



NATE Continuing Education Courses

SPORLAN



ENGINEERING YOUR SUCCESS.



NATE Certified Courses

For over 70 years Sporlan has remained committed to strengthening the industry through education. We are excited to continue our tradition of providing educational talks to the industry, with twenty of Sporlan's talks now recognized by NATE for continuing education credit, and available through your Authorized Sporlan Wholesaler.

■ Sporlan Supermarket Seminar (ID# 3048-0003)

An intensive one day course covering supermarket refrigeration systems. The course includes a review of the types of supermarket systems, oil management systems, head pressure control, defrost systems, and suction pressure regulation. Topics include thermostatic expansion valve and pressure regulating valve sizing, optimizing system efficiency, the use of electric flow controls, and refrigerant retrofits.

Typical Course Cost \$800.00 Your Cost \$75.00

■ Pressure Enthalpy (ID# 3048-0004)

Explains the pressure-enthalpy diagram and the refrigeration cycle, and how to use the diagram to analyze refrigeration system operation. Both ideal and real world refrigeration cycles are examined. Heat of compression, heat of rejection, net refrigeration effect, refrigerant circulation rate, and coefficient of performance are explained.

Typical Course Cost \$250.00 Your Cost \$0.00

■ Type Q Valve (ID# 3048-0005)

Focuses on the Sporlan Type Q series interchangeable cartridge TEVs. Sizing and selection of these valves are covered, as well as how to properly assemble.

Typical Course Cost \$250.00 Your Cost \$0.00

■ Type EMC (ID# 3048-0006)

Focuses on the Sporlan Types EMC dual port TEVs. Topics include a discussion of the pulldown and holding loads of a typical refrigeration display case, and how the dual port design provides optimal control for each condition.

Typical Course Cost \$250.00 Your Cost \$0.00

■ Balanced Port Valve (ID# 3048-0007)

Covers the construction and operation of the balanced port thermostatic expansion valve. Topics include the different types of balanced port construction and their advantages with respect to low head pressure operation.

Typical Course Cost \$250.00 Your Cost \$0.00

■ Type BQ Valves (ID# 3048-0008)

Focuses on the Sporlan Type BQ series interchangeable cartridge balanced port TEVs. Sizing and selection of these valves are covered, as well as how to properly assemble.

Typical Course Cost \$250.00 Your Cost \$0.00

■ Shootin' Service (ID# 3048-0009)

TEV troubleshooting — topics include a discussion on superheat and subcooling, TEV operation, proper suction line piping and TEV sensing bulb location, common symptoms and likely causes, and contaminants found in the refrigeration system.

Typical Course Cost \$250.00 Your Cost \$0.00

■ TEV Theory (ID# 3048-0010)

Explains the construction and operation of the thermostatic expansion valve. Topics include superheat and subcooling and their effect on TEV operation, factors affecting TEV capacity, internal and external equalized TEVs, the types of thermostatic charges, superheat curves, and TEV hunting.

Typical Course Cost \$250.00 Your Cost \$0.00



■ **TEV Theory with R410A (ID# 3048-0011)**

Reviews the subject matter in the TEV Theory talk, but with specific focus on refrigerant R-410A.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Test-All® (ID# 3048-0012)**

Explains the procedure for testing mineral, alkylbenzene (AB), or polyol ester (POE) refrigerant oils using the Sporlan Test-All®, and analyzing the results. The talk highlights the benefits of testing the oil in a refrigeration system. Additional topics include a discussion of the types of contaminants found in the refrigeration system.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Replaceable Core Catch-All® (ID# 3048-0013)**

Features the Sporlan replaceable core Catch-All® shells, including a discussion of the types of contaminants found in the refrigeration system, core selection, and the use of the optional secondary filter.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Catch-All® (ID# 3048-0014)**

Covers the Sporlan line of Catch-All® filter-driers. Topics include a discussion of the types of contaminants found in the refrigeration system, and the types of desiccants used in filter-driers and their effectiveness.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Catch-All® with R-410A (ID# 3048-0015)**

Covers the Sporlan line of Catch-All® filter-driers with specific focus on refrigerant R-410A. Polyol ester (POE) oil and its characteristics are covered along with a discussion of dry down and acid removal studies.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **System Cleanup (ID# 3048-0016)**

Focuses on the proper selection and use of the Sporlan Catch-All® suction line filter-drier. Topics include the proper procedures following a compressor burnout and testing the oil for acid.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **See-All® And Related Topics (ID# 3048-0017)**

The Sporlan line of See-All® moisture and liquid indicators, including construction details of the moisture and liquid indicator, and its color change points are covered. Additional topics include a discussion of the types of contaminants found in the refrigerant system, and proper system charging procedures.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Suction Filters (ID# 3048-0018)**

Covers the Sporlan line of sealed and replaceable shell suction filters. Topics include their proper sizing and application. For replaceable shell suction filters, proper core selection and installation is discussed for system cleanup.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Head Pressure Control (ID# 3048-0019)**

Includes discussion on the types of head pressure control valves, proper valve sizing and piping practices, and the benefits of splitting the condenser. In addition, compression ratio and the selection of TEVs at low head pressures are covered.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Defrost Differential Regulating Valves (ID# 3048-0020)**

Topics include a discussion on how Sporlan defrost differential valves operate, proper sizing of the valves, and why they are necessary to achieve reverse flow defrost.

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Electric Evaporator Pressure Regulating Valves (ID# 3048-0021)**

Covers the Sporlan line of step motor actuated EPR valves. Topics include a discussion on step motor operation, the benefits of controlling discharge air temperature with an electric EPR, and the use of the SMA-12 to manually operate Sporlan step motor valves

Typical Course Cost \$250.00 Your Cost \$0.00

■ **Oil Filters (ID# 3048-0022)**

Covers the Sporlan line of oil filters. Topics include the benefits of an oil filter with refrigeration systems using polyol ester (POE) oil.

Typical Course Cost \$250.00 Your Cost \$0.00

For further information on Sporlan NATE certified courses, contact:

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Continuing Education Credits by Course

NATE certified technicians are setting the standard of professionalism in the HVACR industry. Sporlan is proud to support their effort with twenty educational talks recognized by NATE for continuing education credit. See the chart below for credits by course.

Course ID#	Course Name	Service								Installer								Senior		
		Air Conditioning	Air Distribution	Heat Pump	Gas Heating	Oil Heating	Gas Hydronic	Oil Hydronic	Refrigeration Light Commercial	Refrigeration Commercial	Air Conditioning	Air Distribution	Heat Pump	Gas Heating	Oil Heating	Gas Hydronic	Oil Hydronic	Refrigeration Light Commercial	Refrigeration Commercial	HVAC Efficiency Analyst
3048-0003	Sporlan Supermarket Seminar	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	7	7	0
3048-0004	Pressure-Enthalpy	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
3048-0005	Type Q Valve	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	0
3048-0006	Type EMC Valve	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0
3048-0007	Balanced Port Valve	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0008	Type BQ Valves	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0009	Shootin' Service	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0010	TEV Theory	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0011	TEV Theory with R-410A	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0012	Test-All®	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
3048-0013	Replaceable Core Catch-All®	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0014	Catch-All®	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0015	Catch-Alls® with R-410A	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
3048-0016	System Cleanup	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
3048-0017	See-All®	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0018	Suction Filters	1	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	1	1	1
3048-0019	Head Pressure Control	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0
3048-0020	Defrost Differential Regulating Valves	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
3048-0021	Electric Evaporator Pressure Regulating Valves	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0
3048-0022	Oil Filters	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0

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