

## Introduction

The Horton Europe Supplier Management Program is a program based on the basics of Quality, On-Time-Delivery and Lead-time. Horton Europe works with a limited supply base to achieve the best “Value” possible. The focus of this program is to measure and drive performance of the key supplier requirements.

## Objective

The objective of the Horton Supplier Management Program is to assist Horton in exceeding its customers’ expectations. Horton expects to accomplish this by driving improvement of the key performance requirements. Horton will work with suppliers who consistently and reliably perform at or above Horton’s expectations.

## How We Measure Success

The Horton Supplier Management Program has a total of 100 available points for evaluating Suppliers performance on a quarterly basis.

- Total number of points (rating, category)
  - o Quality points
    - PPM-Rate (Parts per Million)
    - SCAR-Rate (Supplier Corrective Action Request)
    - Field PPM Rate
  - o Lead-time points
    - On-time delivery (OTD)
    - Lead-Time
    - Premium freight
  - o Incidents that cause disruptions at customer
  - o Flexibility

Supplier performance information will be measured monthly and formally evaluated and sent to key suppliers on quarterly performance.

Approved suppliers must attain a minimum rating of 70 points (70%) on quarterly average, goal is 100%.

See **Chapter 6** for **containment actions**.

## Distribution of points

### 1 Quality score

Horton Europe measures the quality of its suppliers or their products based on PPM (Parts Per Million), Supplier Corrective Action Request (SCAR) and Field PPM rates. The sum of these criteria gives the quality index. The maximum score to achieve is 50 points.

# Supplier Management Program



## 1.1. Parts per Million (PPM) rate (max. 50 Points Available)

The PPM rate is determined as follows:

$$\text{PPM} = \frac{\text{Sum of the quantity of parts rejected}}{\text{quantity of parts received}} \times 10^6$$

Points for Parts per Million (PPM) defects are pro-rated as shown in the table below.

Supplier PPM	Points Awarded
0	50
1-50	45
51-250	40
251-500	35
501-1.000	30
1.001-5.000	25
>5.000	0

The casting industry is not currently capable of achieving the prescribed defect levels for non-machined castings. Shown below in the table is the schedule for points based on castings.

Supplier PPM	Points Awarded
0-2.500	50
2.501-3.500	45
3.501 – 4.500	40
4.501-5.000	35
5.001-10.000	30
>10.000	0

## 1.2. Number of open SCAR's (-50 – 0 points)

A 10 point deduction will be taken for each SCAR that is past due. Deductions will take place each month an overdue SCAR is still open.

## 1.3. Warranty claims / field complaints (Field-PPM)

The PPM-Rate for Field complaints is calculated as follows:

$$\text{Field PPM} = \frac{\text{Sum of the quantity of parts rejected}}{\text{Quantity of parts received}} \times 10^6$$

- Field PPM <500 subtracts 5 points.
- Field PPM ≥ 500 subtracts 10 points.



## 2 Delivery performance

The delivery performance of the main suppliers is made up of the criteria On-Time-Delivery (OTD), lead time and premium freight. Here you can reach a maximum of 50 points.

### 2.1 On –time Delivery (OTD, max. 40 Points)

On-time delivery is percentage of line items received on time measured against the delivery date specified on the purchase order.

$$\text{OTD} = \frac{\text{Number of parts received on time against the delivery date in PO}}{\text{Number of parts purchased from the supplier}} \times 100$$

The window for an order line to be received and be considered on-time is **three days early, one day late** of the request or accepted promise date.

#### Basis for calculation:

- percentage of line items received on time measured against the delivery date / promise date specified on the purchase order or
- order confirmation from supplier (if accepted by Horton Europe)

The determined percentage of OTD is recoded into the corresponding score using the table below:

Supplier On-Time Delivery Percentage	Points awarded based upon delivery
100%	40
≥ 95%	35
≥ 90%	30
≥ 85%	25
≥ 80%	20
≥ 75%	15
≥ 70%	10
≥ 65%	5
< 65%	0

If no delivery has been made in one month, the supplier will receive 0 points. However, the value relevant for the (quarterly) valuation is calculated on the basis of the above formula with the observation period "quarter". Thus, a month without delivery has no negative impact on the key figure.



## 2.2 Lead-Time (max. 10 points)

The delivery time is determined as follows:

$$\text{Lead-Time} = \frac{\text{Sum of lead times (in AT according to ERP system) of parts purchased from the supplier}}{\text{Number of series items purchased from the supplier}}$$

Points for Lead-Time are assigned per the table below

Lead-time measured in business days	Points awarded based upon
0 - 15	10
16 - 35	8
36 - 45	6
46 - 55	4
≥ 55	0

## 2.3 Premium freight

Premium freight includes special material transports from the supplier to Horton Europe to close a supply gap due to disruptions in a supplier's supply chain. The responsibility for the organization of the special trip lies with the supplier, who bears the costs for the special trips.

The supplier shall notify Horton Europe at the beginning of each new quarter on the number of special transports of series parts during the past 3 months. For each special cargo / special trip communicated to Horton Europe, a deduction of 5 points will be made.

## 3 Incidents that cause disruptions to the customer

For every defect at Horton customers, caused by a supplier, a deduction of 10 points is made. Supplier errors include e.g. late deliveries, material defects / parts failure or other incidents that directly affect Horton customers (including delivery stops) and are reported by them. The deduction takes place every month as long as the fault has not been rectified.

## 4 Flexibility

There is a discretionary category that is reviewed by Purchasing and Quality and can be awarded with 5 additional points based on several reasons. Some examples are flexibility to expedite requests, a consignment program, Kanban, and overall responsiveness to requests.

## 5 Overall Summary

Based on the total number of points determined, the classification is made according to the following table

Total Points	Rating	Category
86 - 100	AAA	Top performer
70 - 85	BBB	Approved
< 70	CCC	Must Improve

Supplier scorecards are reviewed before awarding new business. Suppliers need to strive to achieve the Rating BBB or higher.

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## 6 Containment Action

Suppliers who do not achieve the required minimum score of 70 points or even lie below 70, are asked to propose individual corrective action to fulfill the minimum requirements. These proposals have to be sent to Horton Europe latest 4 weeks after the last rating. Progress against the corrective action plan will be reviewed quarterly for a maximum of one year by Horton Europe.

If sufficient progress by the supplier is not made against the agreed plan, Horton Europe will determine the appropriate course of action. This may include the proposal of corrective actions by Horton Europe and monitoring the implementation for the next 6 months, and/or removal of the supplier from the "Approved" list, resulting in no new/additional business.

If all those actions don't show any improvements, the supplier will be eliminated from the Horton Europe supply base.

In addition, Horton Europe reserves the right to audit suppliers by appointment if the CCC rating has been achieved 3 consecutive times.