



Fractionation High Capacity Specialty Trays

Formerly
Raschig Jaeger
Technologies, Inc.

Numerous considerations must be made when deciding what type of tray is best suited for a given distillation, fractionation or other mass transfer process tower. Of course needed capacity is paramount but also efficiency, turndown, pressure drop, corrosion and fouling and previous plant experience are all of importance. Raschig USA has several decades experience is successfully serving the tray needs of process industries such as oil refineries, chemical plants, etc. Let us apply this experience to your project to assure a successful result and continued success of your plant.

General Tray Classification

Tray Type	Capacity	Efficiency	Turndown	ΔP	Fouling Resistance
Sieve	M	VH	L	L	M
Moving Valve	M	VH	H	M	L
High Capacity Valve	H	VH	M	M	H
Fixed Valve	M	VH	M	L	H
Bubble Cap	L	VH	VH	H	L
Dual Flow	H	M	VL	L	H
Baffle	H	VL	M	VL	VH
Disc & Donut	H	VL	M	VL	VL
NYE	H	H	M	M	M
EC Technology	VH	VH	M	M	L
CoFlo	UH	H	M	H	L

Legend: L = Low; M = Medium; H = High; VH = Very High; VL = Very Low; UH = Ultra High

Materials of Construction

Trays can be fabricated from numerous types of materials. Most often observed in the field are carbon, ferritic and austenitic steels. However exotic metals such as Hastelloy alloys, titanium and other steel types are sometimes required. Please consult with the tray experts at Raschig USA to discuss what material best suits your project needs. Below is a brief list of possible materials – please note that this list is not intended to be a complete reflection of all possible choices.

Carbon Steel	321 Stainless Steel	Inconel
410S Stainless Steel	347 Stainless Steel	Nickel
304L Stainless Steel	904L Stainless Steel	Titanium
316L Stainless Steel	Hastelloy, Various Grades	Alloy 2205
317L Stainless Steel	Monel	Alloy 2

Valve Types

Below is a table of tray valve types. This table is not intended to list all types but rather is intended to note that numerous choices are available. Again, please feel free to contact a valve tray expert at Raschig USA to discuss the best possible choice for your project needs.

RJ-V1 1 Piece Moving Valve	RJ-V4 RJ-V1 With Venturi Orifice	RJ-A1 3 Piece High Turndown Caged Valve
RJ-A4 RJ-A1 With Venturi Orifice	RJA-2 2 Piece Caged Valve	RJ-A5 RJ-A2 With Venturi Orifice
RJ-A3 2 Piece Caged Valve Valve	RJ-A6 RJ-A3 With Venturi Orifice	RG-MMV High Capacity Mini-Moveable
RJ-MV High Capacity Mini Fixed Valve	RJ-SVG Rectangular Fixed Valve	RJ-V0 Rounded Fixed Valve

Valve Variations: leg length; anti-spin tabs; flush seating, alternate mass

Fixed Valve Variations: net rise (curtain area)

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