

**fluimac**<sup>®</sup>  
pump solution



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**NEPTUNE**

# Introduction to NEPTUNE hand pumps, laboratory pumps and drum pumps

## Manual hand pumps

are always a useful and cost effective alternative to conventional electric or air operated drum pumps when only small quantities of media have to be removed out of canisters or drums or if the customer would use the drum pump only occasionally or rarely.

Depending on the medium different pump tube materials and gaskets are available. In principle the hand pump can be divided into three groups: for chemicals such as acids, alkalies and detergents for mineral oil products and for flammable liquids such as gasoline or solvents. The maximum viscosity of the pumped fluids for the hand pumps is 1,000 mPas.

Most hand pumps have a barrel thread of 2" (partially available with the optional accessory) and can therefore be screwed in all the 60 and 200 liter steel drums. For plastics drums and cans various thread adapters for compensation are available.



## Electric or air operated laboratory pumps

are an economical and safe solution for the filling and transferring of small quantities of neutral or aggressive media and thin fluid food from cans, drums or containers.

The laboratory pumps consist of a light, handy and powerful electric motor or air operated motor and a pump tube that is suitable for the application and that is available in different materials, pump tube diameters and pump tube lengths. With the universal motor N-140 the maximum density of the media is 1.4, and the maximum viscosity 400 mPas. Because of their light weight and simplest operation the laboratory

pumps are used everywhere where the transferring of small quantities of media is part of the daily business. They have proven themselves in addition to the industry also in laboratories or pharmacies.

## Electric or air operated drum and container pumps

by FLUIMAC are lightweight, handy and very powerful devices for an economical and safe filling and transferring of thin to medium viscous media, neutral or aggressive, non-flammable or flammable substances out of drums and containers.

Our drum pumps can be used mobile in the field of drum and container emptying or stationary in the field of plant engineering or in filling processes and are designed for intermittent, short-term operation. The sophisticated, technically clear construction ensures an efficient and safe use.

Drum and container pumps consist of a high-performance, internally or externally ventilated universal motor, which is also available in an explosion-proof version and a pump tube that is suitable for the application. The pump tubes of drum pumps are available in polypropylene (for aggressive media as cleaning agents, acids and alkalies, up to 50 °C), PVDF (for highly aggressive media or when the medium temperature is between 50 and 90 °C), aluminium (for mineral oil products) or stainless steel 316Ti (for flammable liquids such as gasoline or solvents or thin liquid food) as well as in various versions (different immersion tube lengths, as mixing pump tube for simultaneous mixing and pumping, as sealless version or at the stainless steel pump tube

also with mechanical seal or complete drum emptying function).

**With the universal motor N-280 the maximum density of the media is 1.9 and the maximum viscosity is 1,000 mPas.**

**As drives universal motors and air operated motors are available.**



# The various pump tube materials and their applications range in the overview

## Pump tubes made of polypropylene (PP)

are suitable for neutral, aggressive and hardly combustible liquids. They are used specifically for pumping aggressive chemicals such as acids, alkalis or detergents.

**Drive shaft:** Stainless steel 316 Ti or hastelloy 2,4610

**Media temperature:** max. 50 °C

**Media:** Formic acid (50%), ammonia, boric acid, distilled water, liquid fertilizers, iron-II and III-chloride, acetic acid (80%), photo developers, fruit acids, potassium hydroxide, copper chloride, lactic acid, sodium hydroxide, phosphoric acid, hydrochloric acid, sulfuric acid (up to 90%), hydrogen peroxide, citric acid and many other media.

## Pump tubes made of polyvinylidenfluorid (PVDF)

are especially suitable for highly aggressive liquids such as concentrated acids and bases.

**Drive shaft:**

Hastelloy 2,4610

**Media temperature:** max. 90 °C

**Media:** Hydrobromic acid, perchloric acid, chromic acid, hydrofluoric acid, sodium hypochlorite, nitric acid and sulfuric acid (> 90%).

Also all media that are listed at the pump tubes made of polypropylene can be handled.

## Pump tubes made of aluminium (Alu)

are suitable for neutral and hardly combustible liquids. With these pump tubes particularly mineral oil products up to a maximum viscosity of 1.000 mPas will be transferred.

**Drive shaft:** Stainless steel 316 Ti

**Media temperature:** max. 90 °C

**Media:** Drilling emulsions, diesel, liquid soap, liquid wax, gear oils, heating oil, hydraulic oils, machine oils, mineral oils and motor oils.

## Pump tubes made of stainless steel 316 Ti

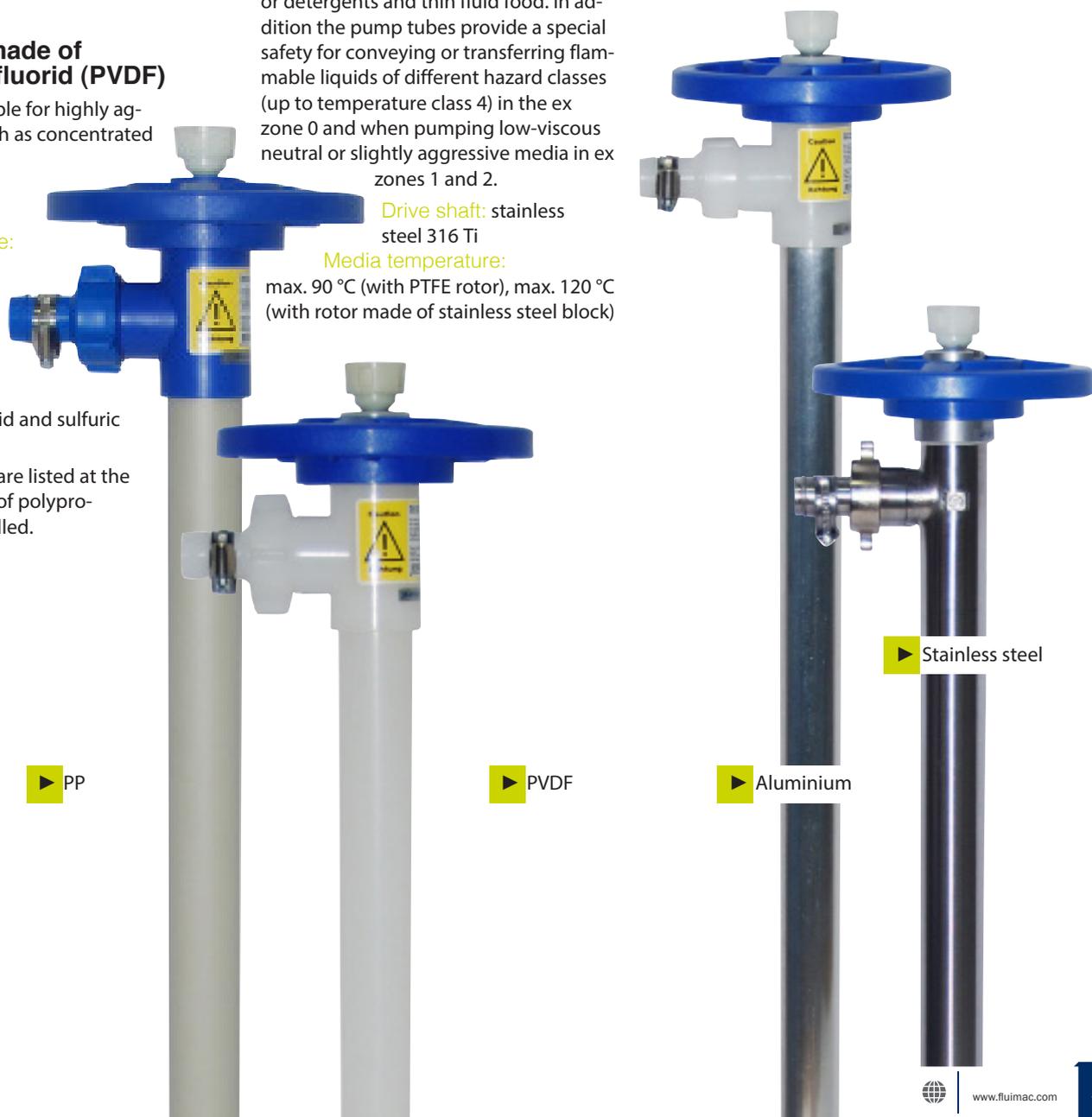
are used for all neutral, slightly aggressive liquids such as diluted acids, alkalis or detergents and thin fluid food. In addition the pump tubes provide a special safety for conveying or transferring flammable liquids of different hazard classes (up to temperature class 4) in the ex zone 0 and when pumping low-viscous neutral or slightly aggressive media in ex zones 1 and 2.

**Drive shaft:** stainless steel 316 Ti

**Media temperature:** max. 90 °C (with PTFE rotor), max. 120 °C (with rotor made of stainless steel block)

**Media:** Acetone, alcohol, ammonia, gasoline, flammable solvents, caustic lye, nitrocellulose lacquers, perchlorethylene, phosphoric acid, sulfuric acid (up to 7.5% and over 90%), trichlorethylene, toluene.

In addition the stainless steel pump tubes are suitable for pumping thin fluid food such as fruit juices, milk, edible oils and for all media that are mentioned at aluminium tubes.



▶ PP

▶ PVDF

▶ Aluminium

▶ Stainless steel

# NEPTUNE Manual hand pumps



## Hand pump N-02

*Hand pump N-02 for acids, alkalies and water-based chemicals*

**Pump material:** Polypropylene

**Shaft:** Stainless steel 316 Ti

**Seals:** FKM

**Flow rate:** 0,3, 0,37 or 0,45 l/stroke\* depending on lever position

The telescopic suction tube is adjustable from 340 to 900 mm and has a diameter of 40mm. The pump housing has two threads G2 "and G 1 ½".

Order No.: 6002 0000



## Hand pump N-03

*Hand pump N-03 for oils, diesel, alcohol up to max. 50%, antifreeze liquid, water, etc.*

**Pump material:** Polypropylene

**Shaft:** Tool steel

**Seals:** NBR

**Flow rate:** 0,3, 0,37 or 0,45 l/stroke\* depending on lever position

The telescopic suction tube is adjustable from 340 to 900 mm and has a diameter of 40mm. The pump housing has two threads G2 "and G 1 ½".

Order No.: 6003 0000



## Hand pump N-04

*Hand pump for different media*

**Pump material:** Polypropylene

**Shaft:** Polypropylene

**Seals:** depending on the media

**Flow rate:** ca. 0,3 l/stroke\*

**Hose connection:** ¾"

The telescopic suction tube is adjustable from 480 to 950 mm and has a diameter of max. 34 mm.

The pump housing has a thread in 2" to be screwed in all standard steel drums. To compensate different threads we can offer appropriate threaded adapters.

N-04 YELLOW seals: FKM

For aggressive media such as acids and alkalies

N-04 BLUE seals: NBR  
For mineral oil products

N-04 RED seals: EPDM  
For alkaline solutions

N-04 BLUE / WHITE seals: Fluoropolymer  
For thin fluid food

Order No.: YELLOW: 6004 0000, BLUE: 6004 0001, RED: 6004 0002, BLUE/WHITE: 6004 0003



# NEPTUNE Manual hand pumps



## Hand pump N-05

### *Stainless steel hand pump*

Pump tube made of stainless steel V4A (316 Ti), all gaskets made of PTFE. Therefore especially suitable for flammable liquids such as solvents (including acetone).

**Certified: risk analysis made by TUEV**

**Suction tube lengths:** 700 and 1,000 mm

**Flow rate:** 0,3–0,6 l/stroke\*

**Necessary accessories** Order No.:

**Discharge arc** with PTFE seal and wing nut **6510**

**Hose connection** made of stainless steel, with PTFE seal and wing nut made of brass, nickel plated

**Hose connection 3/4"** **6520**

**Hose connection 1"** **6530**

**Drum adapter** made of brass nickel plated R2" with fixing device **6540**

**Anti-static set** **9003**

consisting of 4 copper cables (absolutely necessary when pumping flammable liquids)

Order No.: 700 mm: 6005 0700, 1,000 mm: 6005 1000 plus optional accessories



## Hand pump N-06

*Suitable for water, slightly aggressive acids and alkalies*

**Pump material:** polyethylen and PVC

**Suction tube length:** 850 mm

**Flow rate** 0,08 l/pumping process and 20 l/min at an independent transferring\*.

Hand pump complete with 130 cm long discharge hose and drum adapter G2".

This hand pump is designed as a siphon pump. After the suction pipe and discharge hose arc had been filled manually the pump works independently.

Order No.: 6006 0000

## Hand pump N-07

### *Manual filling and transfer pump*

Pump body made of polypropylene, internal parts also made of stainless steel, suitable for 20 liter canisters up to 200 liter barrels. Three adapters for bung hole diameters from 46,5 to 60 mm and a four-piece suction tube are included.

**Flow rate:** Water: 20 l/min\*  
Oil SAE 30: 9 l/min. at 20 °C\*  
**Temperature:** 40 °C\*  
**Viscosity:** 400 mPas\*

N-07 **BLUE** seals: NBR  
For mineral oil products

N-07 **RED** seals: EPDM  
For alkaline solutions

N-07 **GREEN** seals: FKM  
For slightly aggressive chemicals

**Accessories** Order No.:

transfer hose (1.5 m) with nozzle

N-07 **BLUE** **6710**

N-07 **RED** **6720**

N-07 **GREEN** **6730**



Order No.: BLUE: 6007 0001, RED: 6007 0002, GREEN: 6007 0003 plus optional accessories

# NEPTUNE Manual hand pumps



## Hand pump N-08

*Hand-crank rotary pump for chemicals*  
*The pump is suitable for thin fluid, highly aggressive media such as acids and alkalis.*

**Pump material:** PVDF  
**Seals:** PTFE  
**Suction tube length:** 3 x 35 cm  
**Flow rate:** 0,3 l/rotation\*  
 Pump complete with discharge arc and drum adapter G 2".  
 Regular lubrication required.

Order No.: 6008 0000



## Hand pump N-09

*Suitable for almost all highly liquid and slightly aggressive media such as acids, alkalis and chemicals. Better resistance as N-02 due PP-sheathed shaft.*

**Material:** Polypropylene  
**Telescopic suction tube:** 3 parts, polyethylene  
**Seals:** FKM  
**Suction depth:** for containers to 960 mm

**Flow rate:** 0,5 l/stroke\*  
**Weight:** 1.2 kg  
 PE hose 2 m  
 Thread G 2 "for screwing in standard barrels.  
 Adapters available for plastics drums and cans of 60-220 l.  
 Outlet piece DN 19, 3/4 ".  
 The pump is not to be used for pumping media of hazard classes A1 / A11, other flammable media or in an explosive environment.

Order No.: 6009 0000



## Hand pump N-11

*Hand-crank rotary pump*  
*The pump is suitable for thin fluid, non-flammable liquids such as diesel, gear oil, heating oil, hydraulic oil, machine oil, mineral oil, motor oil, etc.*

**Material:** Aluminium and zinc plated steel  
**Seals:** NBR  
**Suction tube length:** 1,080 mm  
**Flow rate:** 1 l/rotation\*  
 Changing from forward to reverse transferring possible. Thus results an optimal dosing.  
**Head:** 15 m\*  
**Horizontal distance:** 50 m\*  
 Pump complete with discharge hose and drum adapter G 2".

Order No.: 6011 0000



## Hand pump N-12

*Hand-crank rotary pump*  
*The pump is suitable for thin fluid, non-flammable liquids such as diesel, gear oil, heating oil, hydraulic oil, ma-*

*chine oil, mineral oil, motor oil, etc.*  
**Material:** Aluminium and zinc plated steel  
**Seals:** NBR  
**Suction tube length:** 1,080 mm  
 Flow rate: 1 l/rotation\*  
 Changing from forward to reverse transferring possible. Thus results an optimal dosing.  
 Head: 15 m\*  
**Horizontal distance:** 50 m\*  
 Pump complete with special mineral oil hose, discharge arc and drum adapter G 2".

Order No.: 6012 000

# NEPTUNE Manual hand pumps



## Hand pump N-13

*Metal hand crank rotary pump*  
 The pump is suitable for diesel, heating oil, oils (up to SAE 90) and all other self-lubricating, non-aggressive

and non-flammable media.

**Pump material:** pump housing made of cast iron

**Seals:** NBR

**Flow rate:** 0,25 l/rotation\*

**Suction tube length:** 980 mm; therefore suitable for smaller containers and 200 liter drums

Pump complete with discharge arc and drum adapter G 2".

Order No.: 6013 0000



## Hand pump N-15

*Hand lever pump made of metal*  
 For transferring many thin fluid, non-flammable media such as diesel, oils, anti freezing liquid, etc

For drums and containers from 30 to 200 liters.

The telescopic suction tube enables an universal use for all barrel sizes.

G 1½" and G 2" drum adapter pump with discharge arc. The outlet has a ¾" - thread. Therefore other connection options exist.

**Material:** steel zinc plated

**Seals:** NBR

**Flow rate:** 0,35 l/stroke\*

Order No.: 6015 0000



## Hand pump N-16 Fire brigade hand pump

*ATEX compliant, single-acting hand pump that can be used for following media of hazard classes A I-III:*

diesel, heating oil, fuel, petroleum, anti freezing liquid for cooler (undiluted), thin fluid mineral oils and rape-seed methyl ester

Execution for fire brigade with flexible suction hose instead of a rigid tube.

Suction hose DN 19 x 4; 1,5 m

Discharge hose DN 19 x 4; 1,5 m

**Flow rate:** app. 0,25 l/stroke\*

In pump housing integrated drum adapters with M 64x4 and G 2" enable an easy fixing in drum.

Order No.: 6016 0000



## Battery driven pump N-111

*Suitable for water, diesel, lightly oils, neutral, lightly aggressive and non flammable media.*

*Only suitable for short-term operation.*

**Pump material:** PP, PE and ABS

Suction tube length: 46 cm

**Discharge hose:** 60 cm

**Largest suction tube diameter:** 31,7 mm

**Flow rate:** 10/min.\*

Driven by 2 batteries, size D, 1,5 V (not included in price).

Order No.: 6111 0000

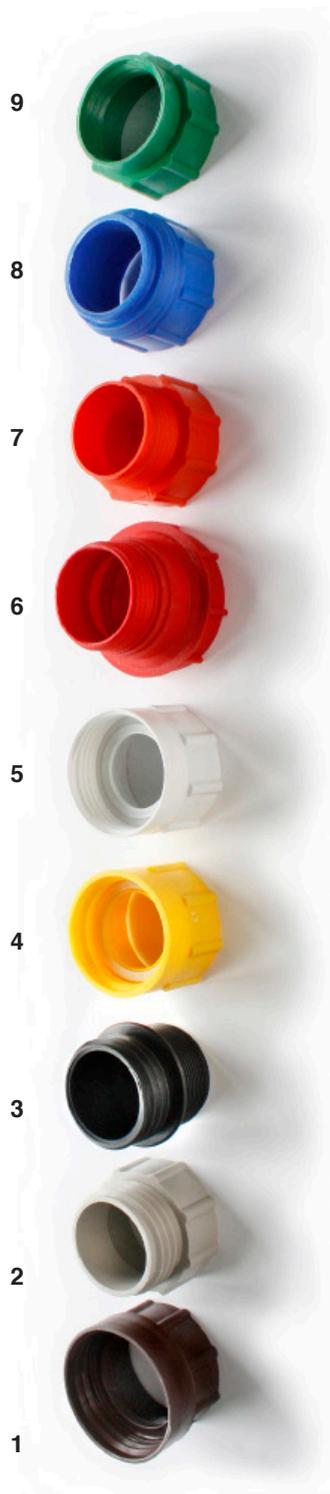
\* All specified values are maximum values.  
 The flow rate of the pump refers to water at 18 ° C and free outlet.



*When pumping flammable media or use in explosive environments also in hand pump business only conductive pumps are allowed to be used that hold an ignition source assessment.*

*Furthermore it is mandatory to establish a potential equalization by grounding the hand pump and the drum.*

# Thread adapters



## Thread adapters

Thread adapters made of PE for equalization of different threads at canisters, drums, containers, etc. when fixing f.e. hand pumps.

All FLUIMAC hand pumps have a bung adapter (2" BSP male thread) that is suitable for metal drums like S 60 or S 200.

Due to the big variety of different canisters, drums, containers, etc. that are available in the market there is often a need to use an adapter to fix the pump in the drum securely.

### Material of adapter: PE (Polyethylene)

This plastic material is resistant to water, many alkalis, acids and salt solutions. It is only limited chemical resistant to oils, organic solvents and fuels. In contact with some of these substances

(depending on concentration and density) PE tends to swell.

No.	Colour	Thread 1	Thread 2	Order No
1	Brown	2" BSP fine, internal thread*	DIN 71, internal thread	6001
2	Grey	2" BSP fine, internal thread*	DIN 61/31, external thread	6002
3	Black	2" BSP fine, external thread*	DIN 61/31, external thread	6003
4	Yellow	2" BSP fine, internal thread*	DIN 61/31, internal thread	6004
5	White	2" BSP fine, internal thread*	ASTM Ø 63 mm, internal thread	6005
6	Red	2" Mauser, internal thread	Trisure, external thread	6006
7	Orange	2" BSP fine, internal thread*	Trisure, external thread	6007
8	Blue	2" BSP fine, internal thread*	2" Mauser, external thread	6008
9	Green	2" BSP fine, internal thread*	DIN 51, external thread	6009
10	Set	All adapters No. 1-9	All adapters No. 1-9	6010

**BLUE** External thread Mauser  
**ORANGE** External thread Trisure  
**YELLOW** Internal thread DIN 61/31  
**BROWN** Internal thread DIN 71

**Classification (without any obligations):**  
 for 200 liter plastic drums (coarse thread 69 mm)  
 for 200 liter plastic drums (fine thread 56 mm)  
 for 30 liter plastic container (59 mm)  
 for 60 liter plastic container (71 mm)

*\*2" BSP (british standard pipe) corresponds to a diameter of 58 mm.*



# NEPTUNE Laboratory pumps

Electric or air operated laboratory pumps with a suction tube made of

polypropylene (Ø 25, 28 or 32 mm) or stainless steel 316 Ti (Ø 28 or 32 mm)



Electric motor

Laboratory pump tube

The economic and safe solution for the filling and transferring of small quantities of neutral and aggressive media like acids and alkalis means FLUIMAC laboratory pumps.

The particular advantages in an overview:

- Designed for a safe and easy filling of low quantities out of narrow-necked containers and canisters.
- Suitable for almost all thin fluid, neutral or corrosive media, but not for flammable liquids (for stainless steel pump tube ATEX is in preparation).
- Handiness and good transportability due to the low weight.
- The pumps are driven by universal motors or air operated motors.
- Ergonomically designed handle of high-performance electric motor for single-handed operation.
- Sealless pump tubes made of polypropylene (PP) and stainless steel 316 Ti with acid and alkali-resistant shaft made of stainless steel or has-

With only 3 to 4 kg weight and easy operation laboratory pumps are used everywhere where the pumping of liquids out of small quantities is part of the daily business.

The pumps have proven themselves in pharmacies, laboratories and the chemical trading as economic and safe solution when filling and transferring of acids and alkalis.



Air operated motor

Laboratory pump tube

telloy 2,4610.

- Optimal drum emptying through the availability of different suction tube lengths and suction tube diameters.
- Hose connection included in delivery; for PP-pump tube with Ø 25 mm: hose connection ½", for Ø 28 and 32 mm hose connection ¾"; for SS-pump tube for Ø 28 mm hose connection ¾", for Ø 32 mm hose connection 1".
- Wide range of accessories as barrel and threaded adapters, media-resistant hoses, nozzles, wall hanger or flow meters available on request.
- Quick disconnection of the drive from the pump tube through a few rotations.
- Easy disassembling and easy cleaning of the pump tube.
- Consistent modular system.

## Laboratory pump tubes

Pump tubes made of polypropylene with stainless steel drive shaft for neutral or slightly aggressive media or with hastelloy drive shaft for aggressive media such as acids and alkalis. Alternatively pump tube made of stainless steel 316Ti.

Suction tube diameter at polypropylene 25, 28 or 32 mm; at stainless steel tubes 28 or 32 mm

Standard suction tube lengths: 500, 700, 1,000 and 1,200 mm depending on the pump tube diameter (special lengths available)

Ø 25 mm: Flow rate 23 l/min, head 7 m\*

Ø 28 mm: Flow rate 40 l/min, head 9 m\*

Ø 32 mm: Flow rate 49 l/min, head 10 m\*

Density: 1,3\*

Viscosity: 400 mPas\* (with motor N-140, 230 V, 450 W)

\* Test medium water 20 °C, pressure pipe 1" oval gear meter, measured values: ± 5%

# N-120 NEPTUNE Electric universal motor

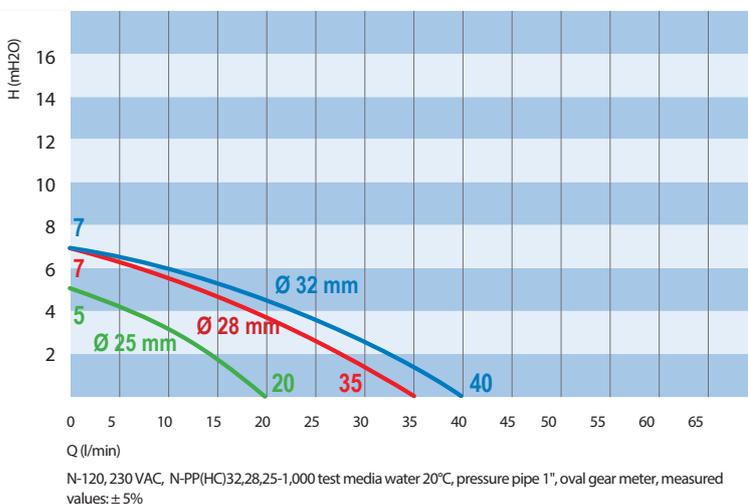
## N-140 230 Volt, 50 Hz, 250 or 450 Watt, IP 24, alternatively 115 Volt, 60 Hz



### Description

- The drives N-120 and N-140 are compactly built, not explosion-proof, internally ventilated universal motors in various power classes.
- The lightweight, handy and powerful devices can be used to drive the suction tubes of the laboratory pumps and drum pumps and are suitable in this combination for many thin liquid, neutral, aggressive and non-flammable media. Their sophisticated, technically clear structure ensures an efficient and safe use when transferring different media.
- The drum pump motors are characterized not only by their light weight (2 to 2,3 kg) but also by their elegant design and easy of use. The non-stationary and stationary usable drives are particularly suitable for intermittent operation. As internally ventilated motors they have an optimum air cooling, low noise level and ensure high operational safety and long life time.

- The motor housing made of polypropylene ensures high chemical resistance when aggressive vapours of acids and alkalis are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety. By the presence of a thermal protection the life time of the engine is significantly increased.
- The flow rate of the transferred media can be optionally regulated via a speed control that is mounted laterally in the motor housing, be throttled and therefore adapted to the needs of the user.
- The maximum density of the media is for the N-120 universal motor 1.2, the maximum viscosity 200 mPas. The 450 watt motor N-140 can be used up to a density of 1.3 and up to a viscosity of 400 mPas.



## N-120

**Electric universal motor** 230 Volt, 50 Hz, 250 Watt, IP 24, double insulation protection class II, over load protection switch with or without low voltage release. Thermal protection, 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option.

### Operating data

Flow rate (with hose and oval gear meter):

Ø 25 mm up to 20 l/min\*

Ø 28 mm up to 35 l/min\*

Ø 32 mm up to 40 l/min\*

Head:

Ø 25 mm up to 5 m\*

Ø 28 mm up to 7 m\*

Ø 32 mm up to 7 m\*

Viscosity: up to 200 mPas\*

Density: up to 1,2\*

\*Data obtained with a 1" pipe are indicated in the performance curve

\*Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%.



# N-140

## Electric universal motor

230 Volt, 50 Hz, 450 Watt, IP 24, double insulation protection class II, over load protection switch with or without low voltage release. Thermal protection, 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option.

## Operating data

Flow rate (with hose and oval gear meter):

Ø 25 mm up to 23 l/min\*

Ø 28 mm up to 40 l/min\*

Ø 32 mm up to 49 l/min\*

Head:

Ø 25 mm up to 7 m\*

Ø 28 mm up to 9 m\*

Ø 32 mm up to 10 m\*

Viscosity: up to 400 mPas\*

Density: up to 1,3\*



## N-120



Version	Voltage	Order No.
without LVR	230 V 1 <sub>~</sub> , 50 Hz, 250 W	1120 2300
	115 V 1 <sub>~</sub> , 60 Hz, 250 W	1120 1150
with LVR	230 V 1 <sub>~</sub> , 50 Hz, 250 W	1120 2301
	115 V 1 <sub>~</sub> , 60 Hz, 250 W	1120 1151
without LVR, with SC	230 V 1 <sub>~</sub> , 50 Hz, 250 W	1120 2302
	115 V 1 <sub>~</sub> , 60 Hz, 250 W	1120 1152
with LVR + SC	230 V 1 <sub>~</sub> , 50 Hz, 250 W	1120 2303
	115 V 1 <sub>~</sub> , 60 Hz, 250 W	1120 1153

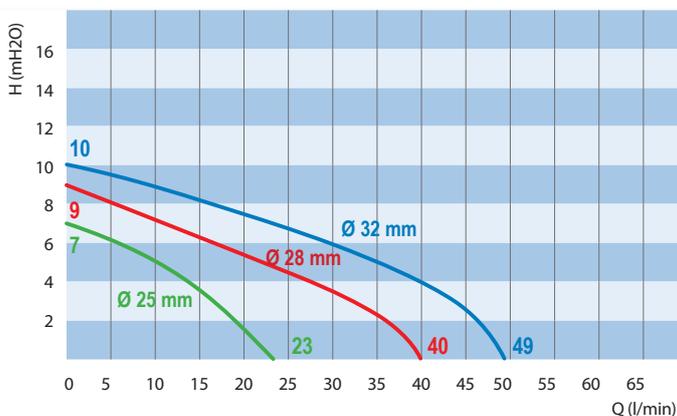
LVR: Low voltage release  
SC: Speed control

## N-140



Version	Voltage	Order No.
without LVR	230 V 1 <sub>~</sub> , 50 Hz, 450 W	1140 2300
	115 V 1 <sub>~</sub> , 60 Hz, 450 W	1140 1150
with LVR	230 V 1 <sub>~</sub> , 50 Hz, 450 W	1140 2301
	115 V 1 <sub>~</sub> , 60 Hz, 450 W	1140 1151
without LVR, with SC	230 V 1 <sub>~</sub> , 50 Hz, 450 W	1140 2302
	115 V 1 <sub>~</sub> , 60 Hz, 450 W	1140 1152
with LVR + SC	230 V 1 <sub>~</sub> , 50 Hz, 450 W	1140 2303
	115 V 1 <sub>~</sub> , 60 Hz, 450 W	1140 1153

LVR: Low voltage release  
SC: Speed control



N-140, 230 VAC, N-PP(HC)32,28,25-1,000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%



## Electronic speed control

The speed of the drum pump motors N-120, N-140 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.

# N-AIR1 NEPTUNE Air operated motor

300 Watt at max. 6 bar operating pressure

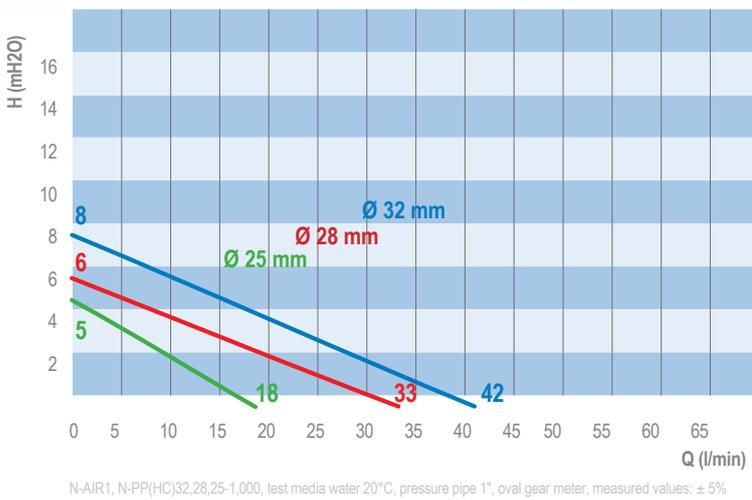


## Description

- The drive N-AIR 1 is a compactly built, elegant designed air motor with an aluminium housing.
- The lightweight, handy and powerful device can be used as drive for the laboratory and drum pump tubes and is suitable in this combination for many thin liquid, neutral and aggressive media. Flammable media are not allowed to be transferred with the laboratory pump tubes made of stainless steel cause of missing ATEX certification. The sophisticated, technically clear structure ensures an efficient and safe use when transferring various media.
- The air operated drum pump motor is characterized beside its light weight (2 kg) by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly

suitable for intermittent operation.

- Via the included ball valve the compressed air can be dosed at the air inlet, and thereby the rotational speed of the motor. Therefore the flow rate of the pumped media can be adjusted to the users requirements.
- The maximum operating pressure is 6 bar. The included silencer ensures a low noise level. The air consumption of the engine is under load 13 l / sec.
- The maximum density of the media is for the air operated motor N-AIR 1 1.3, the maximum viscosity 400 mPas.



## N-AIR1

### Air operated motor

300 Watt at max. 6 bar operating pressure, with silencer and brass ball valve for dosing the compressed air. Therefore the speed of the motor and flow rate of the pump can be adjusted.

### Operating data

Flow rate (with hose and oval gear meter):	Ø 25 mm up to 18 l/min*
	Ø 28 mm up to 33 l/min*
	Ø 32 mm up to 42 l/min*
Head:	Ø 25 mm up to 5 m*
	Ø 28 mm up to 6 m*
	Ø 32 mm up to 8 m*
Viscosity:	up to 400 mPas*
Density:	up to 1,3*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 ° C, pressure pipe 1", oval gear meter, measured values: ± 5%

▶ The Laboratory pumps can also be combined with the air motors N-AIR 2 or N-AIR 3.



### N-AIR1

Performance

Order No.

300 W

3001 0300

300 Watt at max. 6 bar operating pressure  
Air consumption under load 13 l/sec.



# NEPTUNE Pump tubes for laboratory pumps

made of polpypropylene or stainless steel

Pump tubes in sealless design for pumping small quantities of neutral and slightly aggressive (with stainless steel pump tube or polypropylene pump tube with stainless steel shaft) or aggressive (with polypropylene pump tube with hastelloy shaft) media out of containers with narrow neck.

Pump tube made of polypropylene or stainless steel, various suction tube diameters and lengths, complete with ½" hose connection (for PP Ø 25 mm) or ¾" (with PP for Ø 28 and 32 mm), SS Ø 28 ¾" or SS Ø 32 1" for stainless steel. The pump tubes can be combined with all electric motors and air operated motors outside hazardous area.

	Material of pump tube	Pump tube diameter	Pump tube length	Order No.
	Polypropylene (SS) Stainless steel drive shaft 316 Ti	Ø 25 mm	500 mm	2625 0050
		Ø 25 mm	700 mm	2625 0070
		Ø 25 mm	1,000 mm	2625 0100
		Ø 28 mm	500 mm	2628 0050
		Ø 28 mm	700 mm	2628 0070
		Ø 28 mm	1,000 mm	2628 0100
		Ø 32 mm	700 mm	2632 0070
		Ø 32 mm	1,000 mm	2632 0100
		Ø 32 mm	1,200 mm	2632 0120
	Polypropylene (HC) Hastelloy drive shaft 2,4610	Ø 25 mm	500 mm	2125 0050
		Ø 25 mm	700 mm	2125 0070
		Ø 25 mm	1,000 mm	2125 0100
		Ø 28 mm	500 mm	2128 0050
		Ø 28 mm	700 mm	2128 0070
		Ø 28 mm	1,000 mm	2128 0100
		Ø 32 mm	700 mm	2132 0070
		Ø 32 mm	1,000 mm	2132 0100
		Ø 32 mm	1,200 mm	2132 0120
	Stainless steel 316 Ti	Ø 28 mm	700 mm	2228 0070
		Ø 28 mm	1,000 mm	2228 0100
		Ø 28 mm	1,200 mm	2228 0120
		Ø 32 mm	700 mm	2232 0070
		Ø 32 mm	1,000 mm	2232 0100
		Ø 32 mm	1,200 mm	2232 0120

# Accessories for laboratory pumps



### Nozzle made of polypropylene

for a safe filling and transferring of low quantities with hose connection 1/2"

### Nozzle made of polypropylene

Housing and internal parts made of polypropylene, valve seat and o-rings made of FKM or EPDM, rotatable hose connection

Flow rate: 80 l/min\*

Viscosity: 800 mPas

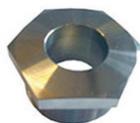
Operating pressure: 3 bar\*

Weight: 210 g



### Barrel adapter made of polypropylene

for secure fixing of drum pump in bung-hole of a drum  
Diameter of pump tube 25, 28 or 32 mm, G 2"



### Barrel adapter made of stainless steel

for secure fixing of drum pump in bung-hole of a drum  
Diameter of pump tube 32 mm, G 2"

The barrel adapters fit due to their 2" thread in 60 and 200 liter steel drums. For use in plastic drums or plastic canisters they can be combined with the thread adapters.



### Wall hanger for laboratory pump

for a secure storage of barrel pump when out of operation and for protection against damages



### PVC-hose

crystal clear with fabric lining, suitable for non flammable, neutral and aggressive media

Operating pressure: 10 bar\*

Temperature: -35 °C up to +60 °C\*

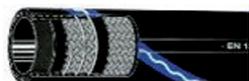


### Universal chemical- and solvent hose, conductive

inner wall homogeneous, smooth, EPDM (Ethylene Propylene Rubber) conductive, suitable for many alkalies, acids, acetates, aldehydes, amines, esters, ethers and ketones, not suitable for carbonic gassy products and their derivatives, as well as oils and gasoline

Operating pressure: 16 bar\*

Temperature: -40 °C up to +90 °C\*



### Multi purpose chemical hose, conductive

inner wall homogeneous, smooth, PE-X (knitted polyethylene), conductive, suitable for nearly all chemicals.

Not suitable for oleum, brom and chlorsulfon acid

Operating pressure: 10 bar\*

Temperature: -25 °C up to +90 °C\*

Order No.

1/2" 9016

1/2" 9101

Ø 25 9078

Ø 28 9079

Ø 32 9080

Ø 32 9081

9007

1/2" 9049

3/4" 9050

1/2" 9054

3/4" 9055

1/2" 9059

3/4" 9060

# NEPTUNE Drum and container pumps

for pumping thin fluid media such as acids, alkalis and detergents (with polypropylene pump tube), highly aggressive chemicals (with PVDF pump tube), mineral oil products up to 1,000 mPas (with aluminium pump tube) or flammable media and food (with stainless steel 316 Ti pump tube)



Electric motor

### The particular advantages in an overview:

- The FLUIMAC universal motors that can be combined with all pump tubes outside hazardous areas are lightweight, handy and powerful devices for nearly all thin fluid and slightly viscous media.
- The non-stationary and stationary applicable drum pump motors are particularly suitable for intermittent operation.
- The sophisticated, technically clear structure of the drum pump ensures a rational and safe use.
- Quick disconnection of the drive from the pump tube through a few rotations enables the combination of

an engine with various pump tubes for different media.

- Wide range of accessories such as drum and threaded adapters, media-resistant hoses, nozzles, wall hanger or flow meter is available on request (see page 43 et seq.).
- Easy disassembling and quick cleaning of the pump tubes.

### Media depending on pump tube

#### Pump tube made of polypropylene:

For aggressive media such as acids, alkalis and detergents. Maximum temperature 50 °C.

#### Pump tube made of PVDF:

For highly aggressive media such as chlorine bleach, chromic acid, hydrofluoric acid, nitric acid, sulfuric acid > 90%. Maximum temperature 90 °C.

#### Pump tube made of Aluminium:

For mineral oil products such as diesel, heating oil, hydraulic oils, gear oils, engine oils, mineral oils and motor oils up to 1,000 mPas.

#### Pump tube made of stainless steel:

For neutral, slightly aggressive media and specifically for lightly flammable media and food.

► The flow rate of a drum pump depends initially on the speed of the motor and then on motor power.



#### Axial (rotor)

For higher flow rates

#### Radial (impeller)

For larger heads

► For flammable media and for use in hazardous environments explosion proof drum pumps with accessories are available. The electric and air operated engines and pump tubes of conductive stainless steel need an ATEX approval. When pumping flammable media a potential equalization is mandatory.

Pumptube



Air operated motor

Pump tube



### Electronic speed control

The speed of the drum pump motors can be controlled electronically via a knob on the handle. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.



# N-120 NEPTUNE Electric universal motor

230 Volt, 50 Hz, 250 Watt, IP 24, alternatively 115 Volt, 60 Hz

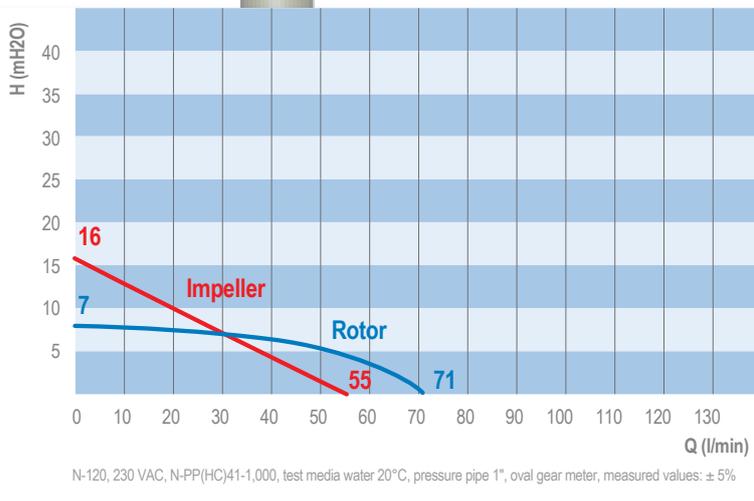


## Description

- The drive N-120 is a compactly built, not explosion-proof, internally ventilated universal motor.
- The lightweight, handy and powerful device can be used as drive for the pump tubes of the laboratory and drum pumps and is useful in this combination for many thin fluid, neutral, aggressive and non-flammable media. Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a variety of water-like liquids.
- The drum pump motor is characterized not only by its light weight (2 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. As internally ventilated motor it has an optimal air cooling, low noise level and ensures high operational safety

and long time life.

- The motor housing made of polypropylene ensures high chemical resistance when aggressive vapours of acids and alkalis are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety. By the presence of a thermal protection the life of the engine is significantly increased.
- The flow rate of the media that will be pumped can be adjusted by the optionally available speed control that is mounted laterally in the motor housing and therefore adapted to the needs of the user.
- The maximum density of the media is for the N-120 universal motor 1



## N-120

**Electric universal motor** 230 Volt, 50 Hz, 250 Watt, IP 24, double insulation protection class II, over load protection switch with integrated low voltage release. Thermal protection, 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option

## Operating data

Flow rate (with hose and oval gear meter): up to 71 l/min (Rotor)\*

up to 55 l/min (Impeller)\*

Head: up to 7 m (Rotor)\*

up to 16 m (Impeller)\*

Viscosity: up to 200 mPas\*

Density: up to 1,2\*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-120

Version	Voltage	Order No.
without LVR	230 V 1~, 50 Hz, 250 W	1120 2300
	115 V 1~, 60 Hz, 250 W	1120 1150
with LVR	230 V 1~, 50 Hz, 250 W	1120 2301
	115 V 1~, 60 Hz, 250 W	1120 1151
without LVR, with SC	230 V 1~, 50 Hz, 250 W	1120 2302
	115 V 1~, 60 Hz, 250 W	1120 1152
with LVR + SC	230 V 1~, 50 Hz, 250 W	1120 2303
	115 V 1~, 60 Hz, 250 W	1120 1153

**LVR:** Low voltage release  
**SC:** Speed control



## Electronic speed control

The speed of the drum pump motor N-120 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.

# N-140 NEPTUNE Electric universal motor

230 Volt, 50 Hz, 450 Watt, IP 24, alternatively 115 Volt, 60 Hz

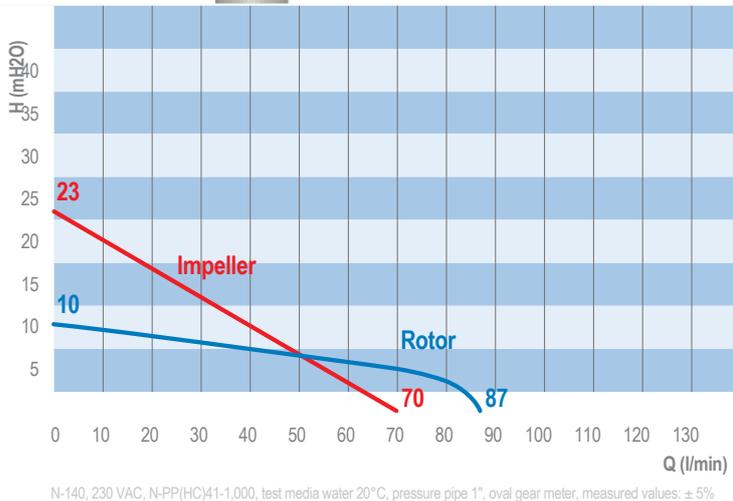


## Description

- The drive N-140 is a compactly built, not explosion-proof, internally ventilated universal motor.
- The lightweight, handy and powerful device can be used as drive for the pump tubes of the laboratory and drum pumps and is useful in this combination for many thin fluid, neutral, aggressive and non-flammable media. Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a variety of water-like liquids.
- The drum pump motor is characterized not only by its light weight (2,3 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. As internally ventilated motor it has an optimal air cooling, low noise level and ensures high operational

safety and long lifetime.

- The motor housing made of polypropylene ensures high chemical resistance when aggressive vapours of acids and alkalis are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety. By the presence of a thermal protection the life of the engine is significantly increased.
- The flow rate of the media that will be pumped can be adjusted by the optionally available speed control that is mounted laterally in the motor housing and therefore adapted to the needs of the user.
- The maximum density of the media is for the N-140 universal motor 1.3, the maximum viscosity 400 mPas.



## N-140

**Electric universal motor** 230 Volt, 50 Hz, 450 Watt, IP 24, double insulation protection class II, over load protection switch with integrated low voltage release. Thermal protection, 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option.

## Operating data

Flow rate (with hose and oval gear meter): up to 87 l/min (Rotor)*	up to 70 l/min (Impeller)*
Head: (Rotor)*	up to 10 m
	up to 23 m (Impeller)*
Viscosity:	up to 400 mPas*
Density:	up to 1,3*

\*Data obtained with a 1" pipe are indicated in the performance curve

\*Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-140



Version	Voltage	Order No.
without LVR	230 V 1~, 50 Hz, 450 W	1140 2300
	115 V 1~, 60 Hz, 450 W	1140 1150
with LVR	230 V 1~, 50 Hz, 450 W	1140 2301
	115 V 1~, 60 Hz, 450 W	1140 1151
without LVR, with SC	230 V 1~, 50 Hz, 450 W	1140 2302
	115 V 1~, 60 Hz, 450 W	1140 1152
with LVR + SC	230 V 1~, 50 Hz, 450 W	1140 2303
	115 V 1~, 60 Hz, 450 W	1140 1153

LVR: Low voltage release  
SC: Speed control



## Electronic speed control

The speed of the drum pump motor N-140 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.



# N-160 NEPTUNE Electric universal motor

230 Volt, 50 Hz, 400 Watt, IP 24

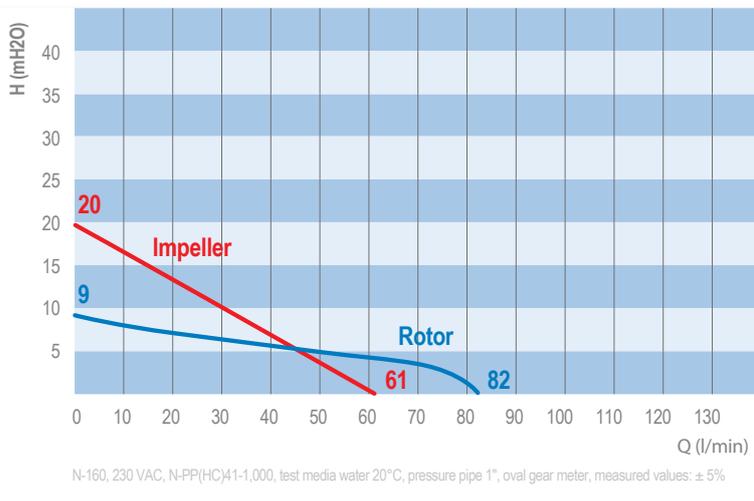


## Description

- The drive N-160 is a compactly built, not explosion-proof, internally ventilated universal motor that has proven itself in very large numbers for low viscous media such as the urea solution AdBlue.
- This handy, very robust and powerful motor can be used to drive the suction tubes of drum pumps. In this combination it is suitable for many thin fluid and slightly viscous, neutral, aggressive and non-flammable liquids (max. 400 mPas). Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a wide range of media.
- The drum pump motor is characterized not only by its light weight (2,9 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. As internally ventilated motor it has an optimal air cooling, low noise

and ensures high operational safety and long lifetime.

- The motor housing made of polypropylene ensures a high chemical resistance when aggressive vapours of acids and alkalies are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety.
- The flow rate of the media to be pumped can be regulated by an optionally available speed control that is integrated in the motor handle. Therefore the flow rate can be adjusted to the needs of the user.
- The maximum density of the media is for the N-160 universal motor 1.3, the maximum viscosity 400 mPas.



## N-160

**Electric universal motor** 230 Volt, 50 Hz, 400 Watt, IP 24, double insulation protection class II, over load protection switch with integrated low voltage release. 5 m cable with plug. Speed control as option.

## Operating data

Flow rate (with hose and oval gear meter): up to 82 l/min (Rotor)*	up to 61 l/min (Impeller)*
Head: up to 9 m (Rotor)*	up to 20 m (Impeller)*
Viscosity: up to 400 mPas*	
Density: up to 1,3*	

\*Data obtained with a 1" pipe are indicated in the performance curve

\*Test media water 20 ° C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-160

Version	Voltage	Order No.
without LVR	230 V 1~, 50 Hz,	1160 2300
with LVR	230 V 1~, 50 Hz,	1160 2301
without LVR, with SC	230 V 1~, 50 Hz, 400 W	1160 2302
with LVR +	230 V 1~, 50 Hz,	1160 2303

LVR: Low voltage release  
SC: Speed control



## Electronic speed control

The speed of the drum pump motor N-160 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.

# N-164 NEPTUNE Electric universal motor

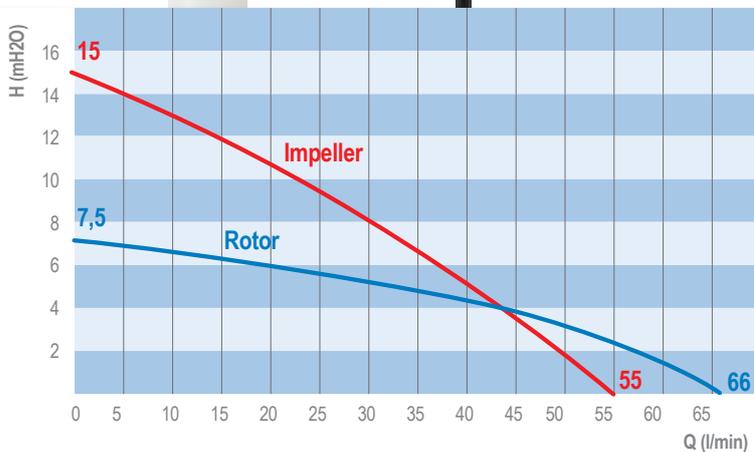
24 Volt, DC, 400 Watt, IP 24

## Description

- The drum pump motor N-164 is a compactly built, not explosion-proof, internally ventilated universal motor, that has proven itself for slightly viscous media as diesel in agricultural field and at fire brigades foaming agents.
- This handy, very robust and powerful engine can be used as a 24 Volt engine for the suction tubes of drum pumps and is in this combination suitable for many thin fluid and slightly viscous, neutral, aggressive and non-flammable liquids (max 300 mPas). Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a wide range of media.
- The drum pump motor is characterized not only by its light weight (2,9 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is par-

ticularly suitable for intermittent operation. As internally ventilated motor it has an optimal air cooling, low noise and ensures high operational safety and long lifetime.

- An overload circuit breaker prevents overloading of the drum pump motor.
- The motor is supplied at the end of the 5 meter cable as standard with two battery poles. For use by firefighters, police or army a 2-pole plug in screw connection according to DIN 14690 can be mounted alternatively.
- The motor housing made of polypropylene ensures a high chemical resistance when aggressive vapours of acids and alkalis are present.
- The maximum density of the media is for the N-164 universal motor 1.3, the maximum viscosity 300 mPas.



N-164, 24VDC, max. 15A, N-PP(HC)41-1.000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-164

**Electric universal motor** 24 volts DC, 400 Watt, IP 24, double insulated protection class II, overload protection, 5 m cable with battery clamps.

## Operating data

Flow rate (with hose and oval gear meter):	up to 66 l/min (Rotor)* up to 55 l/min (Impeller)*
Head:	up to 7,5 m (Rotor)* up to 15 m (Impeller)*
Viscosity:	up to 300 mPas*
Density:	up to 1,3*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%

### N-164



### Voltage

24 V DC, 400 W

### Order No.

1164 0240



# N-180 NEPTUNE Electric universal motor

230 Volt, 50 Hz, 600 Watt, IP 24, alternatively 115 Volt, 60 Hz

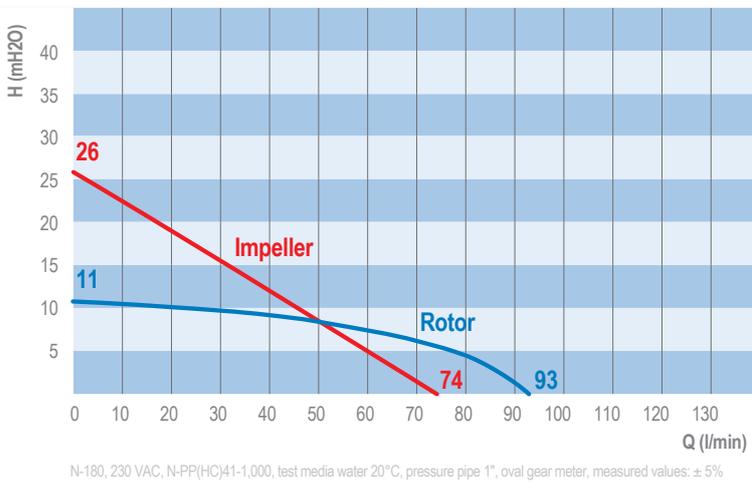


## Description

- The drive N-180 is a compactly built, not explosion-proof, internally ventilated universal motor that is our top seller for aggressive media in the chemical and the galvanic industry beside N-280.
- This handy, very robust and powerful motor can be used to drive the suction tubes of drum pumps. In this combination it is suitable for many thin liquid and slightly viscous, neutral, aggressive and non-flammable liquids (max. 600 mPas). Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a wide range of media.
- The drum pump motor is characterized not only by its light weight (3,6 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent

operation. As internally ventilated motor it has an optimal air cooling, low noise and ensures high operational safety and long lifetime.

- The motor housing made of polypropylene ensures a high chemical resistance when aggressive vapours of acids and alkalies are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety.
- The flow rate of the media to be pumped can be regulated by an optionally available speed control that is integrated in the motor handle. Therefore the flow rate can be adjusted to the needs of the user.
- The maximum density of the media is for the N-180 universal motor 1.5, the maximum viscosity 600 mPas.



## N-180

**Electric universal motor** 230 Volt, 50 Hz, 600 Watt, IP 24, double insulation protection class II, over load protection switch with integrated low voltage release. 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option.

## Operating data

Flow rate (with hose and oval gear meter):	up to 93 l/min (Rotor)*
	up to 74 l/min (Impeller)*
Head:	up to 11 m (Rotor)*
	up to 26 m (Impeller)*
Viscosity:	up to 600 mPas*
Density:	up to 1,5*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 ° C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-180



Version	Voltage	Order No.
without LVR	230 V 1~, 50 Hz, 600 W	1180 2300
	115 V 1~, 60 Hz, 600 W	1180 1150
with LVR	230 V 1~, 50 Hz, 600 W	1180 2301
	115 V 1~, 60 Hz, 600 W	1180 1151
without LVR, with SC	230 V 1~, 50 Hz, 600 W	1180 2302
	115 V 1~, 60 Hz, 600 W	1180 1152



## Electronic speed control

The speed of the drum pump motor N-160 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.

# N-280 NEPTUNE Electric universal motor

230 Volt, 50 Hz, 825 Watt, IP 24, alternatively 115 Volt, 60 Hz

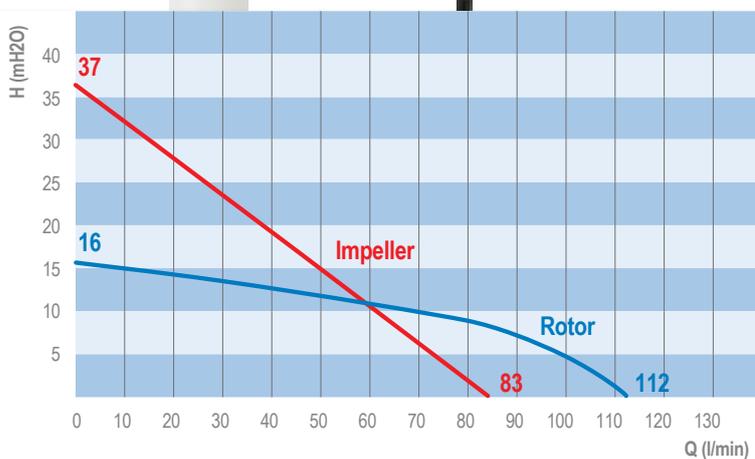


## Description

- The drive N-280 is a compactly built, not explosion-proof, internally ventilated universal motor that is our top seller for aggressive media in the chemical and the galvanic industry beside N-180.
- This handy, very robust and powerful motor can be used to drive the suction tubes of drum pumps. In this combination it is suitable for many thin liquid and slightly viscous, neutral, aggressive and non-flammable liquids (max 1,000 mPas). Its sophisticated, technically clear structure ensures an efficient and safe use when transferring a wide range of media.
- The drum pump motor is characterized not only by its light weight (3,8 kg) but also by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. As internally ventilated

motor it has an optimal air cooling, low noise and ensures high operational safety and long lifetime.

- The motor housing made of polypropylene ensures a high chemical resistance when aggressive vapours of acids and alkalies are present.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop and thus guarantees maximum safety.
- The flow rate of the media to be pumped can be regulated by an optionally available speed control that is integrated in the motor handle. Therefore the flow rate can be adjusted to the needs of the user.
- The maximum density of the media is for the N-280 universal motor 1.9, the maximum viscosity 1,000 mPas.



N-280, 230 VAC, N-PP(HC)41-1,000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-280

**Electric universal motor** 230 Volt, 50 Hz, 825 Watt, IP 24, double insulation protection class II, over load protection switch with integrated low voltage release. 5 m cable with plug. Also available in 115 volts, 60 Hz.

Speed control as option.

## Operating data

Flow rate (with hose and oval gear meter):	up to 112 l/min (Rotor)*
	up to 83 l/min (Impeller)*
Head:	up to 16 m (Rotor)*
	up to 37 m (Impeller)*
Viscosity:	up to 1,000 mPas*
Density:	up to 1,9*

\*Data obtained with a 1" pipe are indicated in the performance curve

\*Test media water 20 ° C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-280



Version	Voltage	Order No.
without LVR	230 V 1~, 50 Hz, 825 W	1280 2300
	115 V 1~, 60 Hz, 825 W	1280 1150
with LVR	230 V 1~, 50 Hz, 825 W	1280 2301
	115 V 1~, 60 Hz, 825 W	1280 1151
without LVR, with SC	230 V 1~, 50 Hz, 825 W	1280 2302
	115 V 1~, 60 Hz, 825 W	1280 1152
with LVR + SC	230 V 1~, 50 Hz, 825 W	1280 2303
	115 V 1~, 60 Hz, 825 W	1280 1153

## Electronic speed control

The speed of the drum pump motor N-280 can be controlled via a knob on the side of the motor housing electronically. This enables an adjustment of the flow rate.

The electronic speed control is available as an option.



# N-400 NEPTUNE Explosion-proof electric universal motor

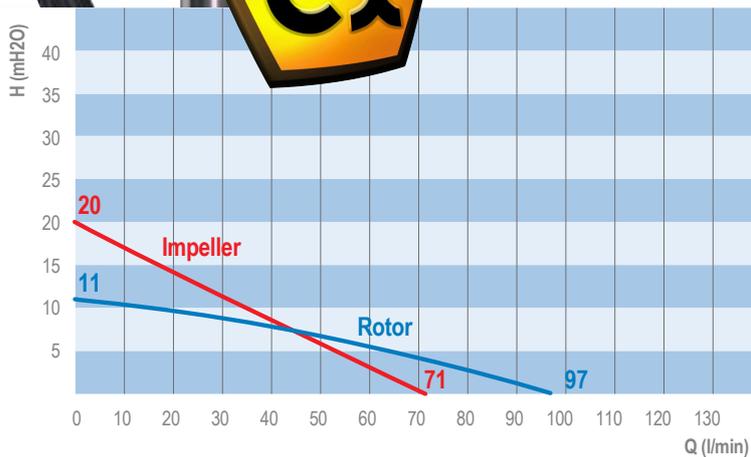
230 Volt, 50 Hz, 550 Watt, IP 54, Ex de II A T6

## Description

- The drive N-400 is a compactly built, robust explosion-proof universal motor that is built and approved in accordance with the latest explosion protection guidelines ATEX 100a (94/9/EC). The collector motor is explosion-proof according to II 2G Ex de IIA T6 and has an EC-type examination certificate ZELM 09 ATEX 0425 X. The electric motor Ex-N-400 offers in addition to the air operated motors maximum protection when pumping flammable media or for use in hazardous environments. At such applications separate authorizations for the drive motor and the pump tube acc. directives 94/9/EC (ATEX 100a) are required.
- The handy and powerful device can be used as a drive for the ATEX certified sealless pump tubes made of stainless steel (Ø 41 mm). In this combination the drive is suitable for many thin liquid to viscous, neutral, slightly aggressive and easily flammable media with a flash point below 55 °C. Its sophisticated, technically

clear structure ensures an efficient and safe use when transferring the wide range of media.

- The drum pump motor is characterized in addition to its robustness by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. As externally ventilated motor it has an optimal air cooling, low noise and ensures high operational safety and long lifetime.
- The standard in the on/off switch integrated low voltage release is intended to prevent an uncontrolled start of the drum pump motor after a power failure or voltage drop. Thus guarantees maximum safety.
- The maximum density of the media is for the N-400 universal motor 1,5, the maximum viscosity 600 mPas.



N-400, 230 VAC, N-SS 41-1,000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-400

**Electric universal motor** 230 Volt, 50 Hz, 550 Watt, protection II 2G Ex de IIA T6, IP54, double insulated protection class II, with low voltage release. 5 m cable without plug.

## Operating data

Flow rate (with hose and oval gear meter):	up to 97 l/min (Rotor)*
	up to 71 l/min (Impeller)*
Head:	up to 11 m (Rotor)* up to 20 m (Impeller)*
Viscosity:	up to 600 mPas*
Density:	up to 1,5*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%



N-400

Version	Voltage	Order No.
without LVR	230 V 1~ 50 Hz, 550 W	1400 2300
with LVR	230 V 1~ 50 Hz, 550 W	1400 2301

LVR: Low voltage release

# N-AIR1 NEPTUNE Explosion-proof air operated motor

made of aluminium

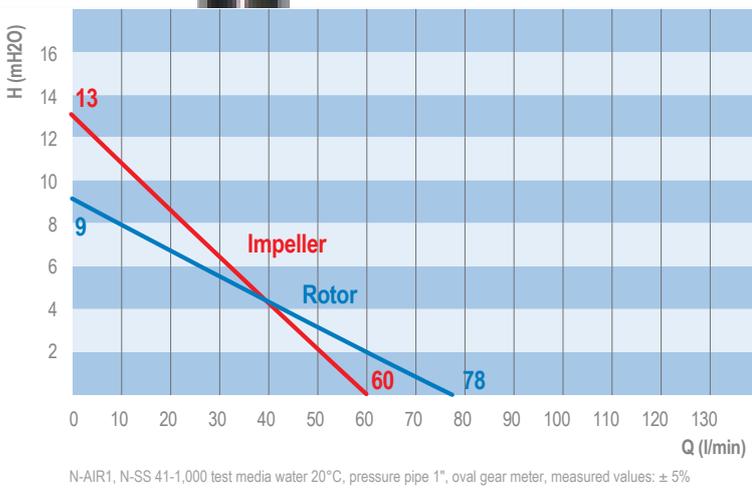
300 Watt at max. 6 bar operating pressure, Ex 2GD c IIC T6 (80 °C) X

## Description

- The air operated motor N-AIR 1 is a compactly built, robust explosion-proof air operated motor in accordance with the latest explosion protection guidelines ATEX 100a (94/9/EC), category 2. The pneumatic motor is explosion-protected according to Ex 2 GD c IIC T6 (80 °C) X and has a type-certificate IBEX U05 ATEX B007 X. The motor N-AIR 1 provides beside other air operated motors and the electric motor N-400 maximum safety when pumping flammable media or for use in hazardous environments. At such applications for the drive motor and the pump tube separate approvals acc. to directive 94/9/EC (ATEX 100a) are required and a potential equalization has to be installed.
- The handy and powerful device (2.1 kg) can be used as a drive for the laboratory pump tubes (not ex-certified) or in hazardous areas for the ATEX certified sealless pump tubes made of stainless steel (Ø 41 mm), the mixing pump tubes in stainless steel, the stainless steel pump tubes with mechanical seal or complete drum emptying function. In combination with ATEX certified pump

tubes, the drive is suitable for many low-viscous, neutral, slightly aggressive media and especially for highly flammable media with a flash point below 55 °C. Its sophisticated, technically clear structure ensures an efficient and safe use when transferring the wide range of media.

- The drum pump motor is characterized in addition to its robustness by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. The construction of the motor guarantees an high operational safety and a long lifetime.
- The very robust aluminium motor housing ensures a good chemical resistance when aggressive solvent vapours are present.
- The air operated motor is supplied with a silencer and a ball valve at the air inlet for controlling the compressed air and thereby the motor speed.
- The maximum density of the media is for the explosion-proof air operated motor N-AIR 1 1.3, the maximum viscosity 400 mPas.



## N-AIR1

### Air operated motor

300 Watt at max. 6 bar operating pressure, with silencer and a brass ball valve for control compressed air. This regulates speed of the motor and varies pumping capacity.

### Operating data

Flow rate (with hose and oval gear meter): up to 78 l/min (Rotor)\*

up to 60 l/min (Impeller)\*

Head: up to 9 m (Rotor)\*  
up to 13 m (Impeller)\*

Viscosity: up to 400 mPas\*

Density: up to 1,3\*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%



### N-AIR1

#### Performance

300 W

300 Watt at max. 6 bar operating pressure

Air consumption under load 13 l/sec.

#### Order No.

3001 0300



# N-AIR2 NEPTUNE Explosion-proof air operated motor

made of aluminium

600 Watt at max. 6 bar operating pressure, Ex 2GD c IIC T6 (80 °C) X



## Description

- The air operated motor N-AIR 2 is a compactly built, robust explosion-proof air operated motor in accordance with the latest explosion protection guidelines ATEX 100a (94/9/EC), category 2. The pneumatic motor is explosion-protected according Ex 2 GD c IIC T6 (80 ° C) X and has a type-certificate IBEX U05 ATEX B007 X. The motor N-AIR 2 provides beside other air operated motors and the electric motor N-400 maximum safety when pumping flammable media or for use in hazardous environments. At such applications for the drive motor and the pump tube separate approvals acc. to directive 94/9/EC (ATEX 100a) are required and a potential equalization has to be installed.

- The handy and powerful device (1,5 kg) can be used as a drive for the laboratory pump tubes (not ex-certified) or in hazardous areas for the ATEX certified sealless pump tubes made of stainless steel (Ø 41 mm). In combination with ATEX certified pump tubes the drive is suitable for many low-viscous, neutral, slightly aggressive media and for highly flammable media with a flash point below 55 °C. Its sophisticated, technically clear structure ensures an efficient and safe use when transferring the wide range of media.

## N-AIR2

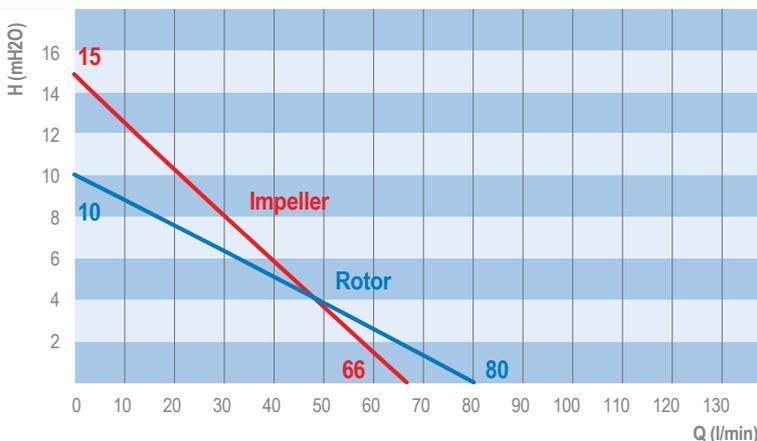
Air operated motor  
600 Watt at max.  
6 bar working pressure,  
with silencer  
and on/off switch.

## Operating data

Flow rate (with hose and oval gear meter):	up to 80 l/min (Rotor)*
	up to 66 l/min (Impeller)*
Head:	up to 10 m (Rotor)*
	up to 15 m (Impeller)*
Viscosity:	up to 600 mPas*
Density:	up to 1,5*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 ° C, pressure pipe 1", oval gear meter, measured values: ± 5%



N-AIR2, N-SS 41-1,000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%



## Performance

600 W

600 Watt at max. 6 bar  
operating pressure

Air consumption under load 12 l/sec.

## Order No.

3002 0600

# N-AIR3

# NEPTUNE Explosion-proof air operated motor

made of stainless steel

400 Watt at max. 6 bar operating pressure, Ex 2GD c IIC T6 (80 °C) X

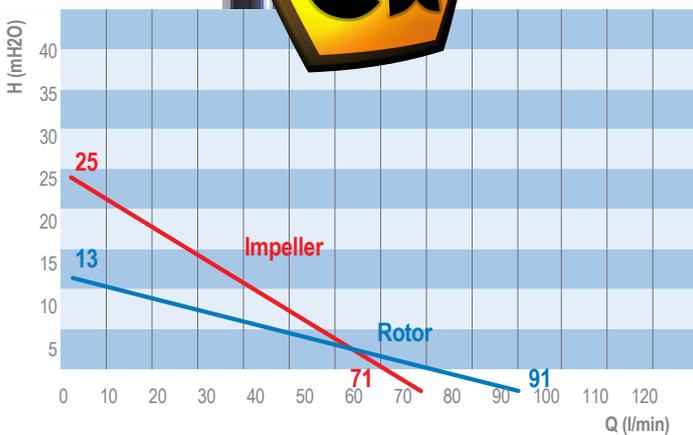


## Description

- The air operated motor N-AIR 3 is a compactly built, robust explosion-proof air operated motor in accordance with the latest explosion protection guidelines ATEX 100a (94/9/EC), category 2. The pneumatic motor is explosion-protected to Ex 2 GD c IIC T6 (80 °C) X and has a type-certificate IBEX U05 ATEX B007 X. The motor N-AIR 3 provides beside other air operated motors and the electric motor N-400 maximum safety when pumping flammable media or for use in hazardous environments. At such applications for the drive motor and the pump tube separate approvals acc. to directive 94/9/EC (ATEX 100a) are required and a potential equalization has to be installed.
- The handy and powerful device (1,9 kg) can be used as a drive for the laboratory pump tubes (not ex-certified) or in hazardous areas for the ATEX certified sealless pump tubes made of stainless steel (Ø 41 mm). In combination with ATEX certified pump tubes the drive is suitable for many low-viscous, neutral, slightly aggressive media and for highly

flammable media with a flash point below 55 °C. Its sophisticated, technically clear structure ensures an efficient and safe use when transferring the wide range of media.

- The drum pump motor is characterized in addition to its robustness by its elegant design and ease of use. The non-stationary and stationary usable drive is particularly suitable for intermittent operation. The construction of the motor guarantees an high operational safety and a long lifetime.
- The very robust stainless steel 316Ti motor housing ensures a good chemical resistance when aggressive solvent vapours are present.
- The air operated motor is supplied with two silencers and a ball valve at the air inlet for controlling the compressed air and thereby the motor speed.
- The maximum density of the media is for the explosion-proof air operated motor N-AIR 3 at 1.5, the maximum viscosity 600 mPas.



N-AIR3, N-SS 41-1,000, test media water 20°C, pressure pipe 1", oval gear meter, measured values: ± 5%

## N-AIR3

### Air operated motor

400 Watt at max. 6 bar operating pressure, with silencer and a brass ball valve for control the compressed air. This regulates speed of the motor and varies pumping capacities

### Operating data

Flow rate (with hose and oval gear meter):	up to 91 l/min (Rotor)*
	up to 71 l/min (Impeller)*
Head:	up to 13 m (Rotor)*
	up to 25 m (Impeller)*
Viscosity:	up to 600 mPas*
Density:	up to 1,5*

\* Data obtained with a 1" pipe are indicated in the performance curve

\* Test media water 20 °C, pressure pipe 1", oval gear meter, measured values: ± 5%

All motors can be combined outside hazardous areas with all pump tubes over the hand wheel.



### N-AIR3

Performance	Order No.
400 W	3003 0400
400 Watt at max. 6 bar operating pressure Air consumption under load 13 l/sec.	



# NEPTUNE Pump tubes made of polypropylene

for pumping aggressive media such as acids, alkalies

## Standard tube lengths (available from stock)

700 mm • 1,000 mm • 1,200 mm • 1,500 mm • 1,800 mm

## Special lengths (available within 1-2 days)

from 200 mm up to 3,000 mm  
(Depending on the pump tube material and the medium temperature)



## Polypropylene = PP pump tubes up to 50 °C

- Can be used for aggressive and hardly flammable media.
- Especially suitable for aggressive media such as cleaning agents, acids and alkalies.
- Drive shaft made of stainless steel 316 Ti or hastelloy 2,4610.
- Hose connection 1" included (¾" or 1¼" also possible).
- Maximum medium temperature 50 °C.



## Axial (Rotor)

Standard in all pump tubes.

- Pump tubes with rotor are used when high capacities and low heads are required.
- A typical application is the decanting of drums and containers at same level.
- A rotor made of stainless steel 316 Ti is available as an option for stainless steel pump tubes.



## Radial (Impeller)

Standard in all pump tubes.

- If larger heads at lower flow rates are required pump tubes with radial impellers are the right choice.
- For this a special pump foot is required. In any case it was to be considered that the actual performance of a pump tube is depending on the power of the used motor.
- An impeller made of stainless steel 316 Ti is available as an option for stainless steel pump tubes.

Material of Pump tube	Pump tube diameter	Pump tube length	Version	Order No.
Polypropylene (SS) Stainless steel drive shaft 316 Ti	Ø 41 mm	700 mm	Rotor	2641 0070
		700 mm	Impeller	2641 0071
	Ø 41 mm	1,000 mm	Rotor	2641 0100
		1,000 mm	Impeller	2641 0101
	Ø 41 mm	1,200 mm	Rotor	2641 0120
		1,200 mm	Impeller	2641 0121
	Ø 41 mm	1,500 mm	Rotor	2641 0150
		1,500 mm	Impeller	2641 0151
Ø 41 mm	1,800 mm	Rotor	2641 0180	
	1,800 mm	Impeller	2641 0181	
Polypropylene (HC) Hastelloy drive shaft 2,4610	Ø 41 mm	700 mm	Rotor	2141 0070
		700 mm	Impeller	2141 0071
	Ø 41 mm	1,000 mm	Rotor	2141 0100
		1,000 mm	Impeller	2141 0101
	Ø 41 mm	1,200 mm	Rotor	2141 0120
		1,200 mm	Impeller	2141 0121
	Ø 41 mm	1,500 mm	Rotor	2141 0150
		1,500 mm	Impeller	2141 0151
Ø 41 mm	1,800 mm	Rotor	2141 0180	
	1,800 mm	Impeller	2141 0181	

## Examples of media

Formic acid (50%)  
Ammonia  
Boric acid  
Distilled water  
Fertilizer solutions  
Iron II and III-chloride  
Acetic acid (80%)  
Photo developer  
Fruit acids  
Potassium hydroxide solution  
Copper chloride  
Lactic acid  
Sodium hydroxide solution  
Phosphoric acid  
Hydrochloric acid  
Sulfuric acid up to (90%)  
Hydrogen peroxide  
Citric acid  
and many other media

Special lengths from 200 to 3,000 mm are available on request with short delivery times.

## NEPTUNE Pump tubes made of PVDF

for pumping aggressive media such as highly concentrated acids and alkalies, Ø 41 mm



### Polyvinylidene fluoride = PVDF pump tubes up to 90 °C

- Can be used for aggressive and hardly flammable media.
- Especially suitable for aggressive media such as high concentrated acids and alkalies.
- Drive shaft made of hastelloy 2,4610.
- Hose connection 1" included (¾" or 1¼" also possible).
- Maximum medium temperature 90 °C.

### Examples of media

*Formic acid (50%)  
Hydrobromic acid  
Chloric acid  
Chromic acid  
Hydrofluoric acid  
Sodium hypochlorite  
Nitric acid and  
Sulfuric acid > 90 °C*

*All media, mentioned at the polypropylene pump tubes can be pumped also.*

*Special lengths are available on request with short delivery times.*

Material of pump tube	Pump tube diameter	Pump tube length	Version	Order No.
Polyvinylidene-fluoride (PVDF) Hastelloy drive shaft 2,4610	Ø 41 mm	700 mm	Rotor	2341 0070
			Impeller	2341 0071
	Ø 41 mm	1,000 mm	Rotor	2341 0100
			Impeller	2341 0101
	Ø 41 mm	1,200 mm	Rotor	2341 0120
			Impeller	2341 0121
	Ø 41 mm	1,500 mm	Rotor	2341 0150
			Impeller	2341 0151

## NEPTUNE Pump tubes made of Aluminium

for transferring mineral oil products up to 1,000 mPas, Ø 41 mm



### Aluminium = Alu pump tubes up to 90 °C

- Suitable for neutral and hardly flammable media.
- Especially suitable for mineral oil products up to 1,000 mPas.
- Drive shaft made of stainless steel 316 Ti.
- Hose connection 1" included (¾" or 1¼" also possible).
- Maximum medium temperature 90 °C.

### Examples of media

*Drilling emulsions  
Diesel  
Liquid soap  
Liquid wax  
Transmission oils  
Fuel oil  
Hydraulic oils  
Machine oils  
Mineral oils  
and motor oils*

*Special lengths up to 3,000 mm are available on request with short delivery times.*

Material of pump tube	Pump tube diameter	Pump tube length	Version	Order No.
Aluminium (ALU) Stainless steel drive shaft 316 Ti	Ø 41 mm	700 mm	Rotor	2441 0070
			Impeller	2441 0071
	Ø 41 mm	1,000 mm	Rotor	2441 0100
			Impeller	2441 0101
	Ø 41 mm	1,200 mm	Rotor	2441 0120
			Impeller	2441 0121
	Ø 41 mm	1,500 mm	Rotor	2441 0150
			Impeller	2441 0151



# NEPTUNE Pump tubes made of SS AISI 316

for transferring neutral, slightly aggressive media and especially flammable media like solvents and for use in food industry, Ø 41 mm



### Stainless steel = SS pump tubes with Ex approval, outside ex-areas max. 90 and 120 °C

- With SS-pump tubes all neutral, low viscous media as organic and inorganic diluted acids and alkalies are mainly pumped. In addition these ATEX compliant pump tubes are used specifically for pumping highly combustible media such as solvents or gasoline and for use in explosive environments.
- Suitable for flammable media up to temperature class 4 and use in ex-zone 0.
- The pump tubes in stainless steel with a carbon bearing approved for the food sector are used since many

years in the food industry and the beverage industry.

- Drive shaft made of stainless steel 316 Ti.
- Hose connection 1" included (¾" or 1¼" also possible).
- EC type examination certificate number ZELM 09 ATEX 0424X.
- Maximum medium temperature 90 °C (with PTFE rotor) or 120 °C (with SS rotor) outside ex areas.

Material of pump tube	Pump tube diameter	Pump tube length	Version	Order No.
<b>Stainless Steel 316 Ti</b> <b>Stainless steel shaft</b> <b>EC type-certificate ZELM 09 ATEX 0424 X Ex II/2 G c II B T4</b>	Ø 41 mm	700 mm	Rotor	2241 0070
			Impeller	2241 0071
	Ø 41 mm	1,000 mm	Rotor	2241 0100
			Impeller	2241 0101
	Ø 41 mm	1,200 mm	Rotor	2241 0120
			Impeller	2241 0121
	Ø 41 mm	1,500 mm	Rotor	2241 0150
			Impeller	2241 0151
	Ø 41 mm	1,800 mm	Rotor	2241 0180
			Impeller	2241 0181
	Ø 41 mm	2,100 mm	Rotor	2241 0210
			Impeller	2241 0211
	Ø 41 mm	2,400 mm	Rotor	2241 0240
			Impeller	2241 0241
Ø 41 mm	2,700 mm	Rotor	2241 0270	
		Impeller	2241 0271	
Ø 41 mm	3,000 mm	Rotor	2241 0300	
		Impeller	2241 0301	
<b>Rotor or impeller made of stainless steel full material for stainless steel pump tubes Ø 41 mm</b>			<b>Rotor</b>	<b>2710</b>
			<b>Impeller</b>	<b>2725</b>

### Examples of media

*Acetone*  
*Alcohol*  
*Ammonia*  
*Gasoline*  
*Flammable solvents*  
*Potassium hydroxide solution*  
*Sodium hydroxide solution*  
*Nitrovarnishes*  
*Perchloroethylene*  
*Phosphoric acid*  
*Sulfuric acid (up to 7.5% and over 90%)*  
*Trichloroethylene*  
*Toluene*

*In addition the stainless steel pump tubes are suitable for transferring thin fluid food such as fruit juices, milk, edible oils and all other at aluminium pump tubes mentioned media.*

# Accessories for drum and container pumps

Order No.



**Barrel adapter made of polypropylene**  
(PP and PVDF pump tube) for fixing the barrel pump in the bung hole of a drum, diameter of pump tube 41 mm, G 2"

Ø 41 9001



**Barrel adapter made of stainless steel**  
for secure fixing of drum pump in bung hole of a drum, diameter of pump tube 41 mm, G 2"

Ø 41 9002

The barrel adapters fit due to their 2" thread in 60 and 200 liter steel drums. For use with plastic drums or plastic containers they can be combined with the thread adapters on page 10.



**Bounding ground set**

Set consisting of 4 cables with connection clamps. These ground wires with connection clamps are absolute necessary when pumping flammables or for use in hazardous areas. This set can be used as an electric conductive connection between the drum pump and the container for earthing and balancing out the energy resources.

9003

0,5 m 9003/1  
1 m 9003/2  
2 m 9003/3  
3 m 9003/4



**Stainless steel hose clamp** ½" or ¾" or 1" or 1¼"  
for secure fixing of hose at hose barb  
Please specify when ordering the nominal width.

9004



**Safety clamp made of tool steel**  
for secure fixing of barrel pump in open containers and open drums.

9005



**Wall hanger for barrel pump Ø 41 mm**  
for a secure storage of barrel pump if out of operation and for protection against damages.

9006



**Strainer**  
for protection the barrel pump when abrasive particles are present.

**Polypropylene**  
Size of slots 1,5 x 12 mm, tube-Ø 40, 41 or 42 mm

9011

**Stainless steel 316 Ti**  
Size of slots 1,5 x 20 mm, tube-Ø 41 mm

9012

# Accessories for drum and container pumps

Order No.



**Nozzle made of polypropylene**

Housing and internal parts made of polypropylene, valve seat and o-rings made of FKM or EPDM  
 rotatable hose connection  
 Flow rate: 80 l/min  
 Viscosity: 800 mPas  
 Operating pressure: 3 bar  
 Weight: 210 g

FKM	1/2"	9101
FKM	3/4"	9102
FKM	1"	9103
FKM	IG 1"	9120
EPDM	1/2"	9104
EPDM	3/4"	9105
EPDM	1"	9106
EPDM	IG 1"	9121



**Nozzle made of PVDF**

Housing and internal parts made of PVDF, valve seat and o-rings made of FKM or EPDM  
 rotatable hose connection  
 Flow rate: 80 l/min  
 Viscosity: 800 mPas  
 Operating pressure: 3 bar  
 Weight: 210 g

FKM	1/2"	9107
FKM	3/4"	9108
FKM	1"	9109
FKM	IG 1"	9122
EPDM	1/2"	9110
EPDM	3/4"	9111
EPDM	1"	9112
EPDM	IG 1"	9123
FFKM	1/2"	9113
FFKM	3/4"	9114
FFKM	1"	9115
FFKM	IG 1"	9116



**Manual nozzle made of polypropylene for AdBlue, with outlet spout in Ø 19 mm made of stainless steel**

Housing and internal parts made of white polypropylene, valve seat and o-rings made of FKM, spring made of stainless steel  
 Flow rate: 40 l/min  
 Operating pressure: max. 3,4 bar

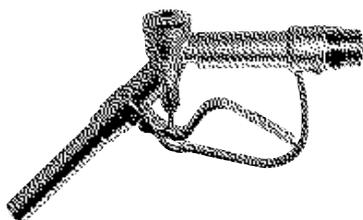
FKM	3/4"	9015
FKM	1"	9015b



**Automatic nozzle made of stainless steel for AdBlue, with a outlet spout in Ø 19 mm, swivel hose connection**

Flow rate: 80 l/min  
 Operating pressure: max. 3,4 bar

3/4"	9124
1"	9125



**Nozzle made of nickel-plated brass, PTFE seals, rotatable hose connection**

For filling and transferring neutral and aggressive media and liquids, also in the field of pharmaceutical and the food industry. Housing and internal parts are made of nickel-plated brass. Seals made of PTFE  
 Flow rate: 80 l/min  
 Viscosity: 900 mPas  
 Operating pressure: 4 bar  
 Medium temperature: max. 80 °C  
 Weight: 1 kg  
 Various connection options  
 (Hose connection, thread)

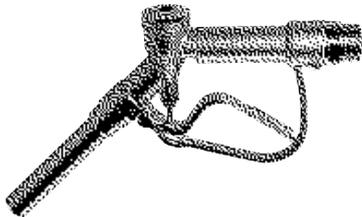
3/4"	9041
1"	9042
1 1/4"	9043
AG 1"	9044
AG 1 1/4"	9045
IG1"	9046

IG: female thread AG: male thread



# Accessories for drum and container pumps

## Order No.



### Nozzle made of stainless steel 316Ti

for use in chemical, pharmaceutical and food-industry.  
Flow rate: 80 l/min  
Viscosity: 900 mPas  
Operating pressure: 4 bar  
Medium temperature: max. 80 °C  
Weight: 1 kg



### Emission proof drum adapter

for pump tube diameter 41 mm,  
FKM-seals prevent emission of harmful gases and  
vapours out of the drum. A vacuum in drum is  
equalized by a valve.  
made of polypropylene  
made of brass  
made of stainless steel 316 Ti

9024  
9025  
9026



### PVC-hose

crystal clear with fabric lining, suitable for non flammable,  
neutral and aggressive media.  
Operating pressure: 10 bar  
Medium temperature: -35 °C up to +60 °C

¾"  
1"  
1¼"  
1½"

9050  
9051  
9052  
9053



### Universal chemical- and solvent hose, conductive

inner wall homogeneous, smooth, EPDM (Ethylene Propylene-  
Rubber) conductive, suitable for many alkalies, acids,  
acetates, aldehydes, amines, esters, ethers and ketones,  
not suitable for carbonic gassy products and their derivatives  
as well as for oils and gasoline.  
Operating pressure: 16 bar  
Temperature: -40 °C up to +90 °C

¾"  
1"  
1¼"  
1½"

9055  
9056  
9057  
9058



### Multi purpose chemical hose, conductive

inner wall homogeneous, smooth, PE-X (knitted polyethylene),  
conductive, suitable for nearly all chemicals.  
Not suitable for oleum, brom and chlorsulfon acid  
Operating pressure: 10 bar  
Temperature: -25 °C bis +90 °C  
(also available in a food grade version)

¾"  
1"  
1¼"  
1½"

9060  
9061  
9062  
9063



### Mineral oil hose

PN10 with fabric lining  
PN10 with fabric lining  
PN16 TW-hose  
PN16 TW-hose

¾"  
1"  
1¼"  
1½"

9065  
9066  
9067  
9068



### Rubber hose food grade BUTYL/BUTYL

suitable for animal and vegetable fat and oils,  
milk products, mineral water, fruit juice and  
alcohol up to 92%  
Temperature: up to 120 °C

¾"  
1"

9069a  
9069



### Hose connectors

in stainless steel with clamps made of aluminium  
(connection to pump tube female thread 1¼" and  
connection to nozzle female thread 1")

9010

AG: male thread

# Accessories for drum and container pumps

Order No.



**Clamping flange made of polypropylene**  
for IBC-Container (to fix a pump with Ø 40/41mm),  
Ø 140 mm, 4-holes, screw-hole circle 115 mm



**Discharge arc**  
for transferring and filling liquids directly into other vessels.  
They are available in PP, Alu and stainless steel 316Ti  
and can be connected directly at the discharge side of a  
drum pump via a wing nut



**Explosion proof plug - Explosion proof socket**  
Ex de IIC T6, protection class IP 65, 16 Ampere  
CEE round plug  
3-pole  
5-pole  
CEE socket  
3-pole  
5-pole



**Electronic flow meter**  
to measure a big variety of media.

**Turbine gear meter**  
are suitable for low viscous, water-like media  
and are available in PP, PVDF and stainless steel.

**Oval gear meter**  
measure the flow of viscous media  
and are also available in different materials.

**Volume setting or impulse output as an option.**

9070

PP 9072  
ALU 9073  
SS 9074

5055  
5056

5057  
5058



## Accessories of air operated motors

### Service unit

For cleaning and lubrication of air. With manometer to  
adjust operating pressure (max. 10 bar).

### Slot socket

Brass, G 3/4" male thread, for hose NW 9

### Air pressure hose

PVC-hose internally knitted NW 9, 3/8",  
Max. operating pressure: 10 bar, temperature: -35 °C until +60 °C



### Ball valve

Brass chrom plated, to control air pressure and hereby speed of  
the air operated motors, both sides female thread R 3/8"

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