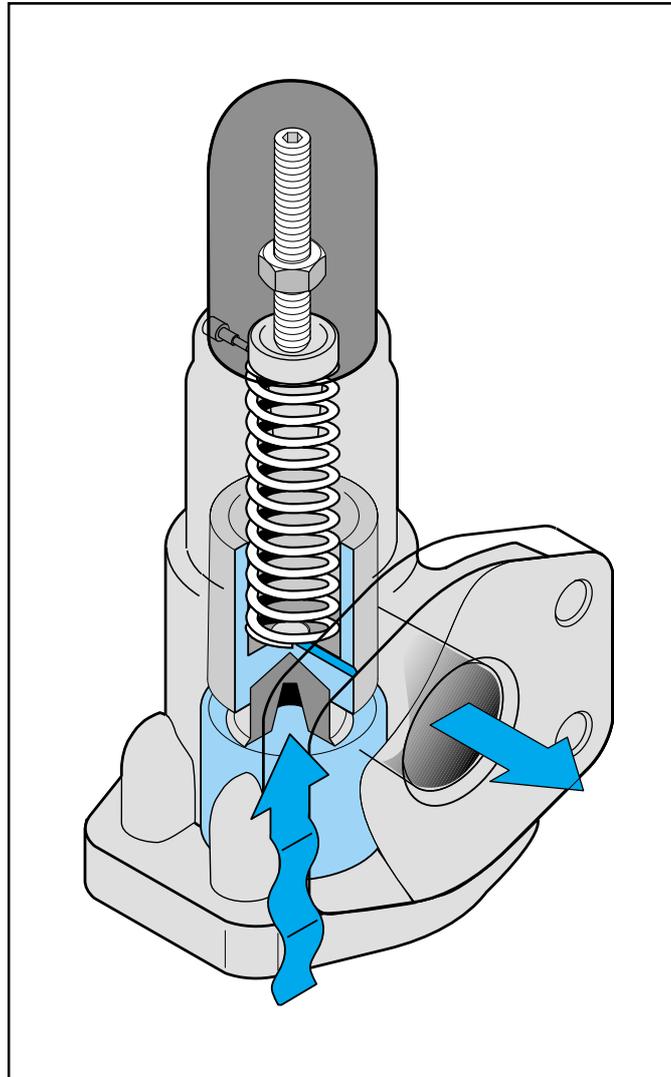


# Pressure Limiting Valve SPVF

## Operating Instructions



# Contents

<b>Safety</b>	<b>1</b>
Identification of safety instructions	1
General Safety Instructions	1
<b>Address off Manufacturer</b>	<b>1</b>
<b>The Documentation</b>	<b>2</b>
Description of Operation	2
<b>Installation of the Pressure Limiting Valve</b>	<b>2</b>
<b>Constructions and Spares</b>	<b>3</b>
<b>Commissioning</b>	<b>3</b>
Adjustment	3
Venting	3

## Safety

### Identification of safety instructions

The safety instructions contained in these operating instructions are identified by the following attention symbol:



If these instructions are not observed, danger to personnel and equipment can result.

### General Safety Instructions



The operating safety of the equipment supplied is only guaranteed under the prescribed conditions of use (see „Description of Equipment“). The stated limiting values (see also „Technical Data“) must not be exceeded under any circumstances.

Personnel who are responsible for the installation, operation and the repair of the pressure limiting valve, must possess an appropriate qualification; this can have been obtained through training or relevant instruction. Such personnel must be acquainted with the contents of this instruction.

During all work, the prevailing national regulations relating to accident prevention and safety in the work place and, where appropriate, internal regulations of the operator, must be adhered to, even where these are not named in this introduction.

During all work and prior to installation, the connecting pipelines must be de-pressurised!

The operator must ensure that these operating instructions are accessible to the personnel concerned at all times.

### Address of Manufacturer

KRACHT GmbH  
Gewerbestr. 20  
58791 Werdohl

Tel. 0 23 92 / 935-0  
Fax 0 23 92 / 935-209

### Agent in Finland

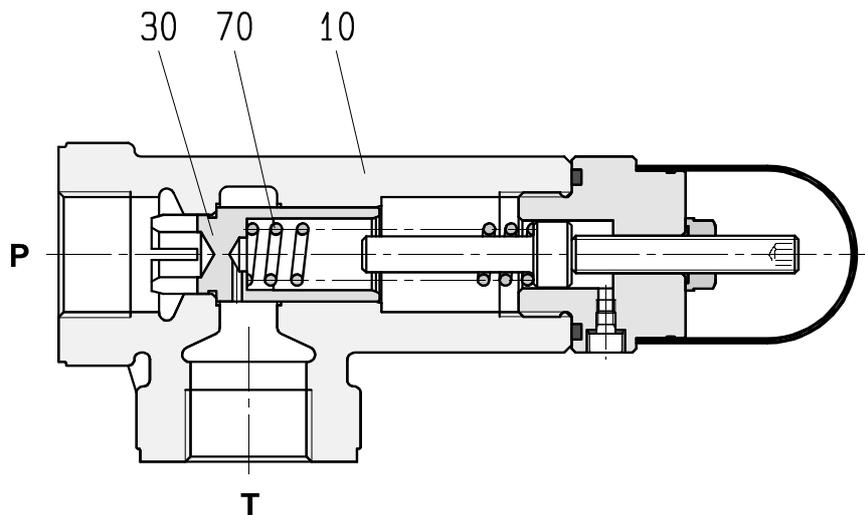
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## The Documentation

These operating instructions describe the adjustment and venting of the SPVF pressure limiting valve. The valve is manufactured in various versions.

The designated version of a particular valve is given on the type reference plate.



## Description of Operation

The directly controlled pressure limiting valves are used to protect low pressure circuits, up to a maximum pressure of 20 bar (SPVF 10, p max 30 bar).

In a cast hydraulic housing 10, a valve spool 30 seals the pressure chamber P from the reservoir connection T, when acted on by the the pressure spring 70. When the set pressure is reached, the valve spool 30 opens to create a connection between P and T. As the pressure in P falls below the set pressure value, the valve closes.

## Installation of the Pressure Limiting Valve



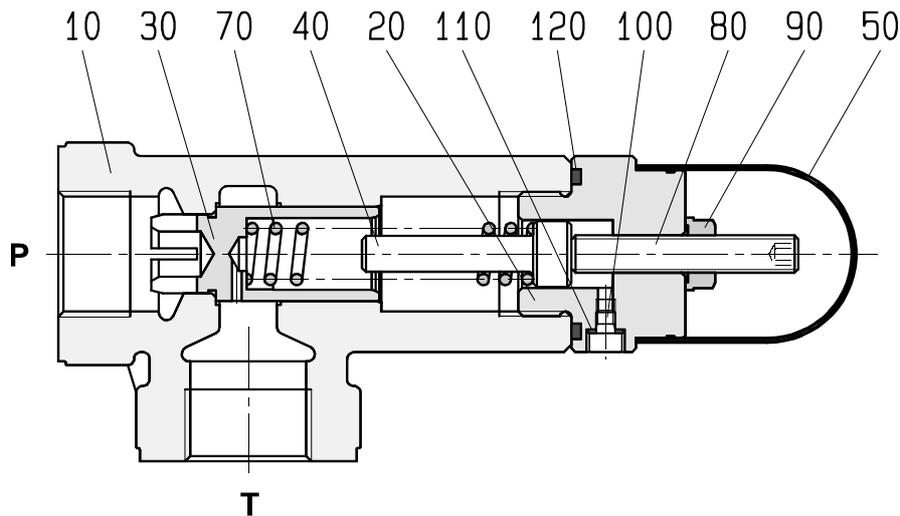
The valve should preferably be installed in a vertical attitude, with the adjustment screw underneath.

Before installing the pressure limiting valve, the pipe work system must be cleaned to eliminate dirt, scale, sand, swarf, etc. Welded tube, in particular, must be scoured or scavenged. Cotton rags must not be used in the cleaning operation. The pipelines must be connected to the valve in an absolutely stress-free condition.

The pipes and connections used must be those appropriate for the operating pressure range. The pipe manufacturers specifications should be consulted!

On installation, care should be taken that no sealing material finds its way into the pipeline. Sealing materials such as hemp and mastic are not permissible, since they can lead to soiling and hence impair the function of the valve.

## Constructions and Spares



Item	Description	Item	Description	Item	Description
10	Housing	50	Protecting cap	100	Vent (bleed)
20	Plug	70	Pressure cap	110	Flat seal
30	Valve spool	80	Threaded rod	120	O-Ring
40	Spring guide	90	Hexagonal nut		

## Commissioning

### Adjustment

The pressure limiting valve is set to the pressure required by the customer. It may be necessary to carry out a check on the pressure setting during commissioning, since different flow rates, oil viscosities and pipe lengths can affect the response value. In such cases a manometer should be connected directly to the valve oil pressure connection. Their characteristics are such, that each of the four pressure springs available is only suitable for a limited range of setting pressures.

These pressure ranges are specified in the Spare Parts List 58 601/4.

The pressure setting adjustment is made by removing the protecting cap 50 and loosening the hexagonal headed nut 90 on the threaded rod 80, by means of an internal hexagon ring spanner.

Rotation to the right increases the pressure setting, rotation to the left decreases the pressure. On achieving the desired pressure setting, the hexagon headed nut 90 must be tightened and the cap 50

### Venting

Pressure limiting valves only operate correctly when all the voids within the valve are filled with hydraulic fluid. If the installed attitude is incorrect, air may collect in the spring chambers and lead to hydraulic shock. In these circumstances the valve must be ventilated (bled). This is achieved by unscrewing the vent screw 100 through one turn. Venting should occur at low pressure and is complete when oil is discharged free of air bubbles. After venting, the vent screw is tightened again.



Servicing and adjustments to the pressure limiting valve which require it to be dismantled, are only to be carried out by trained and appropriately qualified personnel.

When dismantling the pressure limiting valve, the components must be directly protected from damage and soiling.

Fluids emerging from the valve must be collected and disposed of in such a way that there is no danger to personnel or to the environment. The currently applicable regulations must be observed.