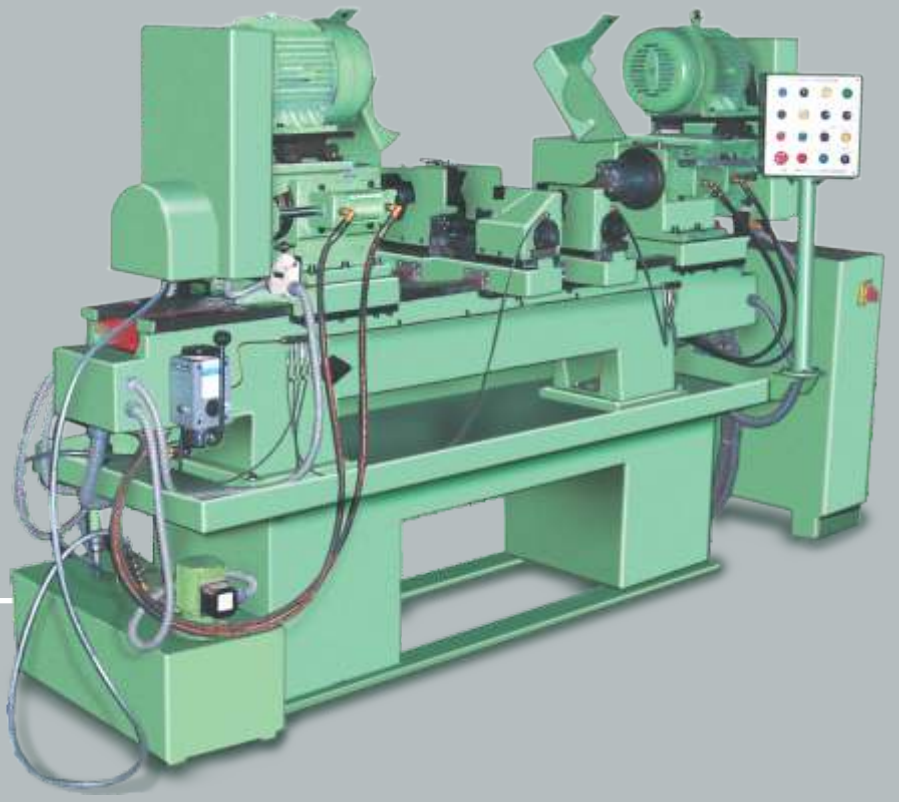
SPM TOOLS

Fully Automatic

Centering and Plunge Facing Machine

CFAM-500/1000/1500/2000



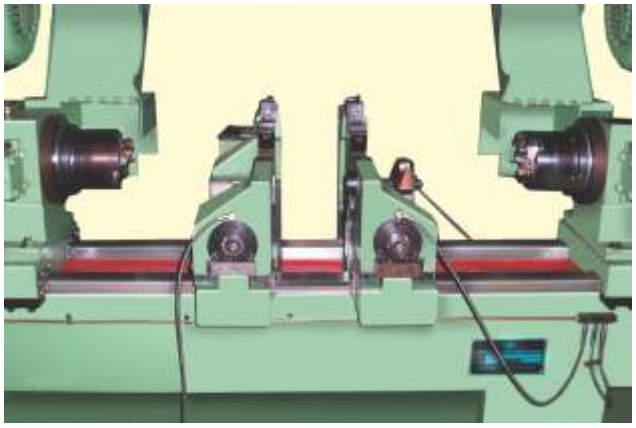
Centering and Plunge Facing Machine

CFAM-500/1000/1500/2000

FEATURES :

SPM Centering and Facing Machines are most suitable for centering, plunge facing, chamfering and external turning of the two ends simultaneously of the bar stock, such as camshafts, crankshafts, motor-shafts, universal joint, spiders etc. ensuring perfect alignment of centers, accurate lengths and true end. These are available in four length capacities.

The combined centering and facing operation saves machining time, handling time and floor space. The machine has two Hydraulic operated self centering work holding vices with push button control. The cutting cycle is operated with push button on a fast approach, slow feed and rapid return basis.



SPINDLE HEAD :

The SPM centering and facing machine essentially consists of two centering and facing heads, one permanently clamped and the other adjustable for machining different lengths of jobs.

The spindles are supported by two taper rolled bearings at both ends in the hard chromium plated and lapped quills. As compared to the maximum quill stroke, the quill supported length is so designed to achieve maximum quill rigidity during extreme conditions. Total four speeds are provided thro "V" change pulleys. This makes the machine suitable for machining different materials of different sizes.

TOOL HEAD :

For standard centering and facing operations, a rigid, compact, hardened and ground tool head is provided with standard commercially available index type carbide inserts and holders as well as longitudinally fine adjustable center drill.

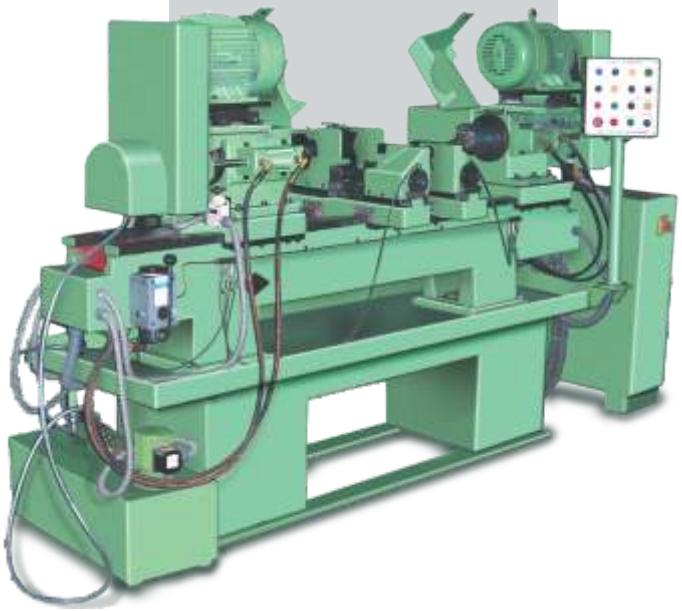
Depending on the application, special tool heads for outside turning, boring and chamfering can be supplied at extra cost.

Fully Automatic

TOOL HEAD FEEDING SYSTEM :

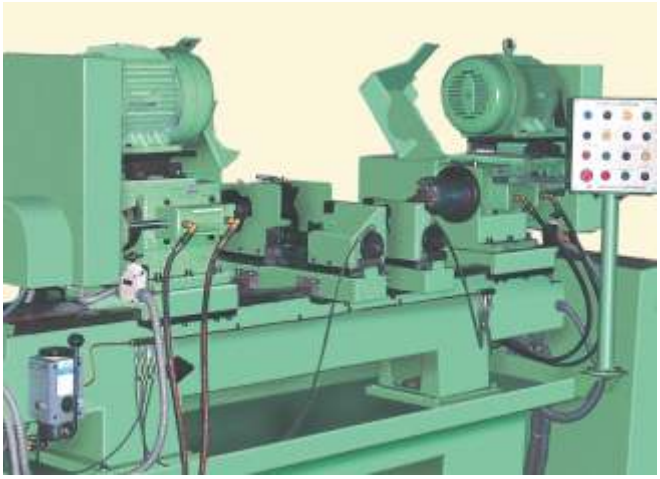
Centering and facing operation at both ends is achieved simultaneously by plunge operation through hydraulically operated quills. The automatic quill feeding is achieved through two hydraulic cylinders mounted on either side of the head stock. Infinitely variable feed can be selected by the flow control valve provided on the hydraulic power pack.

The cycle operates principally on the fast approach, slow feed and rapid return basis. The fast approach and return feeds are eight times greater than that of slow feed rate. During process setting, the quills can be individually operated through push buttons.



MACHINE BED :

Machine is built on rugged graded cast iron bed. The box type design with integrated runways ensures high rigidity and favouring dampening characteristics. The square runways are ground within close limits to maintain the accuracy of centering at both ends on the same axis.



VICES :

The machine has two vices clamped on bed. These vices can be taken near to the tool head as required. The work piece is clamped in self centering hardened and ground jaws with three points contact. The jaws slide on hardened slide ways.

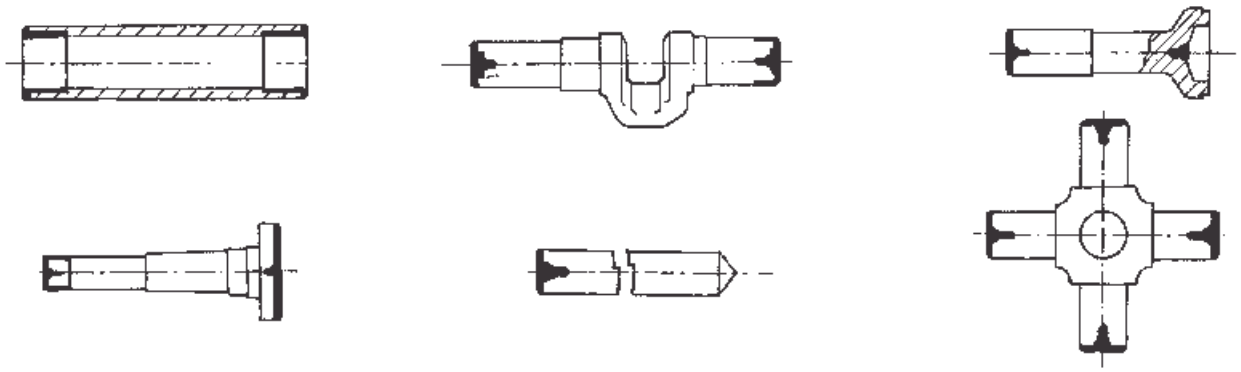
The work piece rests on adjustable "V" before clamping and butting against adjustable end-stopper which ensures predetermined depth of cut from one end. This clamping is achieved by Hydraulic Motor clamping unit by push button control.

The vice screws are rotated by Hydraulic Motor. After clamping the work piece with specified force, the motor stop automatically.

The both vices can be removed away to fit separate fixture for special type of component & clamped from top hydraulically.

COOLANT SYSTEM :

The standard coolant system includes the compact piping through-out. Coolant pump of capacity 40 ltrs/min. is driven by 0.1 KW electric motor. Coolant supply is through the hollow spindle of tool heads and directs coolant on the tool effectively.



Technical Specifications

1.	Possible work-piece length :		
	With One Vice Min.	mm	40
	With Two Vices Min.	mm	110
	With Two Vices Max.	mm	500/1000/1500/2000
2.	Min. work-piece dia. admitted in vices	mm	12
3.	Max. Work-piece dia. admitted in vices	mm	125
4.	Clamping system	---	Hydraulic Motor
5	Spindle speeds	RPM	350/500/750/1000
6.	Max. Stroke of each quill	mm	50
7.	Quill Feed (infinitely variable)	---	Hydraulic
8.	Max. Plunge facing diameter	mm	63
9.	Center drill sizes	---	BS 3 to BS 6
10.	Motor Power :		
	Spindle Motor (each)	KW/RPM	2.2 /960
	Hydraulic Power pack	KW/RPM	3.37/1440
	Coolant Motor	KW/RPM	0.1 /2800
	Total Power	KW	7.87

- The models are designated according to the length of the components.
- Special speeds can be provided on demand.

Due to continuous improvement of the product, SPM reserves all rights to change the above specifications without any prior notice.

SPM TOOLS

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