ECOTRON®

We are waterjet

THE HIGH-PRESSURE PUMP FOR ALL APPLICATIONS
Pure power, less effort: The drive systems of the future

QUALITY FROM AUSTRIA EUROPE

NOW AVAILABLE IN THE US ★ NOW AVAILABLE IN THE US

BFT PUMPS

WWW.BFT-PUMPS.COM

The all-round solution for waterjet cutting.

Your advantages

1 PROVEN DRIVE HYDRAULIC CONCEPT BY MEANS OF AXIAL PISTON PUMP
Minor pressure fluctuations due to short switching times

2 EASY OPERATION
Colour touch display, available with several languages and comprehensive information output

3 A WIDE RANGE OF OPTIONS AVAILABLE
Different frequencies (50 Hz/ 60 Hz) and many power levels (15 HP to 60 HP) available

4 STEPLESS OPERATING PRESSURE CONTROL FROM 7,500 TO 60,000 PSI
Extends the range of applications of the entire cutting system

5 PRACTICALLY NO PULSATIONS DURING CONNECTION
No chipping with brittle materials, and that from 7,500 psi onwards

6 LOW DOWNTIME DURING MAINTENANCE
Wear parts can be replaced separately, no complete disassembly for maintenance necessary

7 NO OVERSHOOTING AND MINIMAL PRESSURE DROPS WHEN SWITCHING THE WATER JET ON AND OFF
Protects the entire high-pressure system from the pump to the cutting head

8 LOGBOOK INTEGRATED INTO THE CONTROL
Simplified handling, output of operating data via USB connection

9 CLIENT CONNECTION VIA NETWORK CABLE
Transfer of the pump control into the control of the cutting system

10 INCLUDED:
- Proportional valve
- Spare parts package
- Tool kit

ECOTRON®

ECOTRON® AND ECOTRON® ⊕: THE ALL-ROUNDER

The ECOTRON® and ECOTRON® series operate in power classes between 15 HP and 60 HP with up to 4.3 l/min conveying capacity at 60,000 psi operating pressure. Its numerous increments allow individual adaptation to every requirement.

QUALITY FROM AUSTRIA · EUROPE

EASY MAINTENANCE · EASY MAINTENANCE

BFT, THE WORLD'S LEADING PROVIDER OF HIGH-PRESSURE PUMP SYSTEMS, PRESENTS:

ECOTRON® & ECOTRON® ⊕ The high-pressure pump for all requirements.

HIGH-PRESSURE PUMPS OF THE ECOTRON® SERIES ARE DISTINGUISHED BY THE FOLLOWING FEATURES:

BASIC EQUIPMENT

Only BFT pumps are already equipped to a high standard in the basic version. The basic high-pressure pump equipment includes the complete drive hydraulics with oil/water cooler, intensifier, accumulator and pressure relief valve. The operating pressure is controlled by a proportional valve and can be steplessly adjusted from 7,500 to 60,000 psi via the touch panel. All hydraulic and high-pressure components are mounted on a common base frame and surrounded by a sound protection housing. The electrical control is located in a control cabinet attached to the pump frame.

OIL COOLING

The pump is equipped with an oil/water cooler as standard. The optional oil/air cooler is mounted on the base frame inside the pump housing.

THE CORE PART – THE INTENSIFIER

The distinguishing features of the intensifier are the long service lives of the patented high-pressure seals and the non-return valves. The special design of the external non-return valves ensures that the intensifier is very easy to maintain. Wear parts like high-pressure seals and non-return valves can be replaced individually. A complete disassembly of the intensifier is not necessary.

REDUCED PRESSURE FLUCTUATION

BFT pumps have the best pressure signal on the market. Accumulators achieve up to 2.5 l. This reduces pressure fluctuation to a minimum and thus protects the entire high-pressure system.

PRESSURE SETTING

All ECOTRON® models are equipped with a proportional valve as standard. The control unit can be used to set two different pressures (e.g. piercing and cutting pressure). The operating pressure can be adjusted via the electrical control directly on the pump or via the CNC-controlled cutting system.

OPERATION VIA TOUCH DISPLAY

The pump is operated via touch display. The ECOTRON® high-pressure pump can be steplessly adjusted from 7,500 to 60,000 psi. All warning and error messages are displayed in plain text. Operating data of individual components are recorded and evaluated. With these data and customer-specific settings, the pump automatically reports when wear parts need to be replaced. This function supports the system operator and facilitates maintenance. Operating data and service lives of the individual components are stored and can be read out via a USB interface. In addition, the pump has a diagnostic system.

REMOTELY CONTROLLABLE

The pump display can be mirrored to a PC via a client connection using a network cable. This makes remote control of the pump very easy. Furthermore, an interface is available for external signals such as start/stop, pressure target value, emergency stop, pressure relief as well as error and operating messages. Data can also be exchanged and the pump remotely operated via the UDP communication protocol.

1 RELIEF VALVE

2 INTENSIFIER

3 PRE-PRESSURE DISPLAY, HYDRAULIC PRESSURE DISPLAY, OIL FILTER CONDITION

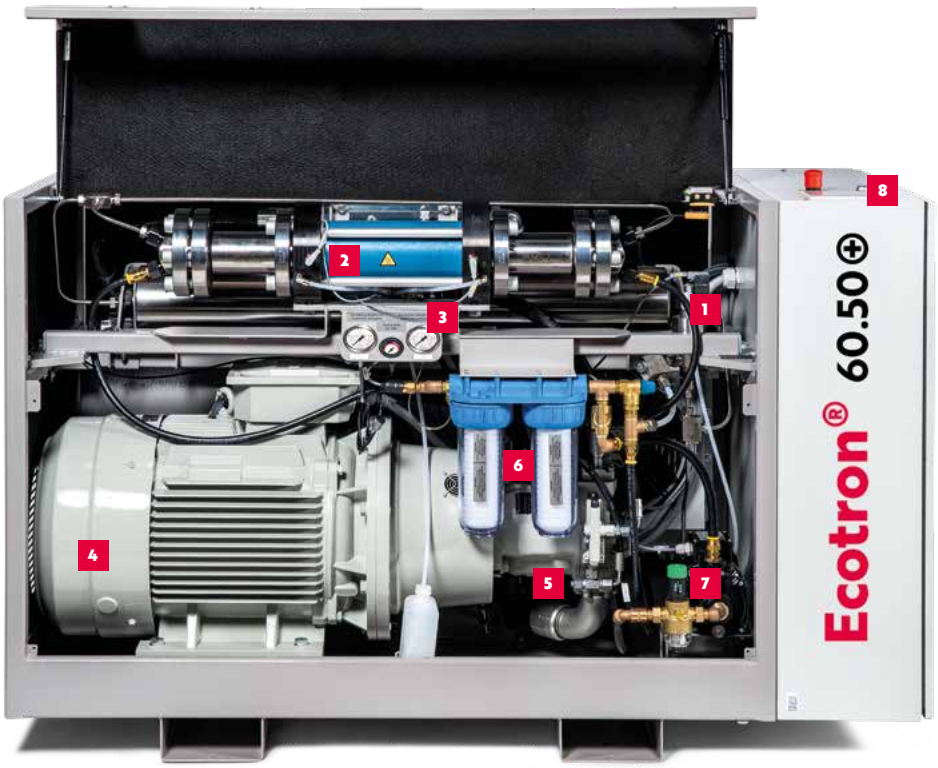
4 ASYNCHRONOUS ELECTRIC MOTOR

5 AXIAL PISTON PUMP

6 DOUBLE FILTER UNIT 5 AND 1,2 µM

7 PRE-PRESSURE PUMP

8 TOUCH DISPLAY



9 HYDRAULIC SWITCH BLOCK

10 ACCUMULATOR

11 OIL TEMPERATURE GAUGE

12 OIL TANK

13 CONNECTION STRIP

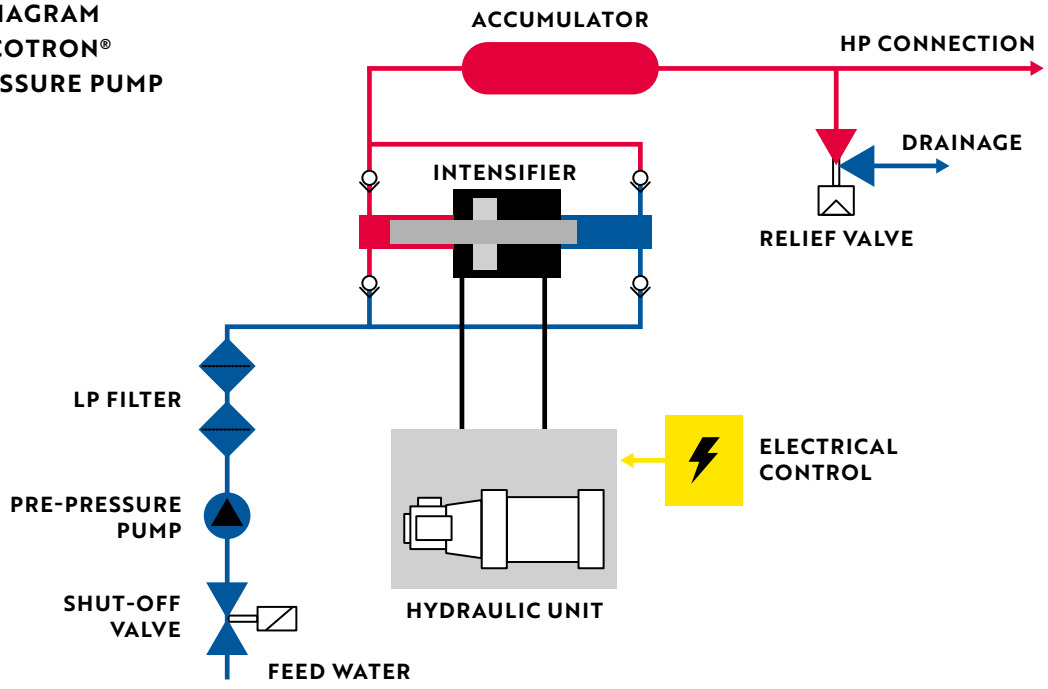
The pump is operated via touch display.

The operating pressure is controlled via proportional valve.

A spare parts package is also included in the delivery scope of each pump.

The central connection panel simplifies commissioning, (water cooling connections are another possible option).

SYSTEM DIAGRAM OF THE ECOTRON® HIGH-PRESSURE PUMP



TECHNICAL DETAILS ECOTRON®		60.15	60.25	60.25⊕	60.30	60.30	60.50	60.60	60.60⊕
Power, main motor	HP	15	25	25	30	30	50	60	60
Max. flow rate	GPM	0.3	0.5	0.5	0.6	0.6	1	1.1	1.1
Design pressure	psi	61,000	61,000	61,000	61,000	61,000	61,000	61,000	61,000
Permissible operating pressure, max.	psi	50,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Double stroke rate, max.	min^{-1}	20	17	17	30	35	38	38	40
Intensification ratio		1:21.78	1:21.78	1:21.78	1:21.78	1:21.78	1:21.78	1:21.78	1:21.78
Accumulator volume	l	0.9	1.6	1.6	1.6	1.6	1.6	2.5	2.5
Oil tank volume	GPM	37	37	37	37	37	37	37	37
Ambient temperature on oil/air cooler	°F	50–95	50–95	50–95	50–95	50–95	50–95	50–95	50–95
Ambient temperature on oil/water cooler	°F	50–113	50–113	50–113	50–113	50–113	50–113	50–113	50–113
Water consumption with oil/water cooler, approx.	GPM	0.5	1.3	1.3	1.5	2.1	2.6	2.6	3.1e

Technical changes reserved.

	ECOTRON®	ECOTRON® ⊕
Oil/air cooler on request without surcharge	O	✔
Central connection strip for water, air and drainage	✖	✔
Gas pressure damper	✖	✔

O Option ✔ Standard ✖ not available

BFT PUMPS

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