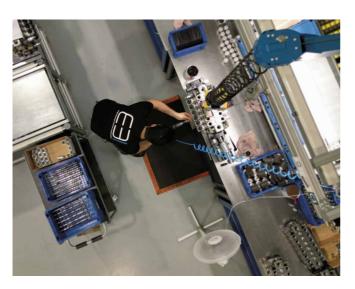
Passion
Details
Trust

The next generation of motion controls

engineering beyond imagination

# EBI is a global company that values engineering competence in its technical team.



### **Know-How and Expertise**

EBI stands for Know-How and Expertise core values that shape every aspect of the company's operations. With over 30 years of experience in the design and manufacturing of hydraulic components, EBI's team brings unparalleled knowledge and precision to each project.

Driven by a commitment to excellence, EBI continuously introduces cutting-edge technologies focused on energy efficiency and compact design. These innovations ensure that EBI's products not only meet but exceed the evolving needs of its customers. EBI is not just shaping the future of hydraulics; it is powering it with efficiency, innovation, and integrity.

### Tailored Solutions, Fast Prototyping

With a deep understanding of industry and applications demands and a focus on delivering Customized Solutions, EBI collaborates closely with clients to ensure every product meets specific requirements. EBI's expertise and agile development process allow the company to bring concepts to life quickly. This process path can start from customizing products of the existing catalogue range and arrive to create solutions based on NEW castings.

From initial consultation to prototype realization, EBI delivers customized prototypes in a short time. This commitment to responsiveness and precision sets EBI apart as a trusted partner in hydraulic innovation.







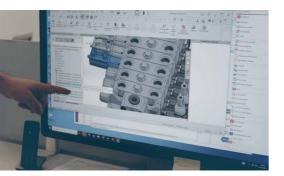
# Our workflow



### Engineering

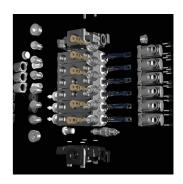
Every project begins with a deep dive into our clients' needs. Our experienced engineering team collaborates closely with customers to design innovative, high-performance solutions tailored to their specific requirements.





### Prototyping

Once the design is finalized, our prototyping phase begins. Leveraging our advanced technologies and expertise, we rapidly create functional prototypes, allowing for quick iterations and refinements.





### Assembly

After the prototype is approved, we move into full-scale production. Our skilled technicians assemble the components in our state-of-the-art production area, ensuring that every part meets the highest standards of precision and quality.





### 100% Testing

Before any product is delivered, it undergoes rigorous testing on our specialized test benches. This final step ensures that each solution performs flawlessly, providing reliability and excellence to our customers.





### Stocking

We maintain a wide inventory of components in our warehouse, ensuring that we can quickly meet customer demands and minimize lead times. Our efficient stocking system allows us to deliver parts and products with speed and flexibility.







FCS-FCM-FCX

EBI control valves offer versatility of application for the many directional control requirements of hydraulic machinery. Ruggedness of design, manufacturing quality and maximized uptime. Our control valves are the result of years of experience. They have been designed targeting efficiency, controllability and flexibility. EBI can offer customised solutions for spools, layout and settings.







SECTIONAL VALVES			
Туре	ECS08A	ECS10A	ECS12A
Number of sections	1-12	1-12	1-12
Stroke (mm) - [in]	6 [0.24]	7 [0.28]	8 [0.32]
Extra stroke float (mm) - [in]	5 [0.20]	4.5 [0.18]	6 [0.24]
Spool pitch (mm) - [in]	36 [1.42]	<b>41</b> [1.62]	48 [1.89]
Nominal flow (I/min) - [GPM]	50 [12]	100 [25]	150 [40]
Operating pressure (bar) - [psi]	350 [5000]	350 [5000]	350 [5000]
Port size (BSP) - [SAE]	G 3/8 [SAE8] *	G 1/2 [SAE10] *	G 3/4 [SAE12]

<sup>•</sup> Parallel and Tandem circuit available • Interchangeable spools • Manual, hydraulic, pneumatic and electrohydraulic actuations. (\*) = For different thread option please contact our sales dept.





MONOBLOCK VALVES		
Туре	ECM08A	ECM08B
Number of sections	2-8	1-7
Stroke (mm) - [in]	6 [0.24]	5.5 [0.22]
Extra stroke float (mm) - [in]	5 [0.20]	4.5 [0.18]
Spool pitch (mm) - [in]	36 [1.42]	36 [1.42]
Nominal flow (I/min) - [GPM]	50 [12]	50 [12]
Operating pressure (bar) - [psi]	350 [5000]	350 [5000]
Port size (BSP) - [SAE]	G 3/8 [SAE8] *	G 3/8 [SAE8] *

Interchangeable spools • Manual, pneumatic, hydraulic and electric/solenoid • Auxiliary valves and check valves available on ECM08A.
 (\*) = For different thread option please contact our sales dept.



## PROPORTIONAL PRE/POST (FLOW SHARING) COMPENSATED LOAD-SENSING VALVE

Туре	ECX08A
Number of sections	1-12
Stroke (mm) - [in]	6 [0.24]
Spool pitch (mm) - [in]	36 [1.42]
Nominal inlet flow (I/min) - [GPM]	120 [32]
Work port flow (I/min) - [GPM]	100 [26]
Inlet working pressure (bar) - [psi]	350 [5000]
Section working pressure (bar) - [psi]	380 [5500]

 Pre-arranged for closed/open circuit • Interchangeable spools • Manual, hydraulic, EHP proportional (CAN-BUS) actuations.





EBI servocontrols joysticks are engineered for the most demanding mobile applications. Thanks to smart casting design, minimized number of components and complexity, they provide the highest accuracy, optimal performance, interchangeability and safe operation. Differential area joystick ESJ02D reduces operator effort by 53% compared to ESJ02A.







Туре	ESJ01A	ESJ01B	ESJ01C	ESJ01M	ESJ01V
Number of axis	Single axis	Single axis	Single axis	Single axis (magnetic)	Single axis
Number of joysticks	Bankable 1 - 12	Bankable 1 - 12	Bankable 1 - 12	Bankable 1 - 12	Not Bankable
Max input pressure (bar) - [psi]		•••••	100 [1450]	•••••	•
Max back-pressure on T (bar) - [psi]		••••	3 [43.5]	•	•
Control max flow on ports (I/min) - [GPM]		•	15 [4]	•	
Section pitch (mm) - [in]	<b>35</b> [1.38]	39 [1.54]	42 [1.66]	39 [1.54]	40 [1.58]
Port size (BSP) - [SAE]		•	G 1/4 [SAE6]	•	•

• Compact and light weight • Progressive and smooth operation • Low operating effort • Angular movements of joystick. Please check our online catalogue for the updated list of pressure curves.





JOYSTICK PILOT CONTROL LEVER - 2 AXIS			
Туре	ESJ02A	ESJ02D	ESJ02M
Number of axis	2 axis	2 axis differential area	2 axis magnetic detent
Max input pressure (bar) - [psi]		100 [1450]	
Max back-pressure on T (bar) - [psi]		3 [43.5]	
Control max flow on ports (I/min) - [GPM]		15 [4]	
Mounting hole (mm) - [in]	90 [3.55]	80 [3.15]	90 [3.55]
Port size (BSP) - [SAE]		G 1/4 [SAE6]	
Progressive and smooth operation • Angula Please check our online catalogue for the up			esign.



•
ELECTRONIC JOYSTICK
ESJ02E
<b>Supply voltage</b> Nominal voltage 12V - 24V
<b>Supply voltage</b> Operative voltage 8 - 36V
Sensor Technology Hall effect sensors
Communication protocol CANopen - SAE J1939
<b>Protection</b> Reverse polarity and Short-circuit protection

Storage and operating temperature -25°C - +85°C





FS.LESE

EBI servocontrols foot pedals are maintenance free and have a long life cycle, are suited for specialized applications for a variety of mobile equipments such as drilling machines and mini-excavators.



Type	ESP02A	ESP04A	ESDOOR
туре	EGFUZA	ESPUAA	ESPUZB
Number of axis	Single pedal	Double pedal	Single pedal (narrow body)
Max input pressure (bar) - [psi]		100 [1450]	
Max back-pressure on T (bar) - [psi]		<b>3</b> [43.5]	
Control max flow on ports (I/min) - [GPM]		15 [4]	
Port size (BSP) - [SAE]		G 1/4 [SAE6]	

Progressive and smooth operation • Low operating effort • Optimised angular movements of foot pedal • Damping system option. Please check our online catalogue for the updated list of pressure curves.





EHC-EHM

EHC1 handles are designed to guarantee high level of customization. The ergonomic shape allows long duty cycles and excellent comfort and safety for the operator. A wide range of configurable options (buttons, rollers, switches, rockers) allow to fit various machines design in terms of shape and layout.



The handle families identified with EHM have been designed to equip the vast range of earth-moving machines including mini-excavators, mini-loaders, tractors. These handles can be set up to have or not a microswitch.



### EHC<sub>1</sub>

Configurable handle

**ON/OFF** and proportional functions

**Multiple Roller and Rocker switch options** 

**Enable trigger control** 

IP configuration driven

**Configurable options combination** 

Color and logo personalization on request

### EHM1

Handle without micro-switch

### EHM2

Handle with one micro-switch

### **ЕНМЗ**

Handle with dual micro-switch





FDM-FDS

EBI monoblock and stackable diverter valves are designed to guarantee flexibility and high level of customization. It simplifies the hydraulic circuit when two contemporary movements are not required. Compact design, easy and flexible mounting.







MONOBLOCK AND STACKABLE DIVERTERS				
Туре	EDM06A - EDS06A	EDM08A - EDS08A	EDM10A - EDS10A	EDM12A - EDS12A
Number of sections	<b>1</b> [2 up 4]			
Nominal flow (I/min) - [GPM]	25 [7]	50 [14]	100 [28]	150 [42]
Operating pressure (bar) - [psi]		250 [	3625]	
Operating pressure external drain (bar) - [psi]		310 [	4500]	
Weight (kg)	1.5 each valve	3.8 each valve	3.8 each valve	5.8 each valve
Stroke (mm) - [in]	2.8 [0.11]	3.2 [0.13]	3.2 [0.13]	3.8 [0.15]
Port size (BSP) - [SAE]	G 1/4 [SAE6]	G 3/8 [SAE8]	G 1/2 [SAE10]	G 3/4 [SAE12]

<sup>•</sup> Usable as multiple stackable units • Directional spool valve with direct solenoid control • Coils with different connectors and voltage are available • Compact design and easy mounting • Integrated threaded ports.



Туре	EDM61A	EDM62A
Nominal flow (I/min) - [GPM]	<b>300</b> [80]	400 [105]
Operating pressure (bar) - [psi]	<b>420</b> [6090]	420 [6090]
Stroke (mm) - [in]	13 [0.51]	13 [0.51]
Port size [SAE]	SAE3000 ISO 6162/1	SAE6000 ISO 6162/2
Hydraulic port / Drain port (T)	G 1/4"	G 1/4"

for optimizing spaces and systems. EH operated version on demand.

# Engineering beyond immagination





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