

# Thermal Cracking

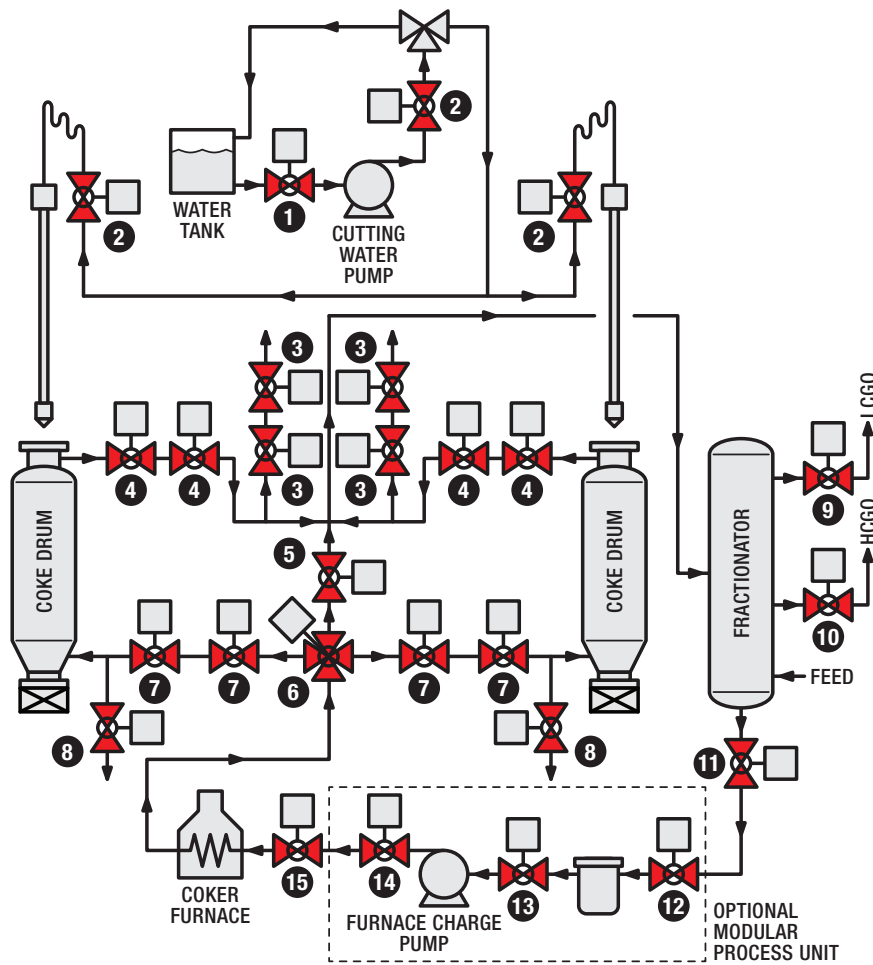
## Delayed Coking

Delayed Coking														
Valve Number	Valve Description	Design Temperature Range		Design Pressure Range		Pipe Size		Recommended Valve <sup>1</sup>						
		deg F	deg C	psig	bar g	in	dn	C-Series	T-Series	G-Series	ISOLATOR 2.0	iRSVP	MOGAS Watson Series™	FlexStream®
1	HP Pump Inlet	100 – 200	38 – 93	50	3.5	3 – 6	80 – 150				•			
2	Cutting Water Pump	100 – 200	38 – 93	2000 – 3000	138 – 207	3 – 6	80 – 150	•	•					
3	Quench Extraction	800 – 900	427 – 482	200	14	8 – 14	200 – 350	•						
4	Overhead Vapor	800 – 900	427 – 482	30	2	16 – 36	400 – 900	•						
5	Coke Drum Bypass	800 – 1000	427 – 538	550	38	8 – 14	200 – 350	•						
6	Coke Drum Switching	800 – 1000	427 – 538	550	38	8 – 16	200 – 400	•						
7	Coke Drum Feed	800 – 1000	427 – 538	550	38	8 – 16	200 – 400	•						
8	Quench Extraction	800 – 900	427 – 482	550	38	3 – 6	80 – 150	•						
9	Light Coker Gas Oil Pump Emergency Block Valve	300 – 600	149 – 316	50	3.5	4 – 10	100 – 250				•			
10	Heavy Coker Gas Oil Pump Emergency Block Valve	300 – 600	149 – 316	50	3.5	4 – 10	100 – 250				•			
11	Frac Bottoms Emergency Block Valve	500 – 850	260 – 455	50	3.5	8 – 16	200 – 400	•			•			
12	Coke Filter	500 – 850	260 – 455	50	3.5	4 – 10	100 – 250	•			•			
13	Furnace Charge Pump Inlet	500 – 600	260 – 316	50	3.5	4 – 10	100 – 250	•			•			
14	Furnace Charge Pump Discharge	500 – 600	260 – 316	550	38	10 – 16	100 – 400	•			•			
15	Furnace Feed	500 – 600	260 – 316	550	38	10 – 16	100 – 400	•			•			
	General Utility Valves (Steam, Water, Condensation)	100 – 300	38 – 149	200 – 300	14 – 20.5	1 – 4	25 – 100				•			
	Drain Valves	100 – 300	38 – 149	200 – 300	14 – 20.5	1 – 4	25 – 100				•			

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

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## Delayed Coking



### Typical operating conditions are:

- High temperature (500 – 1000° F / 260 – 538° C)
- Coking service
- High cycle
- Erosive conditions
- Temperature cycling
- High pressure water service
- High pressure steam blowdown