

Chrome plated steel casting drums

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Chrome plated steel casting drums would seem to be very durable dancers, and, if used in the absence of a nip roll, will last for many years. Surprisingly, these rolls are in fact very soft due to the annealing which good rolls receive for stress relief. In several instances in my career, we have had the situation where a casting drum has been coupled with a steel chill roll used to nip polish a cast web. In all instances, the casting drum was imprinted by hard polymer edges or die drips. This is because the compressive stresses in a solid polymer passing through the nip will exceed the yield strength of the soft steel drum surface. Higher line speeds make the problem worse. In order to prevent this damage, the roll surfaces must be hardened.

- E. M. Mount III Mobil

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