



Back to Basics: A Framework for Leather Manufacture

Richard Daniels and Walter Landmann

Dry, flat and extended leathers: Part 4

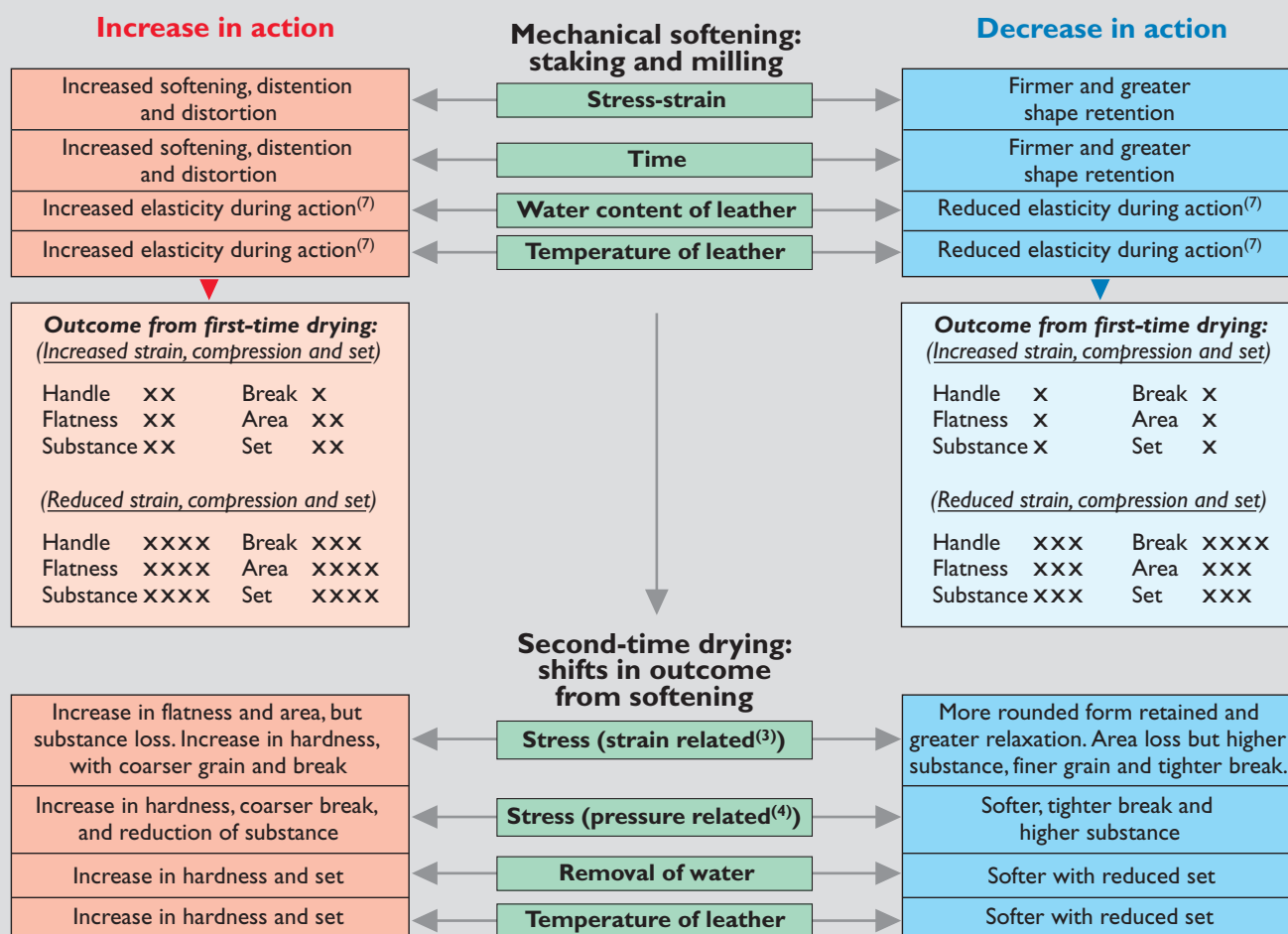
From the wet state to dry pre-finished condition

Panel E17/12: The reconfiguration of leather structure and characteristics





Panel E17/12 continued



Actions after Second-time drying

Re-staking and Milling: Causes a shift towards higher rating values, but generally a lower rating for break.
Vacuum drying or Plating: Causes a shift towards lower rating values, but generally a higher value for break.

Ratings for Mechanical Softening: Staking and Milling				
Rating	X	XX	XXX	XXXX
Handle	Hard	<	>	Soft
Break	Coarse	<	>	Fine
Flatness	High	<	>	Poor
Area	Gain	<	>	Loss
Substance	Loss	<	>	Gain
Set	High	<	>	Low

Note: These ratings assume good working practice, and indicate shifts in outcome from the preceding operation. These shifts will range from small to very significant, but apply to all types of leathers. Break characteristics are very sensitive, and in practice contradictions will be found.

Information relating to actions

- (1) Stress applied as pressure in staking.
- (2) Stress applied as pressure for setting.
- (3) Stress applied to cause strain. From extreme (toggling) to stress-free (suspension drying).
- (4) Stress applied as compression if vacuum drying.
- (5) Additional stress from restraint of shrinkage and realignment of fibre structure. From extreme (toggling) to stress-free (suspension drying).
- (6) Conditioning also enables a greater uniformity of moisture content across each piece.
- (7) Increased elasticity also provides better grain protection against applied force.