

# System comparison with screen roller application

chamber doctor blade with negative set metering blade in 3 o'clock or 9 o'clock position, T-Blade		conventional low pressure coating with direct or reverse running screen roller		chamber doctor blade with positive set metering blade in 3 o'clock or 9 o'clock position MG 300/900		chamber doctor blade with positive or negative adjustable metering blade in 6 o'clock position on the screen roller. MPG 600 CI	
hexagonal screen roller		hexagonal screen roller		hexagonal screen roller		hexagonal screen roller	
stable production speed							
800 m/min		400 m/min		600 m/min		1,500 m/min	
dry coating weight							
0.1 - 15 g/m <sup>2</sup>		0.1 - 50 g/m <sup>2</sup>		0.1 - 50 g/m <sup>2</sup>		0.1 - 200 g/m <sup>2</sup>	
maximum dynamic viscosity							
ca. 500 mPas		500 mPas		500 mPas		2,000 mPas	
application variance without screen roller change							
very little only through screen roller speed		very little only through screen roller speed and blade impression		very little only through screen roller speed and blade impression		40 to 200 % through chamber pressure adjustment	
change from direct to reverse run in screen roll							
turn trolley downtime approx. 15 min.		turn trolley downtime approx. 15 min.		turn trolley downtime approx. 15 min.		turn inner blade (patented), downtime approx. 2 min.	
temperability (cooling/heating of compound plate)							
no		yes, with double-walled pan		no		yes, with MPG chamber	
oscillation							
no		with oscillating blade		by means of complete chamber		by means of complete chamber	
quick blade change without flushing from chamber/pan of compound							
no		yes		yes		yes	
compound in pan/chamber per meter							
approx. 7 l		approx. 20 - 40 l		approx. 7 l		approx. 5 l	
danger of solvent evaporation on the pan/chamber							
none		very great		none		none	
danger of solvent evaporation before transfer							
low to high (depending on time/distance)		very low		very low		low	
likelihood of foam and air bubble development (H <sub>2</sub> O compounds)							
low		great		low		very low	
sedimentation of pigmented dispersions							
medium		great		medium		small	
cleaning effort							
low self-cleaning possible		high because of pan		low self-cleaning possible		low self-cleaning possible	
user-friendly/maintenance							
good		good		good		good	
wastage effort without chamber doctor blade							
edge seals		none		edge seals		edge seals	
cost							
100 %		100 %		120 %		150 - 180 % depending on design	