

page 331



Quick closing valves **Ductile cast iron**

- Pressure rating: PN 10
- DN 15-200
- Pressure above the disc
- Actuators easy to exchange
- Type approval by classification societies

page 332



Bellow sealed valve Steel

- Pressure rating: PN 16
- DN 15-150
- Pressure above the disc
- Actuators easy to exchange
- SS bellow sealed
- · Quick closing

page 333



Impulse unit Single piston

- Aluminium
- Wall mounting
- Connection 1/8"
- Top quality

page 334



Impulse unit 2 and 3 pistons

- Cast iron
- Double piston type
- Triple piston type
- Wall mounting
- Top quality

page 335



Pneumatic quick closing valve control cabinet

- Short delivery times
- Galvanised steel pressure vessel
- 30 bar 10 litre
- Safeguarded against low
- Selection of multiple groups

• Connection 1/8"

Globe valves and accessories



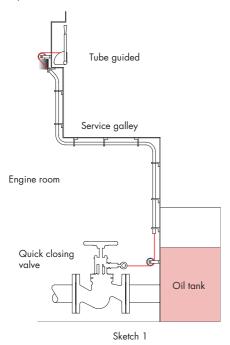
Econ® quick closing globe valves

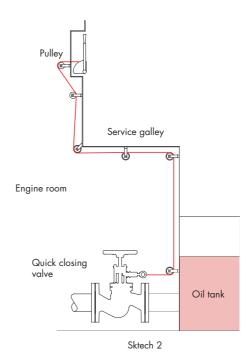
Although also used in shore based installations, the Econ® quick closing globe valves are specifically designed for marine use in elevated fuel and diesel lines, providing a quick shut-off in emergency situations from an accessible location outside the engine room and above the water line. In the normal position the valve can be opened and closed with the handwheel as any standard manual valve. In the normal position and opened, the valve can be quickly closed by remote control. The transmission system that is needed for this can be executed:

- A) Mechanical
- B) Hydraulic
- C) Pneumatic
- D) Cylinder with thermal fuse

The cylinders that are needed for quick closing the valves are allready installed as standard.

A) Mechanical transmission





- When actuating the valve using a pulling wire, the total distance may not exceed 15 metres.
- The pulling wire must be a substantial braided steel wire of sufficient strength.
- If there is any stretch in the wire, ensure that this does not affect the correct operation of the shut-off device.
- The pulling wire should run over as few guide pulleys as practically possible.
- The actuator of the shut-off device must be readily accessible: painted in a red colour or clearly outlined in red, while each actuator handle must have a label to indicate which shut-off valve it will close.
- The pulling wire and guide pulleys must be installed in such a way that mechanical damage is not possible.
- The testing of a quick closing valve must be carried out in the presence of a Dutch Shipping Inspector and/or a surveyor of the classification society that is monitoring the construction of the vessel.

The sketches 1 + 2 show a few possibilities for transmission by pulling wire.

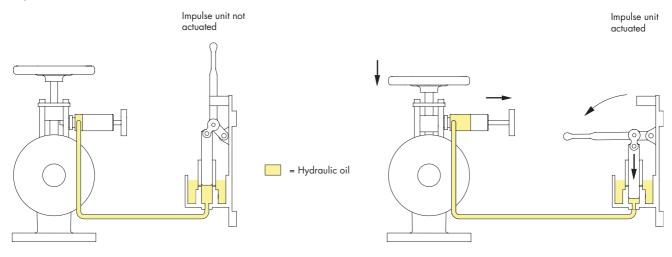
In sketch 1 the steel wire, which must be adequately greased or graphited, is guided through a narrow tube.

In sketch 2 the steel wire is only guided over pulleys at corners. In places where a risk exists for unwanted snagging of the wire, we recommend protecting the wire by adequately sized tubing. We recommend using a steel wire tensioner in both cases. The installation and the necessary parts for this are not included in the shipment.

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B) Hydraulic transmission



Opened quick closing valve

Closed quick closing valve

- The Econ® hydraulic impulse units that are often used are fig. 106, 107 or 108.
- The connection between the hydraulic cylinder of the valve and the impulse unit must be made of seamless drawn steel tubing with a minimum inner diameter of 6 mm.
- The number of connections and bulkhead fittings must be restricted to a minimum.
- There should not be any sharp bends in the transmission lines. The assembly must be installed in such a way that mechanical damage is not possible.
- The oil type used may not affect the correct operation either under tropical or arctic conditions.
- One impulse unit is allowed to control a maximum of three quick closing valves simultaneously, with the exception of quick closing valves used for daytanks. These should each be separately connected to an impulse unit.

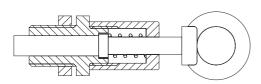
C) Pneumatic transmission

- The control cabinet should comply with the requirements of the classification society concerned.
- The connection between the pneumatic cylinder of the valve and the impulse unit must be made of seamless drawn steel tubing with a minimum inner diameter of 4 mm.
- The number of connections and bulkhead fittings must be restricted to a minimum.
- There should not be any sharp bends in the transmission lines. The assembly must be installed in such a way that mechanical damage is not possible.
- Each actuator switch must have a label to indicate which shut-off valve it will close.
- One actuator switch is allowed to control a maximum of three quick closing valves simultaneously, with the exception of quick closing valves used for daytanks. These should each be separately connected to an actuator switch.

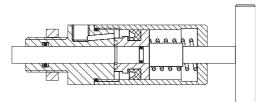
How it works: For pneumatic remote control, the Econ® quick closing globe valve is provided with a pneumatic cylinder. The pneumatic system operates the cylinder. (refer to Econ® quick-closing-valve control cabinet)

The installation can be tailored to the user's needs, although the following rules must be taken into account; The control cabinet (pressure vessel and control panel) must be installed outside the engineroom. The pressure vessel must have sufficient capacity for closing all shut-off valves at least twice. The installation must be provided with a manually operated emergency pump.

Drawing of cylinders



For mechanical transmission



For hydraulic and pneumatic transmission

Globe valves and accessories

Econ® quick closing valves for mechanical, hydraulic or pneumatic transmission A reliable safety valve, providing for a remote shut-off from an accessible location. These valves comply with the requirements of the classification societies. They are mainly used on board ships and are suitable for fuel, oil etc.

Figure 100/247 en 100/248 with flanges DIN PN 10 are made of ductile cast iron.

Material specification

Material Specification							
Component	Material	EN and/or (DIN)	W.nr.				
Body	Ductile cast iron	GJS-400-18-LT (GGG-40.3)	0.7043				
Bonnet	Steel						
Disc	Stainless steel	- (X15Cr13)	1.4024				
Seat	Stainless steel	- (X15Cr13)	1.4024				
Stem	Stainless steel	- (X15Cr13)	1.4024				
Gland packing (o-ring)	FPM (Viton)						
Cylinder	Brass						
Spring	Spring steel						
Retainer block	Brass						
Handwheel	Steel						

Pressure and temperature range

DN 15 - 65 4 bar 150 °C DN 80 - 200 2 bar 150 °C

Options

- Full steel construction
- Bronze body
- Stainless steel body, straight pattern only
- Open/Closed indication

Ordering information

Ordering code	DN [mm]	Transmission	Model
100/247	15 - 125	Mechanical	Straight
100/247HP	15 - 125	Hydraulic/Pneumatic	Straight
100/247P	150 - 200	Pneumatic	Straight
100/247H	150 - 200	Hydraulic	Straight
100/248	15 - 125	Mechanical	Angle
100/248HP	15 - 125	Hydraulic/Pneumatic	Angle
100/248P	150 - 200	Pneumatic	Angle
100/248H	150 - 200	Hydraulic	Angle

Dimensions

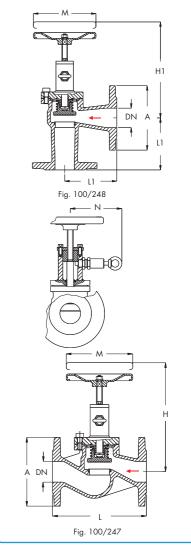
	DN	Α	M		L1	H	H1		V	Weig	ght
								mechanical	hydraulic or	Straight	Angle
									pneumatic		
								transn	nission		
						[m	m]			[kg	1
	15	95	125	130	90	188	180	142	165	5	5
	20	105	125	150	95	188	180	142	165	6	6
	25	115	125	160	100	200	185	142	165	6.5	7.5
	32	140	125	180	105	200	185	142	165	9.5	9
	40	150	150	200	115	232	215	147	170	12.5	12
	50	165	150	230	125	234	215	147	170	17	16
	65	185	150	290	145	277	250	157	180	28	27
	80	200	150	310	155	293	265	157	180	31	33
	100	220	200	350	175	350	315	162	185	45	46
	125	250	200	400	200	383	340	162	185	66	66
2	150	285	250	480	225	475	420	190	190	74.5	74.5
9	200	340	250	600	275	552	485	190	190	105	105





Quick closing valves Ductile cast iron

- fig. 100/247
- fig. 100/248
- Pressure rating: PN 10
- DN 15-200
- Pressure above the disc
- Actuators easy to exchange
- Type approval by classification societies



Globe valves and accessories

Econ® globe valves with bellow sealed bonnet for mechanical, hydraulic or pneumatic transmission.

A reliable safety valve, providing for a remote shut-off from an accessible location.

These valves comply with the requirements of the classification societies.

They are mainly used on board of ships and are suitable for thermal oils.

Material specification

Component	Material	EN and/or (DIN)	W.nr.
Body	Cast steel	GP240GH + N (GS-C25N)	1.0619 + N
Bonnet and handwheel	Steel		
Disc, seat and stem	Stainless steel	- (X15Cr13)	1.4024
Gland packing (o-ring)	FPM (Viton)		
Cylinder	Brass		
Spring	Spring steel		
Retainer block	Brass		

Ordering information

Ordering code	DN [mm]	Transmission	Model
100/436	15 - 125	Mechanical	Straight
100/436HP	15 - 80	Hydraulic/Pneumatic	Straight
100/436H	100 - 150	Hydraulic	Straight
100/436P	100 - 150	Pneumatic	Straight
100/437	15 - 125	Mechanical	Angle
100/437HP	15 - 80	Hydraulic/Pneumatic	Angle
100/437H	100 - 150	Hydraulic	Angle
100/437P	100 - 150	Pneumatic	Angle

Pressure and temperature range

2 bar - 350 °C

Operating pressure for cylinder: 6 bar

Special types

- Quick opening type
- Open/Closed indication

Dimensions

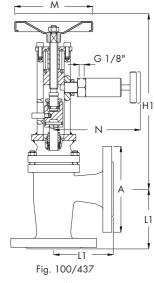
	DN	Α	М	L	L1	Н	H1	1	V	Weig	ght
								mechanical	hydraulic or	Straight	Angle
									pneumatic		
								transn	nission		
						[m	m]			[kg	1
	15	95	125	130	90	188	180	142	165	5	5
	20	105	125	150	95	188	180	142	165	6	6
	25	115	125	160	100	200	185	142	165	6.5	7.5
	32	140	125	180	105	200	185	142	165	9.5	9
	40	150	150	200	115	232	215	147	170	12.5	12
	50	165	150	230	125	234	215	147	170	17	16
	65	185	150	290	145	277	250	157	180	28	27
	80	200	150	310	155	293	265	157	180	31	33
-	100	220	200	350	175	350	315	162	185	45	46
f	125	250	200	400	200	383	340	162	185	66	66
3	150	285	250	480	225	475	420	190	190	74.5	74.5





Bellow sealed valve Steel

- fig. 100/436
- fig. 100/437
- Pressure rating: PN 16
- DN 15-150
- Pressure above the disc
- Actuators easy to exchange
- SS bellow sealed
- · Quick closing



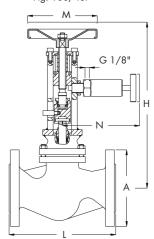


Fig. 100/436

Globe valves and accessories

Econ® impulse units for quick closing globe valves with hydraulic remote control. For hydraulic remote control, the Econ quick closing valve is equpped with a hydraulic cylinder which is activated by a special single piston impulse unit.

How it works

Operating principle: When the lever of the impulse unit is pulled downwards, the oil volume below the piston is pushed through the connecting tubing to the activating cylinder of the quick closing valve.

The volume of oil displaced under pressure will move the cylinder's piston-rod, which will release the blocking and close the valve. (Refer to introduction to the section on hydraulic transmission)

Material specification

Component	Material	EN and/or (DIN)	W.nr.
Body and cover	Aluminium	- (AlMgSi1)	3.2315
Base plate	Aluminium	AC-AlMg3(a) (G-AlMg3)	3.3541
Cylinder	Brass	CuZn39Pb2	2.0380
Piston	Stainless steel	X8CrNiS18-9 (X12CrNiS18 8)	1.4305
Lever	Aluminium	AC-AlMg3(a) (G-AlMg3)	3.3541
Cylinder bottom	Stainless steel	X8CrNiS18-9 (X12CrNiS18 8)	1.4305
Seal ring	NBR		
Seal ring	Steel		
O-ring	NBR		
Filler / bleed cap	Brass	CuZn39Pb2	2.0380
Sight glass	PMMA (Perspex)		

Recommended oil types

BP HLP HM32

Chevron Mechanism LPS-32

Esso Nuto-H32

Mobil DTE 24 or DTE light

Shell Tellus 32 Elf Hydrelf DS-32 Texaco Rando HD32

Dimensions

Length	Width	Depth	Weight
	[mm]		[kg]
420	80	115	2.5

Ordering information

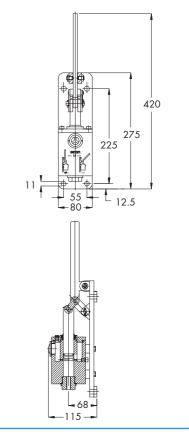
Ordering code	Model
106	single piston





Impulse unit single piston

- fig. 106
- Aluminium
- Wall mounting
- Connection 1/8"
- Top quality



Globe valves and accessories

Econ® impulse units for quick closing globe valves with hydraulic remote control. For hydraulic remote control, the Econ® quick closing valve is provided with a hydraulic cylinder which is activated by a special double or triple piston impulse unit.

Operating principle: When the lever of the impulse unit is pulled downwards, the oil volume below the piston is displaced through the connecting tubing to the activating cylinder of the quick closing valve.

The volume of oil displaced under pressure will move the cylinder's piston-rod, which will release the retaining block and close the valve. (Refer to introduction to the section on hydraulic transmission)

Material specification

Component	Material	EN and/or (DIN)	W.nr.
Body	Cast iron	GJL-250 (GG-25)	0.6025
Cover	Cast iron	GJL-250 (GG-25)	0.6025
Base plate	Cast iron	GJL-250 (GG-25)	0.6025
Cylinder	Brass	CuZn39Pb2	2.0380
Piston	Stainless steel	X8CrNiS18-9 (X12CrNiS18 8)	1.4305
Lever	Cast iron	GJL-250 (GG-25)	0.6025
Cylinder bottom	Stainless steel	X8CrNiS18-9 (X12CrNiS18 8)	1.4305
Seal ring	NBR		
Seal ring	Steel		
O-ring	NBR		
Filler cap / de-aeration	Brass	CuZn39Pb2	2.0380
Sight glass	PMMA (Perspex)		
Instruction plate	Aluminium		

Recommended oil types

BP HLP HM32

Chevron Mechanism LPS-32

Esso Nuto-H32

Mobil DTE 24 or DTE light

Shell Tellus 32 Elf Hydrelf DS-32 Texaco Rando HD32

Ordering information

Ordering information						
	Ordering code	Model				
	107	2 piston				
	108	3-niston				





Fig. 107

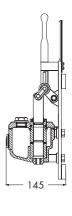
Fig. 108

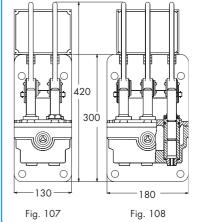




Impulse unit 2 and 3 pistons

- fig. 107
- fig. 108
- Cast iron
- Double piston type
- Triple piston type
- Wall mounting
- Connection 1/8"
- Top quality





Globe valves and accessories

Econ® pneumatic control cabinet with 10 litre galvanised steel pressure vessel (max. 30 bar) with 4 or 6 connections. The Econosto pneumatic control cabinet is specifically designed for controlling our quick closing valves fig. 100/247 and 100/248. The maximum volume of air lines and cylinders is 40 dm3.

Material specification

Component	Material	EN and/or (DIN)	W.nr.
Cabinet	Steel		
Pressure vessel	Galvanised steel		
Ball valve	Stainless steel		
Pressure gauge	Brass		
Reducing valve	Bronze	CuSn5Zn5Pb5-C (G-CuSn5ZnPb (Rg 5))	2.1096.01
Safety valve	Steel		
Safety valve	Bronze	CuSn5Zn5Pb5-C (G-CuSn5ZnPb (Rg 5))	2.1096.01
Pressure switch	Brass		
3/2-way valve	Aluminium		
Strainer	Steel		

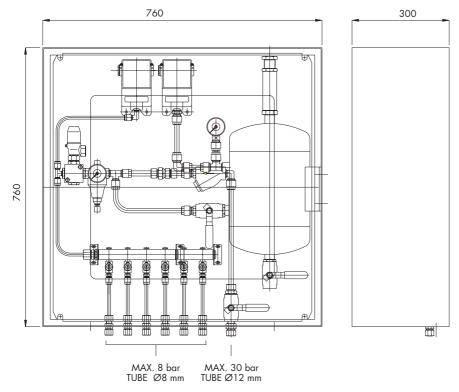
Pressure and temperature range

Maximum pressure of vessel 30 bar Operating pressure 6 bar

Special types

- Multiple group connections are possible
- Indicators (incl. lamp test)

Dimensions



760 x 760 x 300 mm

Ordering information

	Ordering code	Model
	SOS Pneumatische bedieningskast	4-groups connection
	SOS Pneumatische bedieningskast	6-groups connection
	SOS Pneumatische bedieningskast	Other





Pneumatic quick closing valve control cabinet

- Short delivery times
- Galvanised steel pressure vessel
- 30 bar 10 litre
- Safeguarded against low pressure
- Selection of multiple groups