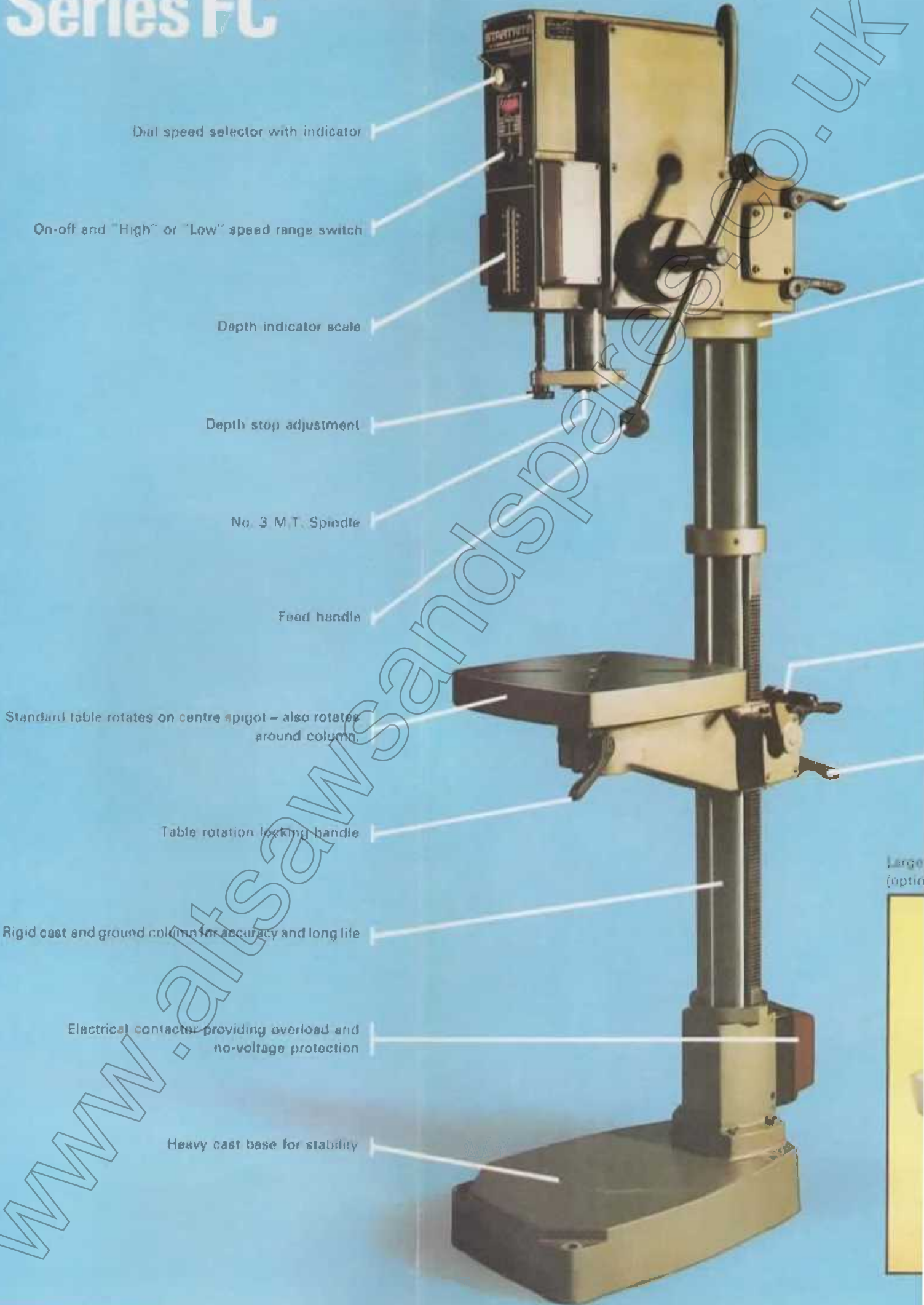


STARTRITE

EFI Pillar drilling machines Series FC and FG



Series FC



EFL drills series FG

Head locking handles. Head can be adjusted vertically and rotates around column

Adjustable safety support collar

Table is raised and lowered by crank handle and rotates around column

Table locking handles

equipped with tea-slots and coolant trough

Dial speed selector-interlocked with switch to prevent gear change when machine is running

Speed indicator

Lighting switch

Drilling-Tapping selector switch (FG2/AT)

On-off and "High" or "Low" speed range switch

Depth indicator scale

Spindle reversing switch

Depth stop adjustment

No. 3 M.T. Spindle runs in taper roller bearings

Feed lever. Cross movement engages power feed (Not FS2) safety feature prevents inadvertent engagement

Tilting table with side face tea-slots and coolant trough. Table rotates on centre spigot

Head and table can be rotated around column and moved vertically by crank handle

Rigid cast and ground column for accuracy and long life

Heavy machined base with tea-slots and coolant trough

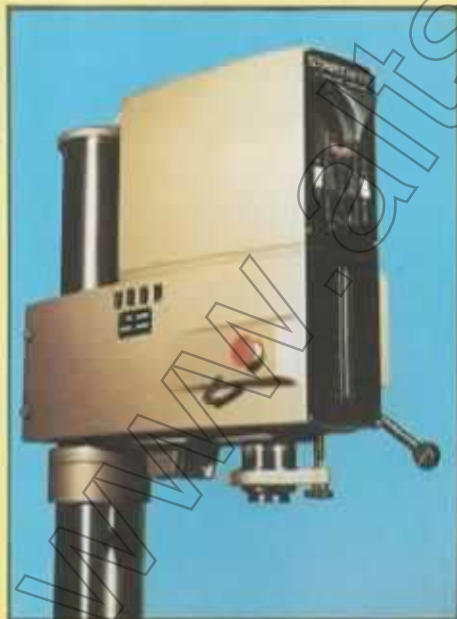
Side view of head showing emergency stop button and quill clamping lever.



EFI drills series FG

- Dial speed selector-interlocked with switch to prevent gear change when machine is running
- Speed indicator
- Lighting switch
- Drilling-Tapping selector switch (FG2/AT)
- On-off and "High" or "Low" speed range switch
- Depth indicator scale
- Spindle reversing switch
- Depth stop adjustment
- No. 3 M.T. Spindle runs in taper roller bearings
- Feed lever. Cross movement engages power feed (Not FG2) safety feature prevents inadvertent engagement
- Tilting table with side face tee-slots and coolant trough. Table rotates on centre spigot
- Head and table can be rotated around column and moved vertically by crank handle
- Rigid cast and ground column for accuracy and long life
- Heavy machined base with tee-slots and coolant trough

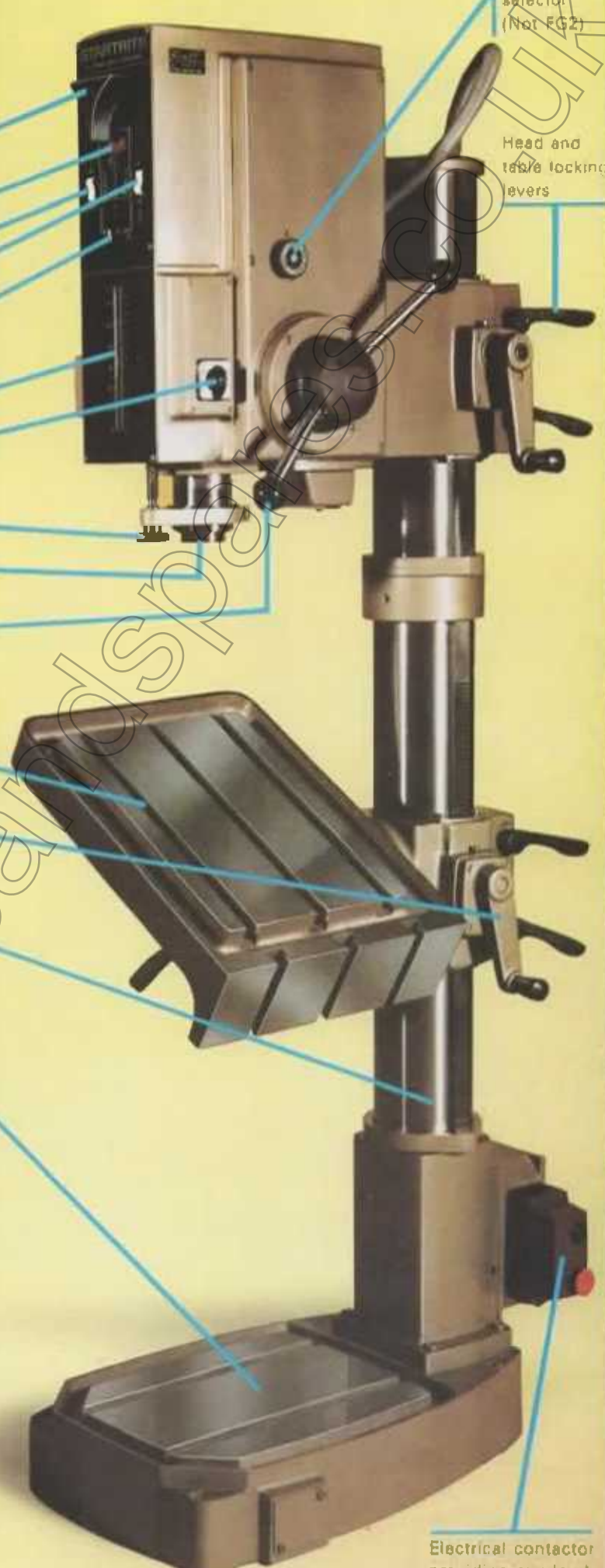
Side view of head showing emergency stop button and quill clamping lever.



Dial power feed selector (Not FG2)

Head and table locking levers

Electrical contactor providing overload and no-voltage protection.



Models FG2, FG2/A and FG2/AT

Constructional details

All Geared Head

FG2 Type Pillar Drills incorporate an all gear drive through an in-built 1.9 h.p. two-speed fan-cooled motor and six-speed gear box. The gear box is fitted with a patented dial type selector which provides rapid and positive change of twelve spindle speeds ranging from 80 to 2,800 r.p.m. To select a speed, the dial indicator is rotated to the right or left until the required position is reached. Rotation of the dial operates a cam shaft and a series of plungers which control lateral movement of the gears. All gear shafts are ball bearing mounted and the gears carefully machined to give quiet, low friction operation. Interlock prevents speed selection whilst machine is running. To ensure true running conditions under heavy loads, the quill assembly includes a high tensile steel multi-splined ground spindle mounted in Timken taper roller bearings. The spindle is bored No. 3 M.T.

Table Base & Column

Head and Table Units can be rotated round the column and moved vertically according to job requirements. The Head is elevated or lowered through a rack and pinion. Vertical movement of the table is controlled by a worm and wheel mechanism, incorporating a suds trough the angle-plate Table carries T-slots in top and apron faces. Swivel mounted from a separate arm casting it also tilts through 90°. The heavy T-slotted base with suds trough, supports the robust 5 1/2" dia. column.

Electrical Details

Speed, depth gauge and electrical controls are conveniently mounted on the Head Front Panel. Electrical equipment includes thermal overload no volt release protection, 24V spotlight, On/Off switch, reversing switch and emergency stop button.

FG2/A

FG2/A models with power feed include three feed rates of 0.004", 0.006" and 0.010", which can be used with any of the 12 spindle speeds. The feeds are dial selected through a patented device and may be changed whilst the machine is running. Power feed is engaged or disengaged by cross movement of the hand feed lever and automatic disengagement is pre-set from the depth stop. Protection against overload is provided through a safety slip-clutch. A special safety ring prevents inadvertent engagement of power feed.

FG2/AT

FG2/AT models in addition to power feed, also feature an automatic reversing device for tapping. This is operated through two limit micro-switches positioned behind the front panel. The rotation of the spindle is automatically reversed at a pre-set depth and on return to starting point a second automatic reversal takes place. In case of emergency, the spindle can be reversed before completion of its stroke. This extra reversing switch also permits cutting of R.H. or L.H. threads.

Specification and model listing

Model FG2 (Manual Feed)	Metric	Imperial
Drilling Capacity in Iron	38mm	1 1/2"
Drilling Capacity in Steel	32mm	1 1/4"
Throat Depth	312mm	12 1/2"
Spindle Nose		3 M.T.
Spindle Travel	170mm	6 3/4"
12 Spindle Speeds R.P.M.	80, 112, 160, 224, 315, 355, 500, 630, 710, 1000, 1400, 2800	
Column Diameter	140mm	5 1/2"
Table Size	500mm x 380mm	19 1/2" x 15"
Table Tilt		0-90°
Table Swivels		0-360°
Base Size	440mm x 660mm	16" x 26"
Spindle to Table Max.	825mm	32 1/2"
Spindle to Base Max.	1340mm	52 1/2"
Motor (two speed)	1.4Kw	1.9 h.p.
Overall Height	2030mm	80"
Net Weight	356Kg	785 lbs

Model FG2/A Power Feed

As specification for FG2 above, but with:-
3 Rates of Power Feed: .004", .006", .010" per rev.

Model FG2/AT Power Feed and Tapping

As Model FG2/A but fitted with automatic reversing device for tapping.

Standard Equipment

Complete electrical equipment including On/Off switch, reversing switch, low volt lighting and thermal overload no volt release protection, safety stop switch, tilting angle plate table, telescopic chuck guard.

Optional Equipment

Coolant pump and fittings, 1/4" chuck and 3 M.T. shank. Universal milling table for compound and milling operations. Table 18" x 8". Cross-feed 5 1/4". Longitudinal feed 1 1/4".

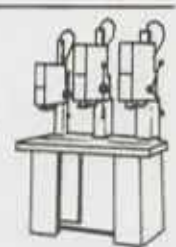


Above: Universal Milling Table, optional for series FG only
Inset: Telescopic chuck guard standard on all models

Model FGR/AT articulated radial machine also available - See separate literature



Common base unit can be supplied with up to three head units type FC or FG as required



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Description and specification do not form part of a contract and are subject to change without notice.

EFl drills series FC

Constructional details

All Geared Head

FC Type Pillar Drills incorporate an all gear drive through an in-built 0.9 h.p. two-speed fan-cooled motor and four-speed gear box. The gear box is fitted with a patented dial type selector which provides rapid and positive change of eight-spindle speeds ranging from 125 to 2,800 r.p.m. To select a speed, the dial indicator is rotated to the right or left until the required position is reached. Rotation of the dial operates selector dogs ensuring correct engagement of the gears. All gear shafts are ball-bearing mounted and the gears carefully machined to give quiet, low friction operation.

Table Base and Column

Head and Table Units can be rotated round the column and moved vertically according to the job requirements. Vertical movement of the table is controlled by a worm and wheel mechanism, and the table rotates on its mounting.

Specification	Metric	Imperial
Drilling capacity	25 mm	1"
Throat depth	225 mm	8 7/8"
Spindle nose	3 M.T.	3 M.T.
Spindle travel	110 mm	4 1/4"
8 spindle speeds (r.p.m.)	125, 250, 350, 500, 700, 1000, 1400, 2800	
Column diameter	100 mm	3 7/8"
Table size	340 x 340 mm	13 1/2" x 13 1/2"
Base size	520 x 330 mm	20 7/8" x 13"
Spindle to table max.	810 mm	32"
Motor (2 speed)	0.67 kW	0.9 h.p.
Overall height	1515 mm	67 1/2"
Net weight	205 kg.	462 lbs.

Standard equipment:

Complete electrical equipment including thermal overload, no lock safety protection, emergency stop button and chuck guard.

Optional equipment:

Large table with coolant trough. Coolant pump, tank and fittings. 1/2" cap. chuck and No. 3 M.T. arbor.