



**Broader. Better. Together.**

ASCO. AVENTICS. TESCO. TopWorx.



## 2019 Product Solutions Guide







# INDUSTRIAL & COMMERCIAL SEGMENT - ASCO™ STRATEGY

	Combustion	Dust Collector	Industrial Machinery	Water Conditioning/ Lead Free
				
Sub-Markets	<ul style="list-style-type: none"> <li>• Burners &amp; Boilers for Comfort Heating</li> <li>• Paint Curing</li> <li>• Ovens, Furnaces, Kilns</li> <li>• Reactors &amp; Heat Exchangers</li> <li>• Grain Dryers</li> </ul>	<ul style="list-style-type: none"> <li>• Air Filtration</li> <li>• Bulk Material Handling</li> <li>• Powder Conveying</li> </ul>	<ul style="list-style-type: none"> <li>• Conveyors</li> <li>• Plastic Molding Equipment</li> <li>• Air Compressors and Dryers</li> <li>• Fire Suppression Systems</li> <li>• Metal Finishing Machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Reverse Osmosis</li> <li>• Water Dispensing</li> <li>• Lead-Free Plumbing</li> </ul>
Strategy	<b>Win with Differentiated Current Product Offering and Industry Leading Express Portfolio; Penetrate Industrial Heating</b>	<b>Core Protection &amp; Penetrate Key OEMs with Highest Performing Products and Broader FLMC Portfolio</b>	<b>Penetrate OEMs, Leveraging Broad Product Portfolio, Microsegments, and Customer Specials Capabilities</b>	<b>Increase End-User Awareness of Lead-Free Regulations, Educate on Emerson's Broad Offering</b>
Key Products	<ul style="list-style-type: none"> <li>• 8214 (200) Series Solenoid Safety Shutoff Valves</li> <li>• V710 + AH Actuator Motorized Safety Shutoff Valves</li> </ul> 	<ul style="list-style-type: none"> <li>• 353 Series Remote Piloted Diaphragm Pulse Valve</li> <li>• 353 Series Integral Pilot Diaphragm Pulse Valve</li> </ul> 	<ul style="list-style-type: none"> <li>• 8210 Series 2-Way Pilot Operated Valves</li> <li>• 8262 Series 2-Way Direct Acting Valves</li> </ul> 	<ul style="list-style-type: none"> <li>• 212 Series Composite Valves</li> <li>• Lead-Free Brass Valves (8210 and 8262 Series)</li> </ul> 





# PROCESS SEGMENT - ASCO™ STRATEGY

	Oil & Gas	Refining/Chemical	Food & Beverage	Life Science
				
Sub-Markets	<ul style="list-style-type: none"> <li>• Exploration &amp; Production onshore / offshore</li> <li>• Pipelines &amp; terminals</li> </ul>	<ul style="list-style-type: none"> <li>• Refineries</li> <li>• Petrochemical</li> <li>• Chemical</li> </ul>	<ul style="list-style-type: none"> <li>• Dairy</li> <li>• Beverage</li> <li>• Grains and powders</li> </ul>	<ul style="list-style-type: none"> <li>• Active Pharmaceutical Ingredient(API)</li> <li>• Synthetic Drugs</li> <li>• Biopharma</li> </ul>
Strategy	<b>Expand Applicability Upstream &amp; Displace Competitive Products</b>	<b>Core Protection &amp; Expand our Solutions Portfolio Usage</b>	<b>Penetrate OEMs and End Users &amp; Upsell</b>	<b>Leverage Emerson, Target End Users &amp; Panel Solutions</b>
Key Products	<ul style="list-style-type: none"> <li>• Spool valve line</li> <li>• Accessories</li> <li>• Stainless steel Air preparation units</li> </ul> 	<ul style="list-style-type: none"> <li>• Redundant Valve Assembly</li> <li>• ASCO / TopWorx Smart Controller</li> <li>• Accessories</li> <li>• Solenoids Valves</li> </ul> 	<ul style="list-style-type: none"> <li>• 290 Air operated valves</li> <li>• Solenoid valves</li> <li>• Valve Manifolds and Electronics</li> </ul> 	<ul style="list-style-type: none"> <li>• Pinch Valves</li> <li>• 580 Charm</li> <li>• Integrated Solutions</li> </ul> 



# ANALYTICAL & MEDICAL - ASCO™ STRATEGY

	Clinical Diagnostics	Bioinstrumentation	Industrial Analyzers	Ventilators
Sub-Markets	<ul style="list-style-type: none"> <li>Chemistry</li> <li>Immunoassay</li> <li>Hematology</li> </ul>	<ul style="list-style-type: none"> <li>DNA Sequencing</li> <li>PCR (Polymerase Chain Reaction)</li> <li>Sample Preparation</li> </ul>	<ul style="list-style-type: none"> <li>MFC (Mass Flow Controllers)</li> <li>Emission / Air Quality Analyzers</li> <li>Water Analyzers</li> </ul>	<ul style="list-style-type: none"> <li>Infant Incubators</li> <li>Anesthesia Equipment</li> <li>Respirators</li> </ul>
Strategy	<b>Precise Media Control to Conserve Costly Reagents &amp; Reduced Footprint for Point-of-Care Instruments</b>	<b>Inert Materials for Aggressive Media, Plug &amp; Play Modular Assemblies</b>	<b>Precise Proportional Control &amp; Local Technical Support and Product Availability</b>	<b>High-Flow Proportional Control with Enhanced Lifetime of System Components</b>
Key Products	<ul style="list-style-type: none"> <li>Series 045 2/3-Way Pinch</li> <li>Series 068 Flapper Isolation</li> </ul>	<ul style="list-style-type: none"> <li>Series 067 Rocker Isolation</li> <li>Series 055 PTFE Isolation</li> </ul>	<ul style="list-style-type: none"> <li>Series 202 12.7mm Preciflow</li> <li>Series P284/P384 POM Pinch</li> </ul>	<ul style="list-style-type: none"> <li>Series 202 Preciflow IPC</li> <li>Series RB General Service</li> </ul>











# MACHINE AUTOMATION - ASCO Numatics™ STRATEGY

	Automotive	Tire Industry	Case Erectors	PET & Glass Blowing
				
Sub-Markets	<ul style="list-style-type: none"> <li>Conveying equipment</li> <li>Assembly lines</li> <li>Automotive components</li> </ul>	<ul style="list-style-type: none"> <li>Press and production line</li> <li>Handling equipment</li> </ul>	<ul style="list-style-type: none"> <li>Case Form and Sealer</li> <li>Filling stations</li> <li>Case Erectors and Packers</li> </ul>	<ul style="list-style-type: none"> <li>PET &amp; Glass blowing lines</li> <li>Cleaning systems</li> </ul>
Strategy	<b>Lead with G3 Fieldbus platform to meet machine control needs and IoT trends. Zoned safety as a key differentiator.</b>	<b>Cross sell Pneumatic and Fluid Control (Steam Valves). Focus on safety solutions</b>	<b>Full pneumatic system solution provider with focus on Fieldbus and Safety</b>	<b>Leverage High Pressure Proportional product offerings</b>
Key Products	<ul style="list-style-type: none"> <li>502 Zoned Safety Manifold</li> <li>653 Air Prep Assembly</li> <li>Sentronic Proportional Valves</li> <li>A-Series NFPA Interchangeable Cylinder</li> <li>S-Series Steel NFPA Cylinder</li> <li>M-Series Non-Repairable Roundline Cylinder</li> </ul> 			










# MACHINE AUTOMATION- AVENTICS STRATEGY

	Automation	Energy	Food & Beverage	Medical/ Analytical
				
Sub-Markets	<ul style="list-style-type: none"> <li>• Packaging</li> <li>• Automotive Paint Spray &amp; Welding</li> <li>• Tire and Rubber</li> <li>• Metals, Wood and Paper</li> </ul>	<ul style="list-style-type: none"> <li>• Oil &amp; Gas Drilling Rigs</li> <li>• Oil &amp; Gas Service Rigs</li> </ul>	<ul style="list-style-type: none"> <li>• Meat, Fish, Poultry &amp; Dairy</li> <li>• Beverage</li> <li>• PET</li> </ul>	<ul style="list-style-type: none"> <li>• Oxygen Concentrators</li> <li>• Surgical Devices</li> <li>• Acute Care Devices</li> </ul>
Strategy	<b>Lead with Smart Pneumatics (IoT), Up Sell/Cross Sell all Emerson brands</b>	<b>Leverage Emerson to Expand into Midstream &amp; Downstream</b>	<b>Penetrate OEMs and End Users, Washdown &amp; Automation Portfolios</b>	<b>Leverage Leading Oxygen Concentrator Position into other Medical Device OEMs</b>
Key Products	<ul style="list-style-type: none"> <li>• Smart Pneumatics Monitor &amp; Analyzer</li> <li>• AV Valves with AES Electronics</li> <li>• Ceram™ Valves &amp; ED02 E/P Valves</li> <li>• NFPA Air &amp; Hydraulic Cylinders</li> <li>• CAT tool, RTC Rodless, ES05 Vlv</li> </ul> 	<ul style="list-style-type: none"> <li>• “H” ControlAir®, “A” PilotAir®, “D” PilotAir®, and other Pneumatic Valves</li> <li>• Radial Motion Actuators</li> <li>• Cylinders</li> </ul> 	<ul style="list-style-type: none"> <li>• CL03 CleanLine Valves</li> <li>• Stainless Cylinders</li> <li>• Stainless Air Preparation</li> <li>• Stretching Cylinder Units</li> </ul> 	<ul style="list-style-type: none"> <li>• Micro and Direct Operated Poppet Valves</li> <li>• Custom Diaphragm and Sliding Ceramic Plate Valves</li> <li>• Fluid Blocks, Pressure Regulators</li> </ul> 









# INDUSTRIAL, COMMERCIAL & PROCESS SEGMENT - TESCO™ STRATEGY

	Manufacturing & Testing	Microelectronics	Oil & Gas, Refining & Chemical
			
Sub-Markets	<ul style="list-style-type: none"> <li>• Pressure filling</li> <li>• Calibration testing</li> <li>• High pressure cycle testing</li> </ul>	<ul style="list-style-type: none"> <li>• Gas cabinets</li> <li>• Point-of-use</li> <li>• Facility (utilities)</li> </ul>	<ul style="list-style-type: none"> <li>• Pressure, differential pressure &amp; level measurement instrumentation</li> </ul>
Strategy	<b>Continue growth momentum in these core markets by sharing success stories and expanding the sales channel</b>	<b>Continue market penetration and capitalize on device connectivity &amp; China fab investment trends</b>	<b>Focus on primary isolation product line and leverage FLMC global salesforce</b>
Key Products	<ul style="list-style-type: none"> <li>• 26-1700 Series with ER5000 electropneumatic controller</li> <li>• VA valve</li> </ul> 	<ul style="list-style-type: none"> <li>• 12 Series</li> <li>• 74-3000 Series</li> </ul> 	<ul style="list-style-type: none"> <li>• HD33M Monoflange</li> <li>• M25 Gauge Valve</li> <li>• M66 Manifold</li> </ul> 





# PROCESS SEGMENT - TopWorx™ STRATEGY

	Oil & Gas	Refining/Chemical	Synergies
			
Applications	<ul style="list-style-type: none"> <li>• Pipelines and Terminals</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical</li> </ul>	<ul style="list-style-type: none"> <li>• Any product for any application that requires position awareness</li> </ul>
Strategy	<b>Leverage advanced technology to strengthen our position</b>	<b>Expand presence in Switchbox market with product development</b>	<b>Support other BU's by embedding GO™ Switch Technology</b>
Key Products	<ul style="list-style-type: none"> <li>• D Series with HART 7</li> </ul> 	<ul style="list-style-type: none"> <li>• Chemical Switchbox</li> </ul> 	<ul style="list-style-type: none"> <li>• HD33M Monoflange</li> <li>• M25 Gauge Valve</li> <li>• M66 Manifold</li> </ul> 





# INDUSTRIAL & COMMERCIAL SEGMENT - TopWorx™ STRATEGY

	Safety Shower	Heavy, Mobile Equipment	Machining & Metal Fabrication
			
Applications	<ul style="list-style-type: none"> <li>Wired or wireless indication for safety shower or eye wash activation to meet OSHA requirements</li> </ul>	<ul style="list-style-type: none"> <li>Doors, ladders, and lift beds position indication for operation</li> <li>Rear conveyor alignment</li> </ul>	<ul style="list-style-type: none"> <li>Guarding indication for Equipment Manufacturers</li> <li>Length of travel indication</li> </ul>
Strategy	<b>Targeted marketing campaign to educate end users. Simplify the solution for the distribution channel</b>	<b>Replicate success with Komatsu to other heavy, mobile equipment suppliers</b>	<b>Execute marketing campaign supporting the GO™ Switch 52M at equipment OEM's</b>
Key Products	<ul style="list-style-type: none"> <li>Latching GO™ Switch</li> </ul> 	<ul style="list-style-type: none"> <li>GO™ Switch 11 Series</li> </ul> 	<ul style="list-style-type: none"> <li>GO™ Switch 52M</li> </ul> 