



Pneumatic Conveying



Dome Valve Water Cooling

Pneumatic Bulk Solids Handling

Document No. CPC-INF-2041

For the majority of bulk solids handling applications the Clyde standard non-water cooled Dome Valve range is more than suitable.

High flue gas temperatures in certain processes however can lead to much higher materials temperatures and in some limited cases even as high as 450 deg C.

The Clyde water cooled Dome Valve is well-proven at these higher temperatures

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ISO9001 | ISO14001



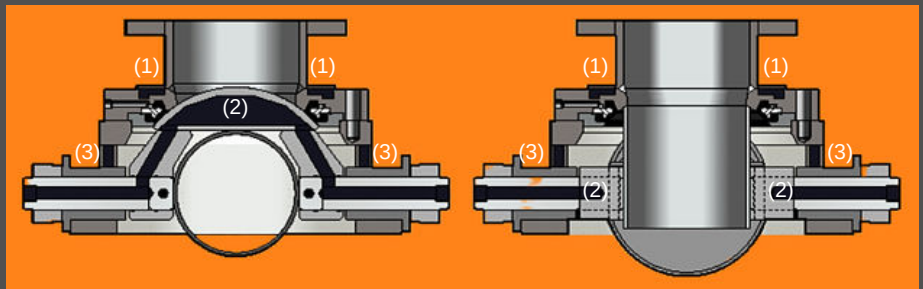
British Engineering

Dome Valve Temperature Ratings

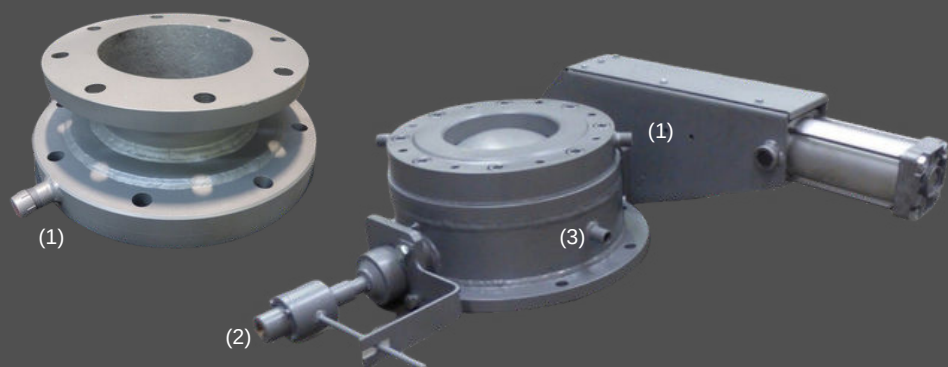
Temperature (deg C)	480	360	310	220	135	-20		
							standard valves	water-cooled valves
								PH3
								PH2
								PH1
								PHV
								PFA

PFA standard	-20 --- 135 deg C
PHV standard	-20 --- 220 deg C
PH1 water-cooled	-20 --- 310 deg C
PH2 water-cooled	-20 --- 360 deg C
PH3 water-cooled	-20 --- 480 deg C

Water Cooled Options



- (1) PH1 water-cooled top plate
- (2) PH2 as PH1 with additional water cooled Dome
- (3) PH3 as PH2 with additional water cooled body



Cooling Water Requirement

Temperature (deg C)	Valve Diameter (mm) / Flow (litre per min)								
	DN50	DN80	DN100	DN125	DN150	DN200	DN250	DN300	
480	4	6	10	17	17	20	27	33	PH3
360	*	*	6	11	11	13	18	22	PH2
310	2	2	3	5	5	6	8	10	PH1
220	no water required								PHV
135	no water required								PFA

* PH2 not available in DN50 - 80mm

The cooling water quality should be normal service water with a pressure between 4.0 - 7.0 barg. Water pressure drop through the circuit will be <50mbar. Supply water should be <40 deg C and the rise through the circuit shall not exceed 20 deg C.