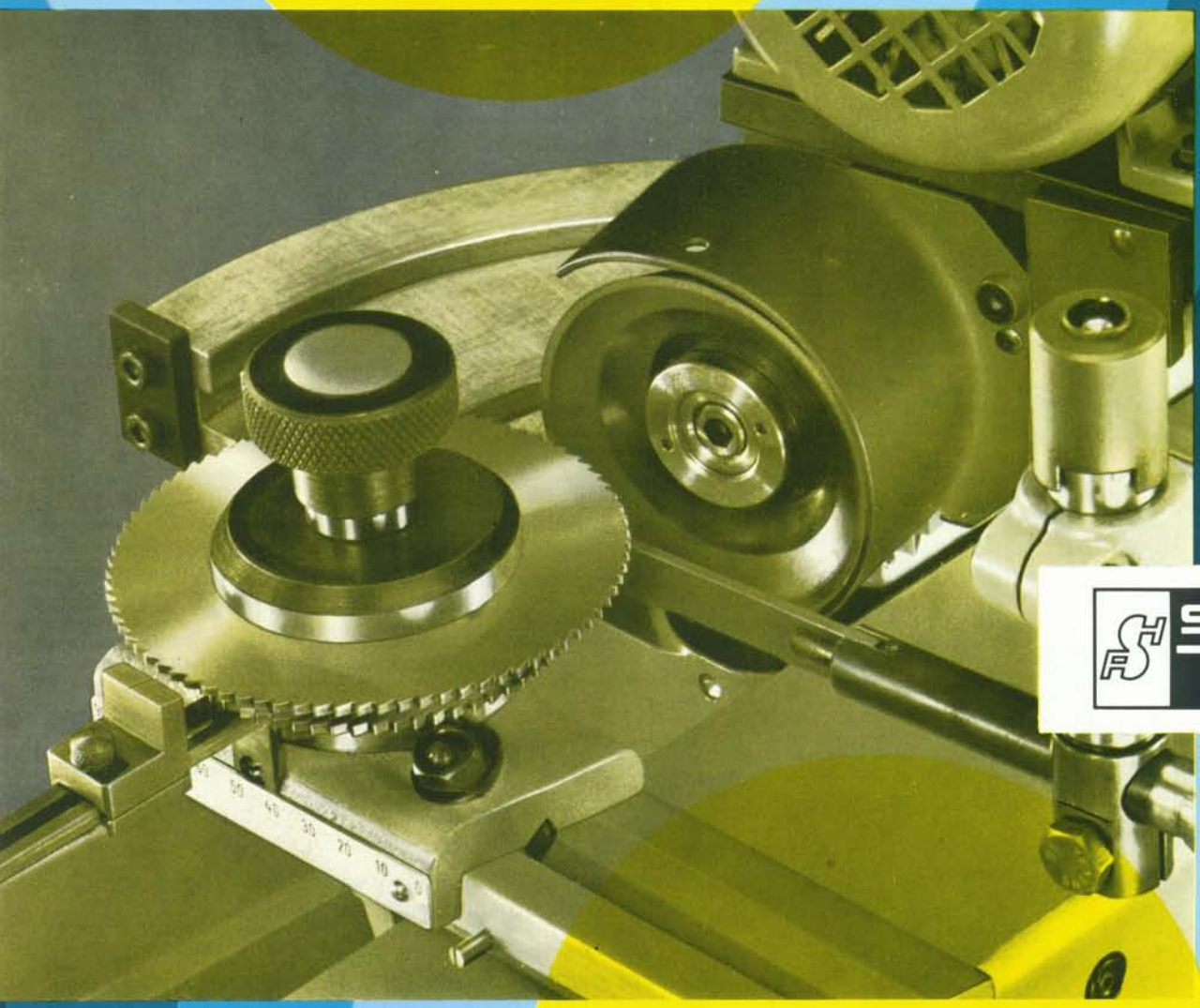
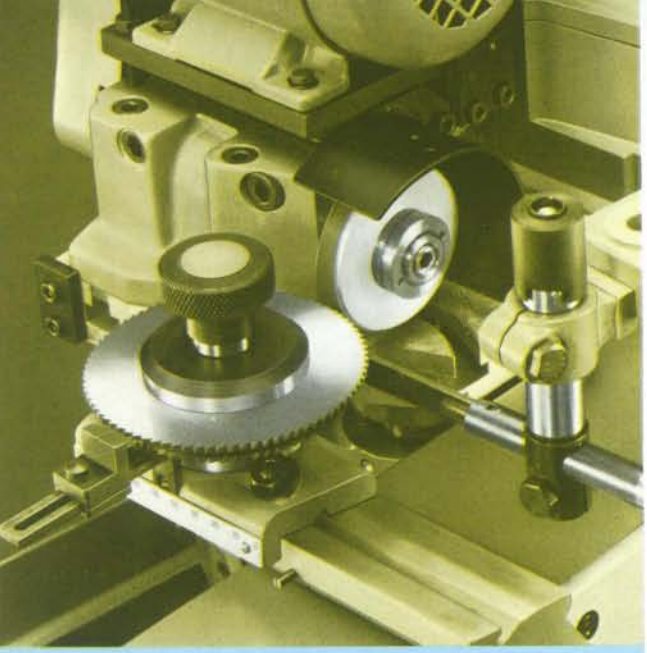
For Solid Tungsten Carbide Saw-blades



SCHMIDT TEMPO

Type AS-HM 250 Automatic Saw-blade Grinding Machine



AS-HM 250 Automatic Saw-blade Grinding Machine

SCHMIDT TEMPO

Specially designed for solid tungsten carbide saw-blades, also suitable for HSS saw-blades.

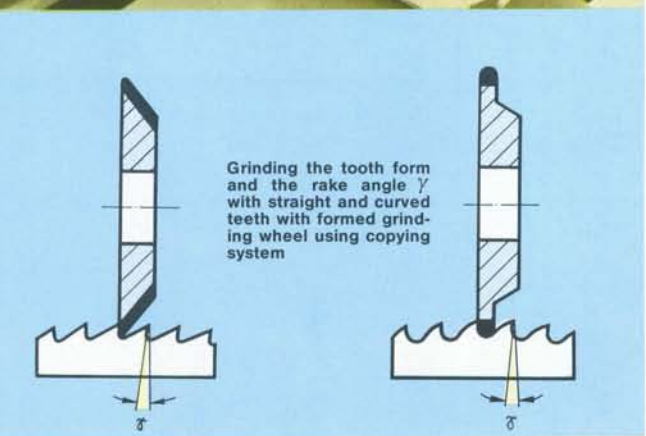
Distinguished by two methods of operation:

1. The saw-blade is guided across the grinding wheel according to the tooth form desired.

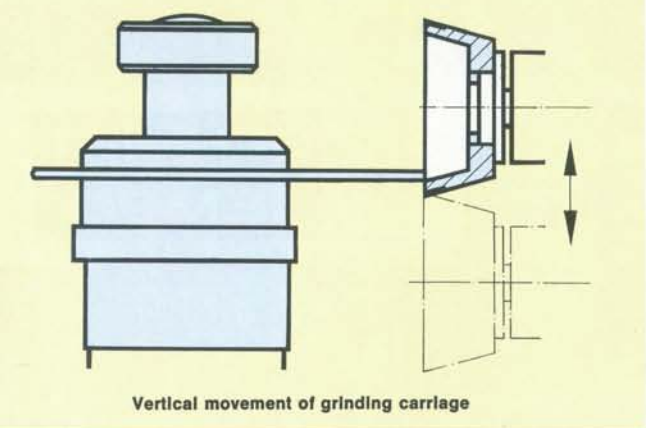
   Application: grinding the tooth form using conventional copying system.

2. The grinding wheel moves up and down – parallel to the cutting edge; the saw-blade is stationary during grinding. The machine indexes to the next tooth whilst the grinding wheel is out of engagement.

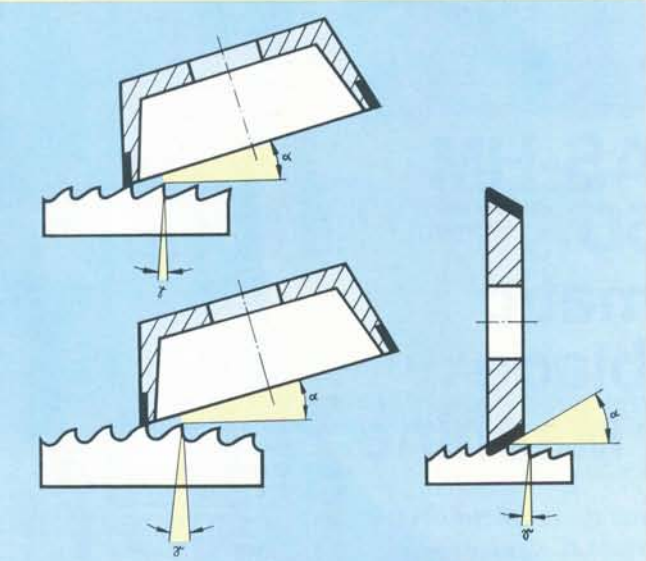
   Application: precision grinding of the clearance angle with cup wheel,
   Bevelling off the teeth,
   Grinding milling cutters or saw-blades,
   even in a stack up to 14 mm thick, with formed grinding wheel.



Grinding the tooth form and the rake angle γ with straight and curved teeth with formed grinding wheel using copying system



Vertical movement of grinding carriage



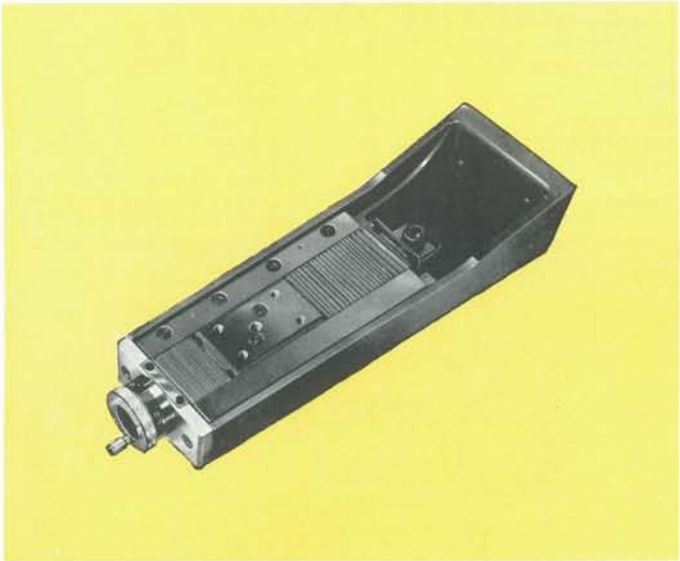
Grinding the clearance angle α on straight and curved teeth with cup wheel

Stack grinding of tooth form with a tooth profile grinding wheel

Important Features

- Suitable for circular saw-blades and milling cutters in accordance with DIN 1837/1838, tooth forms A, B, C in accordance with DIN 1840 (straight tooth, curved tooth with or without bevelling)
- Selection of tooth form by means of tooth form switch
- Individual motors for indexing drive and grinding wheel spindle
- Gear case fully enclosed, all friction components run in oil bath
- Indexing speed continuously variable, for individual machining of large and small tooth pitches
- Carriage very wide, with wire race ball-bearing straight guideways, sealed against grinding dust, embedded in carriage mounting.
  The carriage is covered underneath by a gaiter
- Wheel spindle mounted in precision ball-bearings, driven by flat belt, swivels through 90° for adjustment of clearance angle
- Work feed to grinding wheel by means of screw spindle
- Robust indexing mechanism with carbide-tipped indexing bolt with fine feed, indexing on hardened index plates
- Grinding carriage inclines slightly to the horizontal, giving improved visibility and positive coolant drainage

- Contactor control of motors, switch cabinet on back of machine base, control panel with push buttons and symbols
- Standard equipment for 3″ (75 mm) grinding wheel diameters
- Saw-blade or milling cutter clamping fixtures in various sizes, hardened and ground with high true-running accuracy, easily interchangeable
  Standard design rigid
  Swivel mounted, for bevelling the teeth
  Lateral swivelling, for bevel grinding of tooth face



Very wide carriage, with wire race ball-bearing straight guideways

Special Accessories:

Automatic Feed
Permits particularly economical use of the machine with a minimum of operating effort. The total amount to be ground-off up to a maximum of 0,072″ (1.8 mm) is preselected (for larger grinding depths can be reselected any number of times). Each feed pulse produces feed of 0,0004″ (0.01 mm). The pulse interval can be set on a counter between 6 and 999 teeth.
After reaching the grinding depth set the machine runs on to spark-out without feed until the workpiece revolutions determined by a second counter are reached, then it is switched off electrically.

Sensing Attachment:

Makes it possible to grind any required number of saw-blades or milling cutters to the same diameter, control according to actual diameter reached by means of tracer unit (represents an extension of automatic feed).

High-Low Shift:

Permits grinding of roughing and finishing tooth in one operation. The tooth height difference is adjustable by means of a dial knob (curved tooth form C in accordance with DIN 1840).

Coolant Unit:

Recommended for grinding tungsten carbide with diamond wheel. Coolant tank with pump located in machine base.

Machine Light:

Optionally a standard light with 40 Watt bulb or a halogen light, combined with a magnifier can be supplied.

Automatic Saw-blade Grinding Machine for Tungsten Carbide Circular Saw-blades

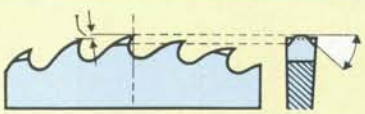
Saw-blade clamping fixture M for circular saws or milling cutters 1/2"-1 3/16" (12-20 mm ø).

Saw-blade clamping fixture A for circular saws and milling cutters 1"-1 9/16" (25-40 mm ø).

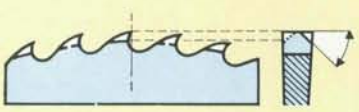
Saw-blade clamping fixture B for circular saws and milling cutters 1 3/8"-2 3/8" (35-60 mm ø).

Saw-blade clamping fixture C for circular saws and milling cutters 2 3/16"-3 1/8" (55-80 mm ø).

Saw-blade clamping fixture D for circular saws and milling cutters 2 3/4"-5 7/8 / 10" (70-150/250 mm ø)



High duty tooth system with roughing and finishing tooth



Curved tooth system with alternate bevelling

Type		AS-HM 250
Saw-blade or milling cutter diameter	d_1	1/2"-10" (12-250 mm)
Saw-blade or milling cutter width in stack	b	up to 9/16" (14 mm)
Tooth pitch continuously variable	T	up to 3/8" (10 mm)
Clearance angle	α	0-15°
Rake angle	γ	0-30°
Grinding wheel diameter	D	3" (75 mm)
Speed of wheel spindle	n	6900 rpm
Strokes or teeth/min	n_1	15-50
Total power	N	0.73 (1) kW (HP)
Packing dimensions		42 x 34 x 60" (105 x 85 x 153 cm)
Weights	nett/gross	355/510 lbs. (160/230 kg)

Accessories:

1. 1 set of operating tools
2. Special accessories:

2.1 Saw-blade clamping fixture, rigid

	for circular saws or milling cutters	with centring pin
M	1/2"-1 3/16" (12-30 mm dia.)	Optionally 1/8", 3/16" (3,4,5 mm dia.)
A	1"-1 9/16" (25-40 mm dia.)	3/16" (5 mm dia.)
B	1 3/8"-2 3/8" (35-60 mm dia.)	5/16" (8 mm dia.)
C	2 3/16"-3 1/8" (55-80 mm dia.)	1/2" (13 mm dia.)
D	2 3/4"-5 7/8"/10" (70-150/250 mm dia.)	5/8" (16 mm dia.)
Centering rings		as required

Swivel mounted saw blade clamping fixture, base piece, for bevelling, with special operating lever

Clamping fixture UA, for circular saw blades 22 – 50 mm (7/8" – 2") dia., centering bolt 5 mm, bevelling up to 45°

Clamping fixture UB, for circular saw blades 35 – 65 mm (1 – 3/8" – 2 – 9/16") dia., centering bolt 8 mm, bevelling up to 45°

Clamping fixture UC, for circular saw blades 55 – 125 mm (2 – 3/16" – 4 – 15/16") dia., centering bolt 8 mm, bevelling up to 45°
(for saw blades up to 160 mm dia. bevelling up to 30°)

Index plates as required

Coolant unit with pump, tank, collection tray, splash guard, motor protection switch (air-type contactor) and "ON" and "OFF" push button

Diamond grinding wheels according to tooth form, for solid tungsten carbide tools

CBN grinding wheels according to tooth form, for HSS tools

Automatic feed of workpiece to grinding wheel
Electromechanical, with mechanical grinding depth cutout, feed increment 0.0004" (0.01 mm/pulse), feed pulse sequence adjustable by means of a counter, total feed depth continuously selectable from 0 to 0,072" (0 to 1.8 mm), with relief-grinding unit and electrical shut-off of machine

Sensing Attachment

High-Low Shift for grinding roughing and finishing teeth in one operation. The tooth height difference is continuously adjustable by means of a dial knob

Machine light 40 W

Halogen light with magnifier
tooth angle and bevel gauge

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