

Greenbank Terotech - Heavy Industrial Division

"Engineering added value in the application, design, management and manufacturing of physical assets in pursuit of economical lifecycle costs"



Enhancing Performance

KleNEflo Pf Valve

The Greenbank KleNEflo valve is designed to operate in pulverised fuel (PF) systems and maintain an open position during operation and then shut upon pressure drop or flash-back from the boiler. Over its length the KleNEflo valve gives the lowest pressure drop of its type.

Non-Return Valve

The KleNEflo NRV is designed to be installed upstream as close to the burner or boiler as possible in order to prevent the passage of flames or hot furnace gases back down the pipeline towards the mill.

Mill Isolation Valve

The KleNEflo MIV is designed to be installed downstream as close to the pulverising mill or classifier as possible enabling isolation during maintenance period or during mill start up as required.

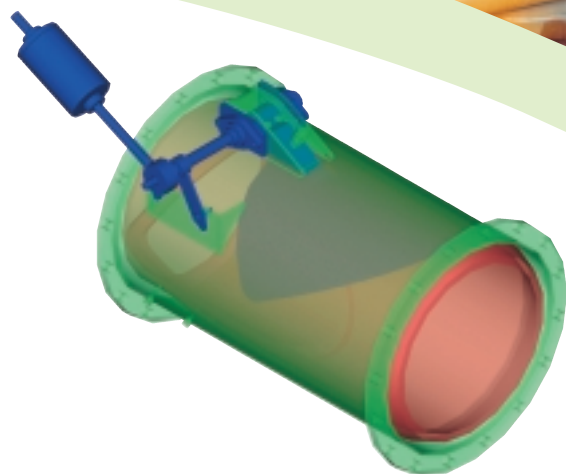
The construction of the valve is very simple and effective. The body comprises of a thick walled mild steel shell in which is inserted a replaceable wear resistant flap and

seat. When the flap is open it hugs the profile of the body eliminating steps, cavities and ledges, retaining a cylindrical cross-section, ensuring minimum interference and pressure drop during operation. When the flap is closed it sits firmly into the specially profiled seat.

The body of the valve can be either lined or unlined depending on duty and customer preference.

The KleNEflo NRV flap operates on a simple but reliable sealed bearing arrangement that has been developed over the years to operate effectively with the minimum of maintenance. A counter balance weight is incorporated in to the Non-Return valve which is adjusted on site to provide the correct closing torque.

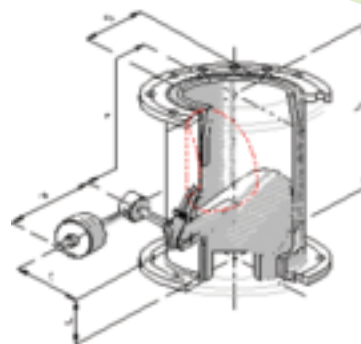
The KleNEflo MIV flap operates on the same bearing arrangement as the KleNEflo NRV but is power operated by pneumatic or electrical actuator(s).



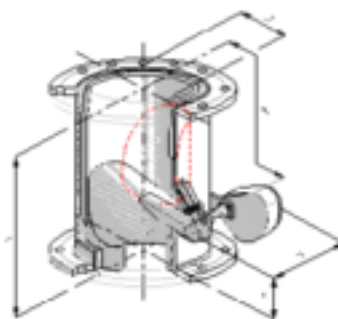
KleNEflo Pf Valve

Salient Features of the KleNEflo Valve are described below:

- LOW PRESSURE DROP ACROSS THE VALVE FLANGES
- MINIMUM INTERFERENCE TO PF FLOW.
- SIMPLE, RELIABLE CONSTRUCTION AND EASILY COMMISSIONED.
- CAN BE SUPPLIED LINED OR UNLINED.
- CAN BE DESIGNED TO FIT MOST DIAMETERS AND APPLICATION.
- FULLY MAINTAINABLE, THE VALVE CAN BE FULLY REFURBISHED AND RELINED THUS RETAINING THE INITIAL INVESTMENT IN THE VALVE BODY



NON-RETURN VALVE



MILL ISOLATION VALVE

B NOMINAL	L MINIMUM	W APPROX	X MINIMUM	Y MINIMUM	Z MINIMUM
254	574	418	329	229	157
280	615	444	342	242	168
303	650	466	353	253	176
336	702	500	370	270	190
366	732	520	380	280	198
380	771	548	384	284	208
400	800	564	402	302	214
432	849	596	418	318	227
456	886	620	430	330	236
480	923	644	422	342	245
508	967	672	456	366	257
540	1016	704	472	372	269
660	1201	824	532	432	315
940	1634	1104	672	572	424

The Greenbank Group UK

Incorporating:
Greenbank Terotech
Greenbank Materials Handling
GAIM

Head Office: Hartshorne Road, Woodville, Derbyshire DE11 7GT. United Kingdom

Tel: +44 (0)870 607 8880 Fax: +44 (0)870 607 8889

Web: www.greenbankgroup.com Email: info@greenbankgroup.com