

# *DYNAPAC SUPPLIER MANUAL 2016*



Dynapac Compaction Equipment AB

*Atlas Copco*

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## 1. Introduction

### 1.1 About this manual

The purpose of this manual is to describe and define the concepts, documents and routines that Dynapac's suppliers must be able to handle to fulfil their undertakings. The contents in this manual are mainly intended for suppliers to Dynapac in Karlskrona, but where appropriate are also applicable for Dynapac's other production locations. Dynapac is a world leader in its business area. To maintain this position it is essential that we continuously implement improvements for our processes and methods of working. The market sets increasingly stringent requirements for shorter leadtimes, reliable deliveries and cost-efficiency, and our expectations of you are equally high.

Dynapac's suppliers undertake to follow and accept the substance of this manual's contents, provided it does not conflict with other written agreements. We look forward to a successful partnership with you, and we expect your full commitment!

Dynapac Compaction Equipment AB

### 1.2 About Dynapac

The Vibro Factory was established in 1934 in Stockholm. The business concept was based on an invention for the compaction of concrete by means of the use of vibrating rods. This concept was further developed and in the early 50s also included the design and manufacturing of a vibratory roller for compaction of soil. "The Roller", which was manufactured at the Vibro Factory in Ljungby, was very successful and production volumes rapidly increased. Another factory was established in Karlskrona in 1960 to focus on the manufacturing of rollers, while Ljungby concentrated on manufacturing of light equipment and handling of spare parts. Since the beginning of the 90s the group has focused its strategic functions such as purchasing, marketing, research and development, service and after-market, in Karlskrona. Today Dynapac employs 1,800 persons all over the world. Dynapac is certified in accordance with ISO 9001 and ISO 14001, and was one of the first OEM players in the world to receive an environmental certificate. Dynapac is an international manufacturer of compaction and asphalt equipment, with production plants in Sweden, Brazil, China, Germany and India. We have become a world leader thanks to our ambition to achieve high quality and performance in relation to overall economy. The components included in Dynapac's products come from over 200 suppliers primarily in Sweden and Europe. More than 95 percent of the products manufactured in Sweden are exported. Machines and spare parts are distributed all over the world.

Dynapac was acquired by Atlas Copco in 2007 and formed the division "Road Construction Equipment". At the end of 2009 the Light & Concrete product range was moved to the division "Construction Tools".

### 1.3 The Atlas Copco Group

The Atlas Copco Group is a global group of industrial companies with over 140 years of experience in its three business areas: Compressor Technique, Construction and Mining Technique, and Industrial Technique. The headquarters is in Stockholm. Group turnover is SEK 90,5 billion, and it has 39,000 employees. Dynapac is part of Atlas Copco, which has long been a recognised company in the construction and civil engineering industry. Atlas Copco and Dynapac have many things in common, of which customer focus and after-market support are two vital aspects. We are also experts on innovative and high-quality products and solutions, developed for higher productivity. Our business activities are managed by separate divisions, which operate on a global basis in over 170 countries. The group is united via a common vision and identity, and shares a common business code - the Atlas Copco Group Business Code of Practice.

## 1.4 Dynapac in Karlskrona



Figure 1 Dynapac in Karlskrona

Adress:  
Industrivägen 2  
SE-371 46 KARLSKRONA  
Tel: +46 (0)455-30 60 00  
Coordinates: N 56° 12' 3", E 15° 37' 33"  
Decimals: 15.625726, 56.200917

Production:  
Production of vibratory and static rollers  
Production of drums  
Total area: 120,000 m<sup>2</sup>  
Factory area: 27,000 m<sup>2</sup>

## 1.5 The vision and values of the Atlas Copco Group

### First in Mind - First in Choice®

Atlas Copco's vision is to be and to continue to be First in Mind - First in Choice® for customers and other important interest groups. This means a continuous effort to be the one you think of first, and then the one you choose. For Atlas Copco it implies being a leader. We must be seen as an innovator that sets standards that surpass high levels of expectations.

Atlas Copco's fundamental values - interaction, commitment, and innovation - established the foundation for the group in the past and now govern both the present and the future. These fundamental values give the group a competitive advantage and help us to maintain our leading position in a changing world.

### Interaction

One distinctive characteristic of Atlas Copco is our ability to listen and understand the changing needs of our customers and other interested parties, while at the same time we have the capacity to create new and better solutions on the basis of what we have learned from this cooperation. This procedure demands knowledge, physical presence, flexibility and engagement in the processes of others. We therefore prioritise customer relations and service. And for us this also means that we assume responsibility for the environment.

### Commitment

We fully engage ourselves in finding the best possible solution. We are equally committed to our employees and our efforts to create additional value in the operations of customers, as we are to our own objectives. Irrespective of whether we are penetrating a new geographical market, a new segment in an already established market, or are launching a completely new application for one of our existing products, we are always there to stay. We believe in lasting relationships. This is one of the reasons why we place such great emphasis on always delivering high-quality products and keeping our promises. It is also why our customers feel confident in creating close and long-term relations with Atlas Copco.

## **Innovation**

We believe that there is always a better way of doing things. This spirit of innovation is an essential part of Atlas Copco's identity and is an important factor for our way of conducting operations. Innovation is the main motivation for long-term profitability and growth. This motivation has made the group a world leader.

## **Business Code of Practice**

In general Dynapac follows the ethical, social and environmental guidelines established by international organs such as the UN and OECD.

- United Nations Universal Declaration of Human Rights [www.un.org](http://www.un.org)
- International Labour Organization Declaration on Fundamental Principles and Rights at Work [www.ilo.org](http://www.ilo.org)
- United Nations Global Compact [www.unglobalcompact.org](http://www.unglobalcompact.org)
- OECD's Guidelines for Multinational Enterprises [www.oecd.org](http://www.oecd.org)

## **1.6 Environmental policy of the Atlas Copco Group**



Atlas Copco is a world-leading supplier of solutions that enhance productivity for industry. The products and services include air and gas compressors, generators, mining and construction equipment, as well as industrial tools and assembly systems for associated aftermarkets and leasing.

### **Vision and belief**

Atlas Copco Group endeavours to conduct its business so that the environment is preserved.

The Group is proactive and acts as a leader in environmental best practice in its industry. When developing products and services, Atlas Copco tries to understand, address, and minimize the negative environmental effects that the products and services may have when being manufactured, distributed, and used, as well as at their disposal. The main focus will be on increased efficiency in the use of energy.

### **Environmental Management System**

The Atlas Copco Group will conduct its businesses with an ambition to continuously reduce environmental impact on nature and people. The Group will comply with local environmental legislation and regulations in all of its operations, processes, and services. All divisions must implement an EMS in accordance with the Atlas Copco EMS Requirements as a minimum, or be ISO 14001 certified. All product companies shall be certified according to ISO 14001. All corporate / holdings companies, units and service providers (i.e service workshops, distribution centers and offices) shall implement an EMS in accordance with the Atlas Copco EMS Requirements as a minimum or be ISO 14001 certified.

### **Business partners**

Atlas Copco Group companies shall evaluate business partners, such as suppliers, subcontractors, joint venture partners and agents from an environmental perspective. In principle a selected business partner should have environmental standards and procedures in line with the Group's and, if not, they shall be informed about the Group's expectations.

### **Transparency**

Atlas Copco Group will maintain a positive attitude towards anyone interested in its environmental performance, and is willing to share information related to the Group's environmental policies and achievements.

## 2. The basics for business

### 2.1 Basic requirements for Dynapac's suppliers

We seek business partners whose policies regarding ethical, social, and environmental issues are consistent with our own, and we make them aware of our commitments and expectations. Business partners are selected and evaluated impartially on the basis of objective factors including quality, delivery, price, and reliability, as well as commitment to environmental and social performance, and development. Suppliers that deliver, or are going to deliver, material for Dynapac's production must have undergone a qualification process that includes the following steps:

- ✚ Evaluation and approval as per Dynapac's supplier assessment, where the supplier's financial, technical, quality and environmental, as well as organisational capacities are evaluated.
- ✚ Assessment and approval as per Atlas Copco's Business Code of Practice.
- ✚ ISO9000/QS9000/TS16949 or equivalent certificate and ISO14000 or equivalent certificate.
- ✚ Secured process for consumption based material replenishment (kanban)
- ✚ Accepted and implemented instructions in Dynapac's Supplier Manual.
- ✚ Secured process for order handling and invoicing via EDI.
- ✚ Signed business agreement according to Dynapac's general agreement or the equivalent.
- ✚ Approved initial samples.

### 2.2 Quotations to Dynapac

A quotation issued to Dynapac must contain all the relevant information required for a commercial decision. In addition to basic information on price, price influencing production batches and packaging quantity, where this is of importance for the supplier's production or handling arrangements, the following information must also be included:

- ✚ Leadtime for initial samples, prototypes and serial production.
- ✚ Dynapac's part numbers and denomination.
- ✚ Valid drawings.
- ✚ Supplier denomination.
- ✚ Information on currency effects.
- ✚ Information on raw material price effects.
- ✚ Tool costs, where appropriate.
- ✚ All additional information that can affect the price in the future.

Note that packaging and packing materials must be included in the quoted price.

### 2.3 Initial sampling

The purpose of initial sampling is that the buyer and the supplier can jointly verify that specified requirements are accepted, understood and correctly implemented. The initial samples must be manufactured under serial production conditions in the equipment and at the place where the serial manufacturing is intended to take place.

The supplier shall deliver an initial sample on parts manufactured exclusively for Dynapac, or up on request. When a part is completely new all the dimensions and properties on Dynapac's drawing must be verified. By changes on existing part number, only the changes themselves need to be verified.

The delivery of the initial sample or prototype shall always be labelled with Dynapac's special yellow pallet flag.

Dynapac must give its approval when the supplier is planning to change materials, dimensions or other characteristics, relocate all or parts of the production equipment, to change supplier, etc. These and other similar situations shall be preceded by a new initial sample.

- The initial sample documents shall be e-mailed to Dynapac by the time of the delivery. No paper copy is required.
- The 10 digit part number is to be written in the 'subject' or heading of the email.
- The supplier is required to store the original measurement protocol on its own premises, and make it available upon request.

Figure 2 Initial Sample report

Production Location	Telephone	E-mail
Karlskrona	0046 455 306290	sqa.dynapac@se.atlascopco.com

Table 1 E-mail address for initial sample documents

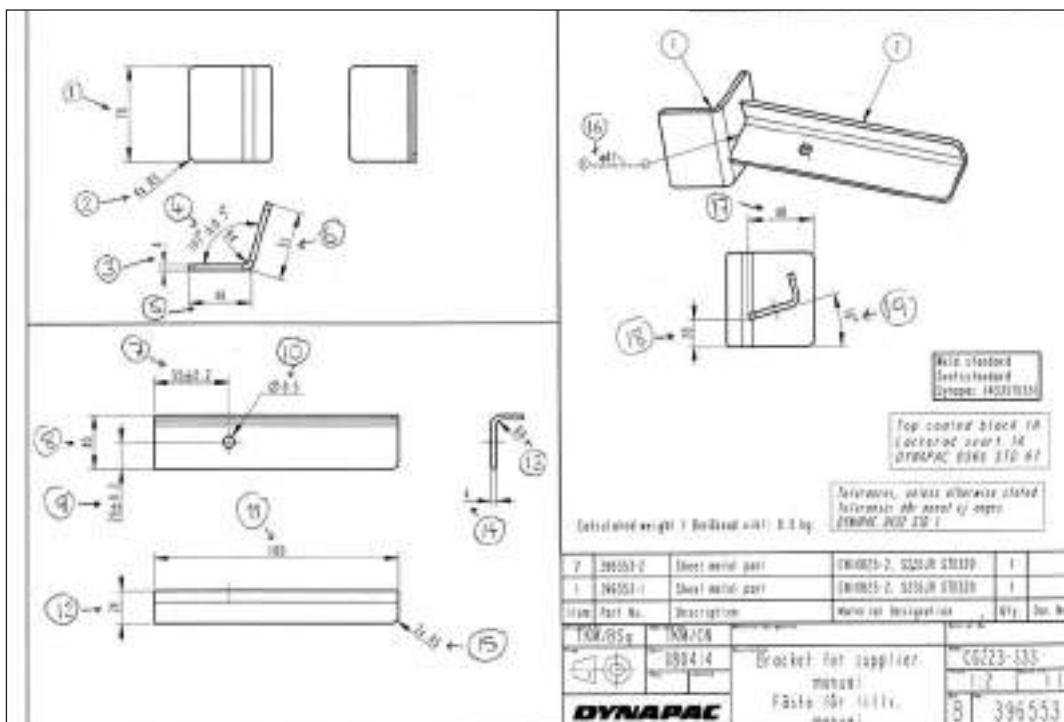


Figure 3 Drawing with dimension markings

Part No. / Artikel nr 396553		Rev. B	Drawing No. / Ritning nr 396553					Dim. B	EENr. B					- C = Axialtolerans ES = Höljesslag - U påskad	
Pos. nr Ändring	Characteristics / Egenskaper	Supplier's inspection result / Leverantörens kontrollresultat					Inspection result / Förbrukars resultat					Notes / Anmärkning	D. EÖ*		
		1	2	3	4	5	1	2	3	4	5				
1	70	70,0	70,0	70,1	70,0	70,0									
2	4 x R5	R5	R5	R5	R5	R5									
3	4	4,0	4,0	4,0	4,0	4,0									
4	107° ± 0,5°	107°	107°	107°	106,5°	107°									
5	46	46,2	46,0	46,2	45,9	45,9									
6	51	50,8	50,8	51,1	50,8	51,1									
7	55 ± 0,2	55,0	55,1	55,0	55,0	55,0									
8	40	40,2	40,1	40,2	40,1	40,1									
9	20 ± 0,2	20,1	20,0	20,2	20,1	20,1									
10	Ø8,5	Ø8,4	Ø8,4	Ø8,4	Ø8,4	Ø8,4									
11	180	180,0	180,0	180,0	180,1	180,0									
12	24	23,9	24,0	23,9	23,9	24,0									
13	24	R4	R4	R4	R4	R4									
14	4	4,0	4,0	4,0	4,0	4,0									
15	2 x R5	R5	R5	R5	R5	R5									
16	04	04,5	04,5	04	04	04								according Std 331	
17	43	42,8	42,9	42,8	43,0	42,9									
18	20	20,2	20,2	20,2	19,9	20,2									
19	16°	15,5°	16°	15,5°	16,5°	16,5°									
20	min 90 μm	90	95	95	95	90								according std 67	
21	310025-2	5235	1E	5103	20									See material certificate	

Figure 4 Sample Record

## 2.4 Ordering of material for prototype production

Material for the production of prototypes is ordered in the design phase. Note that this material must be handled in the same way as an initial sample. A measurement report and valid drawings must be sent to [sqa.dynapac@se.atlascopco.com](mailto:sqa.dynapac@se.atlascopco.com) and the delivery must be accompanied with an additional yellow goods flag (see figure 31 on page 23).

Prototype drawings has the revision letter [K0, K1, K2 etc.] and must not be used for serial production.

There are no requirements that prototypes must be manufactured under serial production conditions.

## 2.5 Drawings and other specifications

Different methods are used to describe a product, depending on the complexity and nature of a purchased product. The most common procedure is that we refer to a drawing, which if a change has been made is provided with a revision letter.

**BM (Bill of Materials)** describes a part by referring to several part numbers and documents.

**Dynapac standard** is for the purpose of documenting general requirements on quality and tolerances (STD1), painted surfaces (STD67, STD61) and surface roughness (STD2). Also standard parts as hose clamps, o-rings and screws are described in the different standards.

Part numbers in the common Atlas Copco system are described on the web site [www.atlascopco.com/gsd](http://www.atlascopco.com/gsd) (10 digit part numbers that do not begin with 47 or 48). On this site are also different material standards available.



## 2.6 Dynapac's tools in the suppliers production

Tools purchased by Dynapac for the supplier's production are the property of Dynapac and must be marked with an identification tag provided by Dynapac. These tools must be maintained and insured by the supplier for as long as they are used. This applies both for serial production and the supply of spare parts. If the supplier wishes to scrap, or change a tool, this may only be done after a written approval from Dynapac.



## 2.7 Supply of spare parts

Dynapac's spare parts policy means that spare parts are guaranteed to be available for at least 10 years after one of Dynapac's products is no longer manufactured. However, the aim is to have spare parts available on the market for 15 years. If requested it must be possible to deliver directly to our marketing companies or end customers. The supplier accepts Dynapac's right to sell the supplier's parts as spare parts to Dynapac's customers. In the event of a breakdown of machinery or other stoppages on a product in serial production, Dynapac guarantees delivery of spare parts within 24 hours. This undertaking is naturally based on our suppliers supporting this policy.

The purchase prices valid for Dynapac's serial production shall be valid for Dynapac's supply of spare parts. The agreed purchase price on a part that is excluded from Dynapac's production shall remain valid until otherwise agreed.

A supplier must on request be able to provide Dynapac with complete specifications to enable production of spare part and service documents before Dynapac's serial production starts. This may refer to exploded views and lists of spare parts with supplier designations and part numbers. The classification of wear parts (e.g. "fast moving parts") may also be requested. It shall be indicated which parts are not sold separately. Prices, delivery times, contact persons, HS-codes (Harmonized System codes) and country of origin shall be specified for all separate parts. Contact persons for price inquiries, delivery confirmations and technical support shall also be specified in the documentation.

## 3 Order to Delivery

### 3.1 On time deliveries

The Supplier shall deliver on time, that is, the goods shall be ready for pick up, according to Dynapac's delivery schedule or purchase order and according to FCA Incoterms 2010.

The supplier is further responsible for booking the freight with the specified freight company so that the collecting of the goods can take place on the specified day. Booking of transports must be made on time and in accordance with the freight company's regulations. If the goods are not collected on time as a result of reasons related to the freight company, the supplier must inform Dynapac of this in writing to claim that the goods were delivered on time.

If the supplier finds that he will not be able to deliver on time or if delays arise on the supplier's side, the Supplier shall immediately notify Dynapac in writing regarding such delay, stating the reason for the delay and the time that delivery is estimated to take place. Such notification does not imply, however, that the supplier has complied with his undertaking to deliver on time.

If necessary to avoid disturbances in Dynapac's production the supplier shall at own expense book alternative express transport and inform Dynapac of the tracking number or freight number to enable the goods to be traced.

Delivery must be made in the correct quantity, i.e. in accordance with Dynapac's order. If a situation should arise whereby the supplier cannot fulfill this, the supplier shall ask Dynapac for approval. Partial deliveries to our kit warehouse or within Dynapac's kanban process cannot be accepted.

A delivery shall not be considered as delayed, if Dynapac has not respected the agreed lead time (on orders without a delivery schedule) or frozen period.

### 3.2 The delivery schedule

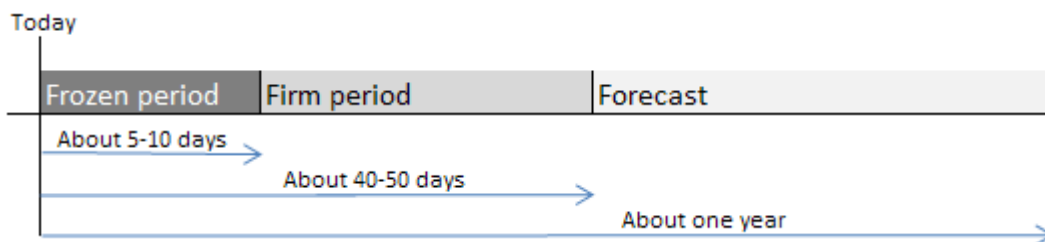


Figure 5 The delivery schedule

It is important to understand the delivery schedule concept. It both defines the actual orders but also Dynapac's committed purchasing volumes, and it is also the tool for the suppliers long term planning. The delivery schedule is updated weekly but demands within the frozen period will be released daily.

- ✚ Frozen time defines the time from actual order to expected dispatch.
- ✚ Firm time defines Dynapac's commitment of purchase.

Dynapac is entitled to request changes within the frozen time if specific needs arise. If the supplier can meet this without unreasonable consequences, the delivery should take place in accordance with Dynapac's request. If no agreement is reached the delivery should not be considered to be delayed if Dynapac's new required date or volumes cannot be met.

Dynapac's undertaking in firm time must be regulated within one year after the last order is made for the applicable part. It is the supplier's responsibility to assert a claim in relation to this undertaking.

- ✚ Note that the order lines within the frozen period will receive the status "firm" in the Pipechain EDI portal and order lines within the firm period receive the status "Commitment for manufacturing".

### 3.3 EDI

Dynapac communicates forecasts and orders via EDI. By integrating the flow of information between us and the supplier, from the receiving of orders and forecasts to confirming, advising and invoicing deliveries, we can secure the efficiency and quality in the entire process from ordering to invoicing.

A supplier that for some reason chooses not to integrate the flow of information uses a web application instead to handle all transactions in the purchasing and selling process, such as:

- Monitor and collect delivery schedules and purchase orders
- Create and send purchase order confirmation
- Create and send despatch advices
- Create and send invoice

If you are in need of support in the WEB-EDI system, please contact the PIPECHAIN support:

**Email:** [support@pipechain.com](mailto:support@pipechain.com)      **Phone:** +46 31 727 8610

Log in via the web page: [www.hosting.pipechain.com/dynapac/login](http://www.hosting.pipechain.com/dynapac/login)

#### 3.3.1 Forecasts and delivery schedules






Figure 6 The main page in the order portal

Click on “Forecast” and choose “Forecast Overview.”





Figure 7 The forecast overview

- 1. Mark (Quick confirmation):** When a Delivery schedule row is converted to a purchase order, it is possible to confirm this row directly in this view. Mark the box and then press "Confirm Marked Lines"
- 2. Customer's Product Id:** Dynapac's part number (Click on the title to sort the list by part number).
- 3. Description:** Dynapac's parts description.
- 4. Forecast Status:** (Click on the title to sort the list by status)

 <i>Firm:</i>	The line is converted to a purchase order line
 <i>Commitment for manufacturing:</i>	Dynapac's commitment of quantity
 <i>Planning/Forecast:</i>	Forecast period

**5. Dmd QTY:** Requested or planned quantity from Dynapac. If the demand QTY has been changed according to previous delivery schedule, then the field will change color:

 <i>Blue:</i>	Increased quantity.
 <i>Yellow:</i>	Decrease quantity.

- 6. Prev Dmd Qty:** The planned quantity of the previous delivery schedule.
- 7. Shipment time:** Requested or planned delivery date from Supplier (click the title to sort the list by date).
- 8. Purchase Order Id:** The purchase order number appears when the delivery schedule row is converted to a purchase order and must be handled according to work flow instruction. See instruction below
- 9. Dmd Price:** Purchase price of the part number.
- 10. Last Update:** Shows when the Delivery schedule was updated.
- 11. Export to Excel:** Press this button to export the delivery schedule into Excel



Figure 8 To alternate overview

If you click the "Search" button you will be able to see the planned demand week by week or month by month.

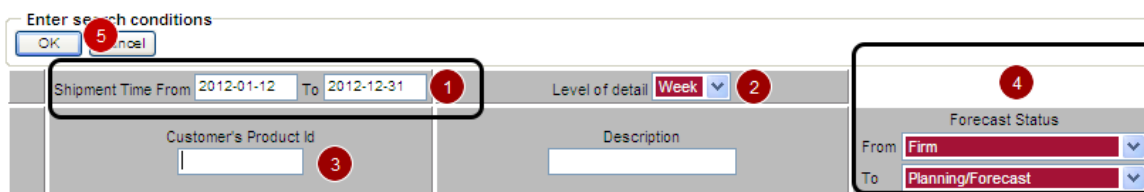


Figure 9 Overview in diferent periods of time

1. Enter a periodic interval.
2. Choose a time period level (Day, Week or Month).
3. Enter Dynapac's part number or leave blank (to see all part numbers)
4. Choose the forecast status to display. The recommendation is to set the value from "Firm" to "Planning/Forecast"
5. Press "OK".

Customer's Product	Description	Forecast Status	Total Quantity	First Demand Date	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12
470310275	DYNAPAC MOUNT COVER Rev: ENLOT LD 302675	Forecast	95	Mar 2012	00					
470310275	DYNAPAC MOUNT COVER Rev: ENLOT LD 302675	Confirmed for manufacturing	72	Mar 2012	30	30				
470310275	DYNAPAC MOUNT COVER Rev: ENLOT LD 302675	Planning/Forecast	122	Mar 2012			30	24	12	24

Figure 10 Forecast overview month by month

Note that the search result will be presented according to the different forecast statuses.

### 3.3.2 Order overview

Order ID	Order Subtype	Status	Release Date	Delivery Date	ETD	ETD	ETD	ETD	ETD	ETD
1307100	Purchase Order	Requested								
1307101	Purchase Order	Confirmed								
1307102	Purchase Order	Confirmed								
1307103	Purchase Order	Requested								
1307104	Purchase Order	Partially Shipped								
1307105	Purchase Order	Partially Shipped								
1307106	Purchase Order	Partially Shipped								
1307107	Purchase Order	Requested								
1307108	Purchase Order	Requested								
1307109	Purchase Order	Requested								
1307110	Purchase Order	Requested								
1307111	Purchase Order	Requested								
1307112	Purchase Order	Requested								
1307113	Purchase Order	Requested								
1307114	Purchase Order	Requested								
1307115	Purchase Order	Requested								
1307116	Purchase Order	Requested								
1307117	Purchase Order	Requested								
1307118	Purchase Order	Requested								
1307119	Purchase Order	Requested								
1307120	Purchase Order	Requested								
1307121	Purchase Order	Requested								
1307122	Purchase Order	Requested								
1307123	Purchase Order	Requested								
1307124	Purchase Order	Requested								
1307125	Purchase Order	Requested								
1307126	Purchase Order	Requested								
1307127	Purchase Order	Requested								
1307128	Purchase Order	Requested								
1307129	Purchase Order	Requested								
1307130	Purchase Order	Requested								
1307131	Purchase Order	Requested								
1307132	Purchase Order	Requested								
1307133	Purchase Order	Requested								
1307134	Purchase Order	Requested								
1307135	Purchase Order	Requested								
1307136	Purchase Order	Requested								
1307137	Purchase Order	Requested								
1307138	Purchase Order	Requested								
1307139	Purchase Order	Requested								
1307140	Purchase Order	Requested								
1307141	Purchase Order	Requested								
1307142	Purchase Order	Requested								
1307143	Purchase Order	Requested								
1307144	Purchase Order	Requested								
1307145	Purchase Order	Requested								
1307146	Purchase Order	Requested								
1307147	Purchase Order	Requested								
1307148	Purchase Order	Requested								
1307149	Purchase Order	Requested								
1307150	Purchase Order	Requested								

Figure 11 Overview of all purchase orders that still are active in the system

- Purchase Order Id:** Dynapac purchase order number.
- Lines:** Number of rows on the Purchase Order.
- Order Subtype:**
  - Purchase Order:** purchase order without delivery schedule.
  - Delivery Schedule:** purchase order from delivery schedule.
- Sales Order Id:** The Supplier order number appears if the supplier enters this information in the confirm menu.
- Status:**
  - Requested** The order has not been managed.
  - Confirmed** The order has been confirmed.
  - Change Requested** The order has been updated with new information.
  - Cancelled** The order has been rejected by the supplier (not accepted).
  - Shipped** The order has been completed delivered.
  - Partially Shipped** Delivery is not fully completed.
- Invoice Status**
  - Not Invoiced** The Invoice has not been sent to Dynapac.
  - Partially Invoiced** Invoice has been started but not completed.
- Customer Change:** Shows if a change has been made to the order by Dynapac.
- Supplier Change:** Shows if a change has been made to the order by the Supplier.
- Shipment Time:** Estimated Time of Delivery (ETD).
- Order date:** Release date of the order.
- Order Change Date:** Date when the order was changed.
- Last update:** Date when the order was updated by the supplier or Dynapac.

When a new or updated purchase order has been sent from Dynapac, the supplier will receive a notification email. It is possible to enter the confirmation page in PIPECHAIN, by click on the "Order Id number".

This message was sent 2012-03-26 11:31

**Notification from:** Dynapac Compaction Equipment AB, Box 504, SE-371 23 Karlskrona, Sweden, +46 455 30 60 00, +46 455 30 60 30  
**Deliver to:** Dynapac Compaction Equipment AB, Industrivägen 2, Karlskrona, Sweden  
**Supplier:** 14082, SAUER DANFOSS

**The following purchase order has been received:**

Order Id	Order Date	Order Subtype	Shipment Time	Receipt Time	Comment
1027156	2012-03-14	Purchase Order	2012-04-01	2012-04-01	New Purchase Order

Figure 12 Email message of new orders

### 3.3.3 To confirm an order

Figure 13 To confirm orders

Click on the Title "Confirm". In the list you will find all purchase orders yet not confirmed.

1. Press the print button for a PDF order
2. To start the confirmation, press the "Play" button.

Figure 14 To confirm orders

1. Check the basic data. (mandatory): Sometimes Dynapac will send additional text to the purchase order. Press the box beside the "Description text block" to get the information.
2. Confirm Shipment date (mandatory): In the "Dmd Shipment Time" box, the requested delivery date is stated. In the "Shipment Time" box, the supplier shall enter the day of planned shipment.

3. Confirm Quantity (mandatory): In the "Dmd Qty" box, the requested quantity is stated. In the "Acc Qty" box, the supplier shall enter the quantity that is to be confirmed.
4. Confirm Price (mandatory): In the "Dmd Price" box, the requested price is stated. In the "Confirmed Price" box, the supplier will enter the CONFIRMED PRICE.
5. Enter Supplier Order Number (Optional): In this box you the supplier can enter the Sales Order Id number. This information will be connected to the purchase order in all steps in PIPECHAIN.
6. Send the order confirmation to Dynapac (Mandatory): *When the order confirmation is finished, press the button "Confirm Order".*

### 3.3.4 To reject a purchase order

**PLEASE CONTACT THE CALLOFF TEAM BEFORE REJECTING A PURCHASE ORDER!**

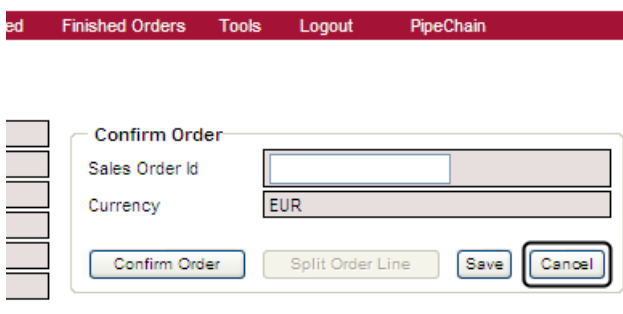


Figure 15 To reject order lines



Figure 16 To reject order lines

1. Press the "**Cancel**" button in the Confirmation menu.
2. Press the "Reject Button" that appears above the Order Lines.
3. Confirm the cancellation

### 3.3.5 To despatch advice



Figure 17 To despatch advice

- Purchase Order Id:** *Dynapac PO number.*
- Sales Order Id:** *Your ID number that you entered at the order confirmation.*
- Shipment Time:** *Delivery date <From> and <To>*
- Product ID:** *Dynapac Part Number*

The order lines to be despatched are placed in different “delivery boxes according to goods receiving address or order type. Each box will need its own delivery note. If the “Shipment Time” is marked, this high lightning that the delivery is late according to the confirmed delivery time.

Delivery Recipient: Dynapac Construction Equipment AG, Heubühlweg 2, Karlsruhe, 76189  
 To Client: Centralformal  
 Supplier ref.: 87795  
 Delivery Responsibility and Reaction: Address:

Del.	Address Status	Qty	Date Order to	Shipment Time	Receipt Time	Product	Quantity	Customer Product	Description	Del. Qty	Unit Qty	Shipped Qty	Not Shipped Qty
1	1027981	0000	1461	2013-01-15 00:00	2013-01-15 00:00		470018007	DYNAPAC HDXT C1000 Pk		12	24	0	12
2	1027982	1000	1461	2013-01-15 00:00	2013-01-15 00:00		470018007	DYNAPAC HDXT C1000 Pk		24	24	0	24
3	1027983	0000	1461	2013-01-15 00:00	2013-01-15 00:00		470018007	DYNAPAC HDXT C1000 Pk		24	24	0	24
4	1027984	1000	1461	2013-01-15 00:00	2013-01-15 00:00		470018007	DYNAPAC HDXT C1000 Pk		12	12	0	12
5	1027986	0000	1461	2013-01-15 00:00	2013-01-15 00:00		470018008	H0000 Pk		9	9	0	9

Figure 18 To despatch advice

1. Mark the order rows that will be delivered in the same despatch.
2. Press "Ship".

**DYNAPAC**  
Part of the Atlas Copco Group

Supplier ref.: 87795  
 Delivery Note #: 1027981  
 Qty: 12  
 Delivery Responsibility: Dynapac Construction Equipment AG, Heubühlweg 2, Karlsruhe, 76189  
 To Client: Centralformal  
 Search: Selected Order Lines as follows

Del.	Address Status	Qty	Date Order to	Shipment Time	Product	Quantity	Customer Product	Description	Del. Qty	Unit Qty	Shipped Qty	Not Shipped Qty	Order Line Complete
1	1027981	1000	1461	2013-01-15	470018007	12	DYNAPAC HDXT C1000 Pk		12	12	0	0	<input type="checkbox"/>
5	1027986	0000	1461	2013-01-15	470018008	9	H0000 Pk		9	9	0	0	<input type="checkbox"/>

Figure 19 To despatch advice

1. Enter the Delivery Note Number
2. Enter Quantity to Ship: By partially despatches enter the quantity that will be shipped at this time.
3. Enter Quantity per package: This information will help to generate correct numbers of transport labels.
4. Order Line Complete: If you will not deliver more on this order (close the order), then mark this box. *In all other cases leave the box blank. Please note: If you deliver the confirmed QTY, the order will be marked as "complete" automatically.*
5. Enter Package type (Optional)
6. Create documents and send Despatch information to Dynapac: When ready, press the button "Ship Despatch" and the delivery note and transport label will be generated. Print these and apply on the goods.

In the folder "Order Overview", the status is now updated to "Shipped"



### 3.3.6 To invoice



Figure 20 To invoice

Click on the Menu row **"Invoice"** This folder contains all despatched purchase order lines. To start the Invoice, press the "Play" button.

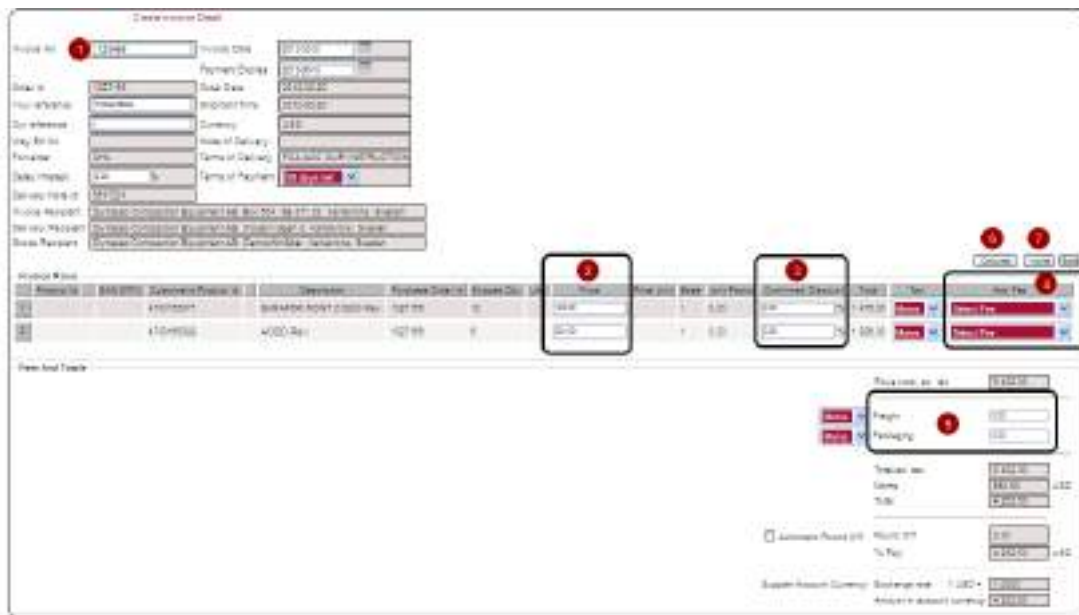


Figure 21 The invoice page

Figure 22 To select a fee

1. Enter your invoice number (mandatory).
2. Check that the price is correct (mandatory).
3. Enter a discount (optional).
4. Add a fee, but only if this is agreed with Dynapac (optional).
5. Note that the packaging cost is included in the agreed purchasing price.
6. If you have changed or added a field in the Invoice page, then press **"Calculate"**
7. Send the invoice by pressing "Invoice"

*Note, when a Swedish supplier is using another currency than SEK, the internal exchange rate (1) must be entered in the invoice menu. Press **Calculate** (2) to update the Invoice and follow the normal procedure.*

### 3.3.7 Administrational tools

If you need to remove an old or incorrect purchase order, select the order in the "Order Overview" menu and press the "Trash Can" icon below.



Figure 23 To remove incorrect or obsolete orders

Please note: Only order lines in status "confirmed" or "requested" can be cancelled. For other cases, please contact the PIPECHAIN Support.

If you need to redo or cancel a despatch then enter the menu "Invoice" and click on the number on the left side of the list to select the row you would like to redo or cancel.

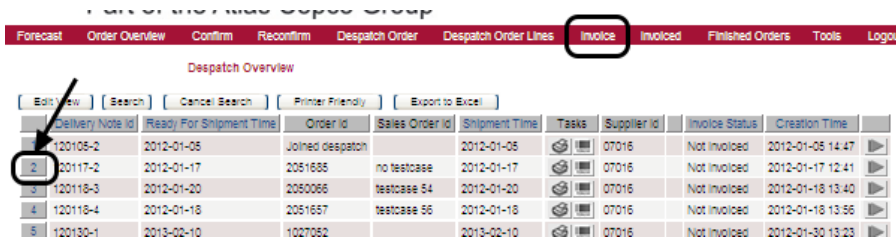


Figure 24 To cancel or redo a despatch

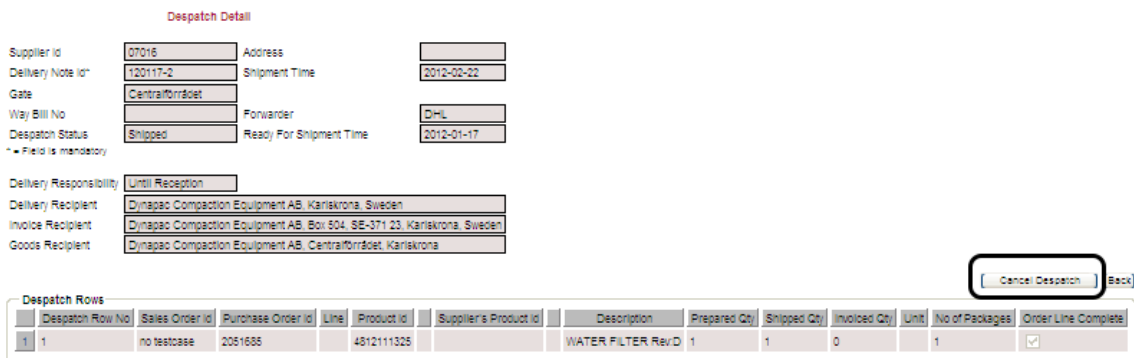


Figure 25 To cancel or redo a despatch

Press the "Cancel Despatch" button and the order line will be moved to the menu "Despatch Order Lines"



Figure 26 Cancelled despatches ready to be renewed

### 3.4 Goods labelling and delivery notes

The correct delivery note is automatically generated via advising in the EDI. The delivery note must be delivered together with the goods. Note that the Dynapac reference number or purchase order number and delivery note number (delivery number) must be specified along with the Dynapac partnumber and quantity.

Material to Dynapac must be labelled with barcode flags in accordance with the Odette standard, see figure 27. Goods flags are generated automatically on completion of advising in the WEB-EDI system.

If the supplier creates pallet flags other than via our WEB-EDI system, the pallet flag must still be arranged according to the example below. The barcode is obligatory and can easily be created via the Word font FREE 3 OF 9 Extended.

It is very important that any staples used to fasten the goods flag do not damage the barcode, and that the barcode is not distorted by text or stretched edges. It must be completely visible.

Destination: delivery area

Dynapac Compaction Equipment AB Karlskrona		<b>Centralförrådet</b>	
Advice note (identifier N) → 447869	MULTI-WING INTERNATIONAL A.S		
	0,00	0,00	1
Dynapac partnumber (identifier P) → 4700390607			
Quantity (identifier Q) → 16	FAN Rev., Packaging code - B,		
Supplier number (identifier V) → 101174			
	2016-03-07		
116470	1147061 ←		

Dynapac purchase order number(identifier K)

Figure 27 Goods flag

- ✚ Deliveries with pallet and collars shall be labelled on the short side of the lowest collar
- ✚ If the delivery contains more than one package, this must be clearly visible
- ✚ A goods flag shall only contain 1 part number, 1 order (reference) number attributed to 1 package
- ✚ The packing label (delivery note) shall be attached to the pallet in a plastic envelope beside the odette label (Fig 28C)
- ✚ The odette labels need to be visible from the left side of the truck (unloading side)
- ✚ Pallets and carriers must be loaded on to the truck to enable unloading from the side of the truck (Figure 28 A and B)



Figure 28 A and B: the fork tunnels in the right direction to enable unloading





Figure 29 Packing label attached to the pallet, in a plastic envelope beside the odette label

### 3.5 Packaging and packing instructions

Packing material like pallets, lids and collars and also Dynapac's blue boxes shall be ordered from Dynapac's packaging pool. Pallets, lids and collars will be invoiced according to a separate price appendix. Observe that other packaging and handling costs shall be considered to be included in the purchasing price if not specifically agreed on.

The sales and purchase of pallets, lids and collars shall be plus minus zero at the end of the year. It is the supplier's responsibility to make sure that the sales of packaging material equals the amount of packaging sold. Any relevant surplus of packaging material sold to Dynapac, will be invoiced back to the supplier at the end of the year. The supplier can at any time obtain the balance status from Dynapac.

Consider a lead time of 5 days between ordering and shipment packaging material. Also keep the stipulated minimum lotsize when ordering packaging material (see the price appendix) to keep down the transportation cost.

Production Location	Fax	E-mail
Karlskrona	Cancelled	emballage.karlskrona@se.atlascopco.com

Table 3 Contact information to Dynapac's packaging pool

The supplier is obliged to handle and pack material to prevent damages, rust, scratches and dirt. The deliveries must be packed according to packing instruction or packaging code, or otherwise according to the standard packaging listed below in table 4. The packaging code is visible on the purchase order and in the supplier portal.

Packing Code	Description	Maximum Weight
P	EU-pallet without frame	1000 kg
A	EU-pallet with 1 frame	1000 kg
B	EU-pallet with 2 frames	1000 kg
C	EU-pallet with 3 frames	1000 kg
D	EU-pallet with 4 frames	1000 kg
E	EU-pallet with 5 frames	1000 kg
S	EU-pallet with 6 frames	1000 kg
F	Special Carrier	-
G	Carton 250x150x150 mm	15 kg
H	Carton 390x190x190mm	15 kg
I	Carton 600x300x240mm	15 kg
M	Dynapac Big box 600x400x250	15 kg
N	Dynapac Medium box 400x300x250	15 kg
R	Dynapac Small box 300x200x150	15 kg
O	Supplier's package	15 kg
Q	Specific instruction	-

To protect from rust, the supplier shall use VCI paper in a closed plastic bag. It shall be possible to open and close the bag without damaging it. The opening shall be placed to prevent water from getting in, and the bag itself must be packed in a way that prevents it from damages.

If the usage of VCI protection is specially requested by Dynapac, the packing code is complemented with the letter "V", e.g. "AV", meaning: EU-pallet + 1 frame + VCI.

Table 4 Standard packaging to Dynapac

### 3.5.1 Some more guidelines to packing

- ✚ Tape may not be applied on painted surfaces
- ✚ Parts delivered on pallets must not exceed the edge of the pallet.
- ✚ Goods must be protected and secured with collars, wooden lids, plastic film and plastic bands (PET-type), but NOT steelbands.
- ✚ Inserts must be placed on the bottom of the pallet to protect the material and prevent small parts falling out.
- ✚ Pallets with collars, containing small parts, must be banded to prevent the collars separating.
- ✚ Only one part number or kit number must be used per carrier, unless otherwise stipulated.
- ✚ All carriers must be labelled with goods flags on the short side. If several boxes are packed on one pallet, the goods flag must face outwards so that the goods can be identified without breaking the pallet.
- ✚ Goods that risk being exposed to corrosion during transport and storage shall be protected with VCI paper
- ✚ Dynapac's plastic boxes and other special carriers may only be used for direct/indirect deliveries to Dynapac.
- ✚ Defective carriers may not be used, and must be immediately returned to Dynapac for repair. These carriers must be marked so that it is clear that they are damaged. Defective pallets must not be used (see figure 30I).
- ✚ An inventory must be made of Dynapac's carriers at the request of Dynapac. If carriers have been used for other purposes than deliveries to Dynapac, or have been misplaced, the costs will be debited to the supplier.

<b>DYNAPAC</b> Part of the Atlas Copco Group		<b>FÖRPACKNINGSIKTRUKTION</b> <b>PACKING INSTRUCTION</b>	
Initiated/Issued by	Godkännt/Approved by	Page/Total No.	
Daniel Rossmasson	Jocarin Svensson	470090052	
Created	Issued/Date	Utgåvsdatum	Sida/Page
Kategori	2011-09-13	3	1(1)
Dynapac Artikelnr/Part No.	470090052		
Benämning/Description	Cross beam		
Lastbärare/Goods carrier	Carrier		
Antal i lastbärare/Quantity in unit	4 pcs		
Bruttovikt (kg)/Grossweight (kg)			
Packinginstruktion/Packing instruction			
<p><b>Notat!</b> Bolt beams together using flat bars and bolts on each end. Use wood dressed in soft plastic both under and on top to create space between carrier and to protect paint from damage when strapping. Strap beams to carrier using PET plastic straps.</p>			
			
<p>Övrig information/Other information Förpackningsinstruktionen gäller fr.o.m nästa leverans. Återkom inom 2 veckor vid ev. kommentarer! The packing instruction must be followed on all future deliveries. Please reply within 2 weeks if you have any comments.</p>			
<p>Yd gäller beställning lastbärare, märkning, bandning, etc. se Dynapacs Leverantörensmanual. Packaging order goods carrier, marking, strapping etc. see Dynapac's Supplier's Manual.</p>			

Figure 30A Packing instruction



Figure 30B Dynapac's blue boxes: big box, medium box and small box.

- ✚ Some companies have the policy to receive empty boxes to enable full layers to be able to stack several pallets. But to Dynapac, empty boxes shall never be used.
- ✚ All blue boxes and small packaging must be placed together on a dedicated pallet, see figure 30D (not containing unpacked production material, see figure 30C)



Figure 30C Blue boxes: NOT correctly loaded



Figure 30D Blue boxes correctly loaded and strapped



Figure 30E Pallets correctly stacked, with lids in between



Figure 30F Stacked pallets but with out lids in between



Figure 30G Stacked pallets but only plastic fill in between



Figure 30H Cover the open pallets with a lid

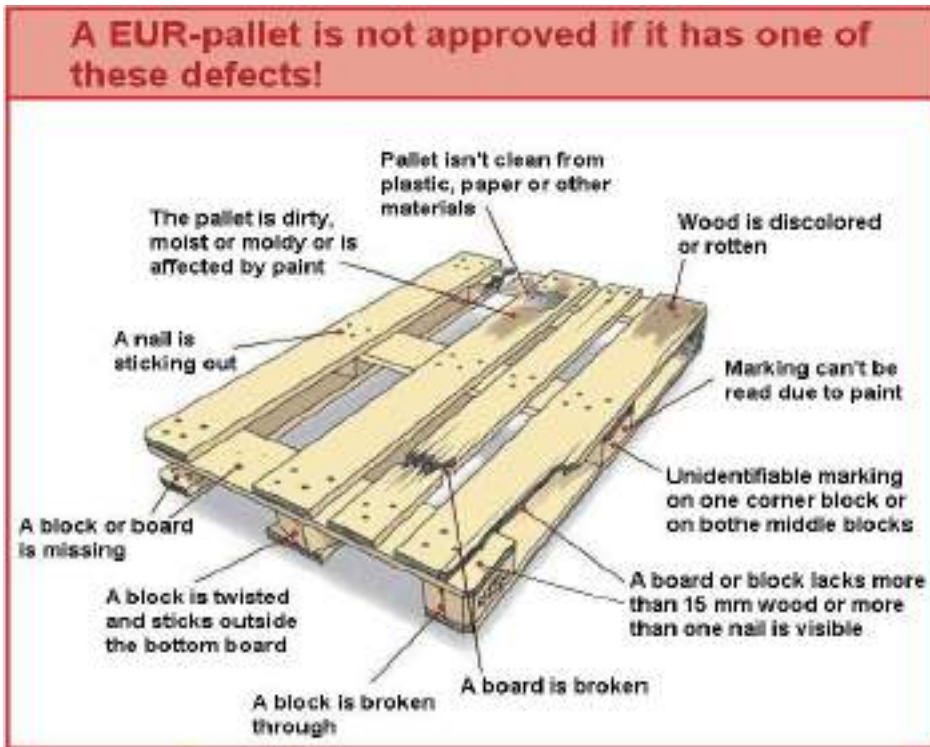


Figure 30| Defective pallets must not be used

### 3.5.2 Special yellow goods flag for initial sampling and prototypes

For delivery of prototype material or initial samples, the goods must always be supplemented with a yellow goods flag (both bar 1 code flag and 1 initial sample flag). This gives us a clear visual signal that the goods shall be treated separately. The supplier must specify the information highlighted in red in figure 31.

**Artikelnr / Part No....4812114521.....**

Prototyp / *Prototype*

Utfallsprov / *Initial sample*

Första leverans / *First delivery*

S/N-uppföljning / *S/N Tracking*

**Enligt / According to: ...ECN22085, Order 1543567**

000000

Figure 31 Supplementary goods flag for initial samples and prototypes

### 3.6 Dynapac's kanban process

The lean concept at Dynapac states consumption based material replenishment system such as kanban. The ordering of material is initiated alongside the different production lines as an effect of the real consumption, not according to an MRP system. Since the total lead time is crucial for the total amount of material in the kanban loop, it is equally important to shorten the lead time from order to delivery. The supplier shall plan its deliveries to Dynapac and keep a relevant amount of stock, to ensure the short lead time.

Dynapac provides a preliminary, weekly updated, delivery schedule. The Supplier must be aware of the fact that the delivery schedule is preliminary and that the deliveries shall take place according to the kanban order that are sent in the normal order process. A kanban order has its order number and does not in any way differ from any other orders sent by Dynapac, and shall accordingly be handled in the same way.

Further on, Dynapac strive towards an even production tact. The market demand and various customer specific features can however affect this.

When entering the kanban process the parties must agree on certain parameters:

- Lead time:** Lead time of 1 day assume that the Supplier shall have received the order at latest a.m. 08.00 on day 0, to ensure to book transport and manage pick up on day 1.
- Batch size:** Dynapac shall order the agreed batch quantity and the Supplier must ensure to deliver these quantities. Partial deliveries are not allowed.
- Packaging:** Since the purchased parts have their designated storage location alongside Dynapac's different production lines, the agreed packaging must be used, to avoid repacking and storage problems. Also note that a kanban order must be sent in a separate package.
- Pick up days:** The kanban orders shall take the defined pick up days in consideration.

Dynapac's commitment of purchase volumes is defined by the "firm period" shown on the delivery schedule. This concept shall not conflict in any other agreements, commitments or processes between the parties.

Also note the "blind spot" of the delivery schedule on kanban parts. The delivery schedule is not "allowed" to enter order numbers within the frozen period. The kanban process however creates orders regardless of the delivery schedule and places them on the right pick up day, within the frozen period.

Even if the concept of frozen period is not applicable in the kanban process, the technical set up in the MRP- and EDI-system still demands this parameter. One or several batches of forecasts, immediately after the frozen period, indicate that kanban orders will be sent within the system's frozen period. To avoid any confusion, it is preferably to use short frozen period.

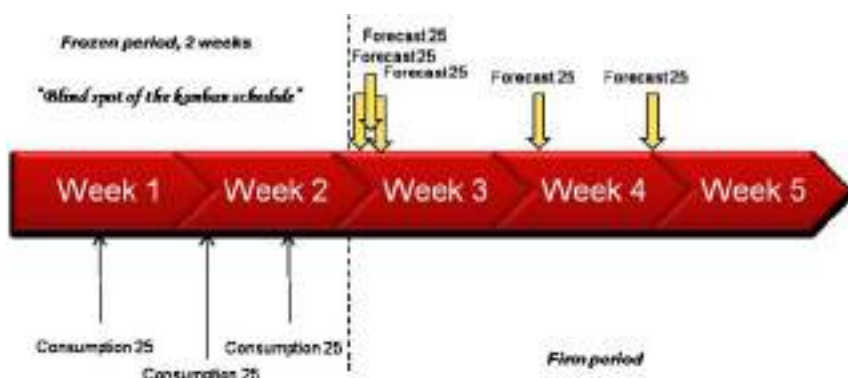


Figure 31 Delivery schedule and kanban parts



## 4. Claims

### 4.1 Claims for defective material (DR)

All parts must be delivered in accordance with the valid drawings and packing instructions. In cases where delivered material does not comply with our requirements the parts will be claimed via a fault feedback system (Discrepancy Report). The objective of the feedback is to create the opportunity for the supplier to improve their processes and to recover the costs incurred as a result of the fault. DR is an electronic form that contains a description of the fault. It is sent to the supplier by email and must be handled as follows:

1. The discrepancy is described by Dynapac's quality technicians.
2. Dynapac notifies what measures have been taken under "Corrective action". The supplier must describe how the fault will be corrected in the white field. This response must be returned to Dynapac within 24 hours.
3. The supplier must describe under "Preventive action" the long term measures that will be implemented to prevent the fault occurring again. The report will be closed when this response is received from the supplier and the measures are considered to be adequate.
4. In cases where we have returned the goods to the supplier and receive a replacement delivery, this must be marked with the DR number and the name of the person who has issued the report.
5. An opening fee (1200 SEK), labour cost, plus the part price and return freight, are debited to the supplier via a "claim invoice", for which no payment shall be made. The re-imbusement will instead be deducted from the supplier's current invoices. It is therefore not necessary to send a credit note. A replacement delivery shall therefor be invoiced accordingly.

DYNAPAC Discrepancy Report		<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External
Supplier		Supplier No 03105	Report No DR10100
		Att: xxx email: xxx@compa.se	Date 2008-03-25
Inspector Henrik Guldstrand		Purchaser LS	Buyer KP
Part No 379876	Whs 100	Description BEARING HOUSING	
Rejection was made at		Arrival date:	Quantity
<input checked="" type="checkbox"/> arrival inspection		<input type="checkbox"/> before due date	40
<input checked="" type="checkbox"/> at assembly		<input type="checkbox"/> after due date	Acc. to packing list 0 pcs
<input type="checkbox"/> at test track			Overdelivered 0 pcs
			Shortage 0 pcs
Machine part code 220 Cartridge		Nonconformity code 300 Component and material fault	
Discrepancy			
Färg på passningsytor, smutsiga lock. Se bifogad sammanställning och foton.			
1			
ID. No:		Ser. No:	
Machine No:		Customer:	
Corrective action		Supplier:	
Genomgång med operatör, förtydligande av instruktioner.		Åtgärdat internt. Kostnad och intern hantering summeras i "rework time". 5 st skickas tillbaka till leverantören enligt överenskommelse.	
<input checked="" type="checkbox"/> rework		rework time: 25	Reply before: 2008-03-26
<input type="checkbox"/> scrap		cost code: 12310	Verification supplier: xxx
<input checked="" type="checkbox"/> return to supplier		AVSO No:	Implemented in production from Ser No:
Preventive action		Supplier:	
Byte av underleverantör från AAA till BBB.		Customer:	
		Reply before: 2008-04-01	Verification supplier: xxx
		Implemented in production from Ser No: 20086239539	
Follow-up			
<input type="checkbox"/> New initial samples		Control code	ECR
<input type="checkbox"/> Record of SUPPLIERS FINAL INSPECTION to be included at next delivery.		Lesson Learned	
On Replacement Delivery: Label goods with ReportNo and our Inspector			
Dynapac Compaction Equipment AB		Org.No 556068-6577	VAT.No. SE556068657701
Postal address Visiting address Box 504 Industrivägen 2 SE-371 23 Karlskrona Sweden		Telephone Nat 0455 30 60 00 Int +46 455 30 60 00	Telefax Nat 0455 30 61 00 Int +46 455 30 61 00

5 CLAIM INVOICE			
Financial contact Inger Carlsson	Responsible Henrik Guldstrand	Date 2008-03-25	INVOICE NO DR10100-1
Supplier ID xxx	Verification supplier xxx	Billing Address COMPA AB 465 80 ÅKERBYGGS SVERIGE	
Part No 379876	Description BEARING HOUSING	Unit BT	Quantity 40
	VERBETSKOSTNADEN		25
	TOTAL SEK		
		Price	1 000,00
		Subtotal	40 000,00
		Total	15 125,00
OBS! Dessa faktura skall ej betalas in om någon avräkning vid nästa faktura.		Note: This invoice shall not be paid by you but will be deducted to our next remittance	
ANTALSAVVIKELSE/QUANTITY DISCREPANCY		KVALITETSAVVIKELSE/QUALITY DISCREPANCY	
Överleverans avseende mängd avseende på leverans till oss med anledning av denna DR rapporteras som en kvalitetsavvikelse. Avvikelsen skall återlämnas till oss för vidare hantering.		Kvaliteten hos leveranserna avseende avvikelse. Vi kommer att göra ytterligare kontroller avseende avvikelsen för att säkerställa att kvaliteten på leveranserna är tillfredsällande. Detta faktura skall betalas till oss för vidare hantering.	
Vi kommer att leverera ett ersättningsmaterial till oss och vi kommer att leverera ett ersättningsmaterial till oss för vidare hantering. Detta faktura skall betalas till oss för vidare hantering.		Vi kommer att leverera ett ersättningsmaterial till oss och vi kommer att leverera ett ersättningsmaterial till oss för vidare hantering. Detta faktura skall betalas till oss för vidare hantering.	
Förbehåll för skadegöring		Förbehåll för skadegöring	
Vi ansvarar för skadegöring avseende material och leverans till oss avseende denna DR rapporteras som en kvalitetsavvikelse. Detta faktura skall betalas till oss för vidare hantering.		Vi ansvarar för skadegöring avseende material och leverans till oss avseende denna DR rapporteras som en kvalitetsavvikelse. Detta faktura skall betalas till oss för vidare hantering.	
Vi ansvarar för skadegöring avseende material och leverans till oss avseende denna DR rapporteras som en kvalitetsavvikelse. Detta faktura skall betalas till oss för vidare hantering.		Vi ansvarar för skadegöring avseende material och leverans till oss avseende denna DR rapporteras som en kvalitetsavvikelse. Detta faktura skall betalas till oss för vidare hantering.	
Dynapac Compaction Equipment AB		Org.No 556068-6577	VAT.No. SE556068657701
Postal address/Visiting address Box 504 Industrivägen 2 SE-371 23 Karlskrona Sweden		Telephone Nat 0455 30 60 00 Int +46 455 30 60 00	Telefax Nat 0455 30 61 00 Int +46 455 30 61 00

Figure 32 Example of Discrepancy Report and the Claim invoice

## 4.2 Claims on basis of incorrect packing or goods labelling

Goods must be packed in accordance with the packing instruction and the instructions mentioned in this manual.

If the supplier fails on this, a claim will be issued to the supplier to draw attention to the fault. If the supplier does not improve its process and this repeatedly leads to repacking or manual goods reporting, e.g. as a result of incorrect barcodes, a claim will be issued via the DR system (Logistic DR) and the costs debited to the supplier in the same way as a claim for defective material.

## 4.3 Claims on basis of incorrect specified quantity

Occasionally the actual number of delivered items does not correspond to what is specified on the delivery note. In general this means that the applicable invoice does not correspond with what has been delivered. In cases like this the information about the deviation is sent to the supplier. The invoice will be paid, but the difference between the invoice quantity and real quantity will be deducted via a corresponding "claim invoice" from current invoices. Before this is done the supplier has 24 hours to respond to the deviation and to send the missing quantity at own expense.



## 5. Engineering changes (ECN)

We continuously improve our products and processes. When a design is changed the technical specifications that describe the purchased product are also changed. The more significant a change is, the more important it is that the supplier participates in this process. Occasionally this only refers to minor adjustments, or the adjustment of valid documents, but most often it is a question of physical changes to the products we purchase. If a change affects other parts of Dynapac's installation this must be coordinated with other changes. It is therefore necessary for the supplier to introduce the change in accordance with the date we have specified on the "change order". The supplier's responsibility is to:

- ✚ Implement the change so that serial delivery can take place from the date specified on the change order.
- ✚ Sign and resend the change order from within two weeks as confirmation that the supplier has received our request for the change, and that it is implemented in accordance with the specified requirements.
- ✚ Immediately notify Dynapac if the date for the implementation risks being delayed, or if there are other aspects that should be taken into consideration.
- ✚ Send the material in a new version labelled with Dynapac's yellow goods flag, containing the specified order number or reference, and to enclose a correctly completed document for initial samples.
- ✚ Costs, as a result of the engineering change, shall be agreed on before invoicing. The invoice shall be marked with corresponding ECN number.

Change orders must be interpreted and handled as follows:

1. Change order number
2. Purchase order number for material with new revision. If no specific order has been specified the material in a new revision must be delivered as per the valid reference number, and labelled with a yellow goods flag.
3. [Tillverkade/Manufactured] explains how the supplier should handle the parts which according to agreement have already been manufactured or are being manufactured.
4. This section describes the documents that are changed and where appropriate summarises the actual change or other comments that can be of importance.
5. [Leveransstart/First delivery] explains from which week the deliveries shall consist of products in the new revision. The start of delivery is specified by year [y] and week [ww].
6. Concerning costs for the change, according to committed volumes.
7. The supplier confirms that the new documents have been received and the changes to the design will be implemented. The form must be returned within two weeks after it has been issued by Dynapac.
8. The supplier's signature






DYNAPAC		ÄNDRINGSORDER TILL LEVERANTÖR ENGINEERING CHANGE ORDER FOR SUPPLIER	
Customer/Department Logistik/Logistics Årskontroll/Yearly control 905336	Who contacted/Our contact: Hengt Anderson Issuance/Description: Bulländämpad huv	Date/Date: 2005-01-07 By rev./New rev.: A Referera till i kunden (t.v.): K	Ändringsorder/EOS-number: 07995 ① Leveransnummer/ Purchase order number: Huvspecifikation A/B Inspeditions/Order ref.: 179522 ②
<input type="checkbox"/> Tillverkad/Manufactured <input type="checkbox"/> Påverkas ej/Not affected <input checked="" type="checkbox"/> Förbrukas/To be used <input type="checkbox"/> Ändras/To be changed <input type="checkbox"/> Skrotas/To be scrapped		<input type="checkbox"/> Under tillverkning/Under construction <input type="checkbox"/> Påverkas ej/Not affected <input checked="" type="checkbox"/> Förbrukas/To be used <input type="checkbox"/> Ändras/To be changed <input type="checkbox"/> Skrotas/To be scrapped	
<input type="checkbox"/> Utlämnade levereras/Delivery of stock sample <input checked="" type="checkbox"/> Enligt order/According to purchase order <input type="checkbox"/> Med första serieleveransen i nytt utförande/ With first serial delivery of new revision <input type="checkbox"/> Övrigt ej/Not requested			
Introduktions/Issuing number: 390525 390556 ④	Ändrings/Rev. Ändr. nr.: A	Ny rev./New rev.: A B	Ändrings/Remarks: Handling flyttas, tilld 70 var 70. Håll alla 17 rans tillkommer
<p>Övanslående artikel är föremål för ändring. Hänsegn hörtill skall tas i Er planering. Var god lämna besked om eventuella kostnader för denna ändring som uppstår inom ramen för giltande avtal. We are planning to change this part. Consideration must be taken in your planning. Please advise additional costs within terms of valid agreements.</p>		<p>Serieleveransstart i nytt utförande/ Serial delivery of new revision starts [åvv] / [yww]: <b>815</b> ⑤</p>	
<b>KOSTNADER/COSTS</b>			
<b>Engångskostnader/Start up costs</b>			
Omställning/Rework:			
Skrotning/Scrap:			
Verktögsändring/Changing of tools: ⑥			
<b>Styckpris/Unit price</b>			
Gemensamt/Valid:			
Ändrad materialkostnad/Changed material costs:			
Ändrad löstidkostnad/Changed labour costs:			
Nytt pris/New price:			
Leverantörs kommentar/Supplier comments:			
<p>Var vänlig markera tidigare ritningsutgåvor och bekräfta att ni fått in den nya utgåvan i enlighet med denna ändringsorder. Bekräfta genom att sända denna blankett och återlämna den till oss inom två veckor. Please discard earlier issues and confirm that the new issue will be introduced in accordance with this change order. Confirm by resending this document within two weeks.</p>			
Dynapac Connection Equipment AB	Leverantör/Supplier	Datum/Date: 2008-02-29	
Signature/Signature: BA	Signature/Signature: Pelle Jonasson ⑧		
Namn/förtydligande/Clarification: Pelle Jonasson			
Postal address: Box 504 371 33 Karlskrona Sweden	Telephone: Nat. 0455 30 86 98 Int. +46 455 30 86 92	Telefax: Nat. 0455 30 91 09 Int. +46 455 30 91 09	

Figure 34 Engineering Change order

## 6. Supplier evaluation

### 6.1 SPM index

The supplier's delivery performance and quality level are continuously measured in ongoing serial production. The four parameters below are weighted and establish a so called SPM index (Supplier Performance Measurement Index).

-  Delivery precision (only late deliveries)
-  PPM
-  Number of Discrepancy Reports (DR)
-  Number of disturbances to production or line stops
-  Number of Logistic Discrepancies (faulty packaging, faulty goods marking etc.)

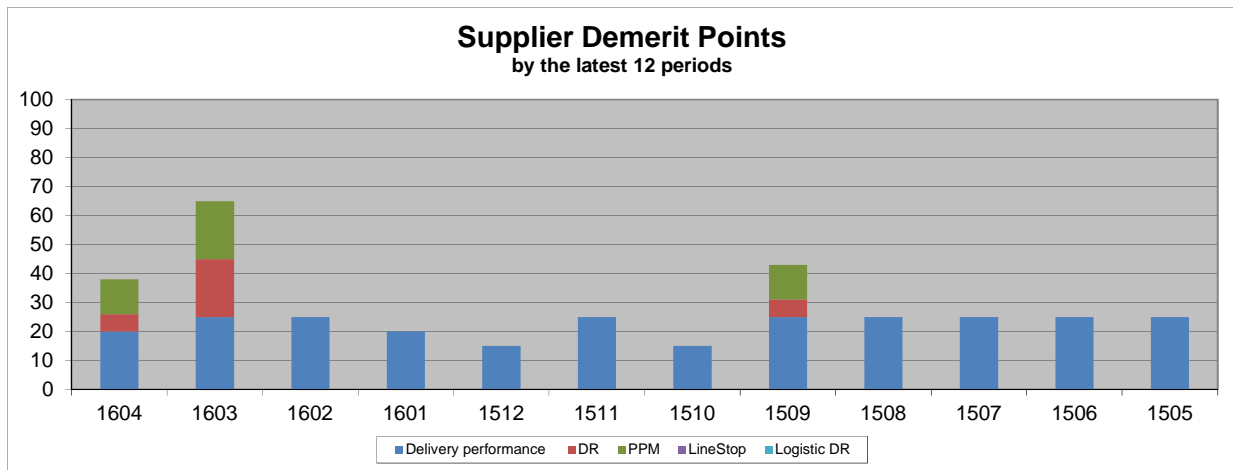


Figure 35 Supplier Performance Measurement (SPM) for a specific supplier

The above information is summarized and gives a value between 0 and 100. The fewer demerit points, the better the performance. The measurements are compiled once a month for the previous month. Table 6 shows how the supplier's performance affects the demerit points.

Deliveries on time	Demerit points	Number of DR	Demerit points	PPM value	Demerit points	Line stops	Demerit points	Logistic DR	Demerit points
98-100%	0	0	0	0	0	0	0	0	0
90-97%	5	1	6	1-1000	5	1	20	1	5
80-89%	10	2	10	1001-3000	8			2	10
70-79%	15	3	15	3001-6000	12			3	15
60-69%	20	>4	20	6001-9000	16				
< 60%	25			> 9000	20				

Table 6 Demerit points

## 6.2 Delivery performance index

When analyzing the supplier's delivery performance, one has to take into consideration the following:

- ✚ A late delivery is defined at the time for the actual arrival, not when it should have arrived.
- ✚ Delivery performance is measured by comparing confirmed date with the dispatch date.
- ✚ The measurement allows zero days for late deliveries but five days for "early" deliveries
- ✚ Note however that the demand is that deliveries shall take place on the agreed day, not earlier and not later.
- ✚ The target is 100% of all deliveries on time and the supplier must continuously initiate actions and improvements to reach and stay at this level.

The graph and the data is available in the supplier portal. If there are deviations between Dynapac's and the Supplier's data, this must be analyzed, understood and corrected.

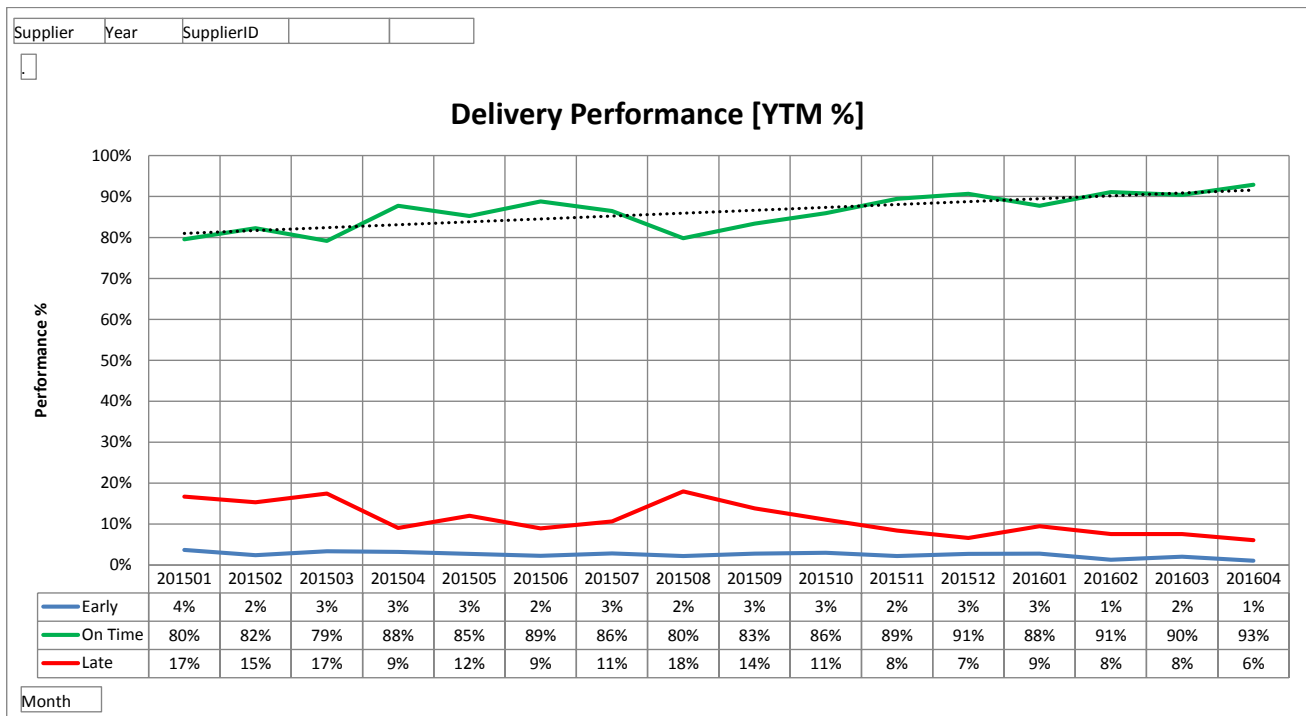


Figure 36 Supplier Delivery Performance

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