

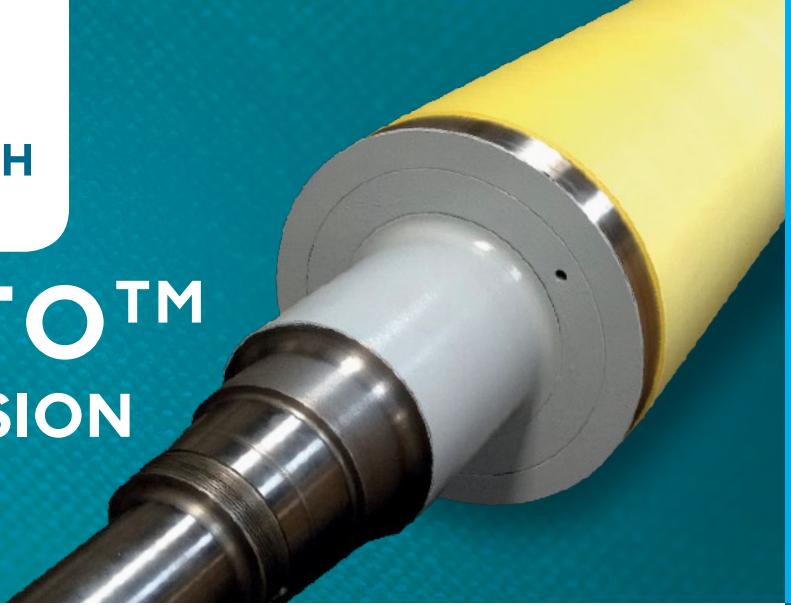


RICHARD HOUGH

British Heritage & Innovation

ROBERTO™

HIGH EXPRESSION SQUEEZING ROLLERS



ROBERTO™

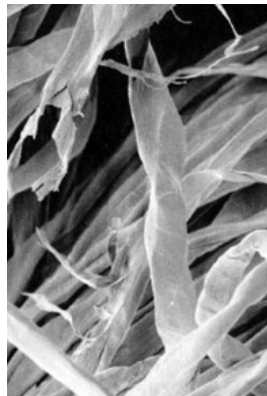
Exclusively manufactured by Richard Hough Limited, Roberto™ rolls are a high performance replacement for conventional rubber or PU squeezing rolls, with significantly improved expression and greatly improved service life over rubber and PU.

APPLICATIONS

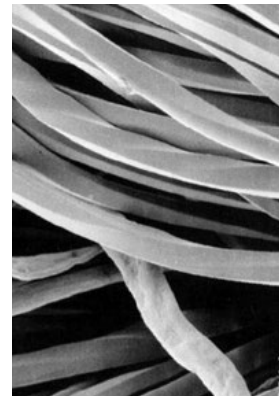
- High efficiency liquid extraction from woven, knitted and non-woven fabrics
- High efficiency liquid extraction from loose stock fibres - e.g. Rayon 'after-treatment' lines

CONSTRUCTION

Roberto™ fibre rolls are constructed from high-grade steel centre shafts with steel or stainless steel end plates which retain a highly compressed micro-porous fibre cover of mixed fibres coated with a synthetic binder material. A range of Roberto™ materials is available to suit various textile industry applications.



▲ Fabric squeezed by high-expression rubber roller (1000X magnification)



▲ Fabric squeezed using a Roberto™ roll (1000X magnification)

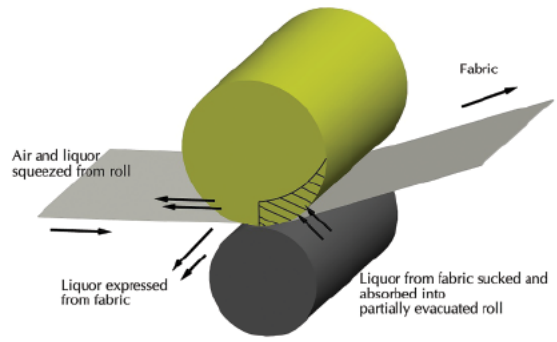
Roberto™ roll covers are composed of a fibre based matrix with a porous surface and interior. The fibres are bonded together mechanically and by thermal and chemical treatment. The cover has about 40% void volume (small interconnected cavities). The resilience of the fibres and the elastic characteristics of the binding system ensure the porous/open structure has a high degree of flexibility, elasticity and strength.

TEXTILE FINISHING



PERFORMANCE

Roberto's™ outstanding squeezing performance is achieved through a combination of the squeezing action and powerful capillary suction. As the fabric enters the nip, excess liquid is removed by squeezing, and immediately after the nip extra liquid is sucked into the Roberto™ roll, resulting in an increased squeezing performance of 20-50% compared to conventional rubber and PU rolls.



BENEFITS

- Excellent squeezing performance due to combined squeezing and capillary suction effect (20-50% increase compared to rubber and PU)
- Higher speeds of drying are attainable
- Roberto™ rolls enable significant energy consumption savings (up to 40%)
- Rapid pay-back of investment – initial outlay can be offset by energy savings in only a few months
- Specially developed for resistance to most processing chemicals
- Gentler squeezing action due to extreme resiliency, compared to hard rolls which can damage the fibre construction of fabrics
- Roberto™ rolls can be used to replace other types of squeezing rolls and can be run together with metal, ebonite or hard rubber rolls
- Roberto™ rolls can be reground many more times than conventional squeezing rolls due to the thickness of the cover material, leading to significantly increased roll life

EXPRESSION RESULTS

The expression results illustrated below were achieved at 50m/minute, 54kg/cm load, and at 20°C

Fabric type	Roberto	Hard rubber 95A	Roberto vs rubber % increase
100% Cotton (<i>Knitted</i>)	36%	49%	27% ▲
100% Cotton (<i>Knitted-Terry</i>)	35%	49%	29% ▲
100% Wool (<i>Woven</i>)	40%	50%	20% ▲
Poly Cotton (<i>60/40</i>)	36%	48%	25% ▲
100% Polyester (<i>Knitted</i>)	33%	48%	31% ▲
100% Cotton (<i>Towelling</i>)	37%	49%	24% ▲
100% Cotton (<i>120g/m2</i>)	32%	47%	32% ▲
100% Cotton (<i>200g/m2</i>)	31%	46%	33% ▲
100% Cotton (<i>70g/m2</i>)	34%	56%	29% ▲
Brushed Acrylic	40%	76%	47% ▲
Micro Fibre	32%	50%	36% ▲
Wool/Polyester (<i>45/55</i>)	34%	48%	29% ▲

Note: Richard Hough Ltd can carry out expression tests on customer's fabric samples as required.