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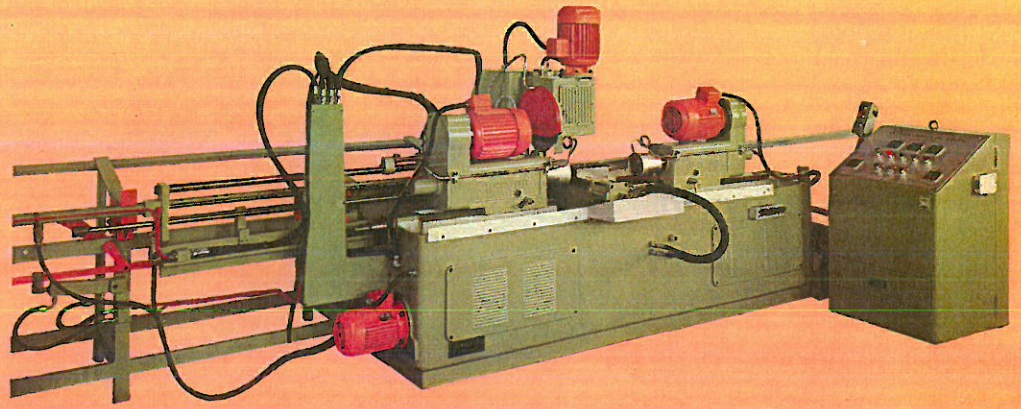
SIN-O-MATIC

**AUTOMATIC COMBINATION HYDRAULIC
CUT-OFF, FACING CENTERING MACHINE**

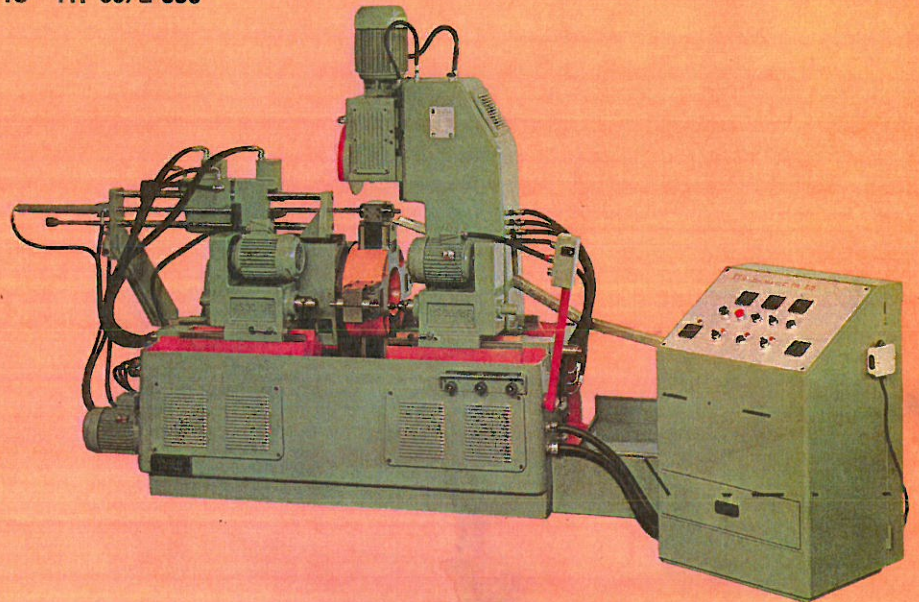
CONVERT BAR STOCK OR TUBING INTO FINISHED COMPONENTS



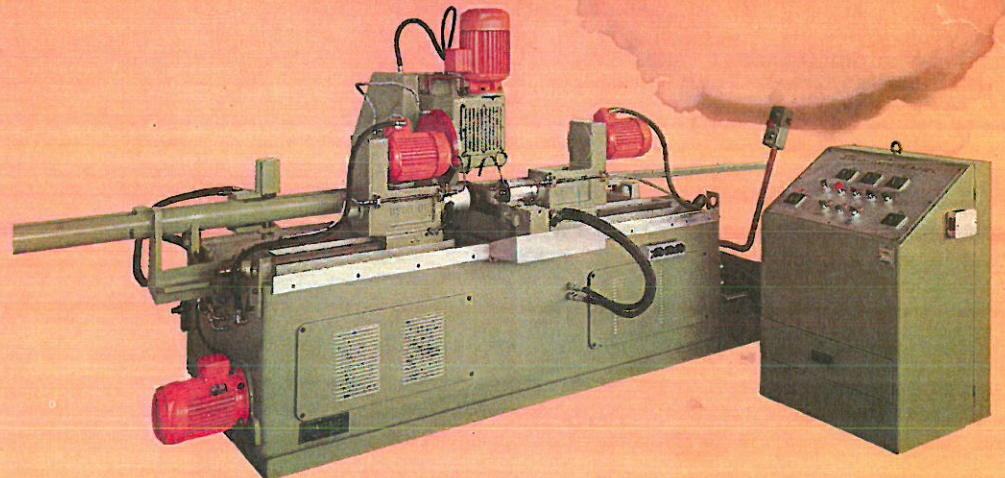
SIN-O-MATIC TC 60/SL 1200 with 5½ HP Type USP/OO Workheads



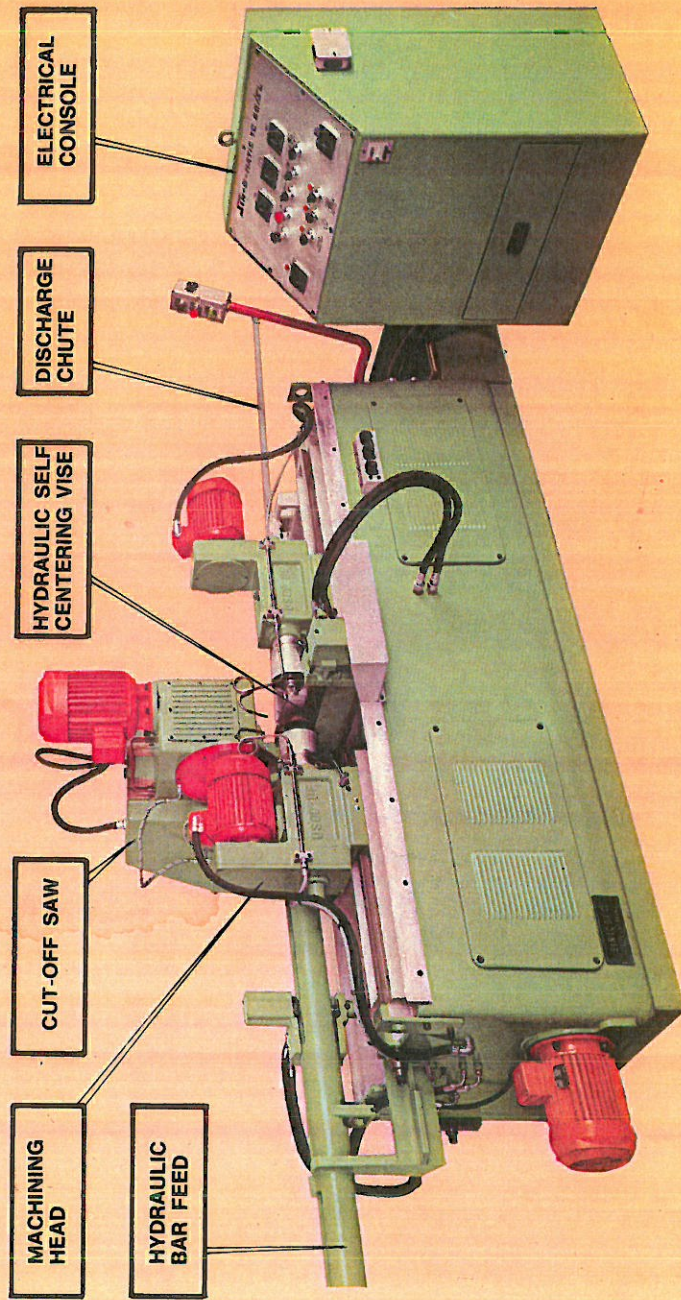
SIN-O-MATIC TR 60/2-350



SIN-O-MATIC TC 60/SL 600 with 3HP Type US/OO Workheads



MACCHINA MOD. SIN «O» MATIC TC60 SL 600



HYDRAULIC BAR FEED:
Automatically feeds bar into self-centering vise for cut-off operation.

OPPOSED WORKHEADS:
Heads on a common centerline with self-centering vise. With proper combination spindle tooling the following operations can be performed: Centering, Chamfering, Facing, Turning, Etcetera.

HYDRAULIC CUT-OFF SAW: COLUMN MOUNTED
Column may be positioned longitudinally to adjust for length of component. Saw cut can be as close to vise jaw end as desired to assure the most satisfactory sawing conditions.

HYDRAULIC SELF-CENTERING VISE:
Capable of various widths of jaw inserts assuring optimum holding of parts.

DISCHARGE CHUTE:
Completed workpiece is carried to the rear cut off position and is ejected into a chute by the introduction of additional bar stock.

ELECTRICAL CONSOLE:
Pushbuttons and switches for all control functions. Equipped with a cycle counter and a switch to permit automatic feeding and cut off operations only if desired, without activating the machining heads.

The cut-off and centering machine of the TC/SL series constitutes a range of Machines having complete automatic cycles. The latest design hydraulic components and controls are utilized to provide a superior machining facility.

CONSTRUCTION FEATURES MODEL TC 60/SL

The robust base casting is made of the most suitable high grade cast iron and is scientifically ribbed to provide both stability and rigidity. Guideways are hardened to resist wear.

The cut-off saw head and slide are mounted on an amply proportioned column. The column may be easily positioned longitudinally to simply accommodate

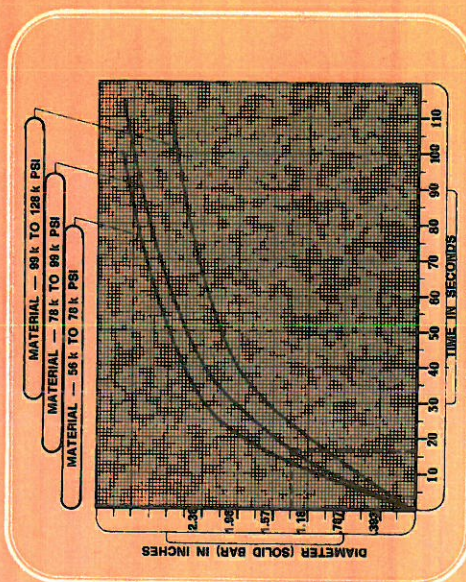
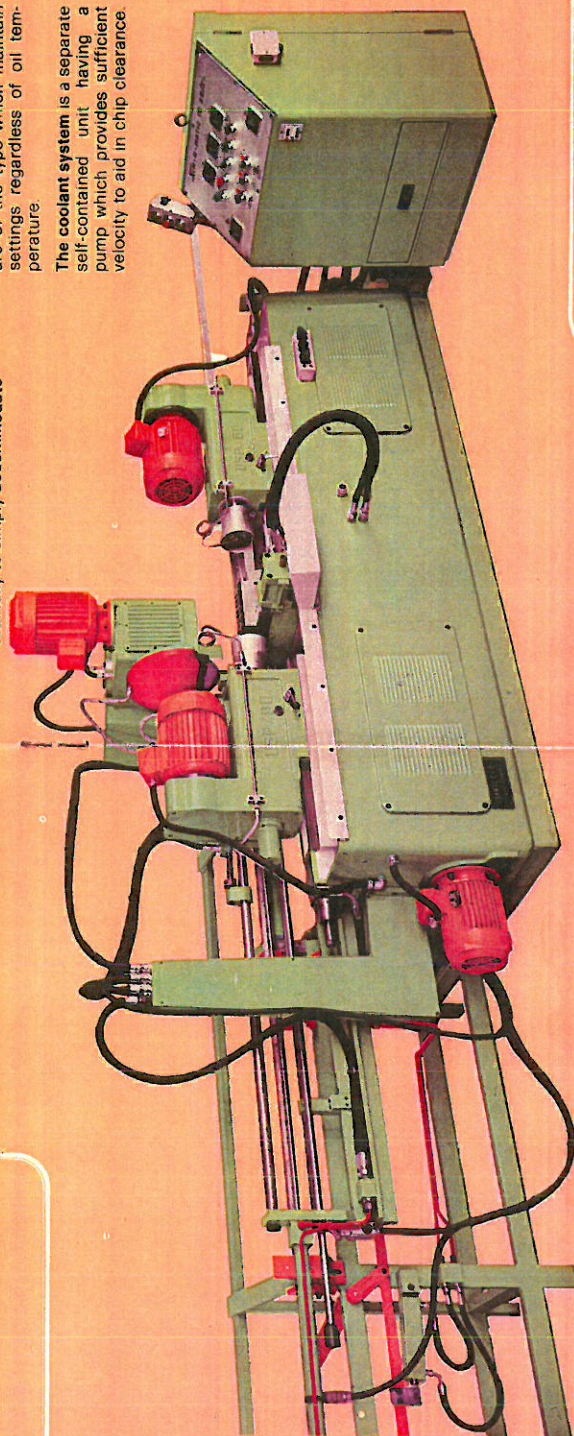
cut-off length changes. Slide ways of the cut-off head itself are automatically lubricated.

THE SELF-CENTERING vise is hydraulically activated and assures continuous and proper alignment to a common centerline with the work spindles.

The hydraulic pump and oil reservoir is in the machine base. Sufficient volume of oil is provided to assure stabilization as the hydraulic oil warms up. In addition all hydraulic valves are of the type which maintain settings regardless of oil temperature.

The coolant system is a separate self-contained unit having a pump which provides sufficient velocity to aid in chip clearance.

TECHNICAL DATA		SL 1200
Max. Length of Workpiece		47.24"
Min. Length of Workpiece		3.93"
Max. Dia. of Solid Round Bar		2.36"
Min. Dia. of Solid Round Bar		3.93"
Max. Dia. of Tubing		3"
HP available to Machining Heads (to suit requirement)		Up to 5 1/2
Spindle Speeds		65-2800 RPM
Power to Cut-Off Saw		3 HP
Saw Blade Diameters (to suit)		11-3/4" - 12-1/4"
Cut-Off Length Tolerance		0.004"
Floor Space		55"W x 175"L x 67"H
Net Weight		6800 lbs.



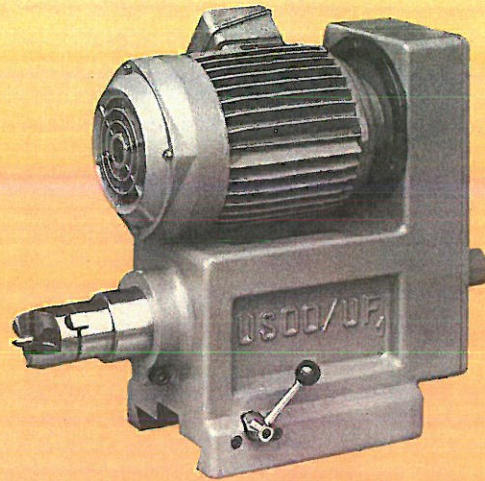
MODEL TC 60/SL COMBINATION CUT-OFF AND CENTERING MACHINE

TYPE US/00 WORKHEAD

Medium duty workhead having a maximum of 3 HP with a 30 std. spindle taper. Available (to suit application) with either a quill feed and/or slide feed. Also available with lead screw control for perfect results for internal tapping and external threading.

A variety of spindle speeds are available by combining motor speeds and power transmission (timing belt, chain drive, gearing) to suit any requirements.

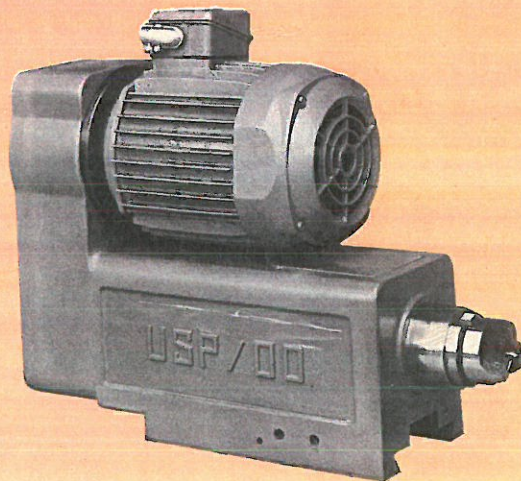
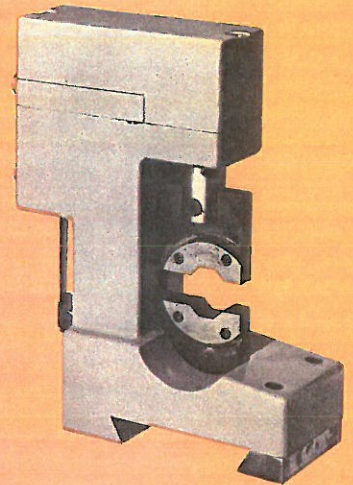
All slideways are automatically lubricated.



HYDRAULIK STEADY

This accessory can be added to the normal vice and, if furnished will be mounted on the slide ways of the normal workhead.

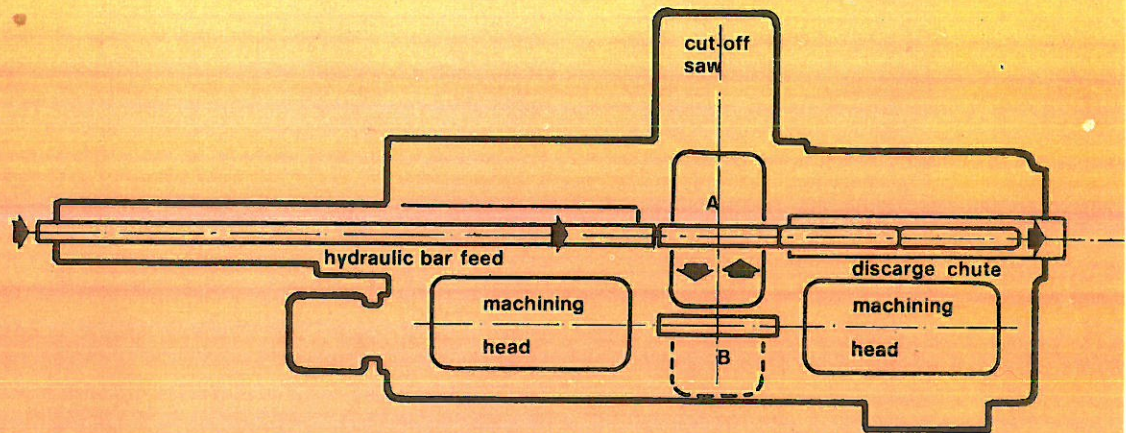
This unit is recommended whenever pieces exceeding 13" in length are being considered for facing, turning or drilling operations, i.e. in cases where possible vibration must be counteracted. Quick disconnect hydraulic tubing is provided so that mounting and dismounting can be quickly accomplished. The hydraulic steady is fully integrated in the automatic cycle of the machine.



TYPE USP/00 WORKHEAD

Heavy duty workhead having a maximum of 12 HP with a 40 std. spindle taper. Available (to suit application) with either a quill feed and/or slide feed. Like the medium duty Type US/00 Head, a selection of spindle speeds is available to suit a specific requirement.

Threading facility is also available. Slideways are automatically lubricated.



Work cycle - Fully and easily adjustable to suit all requirements

BAR FEED:

When machine is fitted with normal hydraulic bar feed, bar loading is manual into a tube. The "feed grippers" are hydraulically sequenced so that no lateral slippage occurs. In addition the machine may be supplied with a magazine bar feed which contains approximately 23" of bars (side by side) and handles bars up to 20 feet long. The magazine feed is so cycled as to provide for end of bar trim cut (newly introduced bar) and remnant disposal. Cycle is continuous and automatic until all bars placed on supply rack have been consumed.

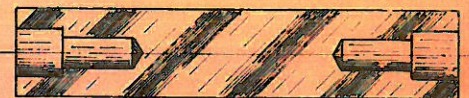
THE BASIC SEQUENCE OF EVENTS ARE AS FOLLOWS:

- 1) Self-centering vise slide is in rear position.
- 2) Bar is fed into self-centering vise.
- 3) Bar contacts a preset stop, causing vise to close.
- 4) Cut-off saw is activated and bar is cut.
- 5) Vise slide, containing cut-off workpiece travels rapidly forward (towards operator position).
- 6) When slide reaches the most forward position the two opposed machining heads perform simultaneous end machining operations.
- 7) When machining is completed, heads retract, vise slide moves rearwards, jaws open and cycle is repeated. Introduction of new portion of bar ejects finished workpiece.

TYPICAL WORKPIECES



Cut-off only



Cut-off, double drilling and forming



Cut-off, centering on both sides, and facing



Cut-off, and boring



Cut-off, chamfer

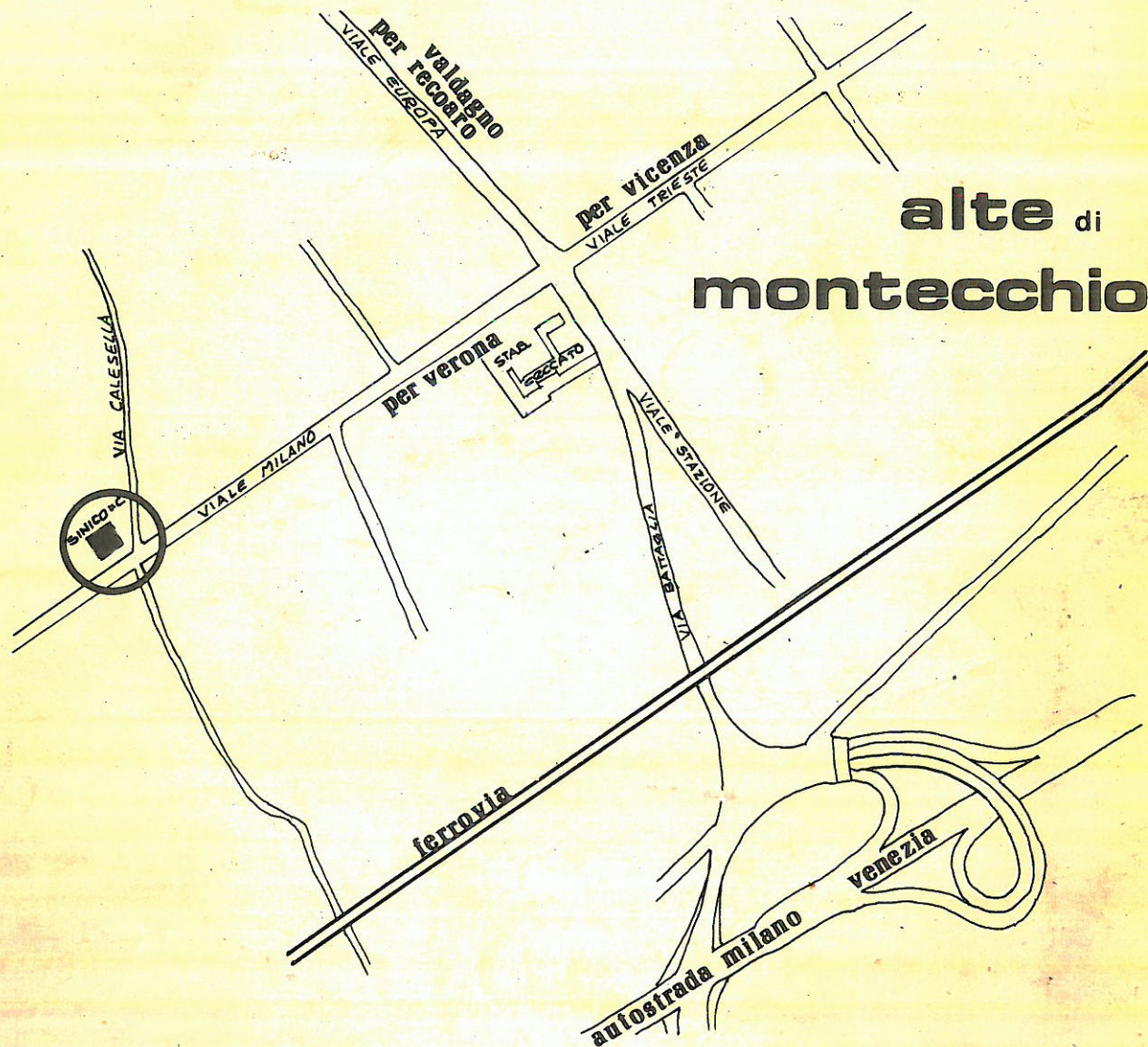


Cut-off, twin centering and turning



Cut-off, nose turning and chamfering





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Model # TC60/SL Serial # 434-0681

Bentley