



# HYDRAULIC PROPORTIONAL SERVOVALVES AND ELECTRONICS





# ABOUT SELEC AG

Since 1969 a valuable partner for precise and dynamic hydraulic control tasks.

**S**elec ag is a Swiss company based near Zurich. Since 1969 we have been developing and manufacturing hydraulic proportional control valves, servovalves, customer-specific valves, amplifier and control electronics for all valves. Valves made by Selec ag are used worldwide in industrial hydraulics, mobile hydraulics, hydraulic testing, hydraulic system and machine construction.

## VISION

The success factors we offer as manufacturer of hydraulic proportional servovalves is well-known by all companies that see such a partnership.

Wherever precise and dynamic control is required, we are a valuable partner. Selec develops and manufactures in Switzerland and sells its products worldwide; directly and via distributors and resellers.

## MISSION

We shall continue to develop innovative products that serve the niche markets of dynamic valves. Our company profile will be further strengthened in the future with qualities such as individual customer care, short delivery times, fulfillment of customer-specific requirements.

# OUR OFFER

Our business is the manufacture of proportional servovalves and electronics. But we are also a partner for associated services.

## 1 MANUFACTURE AND SALES



All individual parts are produced according to our drawings. We assemble in three stages.

1. Preassembly
2. Configuration-specific assembly tailored to the order
3. Final assembly, adjustment and testing on test rig

The entire production chain is carried out with an absolute minimum of interfaces. This allows us to attain the lowest possible error quota with the highest possible quality.

## 2 REPAIR AND MAINTENANCE



We also repair and maintain proportional and servovalves of other manufacturers. We work with test rigs, which provide comprehensive measurement options. This allows a meaningful interpretation. That is an important precondition for selecting the work to be done. We test your valves – why not test us!

## 3 DEVELOPMENT FOR CUSTOMERS



An existing valve shall be modified to your requirements? A completely new valve for your required specification shall be developed? No matter what. We are happy to meet your requirements. Ask us with no obligation. We will be a reliable partner.



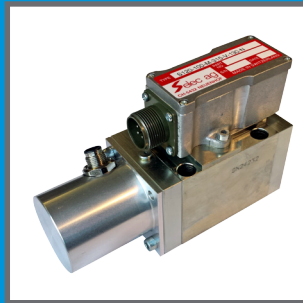
PILOT-CONTROLLED SERVOVALVES



**S25**  
Hydraulic amplified servovalve  
Attachement pattern: Selec norm. With adapter-plate NG6  
Flow: 1- 30 L/Min  
Systempressure: max. 315bar  
Spoolpositionfeedback: No  
Amplifier electronic: AE-1 or AE-1D



**S100**  
Hydraulic amplified servovalve  
Attachement pattern: NG10  
Flow: 50-75 L/Min  
Systempressure: max. 315bar  
Spoolpositionfeedback: No  
Amplifier electronic: AE-1 or AE-1D



**S120**  
Hydraulic amplified servovalve  
Attachement pattern: NG10  
Flow: 60-100 L/Min  
Systempressure: max. 315bar  
Spoolpositionfeedback: Yes  
Controller electronic: AE-2 or AE-2D

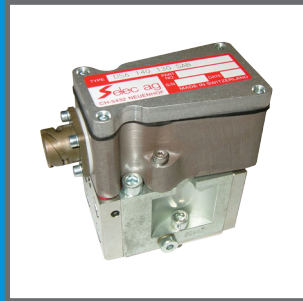


**S120i**  
Hydraulic amplified servovalve  
Attachement pattern: NG10  
Flow: 60-100 L/Min  
Systempressure: max. 315bar  
Spoolpositionfeedback: Yes  
Controller electronic: integrated

PILOTED PRESSURE SERVOVALVES



**S300**  
Two or three stage servovalve  
Attachement pattern: NG16  
Flow: 100-300 L/Min  
Systempressure: max. 315bar  
Spoolpositionfeedback: Yes  
Controller electronic: AE-2 or AE-1D



**DS6**  
Hydraulic amplified servovalve  
Pressure relief & Pressure reduction  
Attachement pattern: NG6  
Flow: 30 L/Min  
Systempressure: max. 420bar  
Spoolpositionfeedback: No  
Amplifier electronic: AE-1 or AE-1D

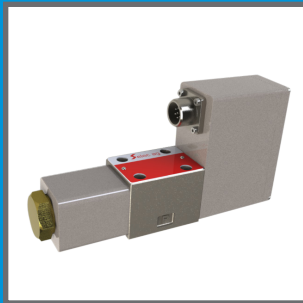


**DS11**  
Hydraulic amplified servovalve  
Pressure relief & Pressure reduction  
Attachement pattern: NG10  
Flow: 100 L/Min  
Systempressure: max. 420bar  
Spoolpositionfeedback: No  
Amplifier electronic: AE-1 or AE-1D

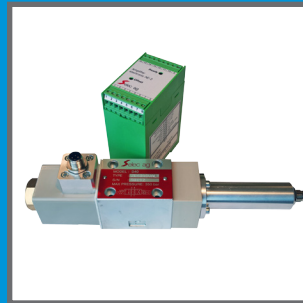
PROPORTIONAL SERVOVALVES



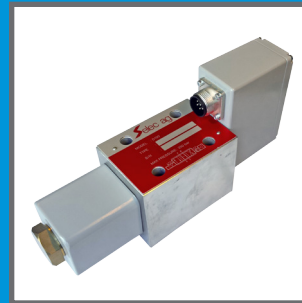
**D40 V**  
Direct drive proportional Servovalve  
Attachement pattern: NG6  
Flow: 1-40 L/Min  
Systempressure: max. 350bar  
Spoolpositionfeedback: No  
Amplifier electronic: AE-1 or AE-1D



**D40**  
Direct drive proportional Servovalve  
Attachement pattern: NG6  
Flow: 1-40 L/Min  
Systempressure: max. 350bar  
Spoolpositionfeedback: Yes  
Controller electronic: integrated



**D40 T**  
Direct drive proportional Servovalve  
For hightemperature-applications  
Attachement pattern: NG6  
Flow: 1-40 L/Min  
Systempressure: max. 350bar  
Spoolpositionfeedback: Yes  
Controller electronic: AE-2 or AE-2D



**D100**  
Direct drive proportional Servovalve  
Attachement pattern: NG10  
Flow: 60-100 L/Min  
Systempressure: max. 350bar  
Spoolpositionfeedback: Yes  
Controller electronic: integrated

AMPLIFIER & CONTROL ELECTRONICS



**AE-1**  
Analogue amplifier electronic  
Control of bipolar coil magnets by current comparison.  
For valves without spool position feedback LVDT.



**AE-2**  
Analogue controller electronic  
Control of proportional servovalves by monitoring spool position.  
For valves with spool position feedback LVDT.



**AE-1D**  
Digital amplifier electronic  
Control of bipolar coil magnets by current comparison.  
For valves without spool position feedback LVDT.  
Parameter setting: Valve model, customer signal, ramp, gain, zero-adjustment, dither signal



**AE-2D**  
Digital controller electronic  
Control of proportional servovalves by monitoring spool position.  
For valves with spool position feedback LVDT.  
Parameter setting: Valve model, customer signal, ramp, gain, zero-adjustment, dither signal, P-, I- and D adjustment



**PETER STAMM**  
Owner, Selec ag

## INTERVIEW

«We should at no time loose our capacity to focus on every single client individually. This is something that differs us from our competitors.»

### **Why do your customers choose Selec products?**

The size of our company allows us to react quickly and flexibly to the wishes of our customers. High quality is very important to us. Each employee in our company shares our service philosophy. The customer notices this over the course of our cooperation and gives us feedback such as “uncomplicated”, “cooperative” or “helpful”.

### **What are your goals with Selec?**

From a position of being a niche player we shall increase our turnover by > 20 % in the next two years through targeted growth. Provided the markets remain stable. The geographical focus is Germany, all of Europe, and the USA.

### **How do you draw attention to your company?**

That is one of our most current and pressing tasks. After having placed our main focus on developing new products in recent years, our goal now is to market these products strongly. In the future we shall invest increasingly in the most efficient channels.

### **What news are there from Selec ag?**

In the past years we have developed two product families: The proportional servovalves and the digital electronics. Our further enlarged infrastructure permits more capacities and we are able to grant additional services for our customers.

### **Do you hope to achieve growth by these means?**

It is the sum of all factors that determines success. These factors are in place. This makes us very optimistic with regard to future growth.

### **What can we expect from Selec ag in the future?**

We will continue to develop in the fields of enlarged digital electronics, hightemperature application, ex-proof application, high pressure application. Doing this, we will not loose track of our success factors such as customer focus and quality of our products. We should at no time loose our capacity to focus on every single client individually. This is something that differs us from our competitors.

## CUSTOMER TESTIMONIALS



### **JOSEF SCHWENK**

Management, Design,  
Governor - Hydro Turbines  
**Voith Hydro** Germany

What we appreciate most about Selec is the extremely short delivery time and the uncomplicated order processing thanks to a flexible and compact company structure and the willingness to develop valve versions tailored to our needs, even in small volumes. A valve developed for us increases safety in hydropower plants and no other valve manufacturer has been able to provide us with anything similar.

As well as the willingness to provide us with valves bearing our colours and company logo, we should also mention the quality and quick support. We are interested in the further development of Selec, particularly in terms of electrical control possibilities (bus) and other valve sizes.



### **DINESH DHADUTE**

Director  
**SERVOCONTROLS & Hydraulics**  
India

We are one of the few Indian companies which have the capability and expertise in closed loop electro hydraulic and mechanical systems. Our relation with Selec ag is almost 8 years and it is growing year by year. We are very satisfied with the professional understanding of our requirements and delivery of the high quality products on time at good price. We will definitely continue our association and use more products and promote Selec range of products in various critical applications.

### **TOM LACOMBE**

VP Sales & Marketing America  
**THE OILGEAR COMPANY USA**

Oilgear has enjoyed a long relationship with Selec ag. We have been relying on Selec servo valves to provide high performance and cost effective solutions for over 25 years. Oilgear applies Selec servo valves in a wide variety of applications with excellent reliability. We plan to continue to use Selec valves on existing applications and look forward to expanding our application base in the future.



# CONTACT



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CONVINCING TECHNOLOGY