

Gasification														
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	IRVP	Watson Series	FlexStream®
1	PetCoke / Coal Slurry	200	93	500	34.5	10 – 16	250 – 400	•			•			
2	Oxygen	500	260	3000	206.8	2 – 4	50 – 100	•					•	
3	Gasifier Inlet	1200	650	500	34.5	10 – 16	250 – 400	•						
4	Lock Hopper Inlet	1200	650	500	34.5	4 – 12	100 – 300	•						
5	Lock Hopper Outlet	1200	650	500	34.5	4 – 12	100 – 300	•						
6	Lock Hopper Purge Gas Inlet	1200	650	500	34.5	2 – 4	50 – 100	•						
7	Lock Hopper Purge Gas Outlet	1200	650	500	34.5	2 – 4	50 – 100	•						
8	Gasifier Outlet	1200	650	500	34.5	8 – 14	200 – 350	•						
9	Syngas Cooler	300 – 500	150 – 260	200 – 300	13.8 – 20.6	10 – 16	250 – 400	•			•			
10	Char Recycle	500 – 900	260 – 480	200 – 300	13.8 – 20.6	4 – 8	100 – 200				•			
11	Filtration	500 – 900	260 – 480	200 – 300	13.8 – 20.6	4 – 8	100 – 200				•			
12	Syngas Scrubber	300 – 400	150 – 200	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
13	COS Hydrolyzer	300 – 400	150 – 200	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
14	Sour Water	300 – 400	150 – 200	100 – 200	6.9 – 13.8	8 – 14	200 – 350		•		•			
15	Cooled Acid Syngas	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
16	Hydrogen Sulfide Absorber	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
17	Hydrogen Sulfide Stripper	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
18	Sulfur Heat Recovery	300 – 500	150 – 260	100 – 200	6.9 – 13.8	8 – 12	200 – 300				•			
19	Claus Process	300 – 500	150 – 260	100 – 200	6.9 – 13.8	8 – 12	200 – 300				•			
20	Tailgas Compressor	100 – 200	38 – 93	500	34.5	4 – 8	100 – 200				•			
21	Sweet Syngas	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
22	Moisturizer	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
23	Heater	100 – 200	38 – 93	100 – 200	6.9 – 13.8	14 – 18	350 – 450		•					
	Heat Exchanger	300 – 1500	150 – 815	200 – 900	13.7 – 62.0	1/2 – 2	13 – 50					•		
	General Ball Valves	25 – 900	-4 – 480	25 – 600	1.7 – 41.3	1 – 3	25 – 75			•				

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

Typical operating conditions are:

- High temperature
100 – 1200° F (38 – 650° C)
- Fine and coarse slag service
- High cycle
- Erosive conditions
- Temperature cycling
- Flashing water service
- Chloride corrosion
- High pressure oxygen service

