



Screwdriving technology

Automation

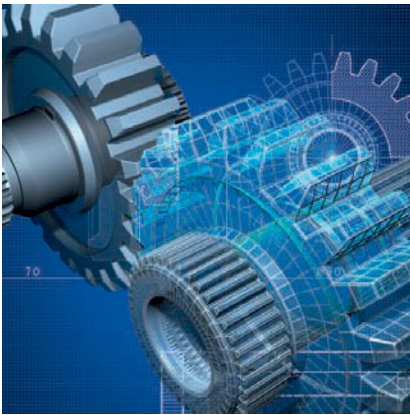
Air motors

Air tools

DEPRAG

POWER LINE

high performance air motors
from 1.6 to 18 kW



The high starting torque on this machine, its unrivalled light weight, as well as its robust and reliable design are clear advantages in comparison with any electric drive.

The product line of versatile high performance foot and flange motors is in a class of its own.

high performance
long life-span

robust
reliable

low weight
high starting torque



OVERVIEW PRODUCT SPECTRUM POWER LINE MOTORS

POWER LINE High performance motors



POWER LINE High performance motors with integrated planetary gears provide highest torque.

They are available in

- flange design (FM)
- foot design (KM)

Reversal via external valve

Performance classes:

1.6 kW	Page 28
2.6 kW	Page 28
3.6 kW	Page 28
5.1 kW	Page 32
9 kW	Page 32
18 kW	Page 32

Reversal via lever

Performance classes:

1.9 kW	Page 30
3.3 kW	Page 30
4.6 kW	Page 30

The Design of your Air Motor:

Calculating the motor performance:

$$P = \frac{M \times n}{9550}$$

P = Power Output in kW
M = Nominal Torque in Nm
n = Nominal-Speed in rpm

Power [HP] = P [kW] x 1.34
Torque [in.lbs] = M [Nm] x 8.85

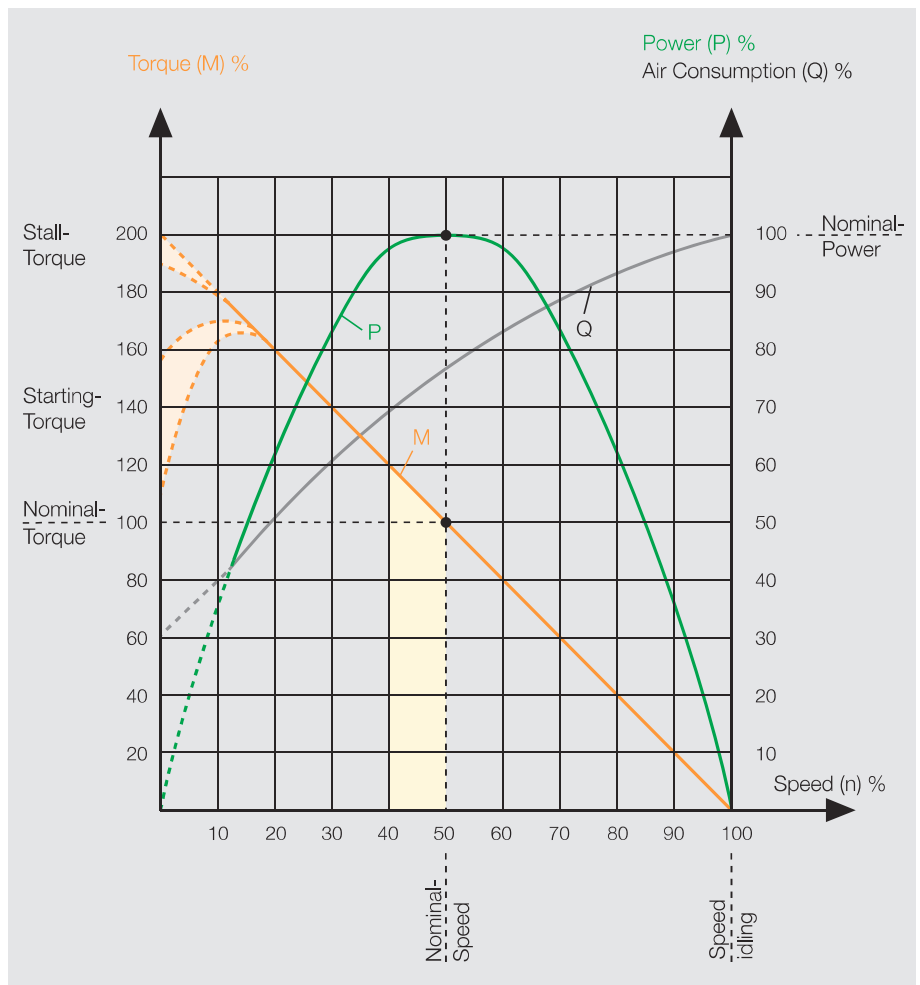
The optimal working range of an air motor is close to the nominal speed.

If you require lower speeds than those mentioned in the catalogue then you can reduce the speed smoothly by throttling the exhaust air without significant loss of performance or torque.

By throttling the supply air or decreasing the operating pressure the speed, the torque and the performance of the motor can be reduced.

All performance data for DEPRAG air motors is based on operating pressure of 6 bar and the minimum allowable opening cross-section of the feed hose as stated in each motor's data.

If your surrounding conditions vary from this you will find a comprehensive guide to our motors in brochure D 6000 E. We will also be happy to answer any questions directly.



= optimal working range of the air motor

1.6 kW POWER LINE motors with worm gears

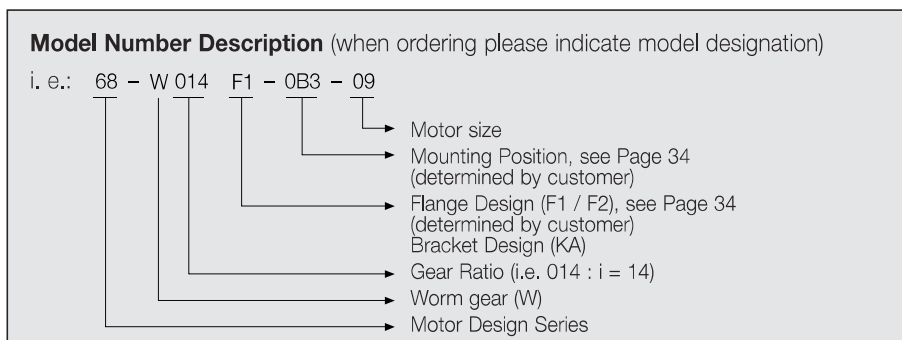
The motors in this design series can be operated in either right- or left rotation. Alternatively, the motor can also be reversed by two external 3/2-way valves or one 5/3-way valve (each with sufficiently large cross-sections).

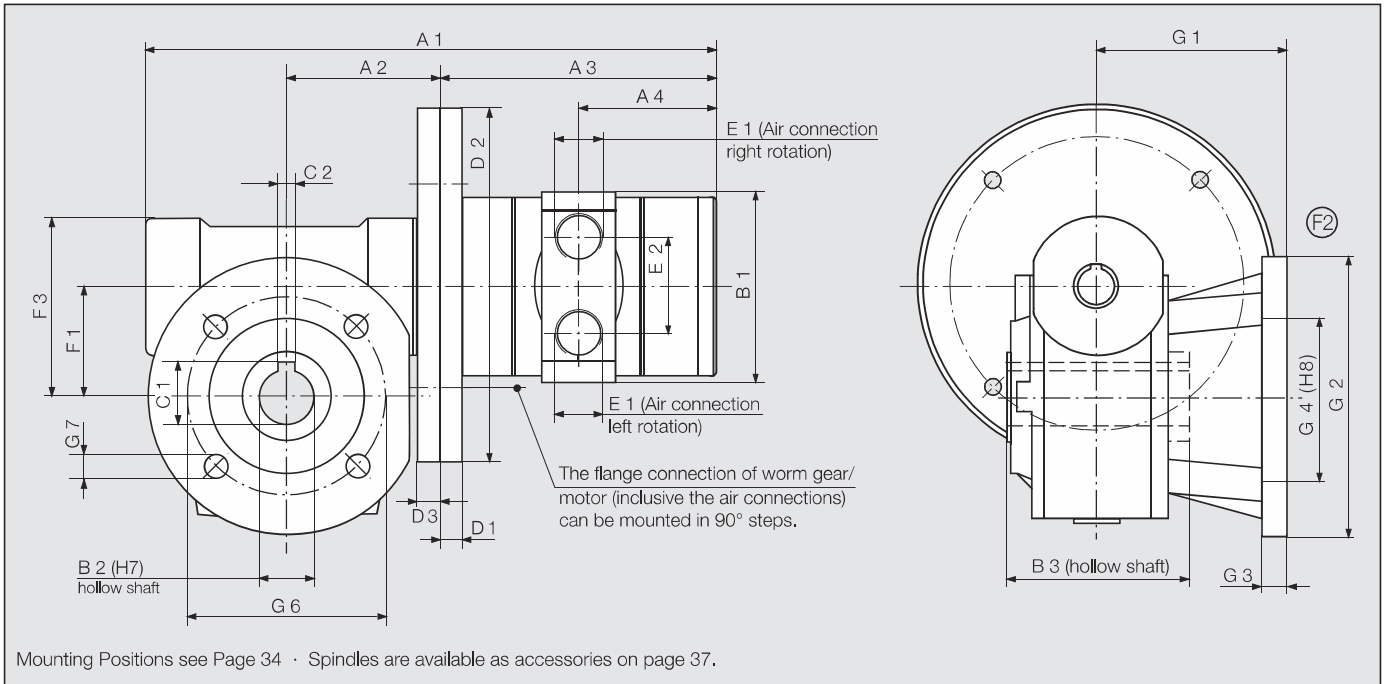
Motor size 9 with worm gear		Flange motor	Bracket motor
Motor, reversible by external valve	Type order no.	68-W014 F1- ... -09 444858 A - F 1)	68-W014 KA- ... -09 444862 A - F 1)
Nominal-Power	kW / HP	1.6 / 2.1	1.6 / 2.1
Nominal-Speed	rpm	320	320
Speed (idling)	rpm	430 ²⁾	430 ²⁾
Nominal-Torque	Nm / in.lbs	38 / 336	38 / 336
Start-Torque min.	Nm / in.lbs	40 / 354	40 / 354
Air consumption	m ³ /min / cfm	1.9 / 67	1.9 / 67
Weight	kg / lbs	7.2 / 16	7.2 / 16
Hose I.D.	mm / in.	15 / ⁵ / ₈	15 / ⁵ / ₈
Gear type		W49F	W49KA
Max. gear torque for permanent load	Nm / in.lbs	44 / 389	44 / 389

Performance data relate to an air pressure of 6 bar (85 PSI)

¹⁾ A / B / C / D / E / F = mounting position 0B3 / 0B6 / 0B7 / 0B8 / 0V5 / 0V6
(Example: mounting position 0B6 = order no. XXXXXX B)
²⁾ max. admissible Speed (idling)

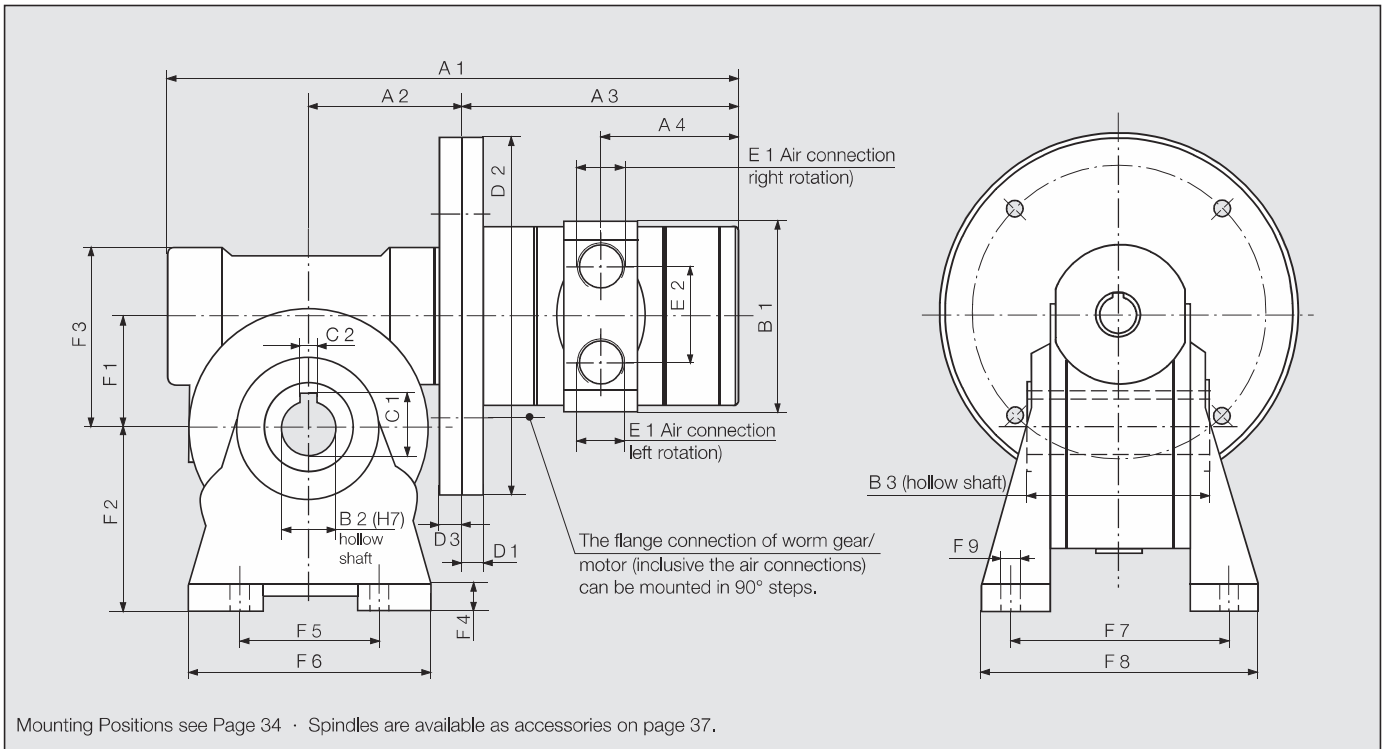
For permissible radial and axial forces please check page 37.





Motor size 9 with worm gear

Type	Dimensions of Flange motor (mm)																					
	A1	A2	A3	A4	B1	B2	B3	C1	C2	D1	D2	D3	E1	E2	F1	F3	G1	G2	G3	G4	G6	G7
68-W014..	260	70	127	64	82	25	82	28.3	8	10	160	10.5	G1/2	44	49.5	80	85	125	12	70	90	10.5 (4x)



Motor size 9 with worm gear

Type	Dimensions of Bracket motor (mm)																						
	A1	A2	A3	A4	B1	B2	B3	C1	C2	D1	D2	D3	E1	E2	F1	F2	F3	F4	F5	F6	F7	F8	F9
68-W014..	260	70	127	64	82	25	82	28.3	8	10	160	10.5	G1/2	44	49.5	82	80	12	63	110	98.5	124	8.5

1.6 kW POWER LINE motors with worm gears

The motors in this design series can be operated in either right- or left rotation. Alternatively, the motor can also be reversed by two external 3/2-way valves or one 5/3-way valve (each with sufficiently large cross-sections).

Motor size 9 with worm gear		Universal mounting		
Motor, reversible by external valve	Type order no.	68-W030U --09 446225 A - F ¹⁾	68-W064U --09 446226 A - F ¹⁾	68-W080U --09 446227 A - F ¹⁾
Nominal-Power	kW / HP	1.6 / 2.1	1.6 / 2.1	1.6 / 2.1
Nominal-Speed	rpm	150	70	55
Speed (idling)	rpm	200 ²⁾	95 ²⁾	75 ²⁾
Nominal-Torque	Nm / in.lbs	77 / 681	154 / 1363	180 / 1593
Start-Torque min.	Nm / in.lbs	65 / 575	117 / 1035	130 / 1150
Air consumption	m ³ /min / cfm	1.9 / 67	1.9 / 67	1.9 / 67
Weight	kg / lbs	10.5 / 23.1	17.8 / 39.2	17.8 / 39.2
Hose I.D.	mm / in.	15 / ⁵ / ₈	15 / ⁵ / ₈	15 / ⁵ / ₈
Gear type		W63U	W86U	W86U
Max. gear torque for permanent load	Nm / in.lbs	125 / 1106	250 / 2212	225 / 1991

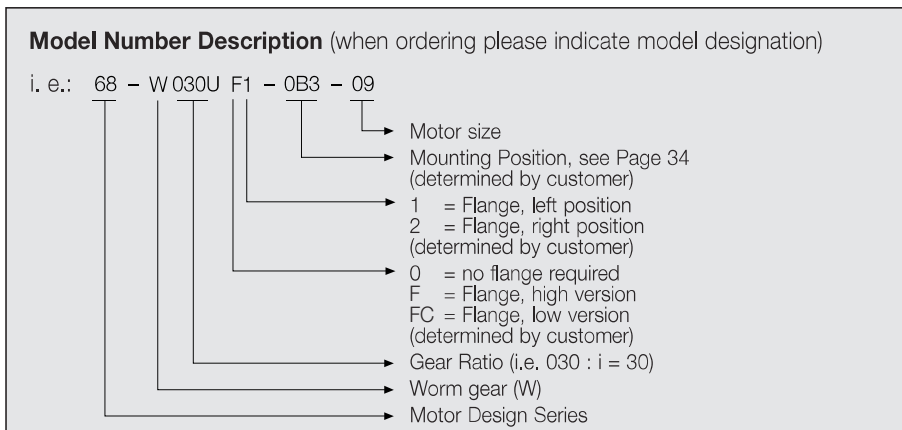
Performance data relate to an air pressure of 6 bar (85 PSI)

¹⁾ A / B / C / D / E / F = mounting position 0B3 / 0B6 / 0B7 / 0B8 / 0V5 / 0V6
(Example: mounting position 0B6 = order no. XXXXXX B)
²⁾ max. admissible Speed (idling)

For permissible radial and axial forces please check page 37.

Using the universal mounting the motor can be fixed flexibly. As well as direct mounting, indirect mounting via a flange is also possible.

The flange varieties F and FC can be found under Optional Accessories on page 37.





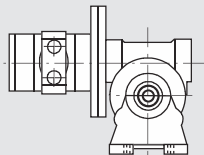
172760

Motor size 9 with worm gear																			
Type	Dimensions of Flange motor (mm)																		
	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	D1	D2	D3	E1	E2	F1	F2	F3
68-W030U	294,5	95	127	64	72,5	102	82	25	120	28,3	8	10	160	11	1/2"	44	62,17	110	182,5
68-W064U	355	128	127	64	100	144	82	35	140	38,3	10	10	160	11	1/2"	44	86,9	145,5	245,5
68-W080U	355	128	127	64	100	144	82	35	140	38,3	10	10	160	11	1/2"	44	86,9	145,5	245,5
	F4	F5	F6	F7	F8	G1	G1/1	G1/2	G2	G1/1	G3	G3/1	G4	G4/1	G5	G6	G6/1	G7	G7/1
68-W030U	72,5	102	37,5	9	76	56	116	86	105	180	3	11	75	115	5	90	150	M8x14	11
68-W064U	100	144	45,5	11,5	101	68	151	110,5	150	210	3,5	15	110	152	6	130	176	M10x18	12,5
68-W080U	100	144	45,5	11,5	101	68	151	110,5	150	210	3,5	15	110	152	6	130	176	M10x18	12,5

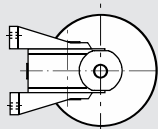
Mounting Positions for POWER LINE motors with worm gears

Bracket motor

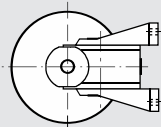
OB3



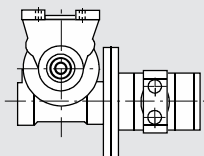
OB6



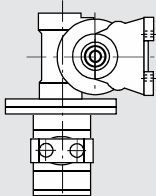
OB7



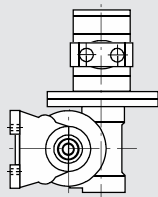
OB8



OV5

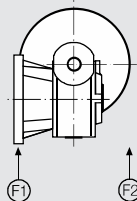


OV6

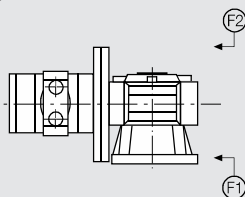


Flange motor Flange layout - (F1) / (F2)

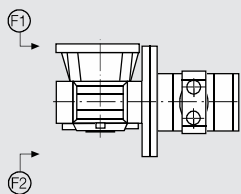
OB3



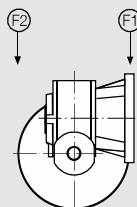
OB6



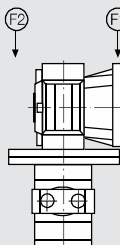
OB7



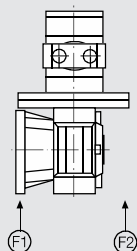
OB8



OV5

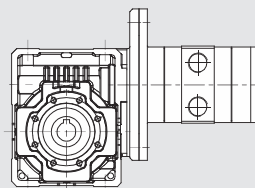


OV6

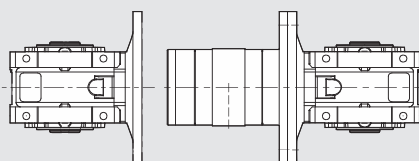


Universal mounting

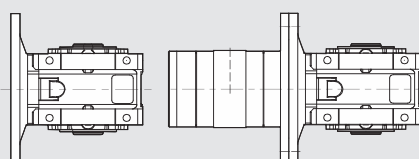
OB3



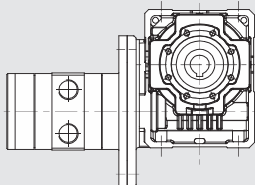
OB6



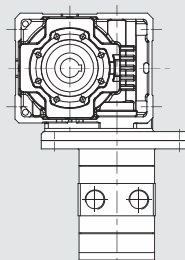
OB7



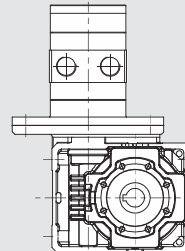
OB8



OV5



OV6



ACCESSORIES

Spare Parts Kit

Appropriate for each motor	Type	68-009	68-0011	68-0013
Spare Parts Kit	order no.	445033 A	445034 A	445035 A
Consisting of: Bearing, Vanes, Springs and Seal rings				

Silencer

Appropriate for each motor	Type	68-009	68-0011	68-0013
Silencer Set including connection	order no.	440021 A	440022 A	440023 A

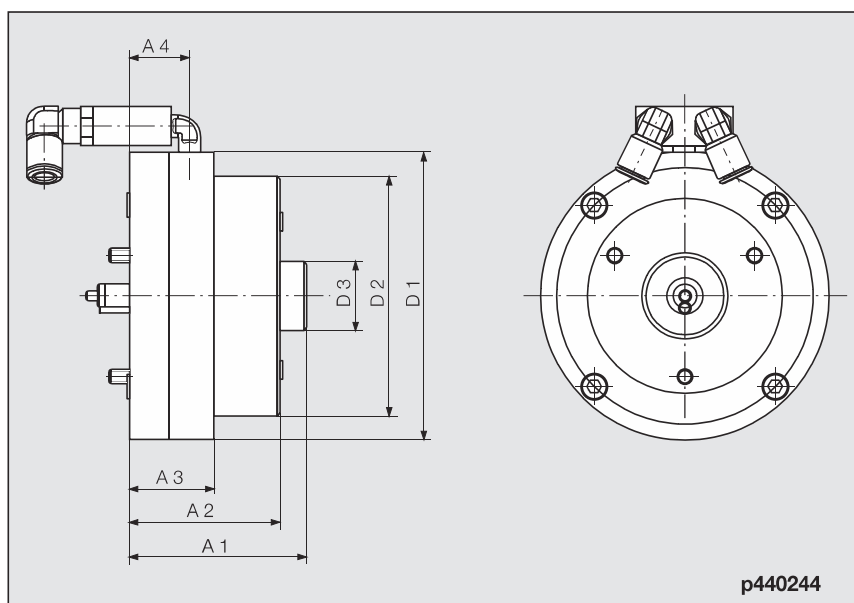
Holding brake

Our holding brakes are designed for the motors 68-009, 68-0011 and 68-0013 and can be ordered fully mounted together with the motors.

In addition the holding brake is also suitable for upgrading the motor type 68-009. We can carry out this upgrade for you on request.

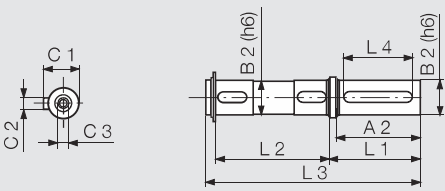
Appropriate for each motor	Type	68-009	68-0011	68-0013
Holding brake	order no.	445709 B	on request	on request
Brake-Torque		12 Nm*)	28 Nm*)	46 Nm*)

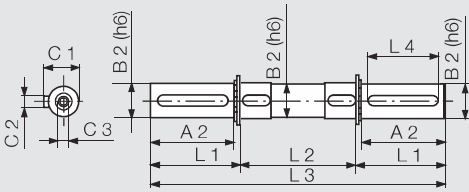
*) The holding brake is not designed for use with a different drive system. Please only use it in combination with the stated motor types.

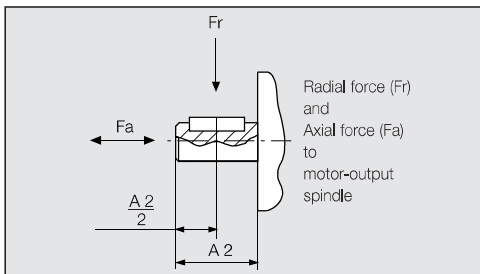


Type	Dimensions of braking device (mm)						
	A1	A2	A3	A4	D1	D2	D3
M9U	72,5	61,5	34,5	24,5	118	98	28
M11U	107	98	43,5	35,5	190	162	28
M13U							

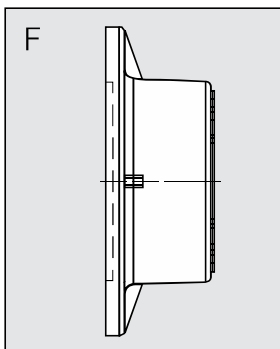
Drive spindle options for motors with worm gears

	Spindle for motors with worm gears											
	order no.	for hollow shaft mm	Radial force max. N / lbs	Axial force max. N / lbs	Dimensions (mm)							
					A2	B2	C1	C2	C3	L1	L2	L3
824328	Ø25 x 82	3450/770	690/150	60	25	28	8	M8	65	82	154	50
824329	Ø25 x 120	2540/508	508/110	60	25	28	8	M8	65	120	192	50
824330	Ø35 x 140	7000/1560	1400/310	60	35	38	10	M10	65	140	214	50
824331	Ø42 x 155	8000/1790	1600/355	75	42	45	12	M12	80	155	244	60
824332	Ø45 x 165	13800/3090	2760/615	80	45	48.5	12	M12	85	165	261	70

	Spindle for motors with worm gears											
	order no.	for hollow shaft mm	Radial force max. N / lbs	Axial force max. N / lbs	Dimensions (mm)							
					A2	B2	C1	C2	C3	L1	L2	L3
824333	Ø25 x 82	3450/770	690/150	60	25	28	8	M8	63.2	82	208.4	50
824334	Ø25 x 120	2540/508	508/110	60	25	28	8	M8	63.2	120	246.4	50
824335	Ø35 x 140	7000/1560	1400/310	60	35	38	10	M10	64	140	268	50
824336	Ø42 x 155	8000/1790	1600/355	75	42	45	12	M12	79.2	155	313.5	60
824337	Ø45 x 165	13800/3090	2760/615	80	45	48.5	14	M12	84.7	165	334.5	70

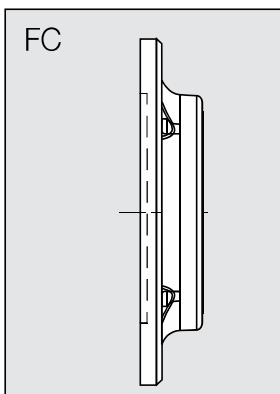


Flange design for motors with worm gears



Flange for motors with worm gears

Type of gearing	order no.
W 63 U	830929
W 86 U	830931
W 110 U	830934



Flange for motors with worm gears

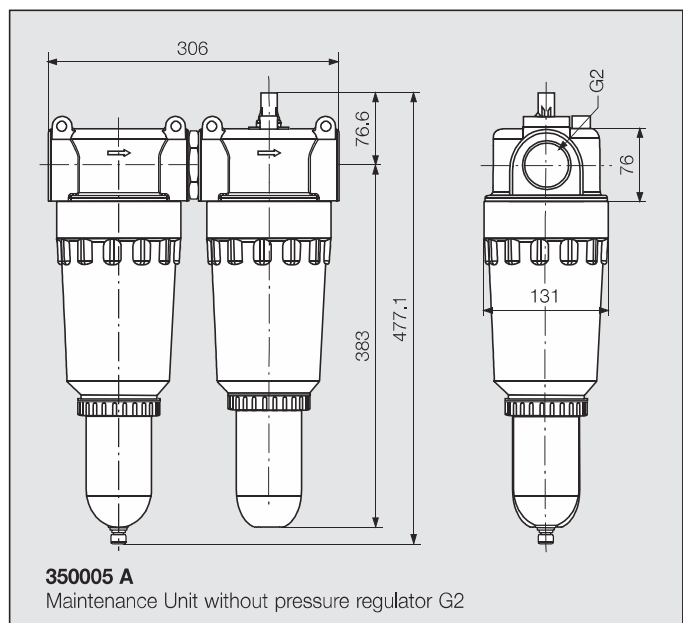
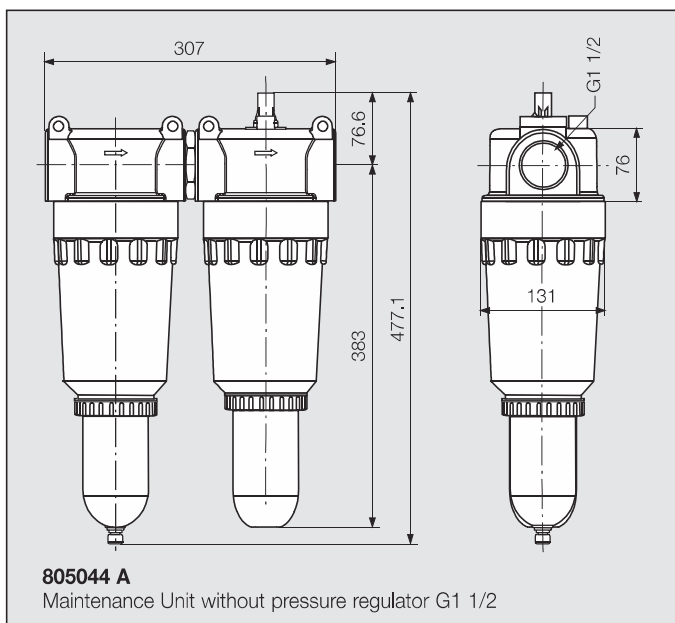
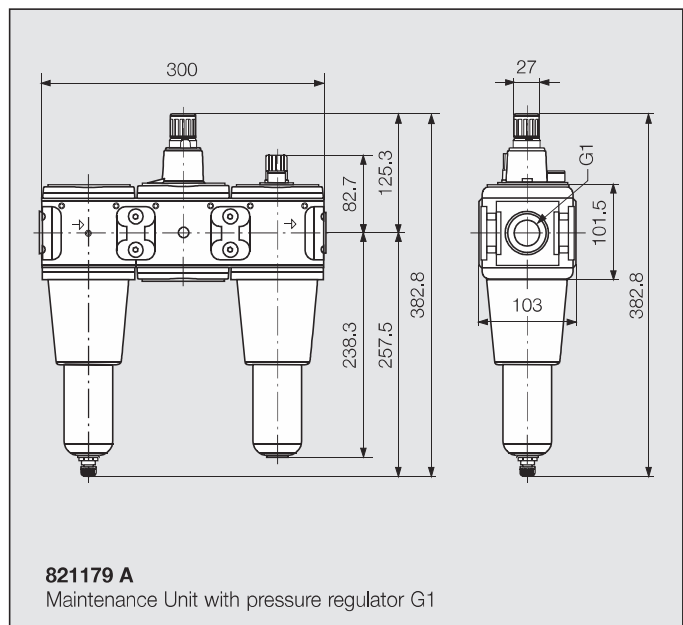
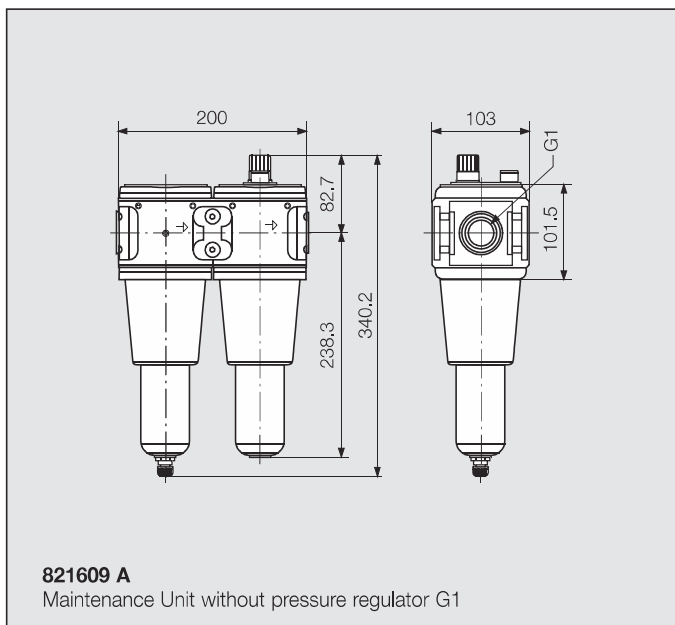
Type of gearing	order no.
W 63 U	830930
W 86 U	830932
W 110 U	830935

ACCESSORIES

Maintenance Unit

Maintenance Unit consisting of filter, oiler and double nipple
alternatively available with or without pressure regulator

Type of Motor	Thread Size	Air Flow	order no. without pressure regulator	order no. with pressure regulator
68-009	G 1	0.8 - 6 m ³ /min	821609 A	821179 A
68-0011	G 1	0.8 - 6 m ³ /min	821609 A	821179 A
68-0013	G 1 1/2	5 - 16 m ³ /min	805044 A	-
FM 32 / KM 32	G 1	0.8 - 6 m ³ /min	821609 A	821179 A
FM 50 / KM 50	G 1	0.8 - 6 m ³ /min	821609 A	821179 A
FM 52 / KM 52	G 1 1/2	5 - 16 m ³ /min	805044 A	-
KM 54	G 1 1/2	5 - 16 m ³ /min	805044 A	-
KM 55	G 1 1/2	5 - 16 m ³ /min	805044 A	-
FM 65	G 2	7 - 20 m ³ /min	350005 A	-



Do you need support in selecting the right drive system?

Tell us your operational conditions and our application consultants will be happy to help:

Application:	<input type="text"/>		
In what kind of environment will the motor be installed?	ATEX requirement / explosion safety?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	if yes, which safety class:	<input type="text"/>	
	food industry conformity?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	sterilisable?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	acid resistant?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	steam resistant?	<input type="checkbox"/> yes	<input type="checkbox"/> no
Application conditions:	constant operation (24 hrs, non-stop)	<input type="checkbox"/> yes	<input type="checkbox"/> no
	duty cycle in hrs/day:	<input type="text"/>	
	days/year:	<input type="text"/>	
	cycle time (s):	<input type="text"/>	
	motor loaded to stall?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	self-locking?	<input type="checkbox"/> yes	<input type="checkbox"/> no
Required turn direction:	<input type="checkbox"/> left	<input type="checkbox"/> right	<input type="checkbox"/> reversible
	(view from air inlet)		
Motor performance:	power:	<input type="text"/>	W
	nominal torque:	<input type="text"/>	Nm
	nominal speed:	<input type="text"/>	rpm
Performance influencing application conditions:	operating pressure (at motor inlet):	<input type="text"/>	bar
	operation with lubricated air possible?	<input type="checkbox"/> yes	<input type="checkbox"/> no
	smallest opening cross-section of connection pieces and hoses?	<input type="text"/>	mm
External motor design:	<input type="checkbox"/> standard steel	<input type="checkbox"/> non-corrosive	<input type="checkbox"/> aluminium
	<input type="checkbox"/> plastics	<input type="checkbox"/> ceramics	
	other:	<input type="text"/>	
Drive spindle design:	drive shaft requirements:	<input type="text"/>	
	(e. g. keyed shafts, square end, hexagonal, collet, drill chuck taper, etc.)		
	required dimensions:	<input type="text"/>	
Motor fixture design:	mounting requirements: (bracket, flange, etc.)	<input type="text"/>	
	required dimensions:	<input type="text"/>	
Additional components:	<input type="checkbox"/> holding brake	<input type="checkbox"/> operational brake	
	gear box:	<input type="text"/>	
Price range:	<input type="text"/>		
Annual requirement:	<input type="text"/>		

DEPRAG

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CERTIFIED AS PER DIN EN ISO 9001
