

## MODEL B333

### Large Diameter Butterfly Valve with Gear Operator

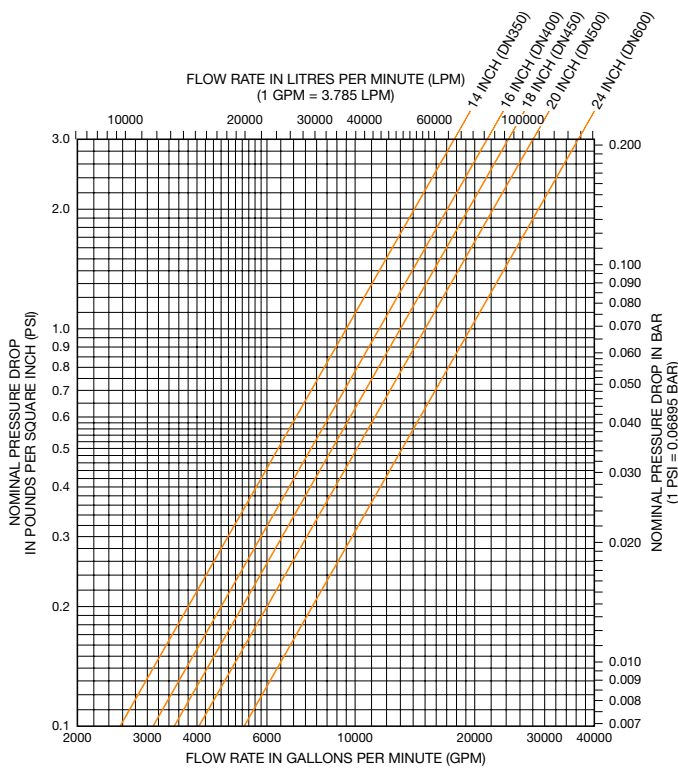
The Model B333 Large Diameter Butterfly Valve provides efficient control of fluid flow in piping systems. It is a grooved-end bubble tight shut-off valve with end-to-end dimensions that meet MSS SP-67, Table 4 and a mounting pad that meets ISO 5211 for the mounting of power actuators. The valve is capable of bidirectional fluid flow at working pressures to 300 psi (20 bar) and may be positioned in any orientation.

The 14 to 24 inch (DN350 to DN600) Model B333 Butterfly Valve is configured with a worm type gear operator and consists of an epoxy powder coated ductile iron body and EPDM or Nitrile (NBR) rubber encapsulation dual-seal disc. The body and disc construction provides for increased strength and durability. The disc seal and body coating are compatible with a variety of chemicals and temperature ranges. Contact your Anvil Representative for specific recommendations on seal and coating selections.

**MAXIMUM WORKING PRESSURE:** 300 psi (20 bar), non-shock cold water



MODEL B333 GROOVED END BUTTERFLY VALVE  
NOMINAL PRESSURE LOSS VS FLOW (FULL OPEN POSITION)



**NOTE:** For design purposes, a safety factor of 15% to 20% should be applied to the values in the above table.

### MATERIAL SPECIFICATIONS

**VALVE BODY & DISC:** Ductile iron conforming to ASTM A536, Gr. 65-45-12 and/or to ASTM A395 Gr. 65-45-15

**STEM SEALS:** O-Ring, EPDM

**BODY COATING:** Epoxy powder coating, black color

**DISC ENCAPSULATION:** Grade "E" EPDM, Grade "T" Nitrile (NBR)

**UPPER AND LOWER SHAFTS:** Stainless steel conforming to ASTM A582, Type 410

**GEAR OPERATOR HOUSING:** Cast iron, conforming to ASTM A126-B

**SET SCREW:** Cr-Mo Steel

**HEX NUT:** Carbon Steel

**SPRING PIN:** Spring Steel

**SEAT MATERIAL:**

- Grade "E" EPDM – For service temperatures from -30°F to 200°F (-34°C to 93°C). Recommended for water service, dilute acids, alkalis, oil-free air, and many chemical services.

Note: Not recommended for use in petroleum services.

- Grade "T" Nitrile – For service temperatures from -20°F to 180°F (-29°C to 82°C). Recommended for petroleum products, air with oil vapors, vegetable oils, and mineral oils. They are not recommended for use in hot water services.

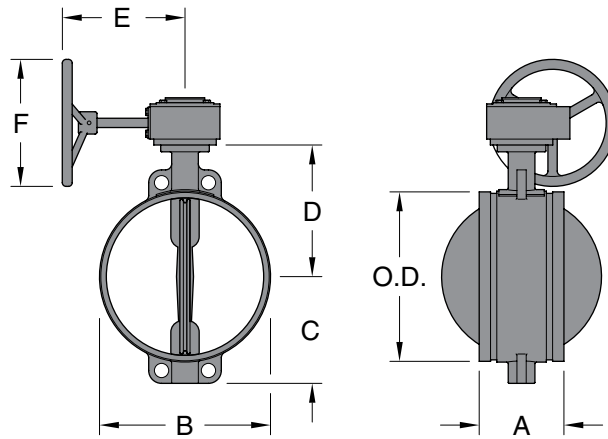
Note: Not recommended for use in hot water services.

Contact an Anvil Sales Representative for specific recommendations on seat material.

PROJECT INFORMATION		APPROVAL STAMP	
<b>Project:</b>		<input type="checkbox"/> Approved	
<b>Address:</b>		<input type="checkbox"/> Approved as noted	
<b>Contractor:</b>		<input type="checkbox"/> Not approved	
<b>Engineer:</b>		<b>Remarks:</b>	
<b>Submittal Date:</b>			
<b>Notes 1:</b>			
<b>Notes 2:</b>			

## MODEL B333

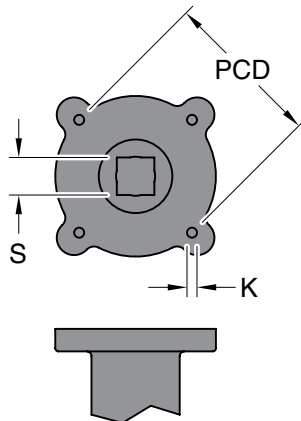
Large Diameter Butterfly Valve with Gear Operator



**B333 LARGE DIAMETER BUTTERFLY VALVE**

Valve Size	O.D.	Operating Torque	Dimensions						Approx. Wt. Ea.
			A	B	C	D	E	F	
14 <i>350</i>	14.000 <i>355.6</i>	3000 <i>339</i>	7.00 <i>178</i>	14.37 <i>365</i>	8.82 <i>224</i>	10.86 <i>276</i>	9.50 <i>242</i>	12.00 <i>305</i>	130.0 <i>59</i>
16 <i>400</i>	16.000 <i>406.4</i>	4000 <i>452</i>	7.00 <i>178</i>	16.38 <i>416</i>	9.76 <i>248</i>	11.89 <i>302</i>	9.50 <i>242</i>	12.00 <i>305</i>	147.4 <i>67</i>
18 <i>450</i>	18.000 <i>457.2</i>	5500 <i>621.5</i>	8.00 <i>203</i>	18.50 <i>470</i>	11.14 <i>283</i>	13.78 <i>350</i>	11.40 <i>290</i>	16.20 <i>412</i>	223.5 <i>101.4</i>
20 <i>500</i>	20.000 <i>508.0</i>	8000 <i>904</i>	8.50 <i>216</i>	20.75 <i>527</i>	12.36 <i>314</i>	15.08 <i>383</i>	11.40 <i>290</i>	16.20 <i>412</i>	292.6 <i>133.0</i>
24 <i>600</i>	24.000 <i>609.6</i>	9500 <i>1073.5</i>	10.00 <i>254</i>	24.76 <i>629</i>	14.49 <i>368</i>	17.83 <i>463</i>	11.40 <i>290</i>	16.20 <i>412</i>	352.0 <i>160.0</i>

These torque values were derived from test data with non-lubricated valves in water, non-pressurized at ambient temperatures  
 For information on alternative sizes, contact an Anvil Sales Representative.  
 Note: The torque values are based on liquid applications. For dry or non-lubricating applications add a 25% service factor to the above values.



**GEAR OPERATOR MOUNTING DIMENSIONS**

Valve Size	PCD Dia.	Dimensions	
		Bolt Size K	S
14 <i>350</i>	4.90 <i>125</i>	M12	0.94 <i>24.0</i>
16 <i>400</i>	5.50 <i>140</i>	M16	1.44 <i>36.6</i>
18 <i>450</i>	5.50 <i>140</i>	M16	1.736 <i>44.1</i>
20 <i>500</i>	6.50 <i>165</i>	M20	2.04 <i>52.0</i>
24 <i>600</i>	6.50 <i>165</i>	M20	2.04 <i>52.0</i>