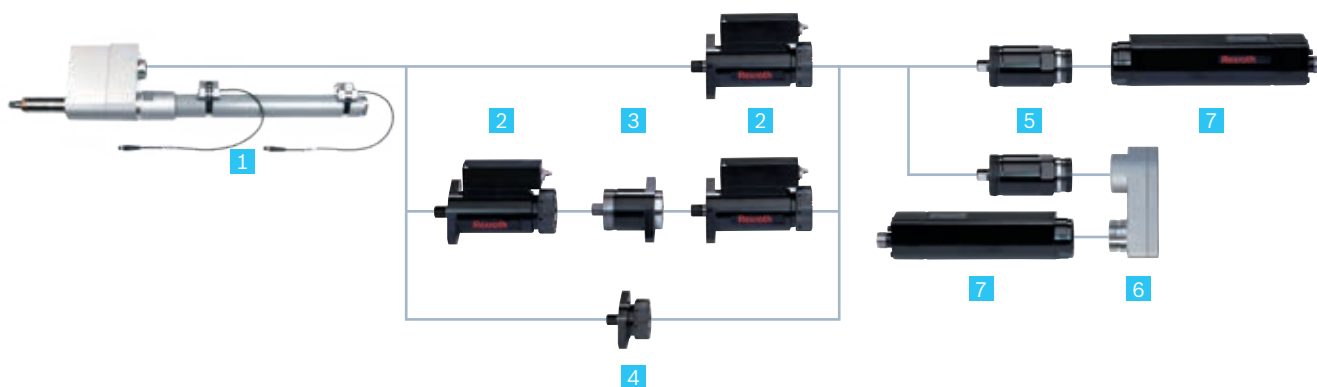
- ▶ Integrated feed movement
- ▶ In connection with automatic bolt supply
- ▶ Standard tool mounts and compressed air connections
- ▶ Maintenance-free for 1 million full-load cycles





Tightening spindle		Feed output drive				Measurement transducer	Planetary gearbox	EC motor
Working range Nm	Max. output drive speed rpm	Stroke mm	Tool mount	Code	Bestell-Nr.	Code/ Order no.	Code/ Order no.	Code/ Order no.
0.6*–5.1	1,000	160	M6 outer thread	2S2M8	0608 800647	2DMC006 0608 820 110	2GE19 0608 720043	EC302 0608 701016
	780	160	M6 outer thread	2S2M8	0608 800647		2GE26 0608 720038	
	1,000	160	1/4" square drive	2S1M8	0608 800646		2GE19 0608 720043	
	780	160	1/4" square drive	2S1M8	0608 800646		2GE26 0608 720038	
1.2*–7	1,000	160	M6 outer thread	2S2M8	0608 800647	2DMC012 0608 820 111	2GE19 0608 720043	
	780	160	M6 outer thread	2S2M8	0608 800647		2GE26 0608 720038	
1.2*–10	1,000	160	1/4" square drive	2S1M8	0608 800646		2GE19 0608 720043	
	780	160	1/4" square drive	2S1M8	0608 800646		2GE26 0608 720038	




* Depending on the tolerance limits, position-based MCT required






Note: You can find component dimensions and 3D/CAD data on the Internet at www.boschrexroth.com/tightening

Feed output drive size 2 – components



1 Feed output drive	Code	2S1M8	2S2M8	
	Order no.	0 608 800 646	0 608 800 647	
	Max. torque	Nm 10	7	
	Stroke	mm 160	160	
	Max. air pressure	bar 4	4	
	Reduction	1	1	
	Avg. efficiency	0.93	0.93	
	Length A	mm 80	80	
	Installation length	mm 189.5	189.5	
	Weight	kg 2	2	
2 Measurement transducer	Code	2DMC006	2DMC012	
	Order no.	0 608 820 110	0 608 820 111	You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140.
	Nominal torque	Nm 6	12	
	Reduction	1	1	
	Avg. efficiency	1	1	
	Installation length	mm 118.5	118.5	
	Weight	kg 0.55	0.55	
3 Redundant adapter	Code	2AR		
	Order no.	0 608 810 020		When configuring with a redundant measurement transducer, the adapter connects both measurement transducers.
	Reduction	1		
	Avg. efficiency	1		
	Installation length	mm 50		
	Weight	kg 0.3		
4 Adapter	Code	2A		
	Order no.	0 608 810 024		When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox.
	Reduction	1		
	Avg. efficiency	1		
	Installation length	mm 30		
	Weight	kg 0.4		

5 Planetary gearbox 	Code	2GE19	2GE26
	Order no.	0608720043	0608720038
	Reduction	18.9	25.5
	Avg. efficiency	0.93	0.9
	Installation length	mm 50.9	50.9
	Weight	kg 0.4	0.4
6 Transverse gearbox 	Code	2ULG	
	Order no.	0608810054	The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox.
	Reduction	1	
	Avg. efficiency	0.95	
	Installation length	mm 28.3	
	Weight	kg 0.4	
7 EC motor 	Code	EC302	
	Order no.	0608701016	
	Installation length	mm 197	
	Weight	kg 0.72	

Side-by-side arrangement of tightening spindles (center-to-center distance)						
Number of tightening spindle		2	3	4	5	6
						
Min. circle diameter- $\varnothing d_{min}$ mm	2S...	33	38	46	55	65