



**MANUFACTURING OF HYDRAULICS FOR MOBILE MACHINERY
AND INDUSTRIAL EQUIPMENT**



SALEO HOLDING PRODUCT LINE

- ▶ Hydrostatic steering units of a displacement from 50 to 800 cc/rev, including LS static and dynamic models, with priority valves which allow one delivery pump to feed two loads;
- ▶ Axial piston hydraulic pumps and motors of various displacements;
- ▶ Hydrostatic transmissions;
- ▶ Mechanically, hydraulically and electromagnetically actuated distributing valves of a flow of 16 to 250 l/min;
- ▶ Piston, plunger and telescopic hydraulic cylinders;
- ▶ Electrohydraulic control units for various hydraulic systems;
- ▶ Mobile machinery hydraulic components;
- ▶ Industrial hydraulics;
- ▶ High pressure hoses.

Our production facilities are equipped with state-of-art machinery of the world's best manufacturers: Mazak, Blohm, Melchiorre, Studer, Kadia, Stama, Arthur Klink, etc.

Computerized test benches and laboratory equipment are used to control the quality of products.

Quality Management System conforms to requirements of ISO 9001-2009, ISO 9001:2008 (Certificate of TÜV Thüringen e.V., Germany, No. TIC 15 100 159221).



HYDRAULIC COMPONENTS UNDER SALEO TRADEMARK ARE
PURPOSED FOR ROAD-BUILDING, AGRICULTURAL, FOREST,
MUNICIPAL AND OTHER TYPES OF MOBILE MACHINERY.



SALEO

STEERING SYSTEMS



DOC-SERIES STEERING UNIT

- open centre non-reaction steering unit has got two anti-cavitation, two anti-shock, a relief and a check valves in P-line;
- displacement, cc/rev: 50...800;
- relief valve adjustment pressure, MPa: 8...17.5;
- steering control torque, Nm: 2.5...3.5;
- outlet pressure, max, MPa: 2.5.

DOC-SERIES DOUBLE DISPLACEMENT STEERING UNIT

- open centre. Allows emergency steering when delivery pump is off;
- displacement (pump on), cc/rev: 160...450;
- emergency displacement (pump off), cc/rev: 50...125.



DOW-SERIES STEERING UNIT

- open centre non-reaction steering unit, with a check valve in P-T-line;
- allows steering when pump is off;
- combines with OVP-type valves blocks.

DOPB-SERIES STEERING UNIT

- open centre non-reaction steering unit, additional EF-port, without valves;
- allows one delivery pump, without a priority valve, to feed two loads with the priority of steering;
- can be optionally provided with a relief, anti-cavitation and anti-shock valves.



STEERING SYSTEMS

DLS-SERIES STEERING UNIT

- closed centre non-reaction static LS steering unit. Provided with two anti-cavitation, two anti-shock and a check valve in P-T-line;
- displacement, cc/rev: 50...800;
- if combined with SKP-type priority valves it allows one delivery pump to feed two loads with the priority of steering.



DLD-SERIES STEERING UNIT

- closed centre non-reaction dynamic LS steering unit;
- displacement, cc/rev: 50...400;
- if combined with DKP-type priority valves it allows one delivery pump to feed two loads with the priority of steering.

DLD-SERIES DOUBLE DISPLACEMENT STEERING UNIT

- closed centre non-reaction dynamic LS steering unit;
- displacement, cc/rev: 160...450;
- emergency displacement, cc/rev: 50...125.



DLSX-SERIES STEERING UNIT

- closed centre non-reaction steering unit;
- combines with OSQ-type flow boosters;
- displacement, cc/rev: 160...630.
- it is used in heavy vehicles;

STEERING SYSTEMS



PRIORITY VALVE SKP

- static signal priority valve.
- Allows one delivery pump to feed two loads with the priority of steering;
- inlet flow, max., l/min: 160;
- rated pressure, MPa: 16.5.

PRIORITY VALVE DKP

- dynamic signal priority valve.
- Allows one delivery pump to feed two loads with the priority of steering;
- inlet rated flow, l/min: 40, 80, 120;
- rated pressure, MPa: 16.5.

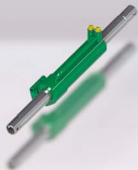


SINGLE-ACTING STEERING HYDRAULIC CYLINDER

- piston diam., max, mm: 50;
- rod diam., max, mm: 25;
- stroke, max, mm: 400;
- pressure, max, MPa: 20.

DOUBLE ROD ENDED STEERING HYDRAULIC CYLINDER

- piston diam., mm: 57...68;
- rod diam., mm: 32...45;
- stroke, max, mm: 235;
- rated pressure, max, MPa: 20.



HYDRAULIC CYLINDERS

PISTON HYDRAULIC CYLINDERS

- piston diam., max, mm: 180;
- rod diam., max, mm: 100;
- stroke, max, mm: 2000;
- rated pressure, max, MPa: 30.



TELESCOPIC HYDRAULIC CYLINDERS

- number of stages: 2...6;
- stages diam., max, mm: 180;
- stroke, max, mm: 6000;
- rated pressure, max, MPa: 20.



PLUNGER HYDRAULIC CYLINDER

- plunger diam., max, mm: 100;
- stroke, max, mm: 2000;
- rated pressure, max, MPa: 30.



CABIN TILT HYDRAULIC CYLINDER

- integrated valves;
- piston diam., mm: 45...55;
- rated pressure, MPa: 18;
- rated push force, kN: 22.9...31.6;
- rated pull force, kN: 17.8...25.1.



DISTRIBUTING VALVES

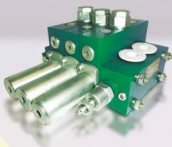


DISTRIBUTING VALVE RGE

- actuating method: electromagnetic;
- rated flow, max, l/min: 60;
- inlet pressure, max, MPa: 32.

DISTRIBUTING VALVE R16

- nominal internal diam., mm: 8;
- rated pressure, MPa: 16;
- rated flow, l/min: 16;
- relief valve adj. pressure range, MPa: 5...20;
- number of sections: 1...3;
- number of spool positions: 3 or 4.

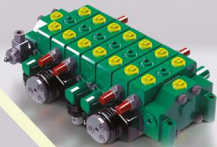


DISTRIBUTING VALVE RP70

- rated flow, l/min: 70;
- number of sections: 1...10;
- number of spool positions: 3 or 4 (with a "float" position).

DISTRIBUTING VALVE RGR100

- rated flow, l/min: 100;
- relief valve pressure, max, MPa: 30;
- number of sections: 1...10;
- actuating method: manual, cable, mechanical joystick;
- sectional valves: combined, anti-cavitation, anti-shock;
- number of spool positions: 3 or 4 (with a "float" position).



DISTRIBUTING VALVES

DISTRIBUTING VALVE RGG250

- rated flow, l/min: 250;
- relief valve pressure, max, MPa: 30;
- number of sections: 1...10;
- actuating method: hydraulic, proportional.



ELECTROHYDRAULIC CONTROL UNIT EHR

- proportional electrohydraulic control unit is purposed for automatic plow depth control.
- combines with distributing valves RP70, RGR100.

DISTRIBUTING VALVE R80

- design: monoblock;
- rated flow, l/min: 80;
- relief valve pressure, max, MPa: 20;
- number of spools: 3;
- actuating method: manual;
- number of spool positions: 4.



DISTRIBUTING VALVE KS-3579

- rated flow, l/min: 80;
- nominal internal diam., mm: 20;
- rated pressure, MPa: 25;
- number of sections: 4;
- number of spool positions: 3.

AXIAL PISTON HYDRAULIC PUMPS AND MOTORS



A1-SERIES AXIAL PISTON PUMPS AND MOTORS

- displacement, cc: 32...140;
- rated pressure, max, MPa: 35;
- integrated relief valve;
- integrated flush valve;
- for open and closed circuits.

A2-SERIES AXIAL PISTON PUMPS

- displacement, cc: 10...28;
- rated pressure, max, MPa: 32;
- Integrated block of check valves;
- application: steering emergency pump.



A3-SERIES AXIAL PISTON MOTORS

- displacement, cc: 90...112;
- rated pressure, max, MPa: 35;
- integrated relief valve;
- integrated flush valve;
- for closed circuit.

B3-, B3.1- AND B3.2-SERIES AXIAL PISTON VARIABLE PUMPS

- displacement, cc: 71...140;
- working pressure, max, MPa: 32;
- integrated displacement control;
- for open circuit.



AXIAL PISTON PUMPS AND MOTORS

A4-SERIES AXIAL PISTON PUMPS

- displacement, cc: 71...112 ;
- rated pressure, max, MPa: 28;
- for open circuit;
- application: PTO of trucks.

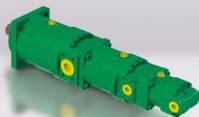


B5- AND B5.1-SERIES AXIAL PISTON VARIABLE PUMPS

- displacement, cc: 45...130;
- rated pressure, max, MPa: 42;
- integrated displacement control;
- for closed circuit.

AA- AND AAA-SERIES AXIAL PISTON MULTISECTION PUMPS

- for open circuits;
- standard displacements, cc:
112+112; 56+56; 28+28;
112+56; 112+28; 56+28;
112+56+28; 56+56+28; 56+28+28.



A-SERIES AXIAL PISTON PUMPS

- displacement (1 section), cc: 10...135;
- mounting seat for tandem section;
- for open circuits.

HYDROSTATIC TRANSMISSIONS



GST 46-46

Hydrostatic transmission GST 46-46 is a closed hydraulic system which comprises a variable hydraulic pump B5-45... with max displacement of 45 cc and a fixed hydraulic motor A1-46FV6... with displacement of 46 cc. Max pressure: 25 MPa. It is equipped with integrated overload protection system.

GST 112-112

Hydrostatic transmission GST 112-112 is a closed hydraulic system which comprises a variable hydraulic pump B5.1-112... with max displacement of 112 cc and a fixed hydraulic motor A3-112... with displacement of 112 cc. Max pressure: 45 MPa. It is equipped with integrated overload protection system.



GST 130-130

Hydrostatic transmission GST 130-130 is a closed hydraulic system which comprises a variable hydraulic pump B5.4-130... with max displacement of 130 cc and a fixed hydraulic motor A5-130... with displacement of 130 cc. Max pressure: 45 MPa. It is equipped with integrated overload protection system.



HYDRAULICS FOR CLUTCH AND BRAKE SYSTEMS CONTROL

BOOSTERS.

MAIN CYLINDERS.

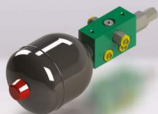
WORKING CYLINDERS.



HYDRAULICS FOR MOBILE MACHINERY

HYDRAULIC CONTROL UNIT (HYDRAULIC JOYSTICK)

- inlet pressure, max, MPa: 4;
- reduced pressure, MPa: 0.58...1.95.

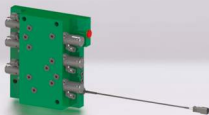
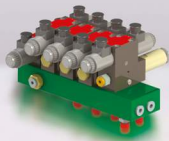


POWER SUPPLY

- reducing valve adjustment, MPa: 2...6;
- inlet pressure, max, MPa: 35.

HYDRAULIC CONTROL BLOCKS FOR ATTACHMENTS

- inlet rated pressure, MPa: 16;
- rated flow, max, l/min: 50.



HYDRAULIC CONTROL BLOCKS FOR GEARBOXES

- inlet rated pressure, MPa: 1.3;
- rated flow, max, l/min: 16.

HYDRAULICS FOR MOBILE MACHINERY



STEERING REVERSE VALVE

- rated flow, l/min: 33;
- inlet working fluid pressure, max, MPa: 18.

VALVE 85-4216115

- pressure, max, MPa: 3;
- internal spool leakage, max, cc/min: 50.

PRESSURE AND DRAIN FILTERS

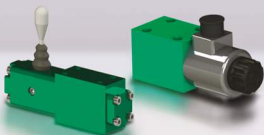
- filtration rating, μm : 10...25;
- rated flow, l/min: 40...200.

BREATHERS

- nominal filtration rating, μm : 25;
- air flow, max, l/min: 168;
- air flow resistance, max, Pa: 37.



INDUSTRIAL HYDRAULICS



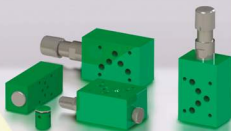
INDUSTRIAL DISTRIBUTING VALVES

- actuating method: manual and electromagnetic;
- rated flow, max, l/min: 60;
- inlet pressure, max, MPa: 32.

CHECK VALVES.

RELIEF VALVES.

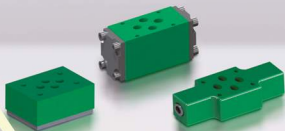
PRESSURE VALVES.



INDUSTRIAL HYDRAULICS

HYDRAULIC LOCK VALVES, THROTTLES

- screw-in and flange;
- rated flow, l/min: 80.



PRESSURE GAUGE SWITCHES

- inlet pressure, MPa: 32;
- internal leakage, 150 cc/min;
- control force, max, N: 60.

HIGH PRESSURE HOSES

HIGH PRESSURE HOSES

- nominal internal diam., mm: 6...50;
- working pressure, max, MPa: 25.



FIFTH WHEEL COUPLING



FIFTH WHEEL COUPLING

- weight, kg: 150;
- class of device: G50-X;
- tilt angles, min:
 - around X $\pm 12^\circ$, around Y $\pm 90^\circ$,
 - around the longitudinal axis $\pm 3^\circ$;
- tongue weight, t: 20.



SALEO Holding

MANUFACTURING OF HYDRAULICS
FOR MOBILE MACHINERY
AND INDUSTRIAL EQUIPMENT

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