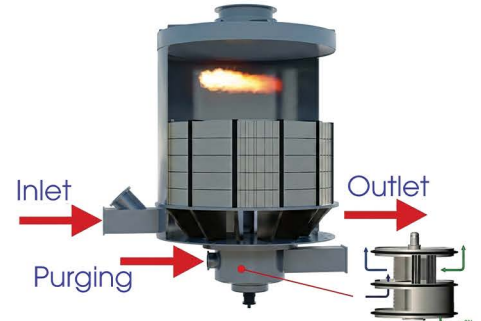


# RTO Technology Evolution

First generation (2-Bed RTO)

Second generation (Multi-Bed RTO)

Third generation (8/12-Bed RTO)



Low purification efficiency

High purification efficiency,  
large floor occupation  
(Horizontal RTO)

Very high purification efficiency,  
small floor occupation  
(Vertical RTO)

## Performance Comparison based on 30,000m<sup>3</sup>/hr

Performance	Index	2-bed RTO	3-bed RTO	Rotary valve RTO	Notes
Technicality	Technical iteration	First generation	Second generation	Third generation	
	Number of chambers	2	3	8/12	
Reliability	Number of valves	4	9	1	
	Valve switching times per year	350,000	520,000	/	Rotary valve operates continuously
	Piping pressure fluctuation	±500pa	±250pa	±25pa	
Discharge compliance	Total purification efficiency	95%	99%	99.5%	
	Maximum treating range	1,000mg/m <sup>3</sup>	5,000mg/m <sup>3</sup>	10,000mg/m <sup>3</sup>	Discharge <50mg/m <sup>3</sup> and for <4,000mg/m <sup>3</sup> inlet <20mg/m <sup>3</sup>
Energy saving	Heat dissipation surface area	100 m <sup>2</sup>	145 m <sup>2</sup>	95 m <sup>2</sup>	
	Thermal efficiency	90%	95%	>96%	
	Start-up heating time	2.5 h	3 h	2 h	Cold furnace start-up
	Autothermal concentration	2.5 g/m <sup>3</sup>	2.2 g/m <sup>3</sup>	1.8 g/m <sup>3</sup>	Ethyl acetate
Economy	Regenerative ceramic filling volume	18 m <sup>3</sup>	26 m <sup>3</sup>	17 m <sup>3</sup>	
Practicability	Occupation of land	L12×W7	L16×W7	L12×W7	Meter