

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.

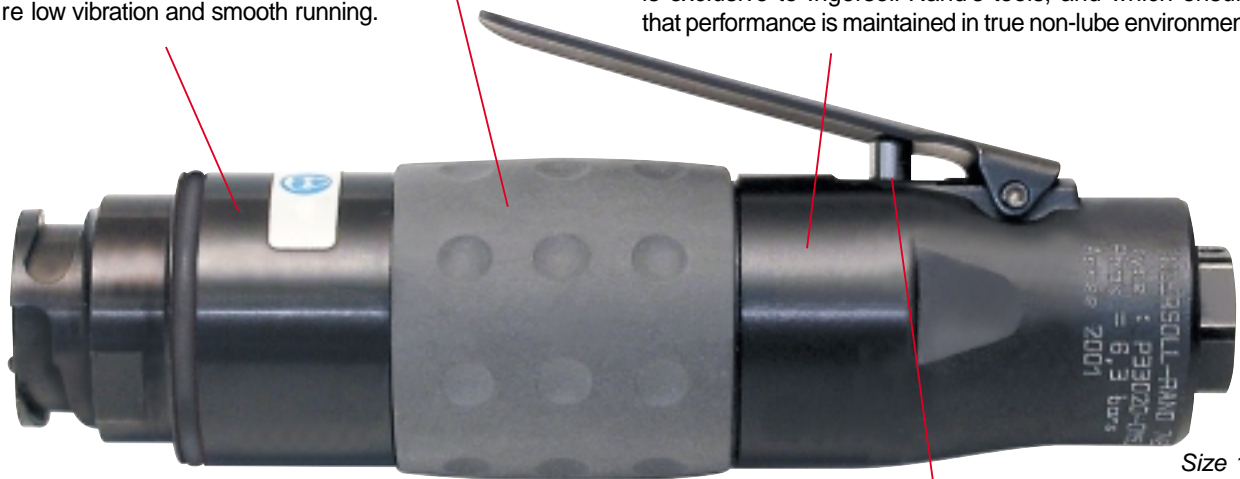
HIGH EFFICIENCY GEARING

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
Threaded 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	Rated power at 620 kPa (90 psi)	Stalling torque *	Total weight	Side to centre distance	Module length A
	rpm	kW	Nm	kg	mm	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
				B	C	D	
		mm	mm	mm	mm	mm	kg
 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



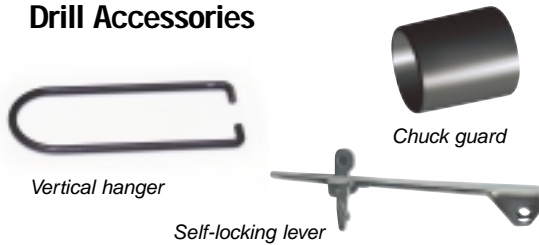
Model number	Free speed	Rated power at 620 kPa (90 psi)	Stalling torque *	Chuck capacity	Total weight	Side to centre distance	Drill length
	rpm	kW	Nm	mm	kg	mm	mm
P33006-DSL	660	0.33	16	10	1.0	22	235
P33011-DSL	1100	0.33	9.5	10	1.0	22	235
P33016-DSL	1600	0.33	6.8	8	0.94	22	227
P33022-DSL	2200	0.33	4.5	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		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:

The Ingersoll-Rand distributor network gives you not only a superior product, but also a Total Quality service, to ensure your complete satisfaction. For additional information about the products shown in this catalogue, and assistance with selection, please contact your nearest Ingersoll-Rand distributor or Ingersoll-Rand office.

