

Hydraulic Division Product Overview



Innovative Motion Control & Energy Management Solutions



Haldex Hydraulics Division builds on its motion control and energy management expertise to provide products and solutions that improve vehicle performance while reducing energy consumption and emissions

Proven Solution Provider

Haldex Hydraulics Division offers the industry's most complete line of hydraulic gear pumps, motors and hydraulic power units. The Division also offers a variety of products to improve diesel engine performance and reduce emissions. We are committed to working with our customers to understand their needs so as to be able to provide them with innovative vehicle solutions.

Global Design and Manufacturing

To meet the demands of today's global market, Hydraulic Systems Division has product engineering support in Rockford, Illinois, Statesville, North Carolina, Hof, Germany, Skånes Fagerhult, Sweden and Qingzhou, China. A focused multi-national research and development team continues to develop products aimed at the specific needs of the commercial and industrial vehicle markets.

Superior Quality

We are committed to meet or exceed customer requirements and continually improve customer satisfaction. Our Quality Management System (QMS) is a comprehensive tool which conforms to a TS 16949 structure. It allows our management and employee teams to constantly monitor key performance indicators of quality and customer satisfaction.



SPECIAL PRODUCTS

ENGINES

Haldex provides innovative custom solutions to the vehicle industry on a global basis

Diesel engine suppliers are challenged to meet rigorous emissions requirements without reducing engine performance and with as little as possible cost impact. Haldex offers a number of special products that have made positive contributions toward meeting this challenge:

- Mechanical and electric fuel transfer pumps that provide long life and reliable fuel flow even in cold start up conditions.
- Alfdex for extremely efficient cleaning of crank case gases.
- Hydraulic fan drives that provide precise coolant temperature control while eliminating excess power consumption.
- Engine lubrication pumps that are extremely reliable and meet challenging envelope restrictions.
- Varivent controls recirculated exhaust gases (EGR) to reduce NOx emissions from diesel engines without increasing fuel consumption.



Mechanical Fuel Transfer



Electric Fuel Transfer



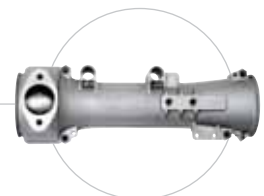
Alfdex Oil Mist Separator



Fan Drive



Engine Lubrication



Exhaust Gas Recirculation (EGR)

ENVIRONMENT

Respect for environment is an integral part of the Haldex Hydraulics Division's culture

Concern and respect for the environment goes well beyond working with our customers to develop products and solutions that help to reduce energy consumption and reduce emissions. We incorporate environmental considerations into all applicable business decisions.

At Haldex Hydraulics Division we are committed to the prevention of pollution and systematically work to reduce any environmental impact of our operations and those of our suppliers. These include energy consumption, materials utilized, air and water emissions as well as the generation of waste and noise.

We maintain an environmental management system that identifies aspects of our business activities which may potentially impact the environment. We have established goals and objectives to reduce and/or eliminate those potential impacts through continuous improvement practices. Haldex Hydraulics manufacturing facilities in North America and Europe are certified to the ISO 14001 environmental management system.



Haldex's business concept includes a focus on products that improve the environment. Such a product is Varivent, which enables emissions of nitrogen oxides from diesel engines to be reduced in a manner that simultaneously results in low fuel consumption.

SPECIAL PRODUCTS

HYDRAULICS

Haldex provides innovative custom solutions to the vehicle industry on a global basis

We focus on the areas where we can create customer value. Our applications expertise enables us to take on customers most unique application challenges. The foundation for this expertise is an expert knowledge of hydraulic systems. The value we bring to our customers is our unique capability to integrate a variety of system components and controls, to provide multiple functions in one custom package.

Our applications specialists seek to understand the overall goals for the vehicle, the vehicle subsystems and then the hydraulics system. This understanding enables them to respond with customized value engineered solutions. Haldex Hydraulics was the first to offer many of the solutions shown here.



High-Speed Rotary Drive Systems



Powershift Transmission Lube and Charge



Electrohydraulic Lifting Systems



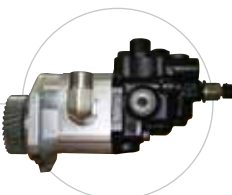
Auxiliary Hydraulic Power



Supplimental Power Steering Systems



Axle Cooling and Lube Systems

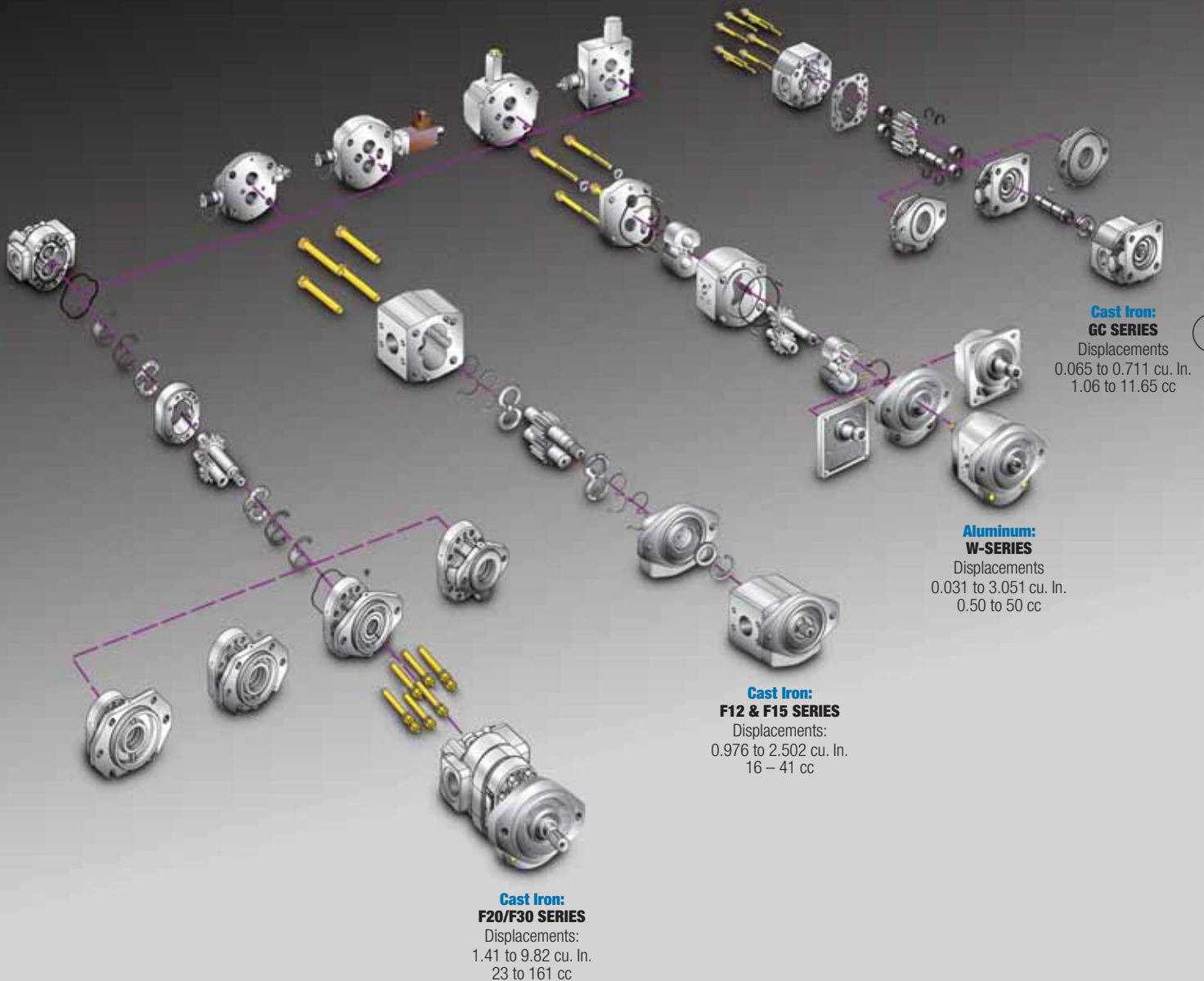


Fan Drive With Integrated Brake Charge Function

PUMPS & MOTORS

Haldex offers the widest range of gear pumps in the industry. Displacements range from 0.031 to 9.82 cu. in. (.5 cc to 161.0 cc) in single or multiple section pump configurations. Integrated control valves provide added functionality to the product line. A wide variety of flange and shaft options are available on both cast iron and aluminum bodies. Haldex is a gear pump specialist. The extensive product offering insures that the optimum product performance and configuration can be tailored to virtually any application requirement.

High speed fluid motors are available in displacements 0.031 to 9.82 cu. in. (.5 cc to 161.0 cc). High volumetric efficiency is a trademark of Haldex fluid motors. Our full range of unidirectional and bidirectional fluid motors features numerous configurations and options to solve a variety of fluid motor applications. We also offer rotary gear flow divider units up to 4 sections for proportional division of output or intensified flow.



Cast Iron Pumps Heavy Duty



GC Series Pumps

Displacements
0.065 to 0.711 cu. In. (1.06 to 11.65 cc)

GC Series High/Low Pumps

High Pressure Displacements
0.065 to 0.258 cu. In. (1.06 to 4.22 cc)

Low Pressure Displacements
0.258 to 0.776 cu. In. (4.22 to 12.71 cc)

Maximum Pressure
4,000 psi (276 bar)

Maximum Speed
4,000 rpm



F12 & F15 Ferra Series Pumps

F12 Displacements
0.976 to 2.502 cu. In. (16 – 41 cc)

F15 Displacements
1.159 to 3.051 cu. In. (19 to 50 cc)

Maximum Pressure
4,000 psi (276 bar)

Maximum Speed
3,600 rpm



F20/F30 Pumps & F20-LS/F30-LS Load Sense Ferra Series Pumps

Displacements
1.41 to 9.82 cu. In. (23 to 161 cc)

Maximum Pressure
4,000 psi (276 bar)

Maximum Speed
3,600 rpm



D Series Pumps

Displacements
0.232 to 1.395 cu. In. (3.80 to 22.85 cc)

D Series High/Low Pumps

High Pressure Displacements
0.465 cu. In. (7.62 cc)

Low Pressure Displacements
0.930 to 1.395 cu. In. (15.24 to 22.86 cc)

Maximum Pressure
3,000–4,000 psi (207–276 bar)

Maximum Speed
3,600–4,000 rpm



H Series Pumps

Displacements
0.60 to 2.40 cu. In. (9.83 to 39.33 cc)

Maximum Pressure
3,000 psi (207 bar)

Maximum Speed
3,600 rpm

Aluminum Pumps Medium/Light Duty



W-Series Pumps

W100 Displacements
0.031 to 0.122 cu. In. (0.50 to 2.00 cc)

W300 Displacements
0.049 to 0.347 cu. In. (0.80 to 5.70 cc)

W600 Displacements
0.244 to 0.732 cu. In. (4 to 12 cc)

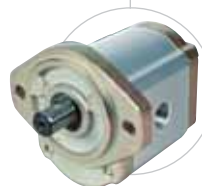
W900 Displacements
0.305 to 1.891 cu. In. (5 to 31 cc)

W1200 Displacements
1.526 to 2.014 cu. In. (25 to 33 cc)

W1500 Displacements
1.159 to 3.051 cu. In. (19 to 50 cc)

Maximum Pressure
4,000 psi (276 bar)

Maximum Speed
500 to 4,000 rpm



WQ900 Pumps

Displacements
0.305 to 1.648 cu. In. (5 to 27 cc)

Maximum Pressure
3,336 psi (230 bar)

Maximum Speed
4,000 rpm

Fluid Motors

Cast Iron

Displacements
0.065 to 9.82 cu. In. (1.06 to 161 cc)

Speed
Up to 10,000 rpm



Aluminum

Displacements
0.244 to 3.050 cu. In. (4 to 50 cc)

Speed
Up to 4,000 rpm

Flow Dividers

GC & D Series

GC Displacements
0.097 to 0.517 cu. In. (1.58 to 8.47 cc)

D Displacements
0.232 to 0.813 cu. in. (3.8 to 13.32 cc)

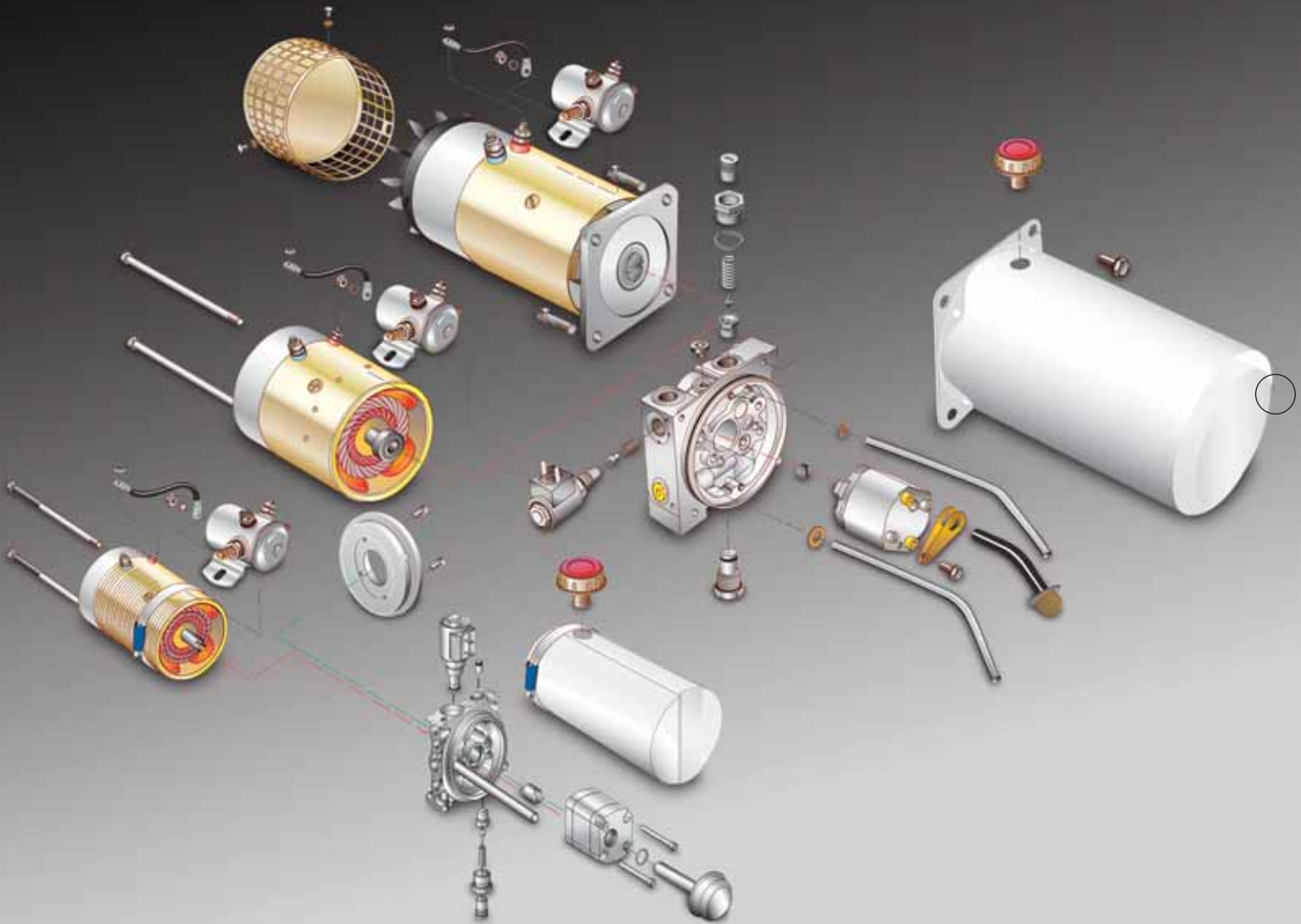
Maximum Pressure
4,500 psi (310 bar)

Maximum Input Flow Per Section
14 gpm (53 lpm)



POWER PACKS

Haldex Hydraulics is one of the world's leading manufacturers of electrohydraulic power packs. Our expertise lies in understanding the diverse set of variables involved in matching the correct electric motor, hydraulic pump and control valves to suit specific application requirements. Whether the application calls for a complete system with integrated reservoir and control valves or a pump/motor package, Haldex can configure a system suitable for virtually any application in the mobile equipment as well as industrial equipment markets.





PUMP/MOTORS (DC/AC)

DC Voltage Range

12 to 72 VDC

AC Horsepower Range

1/2 to 3 HP

Pump Displacements

0.04 – 1.71 cu. in. (0.65 to 28 cc)

Maximum Pressure

4,000 psi (276 bar)



HB800 POWER PACKS

Voltage Range

12 to 24 VDC

Pump Displacements

0.037 to 0.092 cu. in. (0.60 to 1.5 cc)

Reservoirs

0.13 to 1 gal. (.5 to 3.8 ltr.) plastic

Maximum Pressure

2,610 psi (180 bar)



HE1000 SERIES POWER PACKS

Voltage Range

12 to 24 VDC

Pump Displacements

0.015 to 0.122 cu. in. (0.24 to 2 cc)

Maximum Pressure

3,336 psi (230 bar)

Reservoirs

0.13 to 1.0 gal. (0.5 to 3.8 ltr.) plastic



HE2000 SERIES POWER PACKS

Voltage Range

12 to 24 VDC, 115 to 230 VAC

Pump Displacements

0.049 to 0.388 cu. in. (0.80 to 6.36 cc)

Maximum Pressure

3,336 psi (230 bar)

Reservoirs

0.95 qt. to 3.96 gal. (0.9 to 15 ltr.) steel,
0.8 to 1.7 qt. (0.76 to 1.6 ltr.) plastic



HE "BOX" POWER PACKS

Voltage Range

12 to 24 VDC

Pump Displacements

0.049 to 0.388 cu. in. (0.80 to 6.36 cc)

Maximum Pressure

3,336 psi (230 bar)

Reservoirs

3 qt. to 5.0 gal. (2.84 to 19 ltr.) steel

HE-Q (QUIET) POWER PACKS

Voltage Range

24 VDC

WQ300 Pump Displacements

0.073 to 0.347 cu. in. (1.2 to 5.7 cc)

Noise

42dB(A)



BIROTATIONAL POWER PACKS

Voltage Range

12 to 24 VDC, 115 to 230 VAC

Pump Displacements

0.049 to 0.129 cu. in. (0.80 to 2.11 cc)

Reservoirs

2 to 2.96 qt. (1.9 to 2.8 ltr.) plastic,
1 to 2 gal. (3.8 to 7.6 ltr.) steel



AC POWER PACKS GC-9500 SERIES

Displacements

0.065 to 1.394 cu. in. (1.06 to 22.85 cc)

Maximum Pressure

3,000 psi (207 bar)

Maximum Speed

3,600 rpm

Reservoirs

5 to 20 gal. (19 to 76 ltr.) steel



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