

Ingersoll-Rand®

NEW

P33 Series Non-Lube Air Modular Drills

Power and Flexibility for Multi-Task Work Environments



 **Ingersoll-Rand®**

P33 Series

The Modular Drill Series
for the Next Generation



When Engineering know-how, state of the art design and ergonomics meet along with quality and new requirements of flexible production: Ingersoll-Rand provides you with it's latest P33 generation of modular drills.

The Ingersoll-Rand P33 modular drill range, originates as an evolution from successful P27 drill range, providing same ideal flexibility, ergonomics, but with an even more powerful motor as well as outstanding level of quality and precision & performance.



Flexibility and Interchangeability

- One motor 0.33 KW (0.44 hp).
- Pistol or straight modular handle.
- Wide range of speeds available, from 660 to 5400 rpm.
- 11 modular drill attachments, with 30°, 90°, 180° angle heads and additional in-line heads.
- P33 is fully interchangeable with the P27 range of attachments and accessories.
- P33 is the ideal tool for the multi-task drilling environment, it matches operator needs for accuracy and precise drilling operations according to material and application requirements.

Operator Comfort and Ergonomics

- Lube free motor for a clean working environment.
- Low level of noise with 71 dB(A).
- Soft touch housing for a more ergonomic grip.
- Quick change motor and attachment to provide end user with fast changeover.

Economic Effectiveness

P33 Modular air drills remains your best choice also for reduced motor units and attachments investment as well as reduced spares inventories and easy maintenance.

Fixed Straight Models Also Available

- 8 straight fixed drills with chuck.
- Speed from 660 to 18000 rpm.
- Same motor and gears as modular models.



The P33 Series drills are manufactured in our plant implementing the highest ISO 9001 quality assurance system, with full traceability.
(Certificate AFAQ No.1998 / 9056 available on request)



P33 Series Air Modular Drills

Motor modules

SOFT-TOUCH, NON-SLIP GRIP ON STRAIGHT MOTOR MODULES

Insulates skin from cold metal housing and minimises vibrations. Secures grip with minimal grip force.

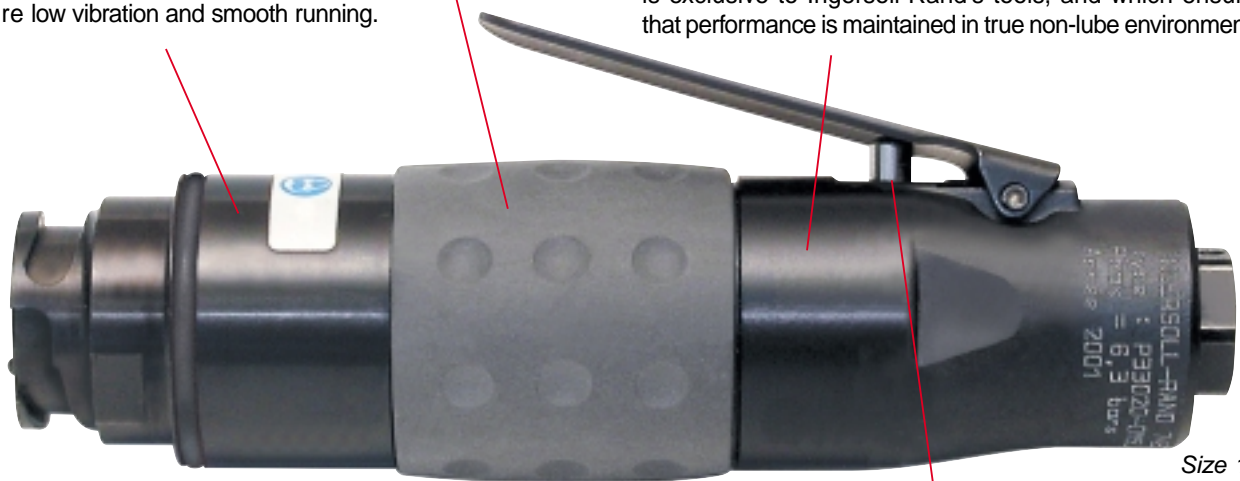
HIGH EFFICIENCY GEARING

The precision gearing is mounted on precision ball bearings and high resistance bearings in composite material which ensure low vibration and smooth running.

LIGHTWEIGHT LUBE-FREE MOTOR AND VANES

High power high torque air motor. Identical to all models for reduced spares inventory and easy maintenance.

The motor is a specially designed lube-free motor, using a steel rotor, a cast iron stator and light aerospace alloy flanges. The vanes are of a self-lubricating composite material which is exclusive to Ingersoll-Rand's tools, and which ensures that performance is maintained in true non-lube environments.



Size 1:1



Pistol Grip Motor Modules

The pistol modules offer the same features and modular possibilities as the straight modules.

They offer an ergonomic handle and a progressive speed control at trigger.

An horizontal hanger is available as an option.

PROGRESSIVE SPEED THROTTLE

All straight motor modules have a sensitive and progressive throttle for precise control (control by lever as standard).

The 3200 and 5400 rpm motor modules are also available with button throttle control.

A self-locking lever is available as an option.



MODULAR DRILL KITS

Custom drill kits are available, combining motor modules with attachments, collets and accessories.

Please contact your local distributor or Ingersoll-Rand office for further details.



P33 Series Air Modular Drills

Attachments and Configurations

**EXCLUSIVE TO
INGERSOLL-RAND
P33 SERIES,
UNIQUE WORLDWIDE
PATENTED MECHANISM**



**PATENTED
DRILLING
ATTACHMENT
WITH 360°
ROTATING HEAD
MECHANISM**

Allows the head to be located at any of 18 positions, at 20° intervals.



The patented mechanism for attaching and orienting the drill heads is very simple to perform and safe.
Attachment change in 3 seconds.

DRILLING ATTACHMENT SPINDLES:

The drilling attachments are available with plain collet, threaded collet or chuck

MODULAR BEVEL GEAR CONSTRUCTION

All gearing in the angle head is mounted on ball bearings to ensure high linearity and low noise. One bevel gear is common throughout all heads to reduce spares inventory and to simplify repair.



P33 Configurations

30° Attachment
Threaded Collet - 1.0 - 4.5 mm

or

30° Attachment
Plain Collet - 1.6 - 6.4 mm

90° Attachment
Treaded Collet 1.0 - 4.5 mm and 2.0 - 8.0 mm

or

90° Attachment
Plain Collet - 1.6 - 6.4 mm and 2.4 - 8.0 mm

180° Attachment
Threaded Collet 1.0 - 4.5 mm

or

180° Attachment
Plain Collet - 1.6 - 6.4 mm

90° Attachment
With Chuck, 0.1 - 8.0 mm

Straight Attachment
Plain Collet, 1.6 - 6.4 mm

Straight Attachment - Chuck, 0.1 - 8.0 mm

STRAIGHT MOTOR MODULES

6 SPEEDS AVAILABLES
660 RPM 1600 RPM 3200 RPM
1100 RPM 2200 RPM 5400 RPM

PISTOL GRIP MOTOR MODULES

6 SPEEDS AVAILABLES
660 RPM
1100 RPM
1600 RPM
2200 RPM
3200 RPM
5400 RPM

P33 Series Air Modular Drills

Specifications

Modular Drills: Motor Modules and Drill Attachments



| Model number | Free speed rpm | Rated power at 620 kPa (90 psi) kW | Stalling torque * Nm | Total weight kg | Side to centre distance mm | Module length A mm |
|--|-------------------|--|----------------------------|-----------------------|----------------------------------|--------------------------|
| STRAIGHT GRIP MOTOR MODULE - LEVER CONTROL | | | | | | |
| P33006-DMSL | 660 | 0.33 | 16 | 0.79 | 22 | 179 |
| P33011-DMSL | 1100 | 0.33 | 9.5 | 0.79 | 22 | 179 |
| P33016-DMSL | 1600 | 0.33 | 6.8 | 0.79 | 22 | 179 |
| P33022-DMSL | 2200 | 0.33 | 4.5 | 0.67 | 22 | 164 |
| P33032-DMSL | 3200 | 0.33 | 3.2 | 0.67 | 22 | 164 |
| P33054-DMSL | 5400 | 0.33 | 1.9 | 0.67 | 22 | 164 |
| STRAIGHT GRIP MOTOR MODULE - BUTTON CONTROL | | | | | | |
| P33032-DMSL-B | 3200 | 0.33 | 3.2 | 0.64 | 22 | 164 |
| P33054-DMSL-B | 5400 | 0.33 | 1.9 | 0.63 | 22 | 164 |
| PISTOL GRIP MOTOR MODULE - TRIGGER CONTROL | | | | | | |
| P33006-PMSL | 660 | 0.33 | 16 | 0.92 | 21.3 | 161 |
| P33011-PMSL | 1100 | 0.33 | 9.5 | 0.92 | 21.3 | 161 |
| P33016-PMSL | 1600 | 0.33 | 6.8 | 0.92 | 21.3 | 161 |
| P33022-PMSL | 2200 | 0.33 | 4.5 | 0.80 | 21.3 | 146 |
| P33032-PMSL | 3200 | 0.33 | 3.2 | 0.80 | 21.3 | 146 |
| P33054-PMSL | 5400 | 0.33 | 1.9 | 0.80 | 21.3 | 146 |

| Drill attachment | Model number | Collet/chuck capacity | Total length L with motor (A) | Dimensions | | | Attachment weight kg |
|---|--------------|-----------------------|-------------------------------|------------|---------|---------|-------------------------|
| | | mm | mm | B mm | C mm | D mm | |
| 30° / Threaded collet 30° / Plain collet | R33M030P45 | 1.0 - 4.5 | A+93 | 19.5 | 17 | - | 0.24 |
| | R33M030P64 | 1.6 - 6.4 | A+93 | 31.5 | 17 | - | 0.24 |
| 90° / Threaded collet 90° / Plain collet | R33M090P45 | 1.0 - 4.5 | A+97 | 31 | 17 | - | 0.24 |
| | R33M090F80 | 2.0 - 8.0 | A+93 | 49 | 25 | - | 0.36 |
| | R33M090P64 | 1.6 - 6.4 | A+97 | 43 | 17 | - | 0.25 |
| 90° / Plain collet 90° / Chuck | R33M090P80 | 2.4 - 8.0 | A+66 | 53 | 25 | - | 0.39 |
| | R33M090M80 | 0.1 - 8.0 | A+66 | 97.3 | 30 | - | 0.54 |
| 180° / Threaded collet 180° / Plain collet | R33M180P45 | 1.0 - 4.5 | A+97 | 63.2 | 17 | 31 | 0.30 |
| | R33M180P64 | 1.6 - 6.4 | A+97 | 63.2 | 17 | 43 | 0.32 |
| Straight / plain collet Straight / chuck | R33M000P64 | 1.6 - 6.4 | A+43 | - | 17 | - | 0.16 |
| | R33M000M80 | 0.1 - 8.0 | A+72 | - | 40 | - | 0.38 |

Non-Modular Drills Straight Configuration with Chuck



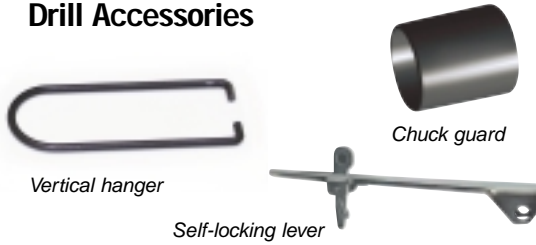
| Model number | Free speed rpm | Rated power at 620 kPa (90 psi) kW | Stalling torque * Nm | Chuck capacity mm | Total weight kg | Side to centre distance mm | Drill length mm |
|--------------|-------------------|--|----------------------------|-------------------------|-----------------------|----------------------------------|-----------------------|
| P33006-DSL | 660 | 0.33 | 16 | 10 | 1.0 | 22 | 235 |
| P33011-DSL | 1100 | 0.33 | 9.5 | 10 | 1.0 | 22 | 235 |
| P33016-DSL | 1600 | 0.33 | 6.8 | 8 | 0.94 | 22 | 227 |
| P33022-DSL | 2200 | 0.33 | 4.5 | 8 | 0.90 | 22 | 212 |
| P33032-DSL | 3200 | 0.33 | 3.2 | 8 | 0.90 | 22 | 212 |
| P33054-DSL | 5400 | 0.33 | 1.9 | 6 | 0.90 | 22 | 212 |
| P33110-DSL | 11000 | 0.33 | 0.9 | 6 | 0.96 | 22 | 227 |
| P33180-DSL | 18000 | 0.33 | 0.55 | 6 | 0.90 | 22 | 212 |

* A dead handle is recommended for torques above 6 Nm.

P33 Series Air Modular Drills

Additional Equipment and Accessories

Drill Accessories



| Description | Part Number |
|--|-------------|
| Chuck guard * | 128037 |
| Self-locking lever | 131655 |
| Vertical hanger (for straight modules) | 128065 |
| Horizontal hanger (for pistol modules) | 118303 |

* For all P33 models with chuck capacity up to 8 mm.



Replacement Chucks and Keys

| Corresponding attachment or drill | Chuck capacity (mm) | Thread (female) | Drill chuck part no. | Chuck key part no. |
|--|---------------------|-----------------|----------------------------|----------------------------|
| R33M090M80 Angle attachment ⁽¹⁾ | 0-8 | 3/8"-24 | 115313 | 117271 |
| R33M000M80 Sraight attachment ⁽¹⁾ | 0-8 | 3/8"-24 | 115313 | 117271 |
| P33 Straight/Fixed drills ⁽²⁾ | 0-6 0-8 0-10 | 3/8"-24 | 117269 115313 117311 | 117271 117271 117312 |

(1) Supplied as standard with the attachment.

(2) Supplied as standard with the drill.

Collets for R33 Angle Heads

All heads are supplied without collets as standard.



Threaded collets for P45 angle head

Plain collets for P64 angle head

Plain collets for P80 angle head

Threaded collets for F80 angle head

| Ø | Part no. | Ø | Part no. | Ø | Part no. | Ø | Part no. |
|------|----------|-----|----------|-----|----------|-----|----------|
| 1.0 | 120071 | 1.6 | 128250 | 2.4 | 128280 | 2.0 | 128310 |
| 1.5 | 120072 | 1.8 | 128251 | 2.6 | 128281 | 2.5 | 128311 |
| 2.0 | 120073 | 2.0 | 128252 | 2.8 | 128282 | 3.0 | 128312 |
| 2.2 | 120102 | 2.2 | 128253 | 3.0 | 128283 | 3.5 | 128313 |
| 2.4 | 120106 | 2.4 | 128254 | 3.2 | 128284 | 4.0 | 128314 |
| 2.5 | 120074 | 2.6 | 128255 | 3.4 | 128285 | 4.5 | 128315 |
| 3.0 | 120075 | 2.8 | 128256 | 3.6 | 128286 | 5.0 | 128316 |
| 3.1 | 120105 | 3.0 | 128257 | 3.8 | 128287 | 5.5 | 128317 |
| 3.17 | 120101 | 3.2 | 128258 | 4.0 | 128288 | 6.0 | 128318 |
| 3.25 | 120104 | 3.4 | 128259 | 4.2 | 128289 | 6.5 | 128319 |
| 3.3 | 120113 | 3.6 | 128260 | 4.4 | 128290 | 7.0 | 128320 |
| 3.5 | 120076 | 3.8 | 128261 | 4.6 | 128291 | 7.5 | 128321 |
| 3.6 | 123991 | 4.0 | 128262 | 4.8 | 128292 | 8.0 | 128322 |
| 3.7 | 121552 | 4.2 | 128263 | 5.0 | 128293 | - | - |
| 3.8 | 125783 | 4.4 | 128264 | 5.2 | 128294 | - | - |
| 3.9 | 120107 | 4.6 | 128265 | 5.4 | 128295 | - | - |
| 4.0 | 120077 | 4.8 | 128266 | 5.6 | 128296 | - | - |
| 4.1 | 120103 | 5.0 | 128267 | 5.8 | 128297 | - | - |
| 4.2 | 120110 | 5.2 | 128268 | 6.0 | 128298 | - | - |
| 4.5 | 120078 | 5.4 | 128269 | 6.2 | 128299 | - | - |
| - | - | 5.6 | 128270 | 6.4 | 128300 | - | - |
| - | - | 5.8 | 128271 | 6.6 | 128301 | - | - |
| - | - | 6.0 | 128272 | 6.8 | 128302 | - | - |
| - | - | 6.2 | 128273 | 7.0 | 128303 | - | - |
| - | - | 6.4 | 128274 | 7.2 | 128304 | - | - |
| - | - | - | - | 7.4 | 128305 | - | - |
| - | - | - | - | 7.6 | 128306 | - | - |
| - | - | - | - | 7.8 | 128307 | - | - |
| - | - | - | - | 8.0 | 128308 | - | - |

DISTRIBUTOR:

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