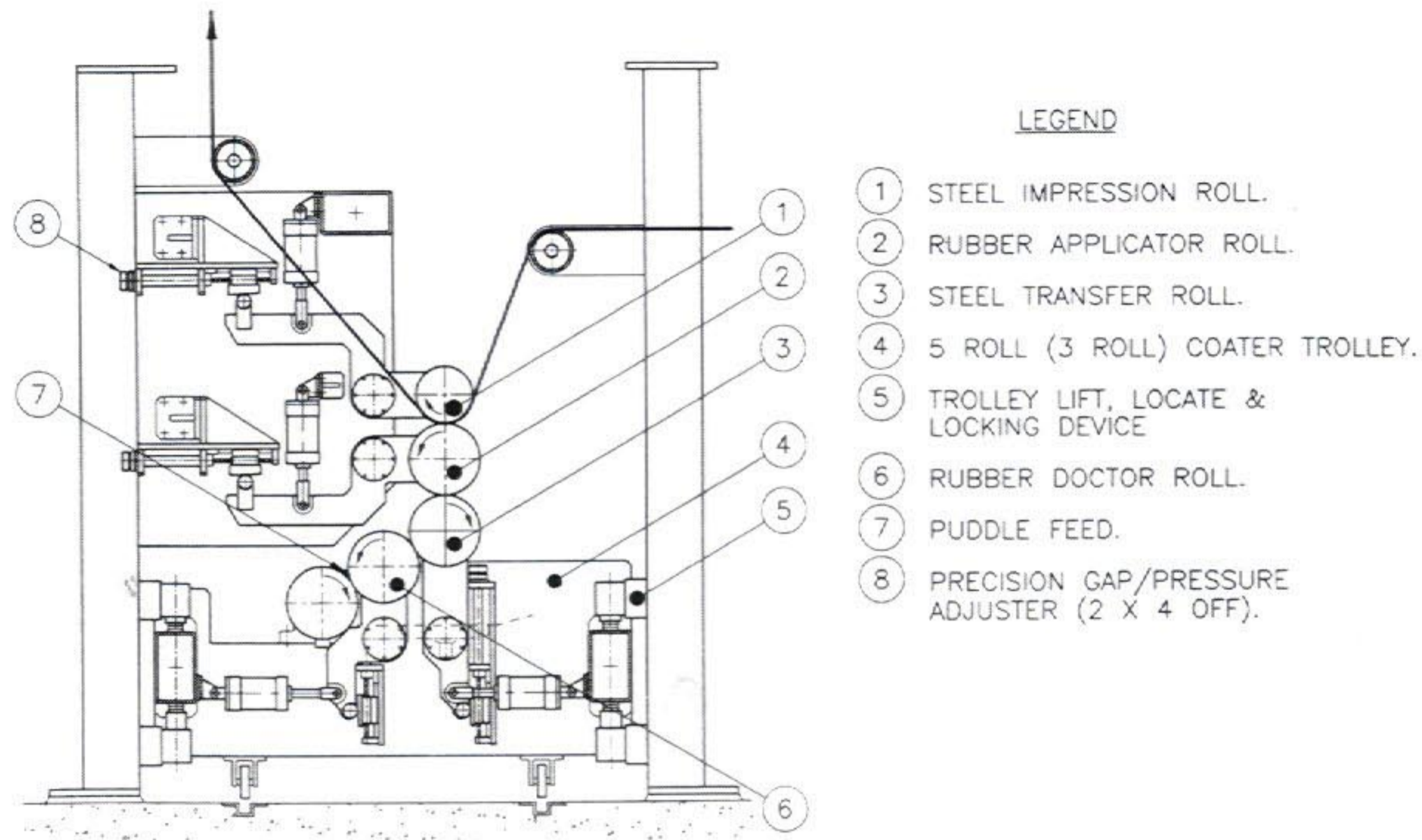


DELPRO COATERS - MULTI ROLL FILM SPLITTING COATERS



OUTLINE DRAWING OF MULTI-ROLL FILM SPLITTING COATER

Construction & Function

Delpro five roll coaters provide a specific solution to a specific problem - the application of very fine, but continuous and controlled coatings. The construction involves a series of precision ground, rubber and steel rolls with precision adjusters, and each with its own individual electronic drive. This construction is the most costly of our range, if considered as a coater alone. If however, considered in relation to the additional profits released by the very low coat weights available, then a highly cost effective system is revealed.

Unlike most other methods, these coaters do not depend upon gravure cell depth, wire gauge or gap setting for coat weight metering and control, but upon the ancient art of film splitting. This has been the mainstay of lithographic printers for centuries and of letterpress printers to this day. It has fallen to Delpro engineers to present this method bereft of its ancient art, in the clothes of modern technology, suited to high speed and continuous production.

The principle is simple; if two rolls, having liquid films spread upon them run together and part, the film upon the first will be added to the film upon the second and divided equally between them. Thus, in a train of rolls as above, if the film thickness upon the first and second rolls is (say) 5μ that upon subsequent rolls will be approximately 3.13μ and 1.96μ and upon the substrate, $(1.96/2)$ or $\sim 1\mu$. Deducted from this, the differential speed between the rolls can easily be set to divide the coat weight again, making a film thickness of 0.25μ (0.3gsm) a realistic target. It will be seen that such coating weights or thickness are quite beyond the capabilities of a pair of steel rolls, having a joint 'run-out' of $>2\mu$. For these reasons, multi-roll film splitting is almost unique, but in practice is restricted to the coat weight range of 0.3 to 2.0gsm . The method is particularly suited to solvent-less silicone and polyurethane curing systems, for pressure sensitive release and packaging film laminates.

Delpro coaters; **Solving profit problems.**

Specification for "Delpro" Substrate Metering Coaters

SPECIFICATION

Wet Coat Weight Range	0.3 - 2.0 gsm	
Solids Content of Wet Coating	Normally 100% - 35% TS	
Web Speed: Range	Generally 50-250m/min	
Substrates	Film 5μ - 100μ	Paper 40 - 100gsm Glassine finish

Performance, illustrations and descriptions are typical, not specific, subject to change without notice as a result of continuing development.

Delpro

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