



Screwdriving technology

Automation

Air motors

Air tools

DEPRAG

**Screwdriver Spindles
pneumatic**

MICROMAT / MINIMAT Control Screwdrivers

For nearly all industrial applications

MICROMAT Screwdriver Spindles
straight design - torque from 2 Ncm to 70 Ncm

MINIMAT Screwdriver Spindles
straight design - torque from 0.2 Nm to 180 Nm

- simple integration
- smallest mounting dimensions
- extremely robust
- highly accurate shut-off clutch

DEPRAG pneumatic screwdrivers with shut-off clutch are renowned for their impressive reliability and precision due to their high processing qualities and sophisticated technology.

There are 5 model series each with several gear levels, where the screwdrivers for torques of between 2 Ncm and 18 Nm are available in versions of right or left rotation or with reversal options.

The screwdriver start can be triggered by push to start or by pneumatic valve depending on the application.

The high precision shut-off clutch guarantees a high screw assembly quality with low maintenance requirements over a cycle of a million screw assemblies.



OVERVIEW

The wide range of DEPRAG spindle screwdrivers enables technically sophisticated and efficient solutions in a multitude of application areas.

The basis for these are the low-priced pneumatic screwdriving tools with highly accurate shut-off clutch.

NANOMAT Screwdriver Spindles (→ brochure D3125E)
for extremely small torque values from 8 Nmm - 300 Nmm

MICROMAT Screwdriver Spindles
for small torque values of 0.02 Nm - 0.7 Nm

MINIMAT Screwdriver Spindles
for torque values of 0.2 - 180 Nm

| | |
|--|-------------------------------|
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ADVANTAGES

Highly accurate shut-off clutch

By using the shut-off clutch torque accuracy of 3% standard deviation can be guaranteed irrespective of the screw joint. In many cases however a clear improvement in precision can be reached so that in suitable surrounding conditions a machine capability index of ≥ 1.67 can be attained even with a tolerance allowance of $\pm 10\%$. This means that the error proportion is under 0.6 per million screw assemblies.

A further increase in processing reliability can be monitored additionally to the screw-in depth and shut-off of the screwdriver.

Robustness

The DEPRAG pneumatic screwdriver with mechanical shut-off clutch is made up of qualitatively high value low wear components and has a long running life requiring a low level of maintenance even under extreme conditions.

Simple integration

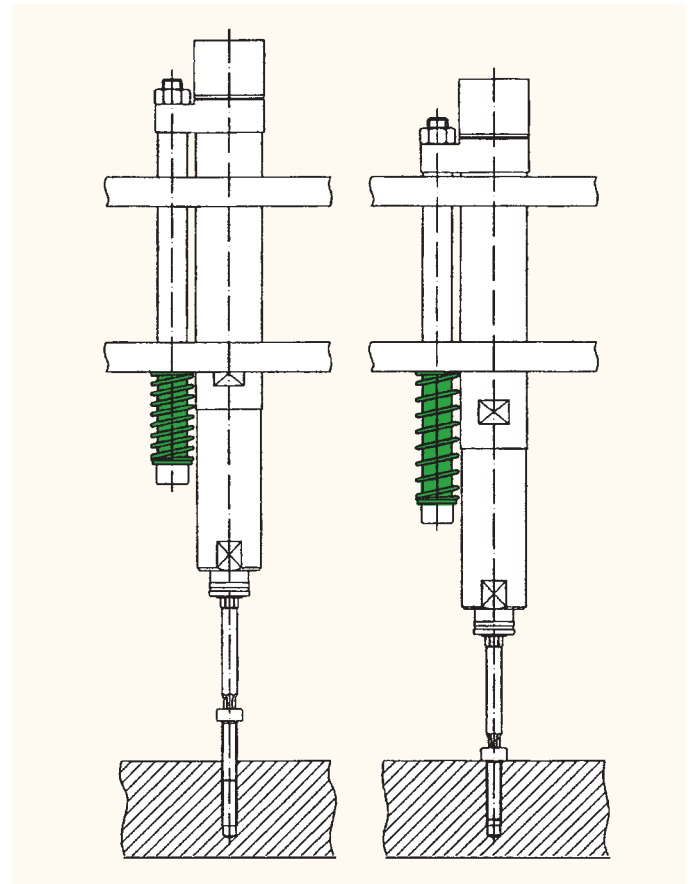
The tried and tested mounting principle of the screwdriver with torque support via a side guide bolt enables simple integration and uncomplicated installation and dismantling.

Variety

Varied model sizes and gear levels, different versions in consideration of torque and screwdriver start mode as well as a choice of operation with lubricated and unlubricated compressed air enables suitable solutions for the most varied of applications. The use of a reduction gear allows several screw assemblies to be carried out simultaneously in closely located screw positions.

Axial spring loaded suspension

Due to the axial movement of the entire screwdriver in the screwdriver fixture a spring loaded drive element is not required. Therefore low-priced standard inserting tools can be used.

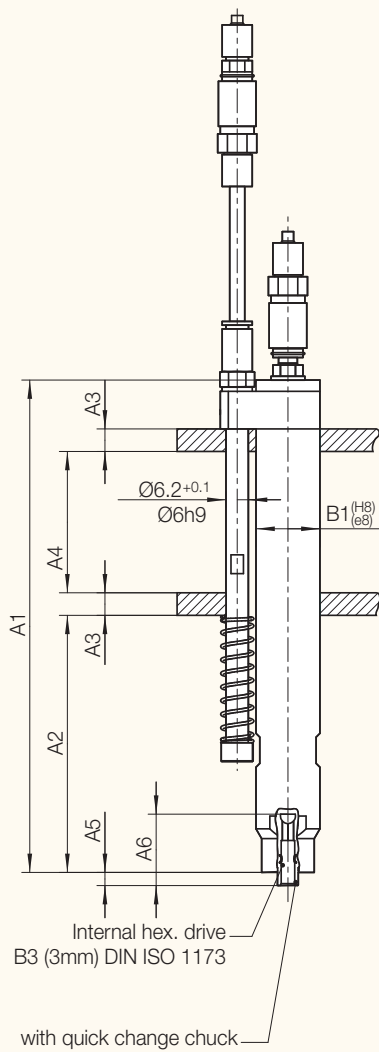


TECHNICAL DATA

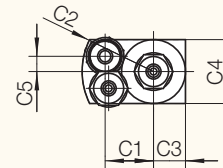
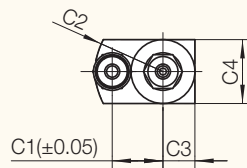
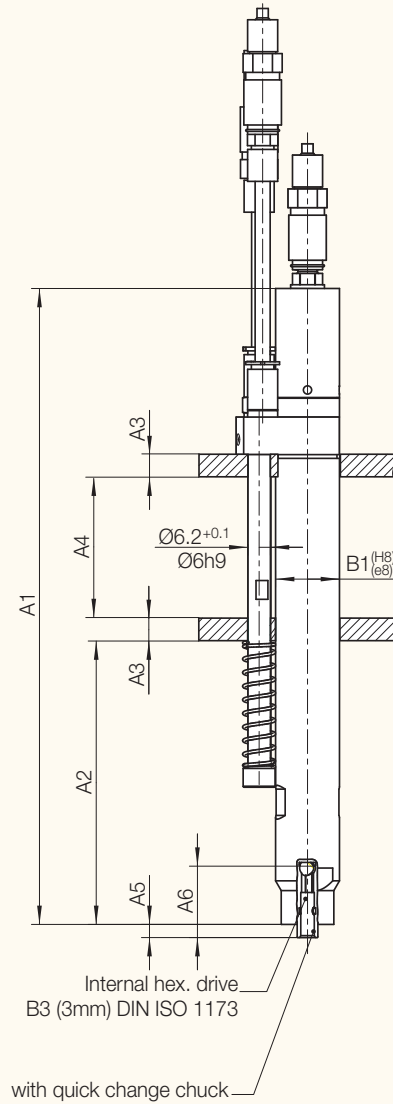
| Screwdriver Style | | | Motor Size 0 | | | |
|---|---------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--|
| Spindle right rotation, right shut-off Push To Start | Type Part no. | 345-308-31 339271 A | 345-408-31 345765 A | 345-708-31 385138 A | 345-508-31 339271 B | |
| Spindle left rotation, left shut-off Push To Start | Type Part no. | 345-308-31 L 341357 A | 345-408-31 L 341357 E | 345-708-31 L 385165 A | 345-508-31 L 341357 B | |
| Spindle right rotation, right shut-off Remote Start | Type Part no. | 345-300-31 339275 A | 345-400-31 339275 G | 345-700-31 385166 A | 345-500-31 339275 B | |
| Spindle left rotation, left shut-off Remote Start | Type Part no. | 345-300-31 L 346058 A | 345-400-31 L 346058 C | 345-700-31 L 385167 A | 345-500-31 L 346058 B | |
| Torque min. | Ncm / in.oz | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 | |
| Soft pull-up max. | Ncm / in.oz | 50 / 70 | 55 / 78 | 70 / 97 | 70 / 97 | |
| Hard pull-up max. | Ncm / in.oz | 60 / 83 | 55 / 78 | 70 / 97 | 70 / 97 | |
| Speed, idling | rpm | 1600 | 1100 | 650 | 350 | |
| Air consumption | m ³ /min / cfm | 0.1 / 3.5 | 0.1 / 3.5 | 0.1 / 3.5 | 0.1 / 3.5 | |
| Weight | kg / lbs | 0.18 / 0.40 | 0.18 / 0.40 | 0.19 / 0.42 | 0.19 / 0.42 | |
| Push to start pressure | N / lbs | 11 / 2.4 | 11 / 2.4 | 11 / 2.4 | 11 / 2.4 | |
| Pressure at max. screwdriver stroke | N / lbs | 20 / 4.4 | 20 / 4.4 | 20 / 4.4 | 20 / 4.4 | |
| Hose I.D. for air supply | mm / in. | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | |
| Hose I.D. for function control | mm / in. | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | |
| Internal hex. drive DIN ISO 1173 | | B3 (3mm/.118") | B3 (3mm/.118") | B3 (3mm/.118") | B3 (3mm/.118") | |
| Quick change chuck mounted | | yes | yes | yes | yes | |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | A3 (3mm/.118") | A3 (3mm/.118") | A3 (3mm/.118") | A3 (3mm/.118") | |
| Spindle reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 345-308-31 U 374098 A | 345-408-31 U 374098 B | 345-708-31 U 385168 A | 345-508-31 U 374098 C | |
| Spindle reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 345-308-31 UL 374100 A | 345-408-31 UL 374100 B | 345-708-31 UL 385169 A | 345-508-31 UL 374100 C | |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 345-300-31 U 374099 A | 345-400-31 U 374099 B | 345-700-31 U 385170 A | 345-500-31 U 374099 C | |
| Spindle reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | 345-300-31 UL 374101 A | 345-400-31 UL 374101 B | 345-700-31 UL 385171 A | 345-500-31 UL 374101 C | |
| Torque min. | Ncm / in.oz | 2 / 3 | 2 / 3 | 2 / 3 | 2 / 3 | |
| Soft pull-up max. | Ncm / in.oz | 40 / 57 | 50 / 70 | 70 / 97 | 70 / 97 | |
| Hard pull-up max. | Ncm / in.oz | 50 / 70 | 50 / 70 | 70 / 97 | 70 / 97 | |
| Speed, idling | rpm | 1300 | 950 | 480 | 300 | |
| Air consumption | m ³ /min / cfm | 0.1 / 3.5 | 0.1 / 3.5 | 0.1 / 3.5 | 0.1 / 3.5 | |
| Weight | kg / lbs | 0.23 / 0.51 | 0.23 / 0.51 | 0.24 / 0.53 | 0.24 / 0.53 | |
| Push to start pressure | N / lbs | 11 / 2.4 | 11 / 2.4 | 11 / 2.4 | 11 / 2.4 | |
| Pressure at max. screwdriver stroke | N / lbs | 20 / 4.4 | 20 / 4.4 | 20 / 4.4 | 20 / 4.4 | |
| Hose I.D. for air supply | mm / in. | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | |
| Hose I.D. for function control | mm / in. | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | 3 / 1/8 | |
| Internal hex. drive DIN ISO 1173 | | B3 (3mm/.118") | B3 (3mm/.118") | B3 (3mm/.118") | B3 (3mm/.118") | |
| Quick change chuck mounted | | yes | yes | yes | yes | |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | A3 (3mm/.118") | A3 (3mm/.118") | A3 (3mm/.118") | A3 (3mm/.118") | |

Performance data relate to an air pressure of 6.3 bar (90 PSI)

Spindle
right-/left rotation



Spindle
reversible



414878

Motor Size 0

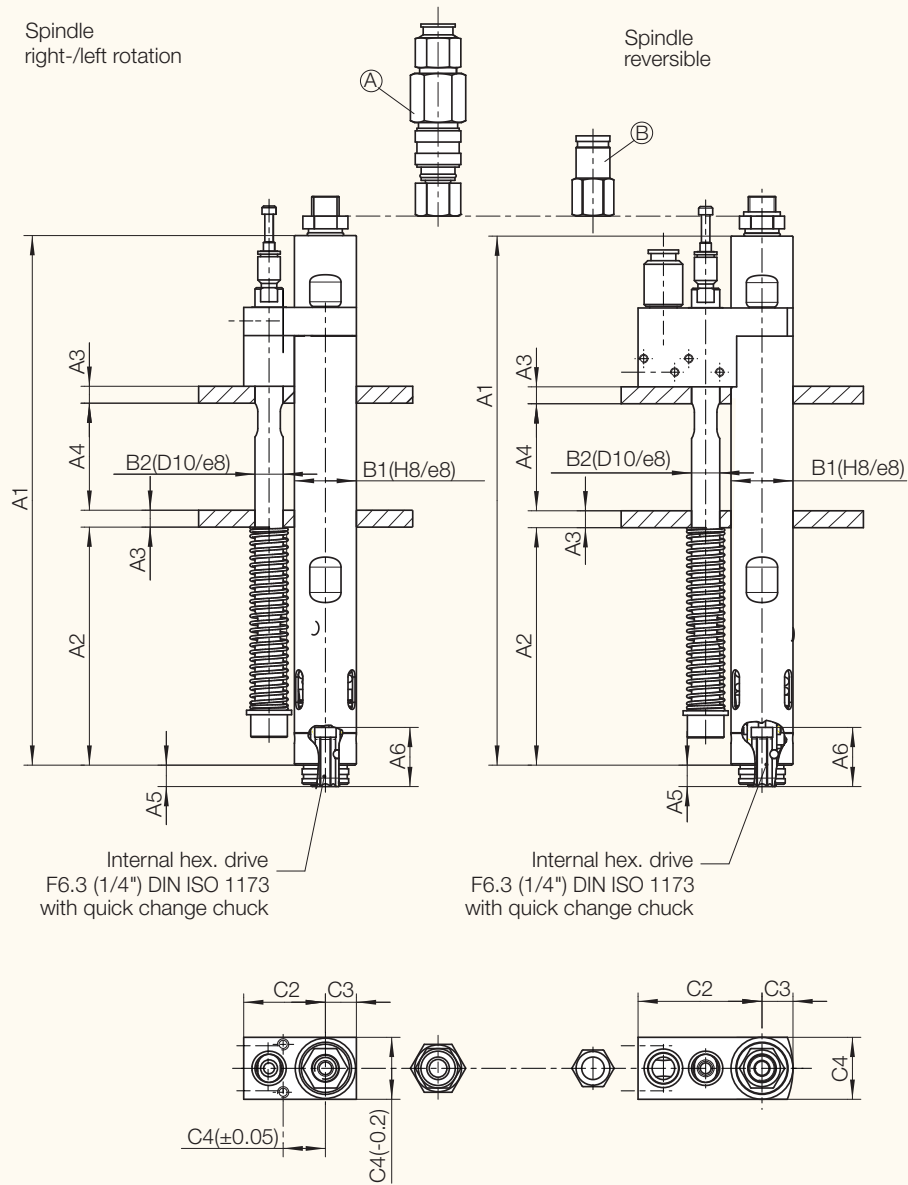
| Type | | | | Dimensions (mm) | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|----|----|----|-----------|----|----|------|----|-----|----|-----|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | C1 | C2 | C3 | C4 | C5 |
| Spindle right-/left rotation | | | | | | | | | | | | | | | |
| 345-308-31 | 345-308-31 L | 345-300-31 | 345-300-31 L | 132 | 69 | 6 | 38 | 3.5 (0.8) | 19 | 17 | 13.5 | 18 | 8.5 | 17 | – |
| 345-408-31 | 345-408-31 L | 345-400-31 | 345-400-31 L | | | | | | | | | | | | |
| 345-508-31 | 345-508-31 L | 345-500-31 | 345-500-31 L | 138 | 75 | 6 | 38 | 3.5 (0.8) | 19 | 17 | 13.5 | 18 | 8.5 | 17 | – |
| 345-708-31 | 345-708-31 L | 345-700-31 | 345-700-31 L | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | |
| 345-308-31 U | 345-308-31 UL | 345-300-31 U | 345-300-31 UL | 163.5 | 69 | 6 | 38 | 3.5 (0.8) | 19 | 17 | 12.9 | 19 | 8.5 | 17 | 4.1 |
| 345-408-31 U | 345-408-31 UL | 345-400-31 U | 345-400-31 UL | | | | | | | | | | | | |
| 345-508-31 U | 345-508-31 UL | 345-500-31 U | 345-500-31 UL | 169.5 | 75 | 6 | 38 | 3.5 (0.8) | 19 | 17 | 12.9 | 19 | 8.5 | 17 | 4.1 |
| 345-708-31 U | 345-708-31 UL | 345-700-31 U | 345-700-31 UL | | | | | | | | | | | | |

Dimensions in brackets: For screwdrivers with remote start

TECHNICAL DATA

| Screwdriver Style | | Motor Size 1 | | | |
|---|---------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Spindle right rotation, right shut-off Push To Start | Type Part no. | 347-218-31 397066 A | 347-318-31 397066 B | 347-518-31 397066 C | 347-618-31 397066 D |
| Spindle left rotation, left shut-off Push To Start | Type Part no. | 347-218-31 L 397074 A | 347-318-31 L 397074 B | 347-518-31 L 397074 C | 347-618-31 L 397074 D |
| Spindle right rotation, right shut-off Remote Start | Type Part no. | 347-210-31 397068 A | 347-310-31 397068 B | 347-510-31 397068 C | 347-610-31 397068 D |
| Spindle left rotation, left shut-off Remote Start | Type Part no. | 347-210-31 L 397078 A | 347-310-31 L 397078 B | 347-510-31 L 397078 C | 347-610-31 L 397078 D |
| Torque min. | Nm / in.lbs | 0.3 / 3 | 0.3 / 3 | 0.2 / 2 | 0.2 / 2 |
| Torque max. | Nm / in.lbs | 1 / 9 | 1.4 / 12 | 2 / 18 | 2 / 18 |
| Speed, idling | rpm | 1900 | 1300 | 900 | 600 |
| Air consumption | m ³ /min / cfm | 0.23 / 8 | 0.23 / 8 | 0.23 / 8 | 0.23 / 8 |
| Weight | kg / lbs | 0.5 / 1.1 | 0.5 / 1.1 | 0.5 / 1.1 | 0.55 / 1.2 |
| Push to start pressure | N / lbs | 12 / 2.6 | 12 / 2.6 | 12 / 2.6 | 12 / 2.6 |
| Pressure at max. screwdriver stroke | N / lbs | 60 / 13 | 60 / 13 | 60 / 13 | 60 / 13 |
| Hose I.D. for air supply | mm / in. | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ |
| Hose I.D. for function control | mm / in. | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |
| Spindle reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 347-218-31 U 397067 A | 347-318-31 U 397067 B | 347-518-31 U 397067 C | 347-618-31 U 397067 D |
| Spindle reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 347-218-31 UL 397075 A | 347-318-31 UL 397075 B | 347-518-31 UL 397075 C | 347-618-31 UL 397075 D |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-210-31 U 397069 A | 347-310-31 U 397069 B | 347-510-31 U 397069 C | 347-610-31 U 397069 D |
| Spindle reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-210-31 UL 397079 A | 347-310-31 UL 397079 B | 347-510-31 UL 397079 C | 347-610-31 UL 397079 D |
| Torque min. | Nm / in.lbs | 0.3 / 3 | 0.3 / 3 | 0.2 / 2 | 0.2 / 2 |
| Torque max. | Nm / in.lbs | 1 / 9 | 1.4 / 12 | 2 / 18 | 2 / 18 |
| Speed, idling | rpm | 1900 | 1300 | 900 | 600 |
| Air consumption | m ³ /min / cfm | 0.23 / 8 | 0.23 / 8 | 0.23 / 8 | 0.23 / 8 |
| Weight | kg / lbs | 0.6 / 1.3 | 0.6 / 1.3 | 0.6 / 1.3 | 0.65 / 1.4 |
| Push to start pressure | N / lbs | 12 / 2.6 | 12 / 2.6 | 12 / 2.6 | 12 / 2.6 |
| Pressure at max. screwdriver stroke | N / lbs | 60 / 13 | 60 / 13 | 60 / 13 | 60 / 13 |
| Hose I.D. for air supply | mm / in. | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ | 5.5 / ⁷ / ₃₂ |
| Hose I.D. for function control | mm / in. | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ | 4 / ⁵ / ₃₂ |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |

Performance data relate to an air pressure of 6.3 bar (90 PSI)



3988629

- Ⓐ Air supply connection for push to start
- Ⓑ Air supply connection for remote start

Motor Size 1

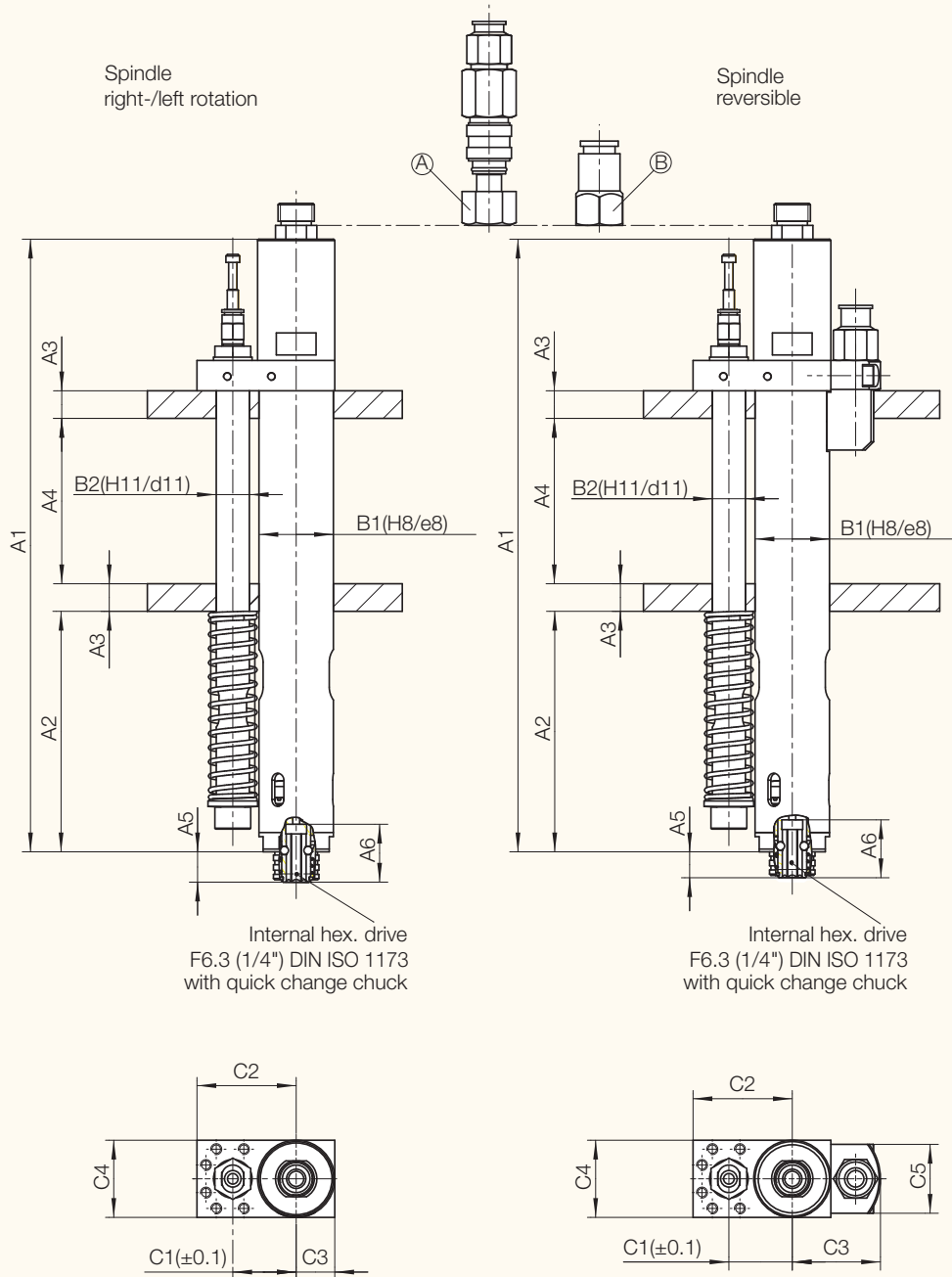
| Type | | | | Dimensions (mm) | | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|------|----|----|-----------|----|----|----|----|----|----|----|--|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 | |
| Spindle right-/left rotation | | | | | | | | | | | | | | | | |
| 347-218-31 | 347-218-31 L | 347-210-31 | 347-210-31 L | 188 | 84.4 | 6 | 38 | 7.6 (5.9) | 21 | 22 | 10 | 20 | 29 | 11 | 22 | |
| 347-318-31 | 347-318-31 L | 347-310-31 | 347-310-31 L | | | | | | | | | | | | | |
| 347-518-31 | 347-518-31 L | 347-510-31 | 347-510-31 L | | | | | | | | | | | | | |
| 347-618-31 | 347-618-31 L | 347-610-31 | 347-610-31 L | | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | | |
| 347-218-31 U | 347-218-31 UL | 347-210-31 U | 347-210-31 UL | 188 | 84.4 | 6 | 38 | 7.6 (5.9) | 21 | 22 | 10 | 20 | 44 | 11 | 22 | |
| 347-318-31 U | 347-318-31 UL | 347-310-31 U | 347-310-31 UL | | | | | | | | | | | | | |
| 347-518-31 U | 347-518-31 UL | 347-510-31 U | 347-510-31 UL | | | | | | | | | | | | | |
| 347-618-31 U | 347-618-31 UL | 347-610-31 U | 347-610-31 UL | | | | | | | | | | | | | |

Dimensions in brackets: For screwdrivers with remote start

TECHNICAL DATA

| Screwdriver Style | | | Motor Size 2 | | |
|---|---------------------------|--|--|--|--|
| Spindle right rotation, right shut-off Push To Start | Type Part no. | 347-228-31 386369 A | 347-328-31 386369 B | 347-528-31 386369 C | |
| Spindle left rotation, left shut-off Push To Start | Type Part no. | 347-228-31 L 386370 A | 347-328-31 L 386370 B | 347-528-31 L 386370 C | |
| Spindle right rotation, right shut-off Remote Start | Type Part no. | 347-220-31 386371 A | 347-320-31 386371 B | 347-520-31 386371 C | |
| Spindle left rotation, left shut-off Remote Start | Type Part no. | 347-220-31 L 386372 A | 347-320-31 L 386372 B | 347-520-31 L 386372 C | |
| Torque min. | Nm / in.lbs | 0.5 / 5 | 0.4 / 4 | 0.3 / 3 | |
| Soft pull-up max. | Nm / in.lbs | 1.6 / 14 | 3 / 27 | 5 / 44 | |
| Hard pull-up max. | Nm / in.lbs | 2.2 / 19 | 3.5 / 31 | 5 / 44 | |
| Speed, idling | rpm | 4000 | 1550 | 680 | |
| Air consumption | m ³ /min / cfm | 0.3 / 11 | 0.3 / 11 | 0.3 / 11 | |
| Weight | kg / lbs | 0.89 / 1.9 | 0.89 / 1.9 | 0.89 / 1.9 | |
| Push to start pressure | N / lbs | 24 / 5.4 | 24 / 5.4 | 24 / 5.4 | |
| Pressure at max. screwdriver stroke | N / lbs | 100 / 22 | 100 / 22 | 100 / 22 | |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 8 / 5.5 (.314 / ⁷ / ₃₂) | 8 / 5.5 (.314 / ⁷ / ₃₂) | 8 / 5.5 (.314 / ⁷ / ₃₂) | |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | | |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | |
| Quick change chuck mounted | | yes | yes | yes | |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | |
| Spindle reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 347-228-31 U 386373 A | 347-328-31 U 386373 B | 47-528-31 U 386373 C | |
| Spindle reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 347-228-31 UL 386374 A | 347-328-31 UL 386374 B | 347-528-31 UL 386374 C | |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-220-31 U 386375 A | 347-320-31 U 386375 B | 347-520-31 U 386375 C | |
| Spindle reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-220-31 UL 386376 A | 347-320-31 UL 386376 B | 347-520-31 UL 386376 C | |
| Torque min. | Nm / in.lbs | 0.5 / 5 | 0.4 / 4 | 0.3 / 3 | |
| Soft pull-up max. | Nm / in.lbs | 1.3 / 11 | 2.6 / 23 | 4.5 / 40 | |
| Hard pull-up max. | Nm / in.lbs | 2 / 18 | 3 / 26 | 4.5 / 40 | |
| Speed, idling | rpm | 3100 | 1150 | 520 | |
| Air consumption | m ³ /min / cfm | 0.3 / 11 | 0.3 / 11 | 0.3 / 11 | |
| Weight | kg / lbs | 0.91 / 2 | 0.91 / 2 | 0.91 / 2 | |
| Push to start pressure | N / lbs | 24 / 5.4 | 24 / 5.4 | 24 / 5.4 | |
| Pressure at max. screwdriver stroke | N / lbs | 100 / 22 | 100 / 22 | 100 / 22 | |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 8 / 5.5 (.314 / ⁷ / ₃₂) | 8 / 5.5 (.314 / ⁷ / ₃₂) | 8 / 5.5 (.314 / ⁷ / ₃₂) | |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | | |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | |
| Quick change chuck mounted | | yes | yes | yes | |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | |

Performance data relate to an air pressure of 6.3 bar (90 PSI)



426719

- Ⓐ Air supply connection for push to start
- Ⓑ Air supply connection for remote start

Motor Size 2

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|--|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 | C5 | |
| Spindle right-/left rotation | | | | | | | | | | | | | | | | | |
| 347-228-31 | 347-228-31 L | 347-220-31 | 347-220-31 L | | | | | | | | | | | | | | |
| 347-328-31 | 347-328-31 L | 347-320-31 | 347-320-31 L | 222 | 87 | 10 | 60 | 11 | 21 | 27 | 12 | 23 | 36 | 14 | 28 | - | |
| 347-528-31 | 347-528-31 L | 347-520-31 | 347-520-31 L | | | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | | | |
| 347-228-31 U | 347-228-31 UL | 347-220-31 U | 347-220-31 UL | | | | | | | | | | | | | | |
| 347-328-31 U | 347-328-31 UL | 347-320-31 U | 347-320-31 UL | 222 | 87 | 10 | 60 | 11 | 21 | 27 | 12 | 23 | 36 | 32 | 28 | 25 | |
| 347-528-31 U | 347-528-31 UL | 347-520-31 U | 347-520-31 UL | | | | | | | | | | | | | | |

TECHNICAL DATA

| Screwdriver Style | | | Motor Size 3 | | | |
|---|---------------------------|--|--|--|--|--|
| Spindle right rotation, right shut-off Push To Start | Type Part no. | | 346-238-31 406109 B | 346-738-31 406109 C | 346-338-31 406109 D | 346-438-31 406109 E |
| Spindle left rotation, left shut-off Push To Start | Type Part no. | | 346-238-31 L 406446 B | 346-738-31 L 406446 C | 346-338-31 L 406446 D | 346-438-31 L 406446 E |
| Spindle right rotation, right shut-off Remote Start | Type Part no. | | 346-230-31 406482 B | 346-730-31 406482 C | 346-330-31 406482 D | 346-430-31 406482 E |
| Spindle left rotation, left shut-off Remote Start | Type Part no. | | 346-230-31 L 406484 B | 346-730-31 L 406484 C | 346-330-31 L 406484 D | 346-430-31 L 406484 E |
| Torque min. | Nm / in.lbs | | 2 / 18 | 2 / 18 | 2 / 18 | 2 / 18 |
| Soft pull-up max. | Nm / in.lbs | | 5 / 44 | 8 / 71 | 14 / 123 | 20 / 177 |
| Hard pull-up max. | Nm / in.lbs | | 6 / 53 | 9 / 80 | 14 / 123 | 20 / 177 |
| Speed, idling | rpm | | 2500 | 1400 | 800 | 400 |
| Air consumption | m ³ /min / cfm | | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | | 1.5 / 3.3 | 1.6 / 3.5 | 1.6 / 3.5 | 1.6 / 3.5 |
| Push to start pressure | N / lbs | | 38 / 8.4 | 38 / 8.4 | 38 / 8.4 | 38 / 8.4 |
| Pressure at max. screwdriver stroke | N / lbs | | 100 / 22 | 100 / 22 | 100 / 22 | 100 / 22 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | | | |
| Internal hex. drive DIN ISO 1173 | | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |
| Spindle reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | | 346-238-31 U 406223 B | 346-738-31 U 406223 C | 346-338-31 U 406223 D | 346-438-31 U 406223 E |
| Spindle reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | | 346-238-31 UL 406469 B | 346-738-31 UL 406469 C | 346-338-31 UL 406469 D | 346-438-31 UL 406469 E |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | | 346-230-31 U 406282 B | 346-730-31 U 406282 C | 346-330-31 U 406282 D | 346-430-31 U 406282 E |
| Spindle reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | | 346-230-31 UL 406475 B | 346-730-31 UL 406475 C | 346-330-31 UL 406475 D | 346-430-31 UL 406475 E |
| Torque min. | Nm / in.lbs | | 2 / 18 | 2 / 18 | 2 / 18 | 2 / 18 |
| Soft pull-up max. | Nm / in.lbs | | 4.5 / 40 | 7 / 62 | 12 / 106 | 20 / 177 |
| Hard pull-up max. | Nm / in.lbs | | 5.5 / 49 | 8 / 71 | 12 / 106 | 20 / 177 |
| Speed, idling | rpm | | 2300 | 1200 | 650 | 320 |
| Air consumption | m ³ /min / cfm | | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | | 1.7 / 3.7 | 1.8 / 4.0 | 1.8 / 4.0 | 1.8 / 4.0 |
| Push to start pressure | N / lbs | | 38 / 8.4 | 38 / 8.4 | 38 / 8.4 | 38 / 8.4 |
| Pressure at max. screwdriver stroke | N / lbs | | 100 / 22 | 100 / 22 | 100 / 22 | 100 / 22 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | | | |
| Internal hex. drive DIN ISO 1173 | | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |

Performance data relate to an air pressure of 6.3 bar (90 PSI)

Motor Size 3

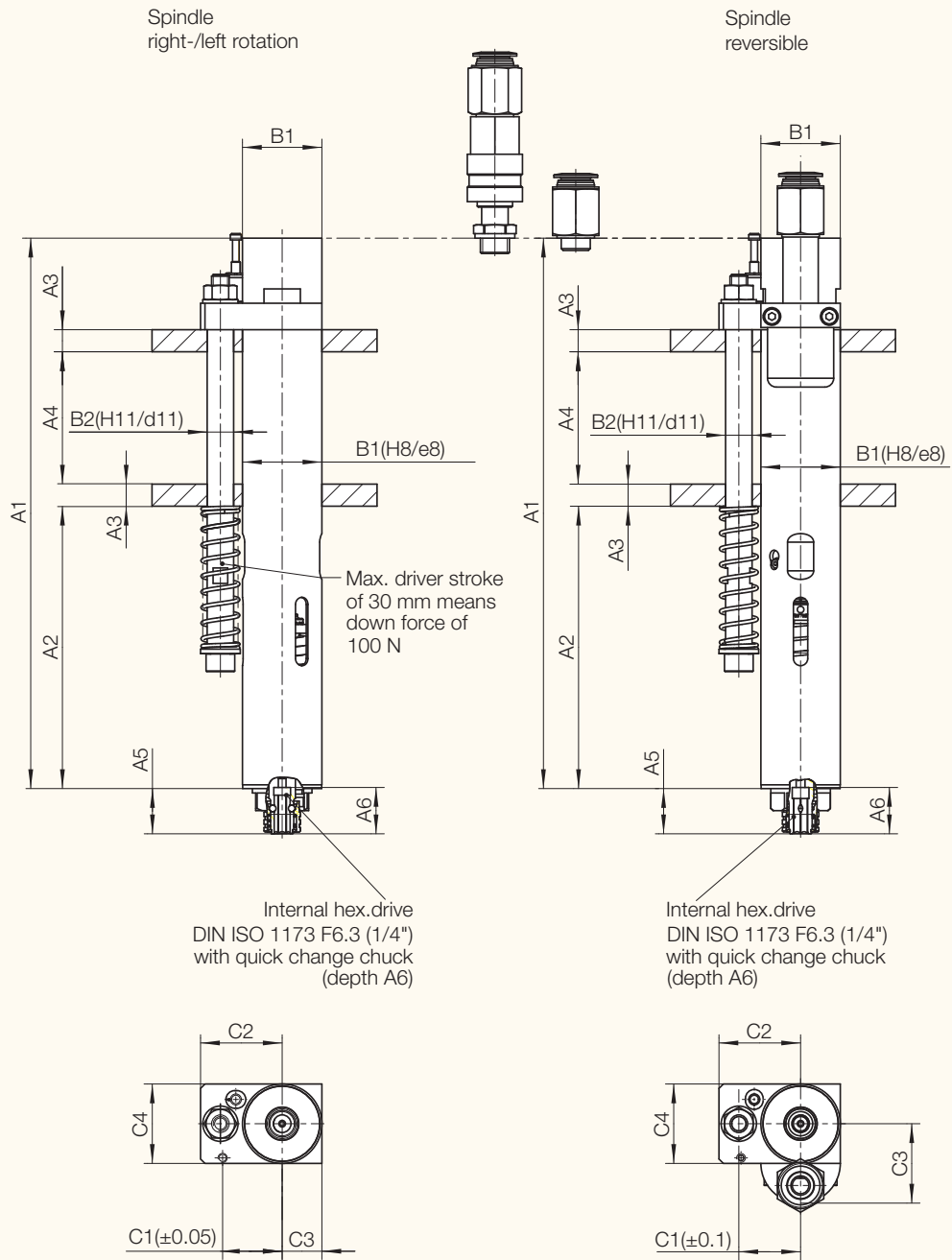
| Type | | | | Dimensions (mm) | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|-----|----|----|------|----|----|----|----|----|----|----|
| Spindle right-/left rotation | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 |
| 346-238-31 | 346-238-31 L | 346-230-31 | 346-230-31 L | 249.5 | 128 | 10 | 60 | 20.5 | 21 | 36 | 12 | 28 | 37 | 18 | 36 |
| Spindle reversible | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 |
| 346-238-31 U | 346-238-31 UL | 346-230-31 U | 346-230-31 UL | 250 | 128 | 10 | 60 | 20.5 | 21 | 36 | 12 | 28 | 37 | 36 | 36 |

Motor Size 3

| Type | | | | Dimensions (mm) | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|-----|----|----|------|----|----|----|----|----|----|----|
| Spindle right-/left rotation | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 |
| 346-338-31 | 346-338-31 L | 346-330-31 | 346-330-31 L | 249.5 | 128 | 10 | 60 | 20.5 | 21 | 36 | 12 | 28 | 37 | 18 | 36 |
| 346-438-31 | 346-438-31 L | 346-430-31 | 346-430-31 L | | | | | | | | | | | | |
| Spindle reversible | | | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 |
| 346-338-31 U | 346-338-31 UL | 346-330-31 U | 346-330-31 UL | 250 | 128 | 10 | 60 | 20.5 | 21 | 36 | 12 | 28 | 37 | 36 | 36 |
| 346-438-31 U | 346-438-31 UL | 346-430-31 U | 346-430-31 UL | | | | | | | | | | | | |

Suitable accessories → page 22

Suitable tool inserts → brochure D 3320 E



4071302

TECHNICAL DATA

| Screwdriver Style | | Motor Size 4 | | | |
|---|---------------------------|--|--|--|--|
| Spindle right rotation, right shut-off Remote Start | Type Part no. | 344-340-31 389730 A | 344-440-31 389730 B | 344-740-31 389730 C | 344-840-31 389730 D |
| Torque min. | Nm / in.lbs | 4 / 35.4 | 4 / 35.4 | 16 / 142 | 16 / 142 |
| Torque max. | Nm / in.lbs | 8 / 71 | 10 / 88 | 34 / 300 | 45 / 398 |
| Speed, idling | rpm | 2800 | 2100 | 640 | 450 |
| Air consumption | m ³ /min / cfm | 1.1 / 39 | 1.1 / 39 | 1.1 / 39 | 1.1 / 39 |
| Weight | kg / lbs | 2.5 / 5.5 | 2.5 / 5.5 | 2.65 / 5.8 | 2.65 / 5.8 |
| Pressure at max. screwdriver stroke | N / lbs | 140 / 31.4 | 140 / 31.4 | 140 / 31.4 | 140 / 31.4 |
| Max. admissible pressure | N / lbs | 1000 / 224 | 1000 / 224 | 1000 / 224 | 1000 / 224 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) |
| Hose for function control (O.D. / I.D.) (O.D. tolerances of connection hoses according to Cetop RP 54 P) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F11.2 (7/16") | F11.2 (7/16") |
| Quick change chuck mounted | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E11.2 (7/16") | E11.2 (7/16") |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 344-340-31 U 384210 A | 344-440-31 U 384210 B | 344-740-31 U 384210 C | 344-840-31 U 384210 D |
| Torque min. | Nm / in.lbs | 3.5 / 31 | 3.5 / 31 | 14 / 124 | 14 / 124 |
| Torque max. | Nm / in.lbs | 6.5 / 57.5 | 8 / 70.8 | 32 / 283 | 38 / 336 |
| Speed, idling | rpm | 2400 | 1700 | 500 | 360 |
| Air consumption | m ³ /min / cfm | 1.1 / 39 | 1.1 / 39 | 1.1 / 39 | 1.1 / 39 |
| Weight | kg / lbs | 2.5 / 5.5 | 2.5 / 5.5 | 2.65 / 5.8 | 2.65 / 5.8 |
| Pressure at max. screwdriver stroke | N / lbs | 140 / 31.4 | 140 / 31.4 | 140 / 31.4 | 140 / 31.4 |
| Max. admissible pressure | N / lbs | 1000 / 224 | 1000 / 224 | 1000 / 224 | 1000 / 224 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) |
| Hose for function control (O.D. / I.D.) (O.D. tolerances of connection hoses according to Cetop RP 54 P) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F11.2 (7/16") | F11.2 (7/16") |
| Quick change chuck mounted | | yes | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E11.2 (7/16") | E11.2 (7/16") |

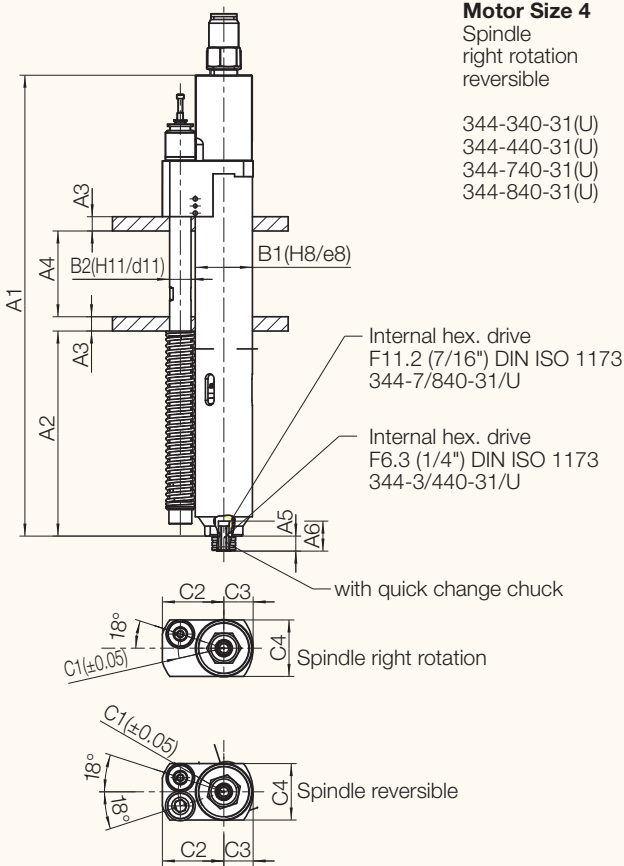
Performance data relate to an air pressure of 6.3 bar (90 PSI)

| Screwdriver Style | | Motor Size 4 | | | |
|---|---------------------------|--------------|--|--|--|
| Spindle right rotation, right shut-off Remote Start | Type Part no. | | 344-940-31 404623 B | 344-140-31 404623 C | 344-240-31 404623 D |
| Torque min. | Nm / in.lbs | | 40 / 352 | 40 / 352 | 40 / 352 |
| Torque max. | Nm / in.lbs | | 85 / 751 | 130 / 1151 | 180 / 1594 |
| Speed, idling | rpm | | 250 | 160 | 115 |
| Air consumption | m ³ /min / cfm | | 1.1 / 39 | 1.1 / 39 | 1.1 / 39 |
| Weight | kg / lbs | | 6 / 13.2 | 6 / 13.2 | 6 / 13.2 |
| Pressure at max. screwdriver stroke | N / lbs | | 480 / 108 | 480 / 108 | 480 / 108 |
| Max. admissible pressure | N / lbs | | 1000 / 224 | 1000 / 224 | 1000 / 224 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) | 12 / 8 (.472 / ⁵ / ₁₆) |
| Hose for function control (O.D. / I.D.) (O.D. tolerances of connection hoses according to Cetop RP 54 P) | mm (in.) | | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| External square drive DIN 3121 | | | F20 (3/4") | F20 (3/4") | F20 (3/4") |
| Quick change chuck mounted | | | no | no | no |
| Suitable tool inserts and connecting components with a drive as per DIN 3121 | | | H20 (3/4") | H20 (3/4") | H20 (3/4") |

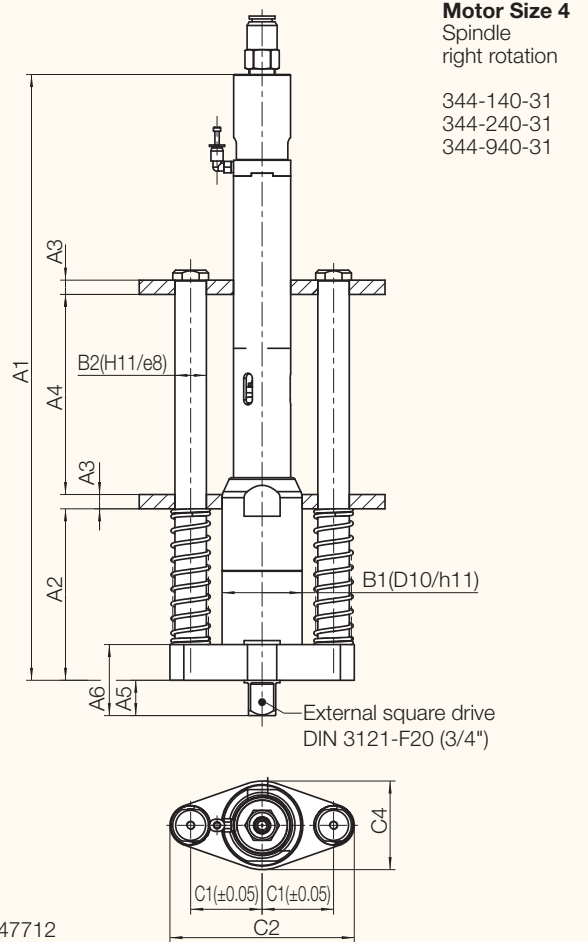
Performance data relate to an air pressure of 6.3 bar (90 PSI)

Suitable accessories → page 22

Suitable tool inserts → brochure D 3320 E



3892635



4047712

Motor Size 4

| Type Spindle right rotation | Type Spindle reversible | Dimensions (mm) | | | | | | | | | | | |
|-----------------------------------|-------------------------------|-----------------|-------|----|-----|------|------|----|----|----|-----|------|------|
| | | A1 | A2 | A3 | A4 | A5 | A6 | B1 | B2 | C1 | C2 | C3 | C4 |
| 344-340-31 | 344-340-31 U | | | | | | | | | | | | |
| 344-440-31 | 344-440-31 U | 322.5 | 143.5 | 10 | 60 | 10.5 | 21 | 40 | 15 | 32 | 43 | 20.5 | 39.5 |
| 344-740-31 | 344-740-31 U | | | | | | | | | | | | |
| 344-840-31 | 344-840-31 U | 352 | 173 | 10 | 60 | 13.2 | 30 | 40 | 15 | 32 | 43 | 20.5 | 39.5 |
| 344-140-31 | | | | | | | | | | | | | |
| 344-240-31 | | 423.9 | 120 | 10 | 140 | 24.7 | 49.7 | 56 | 22 | 50 | 129 | - | 62 |
| 344-940-31 | | | | | | | | | | | | | |

TECHNICAL DATA

| Screwdriver Style | | Motor Size 2 only in connection with off-set gear (to minimize the center distance) | | |
|---|---------------------------|--|-----------------------------------|-----------------------------------|
| Spindle left rotation, left shut-off Spindle in connection with off-set gear right rotation, right shut-off Push To Start | Type Part no. | 347-228-31 LV 388645 A | 347-328-31 LV 388645 B | 347-528-31 LV 388645 C |
| Spindle right rotation, right shut-off Spindle in connection with off-set gear left rotation, left shut-off Push To Start | Type Part no. | 347-228-31 V 388944 A | 347-328-31 V 388944 B | 347-528-31 V 388944 C |
| Spindle left rotation, left shut-off Spindle in connection with off-set gear right rotation, right shut-off Remote Start | Type Part no. | 347-220-31 LV 388646 A | 347-320-31 LV 388646 B | 347-520-31 LV 388646 C |
| Spindle right rotation, right shut-off Spindle in connection with off-set gear left rotation, left shut-off Remote Start | Type Part no. | 347-220-31 V 388945 A | 347-320-31 V 388945 B | 347-520-31 V 388945 C |
| Off-Set Gear^{1) 2)} | Part no. | 388649 A | 388649 A | 388649 A |
| Gear ratio | | i = 0.85 | i = 0.85 | i = 0.85 |
| Torque min. | Nm / in.lbs | 0.5 / 5 | 0.4 / 4 | 0.3 / 3 |
| Soft pull-up max. | Nm / in.lbs | 1.5 / 13 | 2.8 / 25 | 4.7 / 42 |
| Hard pull-up max. | Nm / in.lbs | 2 / 18 | 3.3 / 29 | 4.7 / 42 |
| Speed, idling | rpm | 4200 | 1700 | 750 |
| Air consumption | m ³ /min / cfm | 0.3 / 11 | 0.3 / 11 | 0.3 / 11 |
| Weight | kg / lbs | 1.34 / 2.9 | 1.34 / 2.9 | 1.34 / 2.9 |
| Push to start pressure | N / lbs | 46 / 10 | 46 / 10 | 46 / 10 |
| Pressure at max. screwdriver stroke | N / lbs | 150 / 33 | 150 / 33 | 150 / 33 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 8 / 5.5 (.314 / 7/32) | 8 / 5.5 (.314 / 7/32) | 8 / 5.5 (.314 / 7/32) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / 3/32) | 4 / 2.5 (.157 / 3/32) | 4 / 2.5 (.157 / 3/32) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |
| Spindle reversible, left shut-off Spindle in connection with off-set gear reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 347-228-31 ULV 388946 A | 347-328-31 ULV 388946 B | 347-528-31 ULV 388946 C |
| Spindle reversible, right shut-off Spindle in connection with off-set gear reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 347-228-31 UV 388947 A | 347-328-31 UV 388947 B | 347-528-31 UV 388947 C |
| Spindle reversible, left shut-off Spindle in connection with off-set gear reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-220-31 ULV 388948 A | 347-320-31 ULV 388948 B | 347-520-31 ULV 388948 C |
| Spindle reversible, right shut-off Spindle in connection with off-set gear reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | 347-220-31 UV 388949 A | 347-320-31 UV 388949 B | 347-520-31 UV 388949 C |
| Off-Set Gear^{1) 2)} | Part no. | 388649 A | 388649 A | 388649 A |
| Gear ratio | | i = 0.85 | i = 0.85 | i = 0.85 |
| Torque min. | Nm / in.lbs | 0.5 / 5 | 0.4 / 4 | 0.3 / 3 |
| Soft pull-up max. | Nm / in.lbs | 1.2 / 11 | 2.5 / 22 | 4.5 / 40 |
| Hard pull-up max. | Nm / in.lbs | 2 / 18 | 3 / 26 | 4.5 / 40 |
| Speed, idling | rpm | 3400 | 1280 | 580 |
| Air consumption | m ³ /min / cfm | 0.3 / 11 | 0.3 / 11 | 0.3 / 11 |
| Weight | kg / lbs | 1.36 / 3 | 1.36 / 3 | 1.36 / 3 |
| Push to start pressure | N / lbs | 46 / 10 | 46 / 10 | 46 / 10 |
| Pressure at max. screwdriver stroke | N / lbs | 150 / 33 | 150 / 33 | 150 / 33 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 8 / 5.5 (.314 / 7/32) | 8 / 5.5 (.314 / 7/32) | 8 / 5.5 (.314 / 7/32) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / 3/32) | 4 / 2.5 (.157 / 3/32) | 4 / 2.5 (.157 / 3/32) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |

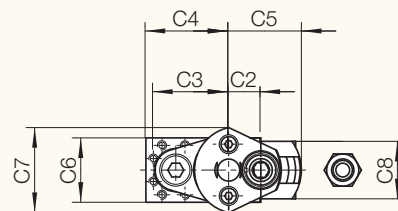
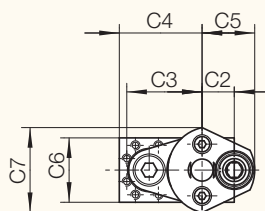
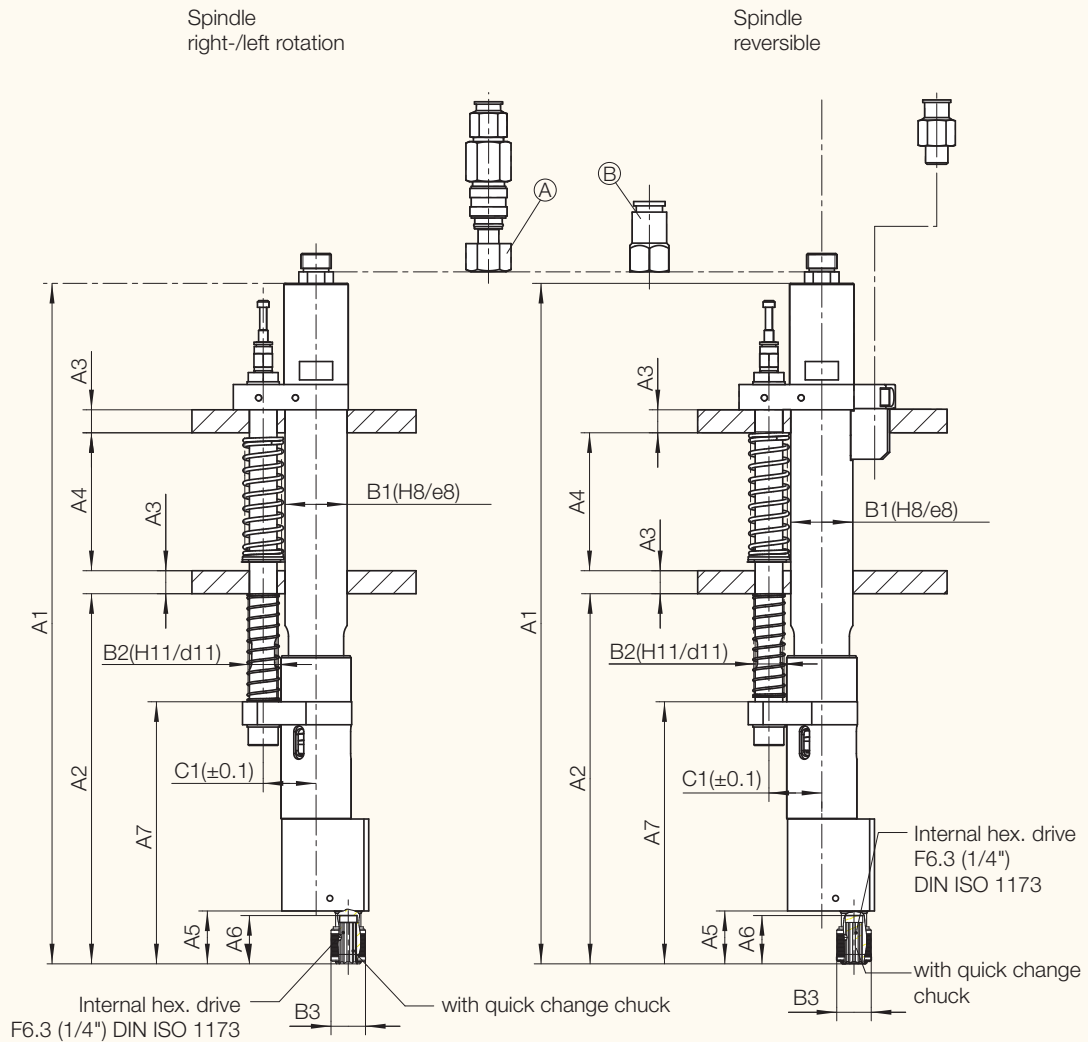
Performance data relate to an air pressure of 6.3 bar (90 PSI)

¹⁾ off-set gear as optional equipment

²⁾ Screwdrivers with off-set gearing for restricted area (for sockets and bits without finders only)

Suitable accessories → page 22

Suitable tool inserts → brochure D 3320 E



Ⓐ Air supply connection for push to start

Ⓑ Air supply connection for remote start

3889764

Motor Size 2 with off-set gear 388649 A

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | | | | | | |
|------------------------------|---------------|----------------|---------------|-----------------|-----|----|----|----|----|-----|----|----|----|----|----|-------|----|----|----|----|----|----|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| Spindle right-/left rotation | | | | | | | | | | | | | | | | | | | | | | |
| 347-228-31 LV | 347-228-31 V | 347-220-31 LV | 347-220-31 V | 296 | 161 | 10 | 60 | 23 | 21 | 114 | 27 | 12 | 15 | 23 | 14 | 32.75 | 36 | 23 | 28 | 37 | - | - |
| 347-328-31 LV | 347-328-31 V | 347-320-31 LV | 347-320-31 V | | | | | | | | | | | | | | | | | | | |
| 347-528-31 LV | 347-528-31 V | 347-520-31 LV | 347-520-31 V | | | | | | | | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | | | | | | | | |
| 347-228-31 ULV | 347-228-31 UV | 347-220-31 ULV | 347-220-31 UV | 296 | 161 | 10 | 60 | 23 | 21 | 114 | 27 | 12 | 15 | 23 | 14 | 32.75 | 36 | 23 | 28 | 37 | 25 | 32 |
| 347-328-31 ULV | 347-328-31 UV | 347-320-31 ULV | 347-320-31 UV | | | | | | | | | | | | | | | | | | | |
| 347-528-31 ULV | 347-528-31 UV | 347-520-31 ULV | 347-520-31 UV | | | | | | | | | | | | | | | | | | | |

TECHNICAL DATA

| Screwdriver Style | | Motor Size 3 only in connection with off-set gear (to minimize the center distance) | | |
|---|---------------------------|--|--|--|
| Spindle left rotation, left shut-off Spindle in connection with off-set gear right rotation, right shut-off Push To Start | Type Part no. | 346-738-31 LV 401068 C | 346-338-31 LV 401068 D | 346-438-31 LV 401068 E |
| Spindle right rotation, right shut-off Spindle in connection with off-set gear left rotation, left shut-off Push To Start | Type Part no. | 346-738-31 V 407279 C | 346-338-31 V 407279 D | 346-438-31 V 407279 E |
| Spindle left rotation, left shut-off Spindle in connection with off-set gear right rotation, right shut-off Remote Start | Type Part no. | 346-730-31 LV 407280 C | 346-330-31 LV 407280 D | 346-430-31 LV 407280 E |
| Spindle right rotation, right shut-off Spindle in connection with off-set gear left rotation, left shut-off Remote Start | Type Part no. | 346-730-31 V 407281 C | 346-330-31 V 407281 D | 346-430-31 V 407281 E |
| Off-Set Gear¹⁾ 2) | Part no. | 401236 B | 401236 B | 401236 B |
| Gear ratio | | i = 1.3 | i = 1.3 | i = 1.3 |
| Torque min. | Nm / in.lbs | 2.6 / 23 | 2.6 / 23 | 2.6 / 23 |
| Soft pull-up max. | Nm / in.lbs | 9 / 80 | 15 / 132 | 24 / 212 |
| Hard pull-up max. | Nm / in.lbs | 9 / 80 | 15 / 132 | 24 / 212 |
| Speed, idling | rpm | 1050 | 600 | 300 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 3 / 6.6 | 3 / 6.6 | 3 / 6.6 |
| Push to start pressure | N / lbs | 64 / 14.3 | 64 / 14.3 | 64 / 14.3 |
| Pressure at max. screwdriver stroke | N / lbs | 130 / 29.1 | 130 / 29.1 | 130 / 29.1 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) (O.D. tolerances of connection hoses according to Cetop RP 54 P) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |
| Spindle reversible, left shut-off Spindle in connection with off-set gear reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 346-738-31 ULV 407283 C | 346-338-31 ULV 407283 D | 346-438-31 ULV 407283 E |
| Spindle reversible, right shut-off Spindle in connection with off-set gear reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 346-738-31 UV 407284 C | 346-338-31 UV 407284 D | 346-438-31 UV 407284 E |
| Spindle reversible, left shut-off Spindle in connection with off-set gear reversible, right shut-off Remote Start in drive direction and in reverse | Type Part no. | 346-730-31 ULV 407285 C | 346-330-31 ULV 407285 D | 346-430-31 ULV 407285 E |
| Spindle reversible, right shut-off Spindle in connection with off-set gear reversible, left shut-off Remote Start in drive direction and in reverse | Type Part no. | 346-730-31 UV 407286 C | 346-330-31 UV 407286 D | 346-430-31 UV 407286 E |
| Off-Set Gear¹⁾ 2) | Part no. | 401236 B | 401236 B | 401236 B |
| Gear ratio | | i = 1.3 | i = 1.3 | i = 1.3 |
| Torque min. | Nm / in.lbs | 2.6 / 23 | 2.6 / 23 | 2.6 / 23 |
| Soft pull-up max. | Nm / in.lbs | 8 / 71 | 13 / 115 | 22 / 195 |
| Hard pull-up max. | Nm / in.lbs | 8 / 71 | 13 / 115 | 22 / 195 |
| Speed, idling | rpm | 900 | 500 | 250 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 3.2 / 7 | 3.2 / 7 | 3.2 / 7 |
| Push to start pressure | N / lbs | 64 / 14.3 | 64 / 14.3 | 64 / 14.3 |
| Pressure at max. screwdriver stroke | N / lbs | 130 / 29.1 | 130 / 29.1 | 130 / 29.1 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) (O.D. tolerances of connection hoses according to Cetop RP 54 P) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| Internal hex. drive DIN ISO 1173 | | F6.3 (1/4") | F6.3 (1/4") | F6.3 (1/4") |
| Quick change chuck mounted | | yes | yes | yes |
| Suitable tool inserts and connecting components with a drive as per DIN ISO 1173 | | E6.3 (1/4") | E6.3 (1/4") | E6.3 (1/4") |

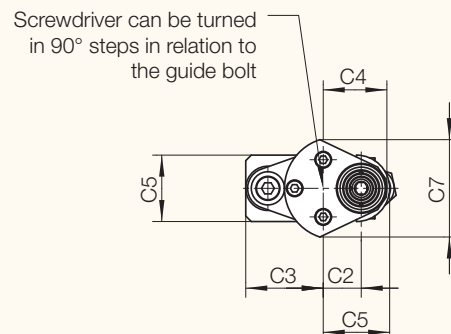
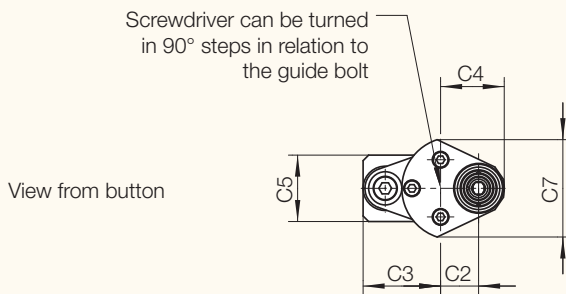
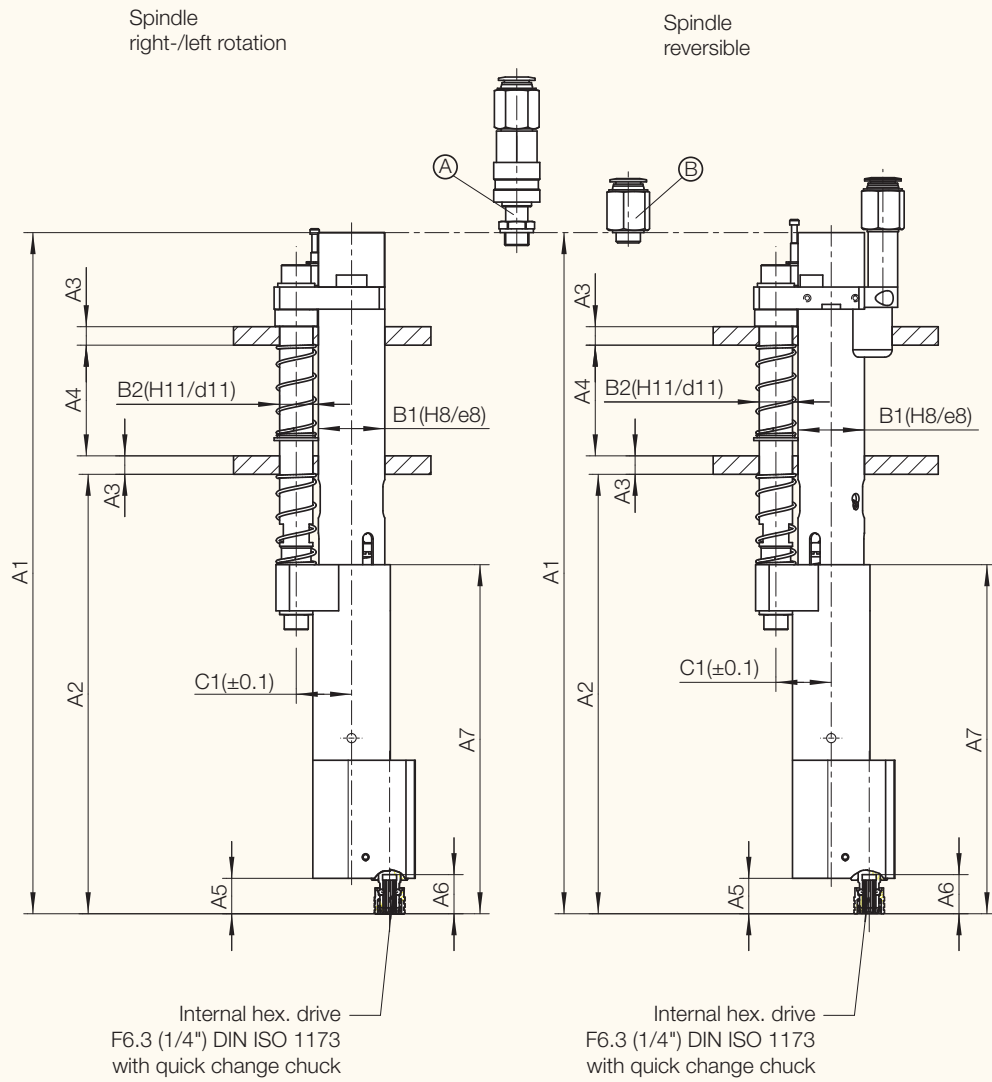
Performance data relate to an air pressure of 6.3 bar (90 PSI)

¹⁾ off-set gear as optional equipment

²⁾ Screwdrivers with off-set gearing for restricted area (for sockets and bits without finders only)

► Suitable accessories → page 22

► Suitable tool inserts → brochure D 3320 E



4071952

- Ⓐ Air supply connection for push to start
- Ⓑ Air supply connection for remote start

Motor Size 3 with off-set gear 401236 B

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | | | | |
|------------------------------|---------------|----------------|---------------|-----------------|-----|----|----|----|----|-----|----|----|------|----|------|----|------|----|------|------|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | C1 | C2 | C3 | C4 | C5 | C6 | C7 |
| Spindle right-/left rotation | | | | | | | | | | | | | | | | | | | | |
| 346-338-31 LV | 346-338-31 V | 346-330-31 LV | 346-330-31 V | | | | | | | | | | | | | | | | | |
| 346-438-31 LV | 346-438-31 V | 346-430-31 LV | 346-430-31 V | 369 | 238 | 10 | 60 | 19 | 21 | 189 | 36 | 18 | 16.5 | 30 | 20.6 | 42 | 34.5 | 36 | 52.8 | - |
| 346-738-31 LV | 346-738-31 V | 346-730-31 LV | 346-730-31 V | | | | | | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | | | | | | |
| 346-338-31 ULV | 346-338-31 UV | 346-330-31 ULV | 346-330-31 UV | | | | | | | | | | | | | | | | | |
| 346-438-31 ULV | 346-438-31 UV | 346-430-31 ULV | 346-430-31 UV | 369 | 238 | 10 | 60 | 19 | 21 | 189 | 36 | 18 | 16.5 | 30 | 20.6 | 42 | 34.5 | 36 | 36 | 52.8 |
| 346-738-31 ULV | 346-738-31 UV | 346-730-31 ULV | 346-730-31 UV | | | | | | | | | | | | | | | | | |

TECHNICAL DATA

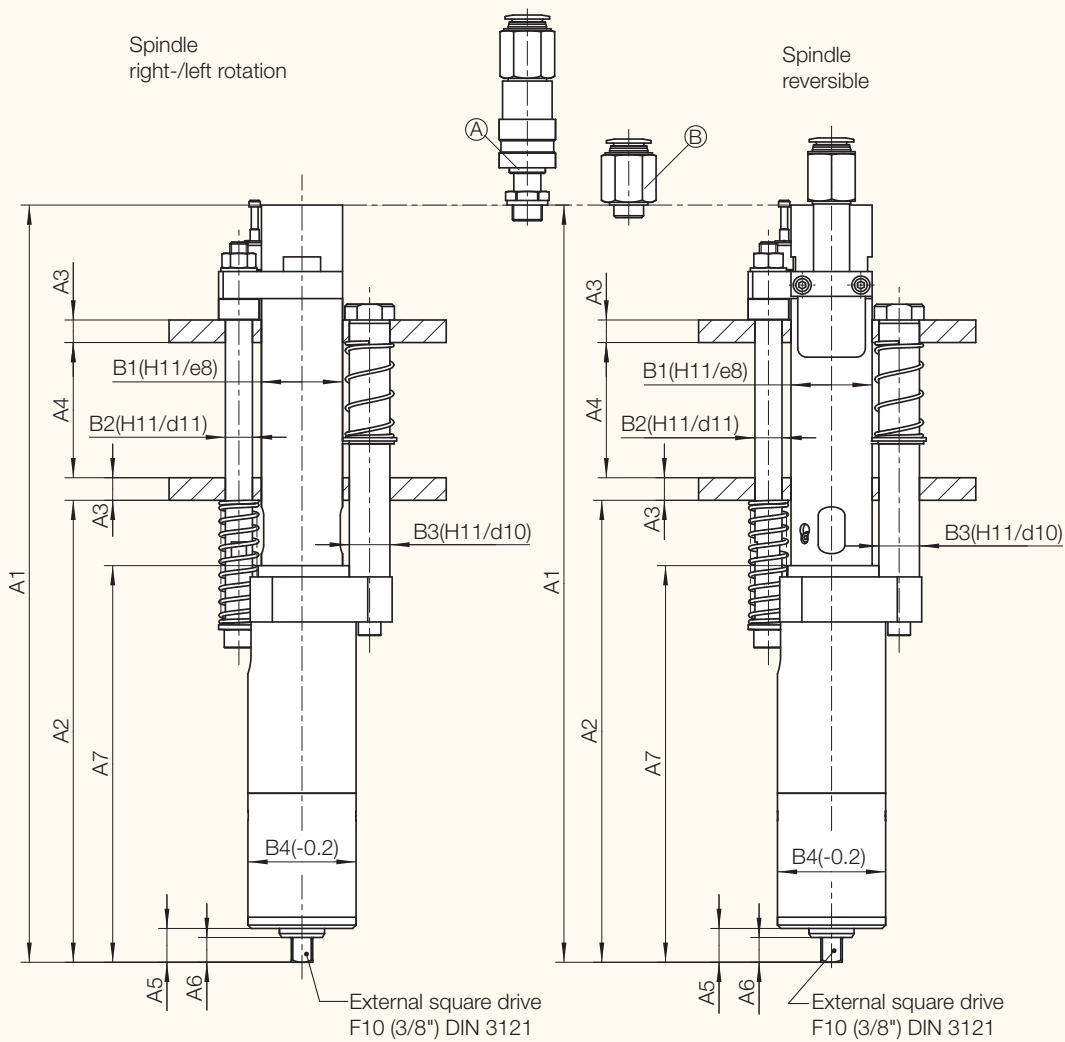
| Screwdriver Style | | Motor Size 3 for reduction gear (to increase torque value) | |
|---|---------------------------|---|--|
| Spindle right rotation, right shut-off Push To Start | Type Part no. | 346-338-31 406109 D | 346-438-31 406109 E |
| Spindle left rotation, left shut-off Push To Start | Type Part no. | 346-338-31 L 406446 D | 346-438-31 L 406446 E |
| Spindle right rotation, right shut-off Remote Start | Type Part no. | 346-330-31 406482 D | 346-430-31 406482 E |
| Spindle left rotation, left shut-off Remote Start | Type Part no. | 346-330-31 L 406484 D | 346-430-31 L 406484 E |
| Reduction Gear¹⁾ | Part no. | 407204 A | 407204 A |
| Gear ratio | | i = 4 | i = 4 |
| Torque min. | Nm / in.lbs | 4 / 35 | 4 / 35 |
| Torque max. | Nm / in.lbs | 42 / 370 | 72 / 637 |
| Speed, idling | rpm | 200 | 100 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 3.2 / 7 | 3.2 / 7 |
| Push to start pressure | N / lbs | 45 / 9.9 | 45 / 9.9 |
| Pressure at max. screwdriver stroke | N / lbs | 120 / 26 | 120 / 26 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | |
| External square drive DIN 3121 | | F10 (3/8") | F10 (3/8") |
| Quick change chuck mounted | | no | no |
| Suitable tool inserts and connecting components with a drive as per DIN 3121 | | H10 (3/8") | H10 (3/8") |
| Spindle reversible. right shut-off Push To Start for right rotation Reverse by Remote Start | Type Part no. | 346-338-31 U 406223 D | 346-438-31 U 406223 E |
| Spindle reversible. left shut-off Push To Start for left rotation Reverse by Remote Start | Type Part no. | 346-338-31 UL 406469 D | 346-438-31 UL 406469 E |
| Spindle reversible. right shut-off Remote Start in drive direction and in reverse | Type Part no. | 346-330-31 U 406282 D | 346-430-31 U 406282 E |
| Spindle reversible. left shut-off Remote Start in drive direction and in reverse | Type Part no. | 346-330-31 UL 406475 D | 346-430-31 UL 406475 E |
| Reduction Gear¹⁾ | Part no. | 407204 A | 407204 A |
| Gear ratio | | i = 4 | i = 4 |
| Torque min. | Nm / in.lbs | 4 / 35 | 4 / 35 |
| Torque max. | Nm / in.lbs | 35 / 310 | 58 / 513 |
| Speed, idling | rpm | 160 | 80 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 3.5 / 7.7 | 3.5 / 7.7 |
| Push to start pressure | N / lbs | 45 / 9.9 | 45 / 9.9 |
| Pressure at max. screwdriver stroke | N / lbs | 120 / 26 | 120 / 26 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | |
| External square drive DIN 3121 | | F10 (3/8") | F10 (3/8") |
| Quick change chuck mounted | | no | no |
| Suitable tool inserts and connecting components with a drive as per DIN 3121 | | H10 (3/8") | H10 (3/8") |

Performance data relate to an air pressure of 6.3 bar (90 PSI)

¹⁾ reduction gear as optional equipment

Suitable accessories → page 22

Suitable tool inserts → brochure D 3320 E



4074052

- Ⓐ Air supply connection for push to start
- Ⓑ Air supply connection for remote start

Motor Size 3 with reduction gear 407204 A

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|-----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| Spindle right-/left rotation | | | | | | | | | | | | | | | | | | | | | | | |
| 346-338-31 | 346-338-31 L | 346-330-31 | 346-330-31 L | 336 | 205 | 10 | 60 | 15 | 11 | 176 | 36 | 12 | 18 | 48 | 28 | 37 | 18 | 30 | 8 | 32 | 36 | 48 | - |
| 346-438-31 | 346-438-31 L | 346-430-31 | 346-430-31 L | | | | | | | | | | | | | | | | | | | | |
| Spindle reversible | | | | | | | | | | | | | | | | | | | | | | | |
| 346-338-31 U | 346-338-31 UL | 346-330-31 U | 346-330-31 UL | 336 | 205 | 10 | 60 | 15 | 11 | 176 | 36 | 12 | 18 | 48 | 28 | 37 | 18 | 30 | 8 | 32 | 36 | 48 | 36 |
| 346-438-31 U | 346-438-31 UL | 346-430-31 U | 346-430-31 UL | | | | | | | | | | | | | | | | | | | | |

TECHNICAL DATA

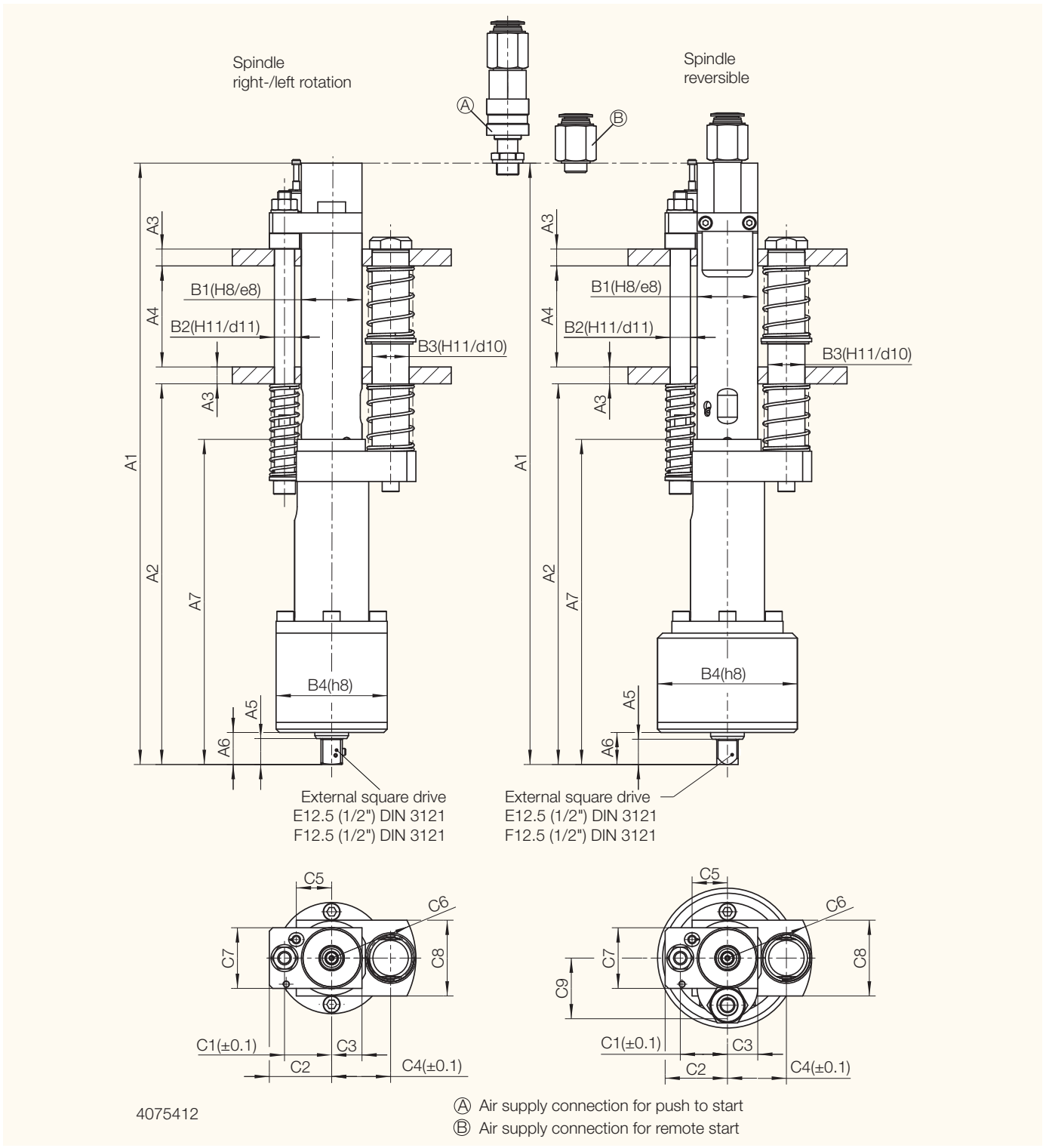
| Screwdriver Style | | Motor Size 3 for reduction gear (to increase torque value) | | |
|---|---------------------------|---|--|--|
| | | Type | Part no. | Part no. |
| Spindle right rotation, right shut-off Push To Start | Type | 346-338-31 | 346-438-31 | 346-438-31 |
| | Part no. | 406109 D | 406109 E | 406109 E |
| Spindle left rotation, left shut-off Push To Start | Type | 346-338-31 L | 346-438-31 L | 346-438-31 L |
| | Part no. | 406446 D | 406446 E | 406446 E |
| Spindle right rotation, right shut-off Remote Start | Type | 346-330-31 | 346-430-31 | 346-430-31 |
| | Part no. | 406482 D | 406482 E | 406482 E |
| Spindle left rotation, left shut-off Remote Start | Type | 346-330-31 L | 346-430-31 L | 346-430-31 L |
| | Part no. | 406484 D | 406484 E | 406484 E |
| Reduction Gear¹⁾ | Part no. | 3331781 A | 3331781 A | 3431551 A |
| Gear ratio | | i = 6 | i = 6 | i = 7 |
| Torque min. | Nm / in.lbs | 6 / 53 | 6 / 53 | 7 / 62 |
| Torque max. | Nm / in.lbs | 62 / 548 | 105 / 930 | 140 / 1240 |
| Speed, idling | rpm | 130 | 60 | 50 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 4.1 / 9 | 4.1 / 9 | 4.4 / 10 |
| Push to start pressure | N / lbs | 45 / 9.9 | 45 / 9.9 | 45 / 9.9 |
| Pressure at max. screwdriver stroke | N / lbs | 160 / 35 | 160 / 35 | 160 / 35 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | |
| External square drive DIN 3121 | | E12.5 (1/2") | E12.5 (1/2") | F12.5 (1/2") |
| Quick change chuck mounted | | no | no | no |
| Suitable tool inserts and connecting components with a drive as per DIN 3121 | | G12.5 (1/2") | G12.5 (1/2") | H12.5 (1/2") |
| Spindle reversible, right shut-off Push To Start for right rotation Reverse by Remote Start | Type | 346-338-31 U | 346-438-31 U | 346-438-31 U |
| | Part no. | 406223 D | 406223 E | 406223 E |
| Spindle reversible, left shut-off Push To Start for left rotation Reverse by Remote Start | Type | 346-338-31 UL | 346-438-31 UL | 346-438-31 UL |
| | Part no. | 406469 D | 406469 E | 406469 E |
| Spindle reversible, right shut-off Remote Start in drive direction and in reverse | Type | 346-330-31 U | 346-430-31 U | 346-430-31 U |
| | Part no. | 406282 D | 406282 E | 406282 E |
| Spindle reversible, left shut-off Remote Start in drive direction and in reverse | Type | 346-330-31 UL | 346-430-31 UL | 346-430-31 UL |
| | Part no. | 406475 D | 406475 E | 406475 E |
| Reduction Gear¹⁾ | Part no. | 3331781 A | 3331781 A | 3431551 A |
| Gear ratio | | i = 6 | i = 6 | i = 7 |
| Torque min. | Nm / in.lbs | 6 / 53 | 6 / 53 | 7 / 62 |
| Torque max. | Nm / in.lbs | 52 / 460 | 88 / 778 | 140 / 1240 |
| Speed, idling | rpm | 100 | 50 | 40 |
| Air consumption | m ³ /min / cfm | 0.45 / 16 | 0.45 / 16 | 0.45 / 16 |
| Weight | kg / lbs | 4.4 / 9.7 | 4.4 / 9.7 | 4.7 / 10.3 |
| Push to start pressure | N / lbs | 45 / 9.9 | 45 / 9.9 | 45 / 9.9 |
| Pressure at max. screwdriver stroke | N / lbs | 160 / 35 | 160 / 35 | 160 / 35 |
| Hose for air supply (O.D. / I.D.) | mm (in.) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) | 12 / 9 (.472 / ²³ / ₆₄) |
| Hose for function control (O.D. / I.D.) | mm (in.) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) | 4 / 2.5 (.157 / ³ / ₃₂) |
| (O.D. tolerances of connection hoses according to Cetop RP 54 P) | | | | |
| External square drive DIN 3121 | | E12.5 (1/2") | E12.5 (1/2") | F12.5 (1/2") |
| Quick change chuck mounted | | no | no | no |
| Suitable tool inserts and connecting components with a drive as per DIN 3121 | | G12.5 (1/2") | G12.5 (1/2") | H12.5 (1/2") |

Performance data relate to an air pressure of 6.3 bar (90 PSI)

¹⁾ reduction gear as optional equipment

Suitable accessories → page 22

Suitable tool inserts → brochure D 3320 E



Motor Size 3 with reduction gear 3331781 A

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|-----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Spindle right-/left rotation | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| 346-338-31 | 346-338-31 L | 346-330-31 | 346-330-31 L | 357 | 226 | 10 | 60 | 15 | 19 | 193 | 36 | 12 | 22 | 66 | 28 | 37 | 18 | 35 | 21 | 50 | 36 | 45 | - |
| 346-438-31 | 346-438-31 L | 346-430-31 | 346-430-31 L | | | | | | | | | | | | | | | | | | | | |
| Spindle reversible | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| 346-338-31 U | 346-338-31 UL | 346-330-31 U | 346-330-31 UL | 357 | 226 | 10 | 60 | 15 | 19 | 193 | 36 | 12 | 22 | 66 | 28 | 37 | 18 | 35 | 21 | 50 | 36 | 45 | 36 |
| 346-438-31 U | 346-438-31 UL | 346-430-31 U | 346-430-31 UL | | | | | | | | | | | | | | | | | | | | |

Motor Size 3 with reduction gear 3431551 A

| Type | | | | Dimensions (mm) | | | | | | | | | | | | | | | | | | | |
|------------------------------|---------------|--------------|---------------|-----------------|-----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Spindle right-/left rotation | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| 346-438-31 | 346-438-31 L | 346-430-31 | 346-430-31 L | 357 | 226 | 10 | 60 | 15 | 19 | 193 | 36 | 12 | 22 | 83 | 28 | 37 | 18 | 35 | 21 | 50 | 36 | 45 | - |
| Spindle reversible | | | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | B1 | B2 | B3 | B4 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |
| 346-438-31 U | 346-438-31 UL | 346-430-31 U | 346-430-31 UL | 357 | 226 | 10 | 60 | 15 | 19 | 193 | 36 | 12 | 22 | 83 | 28 | 37 | 18 | 35 | 21 | 50 | 36 | 45 | 36 |

ACCESSORIES

Included in delivery:

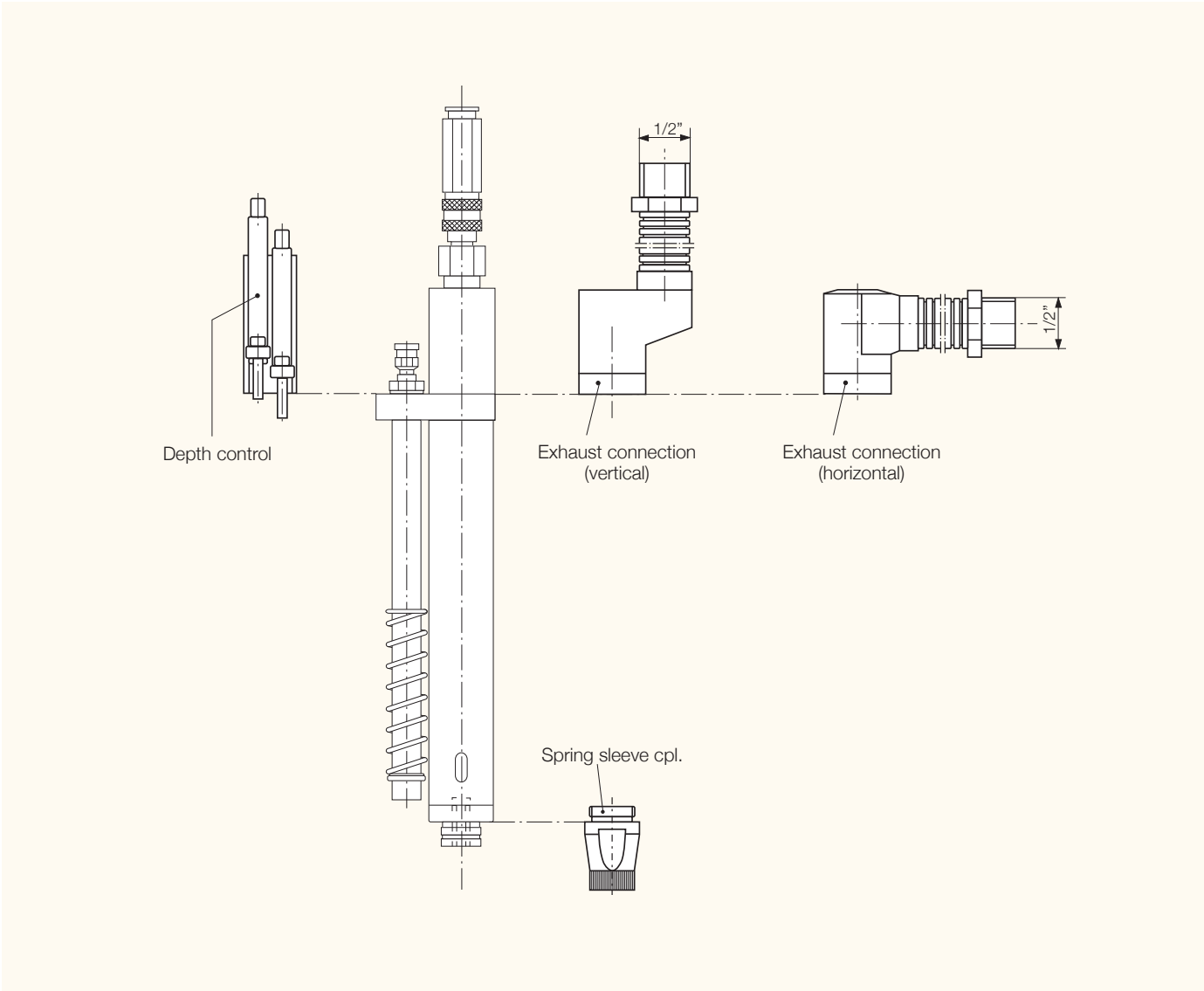
Set of coupler and connector plugs · Set of torque and adjustment tools · Set of clutch springs

Optional Equipment:

| | | Motor Size 0 | Motor Size 1 | Motor Size 2 | Motor Size 3 | Motor Size 4 |
|--|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Exhaust connection (vertical) ¹⁾ (connection piece with 2 m / 6.6 ft. hose) | Part no. | 334615 C | 386924 G | 386924 A | 386924 C | 351820 R |
| Exhaust connection (horizontal) ¹⁾ (connection piece with 2 m / 6.6 ft. hose) | Part no. | – | 386924 H | 386924 B | 386924 D | 351820 U |
| Depth control (double) incl. 2 cables (with straight plug) 5 m / 16.4 ft. | Part no. | on request | on request | on request | on request | on request |
| Spring sleeve cpl. | Part no. | 364670 A | 364671 A | 364672 A | 364672 A | – |
| Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: Inserting tools D 3320 E) | Part no. | 364670 C | 364671 D | 364672 C | 364672 C | – |

¹⁾ for corresponding exhaust filter/silencer (see leaflet D 3340 E)

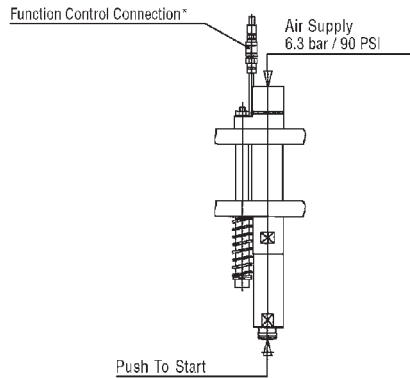
ACCESSORIES



FUNCTION DESCRIPTION DRIVER START

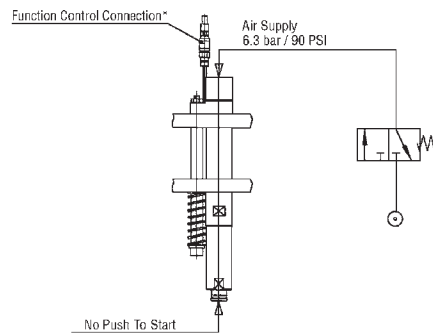
Push To Start

Driver with one way rotation,
right rotation and right shut-off
or
left rotation and left shut-off



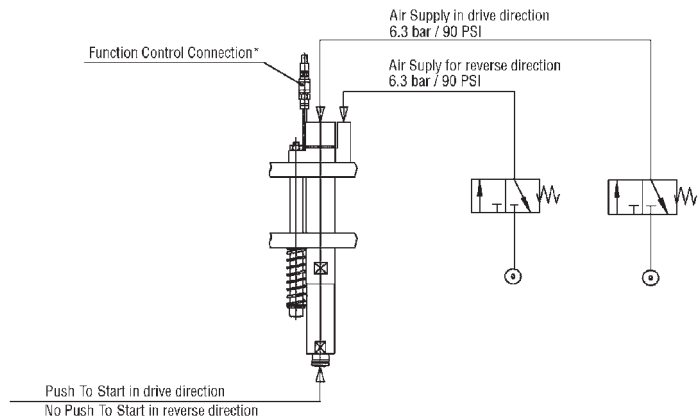
Remote Start (3/2-way valve)

Driver with one way rotation,
right rotation and right shut-off
or
left rotation and left shut-off



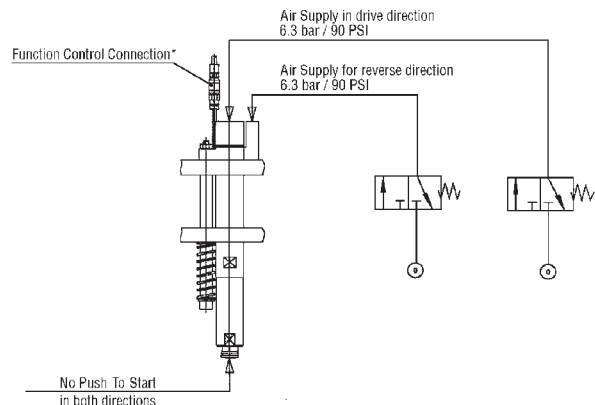
Push To Start in drive direction and reversible by remote port (3/2-way valve)

Driver reversible
Torque adjustable in drive direction
In reverse direction tool drives with
full power



Remote Start (3/2-way valve) in drive direction and in reverse

Driver reversible
Torque adjustable in drive direction
In reverse direction tool drives with
full power



* During drive cycle the Function Control Line is under pressure (approx. 2 bar)

FUNCTION DESCRIPTION - DEPTH CONTROL

After completion of the screw assembly our dual depth control verifies that the screw has reached the preset depth.

Function:

The depth control consists of two proximity switches and a spring-loaded probe.

As soon as the Screwdriver Spindle moves towards the screwdriver bracket, the probe that supports itself on the screwdriver bracket, offsets towards the screwdriver and the proximity switches.

The first proximity switch is activated at a preset distance and gives a signal to the controller, as soon as the screw reaches its required position = depth is O.K.

If the screw depth is not reached, the first proximity switch does not give a signal to the controller. The controller notices the absence of a signal and outputs an error message = depth is NOT O.K.

If the Screwdriver lowers itself further than the preset distance, the second proximity switch gives a signal to the controller assembly is NOT O.K. The controller outputs an error message.

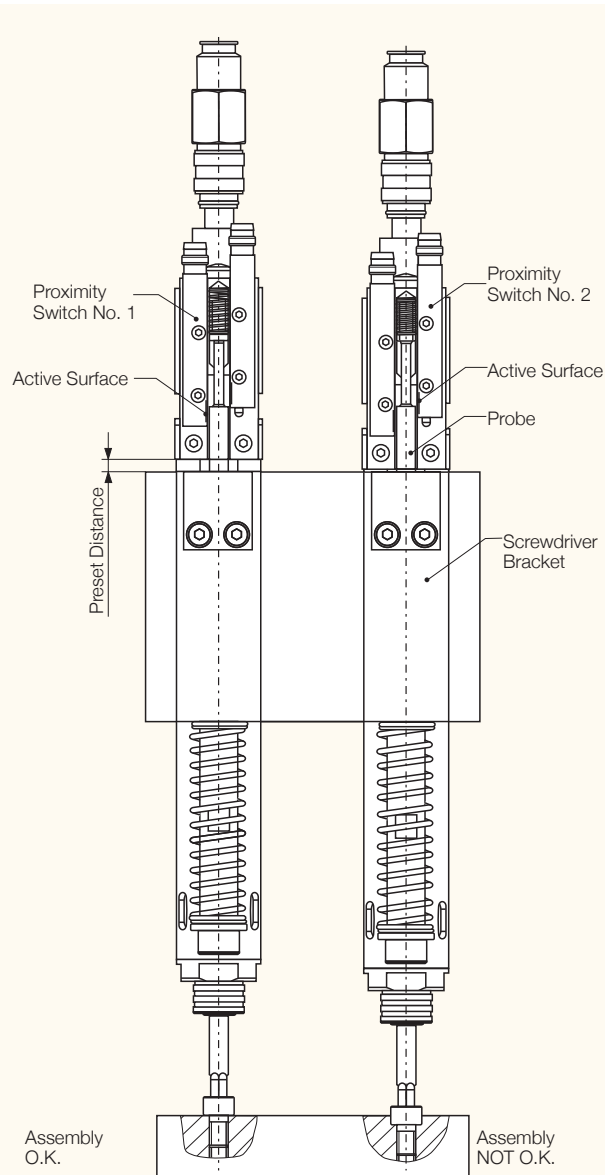
The first signal (O.K.) remains valid.

Reasons for exceeding the preset minimum depth:

- Product to be assembled is missing
- Components have large tolerances (height tolerances are too large)

An important parameter of the depth control is the dimensional accuracy of the parts involved in the assembly process. Such as:

- product to be assembled has to be within specified tolerances (accuracy of the height tolerances)
- screws or washers to be used have to be within specified tolerances.



Current dimensional drawings of our screwdriver spindles are available in the Internet.
Our address: www.deprag.com
The drawings are also available as dxf-files for processing with your CAD-system.

Notes

DEPRAG

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www.deprag.com
info@deprag.de



CERTIFIED AS PER DIN EN ISO 9001
