



Versatile Portable Progressive Cavity Pump

EQR

Application

Progressive cavity pump 3/4" EQR-16-4 in connection with an electric motor is a small-sized practical pump set destined for meeting claims of the widest spectrum of consumers

Pump set 3/4" EQR-16-4 is the multipurpose equipment serving in standard practice e.g. for:

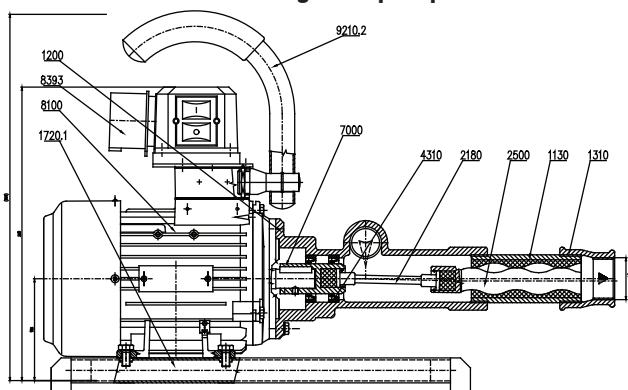
- Drainage of flooded areas
- Re-pumping underground and waste water
- Pumping from emergency sources, drainage of foundation excavation pits, long-distance water conveying
- Irrigation of sports ground and carpet beds
- Watering gardens, orchards and parks and smaller plots
- Pumping sewages, liquid manure and dense homogenous liquids containing solids

This pump can be used not only for private needs but also as an auxiliary equipment in industry and other business branches for pumping from surface and undersurface sources, e.g. from rivers, ponds, sumps, pools, cellars, water wells, and so on.

Using this pump set with its interchangeable hydraulics 3/8" EQR-1,6-10 is advantageous where ever you need to convey a small amount of liquid with supply pressure up to 1 MPA. It is of use namely with protective chemical spraying against woodworms and other plant pests, so that it is an excellent helper for gardeners, retail growers, agricultural and horticultural plants, plant selection stations and research institutes. They can also be applied in sanitation works, whitening by lime milk, spraying painter's colours, clay, kaolin and other adulterated coating compositions for plasters of dwelling houses, farm-out buildings and industrial buildings, and so on.

Max. temperature of a pumped liquid50°C
 Max. size of mechanical impurities
 (reduced life time) 5 mm

Informative section through the pump 3/4" EQR



Material option

In standard workmanship version the pump main parts are of these construction materials:

Suction casing – grey cast iron
 Discharge casing – malleable cast iron

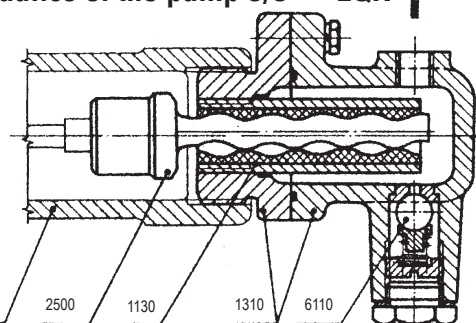
Design

Pump is of progressive cavity type, and as for construction and functioning it excels with its great simplicity. The heart of this pump design is a metallic rotor (screw-type helix) that rotates in the stator rubber liner cavity. Sealing of the shaft – coupling is provided with radial lip sealing rings "gufero", exceptionally with a mechanical seal. Technically advanced but simply design allows easy assembly and disassembly. The pump set is placed on a simple frame with rubber damping liners. It is provided with a handle allowing comfortable carrying. The squirrel-cage motor is asynchronous of shrouded workmanship version, and with surface self-cooling. The pump set can be put into operation by switching-on a power switch serving also as the electric motor protection from an emergent overload condition, e.g. breakage of a delivery hose, and so on. The keystone on which operation of the progressive cavity pumps is based may be characterized by minimum number of parts, small size and weight, easy carrying, easy control and handling, long-term and continuous output thanks to very good qualities of this pump set and long-service-life of working components whose wear is extremely low namely when pumping fresh water.

Modular design allows replacing the pump part by the replaceable hydraulics 3/8" – EQR – 1,6 – 10, whereby any change of parameters may be realized even without removing and replacing the whole motor part.

CAUTION! The delivery hose from the pump set 1" – EQR cannot be used for the replaceable hydraulics 3/8" – EQR – 1,6 – 10. The replaceable hydraulics 3/8" – EQR – 1,6 – 10 can be ordered separately even as the complete pump with corresponding accessories – see the "Scope of delivery".

Informative section through the replaceable hydraulics of the pump 3/8" – EQR

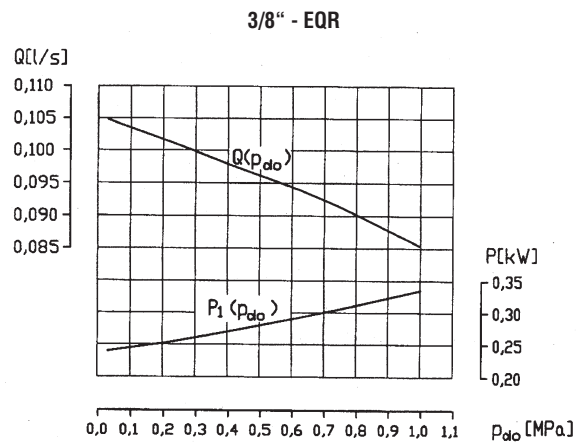
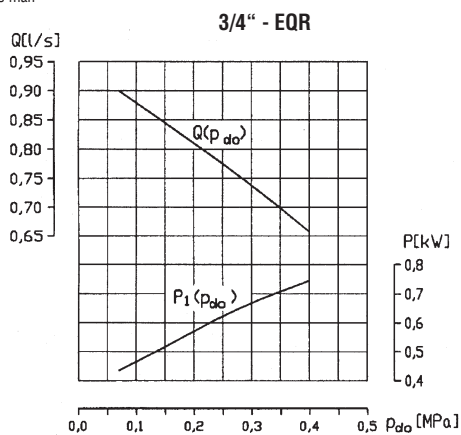


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|--------|---|--------|----------------------------|
| 1130 | - Stator | 4310 | - Radial lip seal "gufero" |
| 1200 | - Suction casing | 6110 | - Safety valve |
| 1310 | - Discharge casing (with the 3/8" with a liner) | 7000 | - Coupling |
| | | 8100 | - Drive (el. motor) |
| 1720.1 | - Base | 8393 | - Switch |
| 2180 | - Connection rod | 9210.2 | - Handle |
| 2500 | - Helix | | |
- Helix – stainless steel
 Connection rod – stainless steel
 Stator cartridge – special technical rubber

Technical data

Type of pump set		3/4" - EQR - 16 - 4	3/8" - EQR - 1,6 - 10	
Pump:				
Rate of flow	Q	(l.s ⁻¹)	0.65	0.085
Delivery head	H _{max}	(m)	40	100
Supply pressure	p _{do}	(MPa)	0.40	1.00
Gauge pressure in pump inlet section	p _{s man}	(MPa)	-0.04	-0.02
Diameter of suction branch		1"	1"	
Diameter of discharge branch		3/4"	3/8"	
Electric motor				
Power output	P	(kW)	0.75	0.34
Speed	n	(min ⁻¹)	2,840	2,840
Voltage	U	(V)	400	400
Current	I	(A)	1.8	1.8
Frequency	f	(Hz)	50	50
Protection			IP/54	IP/54
Weight of pump set without electric equipment		(kg)	13,8	
Dimensions of pump set Length / width / height			560 / 265 / 360	

Given performance data Q, p_{do} are valid for pumping fresh water of temperature 25°C and the gauge pressure in the pump inlet section p_{s man} = -0.02 MPa.



Delivery scope

In general the pumps "EQR" are delivered in following versions:

- In the version "S"** – the pump with three-phase motor without any further accessories.
- In the version "S" + "EP"** – the pump in the version "S", with a base, a handle and with electric equipment. Electric equipment contains an overcurrent circuit breaker with the switch and 10m of extension cable.
- In the version "S" + "EP" + "HP"** – the pump in the same workmanship version as in the Paragraph 2, with the hydraulic equipment. The hydraulic equipment consists of the suction hose with an inlet strainer and the delivery hose and a sprayer.

Pumps 3/8" EQR are commonly delivered in the very same scope (of versions) as the pumps "EQR". They may be also delivered as the equipment for the pump "EQR", that is, the separate replaceable hydraulics without the motor and any other accessories.

On a special request and on agreement with the producer it is possible to deliver the EQR pumps also with the single-phase motor, with other speed, with a mechanical seal, or with any other accessories.

THIS PRODUCT POSES NO DANGER TO ENVIRONMENT



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