

Scope of Products



LESER

The-Safety-Valve.com

Objectives

Extension ASME/PED

Scope of Supply ASME

Explanation
Product Group Names

Valve Finder ASME

Products ASME

Scope of Supply PED

Explanation
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Valve Finder PED

Products PED

Differentiation

Objectives of this Presentation

Knowledge to learn

The aim of this presentation is to provide an overview of the **LESER product range**.

It explains the **product structure**, specifies the **product group names** to become familiar with the LESER wording and finally introduces the **LESER valve finder** in order to help finding the right safety valve.



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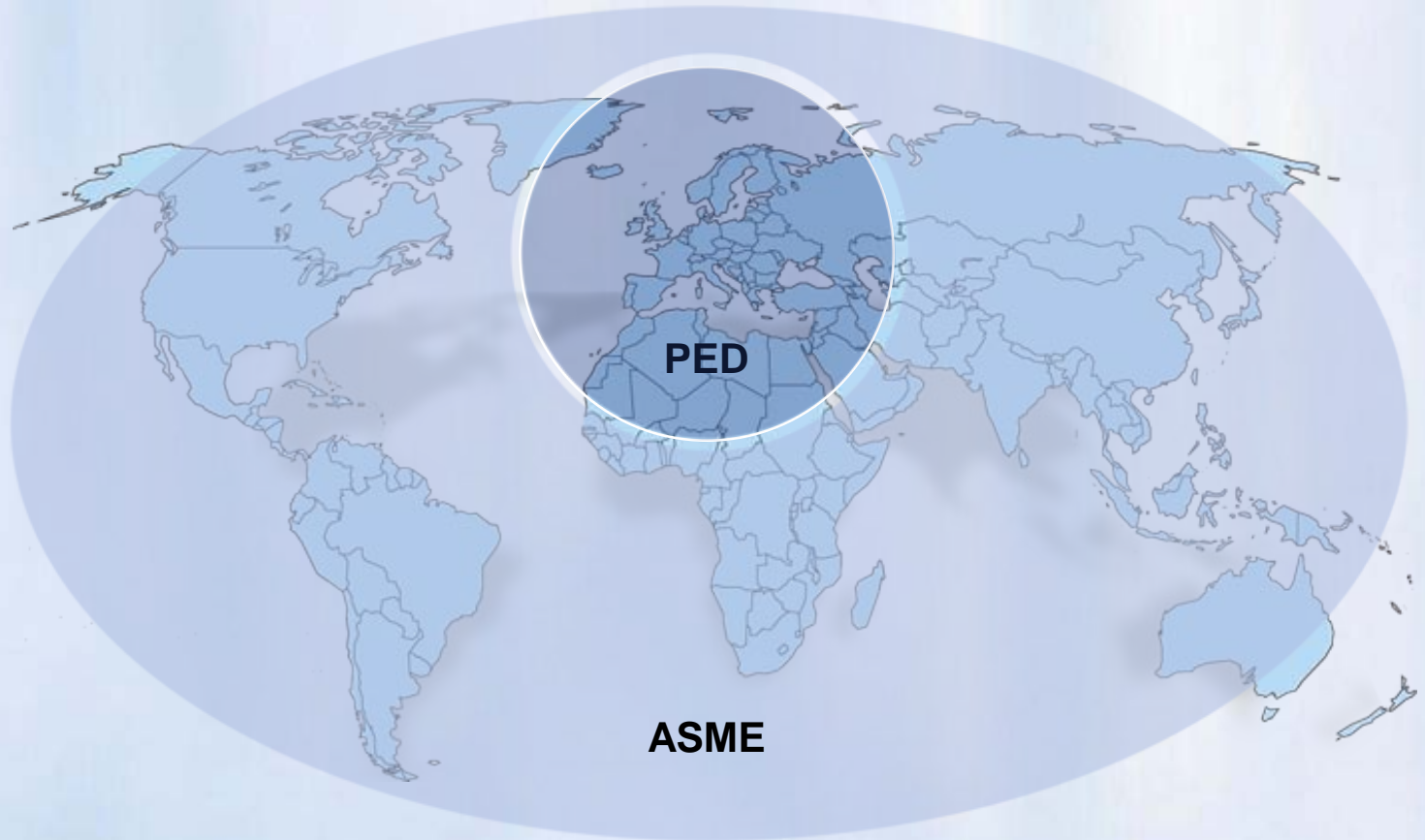
Valve Finder PED

Products PED

Differentiation

Extension of ASME/PED

How to find the right Safety Valve – click and select your category:



Scope of Supply

Product Overview ASME

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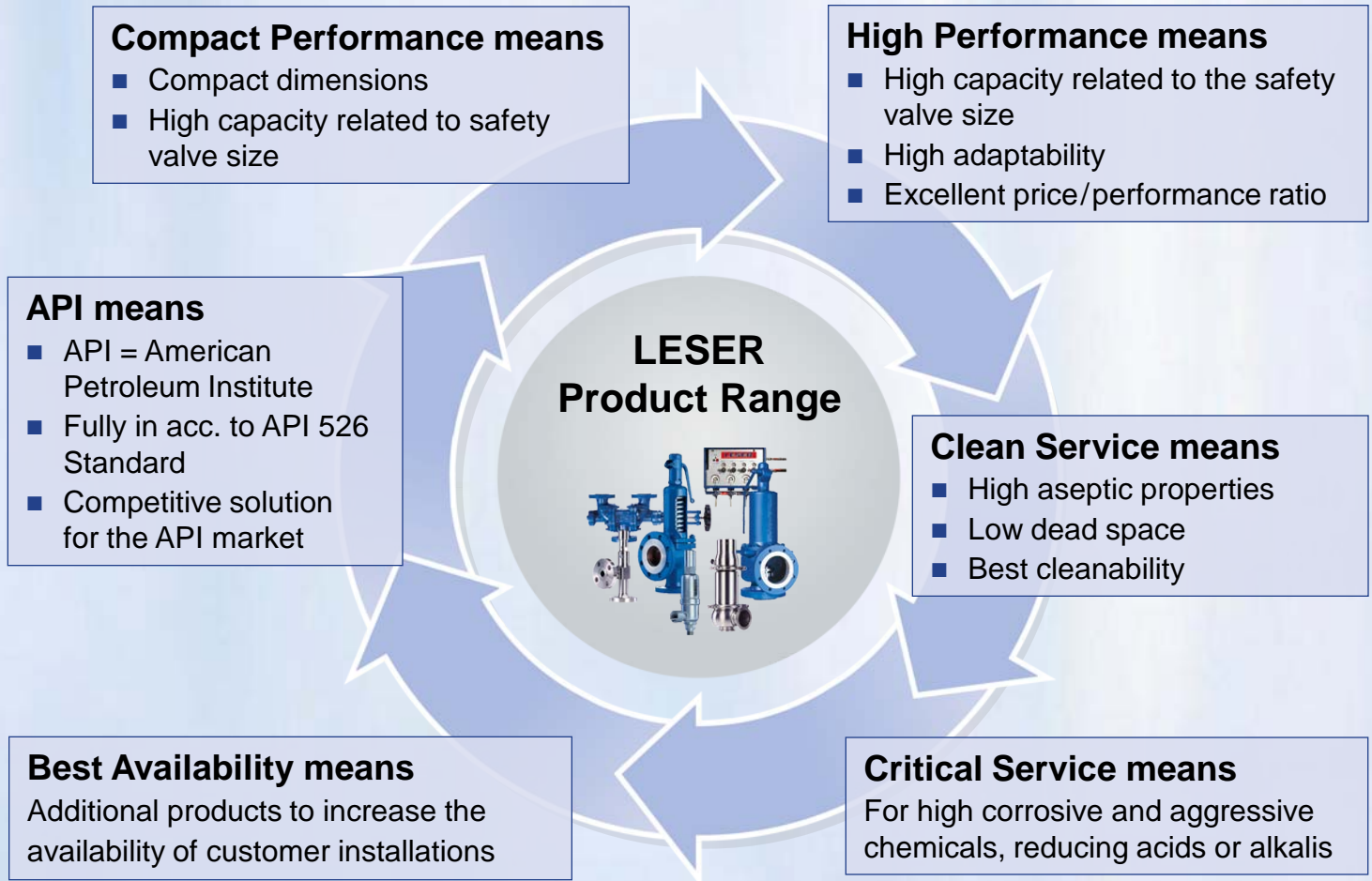
Differentiation

Process and General Industrial Safety Valves			
API	High Performance	Compact Performance	High Efficiency
			
Specialties			
Clean Service	Critical Service	Best Availability	
			

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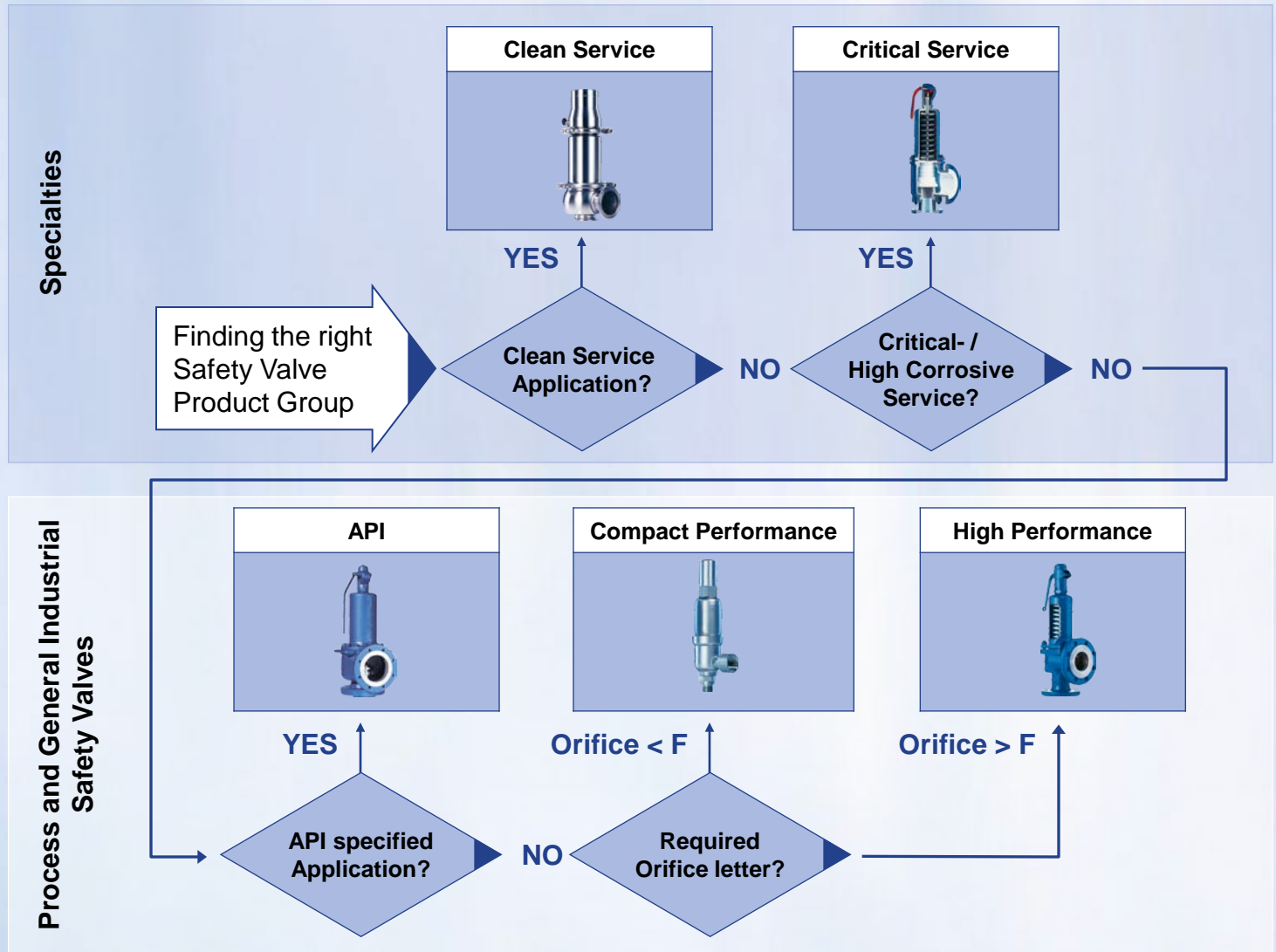
Explanation

Product Group Names ASME



Valve Finder ASME

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Differentiation

API

Series 526 (ASME)

API Series 526

Size	1" x 2" ... 8" x 10"
Orifice	D ... T
Set pressure range	1.5 psig ... 6,000 psig
Temperature range	-450°F ... 1,000°F
Flange class	Class 150 x 150 to Class 2500 x 300
Available Standard Materials	WCB, LCB, CF8M, WC6
Applications	<ul style="list-style-type: none">■ Petrochemical industry■ Chemical industry■ All applications where API is specified



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Differentiation

High Performance

Type 441, 442, XXL, Full Nozzle, 444, 457, 458 (ASME)

High Performance Type 441, 442, XXL, Full Nozzle, 444, 457, 458	
Size	1" x 2" ... 16" x 20"
Set pressure range	1.5 psig ... 4,350 psig
Temperature range	-450°F ... 1,000°F
Inlet Pressure Ratings	Class 150 x 150 to Class 2500 x 300
Available Standard Materials	WCB, CF8M, WC6
Applications	<ul style="list-style-type: none"> ■ Chemical industry ■ Heating, Venting, Air conditioning (HVAC) ■ Power plants (ASME VIII) ■ Paper industry



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Differentiation

Compact Performance

Type 437, 438, 439, 459, 462, HDD (ASME)

Compact Performance Type 437, 438, 439, 459, 462, HDD

Size	3/8" x 1/2" ... 1" x 1 1/2"
Orifice	D ... F
Set pressure range	1.5 psig ... 12,330 psig
Temperature range	-450°F ... 800°F
Inlet Pressure Ratings	Class 150 x 150 to Class 2500 x 2500
Available Standard Materials	Ductile Gr. 60-40-18, SA 479 430, 316L
Applications	<ul style="list-style-type: none">■ Chemical industry■ LNG/LPG/Cryogenic systems■ High pressure■ Technical gases



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Differentiation

Clean Service

Type 481, 483, 484, 485, 488 (ASME)

Clean Service Type 481, 483, 484, 485, 488

Size	d ₀ 0.394 inch ... d ₀ 3.622 inch
Orifice	D ... P
Set pressure range	1.5 psig ... 986 psig
Temperature range	-49°F ... 482°F
Inlet Pressure Ratings	PN 10 ... PN 25
Available Standard Materials	316L
Applications	<ul style="list-style-type: none">■ Food and Beverage industry■ Pharmaceutical industry■ Cosmetic industry■ Chemical industry



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Differentiation

Critical Service

Type 447, 449 (ASME)

Critical Service Type 447, 449

Size	1" x 1 ½" ... 4" x 6
Orifice	G ... N
Set pressure range	1.5 psig ... 232 psig
Temperature range	-20°F ... 392°F
Inlet Pressure Ratings	Class 150 x 150 to Class 300 x 150
Available Standard Materials	WCB
Applications	<ul style="list-style-type: none">■ Chemical industry■ High corrosive applications



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Best Availability

Type 310 (ASME)



Best Availability Type 310 Change over Valve

Possibility to switch over between parallel safety valves without interrupting operation





Size	1" x 1" ... 16" x 16"
Temperature range	-454°F ... 752°F
Inlet Pressure Ratings	Class 150 x 150 to Class 900 x 900
Available Standard Materials	WCB, CF8M

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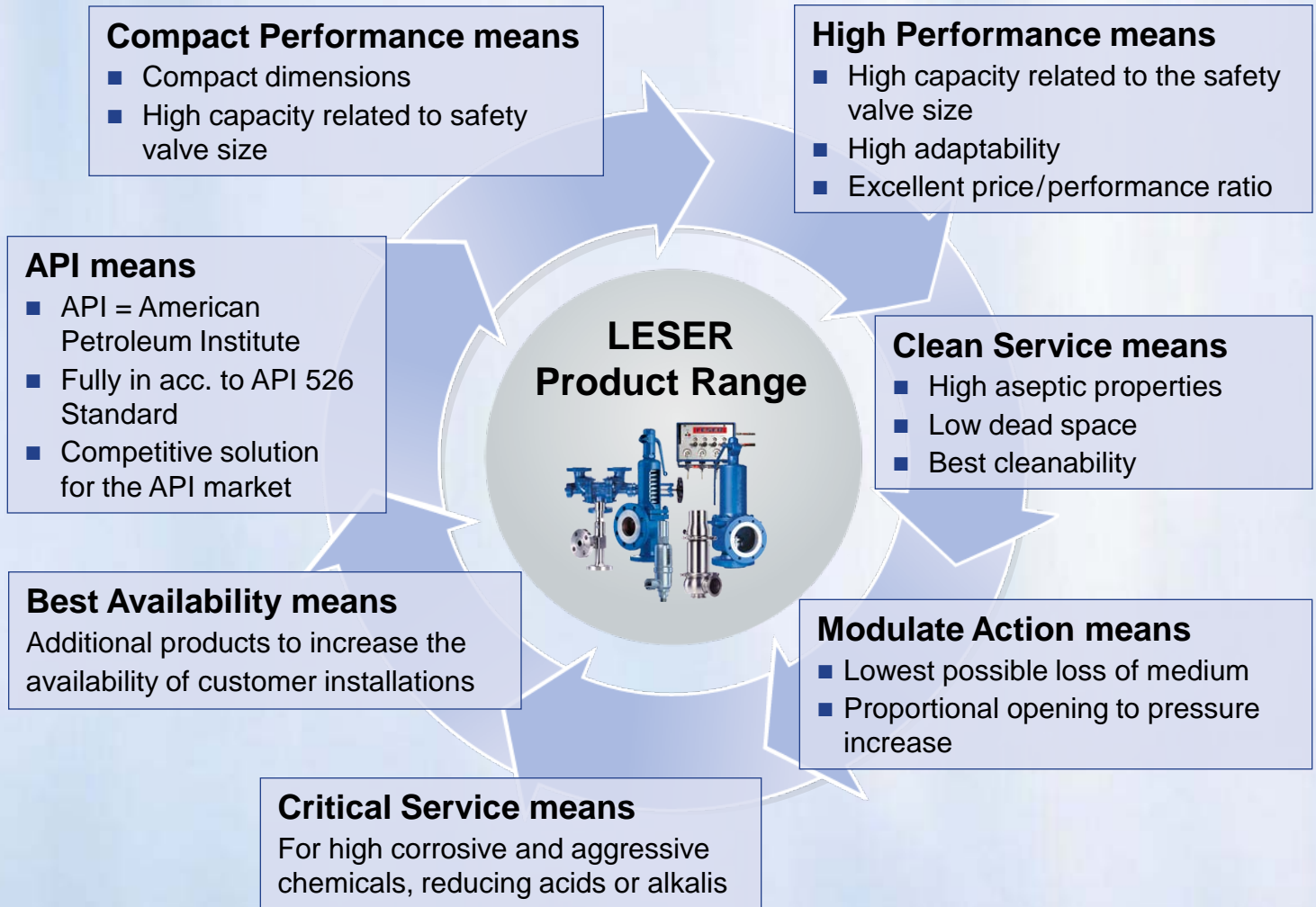
Process and General Industrial Safety Valves		
API	High Performance	Compact Performance
		

Specialties			
Clean Service	Critical Service	Best Availability	Modulate Action
			

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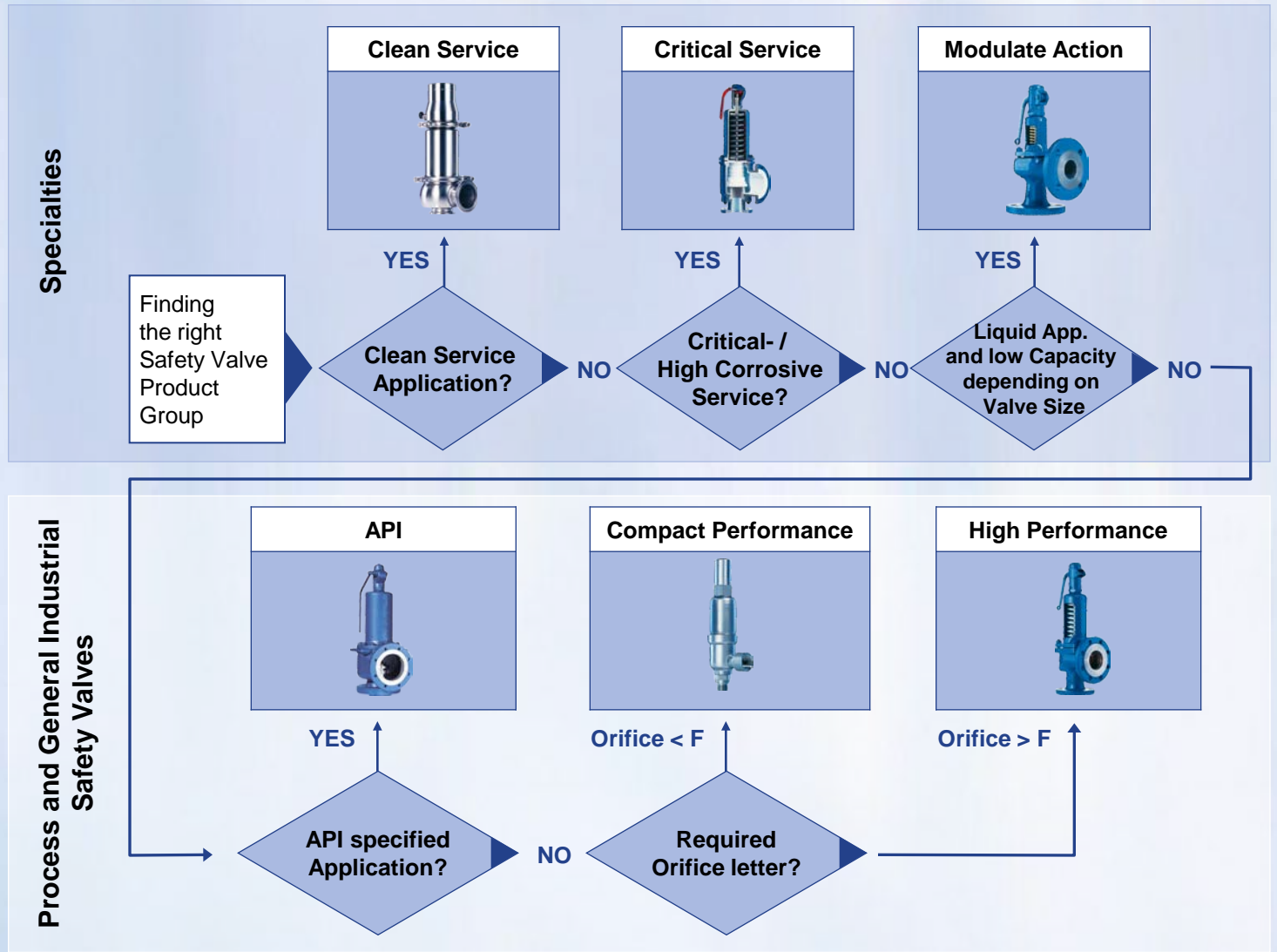
Explanation

Product Group Names PED



Valve Finder PED

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Differentiation

API

Series 526 (PED)

API Series 526	
Size	1" ... 8"
Orifice	D ... T
Set pressure range	0,1 bar ... 415 bar
Temperature range	-268°C ... +538°C
Flange class	Class 150 x 150 to Class 2500 x 300
Available Standard Materials	1.0619, 1.4408, 1.7357
Applications	<ul style="list-style-type: none">■ Petrochemical industry■ Chemical industry■ All applications where API is specified



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High Performance

Type 441, 442, XXL, Full Nozzle, 444, 457, 458 (PED)

High Performance Type 441, 442, XXL, Full Nozzle, 444, 457, 458

Size	DN 20 ... DN 400
Set pressure range	0,1 bar ... 300 bar
Temperature range	-268°C ... +538°C
Inlet Pressure Ratings	PN 16 ... PN 400
Available Standard Materials	0.6025 0.7043, 1.0619, 1.4408, 1.7357
Applications	<ul style="list-style-type: none">■ Chemical industry■ Heating, Venting, Air conditioning (HVAC)■ Power plants (ASME VIII)■ Paper industry



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Differentiation

Compact Performance

Type 437, 438, 439, 459, 462, HDD (PED)

Compact Performance Type 437, 438, 439, 459, 462, HDD

Size	3/8" x 1/2" ... 1" x 1 1/2"
Orifice	D ... F
Set pressure range	0,1 bar ... 850 bar
Temperature range	-270°C ... +550°C
Inlet Pressure Ratings	PN 16 ... PN 700
Available Standard Materials	0.7043, 1.4104, 1.4404
Applications	<ul style="list-style-type: none">■ Chemical industry■ LNG/LPG/Cryogenic systems■ High pressure■ Technical gases



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Clean Service

Type 481, 483, 484, 485, 488 (PED)

Clean Service Type 481, 483, 484, 485, 488

Size	d ₀ 10 mm ... d ₀ 92 mm
Orifice	D ... P
Set pressure range	0,1 bar ... 68 bar
Temperature range	-45°C ... +250°C
Inlet Pressure Ratings	PN 10 ... PN 25
Available Standard Materials	1.4404, 1.4435
Applications	<ul style="list-style-type: none">■ Food and Beverage industry■ Pharmaceutical industry■ Cosmetic industry■ Chemical industry



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Differentiation

Critical Service

Type 447, 449 (PED)

Critical Service Type 447, 449

Size	DN 25 ... DN 100
Orifice	G ... N
Set pressure range	0,1 bar ... 16 bar
Temperature range	-65°C ... +200°C
Inlet Pressure Ratings	PN 16 ... PN 40
Available Standard Materials	0.7043, 1.0619, 1.4404
Applications	<ul style="list-style-type: none">■ Chemical industry■ High corrosive applications



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Differentiation

Best Availability

Type 310, 712 (PED)

Best Availability Type 310 Change over Valve

Possibility to switch over between parallel safety valves without interrupting operation

Size	DN 25 ... DN 400
Temperature range	-270°C ... +450°C
Inlet Pressure Ratings	PN 40 ... PN 160
Available Standard Materials	1.0619, 1.4408



Best Availability Type 700 Supplementary Loading System

To increase productivity of the application due to operating pressure near set pressure

Full open at	1% above set pressure
Reseating Pressure	-3% under set pressure
Opening Pressure	96% of set pressure



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Modulate Action

Type 427, 429, 431, 433, PN160 (PED)

Modulate Action Type 427, 429, 431, 433, PN160

Size	DN 15 ... DN 150
Orifice	D ... M
Set pressure range	0,15 bar ... 160 bar
Temperature range	-270°C ... +450°C
Inlet Pressure Ratings	PN 16 ... PN 160
Available Standard Materials	0.6025, 0.7043, 1.0619, 1.4408
Applications	<ul style="list-style-type: none">■ Thermal expansion■ Pumps and compressors



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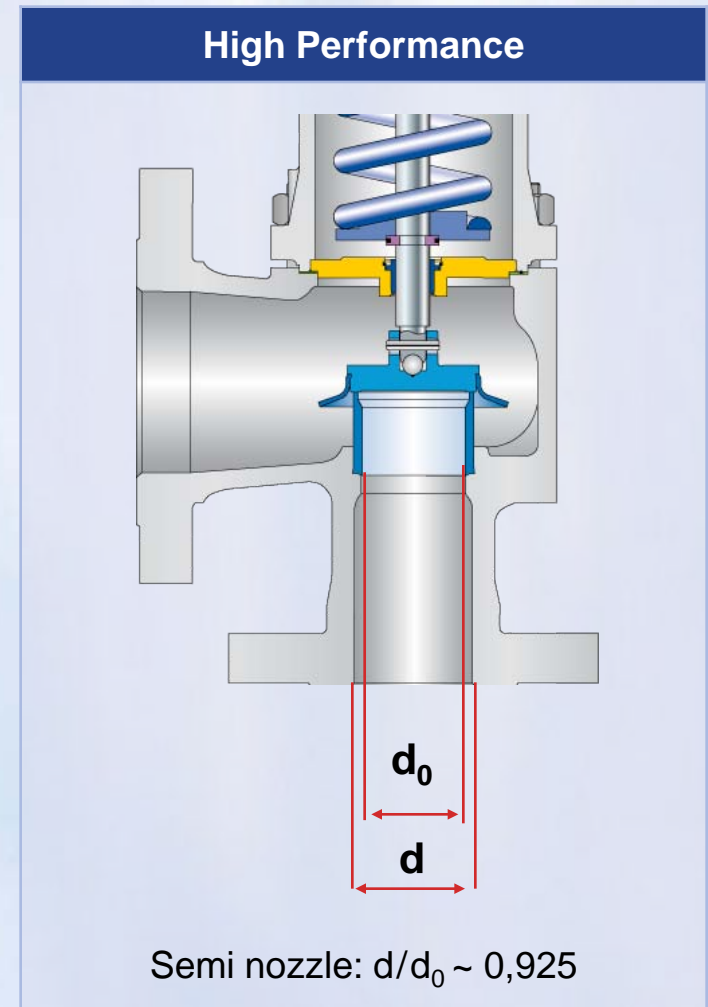
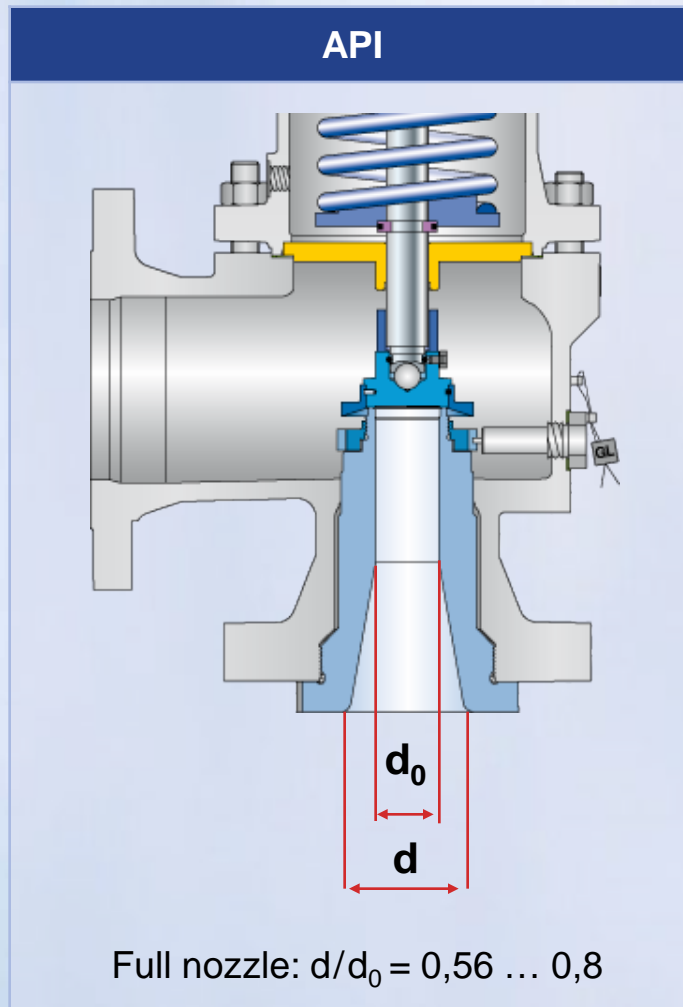
Valve Finder PED

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Differentiation

Differentiation

API vs. High Performance



Differentiation

API, High Performance and Compact Performance

Product Group

High Performance Class 150 x 150

1" x 1 1/2"	1 1/2" x 2"	1 1/2" x 3"	2" x 3"	3" x 4"	3" x 5"	4" x 6"	6" x 10"	8" x 12"	10" x 14" 12" x 16" 16" x 20"
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API Class 150 x 150

1" x 2"	1 1/2" x 2"	1 1/2" x 3"	2" x 3"	3" x 4"	4" x 6"	6" x 8"	8" x 10"
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Class 300 x 150

1" x 2"	1 1/2" x 2"	1 1/2" x 3"	2" x 3"	3" x 4"	4" x 6"	6" x 8"	8" x 10"
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Compact Performance Class 150 x 150

3/4" x 1"	1" x 1 1/2"
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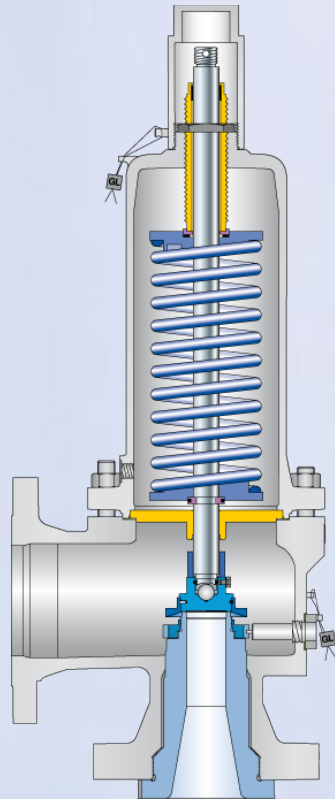
0,5 x D D E F G H J K L M N P Q R T 3 x T

Orifice

Differentiation

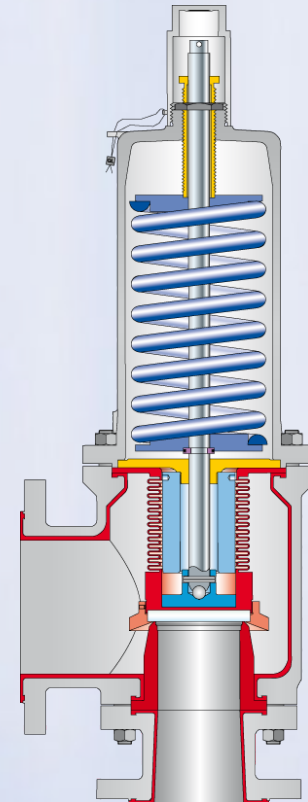
Chemical resistance

API



Special castings

Critical Service



PTFE-Lined

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Differentiation

Dead space ratio

