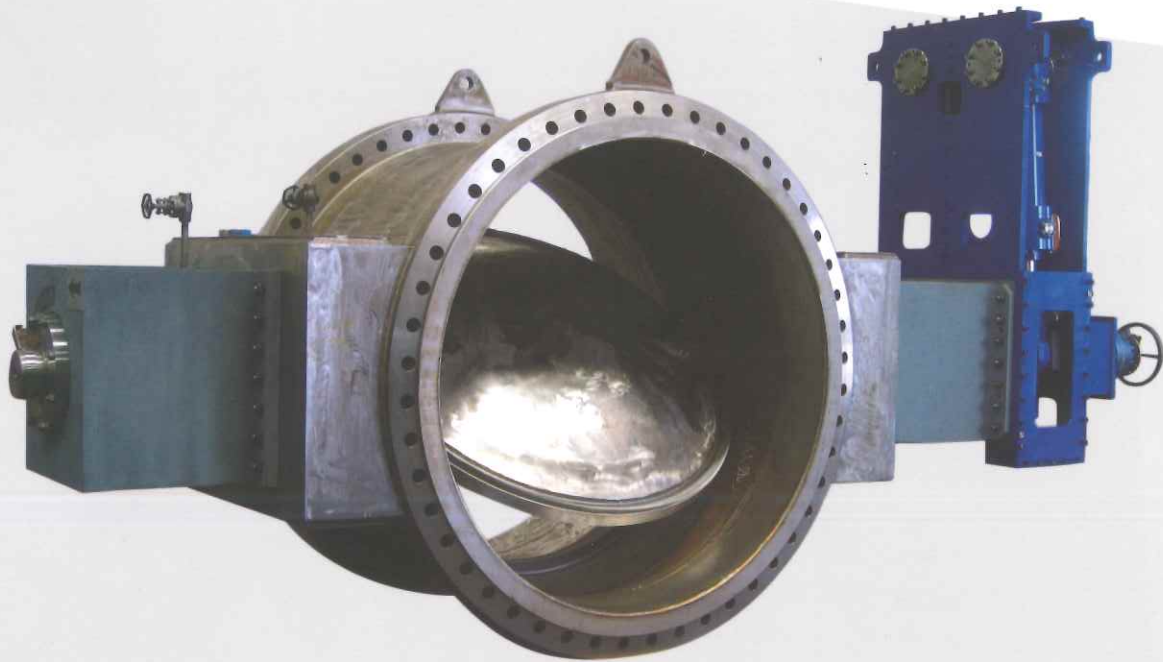



Butterfly Valves




Engineering
GREAT Solutions

**Butterfly valves for
power recovery turbines**

Butterfly valves for power recovery turbines

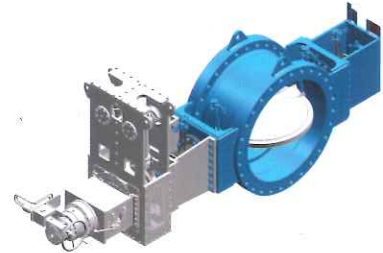
Our butterfly valves are specifically designed to regulate the flow of gas to the power recovery turbine to give full control of all aspects of this critical equipment.

Key features

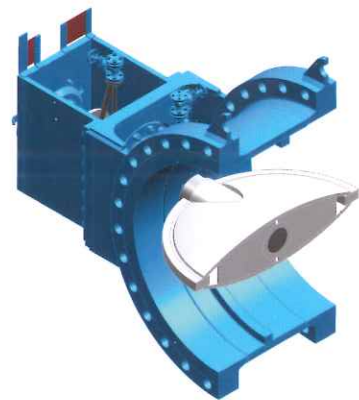
- > Fast acting shut-off valves (<1 second)
- > Large range of control
- > Hard-faced seat and seat area
- > High performance nickel alloy shaft
- > Lightweight rigid disc design
- > Reduced seat leakage
- > Any detail is customisable
- > In-house computational flow analysis

Benefits

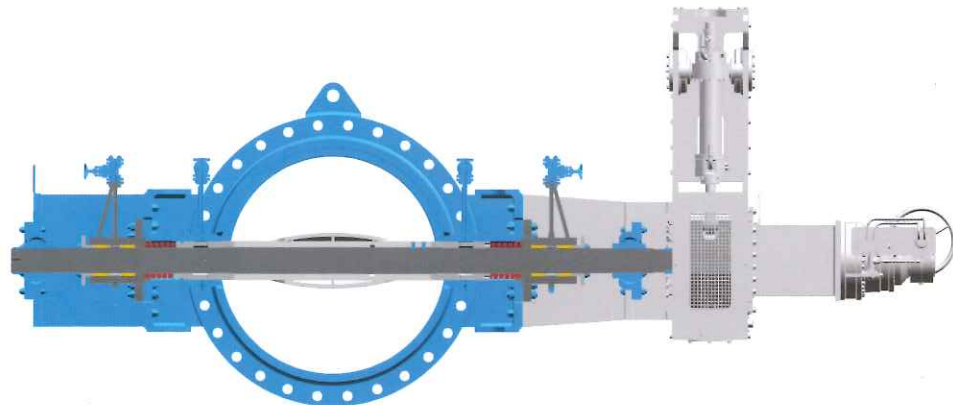
- Our butterfly valves are the result of years of design and experience working with the end users. Their highly refined design enables quick and precise control of the Expander Turbine.
- > Fast acting Shut-Off
 - Response time averaging at 0.5 second (0-100% stroke)
 - Protects the turbine from overspeed
 - Emergency shutdown solenoids valves SIL3 certified
 - > Versatile control
 - Automatic throttling action
 - Easily switch from automatic to remote control
 - Backup control systems available
 - > Robust design
 - Designed to work up to 950°C
 - Domed disc to increase resistance without increasing weight
 - Shaft is high performance nickel alloy
 - > Tailored to customer requirements
 - Valve design can be scaled to any size, from 8" to 150"
 - Available for both flanged and welded connection



Integrated package valve-control system



Aerodynamic disc shape to optimize valve CV



Lightweight rigid disc design

Product specification and dimensions

Materials

SA240 304H
Inconel X750 with THT
Stellite #1 or #6
Nitronic 60

Temperature limits

Body and internals designed for temperatures up to 950°C (1742°F)

Full valve selection available on our website

www.IMI-Critical.com

Production range

Any diameter from 8" to 150"

Hot shell design	Inlet control	Inlet shutoff	Inlet trip	Main By-pass	By-pass	Outlet
Temperature	up to 982°C (1800°F)	up to 982°C (1800°F)	up to 982°C (1800°F)	up to 982°C (1800°F)	up to 982°C (1800°F)	up to 982°C (1800°F)
Material handled	Flue gas	Flue gas	Flue gas	Flue gas	Flue gas	Flue gas
Size	from 8" to 150"	from 8" to 150"	from 8" to 150"	from 8" to 150"	from 8" to 150"	from 8" to 150"
Body	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6
Disc	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6	SA-240 304H hardfaced by stellite #1 or #6
Shaft	Alloy X-750	Alloy X-750	Alloy X-750	Alloy X-750	Alloy X-750	Alloy X-750
Actuating system	Electrohydraulic	Electrohydraulic	Electrohydraulic	Electrohydraulic	Electrohydraulic	Electric or electrohydraulic

Cold shell design	Control By-pass	By-pass	Outlet
Temperature	up to 982°C (1800°F)	up to 982°C (1800°F)	up to 982°C (1800°F)
Material handled	Flue gas	Flue gas	Flue gas
Size	from 20" to 150"	from 20" to 150"	from 20" to 150"
Body	SA-516 Gr70 with refractory lining	SA-516 Gr70 + SA-240 304H with refractory lining	SA-516 Gr70 + SA-240 304H with refractory lining
Disc	SA-240 304H	SA-240 304H seat hardfaced by stellite #1 or #6	SA-240 304H seat hardfaced by stellite #1 or #6
Shaft	Alloy X-750	Alloy X-750	Alloy X-750
Actuating system	Electrohydraulic	Electrohydraulic	Electrohydraulic

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