

Catalytic Cracking

Fluidized Catalytic Cracking (FCC)

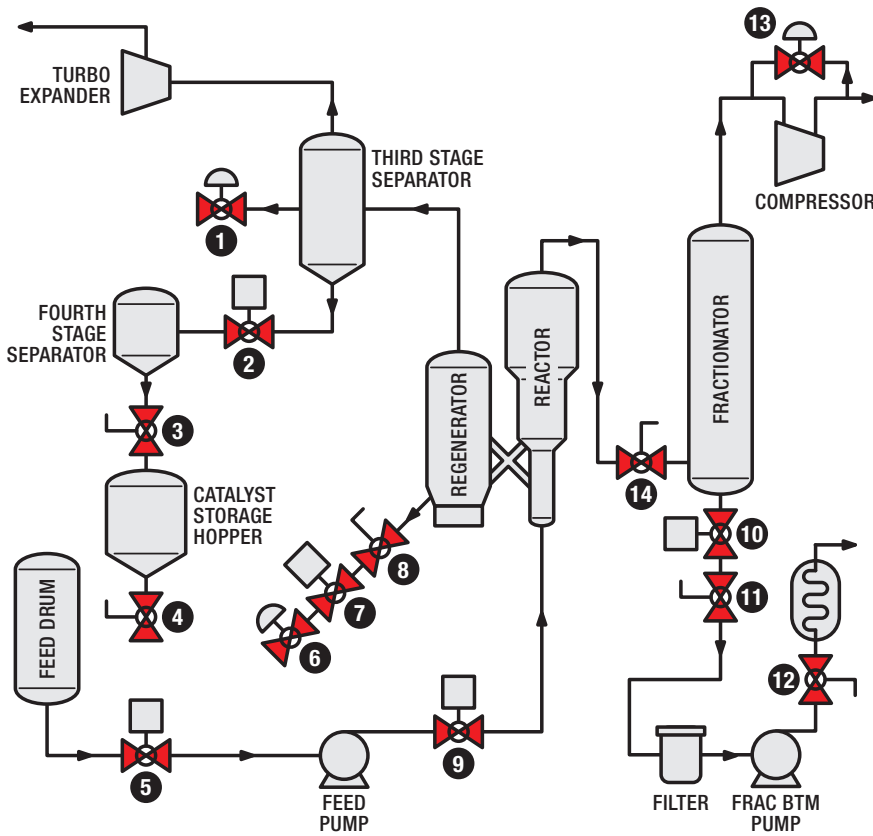
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Valve Number	Valve Description	Design Temperature Range		Design Pressure Range		Pipe Size		Recommended Valve ¹							
		deg F	deg C	psig	bar g	in	dn	C-Series	T-Series	G-Series	ISOLATOR 2.0	IRSVP	Watson Series	FlexStream®	
1	Flue Gas Control	800 – 1425	427 – 774	30	2	1 – 4	25 – 100	•							
2	Third Stage Separator	800 – 1425	427 – 774	30	2	4 – 10	100 – 250	•							
3	Fourth Stage Separator	500 – 1000	260 – 538	30	2	6 – 12	150 – 300	•							
4	Spent Catalyst Storage Hopper	200 – 500	93 – 260	atmospheric	atmospheric	4 – 10	100 – 250	•							
5	Feed Drum Emergency Block Valve	200 – 300	93 – 149	50	3	6 – 12	150 – 300				•				
6	Throttling Spent Catalyst Withdrawal Valve	800 – 1425	427 – 774	30	2	2 – 6	50 – 150	•							
7	Spent Catalyst Withdrawal Emergency Block Valve	800 – 1425	427 – 774	30	2	2 – 8	50 – 200	•							
8	Spent Catalyst Withdrawal Root	800 – 1425	427 – 774	30	2	2 – 8	50 – 200	•							
9	Slurry Feed	200 – 300	93 – 149	100	7	6 – 10	150 – 250				•				
10	Frac Bottoms Emergency Block Valve	500 – 850	260 – 454	50	3	8 – 20	200 – 500				•				
11	Frac Tower Bottoms Filter	500 – 850	260 – 454	150	10	6 – 12	150 – 300				•				
12	Frac Bottoms Exchanger	500 – 850	260 – 454	150	10	4 – 10	100 – 250				•				
13	Wet Gas Compressor Surge Control Valve	100 – 200	38 – 93	30 – 200	2 – 14	10 – 20	250 – 500								•
14	Reactor Overhead	900 – 975	480 – 525	30 – 50	2 – 3	12 – 36	300 – 915	•							
	Heat Exchanger	300 – 1500	150 – 815	200 – 900	13.8 – 62.0	1/2 – 2	13 – 50					•			
	General Ball Valves	25 – 900	-4 – 482	25 – 600	1.7 – 41.4	1 – 3	25 – 75			•					

¹ Recommend ISOLATOR 2.0 or T-Series if size, pressure and temperature conditions are met.

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Typical operating conditions are:

- Ultra high temperature
100 – 1425° F (38 – 774° C)
- Coking service
- Fine powdery catalyst handling
- Polythionic acid corrosion
- Erosive conditions