



## Air Vane Motors for Special Applications

Drilling motors | Milling motors | Grinding motors

## Air Vane Motors for Special Applications

- **Robust and precise bearing**
- **High running accuracy**
- **High precision drill chucks and collets**

High performance drive for installation in robots and machines.  
For example their slim design allows the smallest of drill spacings when applying a multi-spindle technique, such as for the construction of windows. The robust steel housing guarantees high precision and operational safety.

All air motors can also be used without lubrication.

## Drilling motor

Drill motors in slim design allow narrow hole spacing in multiple spindle units such as required for window manufacturing.

### **Available power classes:**

From 80 W - 600 W

### **Speed range:**

150 - 24,000 rpm

### **Your advantage of the drilling motor:**

- Highly accurate drill chuck with taper attachment

## Milling motor

The durable milling motors with a superior run-out precision, are the first choice for robotic applications since they are small in size but powerful at a vast speed range.

**Available power classes:**

400 W

**Speed range:**

Max. 20,000 rpm (according to your individual application)

**Your advantages of the milling motor:**

- Robust and precise bearing
- High running precision

## Grinding motor

The DEPRAG grinding motor program benefits from decades of experience with the tried and tested DEPRAG handheld pneumatic grinders. The robust steel housing guarantees high accuracy and operational reliability. Furthermore, the grinder spindle feature extremely precise collets for various shaft diameters and offer a high running accuracy.

**Available power classes:**

From 150 W - 1,000 W

**Speed range:**

From 15,300 - 47,000 rpm (according to your individual application)

**Your advantages of the grinding motor:**

- Highly accurate collet for different shaft diameters
- High running precision



## 80 W drilling motors with collet / 170 W drilling motors with collet or drill chuck

| Motor size 1                 |              | right rotation                   |                                  |                                  |                                  |  |  |
|------------------------------|--------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--|--|
| Series 104-<br>with collet   | Type         | 104-010-1                        | 104-110-1                        | 104-210-1                        | 104-310-1                        |  |  |
|                              | Part no.     | 302929A                          | 302929B                          | 302929C                          | 302929D                          |  |  |
| Nominal power                | W / HP       | 80 / 0.11                        | 80 / 0.11                        | 80 / 0.11                        | 80 / 0.11                        |  |  |
| Nominal speed                | rpm          | 11000                            | 3000                             | 950                              | 650                              |  |  |
| Speed (idling)               | rpm          | 22000                            | 6000                             | 1900                             | 1300                             |  |  |
| Nominal torque               | Nm / in.lbs  | 0.06 / 0.5                       | 0.22 / 1.9                       | 0.8 / 7                          | 1.2 / 11                         |  |  |
| Start torque min.            | Nm / in.lbs  | 0.09 / 0.8                       | 0.33 / 2.9                       | 1.2 / 11                         | 1.8 / 16                         |  |  |
| Air consumption              | m³/min / cfm | 0.23 / 8                         | 0.23 / 8                         | 0.23 / 8                         | 0.23 / 8                         |  |  |
| Length A2                    | mm / in.     | 96.5 / 3.76                      | 96.5 / 3.76                      | 105.5 / 4.11                     | 105.5 / 4.11                     |  |  |
| Length A1                    | mm / in.     | 84.5 / 3.295                     | 84.5 / 3.295                     | 93.5 / 3.646                     | 93.5 / 3.646                     |  |  |
| Weight                       | kg / lbs     | 0.2 / 0.4                        | 0.2 / 0.4                        | 0.22 / 0.5                       | 0.22 / 0.5                       |  |  |
| Hose I.D.                    | mm / in.     | 4 / <sup>5</sup> / <sub>32</sub> | 4 / <sup>5</sup> / <sub>32</sub> | 4 / <sup>5</sup> / <sub>32</sub> | 4 / <sup>5</sup> / <sub>32</sub> |  |  |
| for drilling steel up to     | Ø mm / in.   | –                                | 3 / <sup>1</sup> / <sub>8</sub>  | 3 / <sup>1</sup> / <sub>8</sub>  | 3 / <sup>1</sup> / <sub>8</sub>  |  |  |
| for drilling aluminium up to | Ø mm / in.   | 3 / <sup>1</sup> / <sub>8</sub>  | 3 / <sup>1</sup> / <sub>8</sub>  | 3 / <sup>1</sup> / <sub>8</sub>  | 3 / <sup>1</sup> / <sub>8</sub>  |  |  |

Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

Motor housing made from stainless steel.  
Spindle and collet regular steel.

| Motor size 2                   |              | right rotation                   |                                   |                                   |                                   |                                   |                                   |
|--------------------------------|--------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Series 104-<br>with collet     | Type         | 104-020-1                        | 104-120-1                         | 104-220-1                         | 104-320-1                         | 104-420-1                         | 104-520-1                         |
|                                | Part no.     | 302916A                          | 302916B                           | 302916C                           | 302916D                           | 302916E                           | 302916F                           |
| Series 104-<br>for drill chuck | Type         | –                                | 104-120                           | 104-220                           | 104-320                           | 104-420                           | 104-520                           |
|                                | Part no.     | –                                | 302912B                           | 302912C                           | 302912D                           | 302912E                           | 302912F                           |
| Nominal power                  | W / HP       | 170 / 0.23                       | 170 / 0.23                        | 170 / 0.23                        | 170 / 0.23                        | 170 / 0.23                        | 170 / 0.23                        |
| Nominal speed                  | rpm          | 12000                            | 3000                              | 2000                              | 750                               | 500                               | 330                               |
| Speed (idling)                 | rpm          | 24000                            | 6000                              | 4000                              | 1500                              | 1000                              | 660                               |
| Nominal torque                 | Nm / in.lbs  | 0.13 / 1.1                       | 0.5 / 4.4                         | 0.8 / 7                           | 2.1 / 18                          | 3.2 / 28                          | 4.9 / 43                          |
| Start torque min.              | Nm / in.lbs  | 0.19 / 1.7                       | 0.8 / 7                           | 1.2 / 10                          | 3.2 / 28                          | 4.8 / 42                          | 5 / 44*)                          |
| Air consumption                | m³/min / cfm | 0.3 / 11                         | 0.3 / 11                          | 0.3 / 11                          | 0.3 / 11                          | 0.3 / 11                          | 0.3 / 11                          |
| Weight                         | kg / lbs     | 0.38 / 0.84                      | 0.38 / 0.84                       | 0.38 / 0.84                       | 0.43 / 0.95                       | 0.43 / 0.95                       | 0.43 / 0.95                       |
| Hose I.D.                      | mm / in.     | 6 / <sup>1</sup> / <sub>4</sub>  | 6 / <sup>1</sup> / <sub>4</sub>   | 6 / <sup>1</sup> / <sub>4</sub>   | 6 / <sup>1</sup> / <sub>4</sub>   | 6 / <sup>1</sup> / <sub>4</sub>   | 6 / <sup>1</sup> / <sub>4</sub>   |
| for drilling steel up to       | Ø mm / in.   | –                                | 3 / <sup>1</sup> / <sub>8</sub>   | 4 / <sup>5</sup> / <sub>32</sub>  | 4 / <sup>5</sup> / <sub>32</sub>  | 4 / <sup>5</sup> / <sub>32</sub>  | 4 / <sup>5</sup> / <sub>32</sub>  |
| for drilling aluminium up to   | Ø mm / in.   | 4 / <sup>5</sup> / <sub>32</sub> | 5 / <sup>13</sup> / <sub>64</sub> | 6 / <sup>15</sup> / <sub>64</sub> | 6 / <sup>15</sup> / <sub>64</sub> | 6 / <sup>15</sup> / <sub>64</sub> | 6 / <sup>15</sup> / <sub>64</sub> |

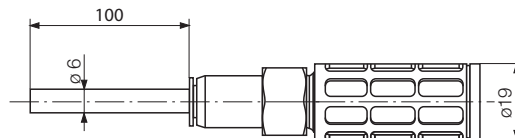
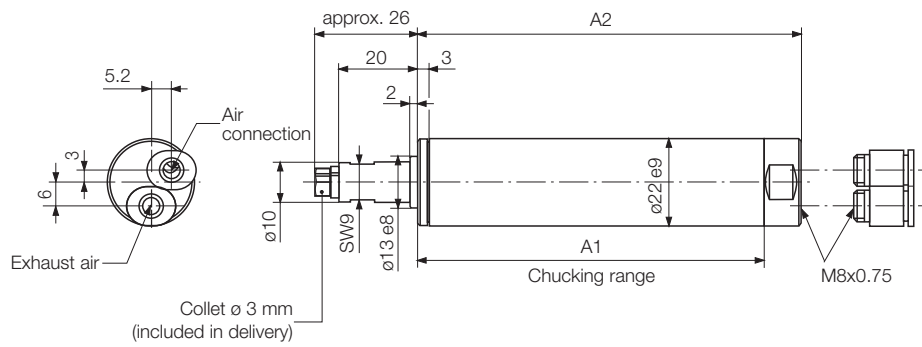
Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

\*) max admissible torque.  
External parts regular steel.

| Optional Equipment                                                                       |                                            | for Motor size 1                 | for Motor size 2              |
|------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------|-------------------------------|
| 2 Slide connectors (M8 x 0.75)                                                           |                                            | included in delivery             | –                             |
| Noise level                                                                              | at standard version                        | 95 dB (A)                        | 73 dB (A)                     |
|                                                                                          | with exhaust air system and exhaust filter | 71 dB (A)                        | 74 dB (A)                     |
| <b>Exhaust air system</b>                                                                | Part no.                                   | 446354A                          | 302923A                       |
| <b>Exhaust filter</b>                                                                    | Part no.                                   | integrated in exhaust air system | 8110912                       |
| <b>Maintenance unit with lubricator*</b>                                                 | Part no.                                   | 820454A                          | 820454A                       |
| Connection thread                                                                        |                                            | G <sup>1</sup> / <sub>4</sub>    | G <sup>1</sup> / <sub>4</sub> |
| <b>Maintenance unit without lubricator*</b>                                              | Part no.                                   | 822408A                          | 822408A                       |
| Connection thread                                                                        |                                            | G <sup>1</sup> / <sub>4</sub>    | G <sup>1</sup> / <sub>4</sub> |
| <b>Replacement part set</b> consisting of<br>vanes, sealant rings, o-rings and silencers | Part no.                                   | 446085B                          | 446086B                       |
| <b>Only suitable for series 104- with collet</b>                                         |                                            |                                  |                               |
| <b>Collet</b>                                                                            | Ø 2 mm                                     | Part no.                         | 314693                        |
|                                                                                          | Ø 3 mm                                     | Part no.                         | (included in delivery)        |
|                                                                                          | Ø 4 mm                                     | Part no.                         | 3024741                       |
|                                                                                          | Ø 5 mm                                     | Part no.                         | –                             |
|                                                                                          | Ø 6 mm                                     | Part no.                         | –                             |
|                                                                                          | Ø 3/32" (2.35 mm)                          | Part no.                         | 314694                        |
|                                                                                          | Ø 1/8" (3.175 mm)                          | Part no.                         | 314407                        |
|                                                                                          | Ø 1/4" (6.35 mm)                           | Part no.                         | –                             |
| <b>Only suitable for series 104- for drill chuck</b>                                     |                                            |                                  |                               |
| <b>Gear rim drill chuck</b>                                                              |                                            |                                  |                               |
| Range 0.5 - 6.5 mm / B 10                                                                | Part no.                                   | –                                | 804655                        |
| <b>Quick change chuck</b>                                                                |                                            |                                  |                               |
| Range 0 - 6.5 mm / B 10                                                                  | Part no.                                   | –                                | 805986                        |
| (not suitable for type 104-020-1)                                                        |                                            |                                  |                               |

\*) Maintenance unit consists of pressure regulator valve, filter and optionally with or without lubricator

**Motor size 1**  
**Series 104-**  
right rotation

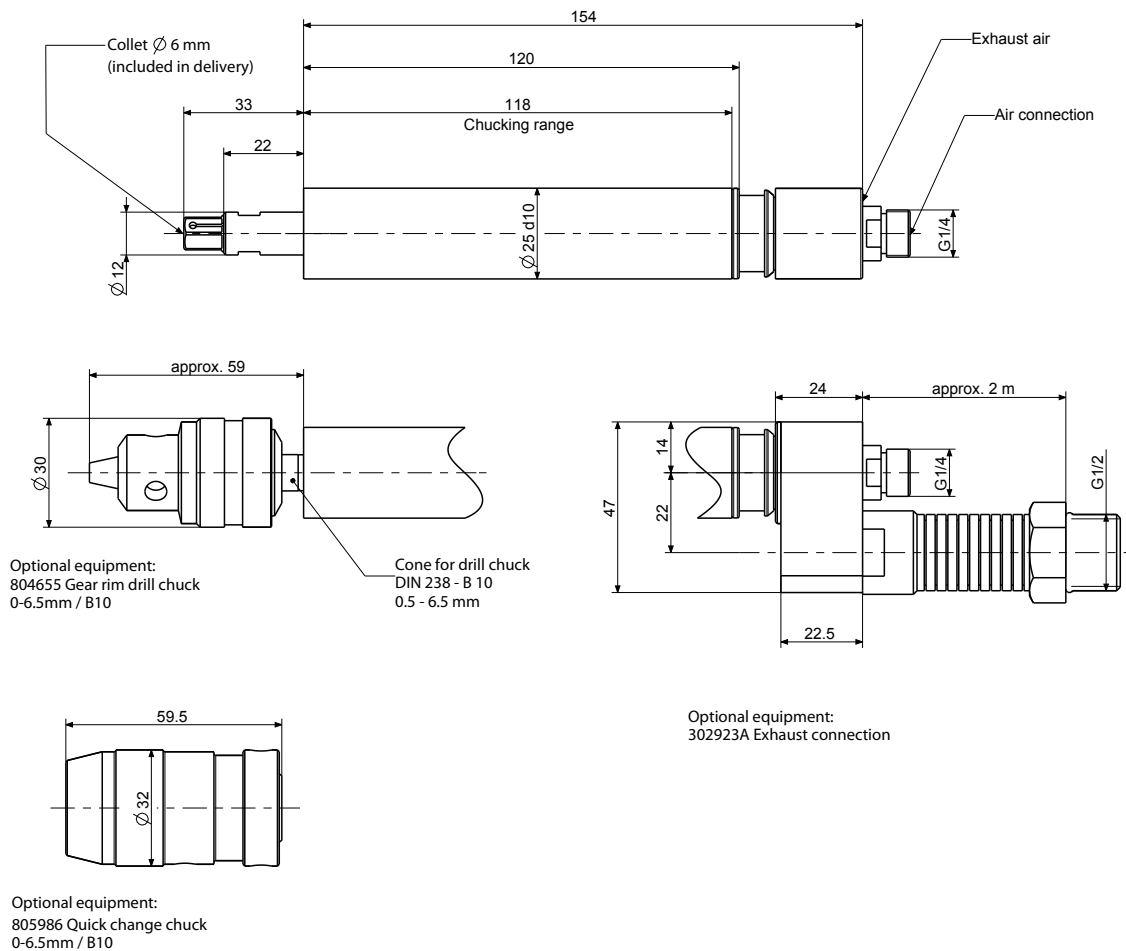


Exhaust air system with integrated silencer 446354A  
(optional equipment)

Dimensions in mm

p203439

**Motor size 2**  
**Series 104-**  
right rotation



Optional equipment:  
302923A Exhaust connection

Dimensions in mm

p122581

## 250 W / 400 W drilling motors with collet or drill chuck

| Motor size 2.5                 |                  | right rotation        |                       |                       |                       |                       |                       |
|--------------------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Series 104-<br>with collet     | Type<br>Part no. | 104-0250-1<br>302897A | 104-1250-1<br>302897B | 104-2250-1<br>302897C | 104-7250-1<br>302897D | 104-3250-1<br>302897E | 104-4250-1<br>302897F |
| Series 104-<br>for drill chuck | Type<br>Part no. | 104-0250<br>302900A   | 104-1250<br>302900B   | 104-2250<br>302900C   | 104-7250<br>302900D   | 104-3250<br>302900E   | 104-4250<br>302900F   |
| Nominal power                  | W / HP           | 250 / 0.33            | 250 / 0.33            | 250 / 0.33            | 250 / 0.33            | 250 / 0.33            | 250 / 0.33            |
| Nominal speed                  | rpm              | 8500                  | 2400                  | 1250                  | 700                   | 350                   | 175                   |
| Speed (idling)                 | rpm              | 17000                 | 4800                  | 2500                  | 1400                  | 700                   | 350                   |
| Nominal torque                 | Nm / in.lbs      | 0.28 / 2.5            | 1 / 9                 | 1.9 / 17              | 3.4 / 30              | 6.8 / 60              | 13.6 / 125            |
| Start torque min.              | Nm / in.lbs      | 0.42 / 3.7            | 1.5 / 13              | 2.8 / 25              | 5.1 / 45              | 10.2 / 90             | 20.4 / 180            |
| Air consumption                | m³/min / cfm     | 0.35 / 12             | 0.35 / 12             | 0.35 / 12             | 0.35 / 12             | 0.35 / 12             | 0.35 / 12             |
| Weight                         | kg / lbs         | 0.8 / 1.8             | 0.8 / 1.8             | 0.8 / 1.8             | 0.9 / 2               | 0.9 / 2               | 0.9 / 2               |
| Hose I.D.                      | mm / in.         | 6 / 1/4               | 6 / 1/4               | 6 / 1/4               | 6 / 1/4               | 6 / 1/4               | 6 / 1/4               |
| for drilling steel up to       | Ø mm / in.       | –                     | 4 / 5/32              | 6 / 15/64             | 8 / 5/16              | 10 / 25/64            | 10 / 25/64*)          |
| for drilling aluminium up to   | Ø mm / in.       | 6 / 15/64             | 6 / 15/64             | 8 / 5/16              | 10 / 25/64            | –                     | –                     |

Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

\*) Motor housing made from stainless steel, air connection and drive shaft regular steel.

| Motor size 3                   |                  | right rotation       |                      |                      |                      |                    |                    |
|--------------------------------|------------------|----------------------|----------------------|----------------------|----------------------|--------------------|--------------------|
| Series 104-<br>with collet     | Type<br>Part no. | 104-030-5<br>302980A | 104-130-5<br>302980B | 104-230-5<br>302980C | 104-730-5<br>302980D | *)                 | *)                 |
| Series 104-<br>for drill chuck | Type<br>Part no. | 104-030<br>302937A   | 104-130<br>302937B   | 104-230<br>302937C   | 104-730<br>302937D   | 104-830<br>302937E | 104-930<br>302937H |
| Nominal power                  | W / HP           | 400 / 0.54           | 400 / 0.54           | 400 / 0.54           | 400 / 0.54           | 400 / 0.54         | 400 / 0.54         |
| Nominal speed                  | rpm              | 8500                 | 2400                 | 1250                 | 700                  | 350                | 200                |
| Speed (idling)                 | rpm              | 17000                | 4800                 | 2500                 | 1400                 | 700                | 400                |
| Nominal torque                 | Nm / in.lbs      | 0.44 / 3.9           | 1.6 / 14             | 3 / 26               | 5.4 / 48             | 10.5 / 92.9        | 19 / 168.2         |
| Start torque min.              | Nm / in.lbs      | 0.66 / 5.8           | 2.4 / 21             | 4.5 / 40             | 8.1 / 72             | 15.7 / 138.9       | 28.5 / 252.2       |
| Air consumption                | m³/min / cfm     | 0.42 / 15            | 0.42 / 15            | 0.42 / 15            | 0.42 / 15            | 0.42 / 15          | 0.42 / 15          |
| Weight                         | kg / lbs         | 0.82 / 1.8           | 0.82 / 1.8           | 0.82 / 1.8           | 0.92 / 2             | 1.3 / 2.86         | 1.37 / 3           |
| Hose I.D.                      | mm / in.         | 10 / 3/8             | 10 / 3/8             | 10 / 3/8             | 10 / 3/8             | 10 / 3/8           | 10 / 3/8           |
| for drilling steel up to       | Ø mm / in.       | –                    | 4 / 5/32             | 6 / 15/64            | 8 / 5/16             | 10 / 3/8           | 10 / 3/8           |
| for drilling aluminium up to   | Ø mm / in.       | 6 / 15/64            | 6 / 15/64            | 8 / 5/16             | 10 / 25/64           | 10 / 3/8           | 12 / 15/32         |

Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

Air connection and drive shaft regular steel.  
\*) Collet version not available due to high torques.

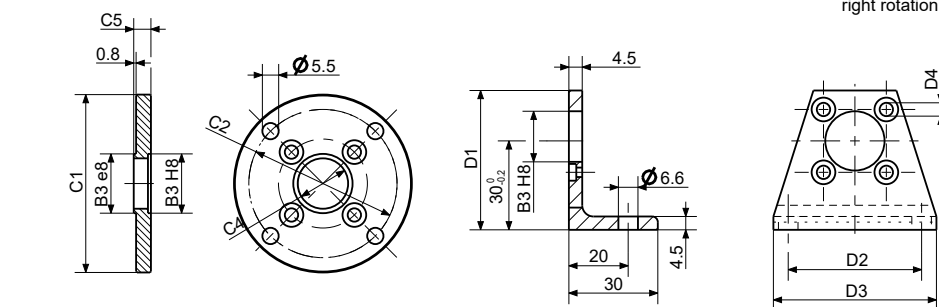
| Optional Equipment                                                                    |          | for Motor size 2.5 | type 104-0/1/2/730 | for Motor size 3     | type 104-8/930 | type 104-0/1/2/730-5 |
|---------------------------------------------------------------------------------------|----------|--------------------|--------------------|----------------------|----------------|----------------------|
| <b>Flange</b> incl. cylinder-screws                                                   | Part no. | 4445305            | 4445305            | 4446105              | 4445305        |                      |
| <b>Bracket</b> incl. cylinder-screws                                                  | Part no. | 4445393            | 4445393            | 4446112              | 4445393        |                      |
| <b>Maintenance unit with lubricator*</b>                                              | Part no. | 820454A            |                    | 820455A              |                | 820454A              |
| Connection thread                                                                     |          | G 1/4              |                    | G 1/2                |                | G 1/4                |
| <b>Maintenance unit without lubricator*</b>                                           | Part no. | 822408A            |                    | 822409A              |                | 822408A              |
| Connection thread                                                                     |          | G 1/4              |                    | G 1/2                |                | G 1/4                |
| <b>Replacement part set</b> consisting of vanes, sealant rings, o-rings and silencers | Part no. | 446087B            |                    | 446088C              |                | 446088I              |
| Noise level at standard version                                                       |          |                    |                    | 75 dB (A)            |                |                      |
| with exhaust air system and exhaust filter                                            |          |                    |                    | 73 dB (A)            |                |                      |
| <b>Exhaust air system</b>                                                             | Part no. |                    |                    | 388378B              |                |                      |
| <b>Exhaust filter</b>                                                                 | Part no. |                    |                    | 8110912              |                |                      |
| <b>Only suitable for series 104- with collet</b>                                      |          |                    |                    |                      |                |                      |
| <b>Collet</b> Ø 3 mm                                                                  | Part no. |                    |                    | 312681               |                |                      |
| Ø 4 mm                                                                                | Part no. |                    |                    | 312684               |                |                      |
| Ø 4.5 mm                                                                              | Part no. |                    |                    | 312685               |                |                      |
| Ø 5 mm                                                                                | Part no. |                    |                    | 312686               |                |                      |
| Ø 6 mm                                                                                |          |                    |                    | included in delivery |                |                      |
| Ø 1/8" (3.175 mm)                                                                     | Part no. |                    |                    | 312682               |                |                      |
| Ø 1/4" (6.35 mm)                                                                      | Part no. |                    |                    | 312689               |                |                      |
| <b>Only suitable for series 104- for drill chuck</b>                                  |          |                    |                    |                      |                |                      |
| <b>Gear rim drill chuck</b>                                                           |          |                    |                    |                      |                |                      |
| Range 0.8 - 10 mm / B 12                                                              | Part no. |                    |                    | 804650               |                |                      |
| Range 1.5 - 13 mm / B 12                                                              | Part no. |                    |                    | 804694               |                |                      |
| <b>Quick change chuck</b>                                                             |          |                    |                    |                      |                |                      |
| Range 0 - 8 mm / B 12<br>(not suitable for type 104-0250/104-030)                     | Part no. |                    |                    | 805985               |                |                      |

\*) Maintenance unit consists of pressure regulator valve, filter and optionally with or without lubricator

Motor size 2.5  
Series 104-  
right rotation

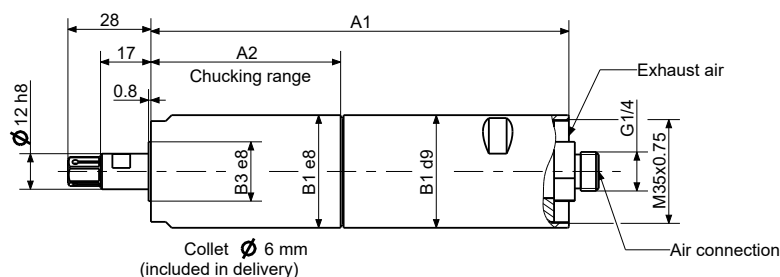
Motor size 3  
Series 104-  
right rotation

Flange / Bracket  
(Optional Equipment)



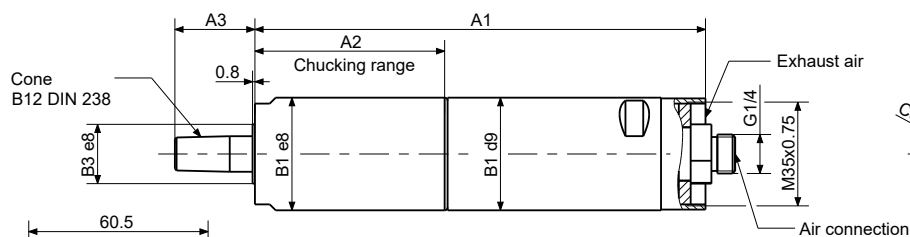
104-0250-1  
to  
104-4250-1

104-030-5  
to  
104-730-5

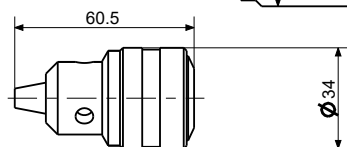


104-0250  
to  
104-4250

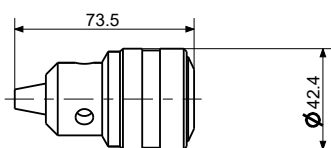
104-030  
to  
104-730



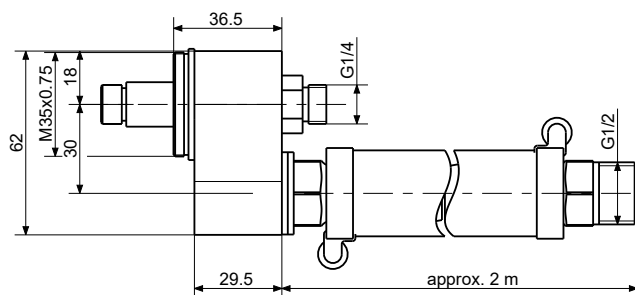
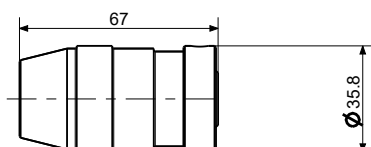
Gear rim drill chuck 804650  
0.8 - 10 mm / B12



Gear rim drill chuck 804694  
1.5 - 13 mm / B12



Quick change chuck  
805985  
0 - 8 mm / B12



Exhaust air system, part no.: 388378B  
Corresponding exhaust filter, part no.: 8110912

Dimensions in mm

p3000771

| Motor size | Series 104-<br>Type |            |            | Dimensions of motor, bracket and flange (mm) |    |    |    |    |    |    |    |    |    |     |    |    |    |    |     |
|------------|---------------------|------------|------------|----------------------------------------------|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|-----|
|            |                     |            |            | A1                                           | A2 | A3 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | C5  | C6 | D1 | D2 | D3 | D4  |
| 2.5        | 104-0250-1          | 104-1250-1 | 104-2250-1 | 141                                          | 64 | -  | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
|            | 104-7250-1          | 104-3250-1 | 104-4250-1 | 157                                          | 80 | -  | 38 | 34 | 20 | 60 | 50 | 30 | 17 | 5.8 | M4 | 47 | 45 | 55 | 4.5 |
|            | 104-0250            | 104-1250   | 104-2250   | 141                                          | 64 | 27 | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
|            | 104-7250            | 104-3250   | 104-4250   | 157                                          | 80 | -  | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
| 3          | 104-030-5           | 104-130-5  | 104-230-5  | 152                                          | 64 | -  | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
|            | 104-730-5           | -          | -          | 168                                          | 80 | -  | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
|            | 104-030             | 104-130    | 104-230    | 152                                          | 64 | 27 | 38 | 34 | 20 | 60 | 50 | 30 | 17 | 5.8 | M4 | 47 | 45 | 55 | 4.5 |
|            | 104-730             | -          | -          | 168                                          | 80 | -  | -  | -  | -  | -  | -  | -  | -  | -   | -  | -  | -  | -  | -   |
|            | 104-830             | 104-930    | -          | 170                                          | 82 | 30 | 42 | 36 | 24 | 65 | 55 | 34 | 21 | 6.8 | M5 | 48 | 50 | 60 | 5.5 |



## 300/600 W drilling motors made from stainless steel

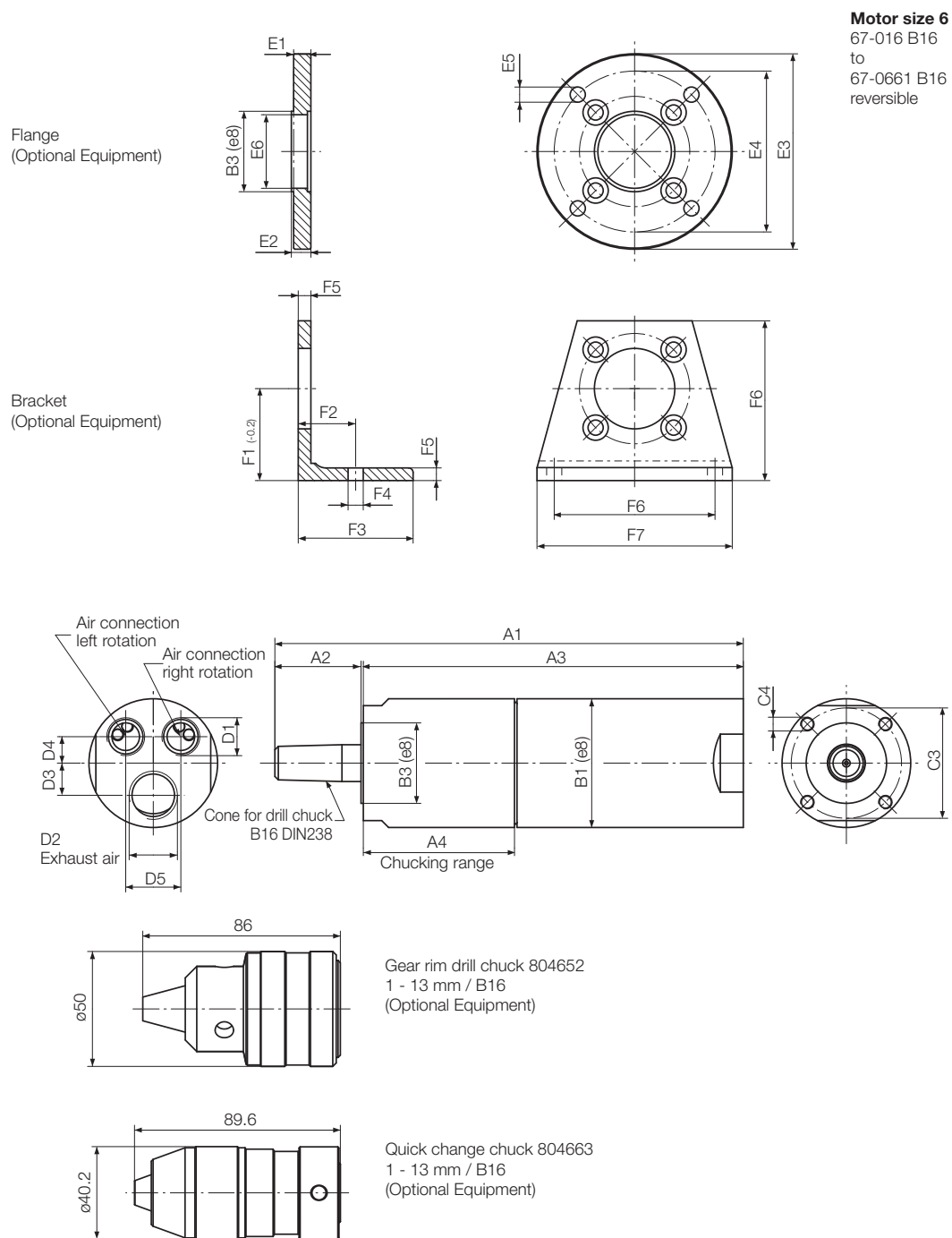
| Motor size 6                 |              | reversible |            |            |              |             |             |             |
|------------------------------|--------------|------------|------------|------------|--------------|-------------|-------------|-------------|
| Series 67-                   | Type         | 67-016B16  | 67-026B16  | 67-036B16  | 67-046B16    | 67-056B16   | 67-066B16   | 67-0661B16  |
| for drill chuck              | Part no.     | 114132H    | 114132B    | 114132C    | 114132D      | 114132E     | 114132F     | 114132G     |
| Nominal power                | W / HP       | 600/0.8    | 600/0.8    | 600/0.8    | 600/0.8      | 600/0.8     | 600/0.8     | 300/0.4     |
| Nominal speed                | rpm          | 2000       | 1500       | 1000       | 350          | 250         | 170         | 90          |
| Speed (idling)               | rpm          | 4000       | 3000       | 2000       | 700          | 500         | 340         | 180         |
| Nominal torque               | Nm / in.lbs  | 2.8/24.78  | 3.8/33.63  | 5.7/50.44  | 16.3/144.3   | 22.9/202.7  | 33.7/298.25 | 31.8/281.43 |
| Start torque min.            | Nm / in.lbs  | 4.3/38.055 | 5.7/50.445 | 8.5/75.225 | 24.5/216.825 | 34.3/303.55 | 50.6/447.81 | 47.7/422.15 |
| Stall torque                 | Nm / in.lbs  | 5.4/47.8   | 7.2/63.72  | 10.8/95.58 | 31.1/275.24  | 43.5/385    | 64/566.4    | 60.4/534.54 |
| Air consumption              | m³/min / cfm | 0.85/30    | 0.85/30    | 0.85/30    | 0.85/30      | 0.85/30     | 0.85/30     | 0.55/19.4   |
| Weight                       | kg / lbs     | 2.3/5.06   | 2.3/5.06   | 2.3/5.06   | 2.6/5.72     | 2.7/5.94    | 2.7/5.94    | 2.7/5.94    |
| Hose I.D.                    | mm / in.     | 12 / 1/2   | 12 / 1/2   | 12 / 1/2   | 12 / 1/2     | 12 / 1/2    | 12 / 1/2    | 12 / 1/2    |
| for drilling steel up to     | Ø mm / in.   | 3 / 1/8    | 5 / 13/64  | 8 / 5/16   | 13 / 33/64   | 13 / 33/64  | 13 / 33/64  | 13 / 33/64  |
| for drilling aluminium up to | Ø mm / in.   | 3 / 1/8    | 5 / 13/64  | 8 / 5/16   | 13 / 33/64   | 13 / 33/64  | 13 / 33/64  | 13 / 33/64  |

Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

| Optional Equipment                                       |          | for Motor size 6<br>Series 67-                 |
|----------------------------------------------------------|----------|------------------------------------------------|
| <b>Flange</b> incl. cylinder-screws                      | Part no. | 4446166                                        |
| <b>Bracket</b> incl. cylinder-screws                     | Part no. | 4446176                                        |
| <b>Gear rim drill chuck</b>                              | Part no. | 804652                                         |
| Range 1 - 13 mm / B 16                                   |          |                                                |
| <b>Quick change chuck</b>                                | Part no. | 804663                                         |
| Range 1 - 13 mm / B 16                                   |          |                                                |
| Noise level at standard version                          |          | 104 dB (A)                                     |
| with silencer                                            |          | 94 dB (A)                                      |
| with exhaust air system                                  |          | 76 dB (A)                                      |
| <b>Silencer – motor operates in one direction:</b>       |          |                                                |
| 1 Air connection (right- or left-rotation)               |          |                                                |
| 1 Hose-nozzle                                            | Part no. | 410540 (G 3/8)                                 |
| 1 Silencer                                               | Part no. | 802671 (G 3/8)                                 |
| 1 Silencer                                               | Part no. | 802666 (G 1/2)                                 |
| <b>Silencer – motor is reversible:</b>                   |          |                                                |
| 2 Air connections (right- and left-rotation)             |          |                                                |
| 2 Hose-nozzles                                           | Part no. | 410540 (G 3/8)                                 |
| 1 Silencer                                               | Part no. | 802666 (G 1/2)                                 |
| <b>Silencer system</b> – motor operates in one direction | Part no. | 440019B                                        |
| <b>Silencer system</b> – motor is reversible             | Part no. | 440019A                                        |
| <b>Maintenance unit with lubricator*</b>                 | Part no. | 820455A                                        |
| Connection thread                                        |          | G 1/2                                          |
| <b>Maintenance unit without lubricator*</b>              | Part no. | 822409A                                        |
| Connection thread                                        |          | G 1/2                                          |
| <b>Replacement part set</b> consisting of                |          |                                                |
| vaness, sealant rings, o-rings                           | Part no. | 444787A (for motor type 67-016/026/036/046B16) |
| and silencers                                            | Part no. | 444787B (for motor type 67-056/066/0661B16)    |

\* Maintenance unit consists of pressure regulator valve, filter and optionally with or without lubricator.  
Our standard maintenance units are not ATEX conform. Please contact us if this is a requirement.





Dimensions in mm

p440183

| Motor<br>Size | Series 67-<br>Type |           |            | Dimensions of Motor (mm) |      |     |    |    |    |    |    |                               |                               |    |      |    |
|---------------|--------------------|-----------|------------|--------------------------|------|-----|----|----|----|----|----|-------------------------------|-------------------------------|----|------|----|
|               |                    |           |            | A1                       | A2   | A3  | A4 | B1 | B3 | C3 | C4 | D1                            | D2                            | D3 | D4   | D5 |
| 6             | 67-016B16          | 67-026B16 | 67-036B16  | 204                      | 37.5 | 166 | 66 |    |    |    |    |                               |                               |    |      |    |
|               | 67-046B16          |           |            | 222                      | 37.5 | 184 | 84 | 56 | 35 | 48 | M6 | G <sup>3</sup> / <sub>8</sub> | G <sup>1</sup> / <sub>2</sub> | 14 | 11.5 | 24 |
|               | 67-056B16          | 67-066B16 | 67-0661B16 | 219                      | 38   | 180 | 80 |    |    |    |    |                               |                               |    |      |    |

| Motor<br>Size | Dimensions Flange Part no. 4446166 (mm) |     |     |    |    |     |    | Dimensions Bracket Part no. 4446176 (mm) |    |    |     |     |    |    |
|---------------|-----------------------------------------|-----|-----|----|----|-----|----|------------------------------------------|----|----|-----|-----|----|----|
|               | B3                                      | E1  | E2  | E3 | E4 | E5  | E6 | F1                                       | F2 | F3 | F4  | F5  | F6 | D5 |
| 6             | 35                                      | 7.5 | 8.5 | 85 | 70 | 6.6 | 32 | 40                                       | 25 | 50 | 6.6 | 5.5 | 70 | 85 |

## 150 W / 250 W / 300 W grinding motors

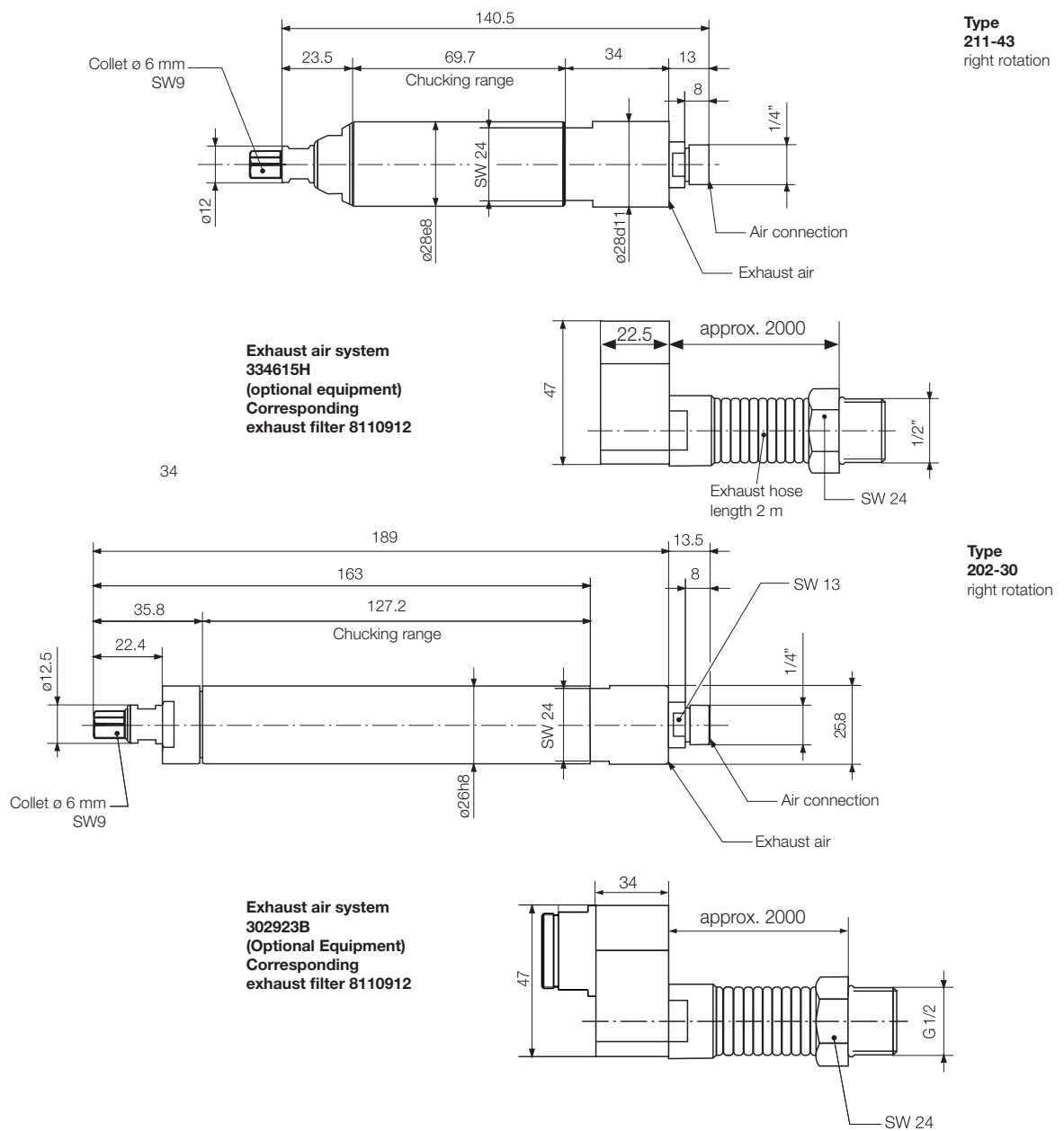
|                                               |                           | right rotation |             |                  |                  |
|-----------------------------------------------|---------------------------|----------------|-------------|------------------|------------------|
|                                               | Type                      | 211-43         | 202-30      | 203-30EA         | 203-45EA         |
|                                               | Part no.                  | 314740C        | 315082A     | 6061173B         | 6061174B         |
| Nominal power                                 | W / HP                    | 150 / 0.2      | 250 / 0.33  | 300 / 0.4        | 300 / 0.4        |
| Nominal speed                                 | rpm                       | 23,500         | 16,000      | 15,000           | 22,500           |
| Speed (idling)                                | rpm                       | 47,000         | 32,000      | 30,000           | 45,000           |
| Nominal torque                                | Nm / in.lbs               | 0.07 / 0.62    | 0.15 / 1.33 | 0.19 / 1.68      | 0.12 / 1.06      |
| Air consumption (under load)                  | m <sup>3</sup> /min / cfm | 0.23 / 8.1     | 0.3 / 11    | 0.45 / 15.9      | 0.45 / 15.9      |
| Weight                                        | kg / lbs                  | 0.36 / 0.8     | 0.8 / 1.76  | 0.7 / 1.54       | 0.7 / 1.54       |
| Hose I.D.                                     | mm / in.                  | 6 / 1/4        | 6 / 1/4     | 6 / 1/4          | 6 / 1/4          |
| Air inlet pipe thread size                    |                           | 1/4" m         | 1/4" m      | –                | –                |
| Max. head-Ø milling insert (high grade steel) | mm / in.                  | 6 / 1/4        | 10 / 25/64  | 6 / 1/4          | 6 / 1/4          |
| Max. head-Ø grinding insert                   | mm / in.                  | 13 / 33/64     | 25 / 1      | 20 / 25/32       | 20 / 25/32       |
| Max. diameter of the vane disc                | mm / in.                  | 15 / 19/32     | 25 / 1      | 25 / 1           | 15 / 19/32       |
| Length of the inlet hose / exhaust hose       | m / ft.                   | –              | –           | 2/1.25 / 6.6/4.1 | 2/1.25 / 6.6/4.1 |

Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

| Included in delivery |          |                   |                   |                   |                   |
|----------------------|----------|-------------------|-------------------|-------------------|-------------------|
| Collet Ø 6 mm        | Part no. | 312688            | 312688            | 830648            | 830648            |
| Wrench               | Part no. | 800401<br>(9 mm)  | 800401<br>(9 mm)  | 805491<br>(11 mm) | 805491<br>(11 mm) |
| Wrench               | Part no. | 800402<br>(10 mm) | 800402<br>(10 mm) |                   |                   |
| Wrench 6/9           | Part no. | –                 | –                 | 830649            | 830649            |
| Exhaust air system   |          | –                 | –                 | ✓                 | ✓                 |
| Exhaust filter       |          | –                 | –                 | ✓                 | ✓                 |

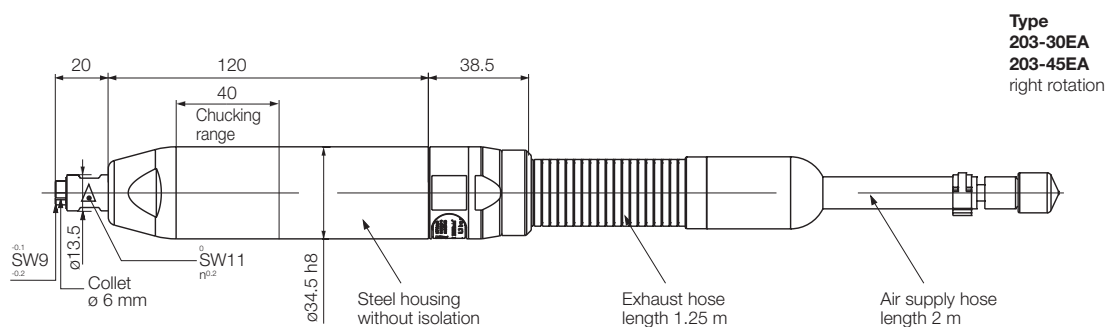
| Optional Equipment                                                                    |                     |          |                      |                      |                      |
|---------------------------------------------------------------------------------------|---------------------|----------|----------------------|----------------------|----------------------|
| <b>Collet</b>                                                                         | Ø 3 mm              | Part no. | 312681               | 312681               | 830650               |
|                                                                                       | Ø 4 mm              | Part no. | 312684               | 312684               | 830702               |
|                                                                                       | Ø 5 mm              | Part no. | 312686               | 312686               | 830703               |
|                                                                                       | Ø 6 mm              |          | included in delivery | included in delivery | included in delivery |
|                                                                                       | Ø 1/8" (3.175 mm)   | Part no. | 312682               | 312682               | 830651               |
|                                                                                       | Ø 3/16" (4.76 mm)   | Part no. | –                    | –                    | 830652               |
|                                                                                       | Ø 1/4" mm (6.35 mm) | Part no. | 312689               | 312689               | 830653               |
| Noise level at                                                                        |                     |          |                      |                      |                      |
| version without exhaust air system                                                    |                     |          | 85 dB (A)            | 71 dB (A)            | –                    |
| version with exhaust air system and exhaust filter                                    |                     |          | 73 dB (A)            | 73 dB (A)            | 78 dB (A)            |
| <b>Exhaust air system</b>                                                             |                     |          | 334615H              | 302923B              | included in delivery |
| <b>Exhaust filter</b>                                                                 |                     |          | 8110912              | 8110912              | included in delivery |
| <b>Maintenance unit with lubricator*</b>                                              |                     |          | 820454A              | 820454A              | 820454A              |
| Connection thread                                                                     |                     |          | G 1/4                | G 1/4                | G 1/4                |
| <b>Maintenance unit without lubricator*</b>                                           |                     |          | 822408A              | 822408A              | 822408A              |
| Connection thread                                                                     |                     |          | G 1/4                | G 1/4                | G 1/4                |
| <b>Replacement part set</b> consisting of vanes, sealant rings, o-rings and silencers |                     |          | 444922A              | 444921A              | 440502A              |

\* ) Maintenance unit consists of pressure regulator valve, filter and optionally with or without lubricator



Dimensions in mm

p203428



Dimensions in mm

m6077877

## 400 W / 500 W / 700 W / 1000 W milling motors and grinding motors

| Milling motor<br>Grinding motors              | Type<br>Type | right rotation                     |                                      |                                      |                                      |
|-----------------------------------------------|--------------|------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
|                                               |              | 27-030                             | -                                    | -                                    | -                                    |
|                                               | Part no.     | 314925A                            | 6061168B                             | 6061169B                             | 6061172B                             |
| Nominal power                                 | W / HP       | 400 / 0.54                         | 500 / 0.67                           | 700 / 0.94                           | 1.000 / 1.34                         |
| Nominal speed                                 | rpm          | 10,000                             | 13,000                               | 13,000                               | 10,500                               |
| Speed (idling)                                | rpm          | 20,000                             | 20,000                               | 19,000                               | 15,300                               |
| Nominal torque                                | Nm / in.lbs  | 0.35 / 3.1                         | 0.37 / 3.27                          | 0.51 / 4.5                           | 0.91 / 8.05                          |
| Air consumption (under load)                  | m³/min / cfm | 0.38 / 13.4                        | 0.9 / 31.8                           | 0.9 / 31.8                           | 1.0 / 35.3                           |
| Weight                                        | kg / lbs     | 0.7 / 1.54                         | 1.2 / 2.64                           | 1.7 / 3.74                           | 1.7 / 3.74                           |
| Hose I.D.                                     | mm / in.     | 10 / <sup>25</sup> / <sub>64</sub> | 10 / <sup>25</sup> / <sub>64</sub>   | 10 / <sup>25</sup> / <sub>64</sub>   | 12 / <sup>15</sup> / <sub>32</sub>   |
| Aire inlet pipe thread size                   |              | ¼" m                               | –                                    | –                                    | –                                    |
| Max. head-Ø milling insert (high grade steel) | mm / in.     | 12 / <sup>15</sup> / <sub>32</sub> | 16 / <sup>5</sup> / <sub>8</sub>     | 16 / <sup>5</sup> / <sub>8</sub>     | 16 / <sup>5</sup> / <sub>8</sub>     |
| Max. head-Ø grinding insert                   | mm / in.     | 32 / 1¼                            | 32 / 1¼                              | 40 / 1 <sup>37</sup> / <sub>64</sub> | 50 / 1 <sup>31</sup> / <sub>32</sub> |
| Max. diameter of the vane disc                | mm / in.     | –                                  | 40 / 1 <sup>37</sup> / <sub>64</sub> | 40 / 1 <sup>37</sup> / <sub>64</sub> | 50 / 1 <sup>31</sup> / <sub>32</sub> |
| Length of the inlet hose / exhaust hose       | m / ft.      | –                                  | 2/1 6.56/3.28                        | 2/1 6.56/3.28                        | 2/1 6.56/3.28                        |

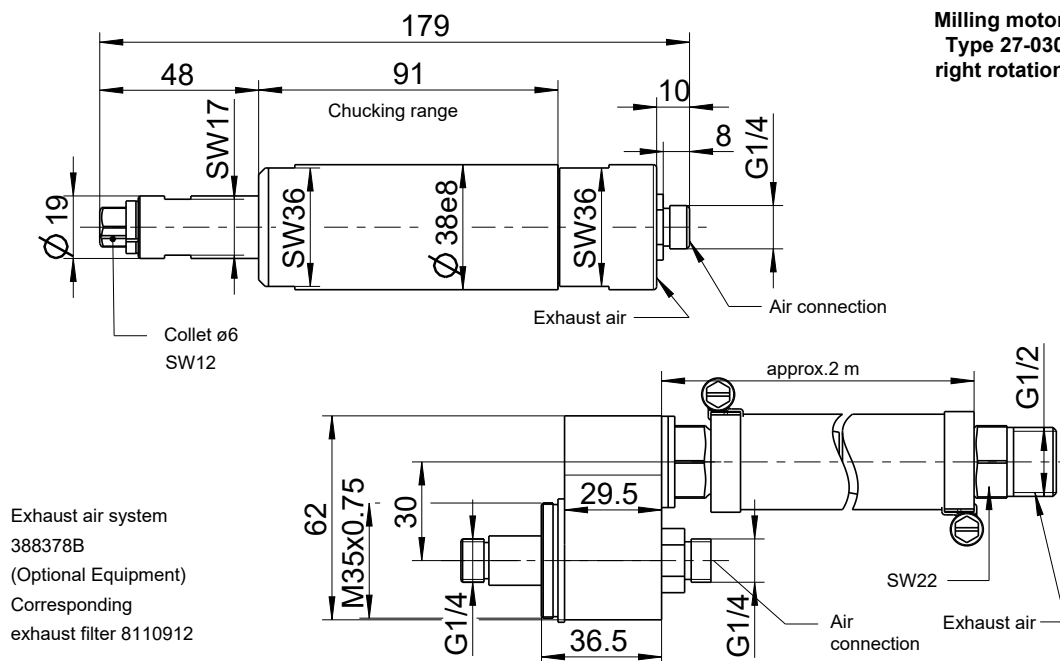
Performance data relate to an air pressure of 6 bar (85 PSI) and lubricated air. With oil-free operation the output will be reduced by 10 - 20%.

| Included in delivery |          |         |         |         |         |
|----------------------|----------|---------|---------|---------|---------|
| Collet Ø 6 mm        | Part no. | 312694  | 6014315 | 315018  | 315018  |
| Wrench               | Part no. | 800403  | 800402  | 800405  | 800405  |
|                      |          | (12 mm) | (10 mm) | (17 mm) | (17 mm) |
| Wrench               | Part no. | 800405  | 800410  | 800416  | 800416  |
|                      |          | (17 mm) | (14 mm) | (22 mm) | (22 mm) |
| Exhaust air system   |          | –       | ✓       | ✓       | ✓       |
| Exhaust filter       |          | –       | ✓       | ✓       | ✓       |

| Optional Equipment                                                                    |                                                    |          |                      |                      |                      |
|---------------------------------------------------------------------------------------|----------------------------------------------------|----------|----------------------|----------------------|----------------------|
| <b>Collet</b>                                                                         | Ø 3 mm                                             | Part no. | 312690               | 6014320              | 6014317              |
|                                                                                       | Ø 4 mm                                             | Part no. | 312692               | 6014321              | 6017743              |
|                                                                                       | Ø 5 mm                                             | Part no. | 312693               | –                    | 6017744              |
|                                                                                       | Ø 6 mm                                             |          | included in delivery | included in delivery | included in delivery |
|                                                                                       | Ø 7 mm                                             | Part no. | 312739               | –                    | –                    |
|                                                                                       | Ø 8 mm                                             | Part no. | 312696               | –                    | 315073               |
|                                                                                       | Ø 8 mm (stainless steel)                           | Part no. | –                    | –                    | 6014282              |
|                                                                                       | Ø 9 mm                                             | Part no. | 313137               | –                    | 315089               |
|                                                                                       | Ø 1/8" (3.175 mm)                                  | Part no. | 312691               | 6014320              | –                    |
|                                                                                       | Ø 3/16" (4.76 mm)                                  | Part no. | –                    | 6014321              | 315088               |
|                                                                                       | Ø 1/4" (6.35 mm)                                   | Part no. | 312695               | 6014314              | 315074               |
|                                                                                       | Ø 5/16"                                            | Part no. | –                    | –                    | 315090               |
|                                                                                       | Noise level at version without exhaust air system  |          | 75 dB (A)            | –                    | –                    |
|                                                                                       | version with exhaust air system and exhaust filter |          | 73 dB(A)             | 79 dB(A)             | 80 dB(A)             |
| <b>Exhaust air system</b>                                                             | Part no.                                           | 388378B  | included in delivery | included in delivery | included in delivery |
| <b>Exhaust filter</b>                                                                 | Part no.                                           | 8110912  | included in delivery | included in delivery | included in delivery |
| <b>Maintenance unit with lubricator*</b>                                              | Part no.                                           | 820454A  | 820455A              | 820455A              | 820455A              |
| Connection thread                                                                     |                                                    | G ¼      | G ½                  | G ½                  | G ½                  |
| <b>Maintenance unit without lubricator*</b>                                           | Part no.                                           | 822408A  | 822409A              | 822409A              | 822409A              |
| Connection thread                                                                     |                                                    | G ¼      | G ½                  | G ½                  | G ½                  |
| <b>Replacement part set</b> consisting of vanes, sealant rings, o-rings and silencers | Part no.                                           | 446088D  | 440502B              | 440502C              | 440502D              |

\* Maintenance unit consists of pressure regulator valve, filter and optionally with or without lubricator

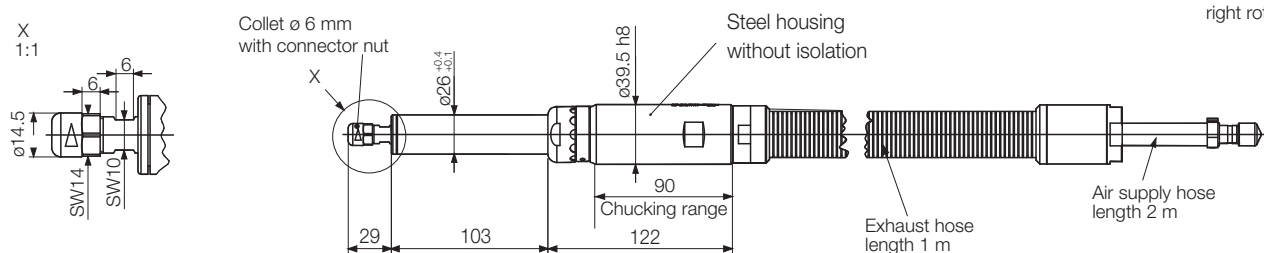
**Milling motor  
Type 27-030  
right rotation**



Dimensions in mm

p203428

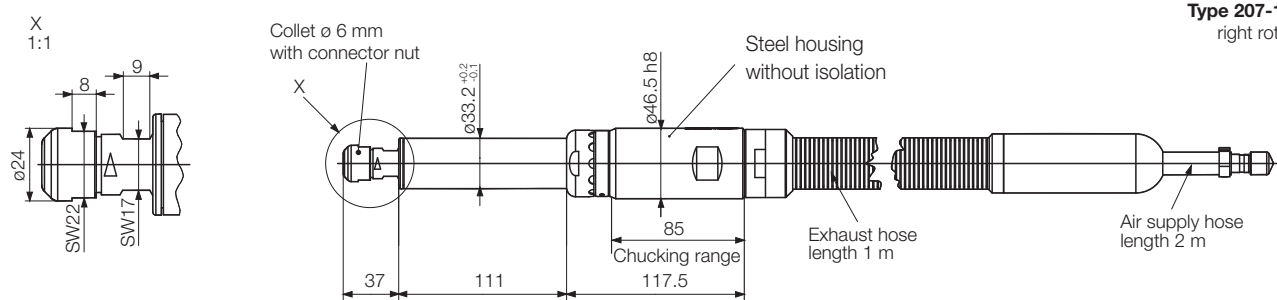
**Type 205-20EA  
right rotation**



Dimensions in mm

m6077872

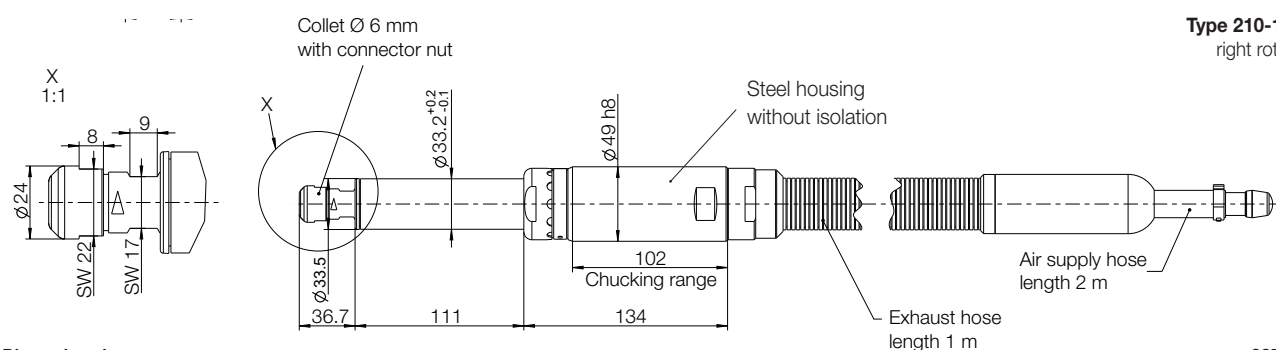
**Type 207-19EA  
right rotation**



Dimensions in mm

m6077873

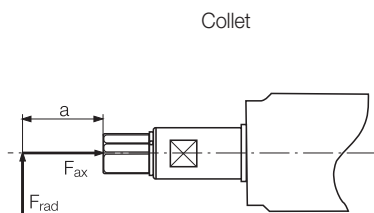
**Type 210-15EA  
right rotation**



Dimensions in mm

m6077876

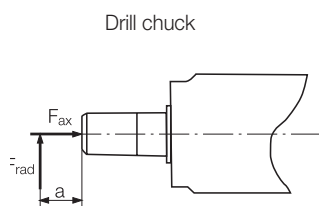
## Maximum allowable load on the drive shaft



### Motors with collet

| Typ        | Bestell-Nr. | Fax<br>[N] | Frad<br>[N] | a<br>[mm] |
|------------|-------------|------------|-------------|-----------|
| 104-010-1  | 302929A     | 200        | 75          | 25        |
| 104-110-1  | 302929B     |            |             |           |
| 104-210-1  | 302929C     |            |             |           |
| 104-310-1  | 302929D     |            |             |           |
| 104-020-1  | 302916A     | 380        | 50          |           |
| 104-120-1  | 302916B     |            |             |           |
| 104-220-1  | 302916C     |            |             |           |
| 104-320-1  | 302916D     |            |             |           |
| 104-420-1  | 302916E     |            |             |           |
| 104-520-1  | 302916F     |            |             |           |
| 104-0250-1 | 302897A     | 750        | 220         |           |
| 104-1250-1 | 302897B     |            |             |           |
| 104-2250-1 | 302897C     |            |             |           |
| 104-7250-1 | 302897D     |            |             |           |
| 104-3250-1 | 302897E     |            |             |           |
| 104-4250-1 | 302897F     |            |             |           |
| 104-030-5  | 302980A     | 680        | 510         | 25        |
| 104-130-5  | 302980B     |            |             |           |
| 104-230-5  | 302980C     |            |             |           |
| 104-730-5  | 302980D     |            |             |           |

### Motors with drill chuck

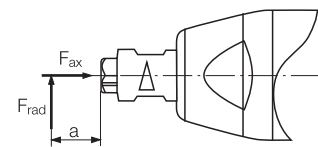


| Typ        | Bestell-Nr. | Fax<br>[N] | Frad<br>[N] | a<br>[mm] |
|------------|-------------|------------|-------------|-----------|
| 104-120    | 302912B     | 380        | 35          | 60        |
| 104-220    | 302912C     |            |             |           |
| 104-320    | 302912D     |            |             |           |
| 104-420    | 302912E     |            |             |           |
| 104-520    | 302912F     |            |             |           |
| 104-0250   | 302900A     | 750        | 150         | 70        |
| 104-1250   | 302900B     |            |             |           |
| 104-2250   | 302900C     |            |             |           |
| 104-7250   | 302900D     |            |             |           |
| 104-3250   | 302900E     |            |             |           |
| 104-4250   | 302900F     |            |             |           |
| 104-030    | 302937A     |            |             |           |
| 104-130    | 302937B     |            |             |           |
| 104-230    | 302937C     |            |             |           |
| 104-730    | 302937D     |            |             |           |
| 104-830    | 302937E     | 790        |             |           |
| 104-930    | 302937H     |            |             |           |
| 67-026B16  | 114132B     | 1100       | 265         | 80        |
| 67-036B16  | 114132C     |            |             |           |
| 67-046B16  | 114132D     |            |             |           |
| 67-016B16  | 114132H     |            |             |           |
| 67-056B16  | 114132E     |            |             |           |
| 67-066B16  | 114132F     |            |             |           |
| 67-0661B16 | 114132G     |            |             |           |

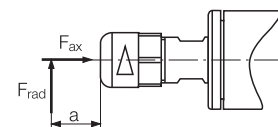
## Maximum allowable load on the drive shaft

### Milling motors and Grinding motors

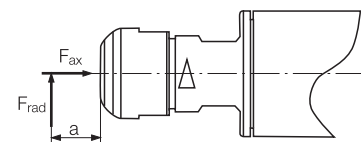
| Type     | Part no. | F <sub>ax</sub><br>[N] | F <sub>rad</sub><br>[N] | a<br>[mm] |
|----------|----------|------------------------|-------------------------|-----------|
| 203-30EA | 6061173B | 20                     | 40                      | 25        |
| 203-45EA | 6061174B |                        |                         |           |
| 205-20EA | 6061168B | 25                     | 50                      |           |
| 207-19EA | 6061169B | 40                     | 90                      |           |
| 210-15EA | 6061172B | 55                     | 120                     |           |
| 211-43   | 314740C  | 15                     | 30                      |           |
| 202-30   | 315082A  |                        |                         |           |
| 27-030   | 314925A  | 25                     | 50                      |           |



203-30EA / 203-45EA



205-20EA



207-19EA / 210-15EA

## Speed standard values (rpm) for HSS spiral drills

| Cutting Speed           | 35 m/min<br>(115 ft./min)                                       | 28 m/min<br>(90 ft./min)                                             | 25 m/min<br>(80 ft./min)                                        | 14 m/min<br>(45 ft./min)                                             | 11 m/min<br>(35 ft./min)                                              | 7 m/min<br>(23 ft./min) | 22 m/min<br>(70 ft./min)                                        | 12 m/min<br>(40 ft./min)                                        | 50 m/min<br>(165 ft./min) | 90 m/min<br>(300 ft./min)                                            | 165 m/min<br>(540 ft./min) | 210 m/min<br>(690 ft./min)       |
|-------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|---------------------------|----------------------------------------------------------------------|----------------------------|----------------------------------|
| Drill<br>dia.<br>mm/in. | Carbon steel                                                    |                                                                      |                                                                 | Alloy steel                                                          |                                                                       | Stainless<br>steel      | Cast-Iron                                                       |                                                                 | Copper<br>Bronze<br>Brass | Leightweight-Metal<br>common alloy<br>mid brass <sup>1</sup><br>hard |                            | Magnesium-<br>Alloy <sup>2</sup> |
|                         | up to 500<br>N/mm <sup>2</sup><br>(30<br>long tons/<br>sq. in.) | 500 - 700<br>N/mm <sup>2</sup><br>(30 - 45<br>long tons/<br>sq. in.) | above 700<br>N/mm <sup>2</sup><br>(45<br>long tons/<br>sq. in.) | 700 - 900<br>N/mm <sup>2</sup><br>(45 - 55<br>long tons/<br>sq. in.) | 900 - 1100<br>N/mm <sup>2</sup><br>(55 - 70<br>long tons/<br>sq. in.) |                         | up to 180<br>N/mm <sup>2</sup><br>(10<br>long tons/<br>sq. in.) | above 180<br>N/mm <sup>2</sup><br>(10<br>long tons/<br>sq. in.) |                           |                                                                      |                            |                                  |
| 1 / 0.04                | 11000                                                           | 8800                                                                 | 7800                                                            | 4400                                                                 | 3400                                                                  | 2200                    | 7000                                                            | 3800                                                            | 16000                     | 28000                                                                | 52000                      | 66000                            |
| 2 / 1/64                | 5500                                                            | 4400                                                                 | 3900                                                            | 2200                                                                 | 1700                                                                  | 1100                    | 3500                                                            | 1900                                                            | 8000                      | 14000                                                                | 26000                      | 33000                            |
| 3 / 1/8                 | 3700                                                            | 3000                                                                 | 2600                                                            | 1500                                                                 | 1100                                                                  | 730                     | 2300                                                            | 1300                                                            | 5300                      | 9000                                                                 | 17300                      | 22000                            |
| 4 / 1/32                | 2800                                                            | 2200                                                                 | 2000                                                            | 1100                                                                 | 850                                                                   | 550                     | 1700                                                            | 950                                                             | 4000                      | 7000                                                                 | 13000                      | 16500                            |
| 5 / 1/64                | 2200                                                            | 1800                                                                 | 1600                                                            | 880                                                                  | 680                                                                   | 440                     | 1400                                                            | 760                                                             | 3200                      | 5600                                                                 | 10400                      | 13200                            |
| 6 / 1/64                | 1900                                                            | 1500                                                                 | 1300                                                            | 735                                                                  | 570                                                                   | 365                     | 1200                                                            | 630                                                             | 2700                      | 4800                                                                 | 8700                       | 11000                            |
| 7 / 1/32                | 1600                                                            | 1300                                                                 | 1100                                                            | 630                                                                  | 485                                                                   | 315                     | 1000                                                            | 540                                                             | 2300                      | 4000                                                                 | 7400                       | 9400                             |
| 8 / 1/16                | 1400                                                            | 1100                                                                 | 975                                                             | 550                                                                  | 425                                                                   | 275                     | 875                                                             | 475                                                             | 2000                      | 3500                                                                 | 6500                       | 8300                             |
| 9 / 1/64                | 1200                                                            | 975                                                                  | 865                                                             | 490                                                                  | 380                                                                   | 245                     | 780                                                             | 420                                                             | 1800                      | 3100                                                                 | 5800                       | 7400                             |
| 10 / 1/64               | 1100                                                            | 880                                                                  | 780                                                             | 440                                                                  | 340                                                                   | 220                     | 700                                                             | 380                                                             | 1600                      | 2800                                                                 | 5200                       | 6600                             |

1) Speed for machining of thermoset plastics, laminates and hard laminates, however instead of the HSS-drills we recommend high-speed steel drills made with hard-metal K 10

2) for thermoplastics use approx. double the value



Tell us your operational conditions and our application consultants will be happy to help.  
Please use the enquiry form below and send it to: [airmotors@deprag.de](mailto:airmotors@deprag.de)

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



# DEPRAG

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