



Esterlam

Advanced Doctor Blade Technology



Esterlam

Advanced Doctor Blade Technology

History of Esterlam

- Don Hailey develops first synthetic doctor blade in early 1970's
- Esterlam blades developed for mirror finish chrome rollers
- Blades coat magnetic media audio, video & computer devices
- New industries create new challenges - Esterlam resolve these
- Esterlam work with OEM's & corporates on coating development
- Esterlam help develop new battery & new energy storage
- Mobile phone and communication technology
- Esterlam used to produce tech for EV's, Aerospace & military
- RFID tag and security technology



Esterlam today

- Years of knowledge & experience - please feel free to use it
- Continual investment in new materials - we're always looking
- Work closely with many OEM's on holder & machine designs
- Investment in technical & production personnel
- Work closely with academia on new development projects
- Work with industry associations on sharing knowledge
- Full blade & system analysis to help improve production
- Free technical support & sampling service



Li-On components

- Used in production of films used as separator membrane
- Coating ceramic to separator membrane - micro gravure
- Coating graphite to foils in anode/cathode production
- Components for Energy harvesting & storage units
- Components for Aerospace & marine technology
- Components for military applications
- RFID tag and security
- Mobile phone and communication technology

Different processes used

- Enclosed chamber system - Flexo process.

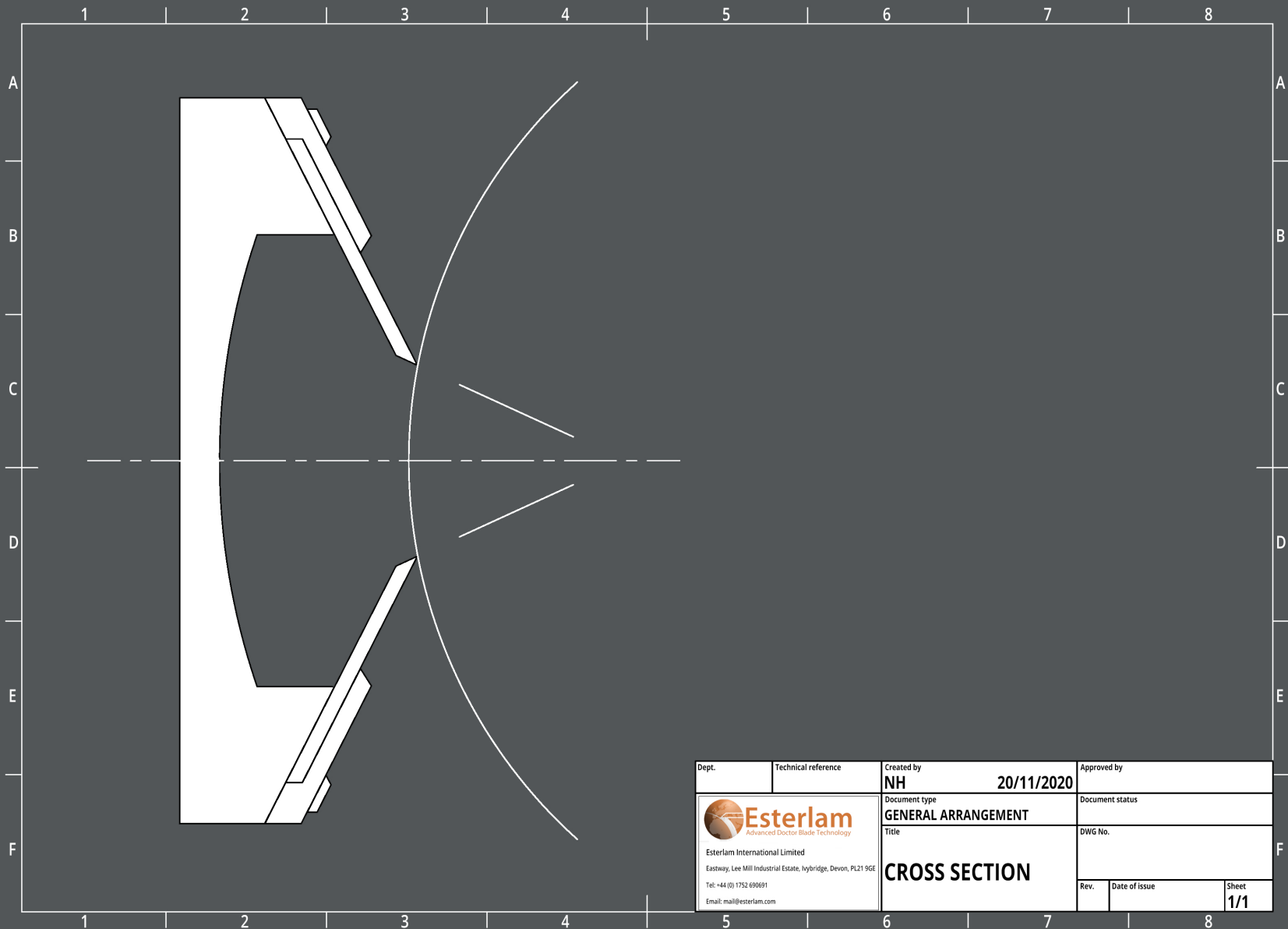
Utilises an enclosed chamber to prevent solvent emissions, premature drying of coating & prevents dust contamination


- Single reverse angle blade system - Flexo process.

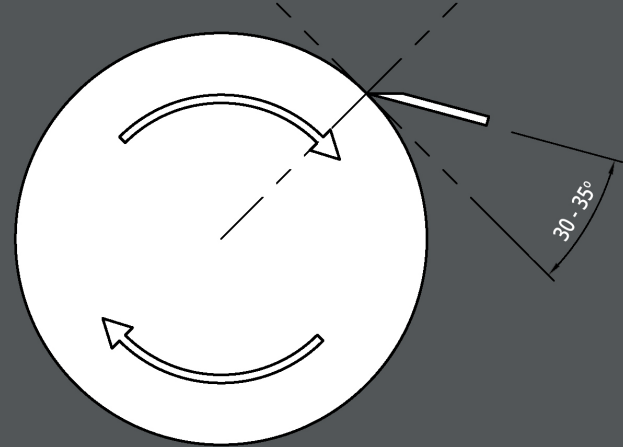
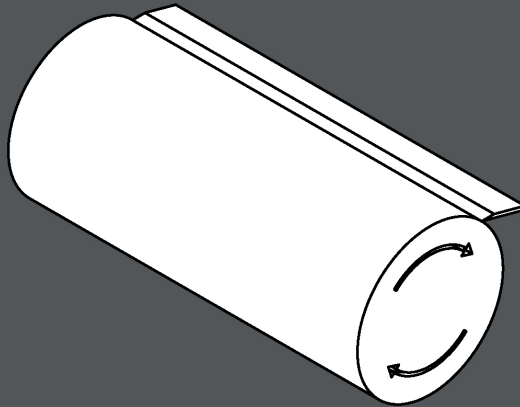
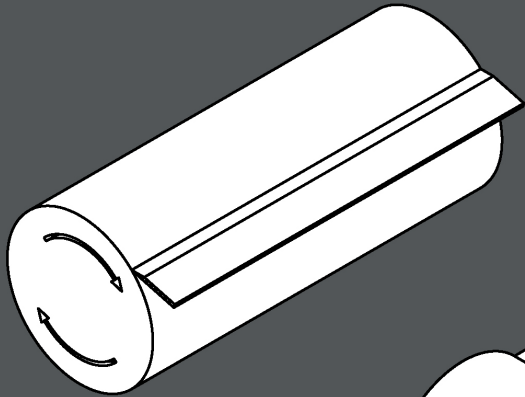
Single blade & tray - Blade chisels coating/ink off roller surface. Optimum blade angle is 30-35 degrees.


- Single trailing blade system - Gravure process.

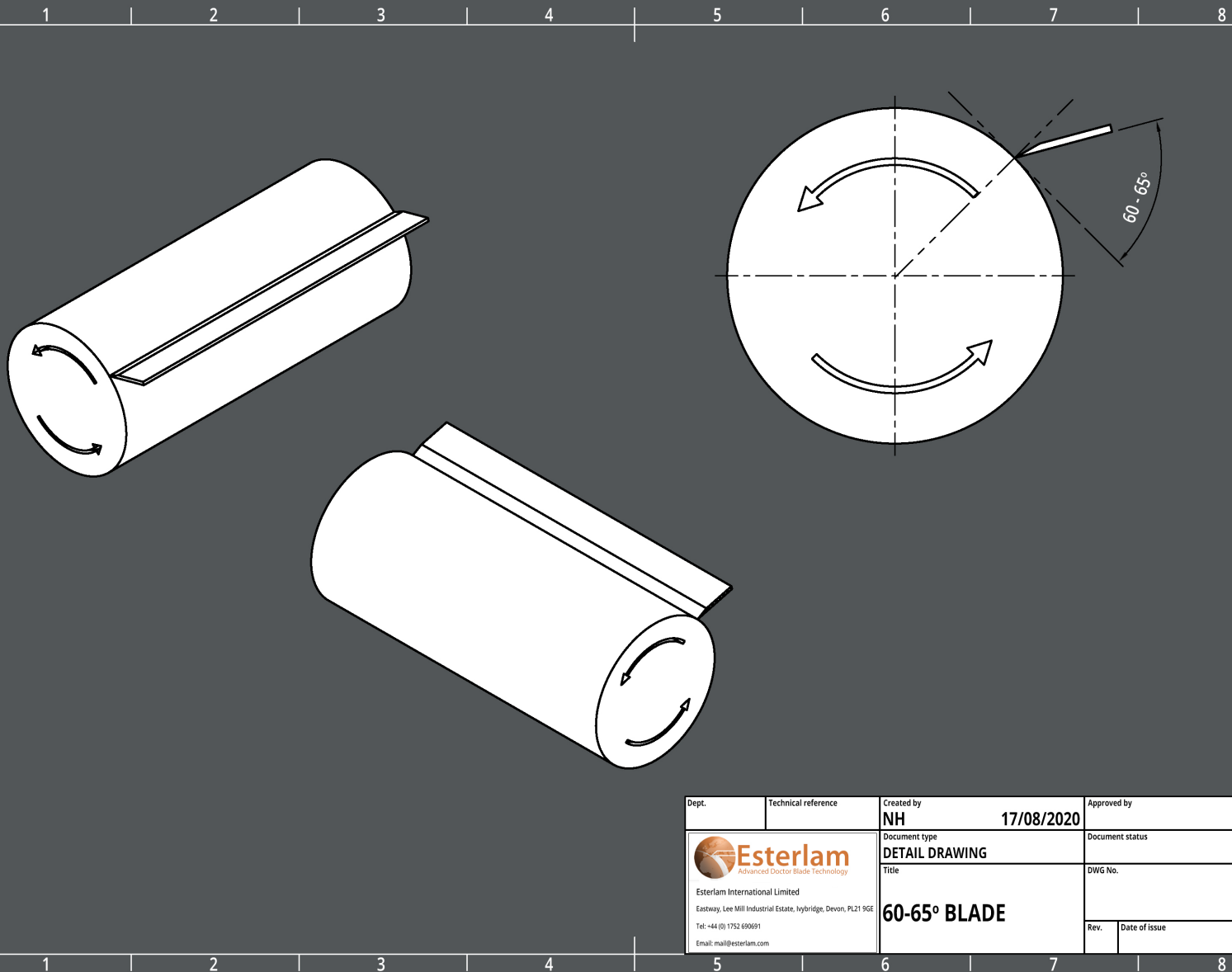
Single blade & tray - Blade drags ink off roller surface. Optimum blade angle is 60-65 degrees. Sometimes requires back support




Dept.	Technical reference	Created by NH	20/11/2020		Approved by
 Esterlam <i>Advanced Doctor Blade Technology</i> Esterlam International Limited Eastway, Lee Mill Industrial Estate, Hybridge, Devon, PL21 9GE Tel: +44 (0) 1752 690691 Email: mail@esterlam.com		Document type GENERAL ARRANGEMENT	Document status		
		Title CROSS SECTION	DWG No.		
			Rev.	Date of issue	Sheet 1/1



Dept.	Technical reference	Created by NH	17/08/2020	Approved by
 Esterlam Advanced Doctor Blade Technology Esterlam International Limited Eastway, Lee Mill Industrial Estate, Ivybridge, Devon, PL21 9GE Tel: +44 (0) 1752 690691 Email: mail@esterlam.com		Document type DETAIL DRAWING	Document status	
		Title 30-35° BLADE	DWG No.	
		Rev.	Date of issue	Sheet 1/1



Dept.	Technical reference	Created by NH	17/08/2020	Approved by
 Esterlam Advanced Doctor Blade Technology Esterlam International Limited Eastway, Lee Mill Industrial Estate, Ivybridge, Devon, PL21 9GE Tel: +44 (0) 1752 690691 Email: mail@esterlam.com		Document type DETAIL DRAWING	Document status	
		Title 60-65° BLADE	DWG No.	
		Rev.	Date of issue	Sheet 1/1



Esterlam

Advanced Doctor Blade Technology