

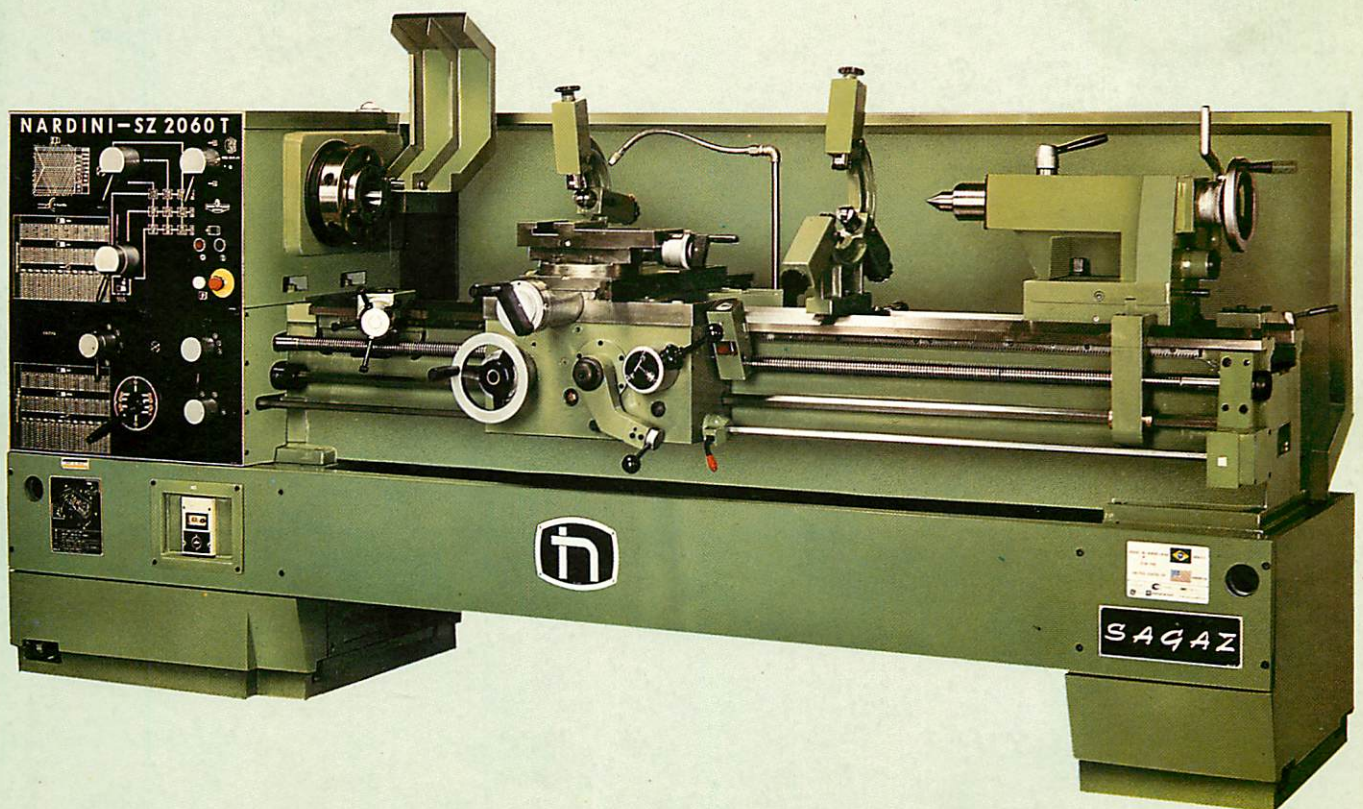
**HIGH PRECISION LATHE**

**“SAGAZ”**

**SZ-2000 T**

**SZ-2500 T**

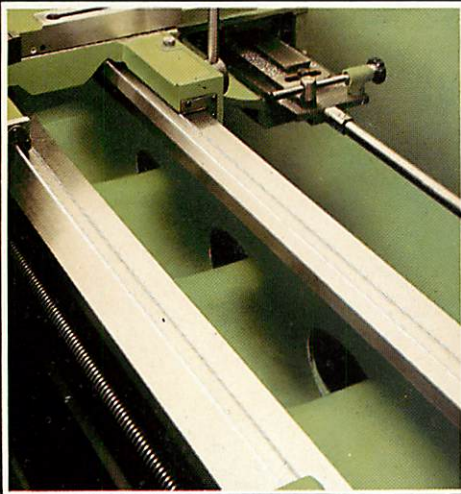
**NARDINI**



**UManuals**

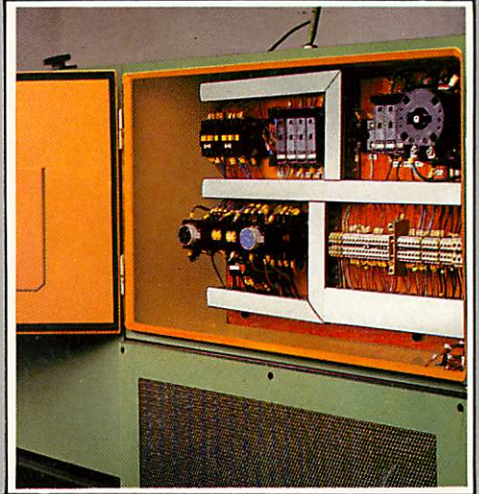
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# Features



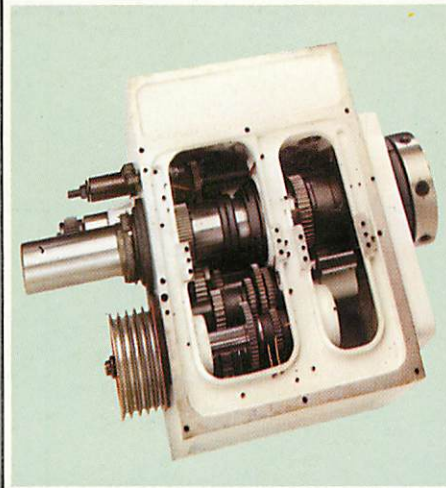
## Bed Ways

The one piece bed is extremely durable and rigid due to heavy duty construction of width and depth of "SA-GAZ" bed. Our multi-ribbed beds are designed to eliminate torsional twisting and vibrations. All "V" ways and flat ways of the bed are induction hardened to BRINELL 400 and above (ROCKWELL 43 RC and above) and precision ground. The bed is made of special grey iron alloy and is naturally aged at the Nardini Foundry to relieve internal stress and tension. Autocolimated bed ways permit true alignment and parallelism throughout the life of the lathe.



## Electrical Equipment

The electrical equipment used is made of the highest quality components. Klockner Moeller and Telemecanique Electrical components offer high and low voltage protection with a 110V magnetic starter. GE Motor are supplied as our standard. The electrical panel conforms to "JIC STANDARD", and is designed for easy access and is fully protected from dust and contamination. Five "V" belt drive is used for positive and smooth power transmission.



## Headstock

Precision headstock has rugged design providing maximum efficiency in all forms of turning and finishing.

The short and rigidly supported spindle is made from Chromium, Nickel, Molybdenum alloy steel, case hardened and fully ground. Spindle largely dimensioned in respect to the stresses to which it might be subjected is supported on 3 points. The spindle turns on preloaded high precision "TIMKEN" taper roller bearings on the front and middle and needle bearings at the rear. All spindle assemblies are high speed dynamically balanced on a "SCHENCK" balancing machine.

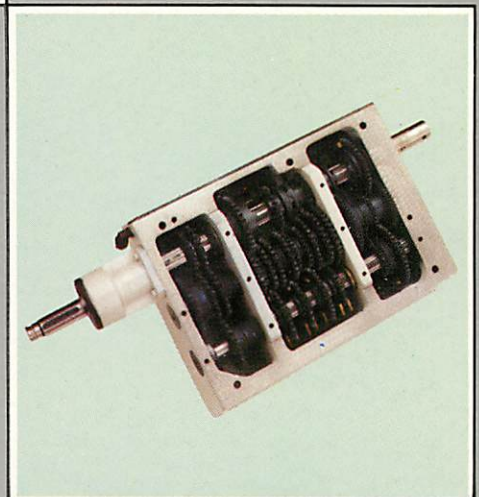
D1-8" CAMLOCK spindle nose has a large hole thru the spindle of 3.1/8" (80mm).

The headstock provides 18 spindle speeds which are in geometric progression and are easily selected.

All headstock gears are case hardened and "REISHAUER" ground with splined shafts which turn on antifriction bearings. Headstock lubrication system consists of automatic pump and oil bath with sight glass.

Spindle start, stop and reverse by double electromagnetic multi-disc clutches and brake.

All test conditions and deviations are according to the ISO Norm 1708-1979 (E).

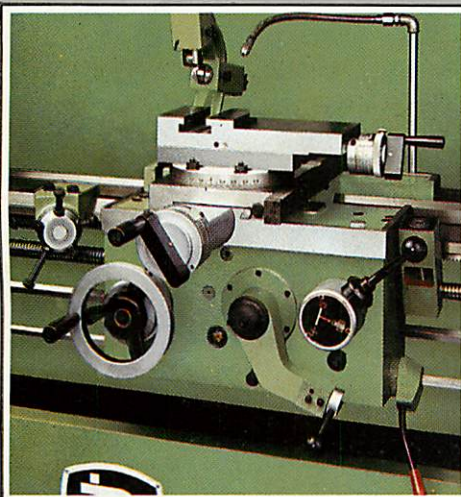


## Universal Gear Box

The universal gear box allows immediate selection of both inch and metric threads without changing end gears. The totally enclosed gear box provides the user with one of the most comprehensive range of inch and metric feeds and threads.

All gears are case hardened and are made of special alloy steel. The spline shaft is case hardened ground and turns on antifriction bearings.

Automatic pump and oil bath lubrication system creates cascade flow of oil. Adjustable safety overload feature disengages feed in case of excess stress and misuse of lathe.



## Carriage

Easy to read large dials have been designed to provide ultimate ease of operation. D-tenth control lever for maximum safety. Automatic longitudinal and transversal disengage increases productivity. The Nardini carriage is guided by a long wee-way bearing surface providing smooth feeds and travel with maximum accuracy and minimal wear. Cross feed adjustment eliminates backlash, permitting greatest possible accuracy. Fully adjustable tapered gibs on cross slide and top slide provide for wear, compensation, and long life. All parts are automatically lubricated. Single lever provides rapid engagement of cross feed and longitudinal movement. "T" slot on cross slide permits quick mounting of rear tool post and other accessories.

# Specifications

CAPACITY	SZ-2000 T		SZ-2500 T	
	inches	mm	inches	mm
Height of centers .....	9. 7/8	250	12. 3/4	325
Distance between centers .....	40 to 160	1000 to 4000	40 to 160	1000 to 4000
Swing over bed .....	19. 11/16	500	25. 5/8	650
Swing over wings of saddle .....	18. 1/8	460	24	610
Swing over cross slide .....	12	305	17. 7/8	455
(*) Swing in gap .....	27. 15/16	710	33. 7/8	860
(*) Length of gap in front of faceplate .....	6. 11/16	170	6. 11/16	170
Cross slide travel .....	11. 3/4	300	14. 3/4	375
Top slide travel .....	6. 11/16	170	6. 11/16	170
Tool Section .....	1 x 1	25 x 25	1 x 1	25 x 25
<b>BED</b>				
Width .....	13. 3/8	340	13. 3/8	340
Height .....	13. 3/4	350	13. 3/4	350
<b>HEADSTOCK</b>				
Spindle nose (CAMLOCK) .....	D1-8"	D1-8"	D1-8"	D1-8"
Spindle bore .....	3. 1/8	80	3. 1/8	80
Spindle internal taper .....	1:20	1:20	1:20	1:20
Taper in reduction sleeve (MT) .....	5	5	5	5
Spindle speeds (number) .....	18	18	18	18
Speeds range (RPM) .....	19 to 1500	19 to 1500	19 to 1500	19 to 1500
<b>TAILSTOCK</b>				
Quill diameter .....	3. 1/8	80	3. 1/8	80
Quill travel .....	8. 1/16	205	8. 1/16	205
Quill internal taper (MT) .....	5	5	5	5
Lateral adjustment .....	5/8	15	5/8	15
<b>GEAR BOX</b>				
Number of threads .....	216	216	216	216
Metric threads (mm) .....	(54) 0.40-18.472	(54) 0.40-18.472	(54) 0.40-18.472	(54) 0.40-18.472
Inch threads (TPI) .....	(54) 42-2. 3/4	(54) 42-2. 3/4	(54) 42-2. 3/4	(54) 42-2. 3/4
Module threads (Mod) .....	(54) 0.2-3.5	(54) 0.2-3.5	(54) 0.2-3.5	(54) 0.2-3.5
Diametral pitch threads (DP) .....	(54) 84-3	(54) 84-3	(54) 84-3	(54) 84-3
Pitch of leadscrew (TPI) .....	4	4	4	4
<b>FEEDS RANGE</b>				
Number of feeds .....	264	264	264	264
Cross feeds (132) .....	0.0010-0.0505 in/rev	0.026-1.212 mm/rev	0.0010-0.0505 in/rev	0.026-1.212 mm/rev
Longitudinal feeds (132) .....	0.0021-0.0979 in/rev	0.053-2.489 mm/rev	0.0021-0.0979 in/rev	0.053-2.489 mm/rev
<b>MOTORS</b>				
Main motor (HP) .....	12. 1/2	12. 1/2	12. 1/2	12. 1/2
Coolant Unit Motor (HP) .....	1/8	1/8	1/8	1/8

(\*) Optional

## DIMENSIONS (PACKING) AND APROXIMATE WEIGHT

MODEL	DISTANCE BETWEEN CENTERS		DIMENSIONS						VOLUME		GROSS WEIGHT		NET WEIGHT	
	Inches	mm	LENGTH		WIDTH		HEIGHT		ft <sup>3</sup>	m <sup>3</sup>	lb	kg	lb	kg
			Inches	mm	Inches	mm	Inches	mm						
SZ-2000 T	40	1000	93	2.36	51	1.29	61	1.55	167.0	4.72	5960	2710	4750	2155
	60	1500	113	2.86	51	1.29	61	1.55	202.0	5.72	6690	3040	5450	2480
	80	2000	133	3.36	51	1.29	61	1.55	237.0	6.72	7610	3460	6380	2900
	120	3000	172	4.36	51	1.29	61	1.55	308.0	8.72	8320	3780	7080	3220
	160	4000	211	5.36	51	1.29	61	1.55	378.0	10.72	9020	4100	7810	3550
SZ-2500 T	40	1000	93	2.36	54	1.37	61	1.55	188.0	5.00	6950	3160	5280	2400
	60	1500	113	2.86	54	1.37	61	1.55	227.0	6.07	7480	3400	5830	2650
	80	2000	133	3.36	54	1.37	61	1.55	267.0	7.13	8430	3830	6760	3070
	120	3000	172	4.36	54	1.37	61	1.55	347.0	9.26	8980	4080	7300	3320
	160	4000	211	5.36	54	1.37	61	1.55	426.0	11.38	9530	4330	7900	3590

### CHARACTERISTICS AND STANDARD EQUIPMENT

- One piece hardened bed • Electromagnetic clutches and brake • Steady rest with bearings (Interchangeable bronze tips) Ø 5/8" (15mm) to 8" (150mm) • Follow rest with bearings (Interchangeable bronze tips) Ø 3/8" (8mm) to 3.1/2" (62mm) • Top slide with "T" slot • Chip pan • Splash guard up to 80" (2000mm) between centers • Coolant system • Thread cutting indicator • Adjustable feed shaft overload protection device • Spindle reduction sleeve 1:20 x MT 5 • Two MT 5 hardened centers • Graduated Quill (Inch/Metric) • Manual lubrication pump • Service wrenches • Left side apron handwheel • Dual reading Inch/Metric dials • Five positions turret stop device • Color: Green Ral-6011 • Set of levelling screws • Change gears • Complete electrical equipment for 220V or 440V, 60Hz (110V-Control) • Operating and parts manual.

### CHARACTERISTICS AND OPTIONAL EQUIPMENT

- Lighting system • Four independent jaw chuck Ø 17.5/16" (440mm) • Faceplate Ø 16" (405mm) • Driving plate Ø 10" (250mm) • Three jaw universal chuck Ø 10" (254mm) • Rear tool post • Collet chuck • Quick change tool holder • Taper turning attachment [capacity 10° x 15.3/4" (10° x 400mm)] • Hydraulic tracer unit • Splash guard • Bed with gap • Four way turret tool post • Other equipment on special request.