

# Exporting metal parts for hydraulics to Europe

Europe is one of the largest hydraulics markets in the world. Germany is especially interesting, offering good opportunities for Developing Countries. The most promising segments are construction and engineering. Focusing on innovative market segments such as hybrid hydraulics could become interesting. The increasing interest of European producers to outsource (parts of) the production process offers opportunities as well.

## Contents of this page

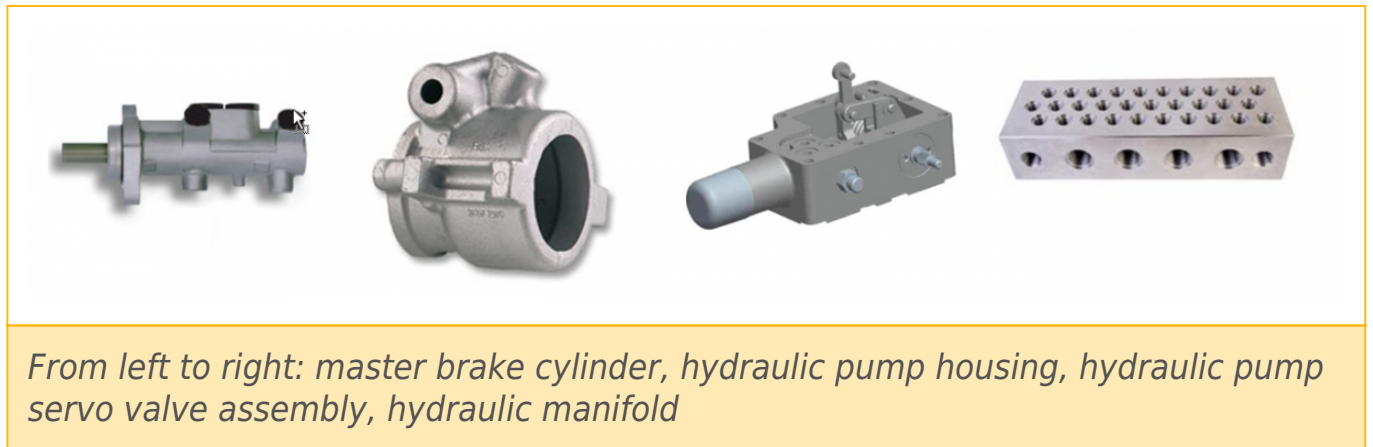
1. [Product description](#)
2. [What makes Europe an interesting market for metal parts for hydraulics?](#)
3. [What trends offer opportunities on the European market for metal parts for hydraulics?](#)
4. [What requirements should metal parts for hydraulics comply with to be allowed on the European market?](#)
5. [Through what channels can you get metal parts for hydraulics on the European market?](#)

## 1. Product description

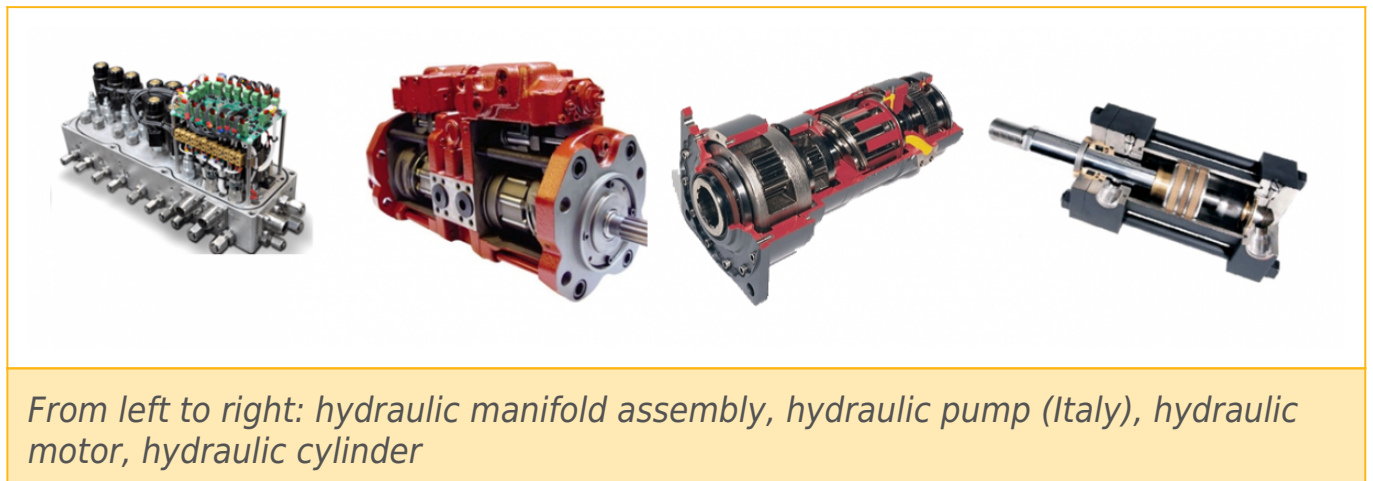
In this survey, the terms 'hydraulic parts' and '(metal) parts for hydraulics' are used to refer to the two codes in the [Harmonised System](#) that are used for hydraulic parts. These codes are 84129040 and 84129050.

### Product specification

Specifications for metal parts for hydraulics, as required by European buyers, are described below. Pictures directly below provide examples of hydraulic parts that are used in hydraulic products in Europe.



Pictures below provide examples of applications in which hydraulic parts are used.



## **Material and design**

Hydraulic parts are made of various materials, including cast iron, stainless steel and solid brass. The material used depends largely on the application. In general, parts should be completely protected against corrosion (for instance zinc or chrome plated and nitrided). Moving parts are tube machined, ground, treated and polished. The majority of parts are suitable for working temperatures from 300°C to 900°C and for maximum working pressures of at least 200 bar (and, in many cases, even more).

The exact requirements of the hydraulic parts are obviously specified by the European buyer, and they can vary from buyer to buyer.

## **Labelling and packaging**

Due to the great diversity of hydraulic parts, there is also diversity of packaging. Nevertheless, the standard means of transportation is wooden boxes for large parts. Cartons can be used for smaller parts.

Packaging and labelling is an aspect that is usually determined according to buyer-specific requirements. Finally, the packaging must always be marked. This is to ensure that it can be identified during transport, as well as to indicate the quantity, the weight, the actual products and the producer's name.

## **Quality**

Many of the hydraulic equipment producers in Europe are increasingly depending on exports, and they have therefore implemented stricter quality standards than they had previously adopted.

## **2. What makes Europe an interesting market for metal parts for hydraulics?**

Note that the figures about imports and exports only apply to the two HS codes 84129040 and 84129050. In reality, there is more trade of metal parts and subassemblies for hydraulics, but these are not registered under these two codes. Total European imports of hydraulics reached €5.5 billion in 2015, and roughly a share of 20% is thought to be parts and subassemblies.

## **Imports**

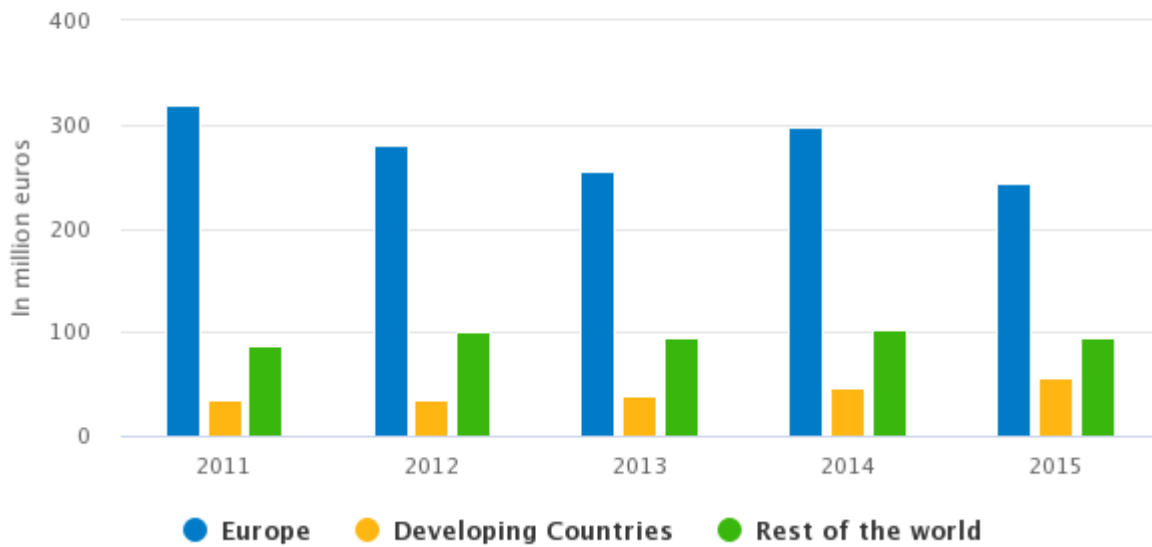
European import of hydraulic parts decreased by 3% per year between 2011-2015. In 2015, the total European import totalled €394 million, which is almost 12% lower than in 2014.

European hydraulic parts are mostly imported from within Europe. However, this import showed negative development in the period under review. The import of hydraulic parts is expected to recover from the previous declines and show small growth in 2016 and 2017, between about 0-2% per year.

The imports from Developing Countries increased fastest (+14% per year on average). In 2015, imports from Developing Countries represented 14% of total European imports. The share of Developing Countries in total imports is expected to grow further to 16%-17% in the next few years. Note that China is included in the group of Developing Countries.

The best growth prospects are for parts made by relatively labour-intensive processes.

**Figure 1: European import of hydraulic parts by main origin**  
2011-2015

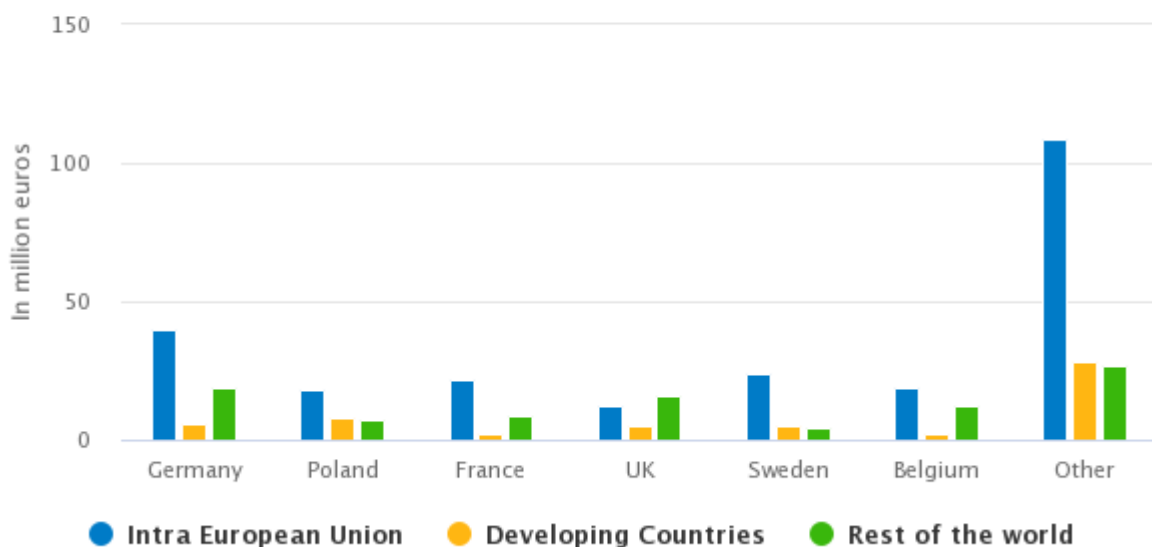


Source: Trademap

Germany is the largest importer of hydraulic parts, followed by Poland and France. The import from Developing Countries reached €6 million in Germany and €8 million in Poland.

Poland showed the largest absolute growth (+€7 million in four years' time) in imports from Developing Countries. Other countries with high absolute growth are Germany and Denmark, both +€3 million within four years.

**Figure 2: Leading European importing countries of hydraulic parts**  
2015



Source: Trademap

## Leading suppliers

Germany, the United States and China are the leading suppliers. Together, they represented 36% of the total European import of hydraulic parts. Other leading suppliers are European countries such as Italy, Denmark and France.

Developing Countries that have a considerable amount of hydraulics parts export to Europe are:

- China (€25 million in 2015)
- India (€17 million)
- Turkey (€11 million)

Out of these countries, Turkey showed the highest growth in four years' time (+26% per year on average), followed by India (+13%) and China (+11%).

### Tips:

Benchmark your company against your peers from China, India and Turkey.

You can improve your chances dramatically by adding value to the parts with labour-intensive processes.

You can find more information about the hydraulics sector and the companies of different countries by visiting the website of sector associations such as [Artema](#) (France), [ATT](#) (Denmark), [HPF](#) (Norway), [HPF](#) (Sweden) and [VDMA](#) (Germany).

You can also use magazine sources such as [ME](#) and [O+P](#) to read about the latest trends and developments in the hydraulics industry. You can use free translation tools, for instance Google translate, to convert the website to your language.

You can use trade fair databases like [Eventseye](#) or [Auma](#) to find relevant trade fairs in Europe.

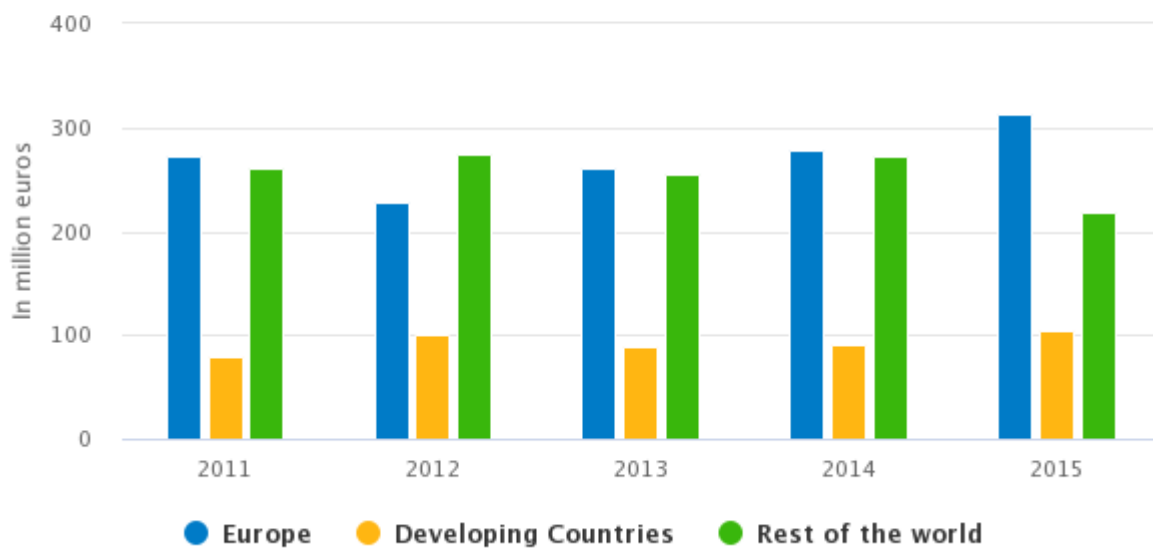
## Exports

Total European exports of hydraulic parts increased by 1% per year between 2011-2015 to €636 million. Export of hydraulic parts are mainly destined for other European countries and 'Rest of world'.

Note that European exports of hydraulic parts are destined partly for after-sales/maintenance and service purposes. Suppliers of hydraulic systems often sell their systems with after-sales and maintenance services. This means that they also supply parts in case of maintenance or repairs.

**Figure 3: European export in hydraulic parts to main destinations**

2011-2015



Source: Trademap

Germany is the largest European exporter for hydraulic parts (€205 million in 2015), followed by the Netherlands and Denmark. The export of Germany accounted for almost one third of total European exports. The Netherlands and Denmark represented 14% and 9%. Other relatively large exporters are:

- United Kingdom (7% share)
- Belgium (7%)
- France (6%)

## Production

Note that the figures here and below apply to the whole hydraulics industry, and not only to the parts for hydraulics.

Production of hydraulics in Europe showed a slight decrease since the peak in 2012 (€10 billion). In 2013 and 2014 European production decreased to €9.6 billion. The year 2015 was also a year with a small decline in production (between 0 to -2%), while production may go up again in 2016.

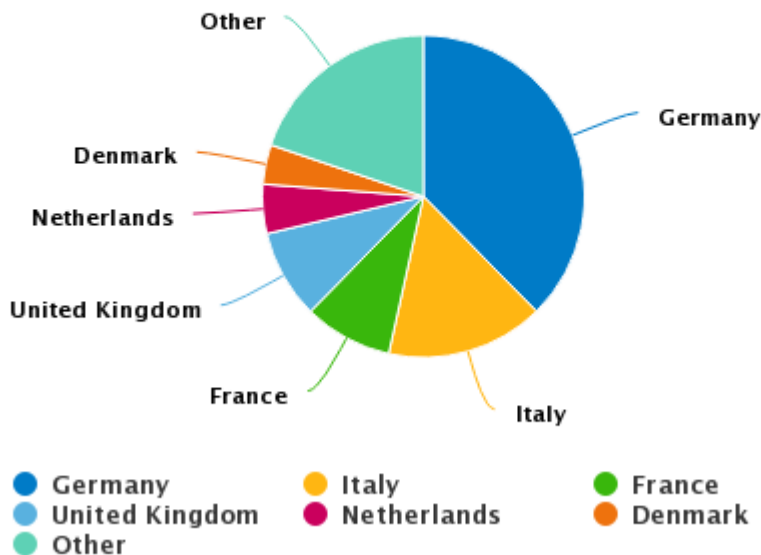
The major market segments (industries) that utilise hydraulic equipment, are:

- Textiles manufacturing
- Packaging
- Material handling
- Mining equipment
- Earth-moving and construction equipment
- Agricultural machinery
- Paper production
- Printing machinery
- Plastics production
- Rubber working
- Capping and sealing
- Beverage industries

Germany is the largest hydraulics producer in Europe (38% share), followed by Italy (16%), France (9%) and the

United Kingdom (9%). Germany is strong in every area of hydraulic production, while Italy is strong in the production of hydraulic valves and pumps.

**Figure 4: Main European producers of hydraulics in %**  
2014



Source: Eurostat Prodcorn

### Tips:

Hydraulic equipment production levels in Europe are high. Given that hydraulic equipment comprises a large number of metal parts, your market potential is huge.

Geographically, your chances of export success are higher in areas with a high concentration of hydraulics producers. Such as European regions of Emilia Romagna, Lombardy, Piedmont and Veneto in Italy, or in the West Midlands in the UK.

## Demand

European demand for hydraulics peaked in 2011 (€6.9 billion), after two years of strong growth since the dip in imports in 2009. The years of 2012 and 2013 showed weak demand, resulting in a slow-down of European apparent demand to €6.5 billion in 2013. Demand regained growth in 2014 (€6.6 billion). Italy (€1.4 billion), France (€1.1 billion), the United Kingdom (€999 million) and the Netherlands (€756 million) are the largest markets for hydraulics in Europe. Together, these countries represent almost 65% of the European market.

## 3. What trends offer opportunities on the European market for metal parts for hydraulics?

### Potential focus industries

The most promising industries for hydraulics in the coming years are construction, engineering, power and energy, material handling, food and beverage, and retail. Nevertheless, the steady transition to pneumatic and electronic equipment from hydraulic equipment could pose a challenge to the growth of this market.

One of the key factors contributing to the growth of the market for hydraulics (and parts for hydraulics) since 2009 has been the increasing demand for material handling and mining equipment such as drilling machines, electronic overhead travel (EOT) cranes, level luffing cranes and stackers.

## Rise of innovative segments

Manufacturers have begun to integrate electronic controls into hydraulic equipment in order to enhance accuracy and efficiency. As a result, hydro-mechatronics is developing very quickly in recent years. One key development in the hydro-mechatronics field involves variable-speed hydraulic pumps and variable-speed pump drives. Such variable-speed equipment delivers accurately measured and timed hydraulic power as required.

Other major innovative segments include electro-hydraulics and software design, especially in high-end markets in Western Europe (like Germany).

## Hybrid hydraulics

Hybrid hydraulics is a key segment developed by leading French car manufacturers in the past decade. Hybrid hydraulic systems combine hydraulic drives with conventional gasoline engines.

The result is significantly more efficient than existing gasoline-electric hybrids. Instead of capturing the kinetic energy of the slowing car with a generator that charges a battery, the Hybrid Air system uses a reversible hydraulic pump.

## Outsourcing manufacturing activities

The hydraulic equipment industry in Europe has been witnessing an increasing trend towards the outsourcing of manufacturing activities. Primarily to India and China. The major players have been particularly likely to outsource production. Small and medium-sized companies have tended to keep production local.

The main reason for outsourcing has been the availability of inexpensive labour and the skilled workforces in countries like China and India.

On the other hand, Chinese companies are involved in the acquisition of some German hydraulic companies. One example is [Linde Hydraulics](#), which has two plants in China. Since several years, 70% of the company has been owned by Chinese Weichai Power.

### Tips:

You should qualify as suppliers for large Europe-based multinational companies, such as [Poclain Hydraulics](#). This will provide you a sound export share. In order to do so, however, you must meet high requirements. You will have to comply with high quality standards and precise procurement procedures required by these companies.

You should focus on growing segments that use hydraulic systems, including construction, engineering, power and energy, food and retail. Specialisation in any of these sectors will improve your unique selling proposition.

Focusing on innovative market segments (for instance mechatronics or hybrid hydraulics) and choosing to develop particular products for those segments, instead of producing a large range of products, could become your unique selling proposition.

The increasing demand for outsourcing could offer potential opportunities to you.

Refer to our study [Trends for Metal Parts and Components](#) for general trends.

## 4. What requirements should metal parts for hydraulics comply with to be allowed on the European market?

Requirements can be divided into: (1) legal requirements, which must be met in order to enter the market; and (2) non-legal requirements, which most competitors have implemented, and which should be met in order to keep pace with the market. See our study [EU buyer requirements for metal parts](#) for a general overview of requirements. Below are the requirements that specifically apply to parts for hydraulics.

### Legal requirements

No specific legal requirements apply to metal parts in general. This also means that there are no specific legal requirements for metal parts that are exported to Europe for application in hydraulic systems.

### Packaging and liability

Note that there is also non product specific legislation on [packaging](#) and [liability](#) that apply to all goods marketed in the EU.

### Import Duties

For hydraulic parts, a low 2.7% MFN duty is levied on European imports from third countries. Several countries benefit from a preferential 0% tariff under the Generalized System of Preferences (GSP) arrangements, such as Indonesia, Pakistan, Vietnam, the Philippines, Bosnia and Egypt.

#### Tips:

The [TARIC database](#) provides additional details for codes 84129040 and 84129050.

Note that it is not possible to claim preferential tariff treatment without a Certificate of Origin.

### Non-legal requirements

Certification according to [ISO 9001](#) is the minimum standard that European buyers expect when searching for new suppliers. Other certification, including ISO 14001 (environmental management) and [OHSAS 18001](#) (health and safety), can be beneficial when promoting your company and its products to potential buyers.

### Buyer's specifications

Once a prospect has expressed serious interest, the most important requirements will be related to the parts themselves. For example, the material, dimensions and finishing must meet the buyer's specifications. These issues are essential in the sample phase.

Once the buyer has accepted the samples and all other conditions have been agreed upon, the contract can be signed. Thereafter, the main challenge for the suppliers will be to deliver the products according to the agreed-upon specifications, delivery times and volumes.

Suppliers should not underestimate these conditions. Delivery times and delivery reliability are of utmost importance. Particularly when supplying directly to hydraulic equipment producers.

### Material and testing requirement



Depending on the type of application (critical or non-critical), the buyer may have material and/or testing requirements. In general, the following guideline applies to material requirements: the metal that is used must be covered by an international standard and approved with a material certificate, which can be stated in an [EN10204 - type 3.1 certificate](#). This type of certificate is internationally accepted.

The buyer may also have testing requirements, including NDT (non-destructive testing), surface (MT or magnetic testing, PT or penetrant testing) and section (UT or ultrasonic testing and RT or X-ray testing) tests.

### Tips:

The importance of buyer satisfaction should not be underestimated. Although buyers obviously regard product quality as important, they also attach a great deal of value to meeting delivery times and delivery volumes.

See our [10 tips for doing business with European buyers of metal and plastic parts and components](#) and our [10 tips for finding buyers in the metal parts and components sector](#). These tips also offer more information on which topics are decisive for European buyers when searching for (new) suppliers.

Also refer to our study [European Buyer Requirements for Metal Parts](#), the [EU Export Helpdesk](#), the [ITC Market Access Map](#) and the [ITC Standards Map](#) for more information on gaining access to the European market.

Consider if environmental and occupational health and safety certification may be beneficial for your company's export sales to Europe.

## 5. Through what channels can you get metal parts for hydraulics on the European market?

Producers of hydraulic system components (such as valves and cylinders) are the most logical prospects for producers of hydraulic parts. Importers could also be potential buyers. For additional information, refer to our studies [Market Channels and Segments](#) and [Competition for Metal Parts and Components](#). Below are descriptions of the various types of prospects, including a few examples for each type.

### Producers

In general, producers of hydraulic components possess in-depth knowledge concerning a wide range of production processes. Such as rod and tube machining, grinding and honing, custom metal machining, component machining, skive and roller burnishing, friction and inertia welding, plating, painting, and hydraulic component assembly. In many cases, robotic and CNC machines are used in these processes.

Most producers are specialised in a specific range of hydraulic components. But some producers offer a wide range of hydraulic components.

Examples of European producers of a specific range of hydraulic components are:

- Germany: [Herbert Hänchen](#), [Hydac](#) and [Schema](#)
- France: [Chapel Hydraulique](#), [Douce hydro](#), [Sah Leduc](#), [SERTA](#)
- Italy: [Hidro Mec](#), [Vega](#), [Casappa](#), [Safim](#)
- Sweden / Finland: [Merlin & Carlsson](#), [StackeHydraulik](#), [Nurmi](#)

Producers of a wide range of hydraulic components include:

- France: [Olaer industries](#) (producer of hydraulics and pneumatics, recently acquired by one of the global market leaders, Parker Hannifin), [Poclain Hydraulics](#) (producer of hydraulic pumps, motors and valves).
- Germany, Austria or Switzerland: [Bieri Hydraulik AG](#), [Hainzl Industriesysteme](#), [Hawe Hydraulik](#), [Weber](#).
- Italy: [Atos](#), [Comet](#), [Iotti](#), [OMFB](#)

For other companies, hydraulics is only one part of their production range, as is the case for:

- [Bosch Rexroth](#), a producer of drives and controls, and one of the world's leading companies in hydraulics, headquartered in Germany.
- [Liebherr](#) (Germany) and [Bachofen AB](#) (Switzerland).
- [Bonfiglioli](#), a producer of mechatronics and power transmission, and a leading engineering company in Italy and abroad, headquartered in Italy.

## Importers

Importers trade in hydraulic components, including valves and cylinders, as well as in spare parts (to meet the maintenance and repair requirements of their buyers). In some cases, these importers also produce a small range of their own components (such as special hydraulic cylinders). Examples of European importers are:

- France: [ACE](#), [BICT](#), [FP Hydraulique](#), [Hydelec](#), [Hydraucom](#), [Hydrauma Industries](#), [Hydrokit](#), [Hydrol](#)
- Germany: [Bibus Hydraulik AG](#), [Eriks](#), [Haberkorn](#), [Hengstenberg](#), [Kramp](#), [Aroflex](#), [Fluidtek](#), [HPS Innovation](#), [Landefeld](#), [Motrac Hydraulic](#), [Ulbrich](#), [Zyltech](#)
- Italy: [CEDIT](#), [Chiaperotti](#), [Concessioni Tenute](#), [Hydronaut](#), [Oleodinamica Commerciale Piemontese](#), [SACE](#), [TCA](#)
- Nordic: [Dani Tech](#) (Denmark), [Euro-Hydro](#) (Finland), [Feral](#) (Norway), [Hydagent](#) (Sweden), [Hydra](#) (Danish distributor of hydraulics with a network in Denmark, Sweden, Norway and Germany), [Hydra Grene](#) (Denmark), [Hydroscand](#) (Sweden), [Hydx](#) (Sweden), [Hydraulikkteknikk](#) (Norway), [Tubecontrol](#) (Sweden)

### Tips:

The website of the European Fluid Power Committee ([CETOP](#)), is a good starting point for your research. The sections 'Publications' and 'Directory' offer lists of links to useful resources and a database of hydraulics companies.

You can find information about fluid power on websites of magazines. Such as [FPNI](#), [Fluides & Transmissions](#) (France), [Fluid](#) (Germany), [Fluid Trasmissioni di Potenza](#) (Italy) and [Fluid Scandinavia](#) (covering Sweden, Finland, Norway, Denmark).


You can also have a look at the countries' associations for fluid technology. For instance [GOP](#) (Switzerland), [Assofluid](#) (Italy), [FHPA](#) (Finland) and [IFS](#) in Sweden. You can use Google Translate to convert the website to your language.


For additional information, refer to our studies [Market Channels and Segments](#) and [Competition for Metal Parts and Components](#).

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