Pneumatic double diaphragm pumps

Low air consumption, Large capacity, Compact size, High performance

L4

*Main products handling

- Paints
- Primer
- Solvents
- Enamels
- Inks
- Resins
- Stickers
- Adhesives
- Dyes
- Glue
- Lacquers
- Lubricants
- Vegetable and mineral oils
- Release agents
- Insulators
- Acids
- Caustics
- Detergents
- Chemical products in general
- Corrosive fluids, abrasive, high-density

**Larius analyses the technical specifications sheet of the product to recommend the most suitable equipment for the required use.*

The L 2 and L 4 double diaphragm pumps are an efficient solution for the transfer and transport of low-medium and high-viscosity fluids.

The double diaphragm pumps are composed of two chambers that, in alternating phases, “suction” and “transport” the product.

Application areas

- Lubrication
- Ink transfer
- Transfer of paints and solvents
- Transfer and paint circulation
- Dosage of chemicals
- Protective coatings
- Fluid Transfer
- Filling-emptying barrels
- Supply of oils
- Graphic arts
- Print
- Tannery
- Flexography
- Woodworking and plywood
- Cosmetic Industry
- Mechanic industry
- Paper industry
- Automotive industry
- Carpentry
- Railways
- Supply ceramic pastes screen printing machines
- Water and liquid waste removal
- Evacuation of fluids

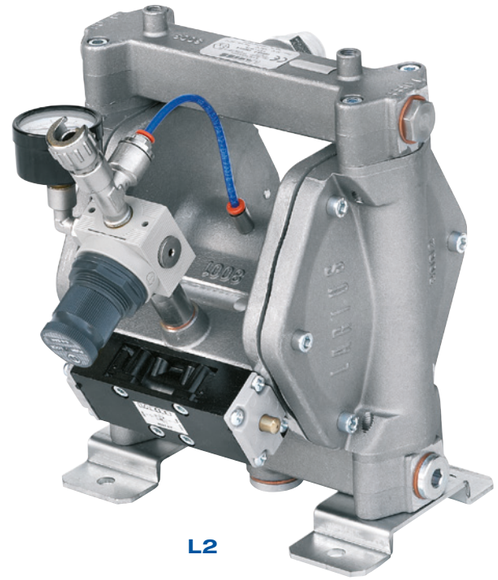
Double diaphragm pumps
L2 - L4 Certified ATEX Ⓔx II 2G cIIB T4

	L2	L4
Pump material	Aluminum - stainless steel	Aluminum - stainless steel
Use	Transfer of low and medium viscosity fluids	Transfer of medium and high viscosity fluids
Diaphragm material	PTFE - Rubber	PTFE - Rubber
Pressure ratio	1:1	1:1
Max. flow rate	21 l / min	40 l / min
Max supply pressure	7 bar	8 bar
Max air consumption l/m	120 l/min	190 l/min
Air inlet	¼“ GAS	¼” GAS
Material inlet	½ “GAS	1“GAS
Oulet material	½ “GAS	1“GAS
Max. head metres of suction	5 mt	5 mt
Dimensions	170x230x196	205x320x220
Weight	6 kg	9 kg
Maximum diameter of solid parts	2,4 mm	3 mm

On request are available versions of L2 and L4 transfer pumps in aluminum or stainless steel for abrasive products

Advantages

- Starting point at minimal work pressure
- High transfer efficiency even with viscous fluids
- Low noise level
- Quick priming and immediate flow of product
- Any leakage of the product
- Reinforced Membranes for long life
- External corrosion and leak-resistant construction to ensure clean fluid parts
- Pump is never plunged inside the drum: only suction hose is plunged in the drum
- Speed fine tuning while maintaining pressure high
- The flow reduces the work cycles and wear
- Mounting on wall brackets or directly on the tank
- Minimum maintenance



L2

Pneumatic double diaphragm pumps

High capacity for pumping liquids and highly corrosive and aggressive acids

LARIUS®
Transfer - Extrusion - Injection pumps - Paint spraying equipment

L10 900

*Main products handling

- Chemistry
- Textiles
- Food
- Ecological
- Graphic arts
- Tanning
- Ceramics
- Electronics
- Galvanic
- Oil
- Petrochemical
- Paints
- Pumping of urea

**Larius analyses the technical specifications sheet of the product to recommend the most suitable equipment for the required use.*

Market leader specialized in the production of industrial pumps for highly corrosive and aggressive environments.

Diaphragm pumps are characterized by exceptional performance, power and strength, making them ideal for pumping liquids with high apparent viscosity even if containing suspended solids.

The air passages are carefully designed and optimized to prevent the formation of ice even in low temperature and high-head applications.

Advantages

- Available in PP, PVDF/ECTFE, Aluminum and AISI 316 stainless steel
- Use in ex-proof hazardous areas (ATEX zone 1-2 certification)
- Suitable for demanding applications and high-humidity environments;
- Dry operation;
- Dry self-priming;
- Actuated using non-lubricated air;
- Stall-prevention pneumatic circuit;
- Adjustable flow rate and head;
- Fine tuning of motor speed at constant pressure;
- Twin-manifold option (two suction and two delivery);
- Bench or ceiling installation;
- Three suction and delivery positions;
- User-friendly maintenance and parts replacement;
- Excellent performance and value for money.

Operating temperatures:

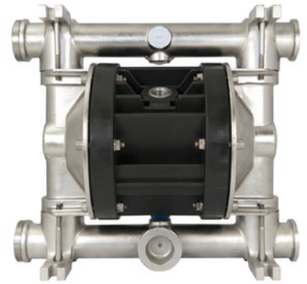
Aisi 316 min +3°C/max +95°C
Alu min +3°C/max +95°C

The compressed air introduced by the pneumatic exchanger behind one of the two diaphragms generates compression and pushes the product into the delivery duct, at the same time the opposing diaphragm that is integral with the exchanger shaft creates a vacuum and intakes the fluid.

Once the stroke has been completed, the pneumatic exchanger diverts the compressed air behind the opposing diaphragm and the cycle is reversed.

L5 100

Aluminum or stainless steel version

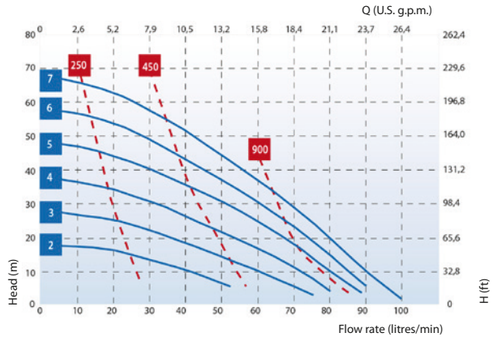


Technical features

Intake/delivery connections	G 1” f o DN 25 (*)
Air connection	G 3/8” f
Max. self-priming capacity**	6 m
Max. flow rate*	100 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	4 mm

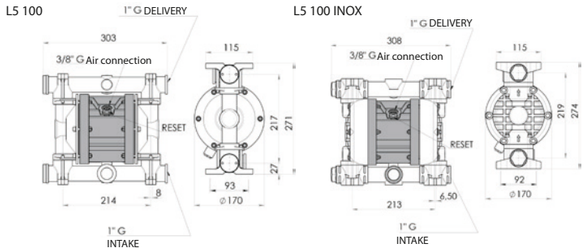
(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.



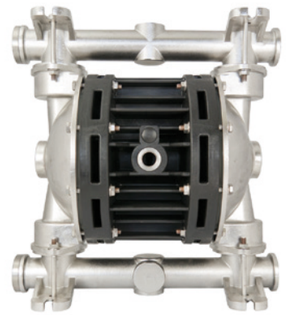
Air supply pressure (bar)
Air consumption Nl/min

The dimensions shown are in mm



L6 150

Aluminum or stainless steel version

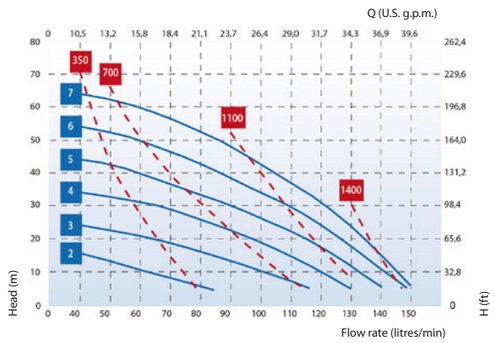


Technical features

Intake/delivery connections	G 1” f o DN 25 (*)
Air connection	G 3/8” f
Max. self-priming capacity**	5 m
Max. flow rate*	150 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	4 mm

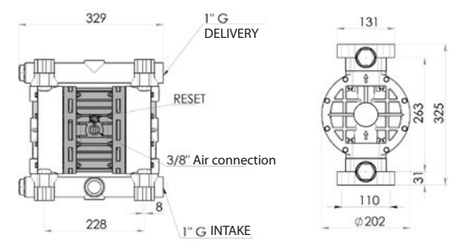
(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.



Air supply pressure (bar)
Air consumption Nl/min

The dimensions shown are in mm



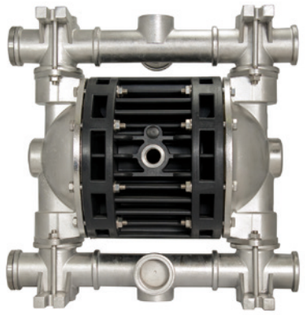
Pneumatic double diaphragm pumps

High capacity for pumping liquids and highly corrosive and aggressive acids

LARIUS®
Transfer - Extrusion - Injection pumps - Paint spraying equipment

L7 220

Aluminum or stainless steel version

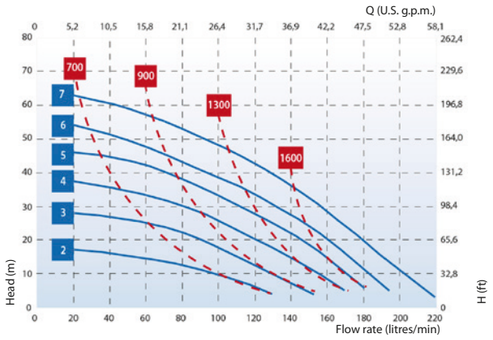


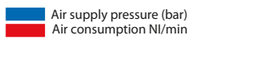
Technical features

Intake/delivery connections	G 1” 1/4 f o DN 32 (*)
Air connection	G 1/2” f
Max. self-priming capacity**	6 m
Max. flow rate*	220 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	5 mm

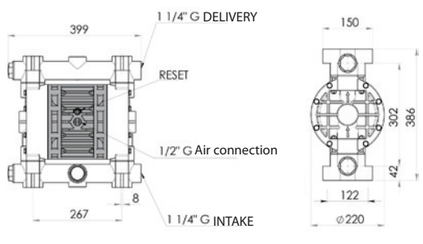
(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.





The dimensions shown are in mm



L9 650

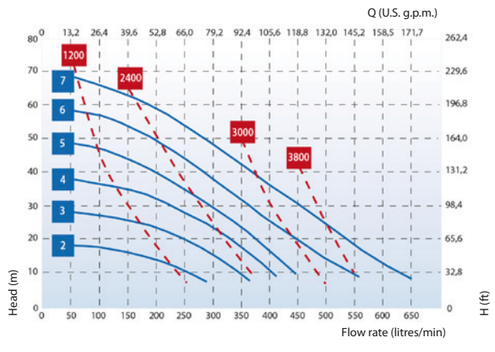
Aluminum or stainless steel version

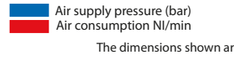
Technical features

Intake/delivery connections	G 2” f o DN 50 (*)
Air connection	G 1/2” f
Max. self-priming capacity**	6 m
Max. flow rate*	650 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	8 mm

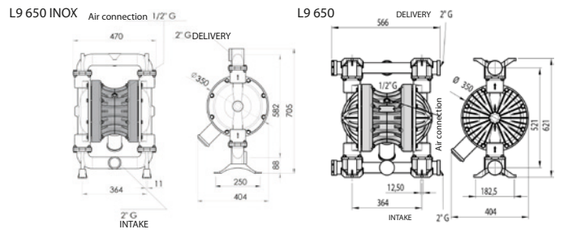
(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.





The dimensions shown are in mm



L8 340

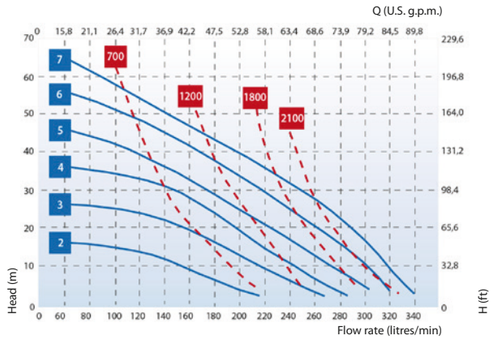
Aluminum or stainless steel version

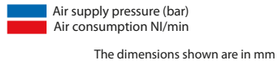
Technical features

Intake/delivery connections	G 1” 1/2 f o DN 40 (*)
Air connection	G 1/2” f
Max. self-priming capacity**	6 m
Max. flow rate*	340 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	6 mm

(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.





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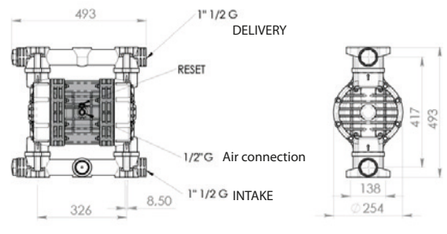


L10 900

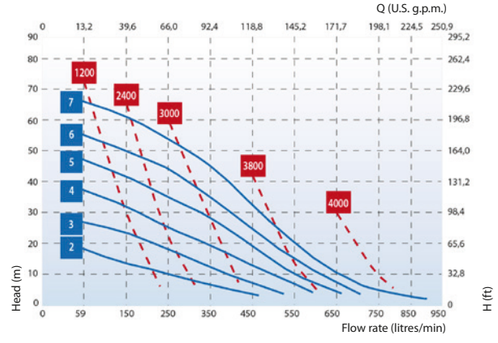
Aluminum or stainless steel version

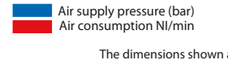
Technical features

Intake/delivery connections	G 3” f o DN 80 (*)
Air connection	G 3/4” f
Max. self-priming capacity**	5 m
Max. flow rate*	900 l/min
Max. head*	70 m
Max. air supply pressure	7 bar
Max. diameter of passing solids	10 mm

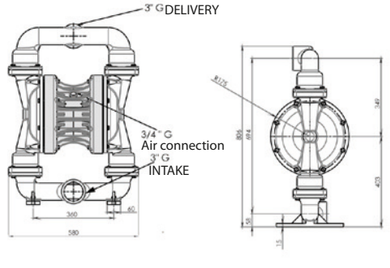
(*) available with clamp, DIN or NPT connections on request

*The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material. ** The value depends on the configuration of the pump.





The dimensions shown are in mm



Pneumatic piston pumps

Regular flow of material, absence of pulsations, perfect control of the pumped material

LARIUS®
Transfer - Extrusion - Injection pumps - Paint spraying equipment

Ghibli
30:1 - 40:1

*Main products handling

- Alcohol
- Sealants
- Silicones
- Inks
- Mastics
- Adhesives
- Lubricants
- Adhesives and adhesive
- Paints
- Resins
- solvents
- Gear Oils
- Motor Oils
- Filler
- Materials for tanneries
- Waterproofing
- Tints
- Underbody
- Additives
- enamels
- Acrylics
- fats
- Epoxy products
- Soundproofing
- Insulators
- Detergents
- Release agents
- Detergents
- Composite materials and thermosetting
- Cosmetics

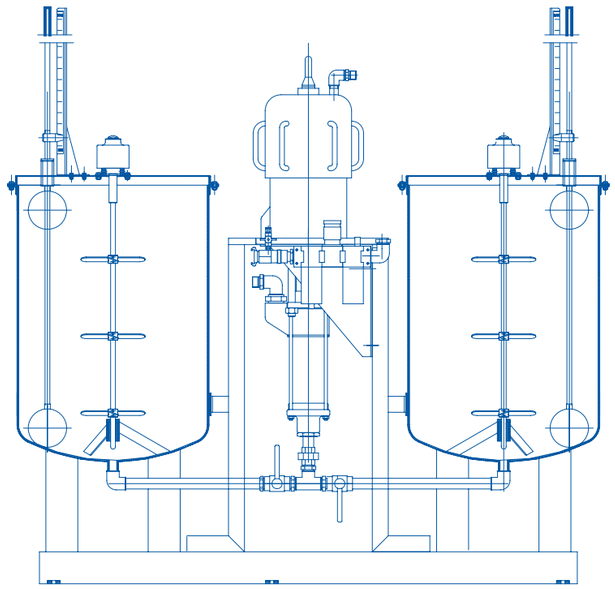
Main areas of application

- Lubrication
- Ink transfer
- Transfering of paints and solvents
- Transfer and paint circulation
- Chemicals dispensing
- Protective coatings
- Fluid Transfer
- Filling-emptying barrels
- Oils supply
- Graphic arts
- Print
- Flexography
- Tanneries
- Fluids evacuation
- Water and liquid waste removal
- Woodworking and plywood
- Supply ceramic pastes screen printing machines
- Power atomization heads for wetting and humidifying
- Supply of machines for coating and laminating
- Electrical and Electronics for component isolation
- Woodworking and plywood
- Cosmetic Industry
- Construction Industry
- Mechanic industry
- Paper industry
- Cosmetic Industry
- Shipbuilding
- Automotive industry
- Carpentry
- Railways

**Larius analyses the technical specifications sheet of the product to recommend the most suitable equipment for the required use.*

Advantages

- Excellent resistance to abrasion and corrosion
- Ability to handle applications ranging from the passage of corrosive fluids to cleaning fluids
- The constant balancing of a wide range of viscosity reduces the pressure drop during the run
- Starting point at minimal work pressure
- High transfer efficiency even with viscous fluids
- Low noise level
- Quick priming and immediate flow of product
- Any leakage of the product
- Reinforced Membranes for long life
- External corrosion and leak-resistant construction to ensure clean fluid parts
- Speed adjusting keeping high pressure
- The flow reduces the work cycles and wear
- Minimum maintenance



Omega
23:1 - 30:1

The pneumatic transfer pumps work with a compressed air motor that moves the piston vertically from top to bottom and viceversa. The product is suctioned by the lower pump and carried to the exit.

The structure of the “pumping unit” (suction valve, pump piston, material seal gaskets) permits the supply of material when the piston is in the ascending or descending phase.

The flow rate of a pneumatic piston pump depends on the quantity of material that it releases during each cycle and on the number of cycles that it completes (the cycle is the full stroke of the piston in both directions).

Pneumatic piston pumps are divided into two types:

IN-LINE:
the pneumatic motor and the pump constitute one single body

DIVORCED:
the pneumatic motor is separated from the pump and the fluid is not in contact with the motor.

Pneumatic piston pump range

Certified Atex ⟨Ex⟩ II 2 G c IIB T4 - Certified Atex ⟨Ex⟩ II 2 G c IIB T6

LARIUS®
Transfer - Extrusion - Injection pumps - Paint spraying equipment

MODEL	Version	Measure-ments	Ratio	Ø motor	Piston stroke	Max. flow rate	Supply Pressure	Air consumption at 60 cycles/min	Air inlet	Material inlet	Material Outlet	Max/ min cycles	C.C. cycle
P33 1:1 ATEX: II 2G c IIB T4 **Divorced**	STD and STAIN-LESS STEEL	long stubby	**1:1**	35 mm (1" 3/8)	100 mm (4")	20 l /min	3 ÷ 12 **bar**	3 bar 70 l /m 5 bar 110 l /m 7 bar 150 l /m	¼ " GAS	**Divorced long** ball valve **Divorced stubby** M36X2	¾" GAS	100	200
P31 2:1 ATEX: II 2G c IIB T4 **Divorced**	STD and STAIN-LESS STEEL	long stubby	**2:1**	35 mm (1" 3/8)	100 mm (4")	10 l /min	3 ÷ 12 **bar**	3 bar 70 l /m 5 bar 110 l /m 7 bar 150 l /m	¼ " GAS	**Divorced long** ball valve **Divorced stubby** M36X2	¾" GAS	100	100
VEGA 5:1 **Divorced** **In-line**	STD and STAIN-LESS STEEL	long medium short	**5:1**	76 mm (3")	76 mm (3")	10 l /min	3 ~ 8 **bar**	3 bar 200 l /m 5 bar 330 l /m 7 bar 530 l /m	3/8" GAS	**long - medium** ball valve **short** M36X2	**In-line** ½"GC **Divorced** ¾" GAS	66	170
VEGA 23:1 **Divorced**	STD and STAIN-LESS STEEL		**23:1**	76 mm (3")	76 mm (3")	2 l /min	3 ~ 8 **bar**	3 bar 200 l /m 5 bar 330 l /m 8 bar 530 l /m	3/8" GAS	¾" GAS C (M)	3/8" GC (F)	75	28
GHIBLI 3:1 **Divorced**	STD and STAIN-LESS STEEL	long medium short	**3:1**	108 mm (4" ¼)	102 mm (4")	45 l /min	3 ~ 7 **bar**	3 bar 500 l /m 5 bar 840 l /m 7 bar 1200 l /m	½" GAS	1 ½" GAS	1" GAS	66	680
GHIBLI 10:1 **Divorced**	STD and STAIN-LESS STEEL	long medium short	**10:1**	108 mm (4" ¼)	102 mm (4")	12 l /min	3 ~ 7 **bar**	3 bar 500 l /m 5 bar 840 l /m 7 bar 1200 l /m	½" GAS	**long - medium** ball valve **short** M36X2	¾"GC	60	250
GHIBLI 30:1 **Divorced**	STD and STAIN-LESS STEEL		**30:1**	108 mm (4" ¼)	102 mm (4")	4.0 l /min	3 ~ 7 **bar**	3 bar 500 l /m 5 bar 840 l /m 7 bar 1200 l /m	½" GAS (F)	¾" GAS C (M)	3/8" GC (F)	60	60
GHIBLI 40:1 **Divorced**	STD and STAIN-LESS STEEL		**40:1**	108 mm (44" ¼)	102 mm (4")	3.0 l /min	3 ~ 7 **bar**	3 bar 500 l /m 5 bar 840 l /m 7 bar 1200 l /m	½" GAS (F)	¾" GAS C (M)	3/8" GC (F)	60	45

MODEL	Version	Meas-ure-ments	Ratio	Ø motor	Piston stroke	Max. flow rate	Supply Pressure	Air consumption at 60 cycles/min	Air inlet	Material inlet	Material Outlet	Max/ min cycles	C.C. cycle
❄ **OMEGA 5:1** **Divorced**	STAIN-LESS STEEL		**5:1**	254 mm (10")	120 mm (4" ¾)	66 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C	ball valve	1 ½" GAS C	60	1100
❄ **OMEGA 10:1** **Divorced**	STAIN-LESS STEEL		**10:1**	178 mm (7")	120 mm (4" ¾)	32 l /min	3 ~ 8 **bar**	3 bar 1200 l /m 5 bar 1800 l /m 7 bar 2500 l /m	¾" GAS C	ball valve	1 ½" GAS C	60	530
❄ **OMEGA 15:1** **Divorced**	STAIN-LESS STEEL		**15:1**	178 mm (7")	120 mm (4" ¾)	23 l /min	3 ~ 8 **bar**	3 bar 1200 l /m 5 bar 2000 l /m 7 bar 2600 l /m	¾" GAS C	ball valve	1 ½" GAS C	60	380
❄ **OMEGA 23:1** **Divorced**	STD and STAIN-LESS STEEL		**23:1**	178 mm (7")	120 mm (4" ¾)	14 l /min	3 ~ 8 **bar**	3 bar 1200 l /m 5 bar 1800 l /m 7 bar 2500 l /m	¾" GAS C (F)	1 ½" GAS C (F)	1" GAS C (F)	60	230
❄ **OMEGA 30:1** **Divorced**	STD and STAIN-LESS STEEL		**30:1**	178 mm (7")	120 mm (4" ¾)	12 l /min	3 ~ 8 **bar**	3 bar 1200 l /m 5 bar 1800 l /m 7 bar 2500 l /m	¾" GAS C (F)	1 ½" GAS C (F)	1" GAS C (F)	60	200
❄ **NOVA 10:1** **Divorced**	STAIN-LESS STEEL		**10:1**	254 mm (10")	120 mm (4" ¾)	66 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C	ball valve	1 ½" GAS C	60	1100
❄ **NOVA 20:1** **Divorced**	STAIN-LESS STEEL		**20:1**	254 mm (10")	120 mm (4" ¾)	32 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C	ball valve	1 ½" GAS C	60	530
❄ **NOVA 45:1** **Divorced**	STD and STAIN-LESS STEEL		**45:1**	254 mm (10")	120 mm (4" ¾)	14 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C (F)	1 ½" GAS C (F)	1" GAS C (F)	60	230
❄ **NOVA 60:1** **Divorced**	STD and STAIN-LESS STEEL		**60:1**	254 mm (10")	120 mm (4" ¾)	12 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C (F)	1 ½" GAS C (F)	1" GAS C (F)	60	200
❄ **NOVA 68:1** **Divorced**	STAIN-LESS STEEL		**68:1**	254 mm (10")	120 mm (4" ¾)	11 l /min	3 ~ 6 **bar**	3 bar 2200 l /m 5 bar 3800 l /m 6 bar 4400 l /m	¾" GAS C (F)	1 ½" GAS C (F)	1" GAS C (F)	60	180

❄ **Pneumatic ice-breaker motor capable of reducing power loss due to freezing**

P33 1:1
P31 2:1

Vega 5:1

Vega 23:1

Ghibli 3:1

Ghibli 10:1

Ghibli 30:1
Ghibli 40:1

Omega 10:1

Omega 23:1
Omega 30:1

Nova 10:1
Nova 20:1
Nova 45:1
Nova 60:1
Nova 68:1