













## Block valve (see figure 9)

Narvik-Yarway supplies boiler block valves of their own design. Upper and lower valve are identical.

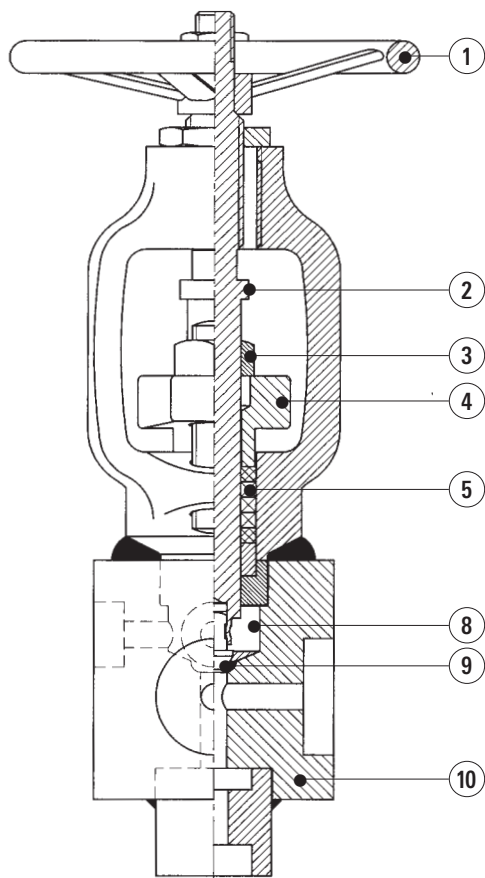


Figure 9

## Drain valve (see figure 10)

Forged steel globe valve 3/4" class 1500, design for ASME boiler and pressure vessel code, section 1 applications.

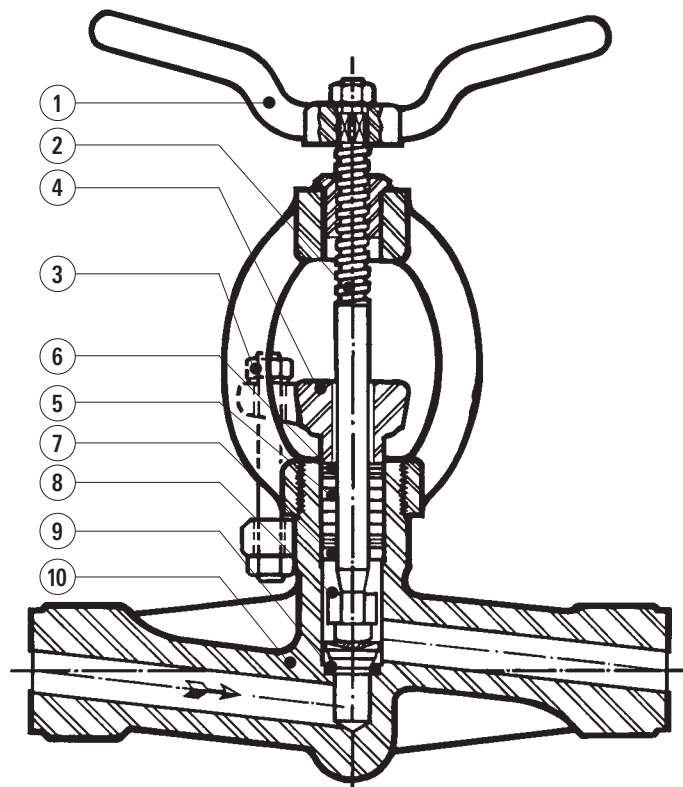


Figure 10

Table 3 - Standard materials

Shut-off valve				Drain valve			
Item	Name	Material	Equivalent	Item	Name	Material	Equivalent
1	Handwheel	Aluminium		1	Handwheel	A278 Gr. 40	
2	Stem	A479 TP410		2	Stem	13Cr1Mo	
3	Stud/nut	A193 B7/2H		3	Stud/nut	A193 B7/2H	
4	Packing gland	SA105		4	Packing gland	A181 Gr. 60	
5	Packing	Graphite		5	Packing	Graphite	
6				6	Packing ring	Merkel 5604	
7				7	Ring	A182 F316	
8	Disc	Stellite 6		8	Disc	Stellite	
9	Seat	Stellite 6		9	Seat	Stellite	
10	Body	A516 Gr. 70		10	Body	A105 N	

Connections: flanged, butt weld, socket weld or threaded to various standards, upon request

# High Pressure Level Gauges, Model: 17

## Principle of operation

- When light passes through a liquid, it is refracted through an angle of approximately 10° (see figure 11). The high pressure gauge uses this principle, in conjunction with an illuminator, to obtain contrasting green and red, reading of the water/steam level in the boiler.
- The viewing length is divided into a number of individual port assemblies, thus eliminating long, continuous glass strips, which are susceptible to cracking.
- These two principles, combined, enable clear reading of the high pressure gauge, and provides reliable operation over an extended service life.

## Red indication

When there is no water present in the port, the light from the LED's passes through the plano convex lens. This focused light beam then travels through the gauge insert and is displayed on the frosted glass in the readout section in the front view hood. The image is large and of high definition and may be viewed through a wide angle. When there is no water in the port, the red light beam has an uninterrupted path through the port and will be displayed as red on the readout.

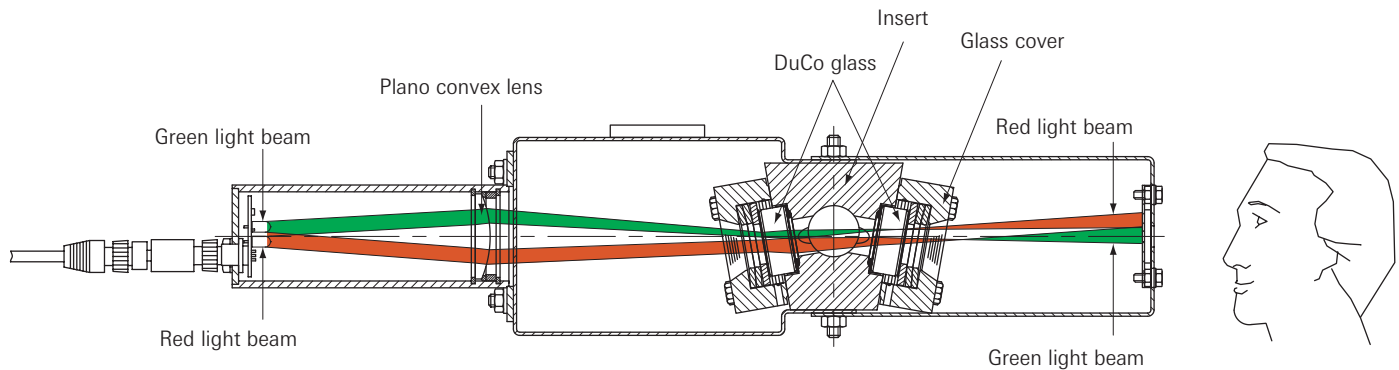
## Green indication

When there is water present in the port, the red/green light beam is refracted. The red light is offset outside the port whilst the green light has an uninterrupted path through the port and will be displayed as green on the readout.

## Electrical detail

The Narvik-Yarway DuCoLED illuminator is provided with led technology for use with supply voltage of 12 Vdc. Power consumption is 60 mA per led unit. Power supply suitable for 110-230 Vac, 15 W.

Figure 11: Water in the port: Green signal on readout window



## Partlist

Pos.	Name	Material
1	Read-out housing	Stainless steel
2	Led unit housing	Stainless steel
3	Led unit	Stainless steel
4	T-connector and cable	
5	Frosted glass	Borosilicate
6	Glass holder	Stainless steel

