

# / PLEK STATION PERFORMANCE

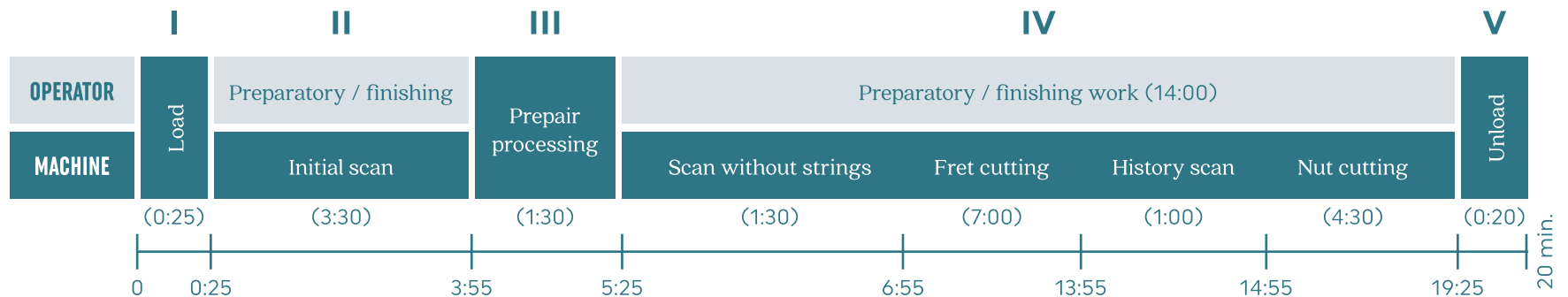
Generally, the performance of the Plek Station depends on various factors, such as the type of use, number of frets and strings, amount of material to be removed, fingerboard dimensions and general condition of the instrument. In a typical repair shop, every guitar requires unique handling; instrument and customer data need to be entered, process data may need to be adjusted and work decisions need to be made individually. Used guitars typically cause longer process times due to worn out frets, unpredictable trussrods, etc. In production, machine cycle times can be optimized by using software templates for guitar and process data, special fixtures for recurring instrument models and by improved pre-production procedures.

Independent of the type of use, the main factors determining the cycle time are:

- Number of strings
- Neck width
- Number and width of frets, material hardness
- Accuracy of fretting and neck work
- Truss rod operation
- Size of nut and saddle blanks
- Amount of nut and fret material to be removed
- Operator skill level

## WORKFLOW EXAMPLE

Operator interaction is required only for loading/unloading instruments and setting work parameters. The machine operation time can be used for finishing and preparing instruments.



## CYCLE TIME EXAMPLES

**Preparatory work:** For machine processing the instrument has to be strung up to pitch.

**Finishing work:** Strings are loosened for polishing the frets which takes 1 to 5 minutes if a Plek recommended procedure is used.

	AVERAGE PROCESS TIMES	REPAIR SHOP (min:sec)	SMALL PRODUCTION (min:sec)	
I	Loading a guitar	0:25	0:25	<b>TOTAL PREPARATION AND SCANNING</b> 7:00 – 9:00 min. Repair shop 4:00 – 6:00 min. Small Production It takes 4-9 minutes to have a complete graphic and numeric evaluation of the fretboard at your disposal: scale length, relief, fret positions, fret heights, nut data, and saddle height.
	Data entry / Load template	2:30	0:15	
II	Initial scan / Checking number of frets / Spacing measurement: neck width, spacing, action / Fret scan	3:30	3:30	
	<i>Optional: Truss rod adjustment and rescan</i>	2:00	2:00	
III	Setting parameters (Virtual Fret Dress) / Automated Virtual Fret Dress adjustment	0:30	0:00	
	Loosening strings	1:30	1:30	
	Scan (without strings)	1:30	1:30	
IV	Fret cutting <i>Typical processing times range from ~ 6:00 to ~ 12:00 min.</i>	9:00	7:00	<b>NUT WORK</b> 4:30 min.
	History Scan	1:00	1:00	
	Nut surface cutting	2:40	2:40	
	Nut string slot cutting	1:50	1:50	
	<i>Restrunging and tuning</i>	1:30	1:30	
V	<i>Optional: Rescan</i>	3:30	3:30	<b>RESCAN FOR QC (optional)</b> 3:00 – 5:00 min. (1:20 w/out nut/saddle work)
	Unload guitar	0:20	0:20	

	AVERAGE PROCESS TIMES - SUMMARY	REPAIR SHOP (min:sec)	SMALL PRODUCTION (min:sec)
	Fret cutting only (without optional scans)	19:00	15:00
	Fret and nut cutting only (without optional scans)	24:00	19:00
	Complete (including all optional scans)	29:00	24:00

