



®

MIRAB CO.

Manufacturer of Industrial Valves
and Relevant Equipment

**Single Chamber Triple
Function Sewage Air Valves**



Single Chamber Triple Function Sewage Air Valves

Size: DN50 - DN200

Pressure: PN10 - PN16

Flange dimensions: DIN EN 1092-2 (DIN2501)

Function:

This type of valves can releases the pressured Air from pipeline or injects the Air in to the pipe when is required automatically. The internal parts are made by polymers which are resistant against corrosive effects from sewage.

Security Structure:

All the combined inner parts are made of polymer (Polyethylene 100) and resistant to corrosion with long shelf life

Paint Coating:

All cast iron parts are covered with blue epoxy powder coating (RAL 5015 or RAL 5005) through electrostatic method.

Application Area:

It is used for sewage liquid with minimum working pressure 0.3 bar with temperature up to 70° C (Otherwise it can be manufactured as per order)

Hydrostatic test Pressure (bar) according to DIN EN 12266-1

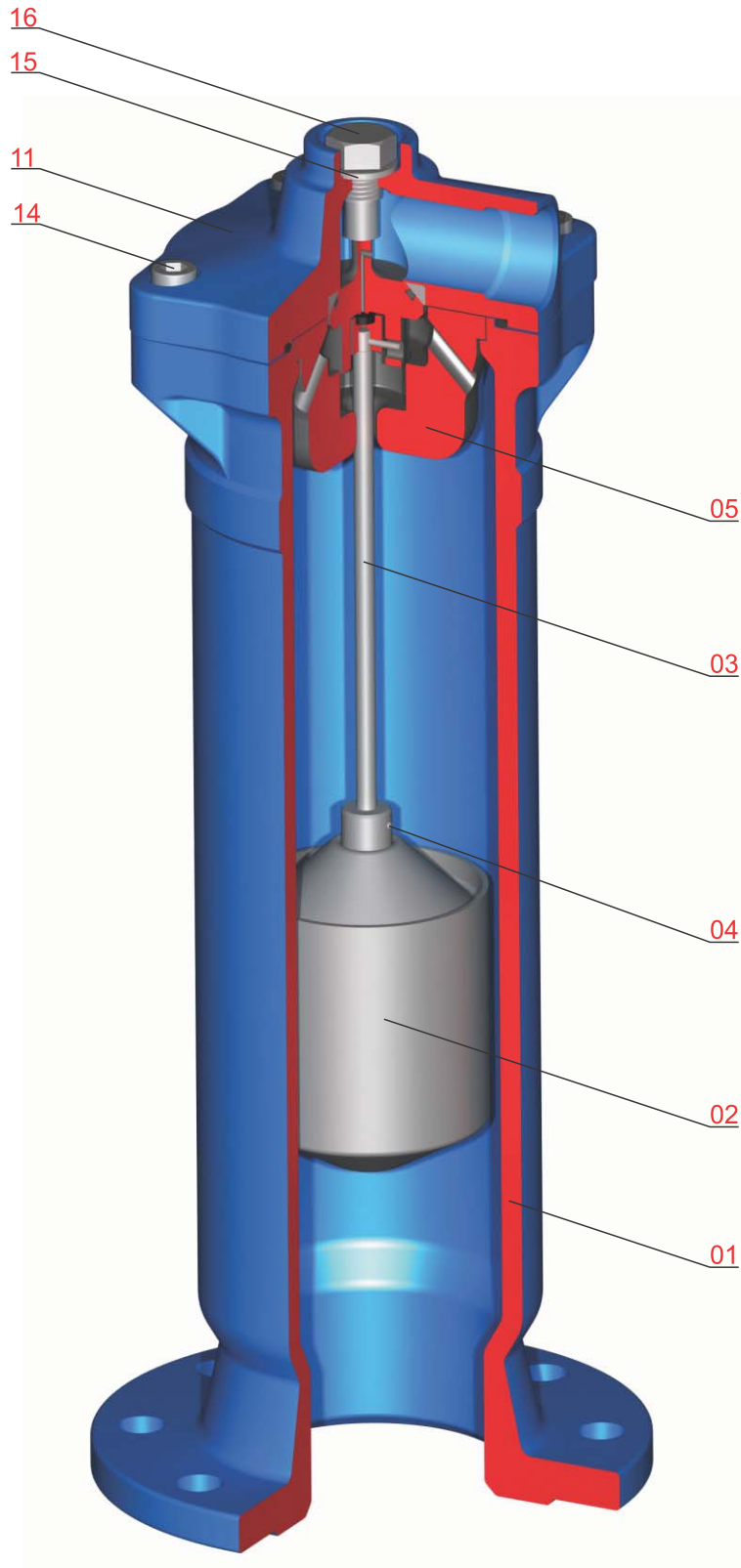
Nominal Pressure (bar)	Pressure Test with water (bar)	
	Shell Test	Closure Test
10	17	11
16	25	18

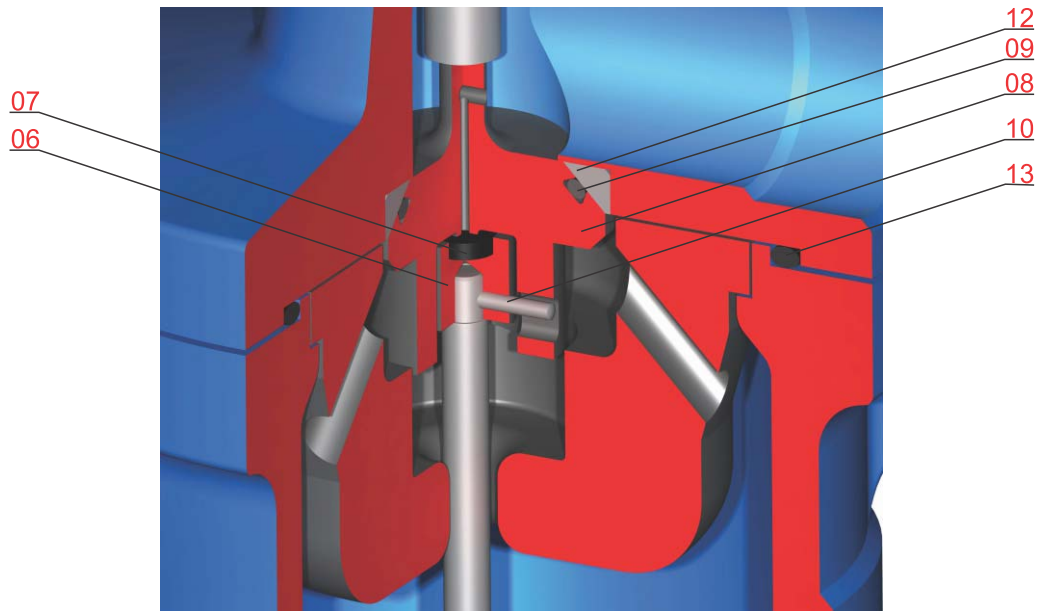
Advantaged of the Valve

- Low noise
- Safe design
- Compact design
- Low number of pieces
- Electrostatic powder coating (EKB)
- Screws made of A2 Stainless Steel
- Inner sealing parts made of Polyethylene 100 (Resistant against corrosion)



Sewage Air Valves Part List





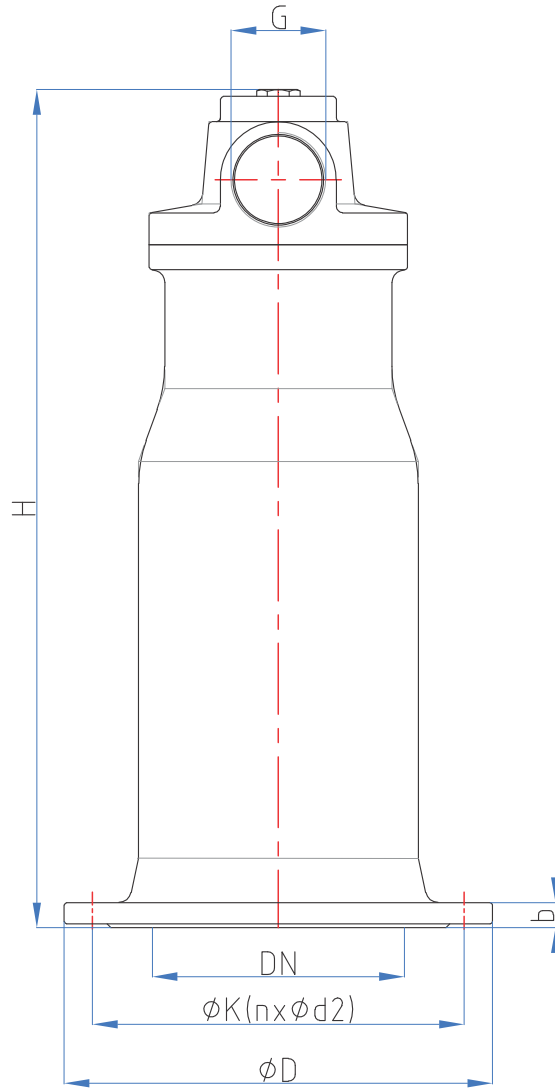
Part No.	Part Name	Part Material	1	2
01	Body	* EN 1563/ EN-GJS-400-15		
02	Float	** Polypropylene	•	
03	Indicator rod	DIN EN 10088-3/ 1.4301		
04	Slot spring pin	DIN EN 10088-3/ 1.4301		
05	Stopper	POM	•	
06	Sealing rubber holder	POM	•	
07	Sealing Rubber	EPDM (NBR on Request)	•	•
08	Sealing Disc	POM	•	
09	O- Ring	NBR (EPDM on Request)	•	•
10	Slot spring pin	DIN EN 10088-3/ 1.4301		
11	Lid	* EN 1563/ EN-GJS-400-15		
12	Sealing Ring	DIN EN 10088-3/ 1.4301		
13	O-Ring	NBR (EPDM on Request)	•	•
14	Allen Screw	ISO 898-1 Property Class 8.8,Zinc Plated		
15	Washer	ISO 3506-2Gr.A2 Property Class 70		
16	Indicator Screw	DIN EN 10088-3/ 1.4301		

(1)Suggested spare parts

(2)Depreciable parts

*Based on your order it can manufactured with EN-GJS-500-7

**For 10, 16 pressure this material is used and for higher pressures S.St. 304 material is used
(Based on your order for 10, 16 pressures S.St. 304 material can be presented too)

Dimension and weight of Sewage Air Valves


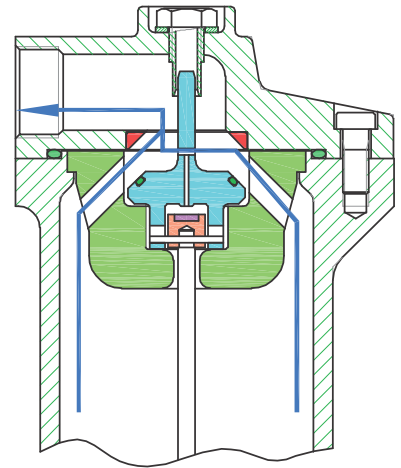
•DIN EN 1092-2 (DIN 2501)

DN mm	PN bar	•ØD mm	•ØK mm	•Ød2 mm	•n	•b mm	H mm	G (in)	~W kg	~V dm ³
50	10.16	165	125	19	4	19	520	G1¼"	20	20
80	10.16	200	160	19	8	19	540	G1¼"	22	20
100	10.16	220	180	19	8	19	560	G1¼"	23	20
150	10.16	285	240	23	8	19	660	G2½"	40	40
200	10.16	340	295	23	PN10=8	20	660	G2½"	50	40
					PN16=12					

How does Sewage Air Valves work

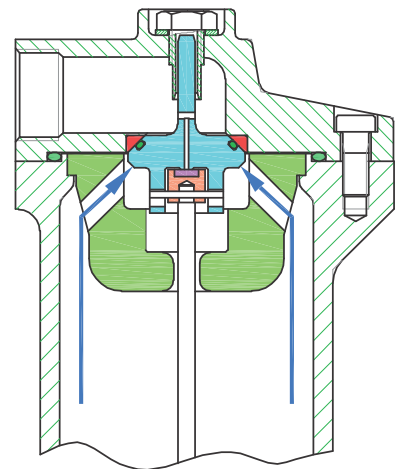
1) Air input and discharge

When discharging the line the pressure inside the line gets lower than atmosphere pressure and in this position the valve guides the air inside the pipe. When filling the line, air gets out of the valve through this route



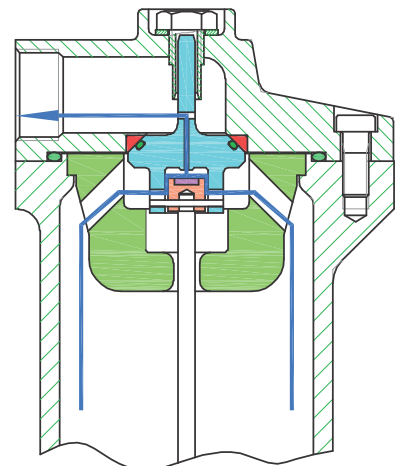
2) Closing the valve when the line is full:

Once the pipe is full, the water level comes up in the valve and the ball and sealing disc gets floated and shuts the outlet

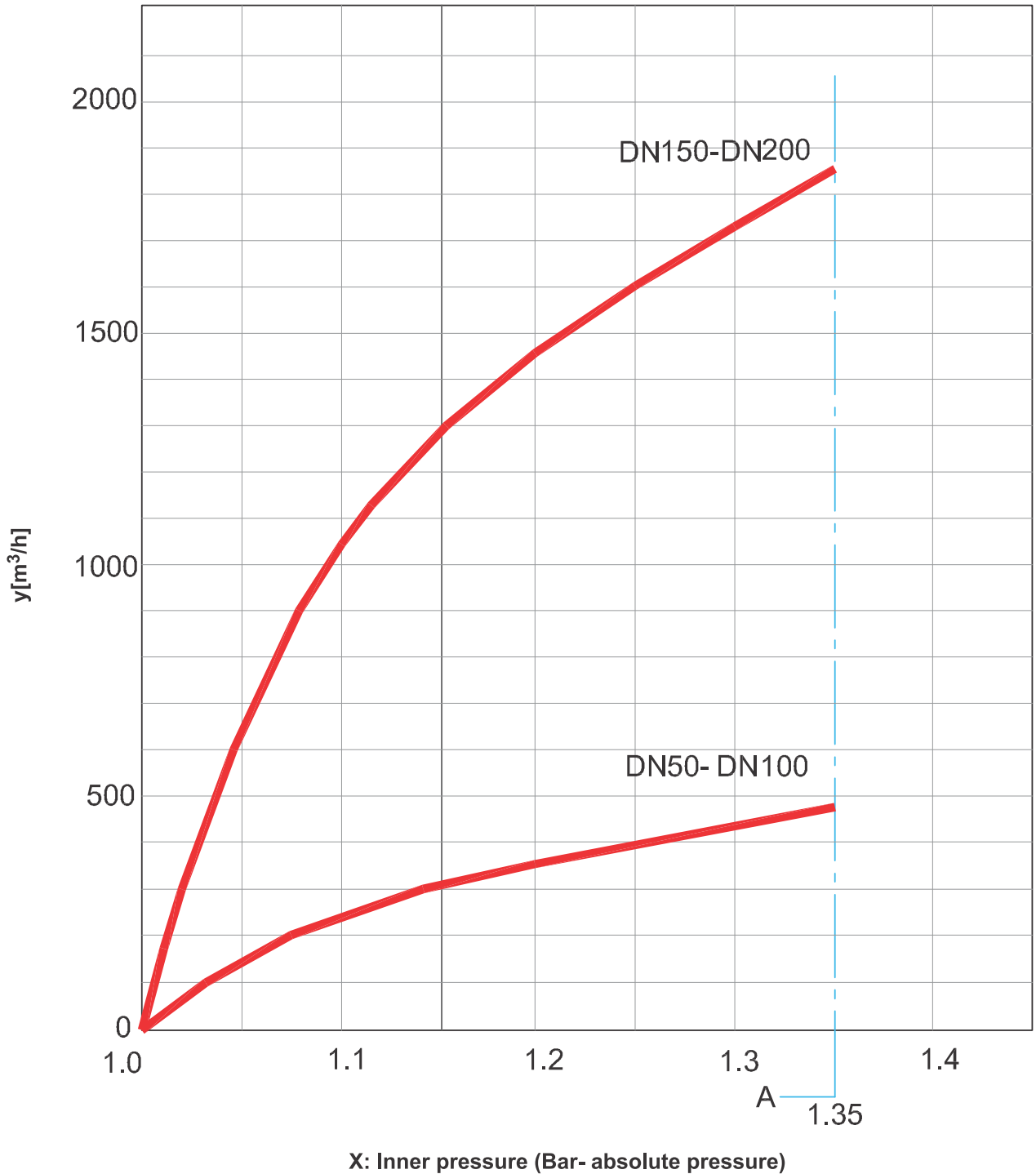


3) Letting the air out at maximum inner pressure:

The air is trapped in the valve and makes the water level go down. This will make the ball go down and opens the little ventilating orifices



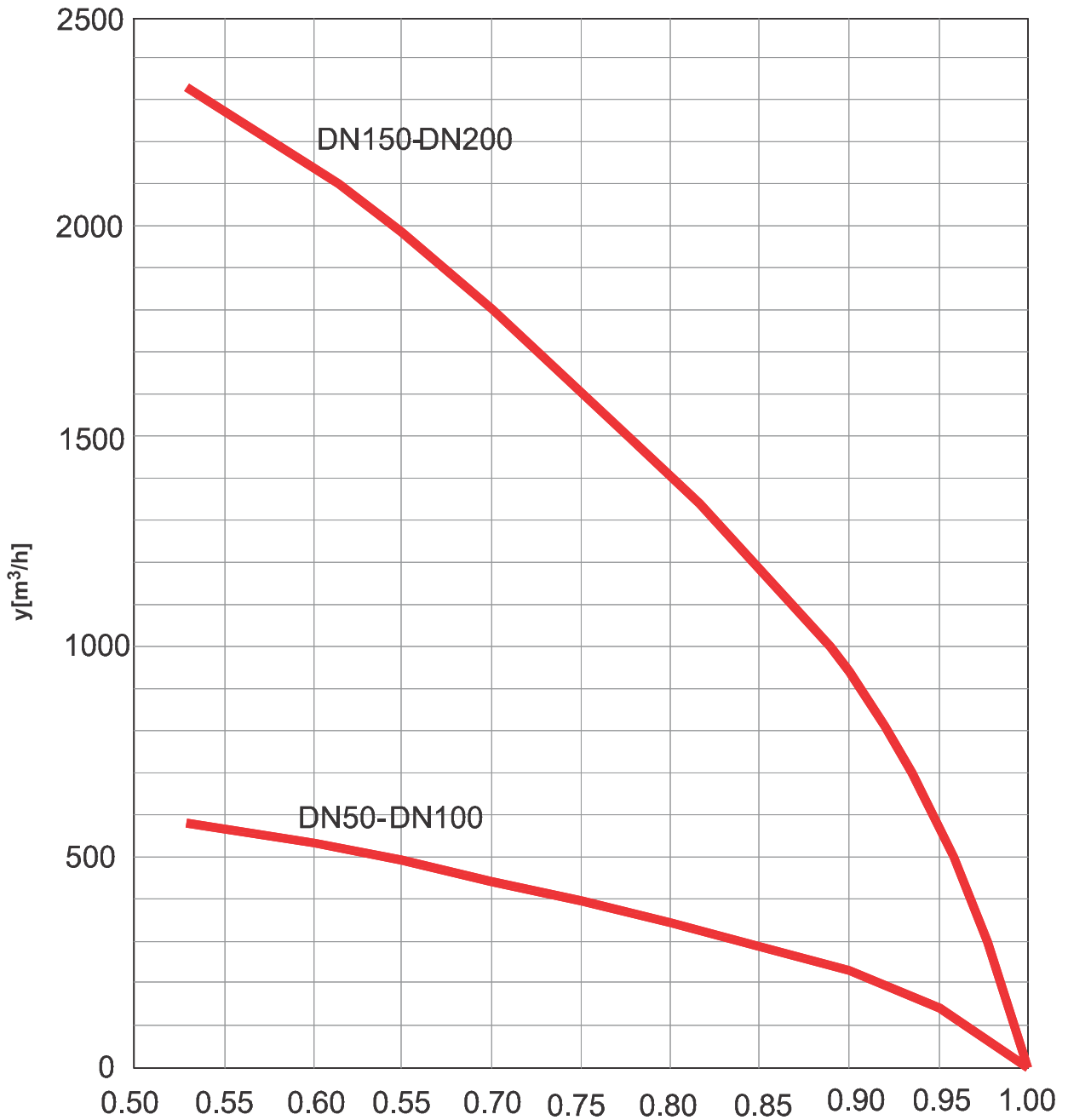
A chart showing air outlet based on the inner pressure of the valve



X: Inner pressure P (Bar- absolute pressure)
Y: Volume of outgoing air Q (cubic meter/ hour)



Chart showing air getting in based on inner pressure

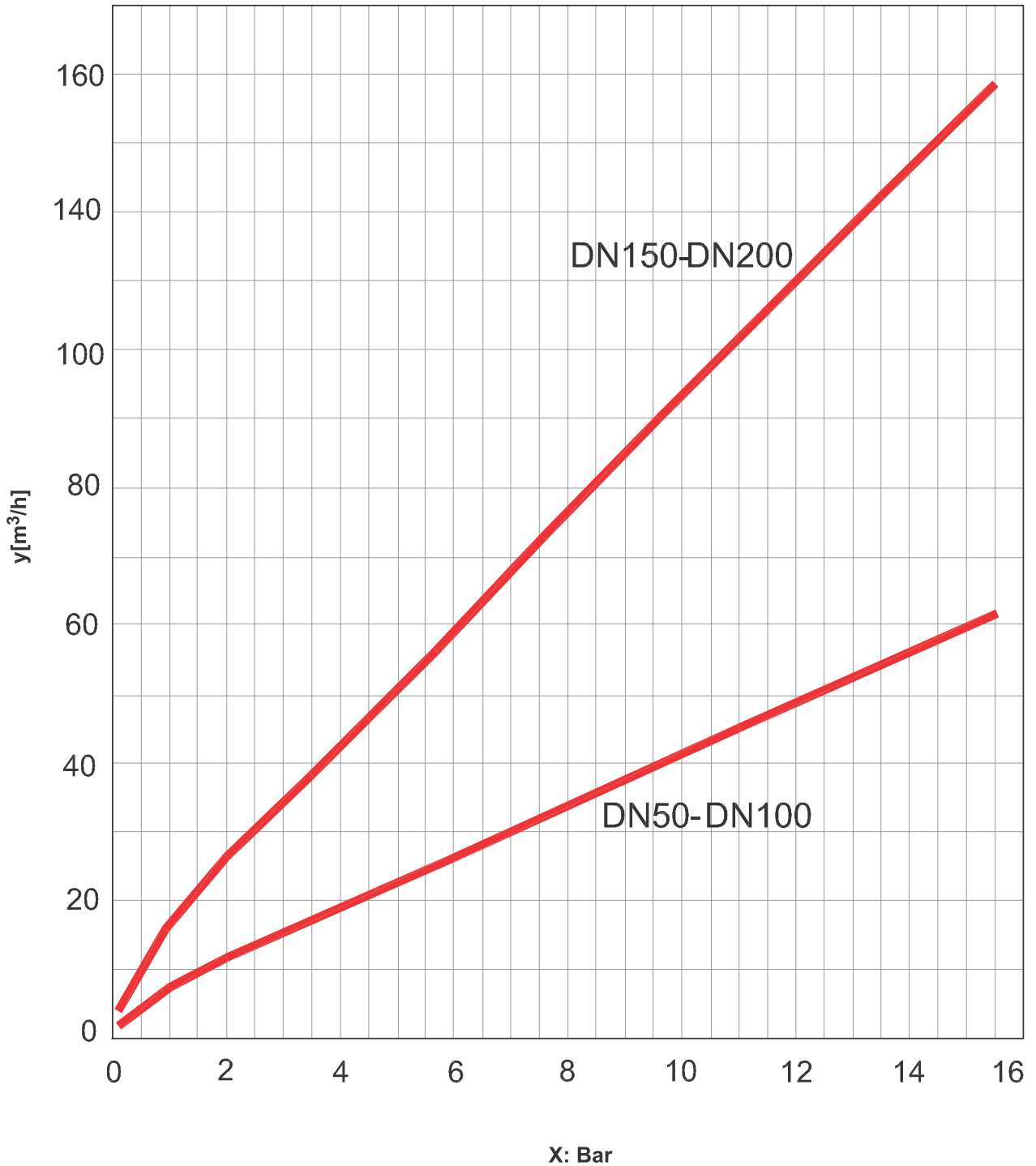


X: Inner pressure (Bar- absolute pressure)

X: Inner pressure P (Bar- absolute pressure)
Y: Volume of outgoing air Q (cubic meter/ hour)



Chart showing air output based on utilization pressure



X: Utilization pressure P in the pipe (bar)
Y: Volume of air output Q (Cubic meter/ hour)

MIRAB Co' PRODUCTS

Butterfly Valves Family: Double Flanged Type, Butt-weld End, Wafer Type, Lug Type, Hydraulic Actuated, Pneumatic Actuated.

Gate Valves Family: Soft-Sealing Gate Valve, Metal Seat Gate Valve, Knife Gate Valve, Sluice Gate Valve.

Non Return Valves Family: Tilting Disc with Counter Weight, Tilting Disk with Counter Weight and Hydraulic Damper, Swing Check Valve, Silent Check Valve, Foot Valve, Nozzle Check Valve, Wafer Pattern Check Valve, Flap Valve.

Air Vent Family: Single Chamber - Double Orifices , Double Chambers - Double Orifices, Sewage Air Valves, Large - Orifice Air Valve.

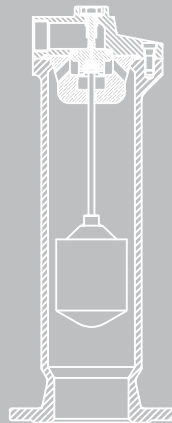
Control Valves Family: Automatic Control Valves, Needle Valve, Globe Valve, Fixed Cone Free Discharge Valve, Hollow Jet Valve, Sleeve Valve.

Hydrant Valves Family: Standing Type, Pit Type, Wet Barrel Fire Fighting Valve, Post Indicator Valve.

Strainers Family: Y Type, T Type, One Side Flanged Type.

Fittings Family: Dismantling Joint F1&F2, Pipe Coupling, Flange.

Actuators: Electrical, Hydraulic, Pneumatic, Portable Electrical.



Head office: #9, 14th Alley,
N. Gol Afshan St., Dadman Blvd.,
Shahrak-e-Qods,
Tehran, 14697-85171, Iran
Tel: +98 (0)21 88372220
Fax: +98 (0)21 88577508

Plant #1: 28th St.,
Km 10 of Karaj Special Rd.,
Tehran, 13897-15851,
Iran
Tel: +98 (0)21 44545650
Fax: +98 (0)21 44545658

Plant #2: Sarvestan Blvd.,
Shams-Abad Industrial zone,
Km 40 of Tehran-Qom Highway,
Tehran, 18341-86581,
Iran
Tel: +98 (0)21 44545656

P.O.Box: 18335-365

info@mirab-valves.com