Rollepaal
Pipe Extrusion Technology

Multi-Layer Die-Heads

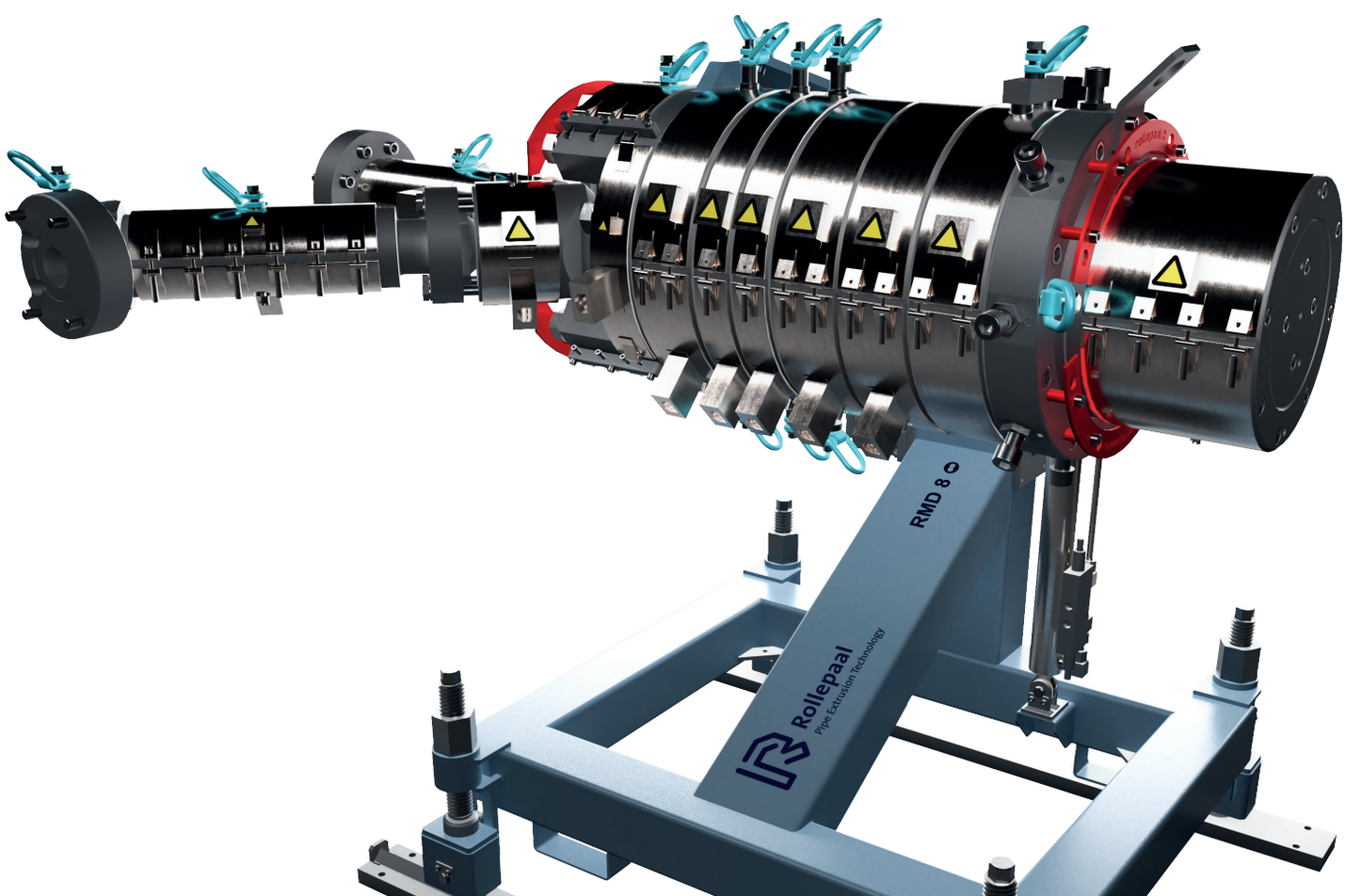
Market-Leading Skin-Core Ratios with Controlled Layer Stability

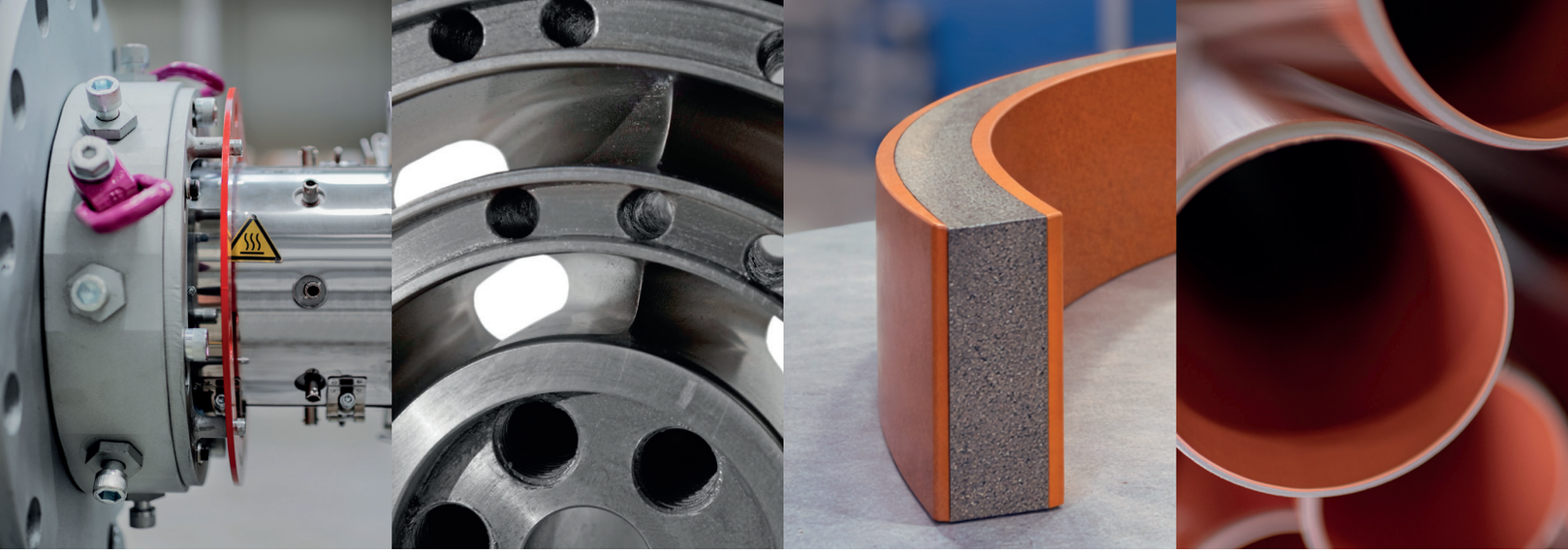
Up to 70%
Virgin Material Savings

3-7%
Material Savings Through Precise Layer Control

Since 1988
Unique Branching Technology

In multi-layer pipe extrusion, profitability comes from using less premium material in the inner and outer layers while safely maximizing lower-cost core material. Rollepaal's multi-layer die heads combine branching technology with controlled layer recombination to deliver stable, market-leading skin-core ratios without compromising dimensional accuracy or weld integrity.





Branching Flow for Balanced Layer Distribution

Balanced melt flow is essential for stable multi-layer performance. Branching technology splits and balances melt flow symmetrically and stabilizes distribution before layer recombination.

- Reduces sensitivity to viscosity variation
- Maintains uniform wall distribution across layers

Balanced flow enables controlled and consistent core integration.

Market-Leading Skin-Core Ratios

Material efficiency depends on precise control of layer distribution. Balanced layer distribution enables:

- Higher core material percentages without instability
- Reduced outer-layer overcompensation
- Accurate and stable layer thickness ratios
- Controlled use of recycled or lower-cost materials

More core. Less premium skin. Controlled performance.

Compact Multi-Channel Design

To maintain stable multi-layer extrusion, the compact design:

- Minimizes internal melt volume
- Shortens residence time
- Limits thermal stress across different materials

Stable thermal conditions support consistent layer adhesion and surface quality.

Operational Impact

- Stable layer thickness ratios
- Reduced sensitivity to material viscosity differences
- Predictable multi-layer performance at higher output

Financial Impact

- Lower use of premium outer-layer material
- Higher controlled core material integration
- Reduced material cost per meter

Perfect Circumference Distribution

Engineered recombination section maintains accurate and stable skin-core ratios.

Branching Layer Distribution

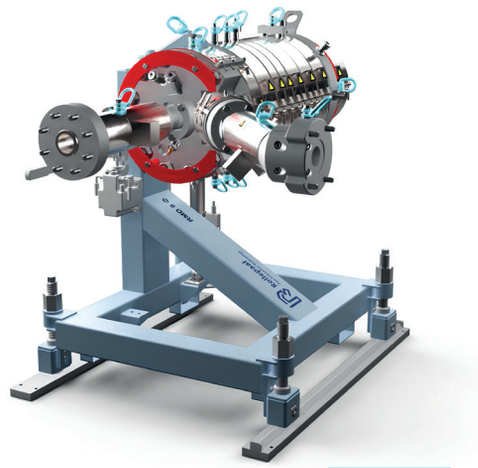
Balanced melt flow paths ensure symmetrical layer thickness around the circumference.

Smart Centering

Tool changes cause minimal scrap without new die recentering.

Multi-Layer Die-Head Range

Ø = inch			2		4	6	8	10	12	16	20	24	32
Ø = mm	**20**	**32**	**60**	**85**	**110**	**160**	**200**	**250**	**315**	**400**	**500**	**630**	**800**
RMD 4	■	■	■	■	■	■							
RMD 6/7		■	■	■	■	■	■						
RMD 8			■	■	■	■	■	■					
RMD 12				■	■	■	■	■	■				
RMD 16					■	■	■	■	■	■			
RMD 20						■	■	■	■	■	■		
RMD 24							■	■	■	■	■	■	
RMD 32									■	■	■	■	■



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Scan the QR code or visit
rollepaal.com/multi-layer-die-heads