PFD1500RA-50-R: Positive feed pneumatic drill with rapid advance

8440 1500 34

Create PDF sheet

Request information

Atlas Copco Tools and Assembly Systems LLC
800 859 3746
Send an email

Quick links

Brochures and catalogues

Product information | Service | Related products | Safety information

PFD 1500 is a positive feed right angle drill suitable for drilling critical and close tolerance holes of medium to large diameters. This drill can be used in multiple applications in aircraft assembly but is particularly useful in stacked materials and in assembling structural parts such as the fuselage, wing box, wing box assembly, pylon, landing gear and the rudder. The drill is approved for use in all materials typically found in aerospace manufacturing such as titanium, CFRP, aluminum and Inconel®.

Features & benefits

- Governed air motor provides unchanging power level, even under load—this significantly reduces cycle time
- Double needle bearings for both feed- and drive-gears ensure outstanding service life
- The modular concept allows quick setup, configuration and maintenance
- The overload clutch ensures safe operation
- The rapid advance option in combination with J-clutch allows safe and efficient reduction of cycle time.
- The small radius of the angle head allows the tool to be used in the most confined spaces around an airplane
- The integrated air logic controls the tool with an easily accesible set of buttons
- Low air consumption reduces energy costs

Technical data

Units: Metric Imperial

Technical Specifications	
Free speed	50 r/min
Weight	12,1 lb
Air consumption at free speed	34 cfm
Distance center to side	0,7 inch
Max output	2 HP
Capacity Aluminium	1 inch
Capacity Titanium	1 inch
Capacity Carbon	1 inch
Capacity steel	1 inch
Sound standard	ISO15744
Sound pressure	83 dB(A)
Sound power	96 dB(A)
Sound uncertainty	3 dB(A)
Rapid advance	Yes
Length	16,2 inch

Height	5,5 inch
Thrust	900 lbf
Width	2,2 inch
Air consumption at max output	74 cfm
Air inlet thread	1/2 inch
Rec hose size	5/8 inch

Included accessories with this product

Adapter
Interface 1 9/16"-20 UN 2B L.H internal threads. Use hook wrench for Ø 50 mm/1.97"
4141 0032 04

Adapter
Interface 1"-20 UNEF 2A L.H external threads. Use hook wrench for Ø 34 mm/1.34"
4141 0032 01

Spare parts lists, Dimensional drawings, Exploded Views, Service Instructions, etc.

Below you find links to Atlas Copco ServAid application, where you find spare parts list and product instructions and a link to the Dimensional Drawing archive where you can find 2D and 3D drawings in PDF, DXF and IGS format.

Spare part lists with exploded view

Product Instructions

Dimensional drawings

Atlas Copco Service

The Leader in tool maintenance for industry Atlas Copco service is a proven cost-saver in your production. The savings you can expect from running a service program depend on the type of production you have in your plant. Many factors are taken into consideration, including: Line assembly, work at fixed stations, frequency of tool use, tool types, applications, and work environment.

Repair Service

With today’s high demands on minimizing downtime for our customers, we focus on specialized workshops that can handle quick repairs and

complete overhauls in the most cost-efficient way. To do that we keep a large inventory of spare parts in stock, and we have upgraded with factory fixtures and test equipment to increase our efficiency. With all this, plus certified mechanics dedicated to specific tool models, we’ve minimized lead times and improved the quality of each repair. After service all tools are rigorously tested to Atlas Copco specifications.

Read more about Repair Service

Atlas Copco ToolScan

Atlas Copco ToolScan™ report informs you of the status of your air tools and air supply at each workstation. The service is carried out by a highly experienced certified technician and covers the following areas: A report informing you of the status of your air supply and tools,

- AirScan of the air supply at each workstation.
- Status and performance check of the tools
- Other services can be added.

including recommendations for improvements. You can then, together with your team, decide the next step without a binding agreement.

Read more about Atlas Copco ToolScan™

Energy Efficiency Audit

A huge amount of energy is wasted due to leaks in compressed air systems. Capacity losses of up to 20% are common in many installations. During an Energy Efficiency Audit Atlas Copco checks the static and dynamic pressure for your air tools on the line. The pressure drop is measured and documented and a visual inspection of the air installation is performed. Based on the information acquired, using the Energy Efficiency Calculator, Atlas Copco recommends the correct installation in terms of air line accessories and various other aspects.

Read more about Energy efficiency Audit

Preventive Maintenance

Like other machines, Atlas Copco industrial power tools need regular maintenance in order to fulfill their full potential in terms of performance and reliability. Different agreements are available, tailored to your needs. We offer maintenance both on-site or off-site, or a combination.

Read more about Preventive Maintenance

Full Coverage Service

Our Full Coverage option keeps your power tools in top operating condition and gives you a fixed budget for all tool maintenance. Other services can be added. To develop the optimum service program for your specific manufacturing operation, take advantage of our unique ToolScan RCM process.

Full Coverage includes: Read more about Full Coverage service

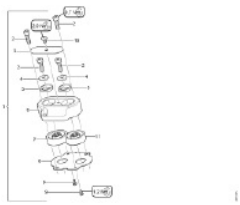
- Repair, including parts
- Calibration
- Preventive maintenance program
- On-site/off-site options
- Other services can be added

Outsourcing solutions

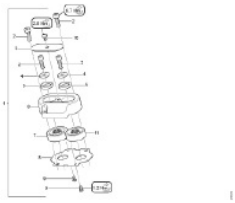
We have extensive experience of outsourcing solutions and currently have more than 75 on-site workshops. These are examples of the areas we cover: Read more about Outsourcing Solutions

- Preventive maintenance, repair and calibration of all brands and types of tools.
- Installation and start-up support.
- Service management system, including developing Key Performance Indicators.
- Line and process support.
- Back-up tool/equipment and spare parts management.
- Other customer requests.

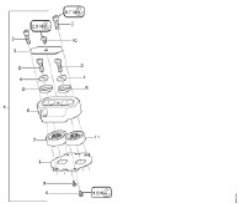
Accessories



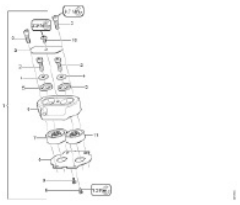
Feed cassette, compl.
Feed rate 0.023 alt. 0.42 mm/rev; 0.001 alt. 0.16 IPR
4141 0034 91



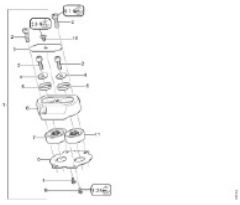
Feed cassette, compl.
Feed rate 0.05 alt. 0.38 mm/rev; 0.002 alt. 0.015 IPR
4141 0034 92



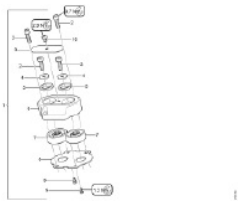
Feed cassette, compl.
Feed rate 0.075 alt. 0.36 mm/rev; 0.003 alt. 0.014 IPR
4141 0034 93



Feed cassette, compl.
Feed rate 0.10 alt. 0.33 mm/rev; 0.004 alt. 0.013 IPR
4141 0034 94

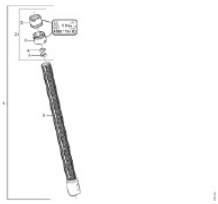


Feed cassette, compl.
Feed rate 0.16 alt. 0.27 mm/rev; 0.006 alt. 0.010 IPR
4141 0034 95



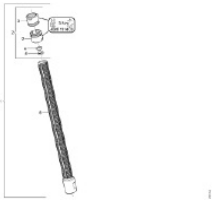
Feed cassette, compl.
Feed rate 0.21 mm/rev; 0.008 IPR
4141 0034 96

Spindle, compl.
Spindle L=300 mm (12"),
thread UNF 9/16"-18
4141 0004 91

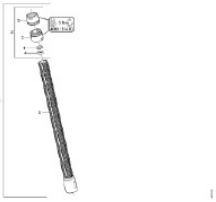


Spindle, compl.
Spindle L=350 mm (14"),
thread UNF 9/16"-18
4141 0004 92

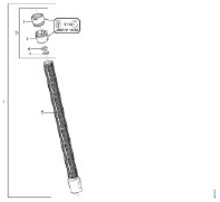
Spindle, compl.
Spindle L=400 mm (16"),
thread UNF 9/16"-18
4141 0004 93



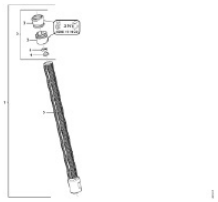
Spindle, compl.
Spindle L=258 mm (10"),
thread UNF 5/8"-18
4141 0224 90



Spindle, compl.
Spindle L=308 mm (12"),
thread UNF 5/8"-18
4141 0224 91



Spindle compl.
Spindle L=358 mm (14"),
thread UNF 5/8"-18
4141 0224 92

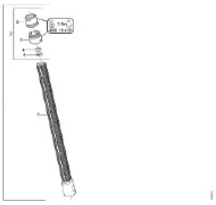


Spindle, compl.
Spindle L=408 mm (16"),
thread UNF 5/8"-18
4141 0224 93

Adapter
Interface 2 1/4"-20 UN 2A L.H
external threads. Use hook
wrench for Ø 63 mm/2.48"
4141 0032 03

Spindle, compl.
Spindle L=250 mm (10"),
thread UNF 3/8"-24
4141 0256 90

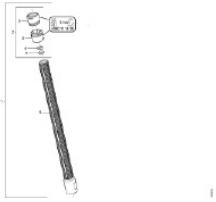
Spindle, compl.
Spindle L=300 mm (12"),
thread UNF 3/8"-24
4141 0256 91



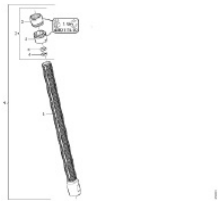
Spindle, compl.
Spindle L=350 mm (14"),
thread UNF 3/8"-24
4141 0256 92

Spindle, compl.
Spindle L=400 mm (16"),
thread UNF 3/8"-24
4141 0256 93

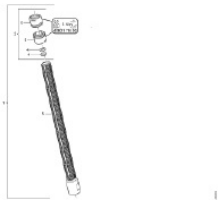
Spindle, compl.
Spindle L=258 mm (10"),
without thread
4141 0253 90



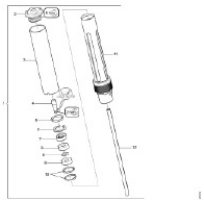
Spindle, compl.
Spindle L=308 mm (12"),
without thread
4141 0253 91



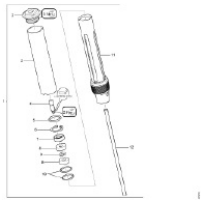
Spindle, compl.
Spindle L=358 mm (14"),
without thread
4141 0253 92



Spindle, compl.
Spindle L=408 mm (16"),
without thread

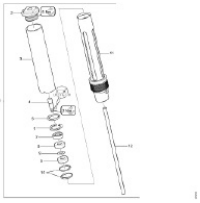


Spindle cover, compl.
Suitable for spindles 4141
0004 90, 4141 0224 90



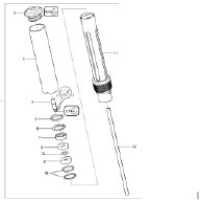
Spindle cover, compl.
Suitable for spindles 4141
0004 91, 4141 0224 91

4141 0253 93



Spindle cover, compl.
Suitable for spindles 4141 0004 92, 4141 0224 92
4141 0068 92

4141 0068 90



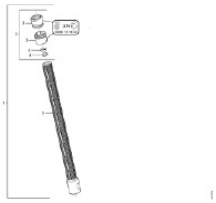
Spindle cover, compl.
Suitable for spindles 4141 0004 93, 4141 0224 93
4141 0068 93

4141 0068 91

Adapter
Interface 1.825-18 NS L.H external threads.
4141 0032 07

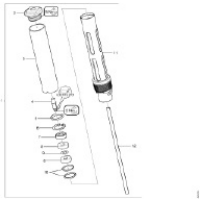
Adapter
9/16"-18 / 3/8"-24
4141 0254 00

Spindle, compl.
Spindle L=190 mm (7.5"), thread UNF 9/16"-18
4141 0004 94



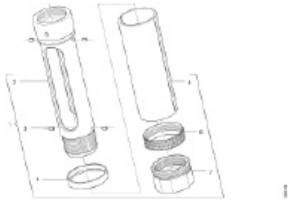
Spindle, compl.
Spindle L=190 mm (7.5"), thread UNF 5/8"-18
4141 0224 94

Spindle, compl.
Spindle L=190 mm (7.5"), thread UNF 3/8"-24
4141 0256 94

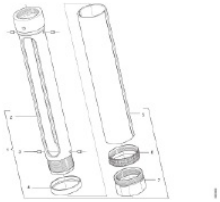


Spindle guard, compl.
Suitable for spindles 4141 0004 94, 4141 0224 94, 4141 0256 94
4141 0068 94

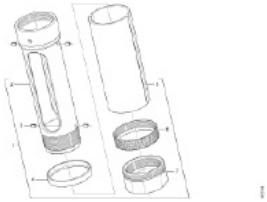
Adapter
Interface 1"-20 UNEF 2A L.H external threads.
4141 0274 90



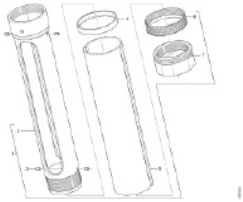
Front part, compl.
L=200 mm (8"), thread UNF 1 1/2"-12
4141 0245 90



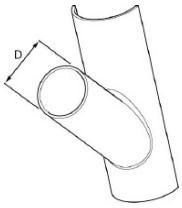
Front part, compl.
L=300 mm (12"), thread UNF 1 1/2"-12
4141 0245 91



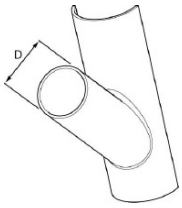
Front part, compl.
L=200 mm (8"), thread UNF 2"-16
4141 0257 90



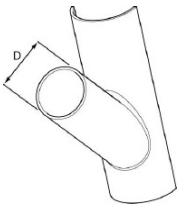
Front part, compl.
L=300 mm (12"), thread UNF 2"-16
4141 0257 91

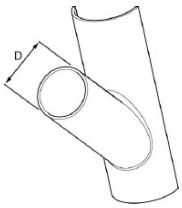


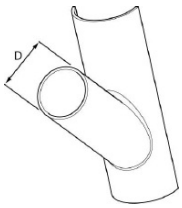
Tube
Vacuum tube suitable for front part 4141 0245 90. D=37.8 mm.
4141 0250 90



Tube
Vacuum tube suitable only for front part 4141 0261 90.
D=31.5 mm.
4141 0250 91



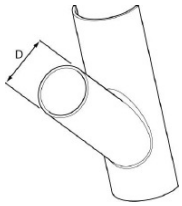




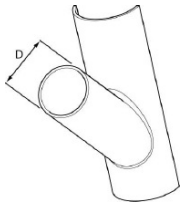
Tube
Vacuum tube suitable only for front part 4141 0261 91.
D=31.5 mm.
4141 0250 92

Tube
Vacuum tube suitable only for front part 4141 0251 90.
D=31.5 mm.
4141 0250 93

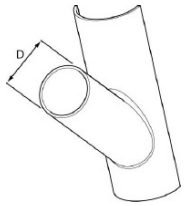
Tube
Vacuum tube suitable only for front part 4141 0261 92.
D=31.5 mm.
4141 0250 94



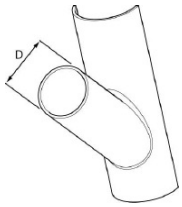
Tube
Vacuum tube suitable only for front part 4141 0251 91.
D=31.5 mm.
4141 0250 95



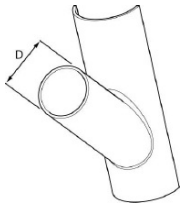
Tube
Vacuum tube suitable only for front part 4141 0251 92.
D=31.5 mm.
4141 0250 96



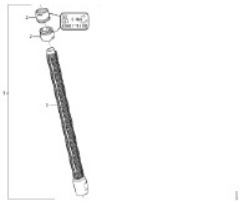
Tube
Vacuum tube suitable only for front part 4141 0245 91.
D=37.8 mm.
4141 0250 97



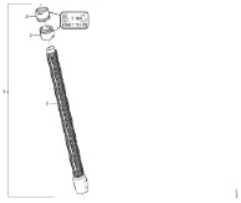
Tube
Vacuum tube suitable only for front part 4141 0257 90.
D=37.8 mm.
4141 0250 98



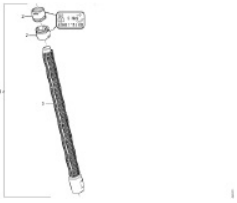
Tube
Vacuum tube suitable only for front part 4141 0257 91.
D=37.8 mm.
4141 0250 99



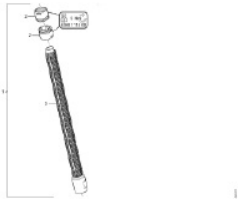
Spindle, compl.
Spindle L=215 mm (8”), thread UNF 5/8”-18
4141 0287 90



Spindle, compl.
Spindle L=280 mm (11”), thread UNF 5/8”-18
4141 0287 91

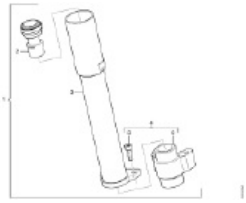


Spindle, compl.
Spindle L=215 mm (8”), thread UNF 9/16”-18
4141 0293 90

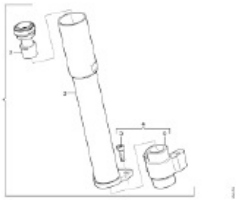


Spindle, compl.
Spindle L=280 mm (11”), thread UNF 9/16”-18
4141 0293 91

Collet holder, compl.
Suitable for front part 4141 0245 90, 4141 0245 91, 4141 0257 90, 4141 0257 91
4141 0282 90

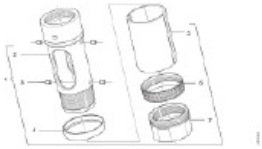


Guard vac, compl.
Suitable for spindles 4141 0287 90, 4141 0287 91
4141 0296 94



Guard vac, compl.
Suitable for spindles 4141 0293 90, 4141 0293 91
4141 0296 90

Front part, compl.
L=82.5 mm (3.25"), thread UNF 1 1/4"-12
4141 0251 93



Front part, compl.
L=125 mm (5"), thread UNF 1 1/2"-12
4141 0245 92

Front part, compl.
L=95 mm (3.75"), thread UNF 1 1/2"-12
4141 0245 93

Collet
3/6”
4141 0300 10

Collet
15/64”
4141 0300 13

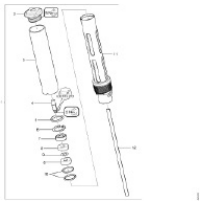
Collet
1/4”
4141 0300 14

Collet
5/16”
4141 0300 18

Collet
3/8”
4141 0300 22

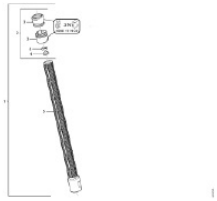
Collet
1/2”
4141 0300 30

Collet
9/16”
4141 0300 34



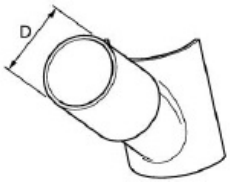
Spindle guard, compl.
Suitable for spindle 4141 0004 95
4141 0068 95

Spindle, compl.
Spindle L=230 mm (9"), thread UNF 9/16"-18
4141 0004 95

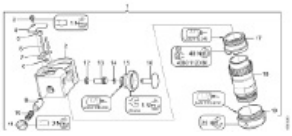


Spindle, compl.
Spindle L=230 mm (9"), thread UNF 5/8"-18
4141 0224 95

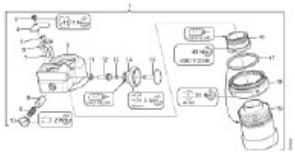
Support handle
Install the handle over the range gear, close to the air logic box. Do not cover the airhole on the motor.
4141 0302 90



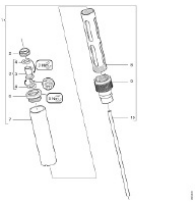
Tube
Vacuum tube suitable only for front part 4141 0245 92.
D=37.8 mm.
4141 0330 90



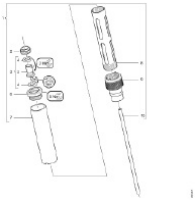
Indexer, compl.
For hole up to Ø 3/4"
4141 0150 93



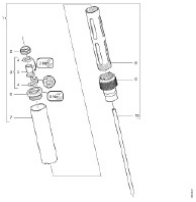
Indexer, compl.
For hole up to Ø 1 1/4"
4141 0306 90



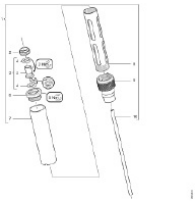
Spindle guard, compl.
NPT threaded spindle guard. Approximate stroke length 100 mm. Suitable for spindles 4141 0004 90, 4141 0224 90, 4141 0256 90, 4141 0253 90
4141 0323 90



Spindle guard, compl.



Spindle guard, compl.

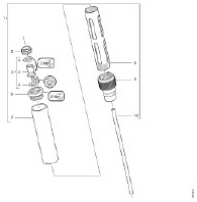


Spindle guard, compl.

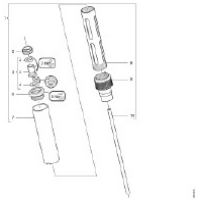
NPT threaded spindle guard.
Approximate stroke length 150 mm. Suitable for spindles 4141 0004 91, 4141 0224 91, 4141 0256 91, 4141 0253 91
4141 0323 91

NPT threaded spindle guard.
Approximate stroke length 200 mm. Suitable for spindles 4141 0004 92, 4141 0224 92, 4141 0256 92, 4141 0253 92
4141 0323 92

NPT threaded spindle guard.
Approximate stroke length 250 mm. Suitable for spindles 4141 0004 93, 4141 0224 93, 4141 0256 93, 4141 0253 93
4141 0323 93

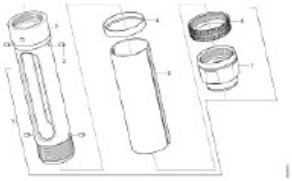


Spindle guard, compl.
NPT threaded spindle guard.
Approximate stroke length 40 mm. Suitable for spindles 4141 0004 94, 4141 0224 94, 4141 0256 94
4141 0323 94

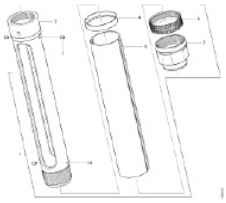


Spindle guard, compl.
NPT threaded spindle guard.
Approximate stroke length 80 mm. Suitable for spindles 4141 0004 95
4141 0323 95

Adapter
1 9/16"-20 UNEF 2B L.H
external threads
4141 0274 91

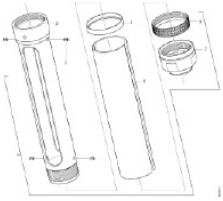


Front part, compl.
L= 200 mm (8"), thread UNF 1 1/2"-12
4141 0312 91

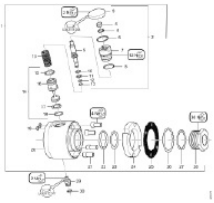


Front part, compl.
L= 300 mm (12"), thread UNF 1 1/2"-12
4141 0312 92

Front part, compl.
L= 200 mm (8"), thread UN-2B 2"-16
4141 0313 90



Front part, compl.
L= 300 mm (12"), thread UN-2B 2"-16
4141 0313 91



Motor valve, compl.
4141 0098 90

Stop ring, compl.
4141 0090 90

Safety Information

To operate tools safely, always read and follow all Safety Information and Product Instructions. All locally legislated safety rules regarding installation, operation and maintenance must be respected at all times.

Safety Information
Product Instructions