The following information may be used as a guide to write recommended specifications for Bray Series 30/31 valves.

1. BODY

- Epoxy coated, cast iron, wafer or lug body
- With flange lug drilling that meets ANSI 125/150 (or BS 10D&E, DIN 10, and JIS 10) drillings
- Neck length must provide a minimum of 2" clearance between actuator mounting flange and pipe flange for insulation and ease of installation
- Actuator mounting flange bolt circle per ISO 5211

2. STEM and DISC

- Through-stem direct drive double "D" design requiring no disc screws or pins to connect stem to disc with no possible leak paths in disc-stem connections
- Stem mechanically retained in body neck with corrosion-resistant 304SS stem retainer ring
- Spherically machined, hand-polished disc edge and hub for minimum torque and maximum sealing capability
- No part of stem shall be exposed to line media

3. SEAT

- Tongue-and-groove seat design with primary hub flat seal and a molded o-ring suitable for weld-neck and slip-on flanges
- Seat totally encapsulates the body with no flange gaskets required
- Seat should be interchangeable with all other valve styles of manufacturer

4. STEM SEAL and BUSHING

- Equipped with self-adjusting stem seal and non-corrosive acetal bushings

5. PRESSURE RATINGS

- All valves must be factory tested for bubble-tight shutoff to 110% of pressure rating
- All valves must be rated bi-directionally to the full pressure rating specified
- 2"-12" valves: 175 psi
- 14"-20" valves: 150 psi
- Lug bodies for dead end service,
  2"-12" valves: 100 psi

6. GENERAL COMMENTS

- Valves to be Bray Series 30/31 as manufactured by Bray Valve and Controls
- No field adjustment necessary to maintain optimum field performance
- All manual, pneumatic, or electric actuators shall be direct mounted to valves and supplied by the valve manufacturer

- Cv, valve sizing coefficients, must be equal to Bray S30/31 at 90° open
- All disc, stem, and seat parts must be replaceable individually; i.e., one must not be required to purchase a disc/stem/seat repair kit when only one of these items requires replacement
- All materials of valve body, disc, stem, and seat must meet the following specifications:

BODY	
Cast Iron	ASTM A126 Class B
Ductile Iron	ASTM A536 65-45-12
Steel	ASTM A216 WCB
DISC	
Ductile Iron	ASTM A536 65-45-12
Alum. Bronze	ASTM A148 954
Nylon-Coated Ductile Iron	Nylon 11 over ASTM A536 65-45-12
316SS	ASTM A351 CF8M
STEM	
PCS	Coated Carbon Steel
416SS	ASTM A276 Grade 416
304SS	ASTM A276 Grade 304
316SS	ASTM A276 Grade 316
Monel	Monel 400
SEAT	
EPDM	Food Grade
BUNA-N	Food Grade
White BUNA-N	Food Grade
Fluoroeslastamer	Several formulations available