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Innovative chemical solutions.



# Presentation Highlights

STARCHEM LLC.

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PART 1  
History

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PART 2  
Markets

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PART 3  
Product Portfolio

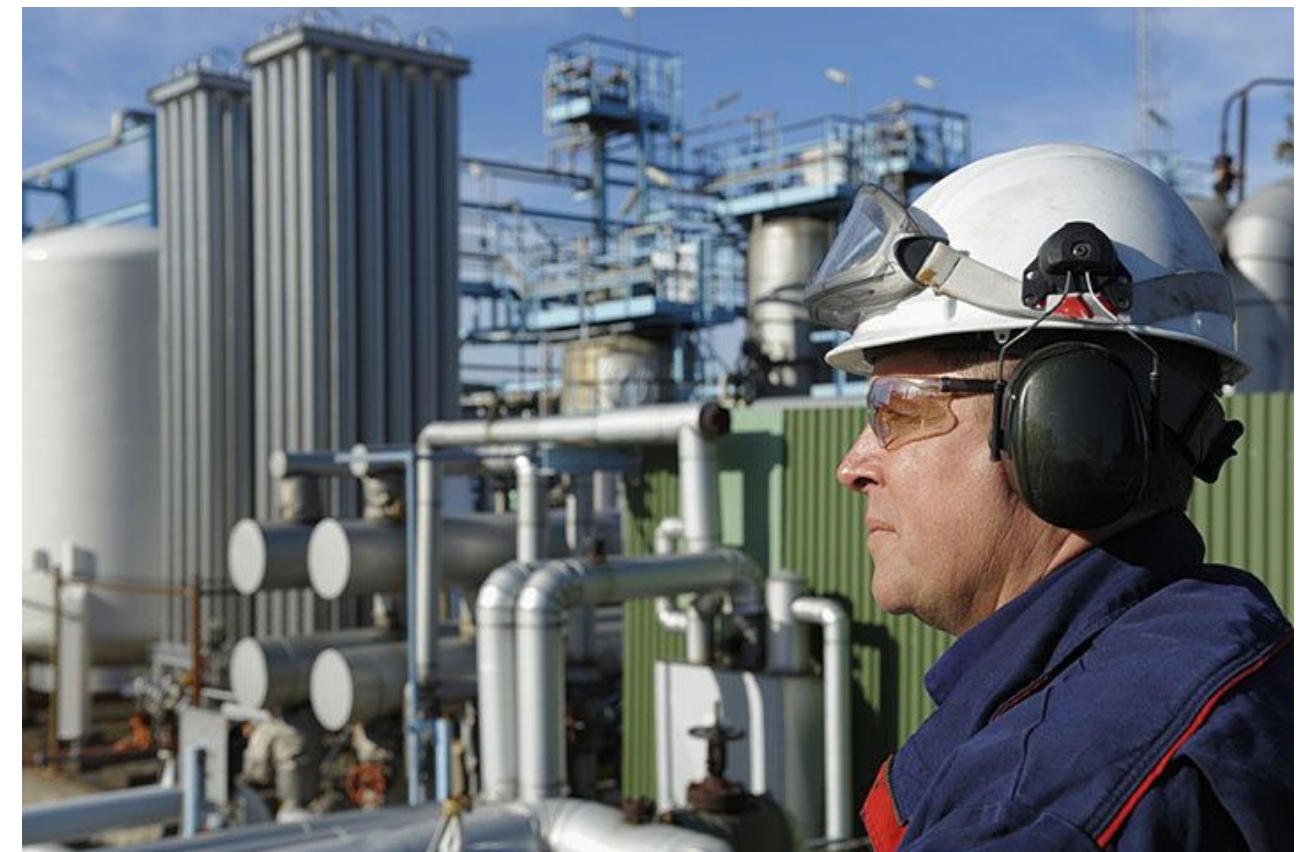
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PART 4  
Capabilities

# About our Company

President: Peter Chetcuti

- Surfactants, Silicones and Specialty Chemicals
- Textiles, Oil & Gas, Consumer Care, Chemical Intermediates





# Our Locations

## PRODUCTION SITES

- Wellford, SC, USA
- Choloma Cortes, Honduras
- Medellin, Colombia

## WAREHOUSE & BLENDING

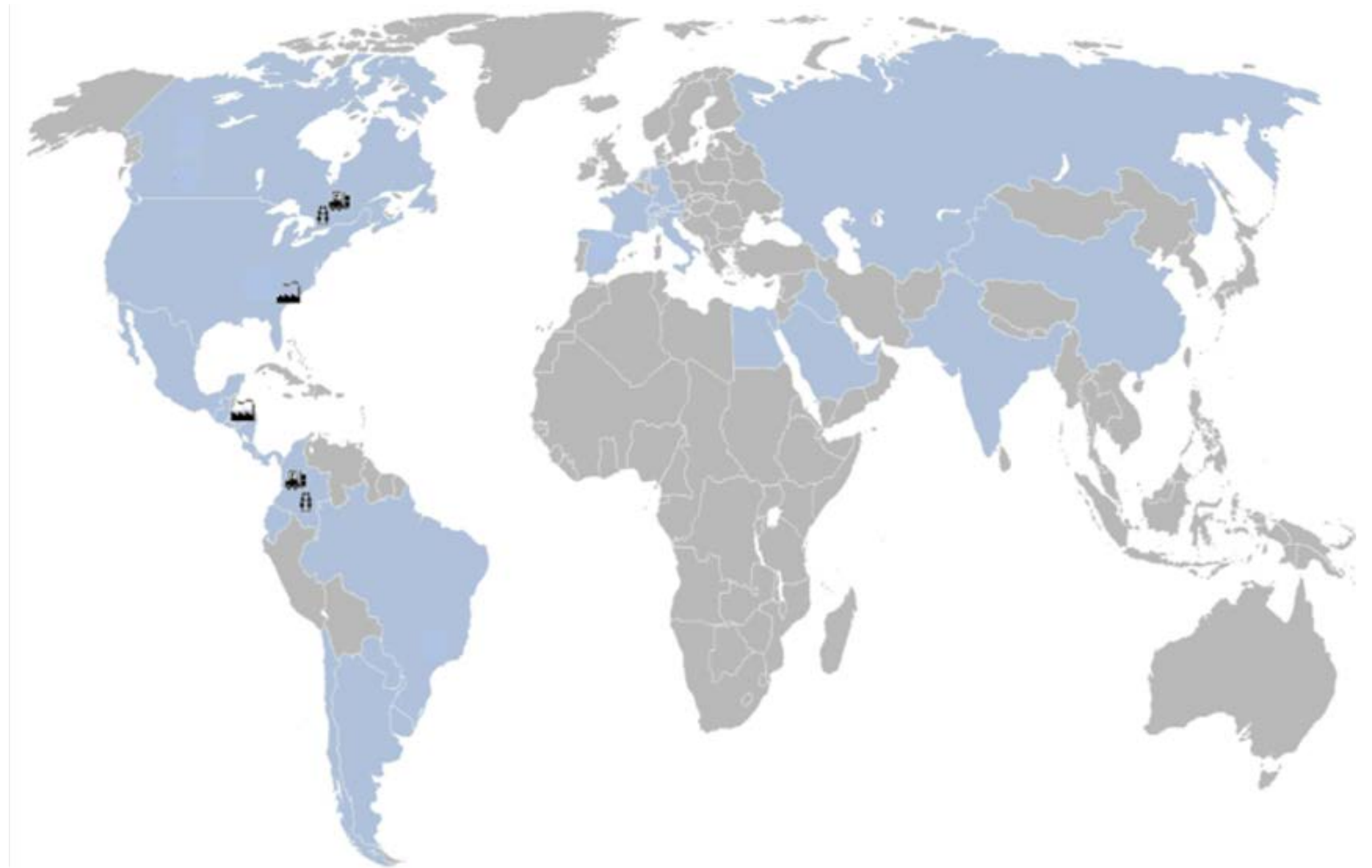
- Wellford, SC, USA
- Choloma Cortes, Honduras
- Medellin, Colombia

## SALES OFFICES

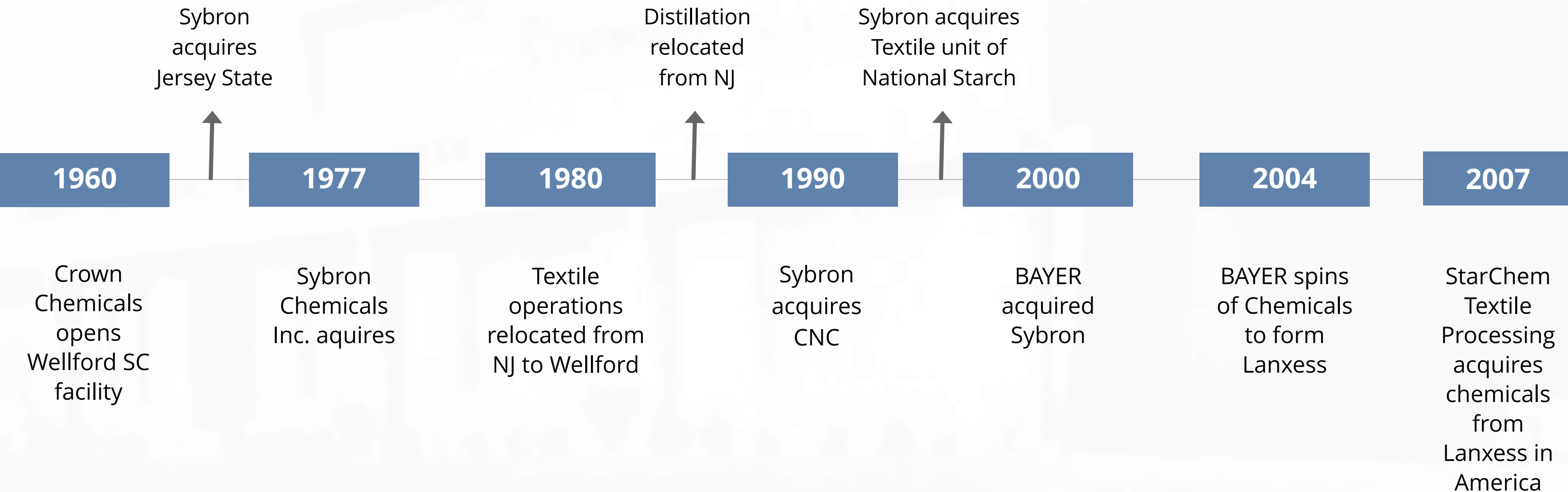
- Wellford, SC, USA
- Toronto, ON
- Choloma Cortes, Honduras
- Medellin, Colombia

## SALES

- Americas, Europe
- Middle East, Africa
- Asia



# StarChem History



# Business Overview 2020

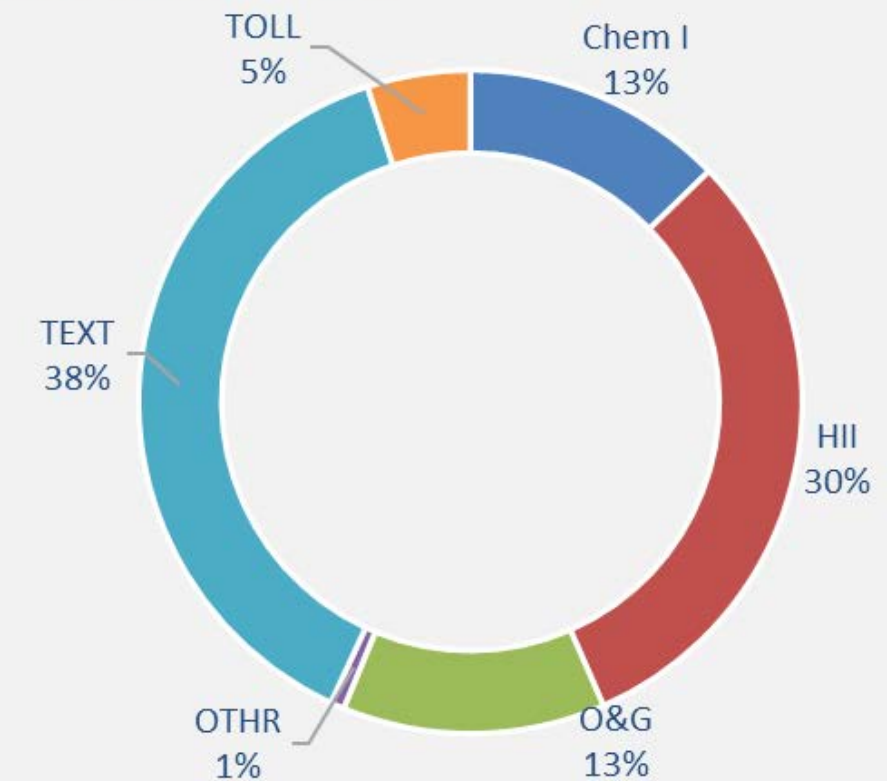
## Markets

- Textiles & Nonwovens
- Oil & Gas
- Consumer Care (HI&I / Personal Care)
- Chemical Intermediates
- Tolling & Custom Manufacture

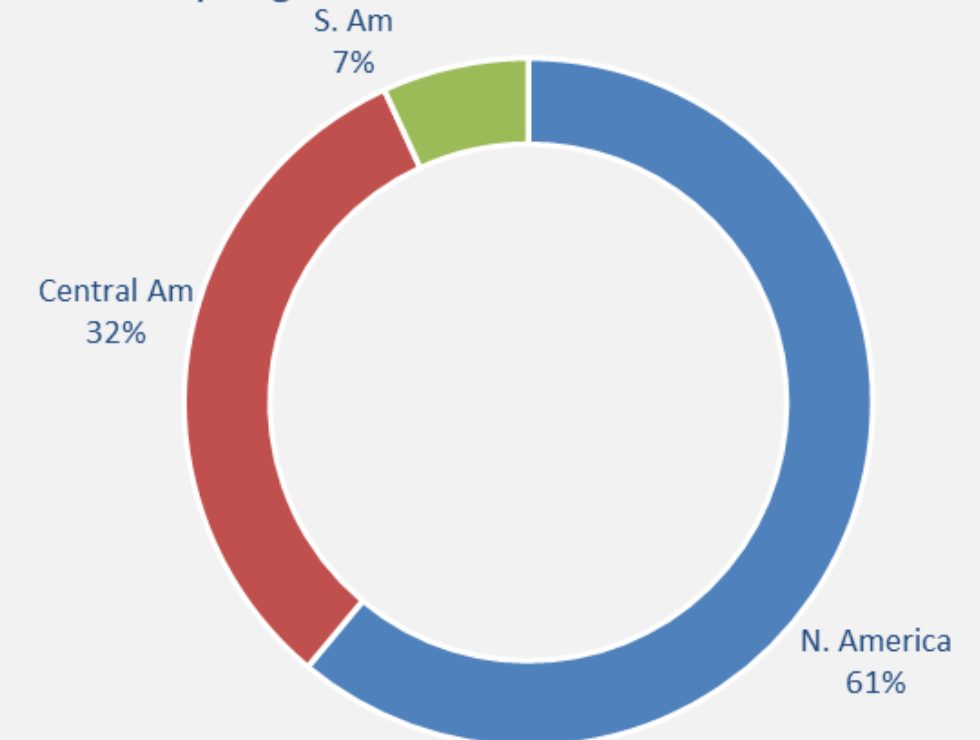
## Production Technologies

- Quaternization
- High Temperature/Pressure Wax Emulsion
- Silicon Emulsion
- Amino Silicon Production
- High Temperature Esterification & Imidization
- Ethylene Diamine/Urea Adducts
- Mix Blinding Capabilities
- Homogenization
- Flaking Capabilities

Revenues by Market 2021



Revenues by Region 2021







## Chemistry Groups

- Quaternary Compounds (Alkyl Pyridine-, BzCl-, MeCl-, Silane-, Sulfate- and other Quats)
- Imidazolines
- Triazine Derivatives
- Amphoteric (Betaines, Hydroxysultaines, and Amine Oxides)
- Anionic Surfactants (Sulfonates, Phosphates)
- Alkyl Ether Sulfates
- Siloxanes, organo-modified Siloxanes and Siloxane Emulsions
- Foam Control (Silicone and non-silicone, Mineral Oil, Polymeric)
- PEG Esters, Fatty Amides and Specialty Esters
- Ethylene Urea & Specialty Additives
- Wax Emulsions - (Polypropylene, Polyethylene, Paraffin, and Stearylated Melamine)
- Range of Proprietary Textile products



# Wellford - Manufacturing Site

- Site Located on .....
- On site Water Treatment
- Rail Shipment Capabilities
- Batch Manufacture
- Gas Flaring Capabilities
- On Site QC & Product Development
- Class 1 Div 2 Manufacturing Site
- StarChem's Corporate HQ
- R&D Group and Formulation Lab
- Management Team







# Wellford - Production Capability

## **23 VESSELS (VOLUMES RANGING 50 – 6,000 GALLONS)**

- 13 vessels non-pressure reactors
- 10 stainless steel pressure reactors
  - Most reactors equipped with condensers and receivers
  - 1 glass lined pressure reactor (4,000 gal)
  - 2 stainless steel pressure reactors equipped with hot oil

## **2 PILOT PLANT VESSELS**

- 1 GL Reactor/ 1 SS Reactor

## **DRUM FLAKER**







# StarChem manufacturing facility - Wellford, South Carolina



## Wellford Processing Equipment

Reactor Room

Agitation

Auxiliary Equipment

Confidential

Equipment ID	Capacity (gal)	Mat. of Const.	Design Pressure	HP	RPM	Heat Source	Cooling Source	Condenser	Receiver	Vacuum	Pollut. Ctrl.	Other
RV1301	800	316SS	FV / 200 psig	None	None	STEAM	Cooling Tower	None	None	Yes	None	
RV1302	4000	316SS	FV / 200 psig	40	0-125 VFD	STEAM	Cooling Tower	None	None	None	Yes	APACS
RV303	4000	316LSSCLD	FV / 300 psig	20	O-68 VFD	STEAM	Cooling Tower	Yes	Yes	Yes	Yes	APACS
RV1304	2000	316LSS	FV / 75 psig	15	84	STEAM & HOT OIL	Cooling Tower	Yes	Yes	Yes	Yes	
RV1305	2000	304SS	Atmospheric	30	40-125	STEAM	Cooling Tower	None	None	None	None	Load cells
RV1306	6000	304SS	Atmospheric	40	28-84 VFD	STEAM	Cooling Tower	None	None	None	None	Load cells
RV1307	6000	304SS	Atmospheric	15	50	STEAM	Cooling Tower	None	None	None	None	Load cells
RV1308	3000	304SS	Atmospheric	25 / 60	0-34 / 0-1360	STEAM	Cooling Tower	None	None	None	Yes	APACS/Load cells
RV1312	2000	316SS	FV / 50 psig	25	0-120 VFD	STEAM	Cooling Tower	Yes	Yes	Yes	Yes	
RV1313	2000	316SS	FV / 50 psig	25	63-190	STEAM	Cooling Tower	Yes	Yes	Yes	Yes	APACS
RV1314	4000	GLASTEEL	FV / 100 psig	40	109	STEAM	Cooling Tower	Yes	Yes	Yes	yes	
RV1315	4000	GLASTEEL	FV / 100 psig	40	109	STEAM	Cooling Tower	Yes	Yes	Yes	Yes	APACS
RV1316	3000	347SSCLD	FV / 50 psig	15	68	HOT OIL	Cooling Tower	Yes	Yes	Yes	Yes	APACS/Dist. Column
RV1317	2500	304SSCLD	75 psig	75	24	HOT OIL	Cooling Tower	Yes	Yes	None	Yes	
RV1318	50	GLASTEEL	FV / 150 psig	2	0-225	STEAM	Cooling Tower	Yes	Yes	Yes	None	
RV1319	100	316SS	FV / 100 psig	3	0-135 VFD	STEAM & HOT OIL	Cooling Tower	Yes	Yes	Yes	None	
RV1322	750	316SS	Atmospheric	5		STEAM	Cooling Tower	None	None	None	None	
RV1323	275	316SS	Atmospheric	2		STEAM	Cooling Tower	None	None	None	None	
RV1324	275	316SS	Atmospheric	2		STEAM	Cooling Tower	None	None	None	None	





# StarChem manufacturing facility - Wellford, South Carolina



## Formulations Room

## Agitation

## Auxiliary Equipment

Equipment ID	Capacity (gal)	Mat. of Const.	Design Pressure	HP	RPM	Heat Source	Cooling Source	Condenser	Receiver	Vacuum	Pollut. Ctrl.	Other
		316SS	Atmospheric	75	Cowes and	STEAM	Cooling Tower	None	None	None	Yes	Silicones
				50	Sweep agitator							compounding w/ solids handling
RV1402	5000	316SS	Atmospheric	30	Cowes and	STEAM	Cooling Tower	None	None	None	Yes	Silicone emulsification
				30	Sweep							vessel
					agitator							
RV1403	2000	304SS	Atmospheric	7.5	55-100	STEAM	Cooling Tower	None	None	None	Yes	
RV1404	4000	316SS	Atmospheric	10	0-66 VFD	STEAM	Cooling Tower	None	None	None	Yes	
RV1405	750	304SS	Atmospheric	10	0-125 VFD	STEAM	Cooling Tower	None	None	None	Yes	
RV1406	750	304SS	Atmospheric	10	0-125 VFD	STEAM	Cooling Tower	None	None	None	Yes	
RV1407	3500	304SS	Atmospheric	10	60	STEAM	Cooling Tower	None	None	None	Yes	
RV1408	3000	316SS	FV / 75 psig	30	0-120 VFD	STEAM	Cooling Tower	Yes	Yes	None	Yes	
RV1410	4000	304SS	Atmospheric	7.5	0-66 VFD	STEAM	Cooling Tower	None	None	None	Yes	
RV1411	250	304SS	Atmospheric	5	40	STEAM	Cooling Tower	None	None	None	Yes	

## Homogenizers

3,000 psi, 5,000 psi and 10,000 psi

## Drum Flaker



# Wellford - Manufacturing Site

- Bulk liquid storage tanks
- Sized from 2,000 to 20,000 gallons.
- Different materials of construction
- Storing of high melting point liquids.

## **OTHER INFORMATION:**

- On-site biological WWTP discharging to a POTW
- EPA registered site
- NPDES permit
- Air pollution control technology
- Active Process Safety Management (PSM) Program
- Class 1 Div. 2 site.(explosion proof)
- FIFRA certified site







# StarChem Canada, Honduras & Colombia



## STARCHEM CANADA

- Sales & Marketing
  - Regulatory EH&S Support
  - 3rd Party Distribution & Logistic Centers
  - Warehouse & Bulk Storage
  - Toll Manufacturing in Ontario, Canada
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## STARCHEM HONDURAS

- On-Site Sales & Marketing
  - Customer Service & Technical Service
  - Mixing capability ranging from 250 – 750 gallon
  - High shear vessel with heating and cooling
  - 4 stainless steel vessels
  - 20,000 ft<sup>2</sup> Warehouse
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## STARCHEM COLOMBIA

- Started January 2015
- Sales & Marketing
- Technical Service
- Manufacture of betaines, amine oxides, & quats
- Warehouse



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