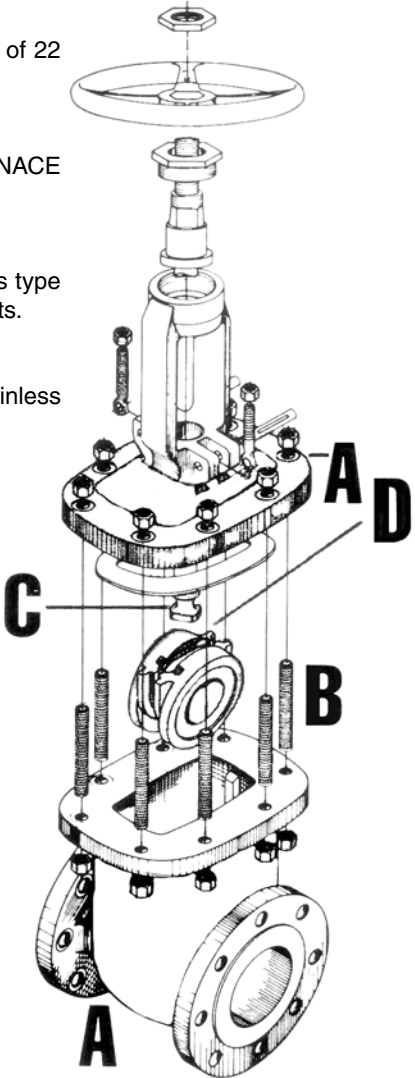


## NACE Trim Steel Valves

For servicing sour environments of Hydrogen Sulfide (H<sub>2</sub>S) bearing hydrocarbons, Crane offers NACE valves made of component materials specially heat-treated and hardness-controlled in compliance with NACE standard MR0103. Typical NACE material configurations are shown below for Crane cast steel gate valves.

- A** Body & Bonnet – Most NACE requirements for heat treatment and maximum hardness of 22 HRC. Standard material is ASTM A216 Grade WCB.
- B** Bolting – ASTM A193 Grade B7M bolts and ASTM A194 Grade 2HM nuts meet both NACE Classes I and II.
- C** Stem – Offering superior resistance to stress corrosion cracking, standard NACE stem is type 316 stainless steel in conformance with NACE hardness and heat treatment requirements.
- D** Disc – Standard disc is one piece flexible wedge ASTM A351 Grade CF8M, type 316 stainless steel in conformance with NACE hardness and heat treatment requirements.



NACE Valves Compared to API 600 Valves			
Valve Parts	API and Hardness	LF Trim NACE	LUF Trim NACE
Body/Bonnet	ASTM A216 Grade WCB	ASTM A216 Grade WCB; ≤22HRC	ASTM A216 Grade WCB; ≤22HRC
Disc – Solid Metal	ASTM A217 Grade CA15; 250 min.	ASTM A351 Grade CF8M; ≤22HRC	ASTM A351 Grade CF8M; ≤22HRC
Seat Ring	Stellite Overlaid; Overlay ≥350 HB	316L Overlaid; Base Metal ≤22 HRC	Stellite Overlaid; Base Metal ≤22 HRC
Gland	Steel Zinc Plated	Steel Zinc Plated; Base Metal ≤22 HRC	Steel Zinc Plated; Base Metal ≤22 HRC
Stem	13Cr; 200-275 HB	ASTM A182 Grade F316; ≤22HRC	ASTM A182 Grade F316; ≤22HRC
Backseat Bushing	13Cr; 250 HB min.	ASTM 479 Grade T316; ≤22 HRC	ASTM 479 Grade T316; ≤22HRC
Body/Bonnet Studs	ASTM A193 Grade 2H	ASTM A193 Grade B7M	ASTM A193 Grade B7M
Body/Bonnet Nuts	ASTM A194 Grade 2H	ASTM A194 Grade 2HM	ASTM A194 Grade 2HM