Table 1: Experimental variables

Description	Symbol	Units
Axial contact force	F_c	$[MLT^{-2}]$
Rate of volume average plastic dissipation	$\dot{\Phi}_c$	$[ML^{-1}T^{-3}]$
Length of cap past piston	l_c	$[L]$
Diameter of cap	d_c	$[L]$
Density of cap	ρ_c	$[ML^{-3}]$
Young's modulus of cap	E_c	$[ML^{-1}T^{-2}]$
Yield stress of cap	σ_{yc}	$[ML^{-1}T^{-2}]$
Length of piston	l_p	$[L]$
Diameter of piston	d_p	$[L]$
Density of piston	ρ_p	$[ML^{-3}]$
Young's modulus of piston	E_p	$[ML^{-1}T^{-2}]$
Length of transition piece	l_p	$[L]$
Diameter change of transition piece	d_p	$[L]$
Density of transition piece	ρ_p	$[ML^{-3}]$
Young's modulus of transition piece	E_p	$[ML^{-1}T^{-2}]$
Pressure difference	ΔP	$[ML^{-1}T^{-2}]$
Velocity	v	$[LT^{-1}]$
Distance of cap past taper	x_t	$[L]$
Rate of volume average plastic dissipation	Φ_c	$[ML^{-1}T^{-2}]$
Cap-on-steel CoF	μ_{cs}	$[]$
Steel-on-steel CoF	μ_{ss}	$[]$
Aluminium-on-steel CoF	μ_{as}	$[]$