

P33 Series Modular Drills

Redefining Productivity Through Innovation



High Performance Ergonomics



P33 Series

Non-Lube Modular Drills



Ingersoll-Rand is yet again redefining productivity through innovation. This time we've married a patented quick-change technology with proven motor and spindle designs to produce the P33 Series of lube-free modular air drills and attachments.

The result is a solution that our customers have been looking for – buy only the motors and heads you need, and swap, share, and configure to meet the requirements of almost any production drilling application.



Unmatched Flexibility

- One common 0.44 hp motor in 6 pistol grip or 8 inline housings at speeds ranging from 600 to 5400 rpm.
- Fifteen modular drill attachments with 0°, 30°, 90°, 180° heads and all the critical chuck, collet, and spindle outputs.

Unbeatable Productivity

- Head attachments are swappable in the crib or on the line in under 3 seconds without any tooling or wrenches.
- Lube-free motor means a cleaner working environment and reduced maintenance.
- Low noise (<71 dBA) and vibration and soft-touch inline housing improve operator comfort and productivity.

Unparalleled Value

- Interchangeable heads means you only buy the components you need and configure to match the application of the shift or line.
- Common motor for all models reduces upfront capital investment and spare parts costs throughout the life of the tools.



P33 Series drills and attachments are manufactured in an ISO 9001 Facility and are CE Certified.



P33 Series Modular Drills

Motor Modules

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

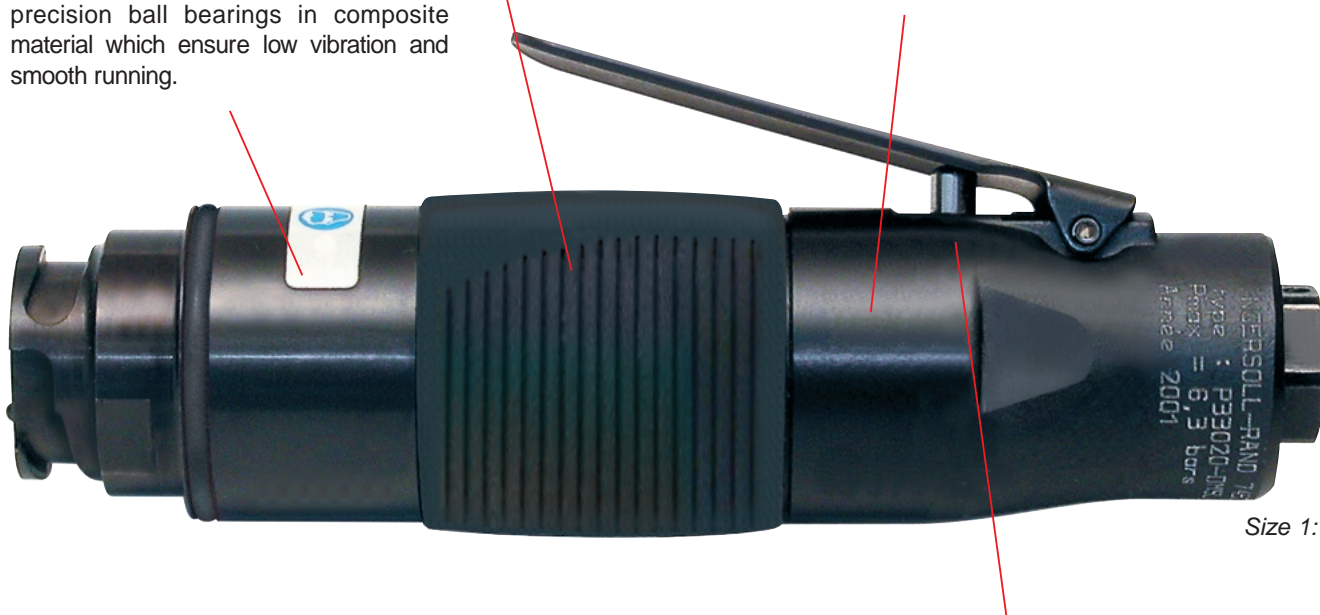
Insulates skin from metal housing and minimizes vibration and reduces required grip force.

HIGH EFFICIENCY GEARING

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

LIGHTWEIGHT LUBE-FREE AIR MOTOR AND VANES

A high torque, high-power motor is common across the entire P33 range. The motor contains a steel rotor, lightweight aerospace alloy flanges, and self-lubricating composite vanes exclusive to IR tools.



Size 1:1

PROGRESSIVE SPEED THROTTLE

- All inline motor modules have a sensitive and progressive throttle for precise control.
- The 3200 and 5400 rpm motor modules are also available with button throttle control.
- A self-locking lever is also available as an option.



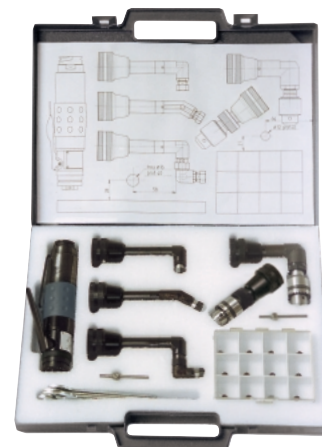
PISTOL GRIP MOTOR MODULES

The pistol modules offer the same features and modular possibilities as the inline modules, including an ergonomic handle and a precise speed control trigger.

A horizontal hanger is also available as an option.

CUSTOM P33 MODULAR DRILL KITS

Custom kits that include only the P33 motors, attachments, and accessories you need for your applications are available. Contact IR for details.



P33 Series Modular Drills

Attachments and Configurations

IR'S EXCLUSIVE PATENTED QUICK CHANGE MECHANISM



Changing drill attachments with the patented mechanism is simple and safe - and requires no tools or wrenches.
Heads can be swapped in under 3 seconds.

MODULAR BEVEL GEAR CONSTRUCTION

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



PATENTED DRILLING ATTACHMENT WITH 360° ROTATING HEAD MECHANISM

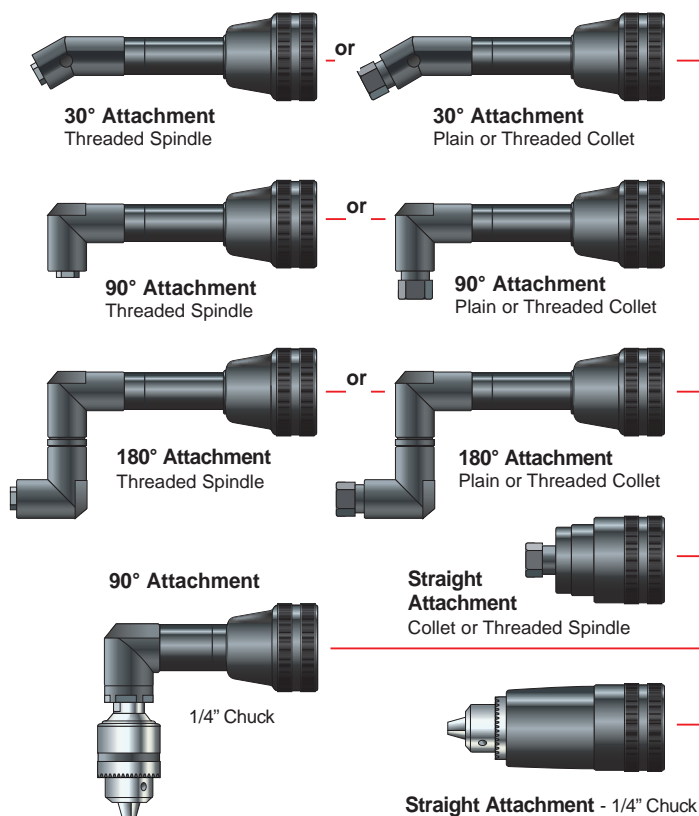
Allows the head to be located at any of 18 positions at 20° intervals.

DRILLING ATTACHMENT SPINDLES

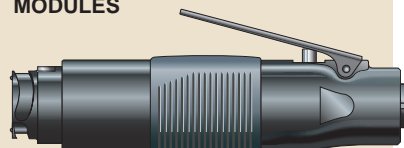
The drilling attachments are available with plain or threaded collets, threaded spindles, or chucks.



P33 Configurations



INLINE MOTOR MODULES



AVAILABLE IN 6 SPEEDS

660 RPM 1600 RPM 3200 RPM
1100 RPM 2200 RPM 5400 RPM

PISTOL GRIP MOTOR MODULES



AVAILABLE IN 6 SPEEDS

660 RPM
1100 RPM
1600 RPM
2200 RPM
3200 RPM
5400 RPM

P33 Series Modular Drills

Specifications

Motor Modules



Model Number	Free Speed	Rated Power at 90 psi		Stall Torque		Length (A)		Weight		Side to Center	
	rpm	hp	kW	ft-lb	Nm	in	mm	lb	kg	in	mm
INLINE MOTOR MODULES – LEVER THROTTLE											
P33006-DMSL	660	0.44	0.33	11.8	16.0	7.05	179	1.74	0.79	0.87	22.0
P33011-DMSL	1100	0.44	0.33	7.0	9.5	7.05	179	1.74	0.79	0.87	22.0
P33016-DMSL	1600	0.44	0.33	5.0	6.8	7.05	179	1.74	0.79	0.87	22.0
P33022-DMSL	2200	0.44	0.33	3.3	4.5	6.46	164	1.48	0.67	0.87	22.0
P33032-DMSL	3200	0.44	0.33	2.4	3.2	6.46	164	1.48	0.67	0.87	22.0
P33054-DMSL	5400	0.44	0.33	1.4	1.9	6.46	164	1.48	0.67	0.87	22.0
INLINE MOTOR MODULES – BUTTON THROTTLE											
P33032-DMSL-B	3200	0.44	0.33	2.4	3.2	6.46	164	1.41	0.64	0.87	22.0
P33054-DMSL-B	5400	0.44	0.33	1.4	1.9	6.46	164	1.39	0.63	0.87	22.0
PISTOL GRIP MOTOR MODULES – TRIGGER THROTTLE											
P33006-PMSL	660	0.44	0.33	11.8	16.0	6.34	161	2.03	0.92	0.84	21.3
P33011-PMSL	1100	0.44	0.33	7.0	9.5	6.34	161	2.03	0.92	0.84	21.3
P33016-PMSL	1600	0.44	0.33	5.0	6.8	6.34	161	2.03	0.92	0.84	21.3
P33022-PMSL	2200	0.44	0.33	3.3	4.5	5.75	146	1.76	0.80	0.84	21.3
P33032-PMSL	3200	0.44	0.33	2.4	3.2	5.75	146	1.76	0.80	0.84	21.3
P33054-PMSL	5400	0.44	0.33	1.4	1.9	5.75	146	1.76	0.80	0.84	21.3

* All Motor Modules have 1/4" BSP threaded inlet.

Drill Attachments

	Model Number	Head Angle	Output Type	Total Length (L) with Motor (A)		B		Dimensions C		D		Attachment Weight	
				in	mm	in	mm	in	mm	in	mm	lb	kg
	R33M030D17F1/4	30	1/4"-28 Female Thread	A+3.66	A+93	0.94	24.0	0.67	17	-	-	0.53	0.24
	R33M030P45	30	Threaded Collet	A+3.66	A+93	0.77	19.5	0.67	17	-	-	0.53	0.24
	R33M030P64	30	Plain Collet	A+3.66	A+93	1.24	31.5	0.67	17	-	-	0.53	0.24
	R33M090D17F1/4	90	1/4"-28 Female Thread	A+3.82	A+97	1.40	35.6	0.67	17	-	-	0.55	0.25
	R33M090P45	90	Threaded Collet	A+3.82	A+97	1.22	31.0	0.67	17	-	-	0.53	0.24
	R33M090F80	90	Threaded Collet	A+3.66	A+93	1.93	49.0	0.98	25	-	-	0.79	0.36
	R33M090P64	90	Plain Collet	A+3.82	A+97	1.69	43.0	0.67	17	-	-	0.55	0.25
	R33M090P80	90	Plain Collet	A+2.60	A+66	2.09	53.0	0.98	25	-	-	0.86	0.39
	R33M090M80	90	1/4" Chuck	A+2.60	A+66	3.83	97.3	1.18	30	-	-	1.19	0.54
	R33M180D17F1/4	180	1/4"-28 Female Thread	A+3.82	A+97	2.49	63.2	0.67	17	1.40	36	0.68	0.31
	R33M180P45	180	Threaded Collet	A+3.82	A+97	2.49	63.2	0.67	17	1.22	31	0.66	0.30
	R33M180P64	180	Plain Collet	A+3.82	A+97	2.49	63.2	0.67	17	1.69	43	0.71	0.32
	R33M000F1/4	0	1/4"-28 Female Thread	A+1.57	A+40	-	-	0.67	17	-	-	0.35	0.16
	R33M000P64	0	Plain Collet	A+1.69	A+43	-	-	0.67	17	-	-	0.35	0.16
	R33M000M80	0	1/4" Chuck	A+2.83	A+72	-	-	1.57	40	-	-	0.84	0.38

* Note:

-P45 threaded collets have 1.0 - 4.5 mm or 0.039 - 0.177 in. capacity.

-F80 threaded collets have 2.0 - 8.0 mm or 0.079 - 0.315 in. capacity.

-P64 plain collets have 1.6 - 6.4 mm or 0.063 - 0.252 in. capacity.

-P80 plain collets have 2.4 - 8.0 mm or 0.094 - 0.315 in. capacity.

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Additional Equipment and Accessories

Collets for R33 Angle Head Attachments - Must be ordered separately.

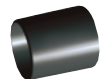


Threaded collets for P45 attachments			Plain collets for P64 attachments			Plain collets for P80 attachments			Threaded collets for F80 attachments		
Diameter		Part no.	Diameter		Part no.	Diameter		Part no.	Diameter		Part no.
in	mm		in	mm		in	mm		in	mm	
0.039	1.0	120071	0.063	1.6	128250	0.094	2.4	128280	0.079	2.0	128310
0.059	1.5	120072	0.071	1.8	128251	0.102	2.6	128281	0.098	2.5	128311
0.079	2.0	120073	0.079	2.0	128252	0.110	2.8	128282	0.118	3.0	128312
0.087	2.2	120102	0.087	2.2	128253	0.118	3.0	128283	0.138	3.5	128313
0.094	2.4	120106	0.094	2.4	128254	0.126	3.2	128284	0.157	4.0	128314
0.098	2.5	120074	0.102	2.6	128255	0.134	3.4	128285	0.177	4.5	128315
0.118	3.0	120075	0.110	2.8	128256	0.142	3.6	128286	0.197	5.0	128316
0.122	3.1	120105	0.118	3.0	128257	0.150	3.8	128287	0.217	5.5	128317
0.125	3.2	120101	0.126	3.2	128258	0.157	4.0	128288	0.236	6.0	128318
0.128	3.3	120104	0.134	3.4	128259	0.165	4.2	128289	0.256	6.5	128319
0.130	3.3	120113	0.142	3.6	128260	0.173	4.4	128290	0.276	7.0	128320
0.138	3.5	120076	0.150	3.8	128261	0.181	4.6	128291	0.295	7.5	128321
0.142	3.6	123991	0.157	4.0	128262	0.189	4.8	128292	0.315	8.0	128322
0.146	3.7	121552	0.165	4.2	128263	0.197	5.0	128293			
0.150	3.8	125783	0.173	4.4	128264	0.205	5.2	128294			
0.154	3.9	120107	0.181	4.6	128265	0.213	5.4	128295			
0.157	4.0	120077	0.189	4.8	128266	0.220	5.6	128296			
0.161	4.1	120103	0.197	5.0	128267	0.228	5.8	128297			
0.165	4.2	120110	0.205	5.2	128268	0.236	6.0	128298			
0.177	4.5	120078	0.213	5.4	128269	0.244	6.2	128299			
			0.220	5.6	128270	0.252	6.4	128300			
			0.228	5.8	128271	0.260	6.6	128301			
			0.236	6.0	128272	0.268	6.8	128302			
			0.224	6.2	128273	0.276	7.0	128303			
			0.252	6.4	128274	0.283	7.2	128304			
						0.291	7.4	128305			
						0.299	7.6	128306			
						0.307	7.8	128307			
						0.315	8.0	128308			

Drill Accessories



Vertical hanger



Chuck guard



Self-locking lever

Description	Part Number
Chuck guard	128037
Self-locking lever	131655
Vertical hanger (for inline motors)	128065
Horizontal hanger (for pistol motors)	118303

Replacement Chucks and Keys



Attachment	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				
Straight attachment ⁽¹⁾	0 - 8	3/8"-24	115313	117271

(1) Supplied as standard.

For additional information about the products shown in this catalog, please contact your nearest Ingersoll-Rand distributor or Ingersoll-Rand office.



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