

Famic Technologies Inc. is proud to present the latest version of the **AVENTICS Catalogue for Automation Studio™**! All of the digital products in this virtual catalogue are pre-configured with AVENTICS' latest technical specifications and are compatible with the **Pneumatic Workshop of Automation Studio™ 6.4**. Users may now quickly get access to AVENTICS components for their systems integration and spend less time developing component models.

The catalogue features include a Product Configurator compatible with the manufacturer product options, technical documentation, product images and virtual test benches for user convenience. This complimentary package of Automation Studio™ has been developed in accordance with Famic's software certification process.

Catalogue Product List

The components have been categorised on the basis of the product family as specified on AVENTICS' website (<https://www.aventics.com/de/en/eur/pneumatics-shop>). The following products are now available in this catalogue:

Pneumatic Cylinders, Drives and Grippers

- Standard Cylinders - [PRA, TRB, ITS, CCL-IS, CCL-IC, CCI SSI MNI CSL-RD, C12P]
- Mini Cylinders - [ICM, SWN]
- Round Cylinders - [RCP, ICS-D2]
- Short-Stroke and Compact Cylinders– [KPZ, KHZ]
- Tie Rod Cylinders - [167]
- Cylinder Valve Units - [CVI-PRA, CVI-PRB]
- Rodless Cylinders - [GSU, CKP, RTC]
- Guide Cylinders - [MSN, MSC, GPC]
- Rotary Actuators - [RAK, RCM, TRR]
- Bellow Actuator - [BCC, BCP, BCR, BRB]
- Diaphragm-type Cylinders - [RDC, 102]
- Grippers - [UPG]
- Double Piston Cylinders - [TWC]

Valves and Valve Systems

- Single Valves - [CD04, CD07, CD12, TC08, TC15, 740, 840, CL03-EV, ES05, 579, 589, 490, DO, MSV8, PVP1, ST, 563, 565, 567, AP, LS04, WV02, SV07, SV09]

Pressure Regulators

- EP Pressure Regulators - [ED02, ED05, ED07, ED12, EV03, EV07]

- Manually Operated Pressure Regulators - [RG1, SCREW IN, FINE SETTING]
- Pressure Relief Valves - [RV1, RV2]

Flow Valves and Check Valves

- Check-Choke Valves - [CC01, QR1, CC02-SL, CC02-AL, CC04, 334]
- Throttle Valves - [CH01, CH02]
- Ball Valves and Shut-Off Valves - [SHUT-OFF, QR1, ML, SC01]
- Logic Valves - [AND/OR, PULSE GENERATOR, 551, OR, AND]
- Non-Return Valves and Check Valves - [NR01, QR1, NR02]
- Quick Exhaust Valves - [573, QUICK EXHAUST, EXHAUST MODULE]

Compressed Air Preparation

- Maintenance Units and Components - [AS1, AS2, AS3, AS5, NL1, NL2, NL4, NL6, NLC, CR1-OX, PR1, PR2, MH1, MU1]
- Pressure Gauge - [PG MINI, PG1-DIM, PG1-GLY, PG1-INT, PG1-LIG, PG1-SAS, PG1-SFB, PG1-SNL, PG1-STD, PG1-ROB, PG1-ROU]
- Compressed Air Reservoirs - [AR1]

Vacuum Technologies

- Ejectors - [EBS, ECD, EMS, EIX, EBE, EBP, ECV]
- Vacuum Suction Grippers - [BSA, BSG, FSG, FSO, FSR, SGN]
- Vacuum Accessories - [ACP, VFI, PG1-SNL, VFC, VCK, SI1]

Sensors

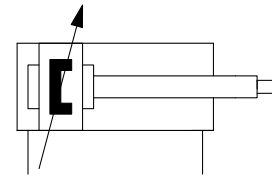
- Magnetic Proximity Sensors - [SC4, SH4, SN2, SN3, SN5-X, SN6, ST4, ST6, ST9]
- Electrical Pressure Sensors - [PE2, PE5, PE6]
- Mechanical Pressure Sensors - [PM1]

Pneumatic Connection Technologies

- Push-In Fittings -[QR1, QR2]
- Fittings with Tube Nuts - [NU1, NU2]
- Couplings - [CP1, CP2]



0822120011



Ex.: ISO 1552, Series PRA

Product Selection and Configuration

The **Catalogue Manager** of **Automation Studio™** consists of three sections as shown in Figure 1. The first section (1) contains a catalogue tree similar to the manufacturer's website where a user can easily find a component as per the requirements. In the catalogue tree, components have been categorised as per their types and function. The second section (2) consists of different tabs where the user can get information like technical data, images or 3D CAD files of the selected component. The "Documents" tab of this section contains test files and the manufacturer's technical specifications of the product. Section (3) shows a "Set Specific Part Number" function button which opens the "Product Configurator" window as shown in Figure 2.

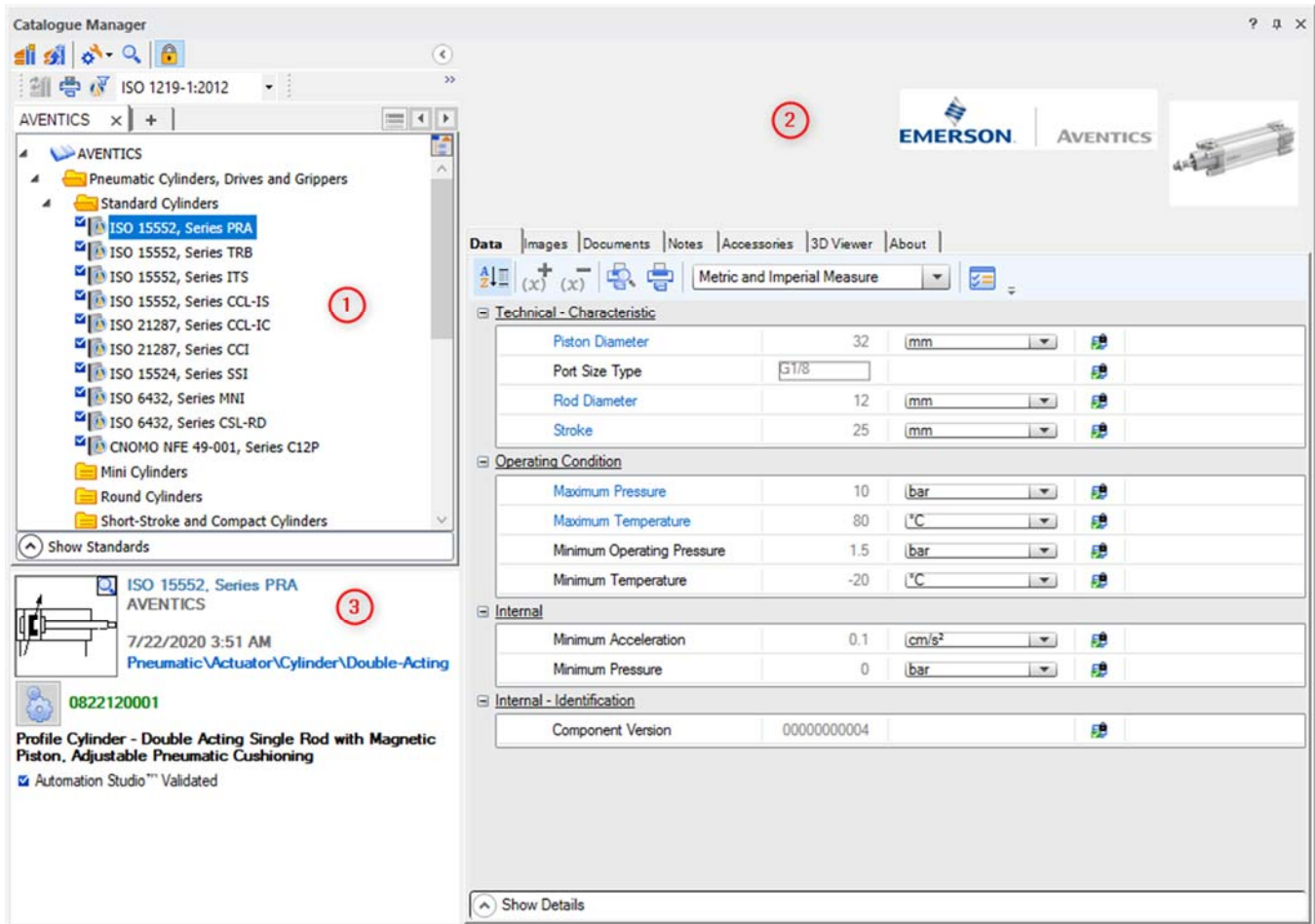


Figure 1: Catalogue Manager Window Displaying Technical Data and Symbol of the ISO 15552, Series PRA.

Using the “Product Configurator”, the user can easily select specific product characteristics and configure the manufacturer specific part number of the component. The options to choose the desired mounting style, cylinder bore, stroke and more are available. The product information, technical data and symbol get updated with the selected options. The “Symbol Viewer” button (refer to Figure 2) allows the user to magnify the view of the configured component’s symbol. All these Catalogue Manager features were designed to enable the user to easily choose and configure pre-modelled components.

Users may now simply drag and drop the desired component into the editor area of Automation Studio™ for circuit integration. The component models can be directly used for the design of a pneumatic circuit, real-time simulation or monitoring in Automation Studio™.

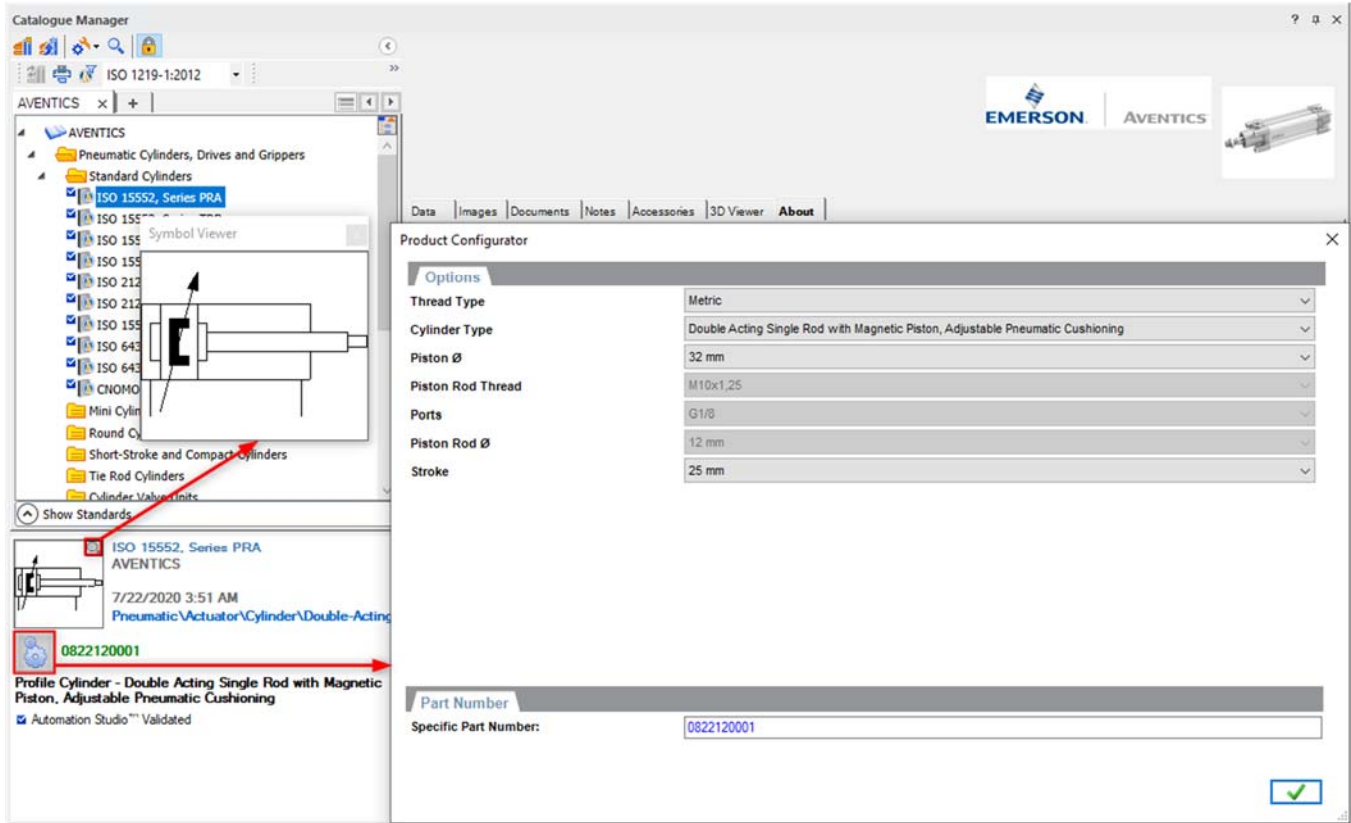


Figure 2: A Configured Part Number of the ISO 1552, Series PRA Using the Catalogue Manager’s Product Configurator Window.

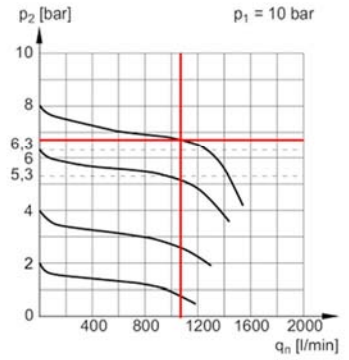
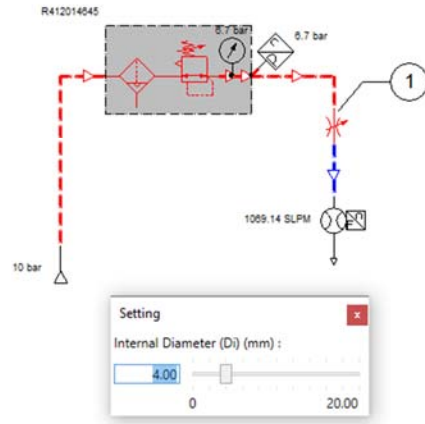
Product Test and Application

The components in the catalogue are configured and tested for various sizes, rated flows and pressure ratings at a 10 millisecond interval simulation pace. The simulation models take into consideration each product’s performance data available in the manufacturer specification and adjust them to the specific project working conditions (reference pressure, temperature, etc.). For example, to verify the influence of flow on the outlet pressure of a Filter-Regulator, the regulation test is simulated & confirmed as per the specification as shown in Figure 3. This virtual test bench is available in the catalogue.

Pressure Regulation Test

INSTRUCTIONS:

1. Start the simulation.
2. Set the desired setting pressure in the product as shown in graph.
3. Vary the flow using throttle valve (1) and observe the cursor following the corresponding curve.



p_2 [bar] 6.691 q_n [l/min] 1009.1352

TITLE: Series AS1-FRE			
MANUFACTURER: AVENTICS		Famic Technologies Inc.	
Manufacturer: Famic Technologies Inc.	Date: 7/22/2020	Act/Revision: 6.3.0.10308	Revision number: 001

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Figure 3: Regulation Test of Series AS1-FRE Filter-Regulator.

Figure 4 features a ready to simulate AVENTICS CD07 directional valve drag and dropped from the catalogue into a packaging machine application circuit in Automation Studio™. It demonstrates that the same size components are compatible and can be quickly configured and combined into industry-relevant applications.

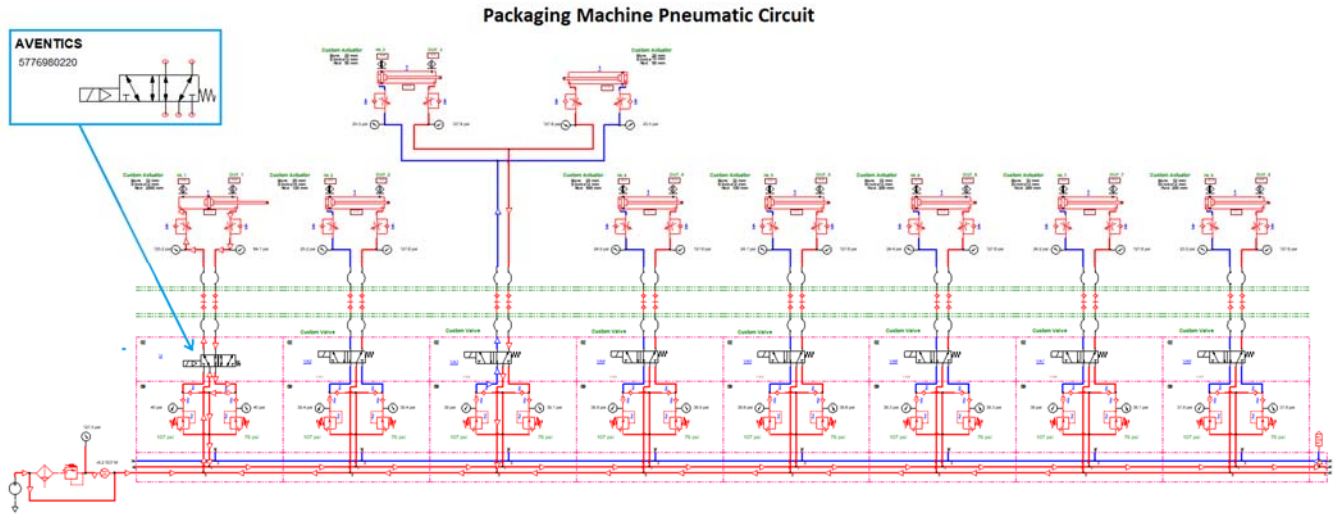


Figure 4: An Application Project in Automation Studio™ Featuring Ready to Simulate CD07 Valve.

These test cases demonstrate how pneumatic circuits containing **AVENTICS** components can be quickly simulated, analysed and monitored in real-time using the latest version of the **Automation Studio™** Catalogue.

For more details about this catalogue, please contact our Support Team at support@famicttech.com.

Famic Technologies Inc.